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Agenda Item 7 : Unlocking the potential of Micro data

item 7(a):

Moving towards comparable business demography statistics

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MOVING TOWARDS COMPARABLE BUSINESS DEMOGRAPHY STATISTICS

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MOVING TOWARDS COMPARABLE BUSINESS DEMOGRAPHY STATISTICS

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Introduction

1. The creation of new businesses and the decline of unproductive ones are often regarded key to business dynamism in OECD economies. Understanding business behaviour and creative destruction, and identifying successful and failing businesses, as well as fostering entrepreneurship, development and innovation have become increasingly important objectives for policy makers in many OECD economies in recent years[1]. Business churn (*i.e.* entry plus exit rates) is commonly viewed as a measure of the ability of economies to expand the boundaries of economic activity, to shift resources towards growing areas and away from declining areas, and to adjust the structure of production to meet consumers' changing needs. Moreover, higher rates of business creation and turnover are generally held to benefit economic growth, job creation and poverty alleviation.

2. This growing interest in these issues and entrepreneurship, more generally, has also influenced statistical development in this area. For example, many national statistical offices now provide official statistics on the exit, entry and turnover of businesses[2]. The Statistical Office of the European Union, Eurostat, has recently developed an enterprise demography database that includes many EU countries[3]. Moreover, little of this development has led to increased burdens on businesses, since much of the information is provided by existing data sources, for example business registers or administrative tax sources. This initiative has greatly improved the comparability of data from European countries but comparisons of business demography statistics across non-EU countries are more complex. This largely reflects that fact that national definitions and concepts used to construct business demography statistics usually reflect domestic data availability and the fact that internationally recognised definitions and concepts, with the notable exception of Eurostat's efforts, are largely non-existent. The OECD has also conducted one-off studies of business demography statistics (e.g. Bartelsman et al, 2001) on a harmonised basis, for the purposes of productivity and economic growth analysis, but these datasets also contained data that was not strictly harmonised for all countries (Brandt, 2004).

3. Generally, when decision makers refer to entrepreneurship it is in the context of job and wealth creation and poverty alleviation. It is because entrepreneurs innovate and produce income and employment by creating new businesses that they are encouraged. Typically this process of innovation and job/wealth creation is measured on the basis of start-up (birth) and death rates, reflecting the widely acknowledged (Schumpeterian) process of creative destruction that new businesses increase the competitive pressure on incumbent businesses compelling them to increase efficiency/productivity via innovation or go out of business[4].

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[1] The Bologna Charter on SME Polices and the 'Bologna Process'; The 2nd OECD Ministerial Conference on SMEs, Istanbul 2004; European Commission Lisbon Summit and the "Lisbon Strategy', 2000.

[2] See the inventory of sources in Annex 1

[3] See:
http://epp.eurostat.cec.eu.int/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/intrse/sbs&language=en&product=EU_MASTER_industry_trade_services_horizontal&root=EU_MASTER_industry_trade_services_horizontal&scrollto=0

[4] A number of studies also demonstrate strong correlations between turnover rates and GDP growth, see for example Barnes et al, 2001, Bartelsman et al 2001.

4. One attempt at creating an internationally comparable measure of entrepreneurship has been that of the Global Entrepreneurship Monitor (GEM) who have developed an indicator of total entrepreneurial activity (TEA), based on household interviews, that measures the number of entrepreneurs per capita (18-64 age group) that have started a business in the last 42 months. Useful as this measure is, in providing a broad indication of the general level of start-ups, it suffers through not being able to say much about the survival probability, employment or growth potential of the newly created entrepreneurships; key issues of concern to policy makers interested in entrepreneurship. Moreover the sample sizes and the respondent's perception of what constitutes a new business, and the sector of the economy in which the business is operating, are likely to differ across countries.

5. The business demography database developed by Eurostat is better equipped to provide input into policy since it: is able to provide information on start-ups, deaths and survivability at a relatively detailed sectoral level; uses common definitions for these variables as well as the definition of a business; and, is largely based on information coming from national business registers which, in theory, capture all new business creations and deaths. In addition the database provides some information relating to the characteristics of the entrepreneurship; namely it's legal form.

6. But more detailed information is required if one is to obtain a more comprehensive understanding of entrepreneurs and start-ups or, rather, the factors of success (and failure). For example: Which start-ups are likely to grow fastest and provide the best long-term growth opportunities, and, specifically, what are the key characteristics that might determine success, such as foreign ownership, access to capital etc. Policy makers are also interested in the characteristics of entrepreneurship as outcomes too, and not only as inputs that might determine success, for example increasing female or minority group entrepreneurship are policy objectives in many countries.

7. Unfortunately detailed information pertaining to the characteristics of start-ups is not provided in the Eurostat database although this information can be attained by survey based approaches that target successful and perhaps failed businesses[5], an approach taken by Eurostat in their Factors of Business Success Task Force and which is currently being considered by the OECD's Entrepreneurship Indicators Project.

8. However of more pressing concern is that despite the efforts to harmonise cross-country statistics on business demography, a number of factors, described below, continue to hamper strict comparability within the Eurostat database; a problem which is magnified when non-EU countries are included. It almost goes without saying that providing analysts and policy makers with business demography statistics that are comparable across countries is crucial. The scale of the problem is demonstrated in the chart below, which takes business start-up data from Eurostat for several European countries, and adds published data from the United States and Canada. The key issue is what can be ascertained from the data? Two start-up series are produced for the US, for example, showing markedly different rates due to a range of methodological differences covered in the section on factors affecting comparability below. And, for Latvia, the start-up rates show a significant increase in 2002 compared to 2001 which can be (at least partly) explained by the fact that the source of data (the business register) for start-ups in 2002 included sole proprietors for the first time. Similar comparability issues may occur in the data for other countries; the challenge is to identify where these occur and what can be done to improve comparability.

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[5] Although identifying and surveying failed businesses is more challenging, since by their nature they no longer exist.

Figure 1- Business Start-up Rates for Selected Countries
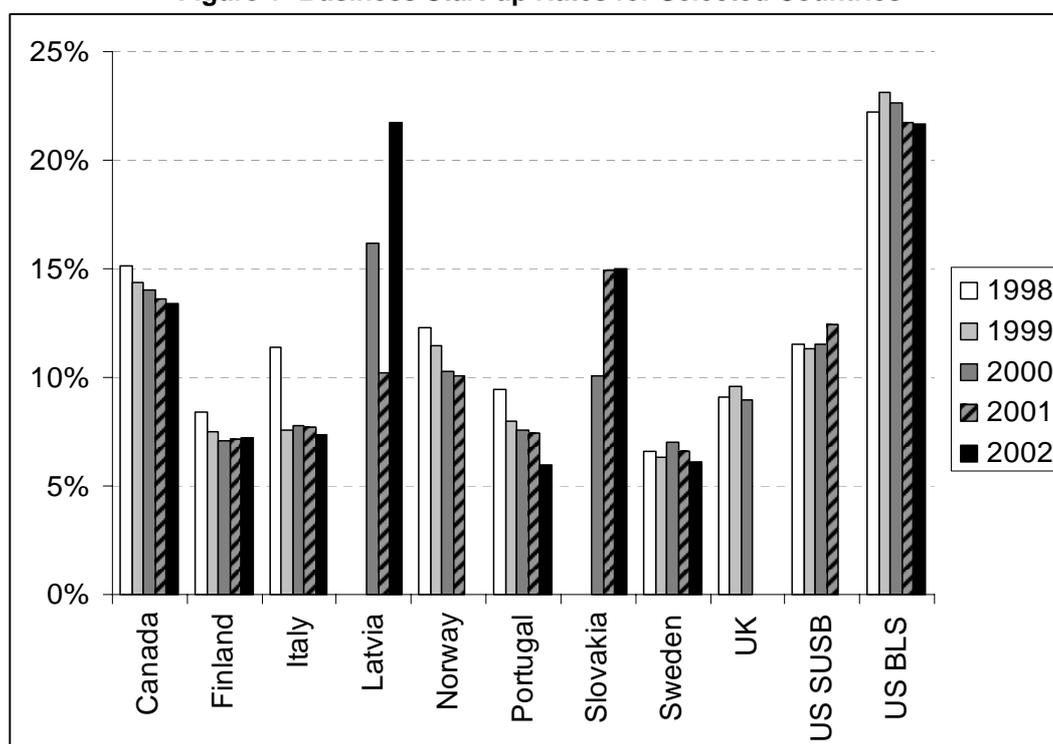
9.   This paper provides an overview assessment of the comparability of official statistics currently available and produced by national statistical institutes on business demography and considers the issues that impair comparability as part of a series of on-going projects that seek to determine how comparability can be improved.

10. The paper continues by providing a brief overview of factors that are known to impair comparability, before describing OECD and other initiatives in the area of business demography statistics, ending with some conclusions and a proposal for a way forward towards improving harmonization.

Factors Affecting comparability

11. Most OECD countries have produced at least basic business demography data, usually derived from data held in statistical business registers. However, the methodology used has often been driven by national considerations, rather than a desire for international comparability. A quote from a recent paper on establishing a conceptual framework for business demography from a leading national statistical institute illustrates this perfectly; "Whilst international comparability of the data is considered to be important, the overriding requirement is the provision of data in the [national] context". Understanding the differences between national data sets is therefore a vital pre-condition to any meaningful analyses of them.

12. Recent OECD work on business start-up data has identified a number of factors affecting comparability (Vale 2005(a), Ahmad, (forthcoming)). Although this work focussed on business start-ups, most of the factors identified are also applicable to the wider field of business demography. These factors can be summarised as follows:

Source

 Statistical business registers are increasingly the main source of data on business demography. They usually provide comprehensive coverage of the population of interest, though systematic biases may also be present due to *scope* and *threshold* restrictions. Census data can be as good, but the cost of this approach makes it unrealistic for most countries. Survey data have been used, e.g. in the DOSME[6] project for countries of Central and Eastern Europe. This approach is useful when registers are not sufficiently developed, and allows the collection of more information on entrepreneurship than is available from other sources, though it suffers from the usual constraints of survey errors and sample size limitations when detailed data breakdowns are required.

Units (Business definition)

The units used for business statistics have traditionally been based on those available from administrative sources. Typically this includes the unit that has some sort of legal or tax obligation, and the unit that corresponds to a physical location from which a business operates. In the European Union, a regulation on statistical units[7] has gone part of the way to harmonise the units used, where the business definition is given as an *enterprise*. Unfortunately it has been demonstrated that these definitions are not always applied consistently (Herczog et al, 1998), so it cannot be assumed that data on units labelled as enterprises are fully comparable. In the United States, the establishment, which is closer to the European local unit, is the main unit for business demography purposes, though the "firm", an aggregation of establishments under common control, similar to the European truncated enterprise group, is also used. Similar definitions are used in Canada, though the term "business" is sometimes used instead of "firm". However, it should be remembered that most businesses (often at least 95%) have a very simple structure, with just one site. This means that, in the vast majority of cases, all of the units above have a one to one relationship, and are in fact different views of the same entity.

Scope / Coverage

The scope of business demography data depends heavily on the source (usually a statistical business register). If this source excludes certain legal forms or economic activities, these will be missing from business demography data derived from it. Sometimes, even if the source does include certain categories there may be reasons for excluding them from demography data, e.g. quality concerns, the policy of the statistical institute, customer requirements, or just tradition. Different classifications of economic activity and legal form further complicate matters, as specific categories of units may be treated differently according to the classification system used. As is the case for units, the greatest degree of harmonisation exists between the Member States of the European Union, due to the requirements set out in a regulation on statistical business registers[8]. Despite this, the data on business demography currently published by Eurostat has one of the most restricted scopes of the data sets studied, which suggests that the actual level of harmonisation of business registers is still somewhat below that required by the regulation. Finally the registers, in all countries, will exclude businesses

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[6] Demography Of Small and Medium-sized Enterprises – see:
http://forum.europa.eu.int/irc/dsis/dosme/info/data/en/index.htm

[7] Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community (Official Journal of the European Communities No L 076, 30/03/1993, p. 1), http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/696-93en.htm

[8] Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes - http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/2186-93en.htm

operating exclusively in the 'black' or underground economy[9]. Although the economic importance of missing businesses is generally not significant, when set against total economic activity, their importance in the context of entrepreneurship, and in particular with regards to Small and Medium Enterprise (SME) policy, is greater, and such shortcomings in business register information should not be underestimated.

Threshold

The presence of different size thresholds in the sources of data on business demography can have a major impact on comparability. For example, in many countries, the main sources of data used in business registers are administrative tax and employment registers, meaning, for example, that, often, only business above a certain turnover and/or employment threshold are captured. An economy with relatively high thresholds would therefore be expected to have lower start-up statistics and higher survivability rates than in similar economies with lower thresholds. This issue is considered in more detail in Vale (2005(b)). An additional complication in this regard relates to changes in thresholds over time. Monetary based thresholds change over time in response to inflation and fiscal policy, both of which can be expected to affect comparisons of birth rates across countries and over time.

Birth Definitions

The birth of any business reflects a number of stages. Typically it starts as the idea of an existing or potential entrepreneur. This idea may or may not be acted upon. If it is, the way in which the business is set up will depend on national practices, taking account of different tax and subsidy systems. The requirements to register with administrative and tax bodies vary considerably between countries, and may be subject to different size thresholds, thus it is not always necessary to register before commencing activity. Clearly, viewed in this context, the point at which births appear in official statistics can be arbitrary. This presents considerable problems for international comparability. The point at which business births and deaths are recorded can vary considerably across countries depending on the nature of the data source. The picture becomes murkier still when one considers other demographic events such as, mergers, take-overs, spin-offs, outsourcing, re-naming, relocations etc (see *Purity*, below).

Death Definitions

Defining deaths can be an equally complicated affair, and in practice these are often more difficult to identify than births. Businesses may, for example, remain registered on statistical business registers if they have not completed de-registration formalities with the appropriate sources, or they still have outstanding tax liabilities, even though they have ceased trading. Equally, identifying business deaths, like births, will also be complicated by demographic events such as mergers, take-overs etc. Like births, the process of business death can also be arbitrary. Many businesses, for example, experience a process of decline or dying before they are finally wound-up, whilst some retain certain administrative functions even if normal activity is permanently ceased. Moreover there is a difference between business closures and business failures. The former reflects a withdrawal from the market that may have been anticipated at the outset of the businesses creation (Brian Headd, 2003). Differentiating between these businesses and the point at which businesses begin their decline is also of policy interest.

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[9] Additionally, it is important to recognise that registers with information on business employment and turnover may also be affected by underground production.

Time

 Data sources used for the construction of business demography statistics can be annual or sub-annual. Sub-annual data are more likely to identify very short-lived businesses, so levels of births and deaths will generally be higher. Moreover, where demography statistics are based on annual snap-shots of the business register, the point at which businesses are observed could cause certain biases. For example a common reference date in a number of data sets is 31 December / 1 January; in these cases short-lived businesses with activities related to the Christmas period are likely to be included, but other seasonal and short-lived activities are likely to be under-represented. Finally, where data are annual, they may refer to different periods. Typically the period is the calendar year, but other periods such as March to March (United States) and July to July (Australia) are also used. For strict comparisons on a calendar year basis, such data sets would need to be apportioned between years, though in practice this may not be necessary if the rates are fairly stable over time.

Purity

Given definitions for births and deaths, it is often relatively easy to measure these events, i.e. the units that are present in one period but not in another. It is rather more difficult to separate out "real births" and "real deaths" from re-registrations, reactivations, take-overs and other demographic events[10]. Such events can sometimes be detected using data matching techniques, e.g. a new unit that has a number of characteristics in common with a previously existing unit may not be a real birth. Typically such matching will be automatic, or semi-automatic, based on rules or algorithms to determine the likelihood that two units actually represent the same business in the real world. Experience in a number of countries has shown that larger business creations or deletions (measured in terms of persons employed or turnover) are less likely to be real births or deaths. Any work to distinguish real births or deaths from other events will result in lower birth and death rates, therefore the amount of such work undertaken should be considered when comparing data from different sources.

Temporal Basis

There are two main approaches to defining the business population. The traditional approach, followed in most national data sets, is to use the population at a specific point in time. This is consistent with methodology for human demography, and allows a "stocks and flows" approach to business demography. An alternative approach is to use the population of businesses that were considered active at any time within a given period. This approach is favoured for the Eurostat business demography data collections, partly because it ties in with the approach used to collect financial variables (e.g. annual turnover), and partly because it was thought to be easier for countries that do not have accurate birth dates for units in their business registers. Where a live during period approach is used, the population used to calculate birth and death rates is higher, resulting in rates that are typically in the region of 2% lower than those using point in time populations. Thus care must be taken in any comparisons that data collected on different bases are not mixed.

Economic Size

When an enterprise with headquarters in one EU country, for example, sets up a new production unit in another, a new enterprise is generally recognised. However when an enterprise with its headquarters in one US state, say, sets up a new production unit in another US state, this will generally be recorded as

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[10] For a typology of demographic events affecting businesses see the Eurostat Manual of Recommendations for Business Registers, Chapter 13 -
http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/embs/registers/chapter13.doc

the creation of a new establishment. Seen another way, this means that estimates of the size and number of enterprises between two economic blocs, <u>equal in every way</u>, except that one is a nation state and the other a collection of nation states, will differ, even if exactly the same national concepts are applied. In fact, comparisons, are likely to suggest that enterprises in the nation state, although fewer, are larger and grow more in periods of expansion (and contract more during recessions) than enterprises in an equivalently sized economic-bloc of (bordering) nation states. This does not necessarily mean that similar biases can be expected where birth and death rates are concerned however (where the rates are defined as births [deaths] as a ratio of the population of total business in the period concerned); although, biases can be expected where births and deaths are expressed as a percentage of economic size or per capita.

13. As mentioned above, major steps to improve the comparability of business demography data for the Member States of the European Union have recently been taken as part of the Eurostat business demography project. A standard methodology has been developed, and data produced in accordance with this are now available for a number of countries via the Eurostat web-site[11].

14. The Eurostat work recognises the key role of statistical business registers in the production of business demography data, and the factors of comparability outlined above clearly show that the methodological differences in business demography data are mainly linked to the source used. This confirms that improved harmonisation of statistical business registers is an important pre-requisite to improve the comparability of business demography data. These issues are considered in more detail in (Ahmad, (forthcoming) and Vale (2005(b)).

OECD Priorities

15. The OECD currently has a number of related projects looking at different aspects of improving the comparability of data on business demography and entrepreneurship. This work is seen as increasingly important due to growing policy demands and user interest. Through the projects described below, the OECD hopes to exert an influence on the way in which business demography and statistical business registers are developed, to enhance international comparability.

Framework for business demography data for OECD countries

A pre-requisite for developing harmonised business demography statistics is a framework that defines conceptually the basis for their development; such a framework currently supports the Eurostat database of business demography but this was naturally development with a European focus. The objective of this project, funded by the International Consortium for Dynamic Entrepreneurship Benchmarking, led by the Danish government agency FORA, is to develop a similar framework that considers the conceptual framework from an OECD perspective. In the main the purpose of the framework is to provide rules that prescribe how the factors of comparability outlined above could be treated such that a harmonised and comparable set of business demography indicators could be produced by OECD countries.

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[11]

http://epp.eurostat.cec.eu.int/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welco meref&open=/intrse/sbs&language=en&product=EU_MASTER_industry_trade_services_horizontal&root=EU_MA STER_industry_trade_services_horizontal&scrollto=0

Growth and Job-Creation

One of the key interests in business demography statistics relates to the growth potential of new enterprises as well as the growth potential of different types of enterprises. Indeed, an important catalyst for the development of business demography statistics was the innovative database developed by David Birch in 1979. Birch's analysis showed that conventional methods for determining the contribution of different sized enterprises to employment growth were, to some extent, flawed. Prior to Birch's work much of the analysis on business growth assumed little if any inter-class movement of business (and in so doing implicitly reduced the ability to identify creative destruction). For example, estimates of the contribution large enterprises made to growth in calendar year t generally assumed that the same enterprises were large in years t and $t-1$. Because these enterprises were defined as large on the basis of their size in calendar year t however, Birch showed that these produced biased results of employment growth; misleadingly high estimates for large enterprises and misleadingly low for small enterprises. Birch instead defined enterprises so that their size class was defined as their size class in the base year of his study (the year from which growth rates were determined). He showed that small enterprises were considerably larger employment creators than had previously been thought, and that they contributed the majority of employment growth (82%) in the US during the 1970s. It's fair to say that his findings were and still are contentious. Much of the contention however does not relate to whether the calculations made by Birch were correct, the argument is more a question of semantics, since they mainly relate to when small medium and large enterprises should be referred to in that way; at the beginning of the study period or at the end. This project, which falls additionally within the bailiwick of the framework project, looks at developing a set of indicators of growth that attempt to avoid the contention related to Birch's statistics by being unambiguous in their definitions.

Comparability of Start-Up rates

This work is funded by the International Consortium for Dynamic Entrepreneurship Benchmarking. The main drivers for the project are the increasing political and academic interest in the twin fields of business demography and entrepreneurship. Accurate measures of business start-ups are seen as vital for both. Understanding how comparable national estimates of start-up rates are is clearly of importance on its own but this work will also form a key input into the development of the framework. In addition to identifying factors of comparability, initial work has focussed on compiling an inventory of different sources of start-up data for each OECD country, and attempting to reconcile differences between data from sources relating to the same country. A copy of the inventory is included in Annex 1, and a final report from this study will be available in early 2006. The charts in Annex 2 use data from four United States sources to demonstrate clearly how methodological differences in data on the number of business births, and the total population of businesses, can affect the comparability of start-up rates.

Entrepreneurship Indicators Project

Whereas the previous projects focus more narrowly on one aspect of entrepreneurship (start-ups) this project takes a broader perspective. Whilst it is easy to agree that all start-ups say something about the levels of entrepreneurship within an economy it is much more contentious to see start-ups as providing the full picture. Entrepreneurs and entrepreneurial forces can be found in many existing businesses and understanding the dynamism these actors exert on an economy is as important as understanding the dynamics of start-ups. This project looks at the issue of entrepreneurship measurement from this wider perspective and will also focus on better understanding the factors of success and failure that influence entrepreneurship. The work is funded by the Kauffman Foundation of the United States and the International Consortium for Dynamic Entrepreneurship Benchmarking. The principal focus of the first phase of the Project is the development of a Scoping or Strategy Report to be presented to the

Kauffman Foundation and other stakeholders, including delegates to a variety of OECD Committees and Working parties. In addition to reviewing policy issues and data gaps, the Report will recommend approaches to meeting data gaps through compilation and harmonisation of existing data as well as through possible new data collection activities. Furthermore, the report will consider the most appropriate roles for the OECD, member countries and others in an international entrepreneurship indicators program.

Other initiatives

16. Of course, the OECD is not alone in working towards improved international comparability of business demography data. Significant progress is being made in this area by Eurostat for enterprise data from the Member States of the European Union. The currently voluntary data collection project is likely to become compulsory for European Union countries when a revised version of the structural business statistics regulation comes into force, probably in 2006. At the same time, Eurostat is looking at expanding the range of data available to include indicators on the factors of business success, as well as considering the possibility of including other types of units such as local units or enterprise groups.

17. In the United States, a panel studying the measurement of business dynamics has been set up to develop strategies to improve the accuracy, currency, coverage, and integration of data used in academic and agency research on business formation, dynamics and entrepreneurial activities, for which conspicuous data deficiencies are perceived to exist. This panel is due to report in 2006. The focus is on improving US data, but international comparability is being considered, and the recommendations may have wider applicability.

Conclusions and the Way Forward

18. Recent OECD work shows that much remains to be done in order to get truly comparable international data on business demography. It is clear that simple comparisons of the sorts of data sources listed in Annex 1 can be misleading, however, by focussing on the reasons why data are not comparable, a start can be made to quantify the differences and to start to find solutions.

19. It is unlikely that fully comparable data sets could be made available for all OECD member countries without, potentially, considerable efforts on the part of those countries, something that would be rather unrealistic to expect in the short-term. The focus should therefore be on incremental development, with both short-term and long-term goals.

Short-term

20. The priority should be to increase knowledge about the sources of business demography data, making sure that this knowledge is properly documented and verified. This will allow the identification of possible "quick wins", i.e. actions that could increase comparability at little cost. The approach here should be pragmatic, focussing on key variables, with the aim of starting a series of improvements as quickly as possible. Specific actions could include:

- Discussing data issues with individual countries to see if additional or alternative data are easily available that would help to improve comparability.
- Exploring ways to analytically remove or reduce the impact of methodological differences in national data sets, for example, methods to convert live during period population data to point in time (or vice-versa). One relatively simple approach is to take the mean ratio of real births to recorded business creations in countries with more comprehensive data sets, and applying these to

data from countries that are only able to provide information on the number of creations (which may include creations due to other demographic events, such as correction for mergers, take-overs etc) e.g. rather than real births.

- Developing a conceptual framework that provides a goal that further international research on improving data comparability, and national developments in data production, can work towards

Long term

21. In the longer term the OECD should encourage and assist, as much as possible, countries to develop indicators in line with the conceptual framework. This sort of step-by step approach towards a clear goal through incremental improvements may not result in fully comparable data as quickly as some users might want, but is likely to be more acceptable to member countries than any more radical approach. For this reason, it may well prove the quickest route to more comparable data on business demography.

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ANNEX 1 - INVENTORY OF SOURCES OF BUSINESS START-UP DATA

This is a simplified version of the full inventory prepared for the OECD project on the comparability of data on business start-ups. Information on any errors and omissions is particularly welcome.

1. OECD Member Countries

Australia
- Source - "Experimental Estimates, Entries and Exits of Business Entities", Australian Bureau of Statistics, 2005,
  http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/Lookup/2EB3AE08FFBC9AD4CA2570280078B69E/$File/8160055001_2001-02,%202002-03%20and%202003-04.pdf

Austria
- "Unternehmensneugründungen in Österreich 1993-2004", Wirtschaftskammern Österreich (WKO),
  http://portal.wko.at/wk/dok_detail_file.wk?AngID=1&DocID=344536&DstID=1721&StID=178712

Belgium
- "Démographie des entreprises (1998-2004)", Statistics Belgium,
  http://statbel.fgov.be/figures/d422_fr.asp
- Business demography indicators, Eurostat,
  http://epp.eurostat.cec.eu.int/portal/page?_pageid=0,1136195,0_45572097&_dad=portal&_schema=PORTAL

Canada
- "Business Dynamics in Canada, 2001", Statistics Canada – Longitudinal Employment Analysis Program (LEAP) Database, http://www.statcan.ca:8096/bsolc/english/bsolc?catno=61-534-X
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Czech Republic
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  http://forum.europa.eu.int/irc/dsis/dosme/info/data/en/pages/publications/DOSME%20Extension%20Final%20Report.doc For more information about the DOSME project, see also -
  http://forum.europa.eu.int/irc/dsis/dosme/info/data/en/index.htm
- Business demography indicators, Eurostat,
  http://epp.eurostat.cec.eu.int/portal/page?_pageid=0,1136195,0_45572097&_dad=portal&_schema=PORTAL

Denmark
- Statistical Yearbook, Statistics Denmark
  http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook/2005.aspx
  http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook/2003.aspx
  http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook/2001.aspx
  http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook/2000.aspx
- Business demography indicators, Eurostat,
  http://epp.eurostat.cec.eu.int/portal/page?_pageid=0,1136195,0_45572097&_dad=portal&_schema=PORTAL

Finland
- Enterprise openings and closures, Statistics Finland, http://www.stat.fi/til/aly/index_en.html Data only accessible via Finnish version - http://www.stat.fi/til/aly/index.html
- Business demography indicators, Eurostat,
  http://epp.eurostat.cec.eu.int/portal/page?_pageid=0,1136195,0_45572097&_dad=portal&_schema=PORTAL

France
- "Créations d'entreprises", INSEE,
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China
Data are currently been prepared based on the 2005 first national economic census.

ANNEX 2 – COMPARISON OF FOUR BUSINESS DEMOGRAPHY DATA SOURCES FROM THE UNITED STATES

Start-up Rates

Legend: Business Employment Dynamics; Statistics of US Businesses; Longitudinal Business Database; Firm Size Data

New Businesses

Legend: Business Employment Dynamics; Longitudinal Business Database; Statistics of US Businesses; Firm Size Data

Population Data

Legend: Longitudinal Business Database; Statistics of US Businesses; Business Employment Dynamics; Firm Size Data