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Agenda Item 3 : The new SBS/SME database publication and OECD structural business indicators

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THE NEW OECD STRUCTURAL BUSINESS STATISTICS PUBLICATION

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Introduction

1. This report, presented to delegates of the inaugural meeting of Structural Business Statistics Experts (SBSE), provides information relating to the forthcoming OECD publication on structural business statistics, scheduled for release in early 2006.

2. The publication marks a change from the last publication in this area (Structural Statistics for Industry and Services (SSIS), 2003) in a number of ways. The most important of these is the incorporation, for the first time, of structural business statistics by size class; an important development reflecting the increased policy and analytical focus on entrepreneurship and the role of small and medium enterprises within economies.

3. This is not the only change however; a number of other innovations are also planned. One noticeable difference reflects the style of the publication which will be much more discursive in nature, focusing on particular data presentations and cross-country comparisons of analytical and policy relevance; the 2003 SSIS publication by comparison presented tables on structural business statistics by variable (where available) by country. Another significant change is that the publication will adopt a thematic approach presenting information by these themes and will also include sections outlining developmental areas in the field of structural business statistics.

4. What follows is a summary description of each proposed chapter of the publication. Delegates are asked to consider what can be done in each chapter and whether other themes (chapter) should also be included.

5. The current plans for the publication envisage a publication along the following lines, a more detailed discussion of each chapter in included in the sections that follow:

1. ***Chapter 1: Introduction*** – Providing a description of the purpose of the publication, potential uses, and an overview of the variables and concepts used.

2. ***Economic Overview*** **-** Comparing basic economic structures in the latest year available using simple descriptive statistics/charts by industry/country – including numbers of enterprises/establishments, employment share, value-added shares by size class.

3. ***Economic Change*** **–** Providing an overview of changes in OECD economies over the last decade, for example which industries have lost and which have gained; focusing on key policy sectors such as steel, textiles, ICT (and components), knowledge industries.

4. ***Small and Medium Enterprises*** - Providing a detailed description comparing the importance of small, medium and large enterprises across economies.

5. ***Female participation*** – Statistics in this area are still sketchy but it's an area of considerable policy importance and so will require some commentary, even if only to point out the scarcity of statistics in this area and the need for better coverage.

6***. Labour productivity levels*** – Showing cross country and industry comparisons by size class.

7. ***Business Demography statistics*** – Explaining OECD developments in this area, current data, and the policy relevance.

8. ***Micro-Data developments –*** Outlining the plans of the OECD in the context of micro data.

9. ***Annexes*** **-** (I) *Statistical Issues* - Explaining how and why estimates differ from the national accounts for example and (II) *Metadata for each country* – How are estimates produced, what's covered, what's missing?

Chapter 1: Introduction

6. As described above, the main aims of this chapter are to introduce readers to the new format and content of the publication and to provide guidance on when to use SSIS/SEC statistics; including a description of the variable definitions/concepts. The main aims can be briefly described as:

The importance of structural business statistics, particularly micro (firm-level) data has increased considerably in recent years both from a policy and analytical perspective. Policy makers, for example, are increasingly using business statistics to measure the success of policy measures; for example policy measures to increase female and minority-group entrepreneurship (measured by female and minority-group owned businesses). Policy makers and analysts are also interested in better understanding the dynamics of economies in order to create wealth and equity. In this context users require information on the structure of businesses to help respond to questions such as: Where are the growth sectors? Which industries create employment? How important are small enterprises to wealth? What contribution do renewals (business entries and exits) make to economic growth and productivity?

The OECD has a number of databases providing statistics to answer these questions; such as the Patents database; the Structural Analysis (STAN) database; and databases with information on foreign direct investment and research and development. Two other databases are also important in this context. The Structural Statistics for Industry and Services database and the Statistics by Enterprise Size Class (SEC) database. This publication refers primarily to these latter two, describing the statistics contained within them and how and when they can be used to respond to the needs of users.

7. As indicated, one of the key aims of the publication is to provide a guide of when the SEC and SSIS databases should be used. This, in a nutshell, relates to international comparisons of detailed (4-digit) industries and size class comparisons; both databases provide information at the 4-digit ISIC level of detail for businesses. This compares to the largely 2-digit information available in STAN for all economic activities, not just those of the business sector.

8. The publication will therefore recommend that this is where the focus of users should be. Where users are more interested in broader economic structures, such as manufacturing's share of total economy value-added, the publication will point users in the direction of STAN; providing a detailed description of

differences between the two data-sets (for example STAN provides data for the whole economy, including the public and informal (underground) sector and is largely compiled using establishment data.

9. Most delegates will be familiar with the main variables held on the OECD's two databases relating to structural business statistics - the SSIS database and the Statistics by Enterprise Size Class (SEC) database. A considerable exercise was undertaken in 2003 to better harmonise the variables and concepts held on both databases (presented under agenda item 3 of the SBSE meeting). The recommendations made under this agenda item will of course come too late to influence the variables currently stored in the OECD's databases but it will be useful to flag these changes where they occur. Additionally where the group decides that some variables should cease to be collected it is probable that these will not be included in the publication.

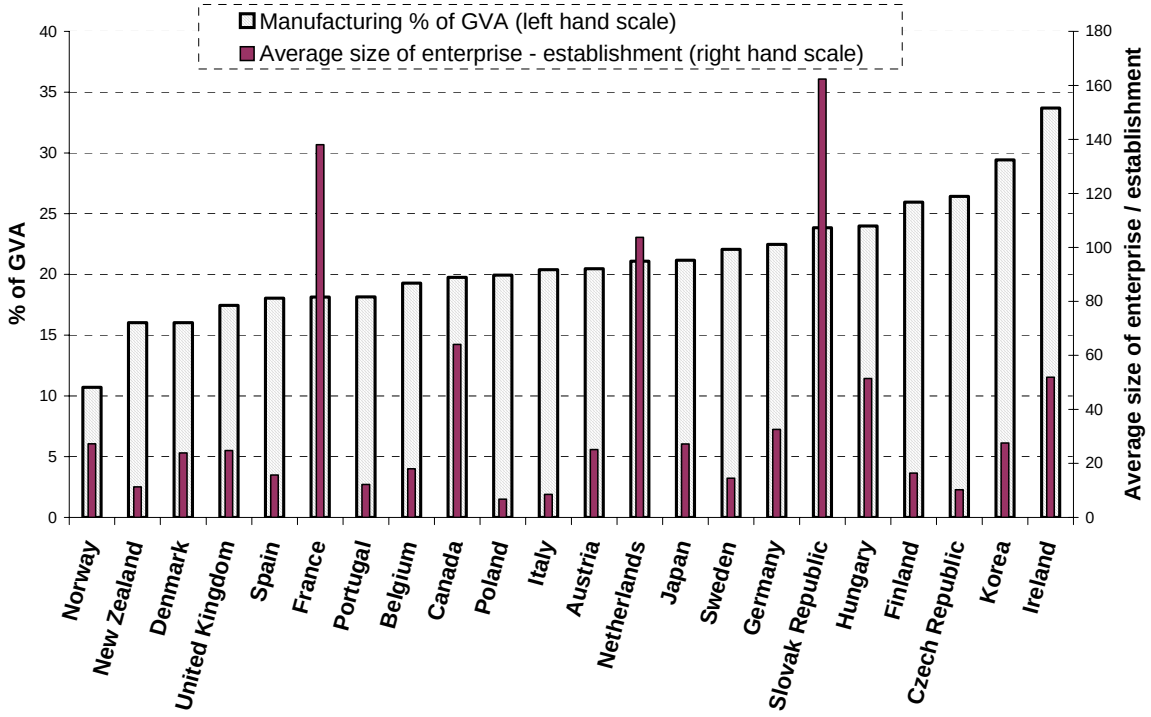
Chapter 2: Economic Overview

10. This chapter lays the ground for the rest of the publication by giving an overview of the structural differences in industries/businesses across economies at the broad level. The basis for much of this commentary will be the STAN database, providing descriptive statistics relating to shares of activities (e.g. manufacturing, services) across countries. Some caveats will be needed here to explain difficulties that may arise in comparing STAN (establishment based) data with SSIS/SEC (enterprise/establishment) data and other factors that hamper comparability, such as STAN (national accounts) adjustments for underground activities and possible differences in concordance relationships (as the source statistical institution for STAN and SBS statistics is not always the same).

11. The chart below, which is for illustration only, gives an example of what can be done and of some of the challenges presented by the data. It shows manufacturing's share of total gross value-added and compares this with the average size of enterprise (or establishment); where size is measured on the basis of employment (including non-salaried workers). The first series uses STAN data, and the second uses data contained on the last published version of the SSIS database. This well illustrates some of the comparability problems inherent in that database, for example the very high average sizes of firms in France, the Netherlands and the Slovak Republic reflect thresholds in the data provided by these countries. For many countries these thresholds tend to exclude enterprises/establishments below a certain turnover or employment thresholds and so bias average firm sizes upwards.

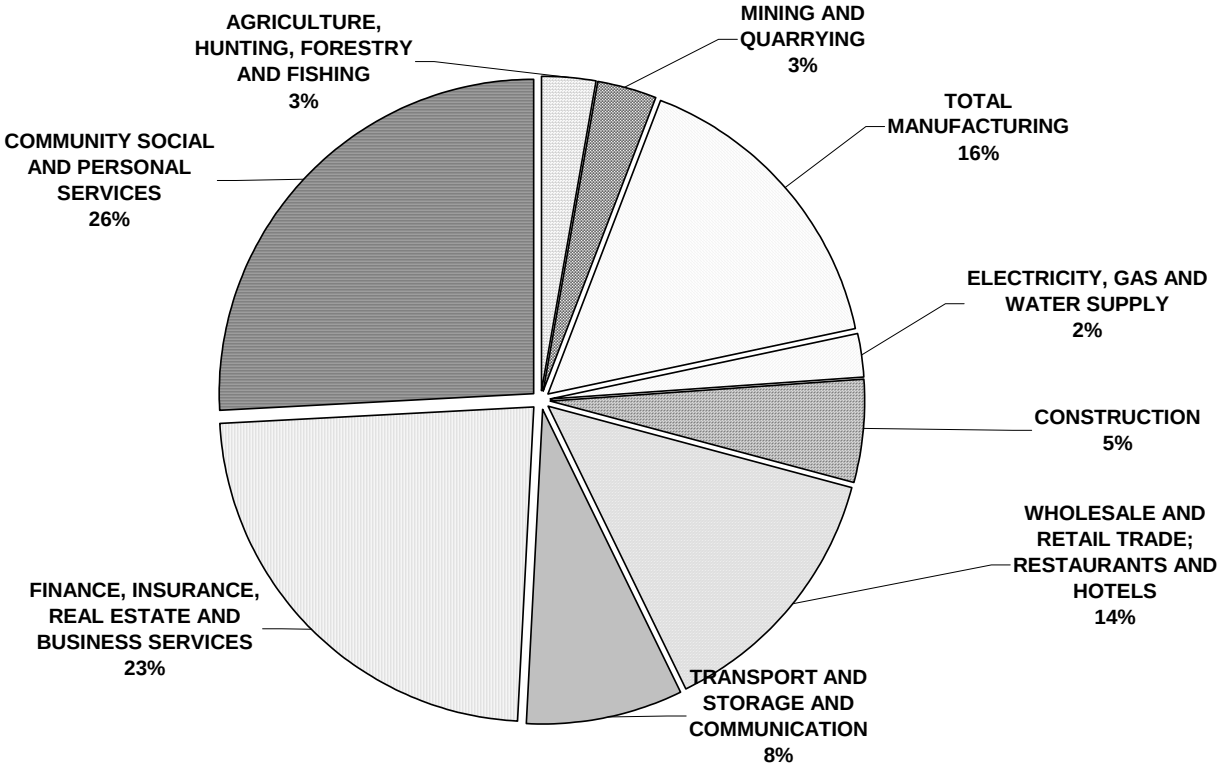
12. The data used in the chart below reflects the data in the last SSIS publication. Much has changed since then; for example the quality and availability of statistics has improved across countries. The latest data collection exercise (2005) will hopefully lead to fewer problem areas like those shown below but, where they arise, the publication will aim to highlight these for the benefit of users.

Figure 1. Manufacturing – Contribution to Gross Value Added (2000) and Average Firm Size



13. Other descriptive statistics will be produced within this section such as a breakdown of economic activity by aggregated industrial sector, for example, as shown in Figure 2 below; which uses estimates exclusively from the STAN database.

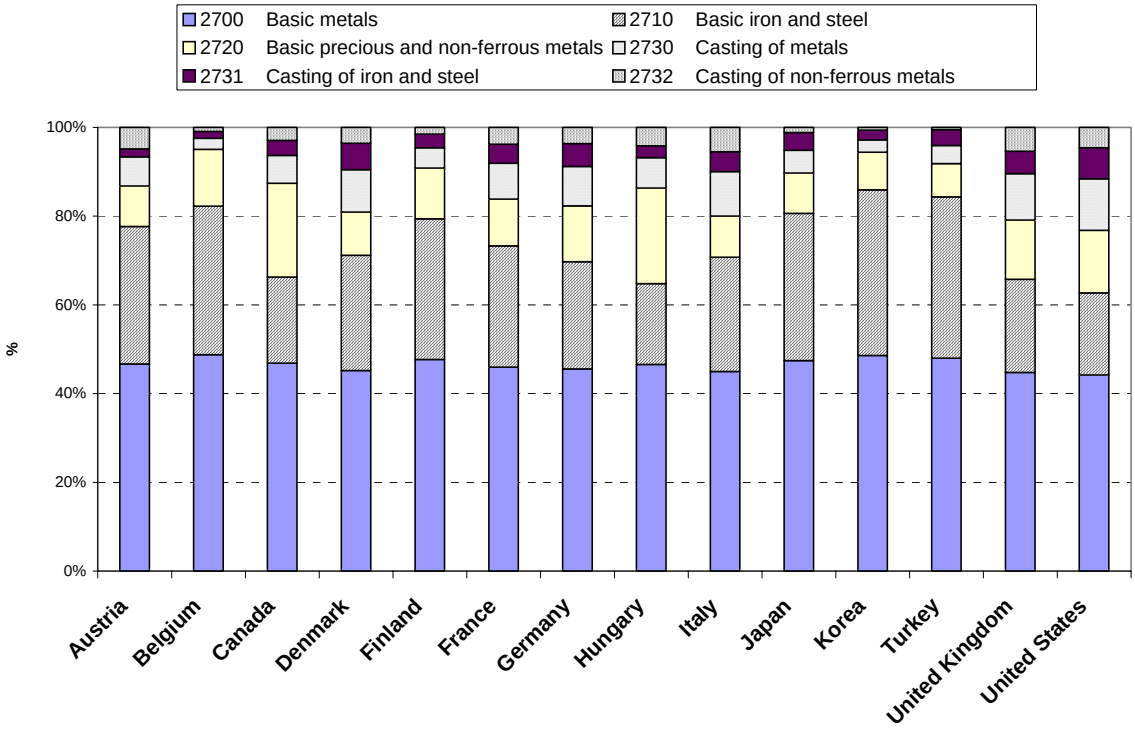
Figure 2. Share of Value-Added by Sector - Denmark



14. The idea of this section therefore is to provide a basic overview of industrial sector patterns across countries, presenting these statistics, as far as possible, in the context of SEC/SSIS in order to give users a better understanding of how these datasets can and should be used. For example users may be interested in a breakdown of a specific 2-digit ISIC sector into its 4-digit groupings, as shown on Figure 3 below, which provides a breakdown by country of value-added in the (2 digit) iron and steel industry into its 6 4-digit industries.

15. A number of variables were collected for the first time in the OECD's last SSIS and SEC questionnaires and it is hoped that it will be possible for the data to support interesting comments in the publication, for example, it would be quite interesting to provide indicators on enterprise profitability for example, by taking the ratio of operating surplus to turnover as a proxy for profitability; an area of particular interest in the context of SMEs.

Figure 3. Share of ISIC 27 by 4-Digit Industry (2000)



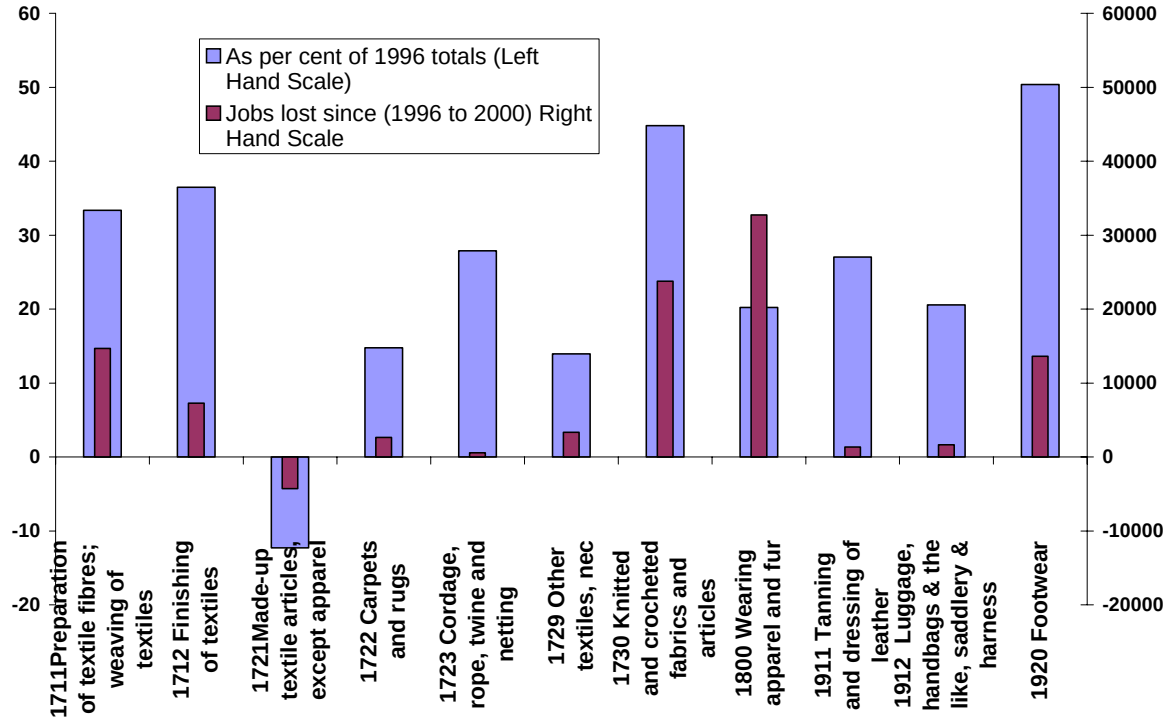
Chapter 3 - Economic Change

16. This section presents some challenges for the SSIS/SEC databases as these have generally been produced with less of an emphasis on continuity over time; reflecting the fact that the survey sources used to produce these statistics often differ in coverage over time. In many countries, for example, statistics on the number of enterprises/establishments are based on statistical business registers and many of these have size cut-offs or do not cover all areas of economic activity, for example agriculture. Nonetheless that is not to say that some useful commentary is not possible. Again the starting point will be STAN based statistics. For example statistics showing year on year changes in employment at the 2-digit sector could be supplemented with SSIS information breaking down the 2-digit sector into its 4 digit components; and with the SEC database these could be further broken down into size classes.

17. For example the STAN database shows that the United Kingdom textiles, clothing, and leather (ISIC 17-19) industry lost over 100,000 jobs between 1996 and 2000. The SSIS database records falls of

just under 100,000; although not exactly comparable to STAN, for the many reasons outlined above, the SSIS database can provide a breakdown of these losses by detailed 4-digit sector. See Figure 4 below, for example.

Figure 4. Employment losses in textiles, clothing and leather industries 1996-2000, UK



Chapter 4: Small and Medium Enterprises

18. The policy focus on small and medium enterprises has increased considerably in recent years, reflected for example in the Bologna Process and last year's Istanbul Ministerial meeting. This chapter will begin by providing an overview of these policy initiatives and provide a description of the different definitions applied across the world in defining SMEs. The main aim of the chapter however is to provide information relating to the size-class breakdown of enterprises or establishments across industries and countries; such that analysts and policy makers are better able to assess the importance of these enterprises to economies. Equally the chapter will aim to provide users with possible other applications of the OECD size-class database, for example by linking the size class data to input-output tables for example users are able to better understand the importance of trade say to employment in small enterprises. Additionally the database can provide quite detailed information that facilitates the decomposition of productivity analysis and can be used directly to provide information on labour productivity levels by size class; but this is intended to be covered in more detail in Chapter 6.

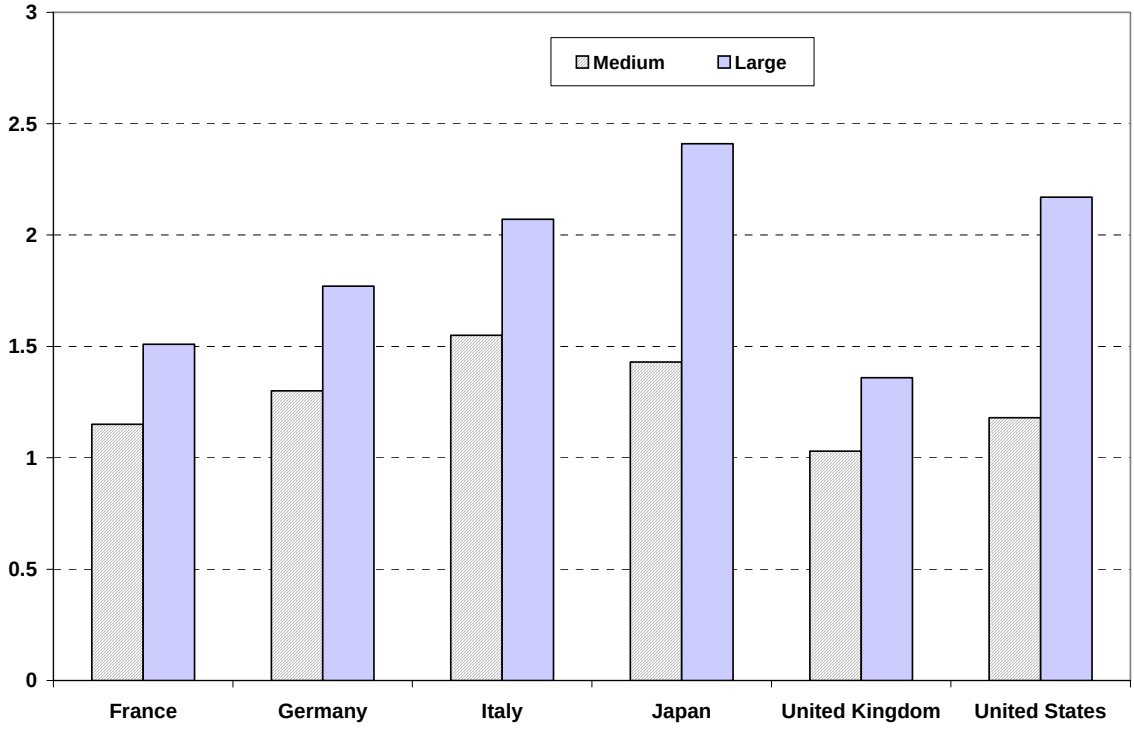
Chapter 5: Female Participation

19. Very little information on gender is available on either the SSIS or SEC database. It is hoped that more information might be acquired in the current, and on-going, data collection but the likelihood is that the situation will not change considerably. If this is the case this chapter may be moved to future developments

Chapter 6: Labour Productivity

20. The importance of both databases in this context is self-evident. Analytical interest in productivity has always been very high and as researchers continue to try and better understand and measure the key determinants of productivity so therefore is their greater interest in analyses that use more detailed industry information. Both databases provide the means to look, in an internationally comparable way, at productivity, especially labour productivity, at the 4-digit level. The SEC database of course goes one step further of course, providing this information additionally by size class. See Figure 5 below for example, which, shows for illustration, the relative labour productivity of manufacturing enterprises by (employment) size where labour productivity is normalised as unity in small enterprises.

Figure 5. Relative Labour Productivity by Enterprise Size (2000) - (Small firms normalised to unity)



Chapter 7: Business Demography statistics

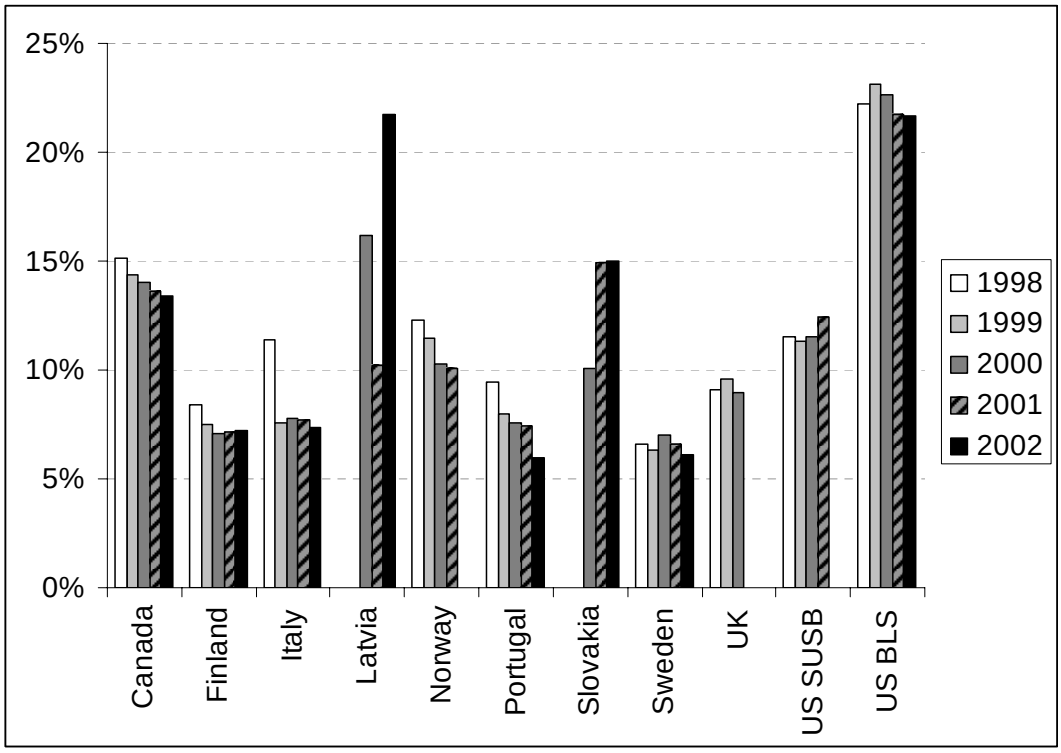
21. Over the last couple of years, Eurostat have been developing a business demography database. At present the database contains data on births, deaths and survival rates, by legal form, size class and industrial sector for 17 EU countries and Norway and Romania. The coverage of countries is likely to expand after next year when the requirement to provide business demography statistics is expected to form part of Eurostat's structural business regulations. Many other countries also provide statistics on births, deaths and survival but this data is not strictly comparable for a number of reasons (see Meeting document 8).

22. The OECD Statistics Directorate, funded by the International Consortium for Dynamic Entrepreneurship Benchmarking led by the Danish government agency FORA, is currently in the process of investigating the comparability of these statistics with a view to producing a framework that can lead to better harmonisation of business demography indicators and concepts. The first phase of this project, looking at the comparability of birth rates in official statistics is scheduled for completion in February 2006 but it is hoped that early results can be incorporated into this publication. A conceptual framework,

proposing and describing a set of rules and methods to treat demographic events (for example mergers) that are not real births nor deaths, in order to ensure comparability, and a description of a preferred set of other demographic indicators, (for example high growth firms and gazelles) is expected to be published separately but some of these finding/conclusion should also find their way into the publication. The OECD intends to explore with countries the feasibility of providing data on business demography statistics based on this framework.

23. Figure 6 below provides an example of the types of statistics that we hope to publish in this chapter, and, some of the comparability issues that will inevitably be raised.

Figure 6. Business Start-up Rates for Selected Countries



Chapter 8: Micro-Data developments

24. The OECD is about to embark on a feasibility study to see whether statistical offices would be able to provide disclosive economic indicators to the OECD that were based on (often confidential) firm-level data (see Meeting Document 11 for more information). This feasibility study has not yet commenced and the indicators have not yet been specified so their inclusion in this chapter is unlikely at this stage. Having said that the main purpose of the chapter is to alert users to developments in this area. Exactly what indicators need to (and can) be developed will be decided in the feasibility process based on consultations with statistical offices and policy users. The initial thinking is that between 10-30 indicators, each available by detailed (4-digit) industry and size-class, would be necessary, for example, indicators of: Hirschman-Herfindahl concentration; Turnover (or employment) shares of the 5 largest firms within a sector; Distribution of turnover by age and size-class of enterprises; Probability distributions of turnover (employment); Labour productivity and profitability indices by size class (showing in addition to the mean the median and 95% confidence intervals); distributions of enterprises by turnover (employment) growth over 5 years (broken down into growth bands which can in turn be broken down into enterprise characteristics, such as enterprise size, legal form, owners etc).

25. Another important and promising area of micro-data in which the Statistics Directorate has plans is in the linking of business and trade registers; providing information that allows analysts to link trade information with businesses, by size class and industrial sector, say, and business indicators of activity, such as employment, value-added and turnover etc. Eurostat has been at the forefront of these developments and recently presented the results of a pilot study, started in 2002, at the 6th OECD International Trade Statistics Expert Meeting in September 2005, (Meeting document 9.1). A second (modified) pilot study was conducted in 2004, which included within its scope the newer EU Member States and the results from this study are expected towards the end of this year; depending on their status these may be included in the publication. The success of the first pilot study led the OECD to launch a questionnaire to non-EU OECD countries in 2005 in order to assess the scope for producing similar statistics in this group of countries. The results of this questionnaire were promising and the OECD Statistics Directorate now plans to conduct a similar pilot study to Eurostat's, next year, initially only with those countries that expressed a willingness in the questionnaire to participate (Meeting document 9.0). A Steering Group will be established towards the end of this year and the Statistics Directorate intends to report on progress at a 2006 micro-data conference being organised by the OECD.

Data Availability

26. Clearly a great deal of work needs to be done in order to achieve the plans spelt out above. However the most critical input is data availability. At present this varies widely by country and by database. The OECD Statistics Directorate recently sent new SSIS questionnaires to non-EU countries and at the same time offered countries the opportunity to submit more up-do-date SEC information if this was available. Table 1 below provides a description of data available on the SEC database. It illustrates that the coverage differs significantly by country and over time. Unlike the 2003 SSIS publication where the data was presented by country the new publication will indirectly raise the issue of country coverage as some countries will be missing from some of the cross-country comparisons. It is for this reason that delegates are encouraged to provide as much information as possible, requested in the SSIS/SEC questionnaires to the OECD Statistics Directorate and to consider and support the proposals for future activities.

Table 1: Data coverage on SEC database

Country	Data	Employer's contributions	Employment - females	Employment, number of unpaid persons employed	Gross operating surplus	Hours worked	Investments in tangible assets	Number of enterprises	Number of establishments	Number of persons employed	Number of salaried employees	Production	Total investment	Total labour costs - employees	Total labour costs - Total engaged	Total purchases of goods and services
AUSTRALIA	First year								1997	1997			1997			
	Last Year								2000	2000			2000			
AUSTRIA	First year	1995		1995	1995	1995	1995	1993		1993	1995	1993	1995	1995	1995	1995
	Last Year	2002		2002	2002	2002	2001	2002		2002	2002	2002	2002	2002	1995	2002
BELGIUM	First year	1995		1995	1995	2000		1993		1993	1993	1993	1998	1993		1995
	Last Year	2001		2001	2001	2001		2001		2001	2001	2001	2001	2001		2001
CANADA	First year							1994			1994					
	Last Year							1998			1998					
CZECH REI	First year	1999			2000		1995	1995		1999	1995	1995	1999	1997		
	Last Year	2001			2001		1999	2001		2001	2001	2001	2001	2001		
DENMARK	First year	1995		1995	1995	2000		1993		1993	1993	1993	1995	1995	1993	1995
	Last Year	2002		2002	2002	2000		2002		2002	2002	2002	2001	2002	1994	2002
FINLAND	First year	1995		1995	1995	1995		1993		1993	1993	1993	2000	1995	1993	1995
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2000	2002	1994	2002
FRANCE	First year	1996		1996	1995	1999		1993		1993	1993	1993	1994	1995	1993	1996
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2002	2002	1994	2002
GERMANY	First year	1996		1996	1996	1998		1993		1993	1996	1993	2000	1996		1996
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2001	2002		2002
GREECE	First year	1997		1997	1997	1997		1993	1995	1993	1993	1993	1995	1993		1997
	Last Year	2000		1998	2000	2000		2000	1997	2000	2000	2000	1997	2000		1998
HUNGARY	First year	1999		2002	2000	1999		1994		1999	1996	1994	1994	1996		2002
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2002	2002		2002
ICELAND	First year							1993		1993					1993	
	Last Year							1996		1996					1996	
IRELAND	First year	1995		1995	1995	1996		1993		1993	1993	1993	1993	1993	1994	1995
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2002	2002	1996	2002
ITALY	First year	1996		1996	1996	1996	1999	1993		1993	1993	1993	1995	1993	1996	1996
	Last Year	2002		2002	2002	2002	2000	2002		2002	2002	2002	2002	2002	2000	2002
JAPAN	First year		1998						1990	1990	1995	1990	1994			
	Last Year		2001						2001	2001	2001	2001	2001			
KOREA, RE	First year								1990	1990	1995	1990				
	Last Year								1997	1997	1997	1997				
LUXEMBOU	First year	1995		1995	1995	1995		1993		1993	1993	1993	1998	1993		1995
	Last Year	1998		1998	1998	1998		1998		1998	1998	1998	1998	1998		1998
MEXICO	First year							1998	1998	1998						
	Last Year							1998	1998	1998						
NETHERLA	First year	1995		1999	1995	1999		1993		1993	1993	1993	1998	1993		1995
	Last Year	2002		2002	2001	2002		2002		2002	2002	2002	1999	2001		2002
NEW ZEAL	First year							1995		1995	1995	1998	1998		1998	
	Last Year							2002		2002	2002	2001	2001		2001	
NORWAY	First year	1996		1996	1996	1996		1993	2000	1993	1996	1993	1995	1996	2000	1996
	Last Year	2000		2000	2000	2001		2001	2001	2001	2001	2001	2001	2001	2001	2000
POLAND	First year				1999			1997		1995	1998	1995	1999	1999		
	Last Year				1999			2002		2002	2001	1999	2002	1999		
PORTUGAL	First year	1996		1996	1996	1996		1993		1993	1993	1993	1994	1993	1995	1996
	Last Year	2001		2001	2001	2000		2001		2001	2001	2001	2001	2001	1995	2001
SLOVAK RE	First year	1999		2002	2000	2000		1995		1999	1995	1995	1995	1995		2002
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2002	2002		2002
SPAIN	First year	1995		1995	1995	1995		1993		1993	1993	1993	1994	1993		1995
	Last Year	2002		2002	2002	2002		2002		2002	2002	2002	2002	2002		2002
SWEDEN	First year	1997		1996	1996	2000		1993	1990	1990	1993	1993	1993	1993	1996	1996
	Last Year	2002		2002	2002	2002		2002	1995	2002	2002	2002	2002	2002	1996	2002
SWITZERLA	First year							1995		1995						
	Last Year							2001		2001						
TURKEY	First year	1994	1994				1994		1994	1994	1994	1994	1994	1994		
	Last Year	2000	2000				2000		2000	2000	2000	2000	2000	2000		
UNITED KI	First year	1996		1995	1995	2001	1995	1993	1994	1993	1995	1993	1995	1995		1996
	Last Year	2001		1997	2001	2001	1996	2001	1996	2001	2001	2001	2001	2001		1998
UNITED ST	First year							1990	1990	1990		1993		1990	1993	
	Last Year							2002	2002	2002		1996		1997	1996	