



**Economic and Social
Council**

Distr.
GENERAL

ECE/CES/GE.20/2006/22
11 April 2006

ENGLISH ONLY

ECONOMIC COMMISSION FOR EUROPE

STATISTICAL COMMISSION

CONFERENCE OF EUROPEAN STATISTICIANS

Group of Experts on National Accounts

Eighth Meeting
Geneva, 25-28 April 2006
Item 6 of the provisional agenda

THE BUSINESS REGISTER AS A BASIS FOR DEALING WITH MEASUREMENT ISSUES
RELATED TO GLOBALIZATION¹

Submitted by Statistics Canada

The meeting is organised jointly with Eurostat and the Organization for Economic
Co-operation and Development

INTRODUCTION

1. The goal of the SNA is to articulate production of products by the industries that produce them (supply) and aggregate the production estimates into institutional sectors to track where the production is sold (use) and how the income generated from production is distributed and redistributed to accumulated wealth of the sectors. This requires knowledge of the complex structures of enterprises and enterprise groups and their sub units in order to properly articulate the production processes as well as the income flows, especially when the transactions cross boundaries of institutional sectors or more importantly international borders.

¹ This paper has been prepared by Karen Wilson at the invitation of the secretariat.

2. The term globalization refers to many phenomena which have increased the cross border flows of goods, services, financial transactions and persons. Trade liberalization over the past decades has been an important factor including global reduction of tariffs and the establishment free trade zones like the European Union and the North American Free Trade Agreement. The availability of Information and Communication Technology has enabled coordination of the cross border flows of goods and services and has led to innovation in financial markets increasing cross border investment flows as well as instantaneous clearance of transactions across international boundaries. Foreign direct investment has shifted from horizontal integration (setting up of parallel production processes in offshore markets with associated corporate services) to vertical integration where production and support services are partitioned across international boundaries to form global supply processes whereby goods and services cross borders at various stages of production before they are delivered to final users and the distribution is done by global marketing from the final production point. In addition, companies without ownership links increasingly form global supply chains through contractual arrangements to attempt to capture the gains from trade.

3. All of these developments have presented challenges for National Statistical Offices in keeping track of these increasingly complex economic processes for the purpose of constructing the System of National Accounts and Balance of International Payments. At the heart of the SNA and BOP are the statistical units. Institutional units are the building blocks which are used to articulate the primary and secondary distribution of income, capital and financial accounts and finally the accumulation of wealth. Institutional units are important to these accounts because they represent the organizational structure where decisions are made to invest, consume or save and the organization can legally enter into all forms of economic transactions for which it can be held responsible by its ultimate owners. Production is the key determinant of the generation of income. Production units are the same as institutional units in simple organizations but in an increasingly globalized economy, multinational enterprises have complex organizational structures that may include many institutional units and the institutional units themselves may have multiple establishments and ancillary units encompassing different production processes.

4. In order to provide coherent estimates of GDP between the production account and the final demand approach, the business register used as the survey-universe-frame must reflect the complexity of the globalized economy. To capture the production processes, the operating structure of an enterprise must be recorded and transformed into the economic structure as represented by establishments and ancillary units. To capture the income, expenditure and financial flows of the institutional units, the institutional unit is the measurement point which could be the legal unit established to report to the tax authorities of the resident country, or a group of legal entities as an enterprise or a group of enterprises related through ownership. Being able to relate all the layers of the statistical units to the higher level institutional unit is important to be able to collect all of the information needed to consolidate establishment or legal entity data to match the higher level organization. Even when this is internal to a domestic economy, the business register is very complex, but articulating the cross border relationships in order to produce consolidation of domestic activities to measure GDP as well as the cross border transactions adds layers of complexity.

5. The current Business Register in Canada records a “statistical structure” identifying establishments as the lowest level of the organization for which data can be collected based on principle activity and industry classification. Enterprises are the highest level of the statistical

structure based on corporate structure of the organization. Currently only Gross Business Income and employment data are kept on the BR for sample identification and stratification. Separate databases are kept for BOP and administration of the Canadian Corporations Act on ownership and control are maintained, but not necessarily linked to the BR. Increasingly issues of coherence of the data collected at the establishment level versus the enterprise level have arisen and the conceptual "establishment" as maintained on the current BR has come into question. A project has been launched to redesign the BR making it more applicable to all survey programs to facilitate coherence and data collection.

6. The challenge is to create organizational structures that can feed statistical purposes but reflect the reality of the operational and accounting structures of the entities to facilitate data collection that can be used to compile the whole system of accounts (both SNA and BOP).

7. In addition to the creation of income through economic production, the BR must support the production of data on the use of income in savings and investment, and the accumulation of capital and wealth, by institutional units other than households. In this respect, the issues of corporate ownership and business transactions with the "rest of the world" sector need to be taken into account.

INSTITUTIONAL SECTORS AND UNITS (ESPECIALLY REST-OF-WORLD ACCOUNT)

8. To more fully address the issues of ownership and "rest of the world" transactions, the following is a review of key concepts according to different, but related, conceptual frameworks: multinational enterprises, foreign direct investment, foreign affiliate trade statistics, balance of payment and the OECD handbook on globalization indicators.

(i) Multinational Enterprises

- Ultimate vs. immediate ownership
 - Immediate ownership is most direct and easiest but may not be very meaningful if it is a special purpose entity in a financial centre
 - Ultimate may be very hard to establish in some cases when ownership passes through many legal entities with some in financial centres.
- Majority Ownership
 - Only ownership links with >50% ownership
 - Simplest and easiest to implement
 - Misses significant control and direct investment relationships
 - For example some countries such as China have regulations that limit foreign ownership to <50% of national firms
- Indirect ownership/control
 - Both Corporation of Control and FDI concepts allow for control or ownership to exist via complex ownership structures with multiple ownership links.
 - Each of the multiple ownership links may be <50% but total ownership held by the ultimate parent could be >50%.

(ii) Foreign Direct investment

- Basic concept is significant influence and not control

- Based on fully consolidated system, see Annex.
 - Immediate ownership basis with ultimate ownership as supplemental information
 - Currently based on all ownership links >10%
 - Proportional allocation of assets and liabilities, etc.
 - For example if ownership is 50%, then 50% of assets are recorded in FDI
 - Transactions with other family members with no direct ownership links are also FDI

(iii) Foreign Affiliate Trade Statistics

- Provides estimates of economic activity, as opposed to assets and liabilities under ownership and control, based on nationality of majority owner rather than residence.
- Based on majority ownership
 - Majority Owned Foreign Affiliates (MOFAs)
 - Inward FATS all resident statistical units
 - Outward FATS all non-resident statistical units

(iv) Balance of Payments

- Statistical Units
 - Institutional Units Resident in Canada
 - Primarily corporate and government sector units
 - Limited direct estimation for households and non-profit institutions
 - Foreign subsidiaries, affiliates, joint ventures, etc.
 - Foreign parents?
 - Basis of defining multinational groups within Canada
 - Could be grouped by immediate or ultimate parent
- Activity based surveys
- Administrative sources – Legal Entity (LE) based
 - Foreign issuers of securities
 - Requirement for administrative source
 - Not a statistical unit

(v) OECD handbook on Globalization Indicators

There was no consensus on a definition of multinational enterprise so the handbook does not offer one.

9. After considering all of these different criteria, including the definitions of ownership and control required by the Canadian Corporations Returns Act, the LE will be used as a central unit of the BR, not only for operational reasons (key link to administrative data) but as a valuable analytical unit in its own right. For 99% of businesses, it is the only unit, which serves both enterprise and establishment based programs.

- (i) Ownership links between LEs should continue to be maintained on the BR but be expanded to include ownership relationships with 10% or greater participation, not just majority ownership. The percentage share of ownership of one LE in another should be

added as frame content.

(ii) Ownership links, at least those within the country, should record the accounting treatment between the two LEs associated with the link (i.e. is the owned entity fully consolidated, proportionally consolidated, carried on an equity basis, etc?)

(iii) Ownership links with 10% or greater participation into Canada (foreign ownership of Canadian LEs) and out of Canada (foreign holdings of Canadian LEs) should be maintained on the BR.

ESTABLISHMENTS AND THE MEASUREMENT OF PRODUCTION

10. Different criteria can be used to define production units. Ultimately, what we want to measure is the value of inputs, outputs, salaries and wages, capital stock used and capital formation, where they occur geographically and by industry. According to SNA 93, production units that are defined according to activity only (a single activity if no secondary activities are conducted by the unit or a principal activity, in the presence of secondary activities), without reference to geographic location, are known as "kind-of-activity units". Production units delineated on a geographic basis only, without reference to activity, are called "local units". In the SNA, "establishments" combine both concepts: units of production that are geographically specific and that are engaged in a single activity, or one principal activity, in the presence of secondary activities. The SNA 93 also refers to "units of homogeneous production", a producer unit in which a single activity is carried out. This is identified as the appropriate analytical unit for input-output analysis. It is also recognized, however, that this unit is not normally observable and is more an abstract or conceptual unit (15.14, SNA 93), and in particular for symmetrical product by product tables. On a more practical basis, the SNA recognizes that "For the supply and use tables, the System needs a unit which can be observed and for which data can be collected." (15.15, SNA 93). It is therefore recognized that production units may be somewhat heterogeneous on an activity basis. If this is the case, it is recommended that information on secondary activities should be separated as far as is practical.

11. To identify the units, it is necessary to map out the legal entity's operating structure. This is done through profiling, which is the process of collecting and analyzing information on how a legal entity organizes its production activity. As currently performed at Statistics Canada, the resulting structure comprises units that are characterized as revenue centres, cost centres, profit centres or investment centres, depending on the accounting information maintained for each. These terms and notions are common in the current management accounting practices of Canadian businesses. To assure completeness all operational locations are recorded.

12. Profit centres most often correspond to the definition of establishments while cost centres can be either establishments or ancillary units and investment centres are either a high level consolidated legal unit or a holding company. Identifying the purpose of these operational units provides the basis for complete and unduplicated reporting as each unit corresponds to a real world organizational component as seen by the business itself. The inclusion of the accounting type identifies what kind of information is available for each unit which provides greater flexibility in selecting the right unit for any given survey content.

13. For 99% of the 2 million units currently on the Canadian business register, the legal entity and the production unit are one and the same. In these cases, the primary activity of the legal entity, and the most important secondary activities in which it is engaged, need to be recorded as

well as the physical location at which production occurs.

14. For the 20,000 Canadian business entities that are engaged in production in multiple industries and/or in multiple locations, the operating structure will be used directly to identify the units for which information is to be collected. In fact, only 1,200 of these production units have multiple layers in the organization, but since they account for as much as 50% of gross business revenue is accounted for by these large and complex organizations. These also account for the largest proportion of FDI in Canada.

INTEGRATING LEGAL ENTITIES AND PRODUCTION UNITS

15. For all simple units, the legal entity and the production unit are one and the same and would therefore be represented by a single record on the BR. For the 20,000 units where operating structures would be maintained, it is recommended that production units be linked to individual legal entities, wherever these legal entities are found in an ownership chain. The approach would be to first establish the full network of legal entities linked through common ownership as described above and to attach to each the full network of production units through which it engages in economic activity. The result is an integrated network of legal entities and associated production units linked by common ownership.

16. Keeping track of both the ownership and control issues in the BR linked to the operating structure will help develop methodological ways to deal with measurement issues related to globalization. This integrated approach will help deal with issues like ancillary units that support global operations (for marketing, advertising or distribution for example) when these costs need to be distributed across appropriate production processes for the domestic economy and exports. A full articulation of revenues and costs are needed to set up a market price equivalent valuation of ancillary activities for allocation purposes.

17. Drawing samples from this new business register will commence in 2008 for the 2007 reference year and the adoption of the update of the NAICS – the North American Industrial Classification system. Ultimately, the estimation system for production may lead to re-allocation by industry as units are better classified according to the data that is available at the location. For BOP and other surveys, coverage will improve due to more information on ownership and control for all legal entities.

* * * * *