

Business Units and the Concept of International Orientation

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Abstract

The growing demand for information on determinants and effects of globalisation requires the development of a standardised and harmonised concept of the international orientation of an enterprise or enterprise group. This concept enables statisticians to analyse the national and international component of business dynamics in terms of economic growth, employment and innovation, with respect to the different types of statistical units. In order to make robust comparisons over economic sectors and over time this concept should be incorporated in the Business Register. Statistics Netherlands is developing a basic standard for publication in the Internationalisation Monitor. The concept of international orientation is stepwise operationalised in terms of imports and exports of trade and services, ownership and control and inward and outward investments. In this paper we present the methodology and some first results.

Introduction

1. International orientation of enterprises is a basic concept in the description and analysis of globalisation effects of business dynamics. Statistics Netherlands is developing standard indicators for the determinants, effects and trends of globalisation with respect to employment, productivity and welfare. At national level relevant breakdowns are defined based on trade of goods and services, inward and outward investments, and ownership and control.
2. Using a backbone of harmonised or standardised statistical units at enterprise level which are flagged on the dimensions of trade, investment and ownership enables researchers to make a distinction between nationally oriented and internationally oriented enterprises. A lot of studies reveal significant differences between international and national oriented enterprises.
3. This distinction is not only of academic interest. National policies of separate countries aim at improving the competitive strength of the national economy and to enhance the attractiveness of the country for establishment of multinational companies which could include enterprises such as production plants, R&D companies, and headquarters or distribution centres.
4. The basic information on trade, investments and ownership is not fully available at the level of the Business Register. In most cases flagged information on imports and exports, i.e. a zero or one indicator whether the enterprise imports and/or exports is not available in the Business Register, nor is the information on inward and outward investments.
5. Generally, this type of information is compiled by matching microdata from different sources, mostly in line with the requirements set by a specific analysis, and not on a regular or harmonised manner. Especially for trade (FATS) and FDI there are separate ways of

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compiling the required statistics. Compilation of FATS statistics and FDI statistics is based on different populations, i.e. following the Regulation EC No 716/2007 for FATS and the OECD Benchmark Definition FDI (BD4) for FDI. Eurostat (2008) gives some options to bring the two different datasets together in order to facilitate economic analysis of these phenomena (Eurostat, 2008). Basically, identification of the international orientation of the statistical unit lies at the heart of harmonising the databases. In that sense, basic information on international orientation should be incorporated in the Business Register.

6. In this paper we suggest to use binary variables at the level of the Business Register to indicate whether or not an enterprise or enterprise group is active on importing and/or exporting (goods & services), is active on inward and outward investments (FDI), and to enhance the information on the enterprise structure (influence and control). Given these variables it is quite easy to select the relevant subpopulations which form the basis for comparisons and analysis of globalisation effects.

The concept of international orientation

7. Although a lot of research is carried out using several dimensions of international orientation, such as the levels of imports, exports, investments there is hardly any integrated study at micro level based on the combination of ownership, FDI and trade. Some interesting approaches can be found in Cherunilam (2004), Maliranta & Nurmi (2004), Griffith & Simpson (2005). Goedegebuure (2006) uses basic import and export characteristics to develop a typology of international orientation.

8. A lot of attention is given to the ownership of an enterprise, whether it is a domestic controlled enterprise or a foreign-controlled enterprise. In the Netherlands this type of information is available in the Business Register.

9. The Business Register does not contain information whether or not the enterprise is active in imports and exports, nor active in inward and outward FDI. However the Business Register regulation is enhancing developments in the wanted direction. Linkages with external trade are obligatory. With the development of the Euro Groups Registers a start is made to provide a border crossing backbone for FATS.

10. Linkages related to cross border financial flows are mentioned but still optional. The developments of linkages between statistical units and this data are one step behind. This is because in general the related statistics are the responsibility of the national bank, instead of the national statistical office, and they maintain their own population. With the developments in the internal market regarding financial transactions and the impact on BOP-statistics cooperation between national banks and national statistical offices will increase, and with that the need of a harmonized backbone.

11. We will use a working definition of the concept of international orientation. International orientation of an enterprise is defined as the intensity of international connectedness of an enterprise in terms of the *presence* of trade (imports, exports both goods and services) investments (inward and outward) and the *degree* of influence and control across borders.

12. We make a distinction between the type of information used within the domain of the Business Register (focused on units) and information used in several forms of analysis (the data). The basic function of the Business Register is *identification* of relevant units on the concept of international orientation.

13. This implies that the Business Register should contain a basic set of dummy variables indicating whether or not the enterprise is active in respectively imports, exports (of goods and/or services), inward investments and outward investments, and information on enterprise structure.

14. Whatever typology is used, all analysis starts with the selection of the relevant subpopulations. When combining microdata from different sources without reference to a standard population (the demographic backbone) by definition the subpopulation lacks of information on the control group. Therefore selection of the relevant units of analysis starts at the Business Register. As such the Business Register is the (enterprise) part of the demographic backbone of official statistics.

Experiences Statistics Netherlands

15. Several research projects at Statistics Netherlands illustrate the benefit and necessity of a Business Register that has basic data on the international orientation of an enterprise. In this paragraph we will describe some of our experiences and approaches of this issue.

16. The Economic Institute on Small & Medium Enterprises (EIM) publishes an annual time series 'export index of SME'. Due to the fact that until 2008 no single source information was available on whether or not a SME did any export, this time series was based on small samples carried out by the EIM, matched with the Business Register of Statistics Netherlands. Given these samples, creating a stable backbone of exporting SME's and providing sufficient detail on exports of SME's was quite difficult. Next year, together with the EIM, Statistics Netherlands will start a research project on enhancing the time series on exports SME and broadening these time series also with the imports, stratified by economic sector, size classes and countries of origin and destination.

17. Goedegebuure (2006) developed a typology on international orientation using six variables based on imports, exports and investments. The micro data used were from a panel of over a thousand largest enterprise groups in the Netherlands in the period 2000-2003. A K-means cluster analysis on the six variables revealed nine different types of enterprises in this panel. These types are characterized by their position and role in the international trade networks, varying from domestic oriented enterprises to international oriented enterprises. Also the relation of imports, exports and investments with the domestic production (being dependent of imports and exports for production) was used in defining different types. The aim of the study was to estimate outsourcing and offshoring effects, given the kind of international orientation of the enterprise. Although the results of the Goedegebuure were not conclusive with respect to the outsourcing and offshoring effects (mainly because of the weak results of matching imports and exports at enterprise level with the Business Register), the methodology is quite promising in the research on outsourcing and offshoring effects.

18. Based on the information on trade, investment and influence and control a basic stratification is used in the annual Internationalisation Monitor of Statistics Netherlands. Depending on data coverage of the dependent variables the maximum stratification is the crossing of all variables. Given the fact that information on trade is limited, information on FDI is not yet available at enterprise level, at this moment only a basic distinction in foreign-controlled and domestic controlled is used in the publications. Efforts are being made to link the populations of international trade statistics with the Business Register, and to allocate transaction data on FDI to the Business Register.

19. A structural link is now operational between the external trade (goods) population and the general business register. The linking percentages are improved compared to earlier ad-hoc exercises. The present linkages are hampered by some typical Dutch practices: reporting practices of warehouse/distribution operators and current Customs data practices. In a number of cases warehouse and distribution operators report trade movements for the actual owners of the goods. In these cases the wanted linking information is not available. Changing this reporting practise will not be easy.

20. Until now Customs did not digitise and pass through to the statistical office all identifiers of the traders that are obliged to report to customs. Therefore links are impossible for these cases. This will be solved in the future.

21. The linkages are also hampered by some foreign traders that are obliged to report to the Dutch tax office, because these traders are not incorporated in our Business register at present. This can be solved by incorporating in the business register (or a satellite) also links with the foreign units that are active on the national market from an external trade perspective.

22. These companies are involved in external trade in the Netherlands and have a relationship with the Dutch tax office. There are cases where the goods go to a Dutch enterprise where they are processed substantially. Intrastat and Extrastat record only the data on physical movement of the goods. In response to the structural business statistics surveys involved enterprises report e.g. only job processing and no transformation of the goods because the goods are not theirs. The data reported in both statistics in conflicting and further analysing needs to take place to know what happens exactly.

23. Proper incorporation of this information in statistics (XT, SBS, NA, BOP) requires knowledge of the links between the companies (fiscal units) reporting for external trade and the involved enterprises (-groups) reporting for the SBS. Essential additional knowledge that is required involves ownership of the units and of the goods involved. This is in fact the underlying discussion on harmonising the FDI and FATS statistics (Eurostat, 2008)

24. This shows that identification of international orientation based only on engagement in external trade, is not sufficient.

25. In the CONGO project Statistics Netherlands is creating harmonised datasets for the largest and more complex enterprise groups in the Netherlands. Basic administrative data and survey data related to the selected enterprise groups (EG) are confronted, analysed and corrected to create a consistent data set at the level of the EG and enterprise. This dataset forms basic input for various related statistics (e.g. structural business statistics, trade, NA). Improved linkages will be beneficial to this process of consolidation. The flags may also provide an additional indicator for recognizing possible problematic enterprise groups with respect to national statistics.

26. Determining the basic aspect of international orientation, being a domestic controlled or foreign controlled enterprise for the whole domain of the Business Register at any moment in time is not straightforward when this information is only partial available (surveys) or got out of date (registers). Currently Statistics Netherlands carries out a project in which this information is retrieved based on a three step methodology. In the first step registers from the tax office (corporate tax files), the Survey on Finances of Non-financial Enterprises and Dun & Bradstreet data are matched to find all enterprises which do have international linkages (in terms of influence and control). In the second step information from the CIS survey (Eurostat) and the bi-annual R&D survey of Statistics Netherlands is matched to determine year by year changes for the period 2000 – 2005. In the third step a panel of largest enterprises is determined. This panel will be matched with job data on an annual basis in order to study the

effects of outsourcing and offshoring, and combine this information with the FATS statistics. The results of the matching are quite promising and will be published in a methodology paper first quarter of 2009.

Practical consequences

27. In the Business Register fiscal and legal entities and ownership/control information are used to derive statistical units. The Business Register regulation and the development of the European Groups Register are enhancing developments towards improvement of information on foreign relations in the form of ownership and control.

28. In order to avoid overcomplicating the Business Register process other flags could be added to the monthly produced statistical frame afterwards. The linkage with external trade is now positioned in a satellite. The same could be done for a structural linkage with FDI. Whereas trade is linked through fiscal entities, the link with FDI-actors needs to be made using qualitative Name/Address-linking methods due to the absence of other shared identifiers.

29. The frequency of updating the flags depends on the frequency of the required data. Trade data is available on a monthly basis and the linking process will be run every month. FDI is available on a less frequent basis and the linking process needs to be improved and transformed to a structural process. The present output requirements seem to be directed at annual information, therefore annual updating seems sufficient for the short term. However, when the process for linking is fully in place the updating of the flags can be speeded up.

30. This extended statistical frame forms a good basis for proper statistical analysis of specific subpopulations with an international orientation. Furthermore the statistical frame could be extended to other statistical units relevant for statistics on globalisation effects. This will allow matching micro data of registers and surveys at the level of four statistical units, the enterprise groups, the enterprise, job characteristics and persons (Luppés, 2006; Van Veen, 2007). See annex.

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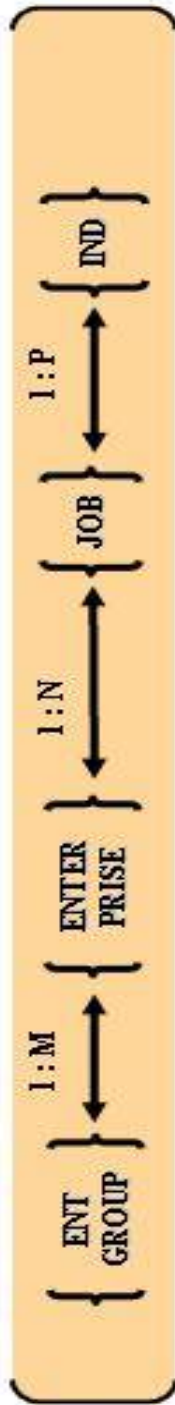
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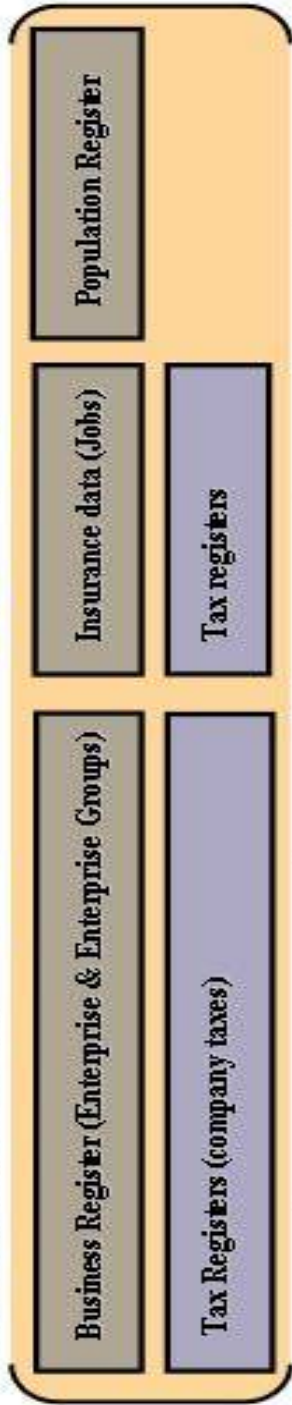
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Demographic Backbone



Basic Registers of the Backbone



Surveys to be matched with the Backbone

