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**Merchants and International Processors in the Context of SNA 2008:
A Strategy to Capture the Activities of Multinationals in Ireland**

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Merchants and International Processors in the context of SNA 2008 - a strategy to capture the activities of Multinationals in Ireland

By Michael Connolly¹

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Abstract

This paper discusses the implications for macro economic statistics of merchanting and goods for processing. Both of these activities have a significant role to play in the operations of global production and supply chains.

The practical steps that National Statistical Offices(NSIs) need to take in order to capture the activities of Multinational Enterprises in particular “Merchanting” and “Processing” in line with the current standards of the United Nations System of National Accounts (SNA 2008) and Balance of Payments Manual (BPM6) are discussed in this paper.

Ireland’s Central Statistics Office (CSO) established a Large Cases Unit (LCU) in late 2010. The objective was to build on and further develop the work of the Consistency Unit which existed since the mid 1990s. The focus of the Large Cases Unit is on all aspects of the activities of Multinational Enterprises (MNEs) operating in Ireland.

The fact that CSO compiles or has access at the micro level to a number of key statistics (balance of payments, international trade, administrative data on corporation tax), greatly supports this work. For these large MNEs, the integration of survey data with administrative data covering International Trade, Corporation Tax and Profits is discussed.

Recent work of the Unit covering appropriate strategies for the identification of trading arrangements in MNEs such as Merchanting and Goods for Processing (which have received considerable attention in the recent SNA 2008 and BPM6) are discussed in detail.

Keywords

Globalization; Global Value Chains; National Accounts; Merchanting; Goods for Processing

JEL Codes

F23 – Multinational Firms; International Business; L22 – Firm Organization and Market Structure

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Introduction

1. The operations of large corporations in the 21st century have changed quite dramatically from those of earlier times. The global corporation now operates in a world wide zone spanning many continents. These large corporations have transformed themselves from vertically integrated enterprises operating in one or a small number of locations to horizontal corporations² organized around different processes spread across the globe. This horizontal structure is commonly called a *global production* or *value chain*³.
2. Global corporations or MNEs have devised structures that allow them to:
 - a. produce output in the most cost effective locations;
 - b. control logistics and marketing in the most technologically advanced locations where the supporting infrastructure is most developed;
 - c. earn profits in the most tax efficient locations.
3. The objective of this paper is to highlight how MNEs achieve these differing objectives in a global economy and crucially how statisticians can identify and capture elements of these globalised activities that relate to their particular country.
4. To this end the conceptual focus will be on a number of changes in the International Standards for compiling National Accounts and Balance of Payments statistics; SNA 2008 together with BPM6.
5. From a practical standpoint the approach followed in CSO Ireland to collect and compile consistent economic data for these same MNEs is outlined.

Background - SNA 2008

6. The Advisory Expert Group (AEG) established as part of the review process for SNA 2008 identified 44 substantive issues to be considered. The AEG included 20 country experts from around the world together with experts from the

² Businessweek (1993) The horizontal corporation

³ These global chains may include third party service providers.

International organizations; International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), the United Nations, the World Bank and Eurostat, the European Statistical Agency.

7. Two key issues emerged from this review; *Merchanting* and *Goods for Processing*. The recommended treatment for these activities was substantially revised from the previous standard, SNA 93. These changes were amongst the most significant recommendations for change in SNA 2008.
8. Merchanting and goods for processing are sometimes described as opposites – processing involves a movement of goods across the frontier but no change of ownership, whereas merchanting involves a change of ownership but no movement of goods across the frontier of the compiling economy. Both of these matters are treated in greater detail below.
9. Merchanting occurs where a merchant or agent in one country **buys** goods from a producer or seller abroad and **sells** these same goods to another buyer abroad. The merchant **never** physically takes possession of the goods in question and they **never** cross the merchant's border or frontier. In SNA '93 merchanting was treated as a *service* in line with other retail and wholesale activities where a margin is earned. This margin was effectively the difference between the proceeds obtained from the sale and the cost of buying the same product. The margin was considered in SNA '93 to reflect the value of the service provided. However, SNA 2008 in the interest of global additivity of international trade in goods data and other concerns relating to valuation and the treatment of inventories, requires merchanting to be recorded in the *goods* account rather than the *services* account⁴. Consequently the sale by the merchant is recorded as an export of goods and the purchase is recorded as a negative export.

INSERT FIG 1 GLOBAL MERCHANTING HERE

10. In the example above the merchant's margin amounts to 20 (100 – 80). SNA 2008 requires the 100 to be recorded as an export of goods and the 80 is recorded as a negative export yielding a net *goods under merchanting* of 20. The full recording of the accounting entries for the three countries A, B and C is included in appendix 1. A clear illustration of the impact of the new standards for merchanting on global additivity of trade in goods can be seen in this appendix.

⁴ See Impact of Globalization on National Accounts (2011) Chapter 6 for a more detailed discussion

11. In a somewhat similar vein Goods for Processing - now called *manufacturing services on physical inputs owned by others* (called **“processing” in the remainder of this text**) is now recorded as a service in SNA 2008. The recording of processing under SNA '93 depended on the pattern of goods flow i.e. whether they moved from country of the principal to the processing country and back again, or whether there were more complex arrangements involving additional countries. In the former case Goods for processing recorded gross in the goods account in SNA93. Both the initial export, by the principal to the country of the processor and the subsequent import of the finished goods used to be recorded in the goods account of the balance of payments. Recording the gross flows in the goods account despite the fact that a change in ownership had not taken place i.e. the principal continues to own the goods while they are being processed, was a deviation from the standards followed elsewhere in the national accounts.
12. Where the processed goods were exported to a third country, rather than returning to the country of the principal, the recording differed. In this case BPM5 recommended that a service fee, representing the processing fee be shown as an import of a service from the country of the processor and entered under *merchandise and other trade related*. The processed goods were shown as an export from the country of the principal to the country of the final customer.
13. The BPM5/SNA'93 statistical treatment in this case where the processed goods are exported to a third country is almost fully in line with the new standard. The only difference being that the service category for recording the processing fee in BPM6/SNA2008 is now *manufacturing services on physical inputs owned by others*.
14. In BPM6/SNA2008 all processing, regardless of whether it returns to the country of the principal or is exported to a third country is now recorded on a fee basis in the services account rather than gross in the goods account.
15. A consequence of these changes in the accounting treatment in SNA 2008 is that transactions in processing are now recorded on a change of ownership basis. Consequently, in Fig 2 below the fee that the processor in Country C receives from the principal in Country B is recorded as the export of a service in the Balance of Payments by Country C. The goods transactions are recorded as taking place between the principal (Country B) and the customer in Country D where the actual change of ownership takes place. This in line with the

accounting principles followed in Balance of Payments and National Accounts statistics where transactions are recorded on a change of ownership basis.

INSERT FIG 2 GOODS FOR PROCESSING HERE

Merchanting and Processing in Global Production/Supply Chains

16. The combination of merchanting and processing can allow an MNE to choose where to allocate the value added from a particular activity. This is best illustrated with an example. If we first consider a world where there is only a producer and a customer - if a product is manufactured by an MNE in country B and sold to a customer in Country C the value added from this process accrues to B. However if we introduce a processor in Country C, most of the manufacturing can now take place in Country C rather than B where the principal is resident. Any value added created in excess of the processing fee accrues to the principal in B.
17. We can expand the illustration as follows; in Fig 3 the merchant, an affiliate in the same MNE Group as the principal and the processor, is operating in Country A. The merchant buys the finished product from B and sells it to the customer in Country D. In this scenario depending on how the product is priced, the merchant could obtain a sizable portion of the value added from this entire production and distribution process. This value added would be earned by country A in the form of the margin between the purchase and sale of the manufactured goods.

INSERT FIG 3 COMBINATION OF MERCHANTING AND GOODS FOR PROCESSING HERE

18. This example can be elaborated further until we have numerous affiliates engaged in processing or acting as principals, or there could be simply one principal located in a tax efficient location which would then coincide with the location where the value added is being recognised. The implication is that the actual activity of manufacturing can be in one or many locations within an MNE group while the value added from this production process or a large element of it can be recognised and taxed elsewhere.
19. It is important to be aware that global production arrangements can take many forms. Gereffi (2010) and others have discussed five modes of governance that can exist in global value chains. They are described as *Market*, *Modular*, *Relational*, *Captive* and *Hierarchy*. In his paper governance arrangements are based on three factors *Complexity*, *Codification* and *Capabilities*, that describe

different production /supply processes. Table 1 below taken from Gereffi (2010) illustrates the key determinants of global value chain governance

**INSERT Table1 – Key Determinants of global value chain governance
HERE**

20. In the case of the first three governance types i.e. *market*, *modular* and *relationship based*, these production chains are generally associated with arms length transactions in competitive markets. The margins earned will typically be fine and there is little possibility of transfer pricing type arrangements existing. Consequently there will be more unrelated enterprises in the global chain such as contract manufacturers.
21. The latter two governance types; *captive* and *hierarchy* more closely describe the form or governance structure of the value chains being discussed in this paper and which often exist within MNEs. Hierarchy type structures occur where there is direct ownership of the production processes. Firms will develop and manufacture products in-house. This governance form according to Gereffi is “...*driven by the need to exchange tacit knowledge between value chain activities as well as the need to effectively manage complex webs of inputs and outputs and to control resources especially intellectual property.*”
22. Where the governance type is captive, third party processing or contract manufacturing can also be part of the value chain. In this situation the processor is engaged by a single principal and is entirely dependant on this relationship to obtain work for his plant or plants. It can also be the case in such scenarios that the difference between an affiliate and a third party processor can be very unclear. The control exerted by a principal on a captive third party processor can be practically the same as the control exerted by the MNE parent in a direct investment relationship⁵ on its affiliate.

Changes in Ownership (Economic and Legal Ownership)

23. The discussion in the previous section illustrated how the generation and attribution of value added within a MNE can be determined by changes in ownership. In the case of merchanting, because the merchant takes ownership of the goods being bought and sold, it also earns the margin. Within the production chain of an MNE this margin might contain a considerable element

⁵ See BPM6 box 10.1

of the value added in excess of the return from simply buying and selling the product. For example the margin might reflect the value of intellectual property products being used in the production process. The decisions being taken along the value chain by a MNE in relation to taking ownership of its output are illustrated in the decision tree in Appendix 2.

24. From a statistical recording perspective, the SNA2008 and BPM6 treatment of merchanting has led to greater clarity around the basis for recording these transactions. In line with the general principles for recording transactions in the economic accounts, the change in ownership that occurs between the seller and the merchant and between the buyer and the merchant is now recognised in the goods account. Under the previous standards no change of ownership was imputed in relation to the merchant and the buyer/seller, instead a service export was recorded.
25. In the case of processing in BPM6/SNA2008, the processor does not take economic ownership of the materials being processed to produce an intermediate or final good. Instead the principal, often another affiliate in the MNE group retains economic ownership of the materials and consequently of the finished product. Here the fact that no change of ownership occurs in processing transactions and a service export is recorded in the accounts of the country of the processor is also more consistent with the recording of transactions in the accounts.
26. As has been outlined already, changes in economic ownership arising from processing or merchanting can determine shifts in value added from one affiliate to another and hence from one country to another. Value added emanating from a particular process in one MNE affiliate can in this way be shifted to another in the same MNE group.
27. Merchanting and processing are features of these production or supply chains in the same way as the use of contract manufacturers (CMEs) can also be a feature of these chains. In the case of a CME a change of ownership may or may not take place.
28. The difference between the use of CMEs and related affiliates in the production or supply chain is that the production process goes outside of the MNE. However the status of these CMEs can be unclear. There may be questions as to the source of their funding and how truly independent they are. For example if the MNE sells the components to the CME for the production of a particular product, buys the output and funds the operation of the CME can it really be

said that the CME is independent of the MNE. The example of the captive processor engaged solely by a dominant principal is a case in point.

29. There are also cases where the MNE simply outsources aspects of production - with the associated change in ownership of the inputs etc. - only to buy back the finished product and then to sell it on to the final customer. This is an example of the so-called *factoryless production* and is simply a combination of processing and merchanting . There can also be the question regarding the use of intellectual property by the processor. As already discussed above, the difference between the affiliated processor and the contract manufacturer can be quite unclear. In some instances the MNE will purchase from third parties the components required for production and sell them to the contract manufacturer or even lend the funds required for working capital or fixed assets to the contract manufacturer. In this instance it is unclear if the contract manufacturer is really an independent third party supplying services to the MNE. Instead it could be argued that the CME is really an affiliate of the MNE and it is a case of recognising substance over form.
30. Having considered these important issues relating to processing and merchanting and the impact of these methodological changes on aspects of the recording of Globalisation in National Accounts, the next section will deal with the more practical implications for statistical compilers arising from these changes and also capturing statistical data in general from MNEs.

A Strategy for Collecting the Data for MNEs

31. In this section an approach or strategy for NSIs to **capture the activities** of MNEs is outlined. This will draw on the experience of Ireland's Central Statistics Office (CSO) in this area.
32. MNE affiliates within a particular country are frequently part of global value chains and are often engaged in merchanting and processing together with the more general aspects of global production. These same activities have complex implications for NSIs and for other compilers of economic and business statistics. For example, the following constitute serious challenges for the compiler :
 - a. distinguishing between activities that are resident and non-resident in a particular economy;

- b. detecting and recording merchanting activities where the actual goods do not cross the compiler's frontier;
 - c. detecting movement of goods abroad for processing to be excluded from international trade in goods because there has been no change of ownership.
33. There are a considerable number of statistical returns completed by MNEs. In Ireland, MNE affiliates tend to be large and have a significant impact on the overall statistical aggregates (see Fig 3 below). For this reason they are generally included in practically all surveys that cover economic and business activities. Consequently an MNE completes various surveys that are transmitted to different statistical domains in the NSI such as Industry, Services, Producer Prices, International Trade and Balance of Payments.

INSERT FIG 4 HERE IMPORTANCE OF LCU

34. However, in many instances there are data that are common to these various surveys. For example in the previous discussions regarding *merchanting* and *processing* there are a large number of statistics that are impacted by these activities.
35. Table 2 below illustrates this link between merchanting and processing across the various statistics reported to CSO. It is clear from this table that almost all of the business and economic surveys are affected in some way by these activities. It is therefore critical that the same data profile emerges from the different sources. If the logic of this approach to merchanting and processing is then extended to all the data provided by MNEs in respect of their activities e.g. turnover, imports and exports, profits etc., consistency is crucial. Otherwise the estimates of GDP and other statistical aggregates could become unreliable.
36. CSO established the LCU in order to ensure that a consistent picture emerges of these MNE activities. As already said, some of these statistics can be difficult to identify and to quantify, but it is vital that they are correctly reflected through the statistics that contribute towards the various measures of GDP. However there were a number of other motivations in establishing the LCU, such as managing the burden of statistical reporting on business and improving the interface between the providers of statistics and the national compiler of this data.

INSERT Table 2– Recording merchanting and processing across statistical domains HERE

37. In 2009 the CSO published a strategic response to the impact of the Financial Crisis in Ireland called the “Plan for Business and Organization Development.”⁶ The plan had the objective of implementing a series of structural changes by the end of that year. Recommendation 2 was to “*Establish a Large Cases Unit to focus on the collection and processing of data for the largest enterprises.....*”
38. The LCU was subsequently established and replaced the Consistency Unit. This was an analysis unit that existed since the mid 1990s which examined the consistency of survey and administrative data received throughout the Office for large MNEs. In effect the LCU represented a further development on the consistency approach followed by CSO. This amounted to dealing more directly with the impact of MNEs on the National Accounts and Balance of Payments macro economic aggregates for Ireland.
39. The LCU was to become a central point of communication between the CSO and MNEs. This was achieved by the introduction of a more streamlined reporting arrangement for these companies through a small number of generic or single electronic forms covering practically all statistical reporting requirements for each frequency i.e. monthly, quarterly and annual. The unit now covers seventy of the largest MNEs operating in Ireland. Figure 4 below illustrates the importance of these MNEs in the overall economy.

INSERT FIG 4 Importance of LCU

40. The model followed in CSO generally in organizing the collection of data and the production of statistical results is to split the process into two parts. A data collection unit (DCU) is responsible for the issue, collection and editing of surveys. A results, analysis and publication (RAP) unit deals with aggregation and dissemination. The LCU became a “one stop shop” or single point of contact for large corporations in their dealings with CSO (see fig 5 below). Effectively it is a DCU for all surveys being completed by MNEs. By simplifying their interface with the Office, the strategic objective of reducing the burden of statistical reporting on business was also addressed.

INSERT FIG 5 OPERATION OF LCU HERE

⁶ CSO (2009)

41. The unit is charged with collecting, editing and producing clean unit records for the activities of large MNEs operating in Ireland. In other words the LCU delivers the statistical data relating to these MNEs to the RAP in the relevant survey area to enable the preparation of statistical outputs e.g. Producer Prices, Monthly Index of Production, Monthly Index of Services, Balance of Payments, Census of Industrial Production etc. These companies comprise a key proportion of the total outputs for each of these statistics.
42. However the LCU is more than a data collection unit for MNEs. It is also an analysis unit assessing both the data from individual MNE enterprises and the overall impact of these entities on the macro economic aggregates. This involves the analysis of administrative data sources such as corporation and personal tax data, trade in goods and other less significant sources for these MNEs.

Institutional Framework for Statistics in Ireland

43. The work of the LCU is supported by the institutional framework for the collection of statistics pertinent to MNE activities. In table 3 below it can be seen that for Ireland the NSI (CSO) is responsible for Balance of Payments including Foreign Direct Investment (FDI) and Trade in Services, Foreign Affiliate Trade in Services (FATS), Trade in Goods and Business Register. The picture in other countries is more varied with the National Central Bank (NCB) and Customs Departments also involved in the collection and compilation of these statistics.

INSERT TABLE 3 HERE - RESPONSIBLE ORGANISATION FOR STATISTICAL DOMAIN

44. This structure in Ireland greatly facilitates the efficient operation of the LCU. Each statistical domain has devolved the responsibility for the collection and editing the data for a defined number of MNEs to the LCU. Of course, if the NSI is not in control of the statistics in question then this arrangement is not possible and the operation of the LCU would become restricted. However, where a number of institutions are involved in collecting and compiling data for

these domains memorandums of understanding or other agreements can be established to facilitate the sharing of micro data to enable the MNE comparisons.

Contacts with Tax Authorities

45. Finally, in addition to getting access to the administrative records of the tax authorities it is also important to establish a relationship with the tax officials dealing with these large corporations. Although the LCU is staffed by accounting and business experts cases will arise that are beyond the experience or knowledge of these staff.
46. In Ireland the tax authorities have a unit dedicated to dealing with MNEs due to the complexity of their operations. It is consequently a key relationship for an NSI based LCU. In the LCU there is an ongoing rapport with these officials. Otherwise fully understanding restructuring or particular types of transactions the LCU could sometimes require tax advice from one of the International Accounting Partnerships. The budgets of NSIs do not generally allow for such expenditure.

Conclusions

47. In this paper considerable attention has been paid to the activities of MNEs engaged in global production. The importance of merchanting and processing and the extent to which these activities facilitate the objectives of MNEs in these arrangements has been outlined. Indeed without merchanting and processing it is difficult to see how MNEs could achieve their objectives. It was also emphasised that very different arrangements can exist that are highly competitive with fine margins being earned by contract manufacturers as part of the activities of global chains of production and supply.
48. The paper then outlined the work of the LCU in Ireland's CSO which is a strategy of dealing with the data being supplied by statistical compilers by the resident elements of these global value chains.
49. The conclusion to be drawn is that many statistical compilers could certainly benefit from establishing an LCU type unit to improve the recording of data related to global production chains in general and specifically to merchanting and processing activities. However, it might be argued that the relatively small scale

of the Irish economy made the establishment of the LCU a more containable and achievable project.

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Fig 1 - Global merchandising

Merchant in country A purchases goods from country B and sells to country C

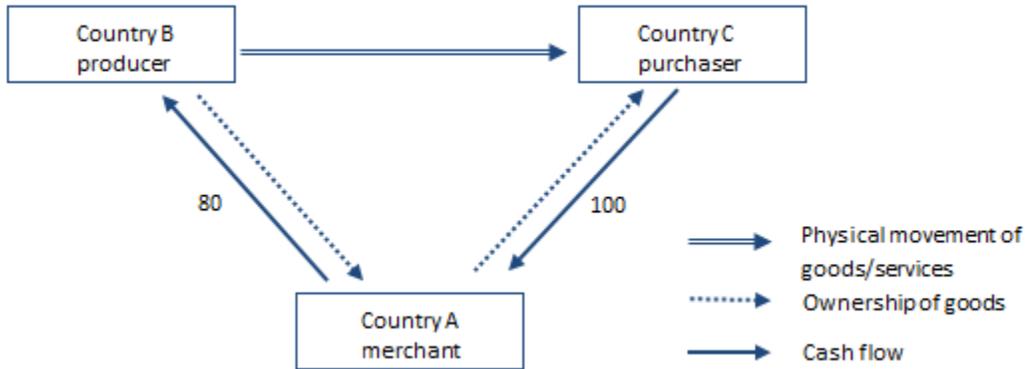


Fig 2 Goods for Processing

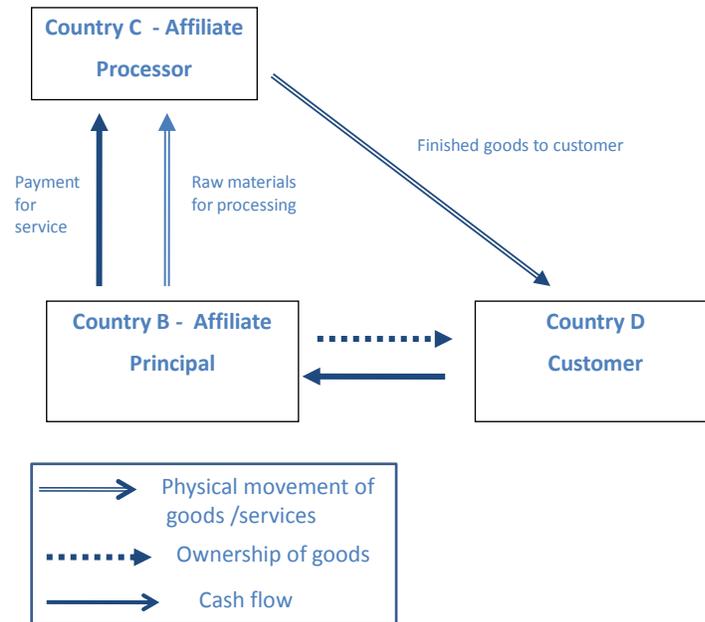


Fig3 Combination of Merchanting and Goods for Processing

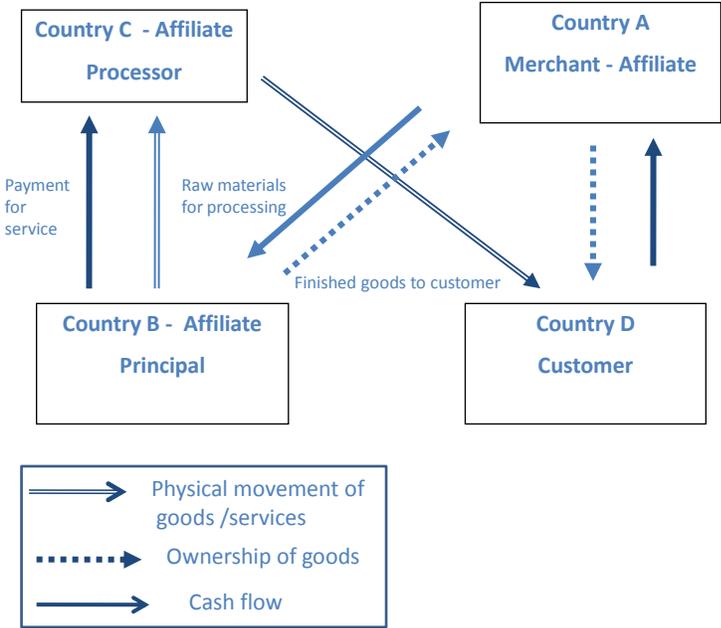


fig 4 :Importance of LCU for selected variables as % GDP

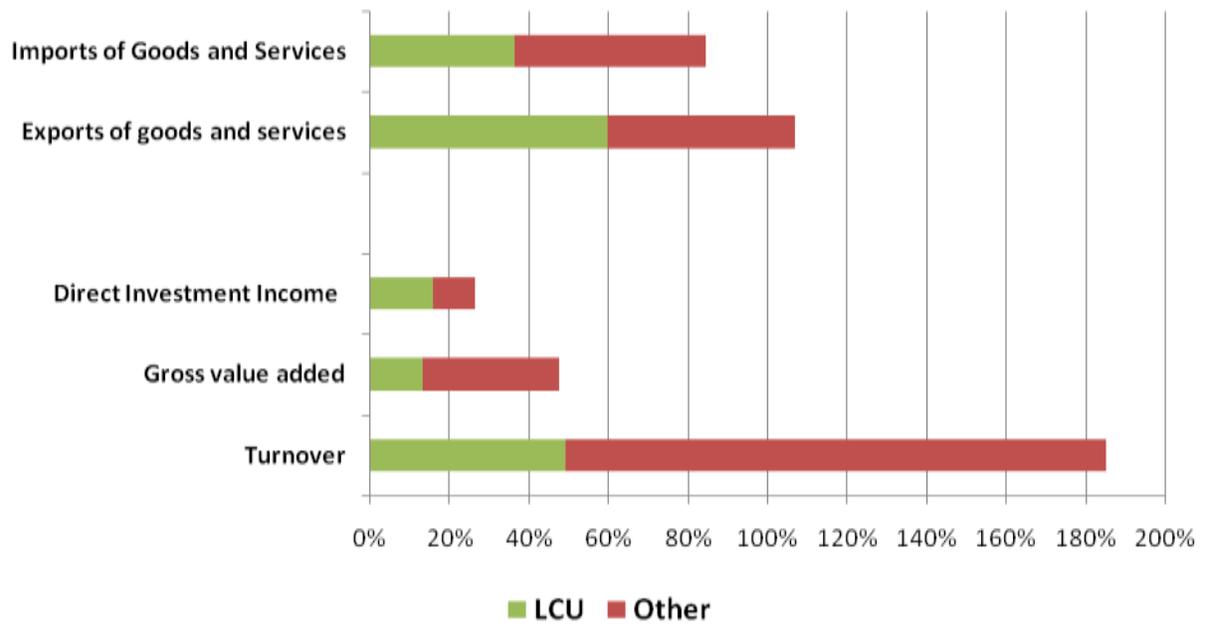


Fig 5 - Operation of LCU

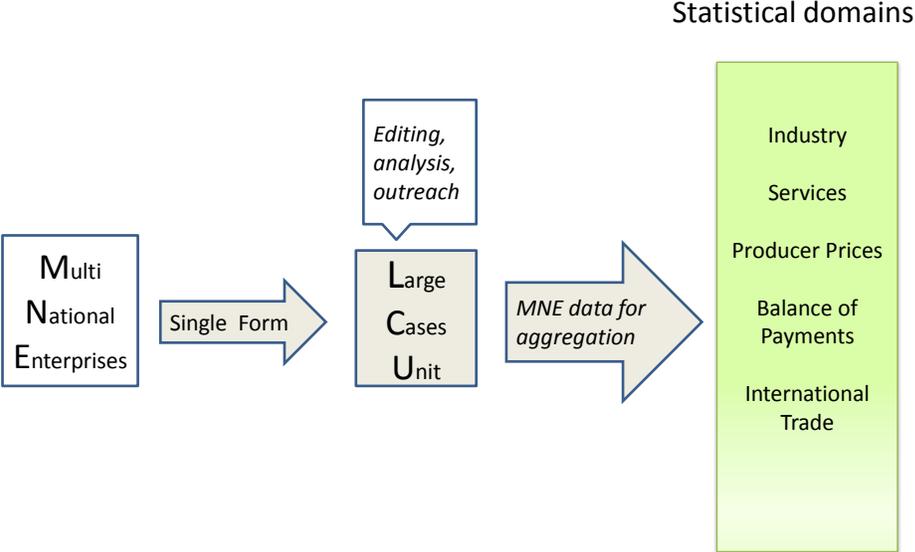


Table1 – Key Determinants of global value chain governance

Governance	Complexity of transactions	Ability to codify transactions	Capabilities in the supply base	Degree of explicit coordination and power asymmetry
Market	Low	High	High	Low
Modular	High	High	High	
Relational	High	Low	High	
Captive	High	High	Low	
Hierarchy	High	Low	Low	

Table 2– Recording merchanting and processing across statistical domains

Statistic	Merchanting	Manufacturing services on products owned by others - Processing
Balance of Payments	Recorded as net export of goods (imports or purchases recorded as negative exports)	Recorded as import of services – <i>principal</i> Recorded as export of services – <i>processor</i> Excluded from imports/exports of goods from <i>principal</i> to <i>processor</i>
Monthly Index of Production	n/a	Include production - <i>principal</i> Exclude production - <i>processor</i>
International Trade	Not included - doesn't cross merchant's border	Recorded in Goods exports and imports –no change in ownership therefore are excluded from merchandise trade in BOP
Quarterly Inquiry to Industry (capital assets incl. inventories)	Inventories abroad to be included. This occurs where only the first leg of the merchanting transaction has occurred i.e. purchase/import side of transaction has been completed	Inventories held by processor owned by principal to be recorded by country of principal and excluded from inventories of country of processor
Census of Industrial Production	n/a	Include all aspects of production in country of <i>principal</i> . Exclude for country of <i>processor</i>
Annual Services Enquiry	Include as a service activity	n/a
Prodcom	Record products in country of merchant	Record products in country of principal

Table 3 - Responsible organization for the statistical domain

Responsible organisation for the statistical domain									
Country	Inwards FATS		Outward FATS		FDI	Trade in goods	Trade in services		Business Register*
<i>AT</i>	NSI	NCB	NCB		NCB	NSI	NSI	NCB	NSI
<i>BE</i>	NCB		NCB		NCB	NCB	NCB		NSI
<i>BG</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>CY</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>CZ</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>DE</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>DK</i>	NSI		NSI		NCB	NSI	NSI		NSI
<i>EE</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>EL</i>	NSI		NCB		NCB	NSI	NCB		NSI
<i>ES</i>	NSI		NSI		NCB	Customs	NSI	NCB	NSI
<i>FI</i>	NSI		NCB		NCB	Customs	NCB		NSI
<i>FR</i>	NSI		NSI		NCB	Customs	NCB		NSI
<i>HU</i>	NSI		NSI		NCB	NSI	NCB		NSI
<i>IE</i>	NSI		NSI		NSI	NSI	NSI		NSI
<i>IT</i>	NSI		NSI	NCB	NCB		NSI	NCB	
<i>LT</i>	NSI		NSI		NSI	NCB	NCB		NSI
<i>LU</i>	NSI		NSI		NSI	NCB	NSI		NSI
	NSI		NSI		NCB		NSI	NCB	
<i>MT</i>	NSI		NSI		NSI	NCB	NSI		NSI
<i>NL</i>	NSI		NSI		NCB		NSI	NSI	
<i>PL</i>	NSI		NSI		NCB		NSI	NCB	
<i>PT</i>	NSI		NCB		NCB		NSI	NCB	
<i>RO</i>	NSI		NSI		NCB		NSI	NCB	
<i>SE</i>	Growth		Growth		NSI	NCB	NSI		NSI
<i>SI</i>	NSI		NCB		NCB		NSI	NCB	
<i>SK</i>	NSI		NSI		NCB		NSI	NCB	
	NSI		NSI		NSI	NCB	Customs	NSI	

Appendix 1 - Accounting entries for merchandising under the 1993 SNA and BPM5 and under 2008 SNA and BPM6

<i>1993 SNA/ BPM5 treatment</i>			<i>2008 SNA / BPM6 treatment</i>		
	<i>Credit</i>	<i>Debit</i>		<i>Credit</i>	<i>Debit</i>
Country A			Country A		
Services: merchandising	20		Goods under merchandising	100	
Bank deposits		20	Goods under merchandising	-80	
			Bank deposits		20
Country B			Country B		
Goods	80		Goods	80	
Bank deposits		80	Bank deposits		80
Country C			Country C		
Goods		100	Goods		100
Bank deposits	100		Bank deposits	100	
Global balance*			Global balance		
Goods	80	100	Goods	100	100
Services: merchandising	20		Incl. goods under merchandising	20	0
Bank deposits	100	100	Bank deposits	100	100

Appendix 2: Decision Tree - Change of Economic Ownership in a chain of production

