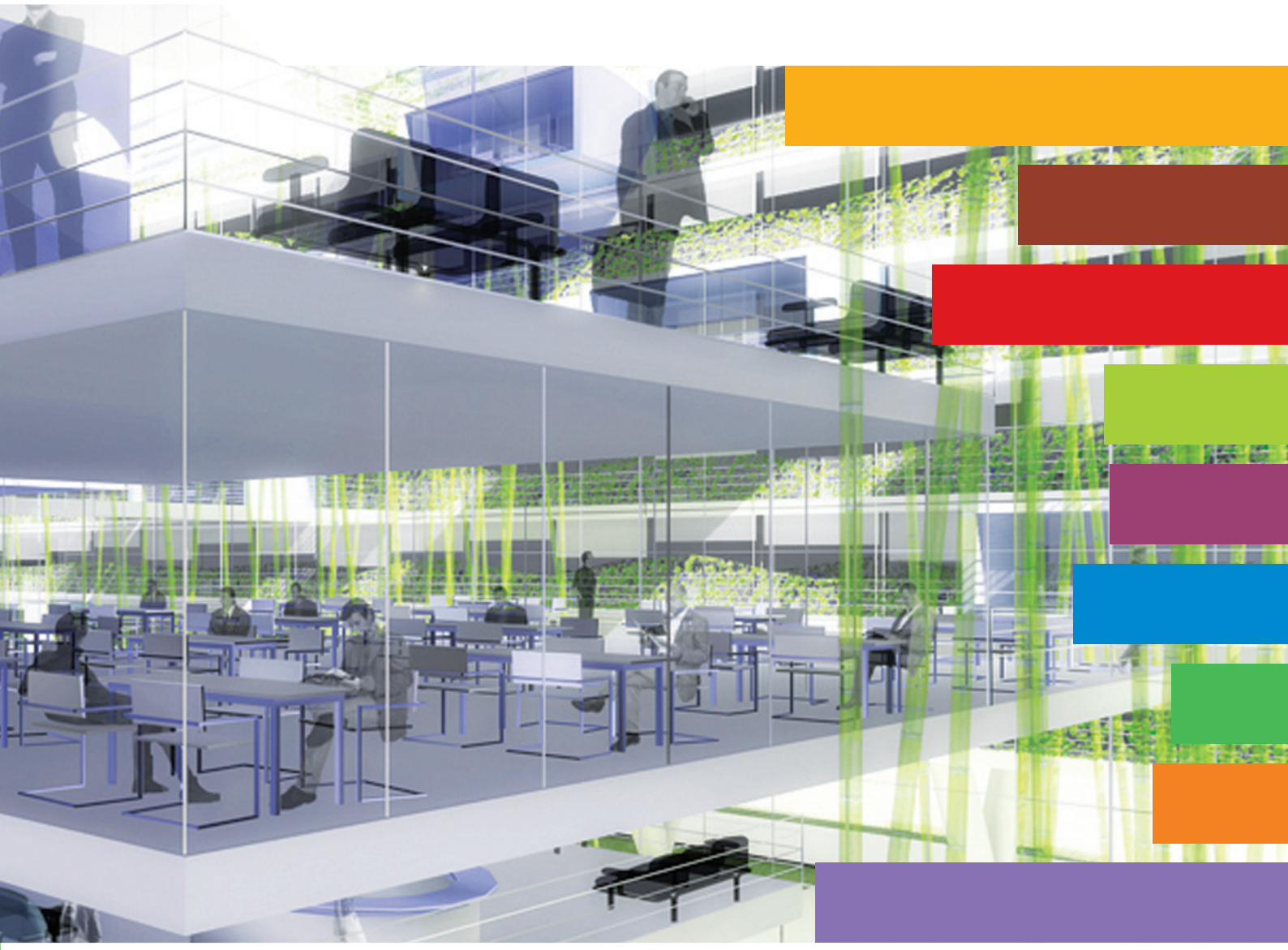
Entrepreneurship at a Glance 2013



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Entrepreneurship at a Glance 2013

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Foreword

Entrepreneurship at a Glance *presents key indicators on entrepreneurship. Until recently, most entrepreneurship research relied on ad hoc data compilations developed to support specific projects and virtually no official statistics on the subject existed. The collection of harmonised indicators presented in this publication is the result of the OECD-Eurostat Entrepreneurship Indicators Programme (EIP). The programme, started in 2006, is the first attempt to compile and publish international data on entrepreneurship from official government statistical sources. Indeed, to meet the challenge of providing new entrepreneurship indicators, while minimising costs for national statistical offices and burden on business, the programme focuses attention on exploiting existing sources of data instead of developing new business surveys. Statistical business registers form the basis for the compilation of the key EIP indicators, such as enterprise birth and death rates.*

Informing policy design through the development of policy-relevant indicators is at the core of the EIP programme, and much attention is paid to responding to information needs. In particular, the global financial crisis has highlighted the need for more timely information on the situation of small businesses. To that purpose, Entrepreneurship at a Glance *henceforth features an opening section on recent trends in entrepreneurship, discussing new data on firm creations and bankruptcies, based on different national sources and non-harmonised definitions; for this reason, a different nomenclature is used for these data: "creations" instead of "births", and "bankruptcies" instead of "deaths". The publication also includes new information on trends and characteristics of entrepreneurs, based on self-employment data. Finally, this issue presents longer time series for the main indicators, to provide a temporal perspective; more breakdowns by sector, to illustrate the diversity of patterns; and simple correlations between indicators, to assist the interpretation of results.*

The publication was prepared under the co-ordination of Mariarosa Lunati in the Trade and Competitiveness Statistics Division of the OECD Statistics Directorate with contributions by Mario Piacentini, Blandine Serve, Gueram Sargsyan, Young-tae Son and Bernice Bray. The publication benefited from comments by Nadim Ahmad and Elif Koksal-Oudot. Particular thanks go to Manfred Schmiemann, Aleksandra Stawinska and Elisaveta Ushilova of Eurostat and to experts in National Statistical Offices who contributed data and time to produce the original indicators for Australia, Austria, Belgium, Brazil, Bulgaria, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, the Russian Federation, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United States.

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Executive summary

The global financial and economic crisis has increased attention on entrepreneurship. Entrepreneurship and entrepreneurs have long been recognised as important sources of innovation, and thereby also of growth and employment. The recent crisis, characterised by tighter credit restrictions, has arguably hampered new start-ups and impeded growth in existing start-ups as well as their ability to survive in tough market conditions. The significant rise in business closures, especially of micro and small enterprises, in recent years, bears stark witness to these difficult conditions and highlights the need for statistics on entrepreneurship that can support policy makers. *Entrepreneurship at a Glance* contains a wide range of internationally comparable measures of entrepreneurship designed to meet this need.

Start-up rates remain below the pre-crisis levels in many countries, particularly in the Euro area. There are tentative signs of improvements in some economies, notably Australia and the United Kingdom, but these are, to varying degrees, mirrored by higher failure rates. Moreover, a not insignificant factor behind the pick-up in start-ups has been an increase in own-account workers, which may indicate adjustment strategies rather than entrepreneurialism.

Fewer enterprises had stellar growth during the crisis. The share of high-growth enterprises fell to between 2.0% and 4.0% in 2010, consistently below levels seen (between 3.5% and 6.0%) in 2006 in virtually all OECD countries.

But attitudes toward business failures have become more positive. The crisis appears to have raised awareness of the importance of entrepreneurs to growth and employment but also appears to have removed the stigma associated with failure. Increasingly, the public at large recognise the importance that entrepreneurs who fail should be given a "second chance".

Young people are more optimistic about the possibility of setting up a business in the near future, even though the actual rate of entrepreneurship among the youth is, on average, a low 4.0%.

Gender differences remain important. Women consistently rate self-employment as being less feasible than men; self-employed women earn 35% on average less than men across countries and the gaps are wider than those observed in wage employment, which are of 15% on average.

Entrepreneurialism in the education curriculum counts. Perceptions of the role that school education has in helping develop a sense of entrepreneurial spirit vary significantly across countries. In Brazil, Norway and Portugal more than 75% of adults acknowledge the role played by school education, while in Japan less than 20% do. In many countries however,

the perception of school education as fostering entrepreneurial spirit is sensibly higher than its perceived role in giving enabling skills to run a business.

Entrepreneurship is a complex phenomenon. The set of cross-country comparable indicators proposed by *Entrepreneurship at a Glance* sheds light on different aspects and determinants of entrepreneurial activities and enables evidence-based policy making in this field.

Reader's guide

This publication presents indicators of entrepreneurship collected by the OECD-Eurostat Entrepreneurship Indicators Programme (EIP). Started in 2006, the programme develops multiple measures of entrepreneurship and its determinants according to a simplified conceptual framework that distinguishes between the manifestation of entrepreneurship, the factors that influence it, and the impacts of entrepreneurship on the economy and society. A set of **indicators of entrepreneurial performance** is proposed for understanding and comparing the amount and type of entrepreneurship which take place in different countries. This approach reflects the idea that analysts should not focus only on enterprise creation or any other single measure to study entrepreneurship: entrepreneurs and entrepreneurial forces can be found in many existing businesses and understanding the dynamism these actors exert on the economy is as important as understanding the dynamics of start-ups.

The indicators of entrepreneurial performance, computed by National Statistical Offices, are presented for the following countries: Australia, Austria, Belgium, Brazil, Bulgaria, Canada, the Czech Republic, Denmark, Estonia, Finland, Hungary, Israel, Italy, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United States.

A selection of **indicators of determinants of entrepreneurship** is also included in the publication: the choice of the indicators was based on their novelty, i.e. they were recently produced and or/updated by their producers.

Each indicator is preceded by a short text that explains what is measured and provides the policy context. A detailed description of the definition and explanations of the comparability of the indicator across countries are also included.

Indicators

The set of indicators that are part of the EIP framework have not all reached the same degree of development. Some of them are well established components of regular data collections, while others are only developed in a restricted number of countries and their harmonised definition forms the object of discussion and further work. The indicators presented in this publication reflect this diversity:

A) New enterprise creations

B) Bankruptcies

C) Self-employment
D) Enterprises by size class
E) Employment by enterprise size class
F) Value added by enterprise size class
G) Productivity by enterprise size class
H) Exports by enterprise size class
I) Birth rate of employer enterprises
J) Death rate of employer enterprises
K) Churn rate of employer enterprises
L) Survival rate of employer enterprises
M) Employment creation and destruction by employer enterprise births and deaths
N) Employment creation and destruction in surviving enterprises
O) High-growth enterprises rate
P) Gazelles rate
Q) Gender differences in self-employment rates
R) Self-employment among youths and seniors
S) Self-employment rates of migrants
T) Earnings from self-employment
U) Preferences and feasibility for self-employment
V) Culture: The role of entrepreneurial education
W) Culture: Attitude toward failure
X) Access to finance: Venture capital

Indicators A and B are drawn from the *OECD Timely Indicators of Entrepreneurship (TIE) Database*. Annex A provides the list of sources that are used to compile the database.

For indicators D, E, F, and I to P the source is the *OECD Structural and Demographic Business Statistics (SDBS) Database*. Indicators D to F refer to Structural Business Statistics, while indicators I to P, i.e. the core indicators of entrepreneurial performance, consist of Business Demography statistics computed from business registers, except for Mexico where the Economic Census (2009) was used. The *Eurostat-OECD Manual on Business Demography Statistics* developed by the EIP provides the definitions and methodology to compute Business Demography indicators. Indicator G originates from the *OECD Productivity Database*, and indicator H from the *OECD Trade by Enterprise Characteristics* (TEC) *Database*. SDBS and TEC data are collected annually via harmonised questionnaires completed by National Statistical Offices.

The indicators on self-employment come from Labour Force Surveys (indicators C, Q to S), Surveys on Income (indicator T) and an opinion survey on entrepreneurship conducted by the European Commission (indicator U).

The remaining indicators (V, W, X) represent a selection of determinants of entrepreneurship. The data sources for each indicator are described in more detail in the relevant section,

Size-class breakdown

Structural Business Statistics indicators usually focus on five size classes based on the number of **persons employed**, where the data across countries and variables can be most closely aligned: 1-9, 10-19, 20-49, 50-249, 250+. Not all country information fits perfectly into this classification however, and any divergence from these target size classes is reported in each chapter.

For Business Demography data, the collection breakdown is 1-4, 5-9, 10+ **employees** to reflect the fact that a vast majority of newly created enterprises are micro enterprises.

Activity breakdown

Total economy denotes the business economy, covering manufacturing, services and construction.

For Business Demography and Structural Business Statistics:

- For simplicity the publication refers throughout to manufacturing. In actual fact the reference covers a broader grouping of industries than those typically identified as manufacturing. Unless otherwise specified therefore, Manufacturing comprises: Mining and quarrying; Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities.
- Services comprise: Wholesale and retail trade, repair of motor vehicles and motorcycles; Transportation and storage; Accommodation and food service activities; Information and communication; Real estate activities; Professional, scientific and technical activities; Administrative and support service activities.

In addition, for Business Demography, services include financial and insurance activities; and exclude activities of holding companies (ISIC Revision 4 Sector 642), with the exception of Israel, Korea and the United States; for Structural Business Statistics, the entire section of financial and insurance activities is excluded from services, except for Canada and Korea.

For Korea, the sector Sewerage, waste management, materials recovery and remediation activities is included in the aggregate for services.

Data for Israel, Mexico and the United States are compiled according to ISIC Revision 3. Data for Austria, New Zealand and Slovenia are compiled according to ISIC Revision 4. For other countries data after 2007 are compiled in ISIC Revision 4 and data for 2007 and before are compiled in ISIC Revision 3.

EIP Framework

Entrepreneurship is defined by the EIP as the phenomenon associated with entrepreneurial activity, which is the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. In this sense, entrepreneurship is a phenomenon that manifests itself throughout the economy and in many different forms with many different outcomes, and these outcomes are not always related to the creation of financial wealth; for example, they may be related to increasing employment, tackling inequalities, or indeed, increasingly, environmental issues. The challenge of the EIP is to improve the understanding of these multiple manifestations. The programme recognises that no single indicator can ever adequately cover entrepreneurship, and it has therefore developed a set of measures that each captures a different aspect or type of entrepreneurship; these measures are referred to as EIP indicators of entrepreneurial performance. There are currently some 20 performance indicators covered in the EIP.

The EIP takes a comprehensive approach to the measurement of entrepreneurship by looking not only at the manifestation of the entrepreneurial phenomenon but also at the factors that influence it. These factors range from the market conditions to the regulatory framework, to the culture or the conditions of access to finance. While some areas of determinants lend themselves more readily to measurement (for instance, the existence and restrictiveness of anti-trust laws or the administrative costs of setting-up a new business in a country), for other determinants the difficulty resides in finding suitable measures (e.g. venture capital and angel capital) and/or in comprehending the exact nature of their relationship with entrepreneurship (e.g. culture). An important objective of the EIP in this instance is to contribute to and advance research on the less understood and less measurable determinants of entrepreneurship. Annex B presents a comprehensive list of indicators of determinants and the corresponding data sources.

Determinants						Entrepreneurial performance	Impact
Regulatory framework	*Market conditions*	*Access to finance*	*Knowledge creation and diffusion*	*Entrepreneurial capabilities*	*Culture*	***Firm based***	Job creation
Administrative burdens for entry	Anti-trust laws	Access to debt financing	R&D investment	Training and experience of entrepreneurs	Risk attitude in society	***Employment based***	Economic growth
Administrative burdens for growth	Competition	Business angels	University/industry interface	Business and entrepreneurship education (skills)	Attitudes towards entrepreneurs	***Wealth***	Poverty reduction
Bankruptcy regulations	Access to the domestic market	Access to VC	Technological co-operation between firms	Entrepreneurship infrastructure	Desire for business ownership		Formalising the informal sector
Safety, health and environmental regulations	Access to foreign markets	Access to other types of equity	Technology diffusion	Immigration	Entrepreneurship education (mindset)		
Product regulation	Degree of public involvement	Stock markets	Broadband access				
Labour market regulation	Public procurement						
Court and legal framework							
Social and health security							
Income taxes; wealth/bequest taxes							
Business and capital taxes	Patent system; standards						

Firms	***Employment***	***Wealth***
Employer enterprise birth rates	Share of high growth firms (by employment)	Share of high growth firms (by turnover)
Employer enterprise death rates	Share of gazelles (employment)	Share of gazelles (by turnover)
Business churn	Ownership rate start-ups	Value added, young or small firms
Net business population growth	Ownership rates business population	Productivity contribution, young or small firms
Survival rates at 3 and 5 years	Employment in 3 and 5 year old firms	Innovation performance, young or small firms
Proportion of 3 and 5 year old firms	Average firm size after 3 and 5 years	Export performance, young or small firms

1. RECENT DEVELOPMENTS IN ENTREPRENEURSHIP

New enterprise creations

Bankruptcies

Self-employment rates

New enterprise creations

Key facts

- Diverging patterns of business start-up rates have emerged across OECD economies five years after the onset of the financial crisis.
- Start-up rates remain below pre-crisis levels in most Euro area economies and particularly in Spain, but tentative signs of a stabilisation are emerging.
- In France start-up rates were boosted in 2009 and 2010 by new legislation supporting *auto-entrepreneurs*.

Relevance

The global crisis has heightened interest in entrepreneurship as an essential element to foster economic recovery and employment growth. In order to analyse the impacts of economic cycles on new firm creation, policy makers and analysts need as up-to-date as possible data. The short-term indicators presented in this section are an attempt to respond to this need.

Definitions

The *Timely Indicators of Entrepreneurship Database* uses data based on national definitions only. When possible, adjustments are made to get as close as possible to the *Eurostat-OECD Manual on Business Demography Statistics* standard definitions (for example by removing agriculture, excluding public companies and inactive companies, etc.).

Sources and definitions for enterprise entries used in the *Timely Indicators of Entrepreneurship Database* are described in Table A.1, Annex A.

Some of the national sources selected for the timely indicators use the concept of enterprise birth, while others use the broader concept of enterprise creation.

An enterprise creation refers to the emergence of a new production unit. This can be either due to a real birth of the unit, or due to other creations by a merger, break-up, split-off or discontinuity point according to the continuity rules.

Comparability

Since a single source is used, rather than the multiple sources used for national business registers, the population of enterprises is often incomplete. Depending on the country, the chosen single source may not cover certain legal forms of enterprises (e.g. sole proprietor) or sectors of activity (e.g. education) or enterprises below a certain turnover or employment threshold.

The concepts of enterprise "creation" reflected in the data series differ across countries. The concept of enterprise birth is more restrictive than the concept of creation as it refers to a legal entity that appears for the first time with no other enterprise involved in the creation process. It excludes firm creations resulting from mergers or changes of name, type of activity or ownership.

Some sources only cover specific types of enterprises: data for Australia exclude non-incorporated companies; data for Spain exclude natural persons and sole proprietors; data for the United States only refer to establishments with employees.

Because of the comparability issues described above international comparisons of data from the *Timely Indicators of Entrepreneurship Database* should focus on changes in levels rather than levels per se.

Notes

In France a new individual enterprise status (*régime de l'autoentrepreneur*) was implemented in January 2009.

The *trend-cycle* reflects the combined long-term (trend) and medium-to-long-term (cycle) movements in the original series (see *http://stats.oecd.org/glossary/detail.asp?ID=6693*).

Source/Online database

OECD Timely Indicators of Entrepreneurship (TIE) Database.

For further reading

Eurostat (2010), Estimation of recent business demography data, DOC.06/EN/EUROSTAT/G2/BD/JUN10.

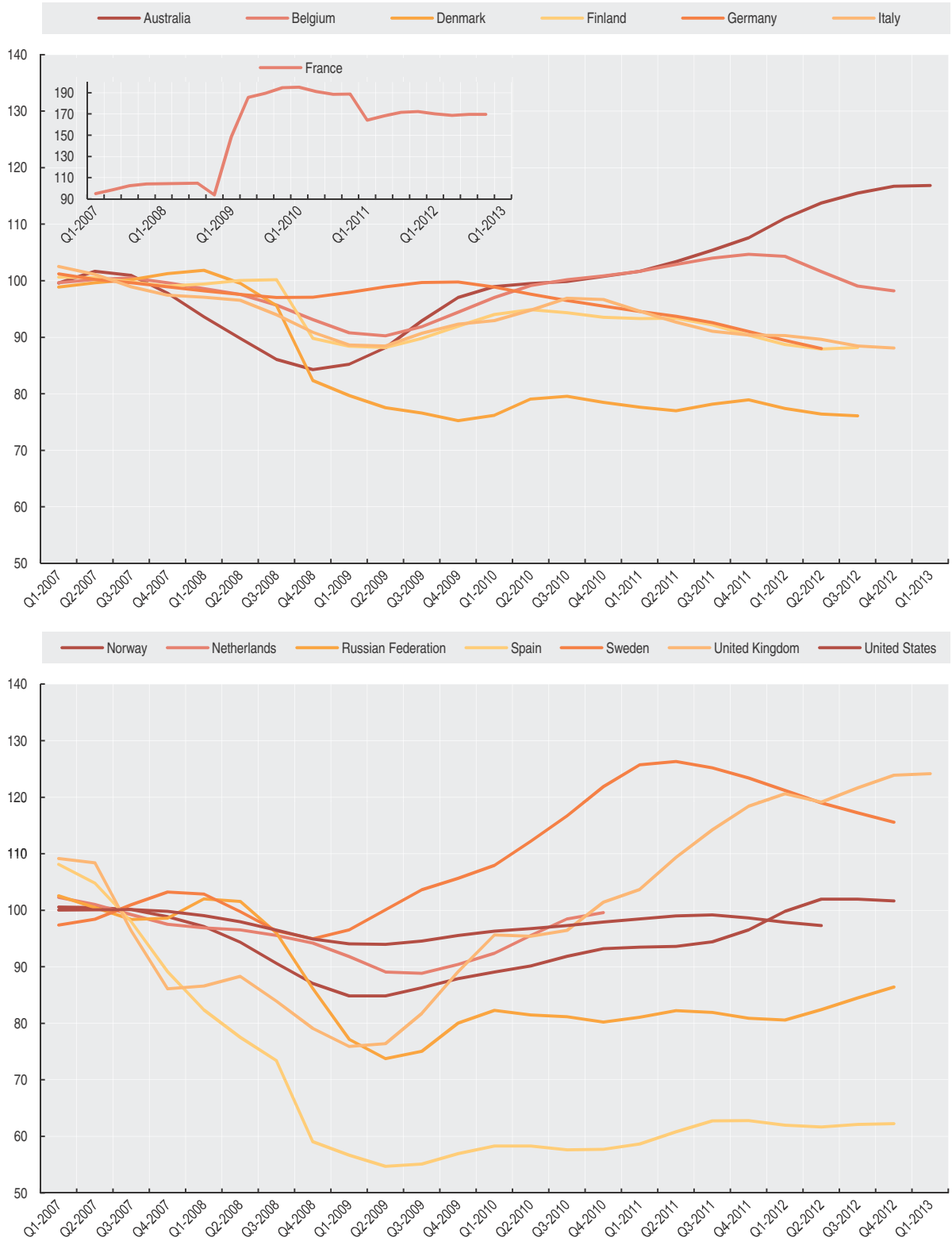
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15, *www.oecd.org/dataoecd/50/56/46413155.pdf*.

OECD (2011), *Entrepreneurship at a Glance 2011*, Chapter 1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264097711-en*.

UN (2008), International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations, New York, *http://unstats.un.org/unsd/cr/registry/isic-4.asp*.

Figure 1.1. **New enterprise creations, selected countries**

Trend-cycle average 2007 = 100



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Bankruptcies

Key facts

- Data on bankruptcies are less comparable across countries and more affected by national legislation.
- Data for Australia and the United Kingdom are broadly consistent with higher levels of business entry and exit rates, with bankruptcies edging slightly higher in recent years. Bankruptcy rates for Denmark and the United States are significantly below the highs reached at the height of the crisis but recent data for Denmark is beginning to point upward again.

Relevance

The recent global crisis has heightened interest in entrepreneurship as an essential element to foster economic recovery and employment growth. In order to analyse the impacts of economic cycles on new firm creation policy and also on failures, policy makers and analysts need as up-to-date as possible data. The short-term indicators presented in this section respond to this need.

Definitions

The *Timely Indicators of Entrepreneurship Database* uses data based on national definitions only. When possible, adjustments are made to get as close as possible to the *Eurostat-OECD Manual on Business Demography Statistics* standard definitions (for example by removing agriculture and public companies, exclude inactive companies, etc.).

Bankruptcy is used as an alternative indicator for the enterprise deaths measure recorded elsewhere in this publication.

Bankruptcy generally refers to the initiation of legal proceedings (insolvency) when an enterprise cannot guarantee the reimbursement of its debt. The firm may continue to live.

Sources for bankruptcies used in the *Timely Indicators of Entrepreneurship Database* are described in Table A.2, Annex A.

Comparability

Because bankruptcy laws differ across countries, the concept of enterprise "failure" reflected in the data differs across countries. In some countries a declaration of bankruptcy means that the enterprise must stop trading immediately. In other countries, enterprises can declare themselves as bankrupt but are able to continue trading with receivers in operational control. This results in the winding-up of the enterprise as it goes into liquidation but sometimes the enterprise is able to continue operating, albeit with more restrictive operations and under new management. This means that some enterprises on business registers, may be active but also bankrupt, making it very difficult to use a strict concept of deaths based on bankruptcy, particularly as some nominally bankrupt companies may recover.

On the other hand, firm closures can be due to different reasons, and only some consist of liquidations following bankruptcy. The financial literature has highlighted that countries differ in terms of the probabilities of firms being involved in bankruptcy or other insolvency procedures, and also in the final results of these procedures. The proportion of bankruptcy procedures that end up in actual liquidations of the companies, and not in reorganisations, varies across countries depending on the bankruptcy code.

Because of the comparability issues described above international comparisons of data from the *Timely Indicators of Entrepreneurship Database* should focus on changes in levels rather than levels per se.

Notes

The *trend-cycle* reflects the combined long-term (trend) and medium-to-long-term (cycle) movements in the original series (see *http://stats.oecd.org/glossary/detail.asp?ID=6693*).

Source/Online database

OECD Timely Indicators of Entrepreneurship (TIE) Database.

For further reading

Eurostat (2010), Estimation of recent business demography data, DOC.06/EN/EUROSTAT/G2/BD/JUN10.

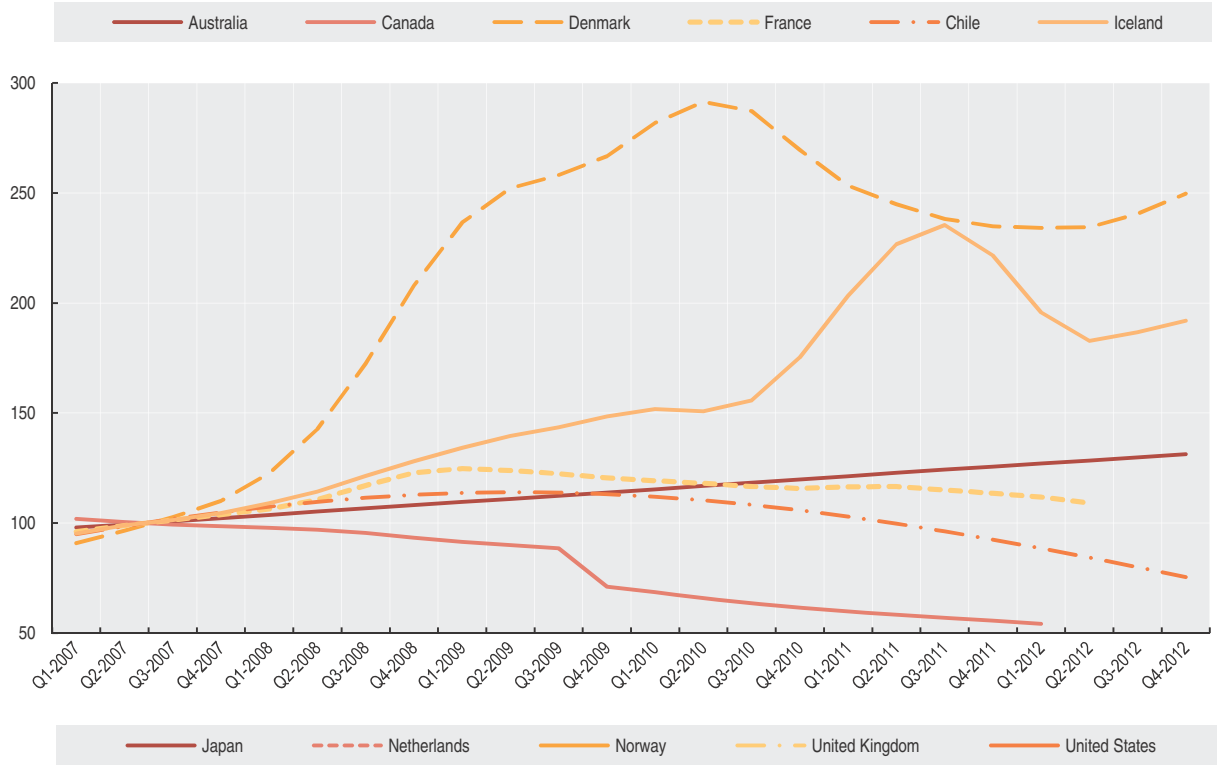
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15, *www.oecd.org/dataoecd/50/56/46413155.pdf*.

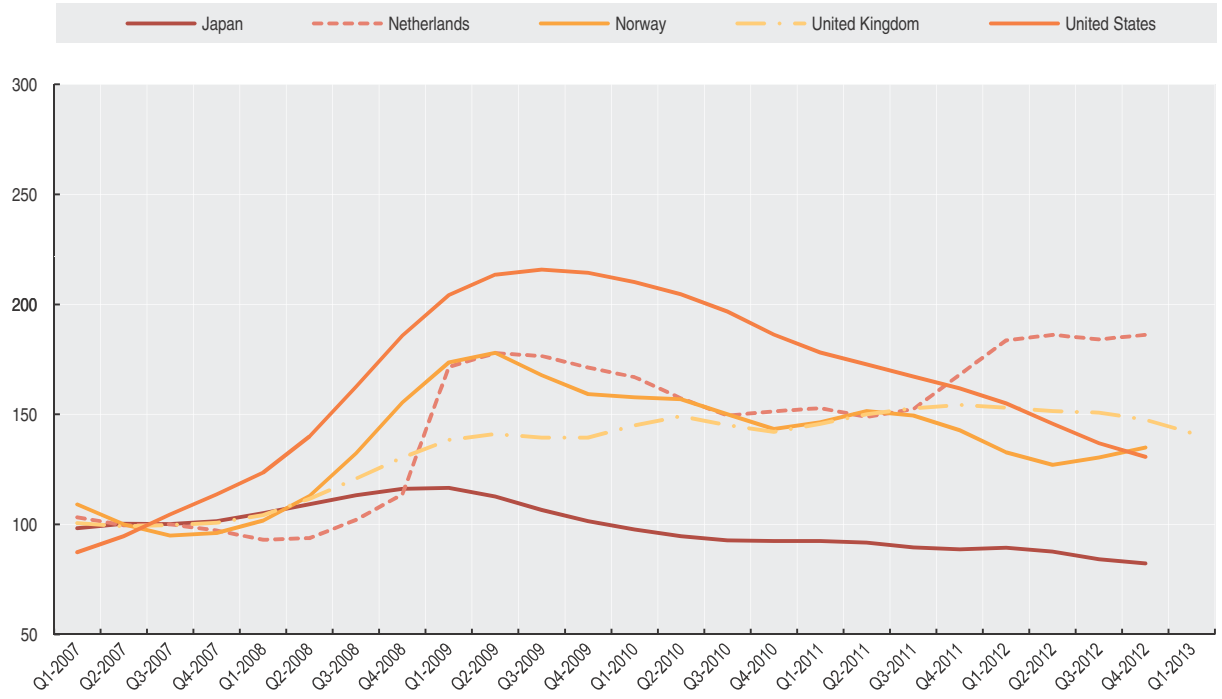
OECD (2011), *Entrepreneurship at a Glance 2011*, Chapter 1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264097711-en*.

UN (2008), International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations, New York, *http://unstats.un.org/unsd/cr/registry/isic-4.asp*.

Figure 1.2. **Bankruptcies, selected countries**

Trend-cycle average 2007 = 100





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Self-employment rates

Key facts

– Since the start of the economic crisis, the number of self-employed followed very different trends across OECD countries. Considering the level in 2007 as benchmark, the number of self-employed increased in Canada, France, Germany and the United Kingdom, while it decreased in Korea, Italy, Spain and the United States.

Relevance

Self-employment data are a relevant source of information on trends in business ownership. A key advantage of self-employment data is their timeliness; they are derived from surveys conducted quarterly or monthly on representative samples of the population in working age (Labour Force Surveys), and provide accurate data very soon after the collection (often less than a month). The data can also be used to assess trends in different types of self-employment jobs, for example distinguishing the self-employed with and without employees.

Definitions

The number of self-employed is the number of individuals who report their status as "self-employed" in population or labour force surveys.

Self-employment jobs are those "jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise" (15th Conference of Labour Statisticians, January 1993). The definition therefore includes both unincorporated and incorporated businesses and as such differs from the definitions used in the System of National Accounts which classifies self employed owners of incorporated businesses and quasi-corporations as employees.

It should be noted that not all the self-employed are "entrepreneurs". Self-employment statistics include for example, craft-workers and farmers.

Comparability

The main comparability issue relates to the classification of the incorporated self-employed. While in official statistics for most OECD countries, the self-employed who incorporate their businesses are counted as self-employed, in some countries they are counted as employees (for example, Japan, New Zealand and Norway). In the United States, official statistics generally publish data including only the unincorporated self-employed, but the data source (Current Population Surveys) also provide information on the self-employed who incorporated their businesses. For improving international comparability, data for the United States in Figure 1.3 refer to both the incorporated and the unincorporated self-employed.

Sources/Online databases

OECD estimates based on:

– Current Population Survey (United States).
– Eurostat Labour Force Surveys, 2000-12.
– Labour Force Survey (Canada).

For further reading

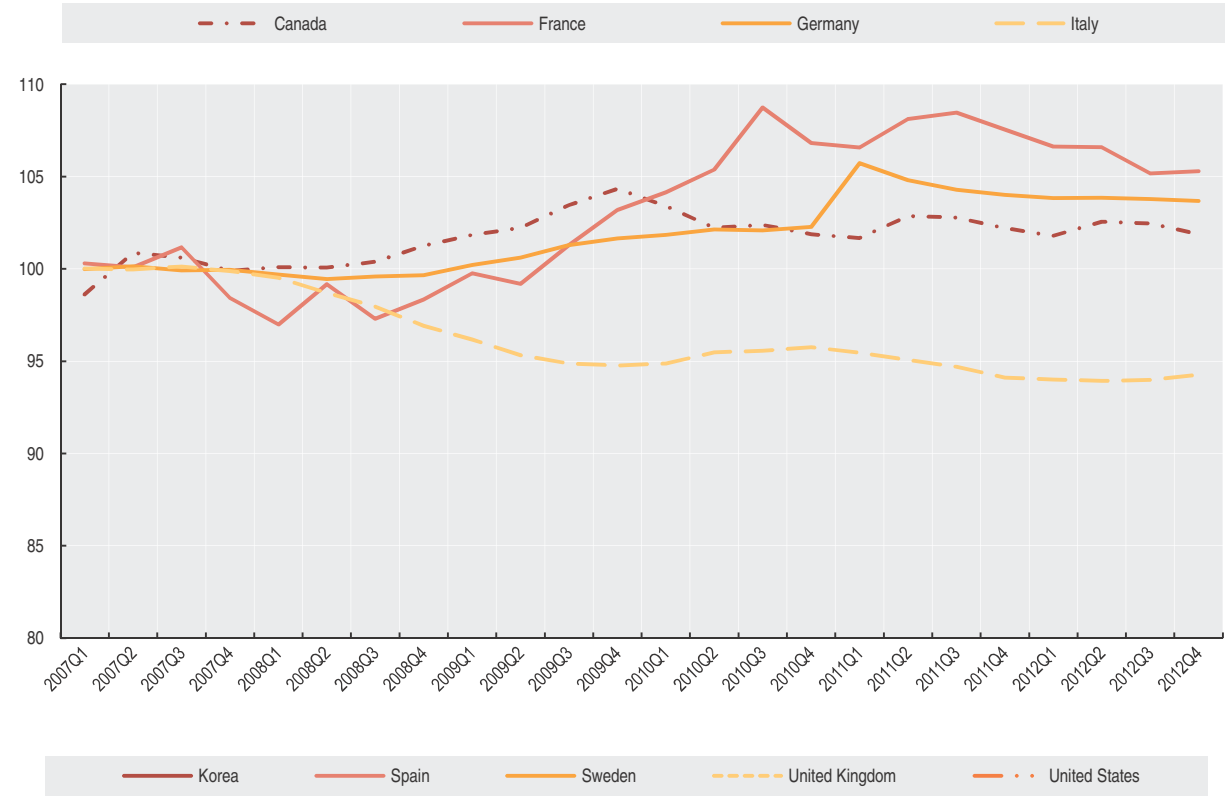
Hipple, S. (2010), "Self-employment in the United States", Monthly Labor Review, September.

OECD (2012), *Closing the Gender Gap. Act Now*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/close-the-gender-gap-now_9789264179370-en*.

OECD (2000), *OECD Employment Outlook*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/oecd-employment-outlook-2000_empl_outlook-2000-en*.

Figure 1.3. **Number of self-employment jobs**

Number of jobs, trend-cycle average 2007 = 100



StatLink http://dx.doi.org/10.1787/888932828165

2. STRUCTURAL INDICATORS ON ENTERPRISE POPULATION

Enterprises by size class

Employment by size class

Value added by size class

Productivity by enterprise size class

Exports by enterprise size class

Enterprises by size class

Key facts

- In all countries most business are micro-enterprises, i.e. firms with less than ten persons employed; between 70% and 95% of all firms are micro-enterprises.
- In half of OECD countries, micro-enterprises account on average for more than 90% of total enterprises, with the highest proportion of micro-enterprises being found in the services sector.
- Generally, the larger the economy the greater the number of enterprises and the higher the proportion of larger enterprises. Italy, and to a lesser extent Spain have disproportionately more businesses per unit of GDP than other large European economies, such as France, Germany and the United Kingdom, or resource rich countries such as Canada and the Russian Federation.

Relevance

Small businesses can be important drivers of growth and innovation. At the same time, larger businesses typically have competitive advantages through, for example, economies of scale, cheaper credit and direct access to global value chains, compared to smaller enterprises. Size matters therefore when formulating policy.

Definitions

An enterprise is defined as the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations.

The basis for size classification is the *total number of persons employed*, which includes the self-employed.

Comparability

All countries present information using the enterprise as the statistical unit except Japan, Korea and Mexico which use establishments. As most enterprises in these countries consist of only one establishment, comparability issues are not expected to be significant in relation to the total population of businesses but comparisons relating to the proportion of smaller firms will be upward biased, compared to other countries, whilst comparisons relating to the proportion of larger firms will be downward biased.

The number of persons employed corresponds to the total number of persons who work for the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers). For the United States, the number of non-employer firms from the *Non employer Statistics Database* was added to the number of employer firms from the *Statistics of U.S. Businesses*, so to obtain the total number of firms with 1 to 9 persons employed.

The size-class breakdown 1-9, 10-19, 20-49, 50-249, 250+ provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions: the size class "1-9" refers to "1-10" for Mexico; "1-19" for Australia and Turkey; the size class "10-19" refers to "10-29" for Japan and "10-49" for Korea; the size class "20-49" refers to "20-199" for Australia, "30-49" for Japan, "50-99" for Korea, "11-50" for Mexico, and "20-99" for the United States; the size class "50-249" refers to "100-299" for Korea, "50-299" for Japan, "51-250" for Mexico and "100-499" for the United States; finally, the size class "250+" refers to "200+" for Australia, "300+" for Korea and Japan, "251+" for Mexico and "500+" for the United States.

Australian data refer to the fiscal year (1st July -30th June).

For New Zealand and the Russian Federation data refer to employees.

Sources/Online databases

OECD Structural and Demographic Business Statistics (SDBS) Database, *http://dx.doi.org/10.1787/sdbs-data-en*.

Nonemployer Statistics, United States Census Bureau, *www.census.gov/econ/nonemployer/overview.htm*.

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For further reading

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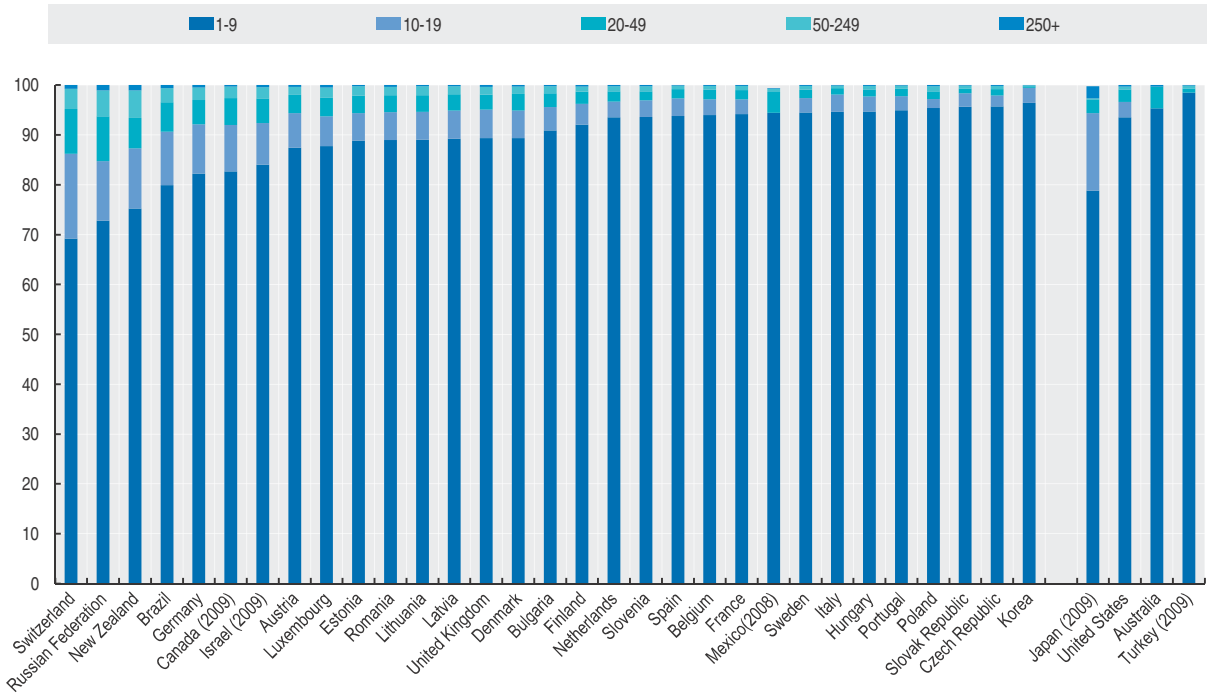
Ahmad N. (2007), The *OECD's Business Statistics Database* and Publication, Paper presented at the Structural Business Statistics Expert Meeting, Paris, 10-11 May 2007, *www.oecd.org/dataoecd/59/34/38516035.pdf*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 2.1. **Enterprises by size class**

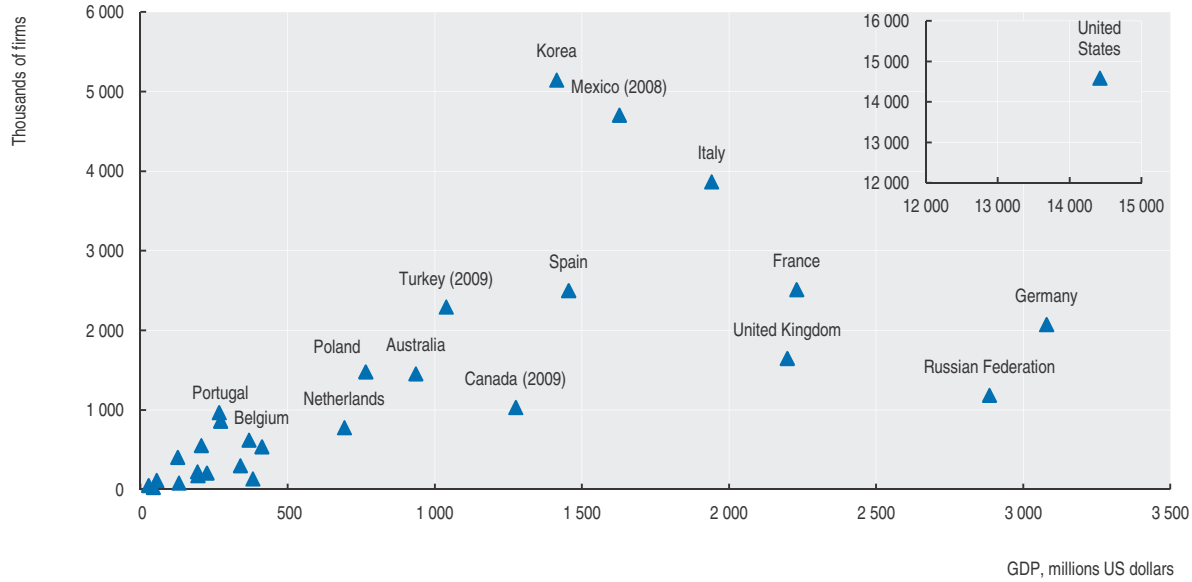
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828184

Figure 2.2. **Number of enterprises and GDP**

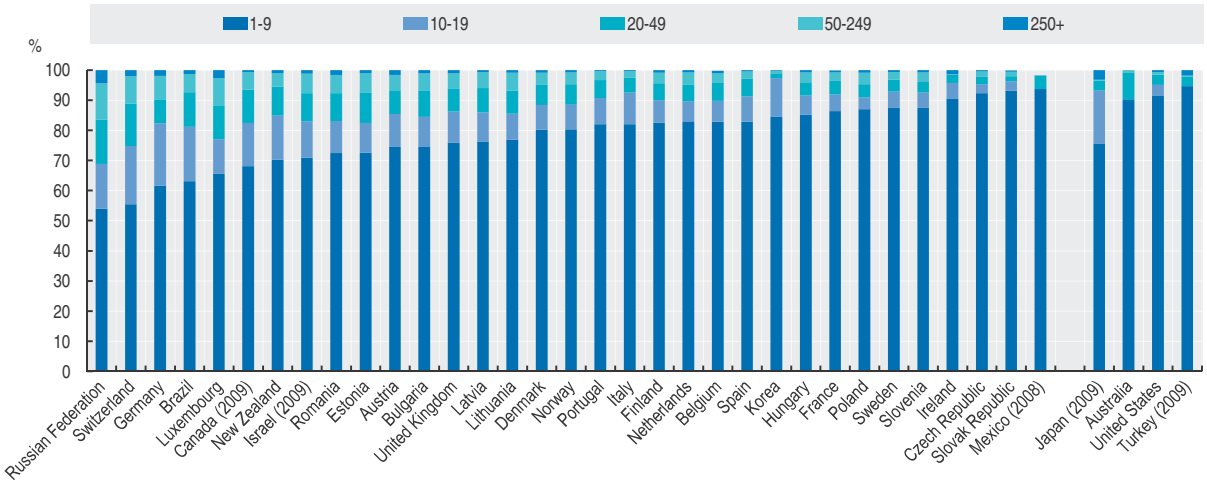
2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828203

Figure 2.3. **Enterprises by size class, manufacturing**

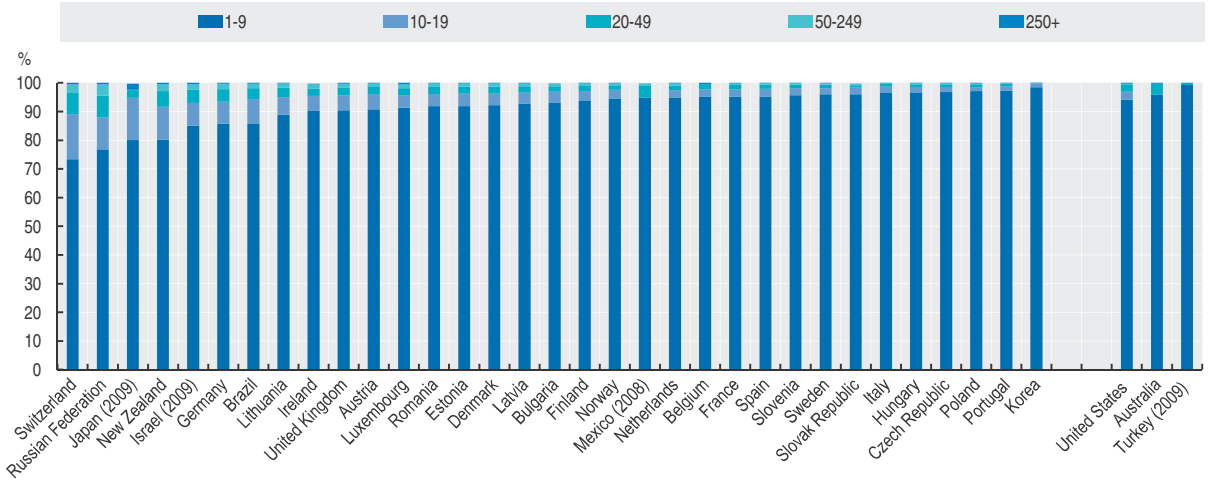
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828222

Figure 2.4. **Enterprises by size class, services**

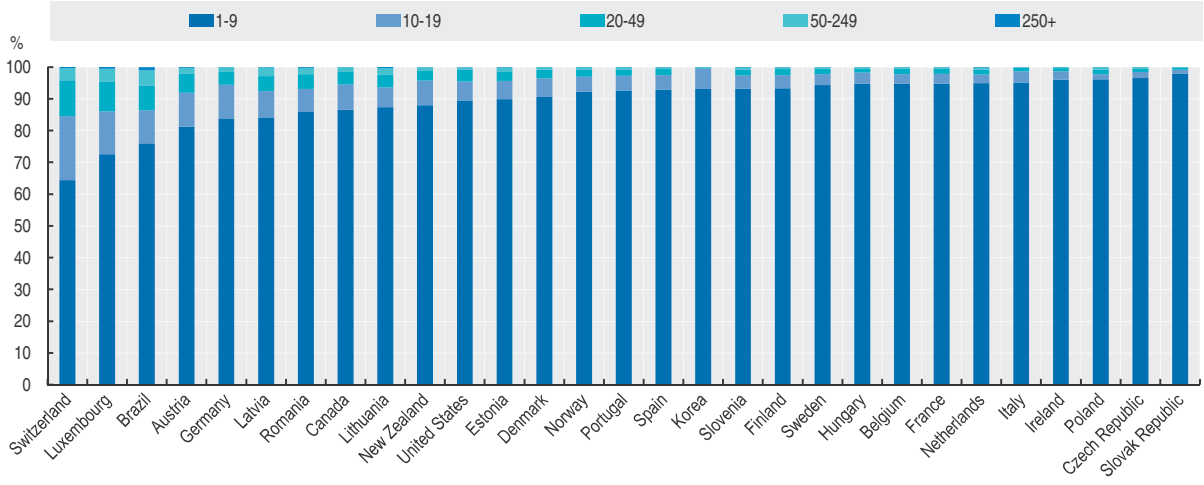
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828241

Figure 2.5. **Enterprises by size class, construction**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828260

Table 2.1. **Enterprises by size class and sector**

Percentage, 2010 or latest available year

Country	Manufacturing					Services					Construction				
	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+
Australia	90.3	–	8.9	–	0.8	95.9	–	3.8	–	0.3					
Austria	74.4	10.9	7.9	5.1	1.6	90.8	5.3	2.6	1.1	0.2	81.2	10.8	5.9	1.9	2.1
Belgium	83.1	7.0	5.9	3.3	0.8	95.2	2.5	1.5	0.7	0.1	94.7	3.1	1.7	0.5	0.6
Brazil	63.1	18.1	11.5	6.1	1.3	85.9	8.4	3.8	1.5	0.3	76.0	10.3	7.9	4.7	1.0
Bulgaria	74.5	9.9	8.6	5.8	1.2	93.1	4.0	1.9	0.9	0.2					
Canada	68.1	14.2	11.1	5.9	0.6	80.7	10.3	6.2	2.5	0.3	86.6	7.9	4.1	1.3	0.1
Czech Republic	92.3	3.0	2.4	1.8	0.5	96.8	1.8	0.9	0.4	0.1	96.6	1.9	1.1	> 0.1	> 0.1
Denmark	80.2	8.2	6.7	4.1	0.9	92.3	4.0	2.4	1.1	0.2	90.6	5.8	2.7	0.8	0.9
Estonia	72.5	9.9	10.0	6.6	1.0	91.9	4.4	2.4	1.2	0.1	89.9	5.7	3.1	1.2	1.3
Finland	82.6	7.4	5.6	3.5	0.9	93.8	3.3	1.8	0.8	0.2	93.3	4.1	1.9	0.5	0.6
France	86.5	5.5	4.7	2.6	0.7	95.2	2.5	1.5	0.6	0.1	94.8	3.0	1.7	> 0.1	> 0.1
Germany	61.6	20.7	7.8	8.0	2.0	85.8	7.7	4.3	1.9	0.3	83.6	10.8	4.2	1.3	1.4
Hungary	85.2	6.4	4.4	3.3	0.8	96.5	2.1	0.9	0.4	0.1	94.7	3.5	1.3	> 0.1	> 0.1
Ireland	48.0	22.0	15.8	11.1	3.1	90.4	5.3	2.6	1.5	0.2	96.0	2.6	1.0	> 0.1	> 0.1
Israel (2009)	70.8	12.1	9.4	6.5	1.2	85.1	7.9	4.7	2.0	0.4					
Italy	82.0	10.5	5.0	2.1	0.3	96.4	2.3	0.8	0.4	0.1	95.1	3.6	1.1	> 0.1	> 0.1
Japan (2009)	75.6	17.6	3.2	3.2	0.3	80.0	14.8	2.6	2.2	0.1					
Korea	84.5	12.8	1.5	0.9	0.2	98.4	1.3	0.1	0.0	0.1	93.1	6.5	> 0.1	> 0.1	> 0.1
Latvia	76.2	9.7	8.0	5.3	0.7	92.7	3.8	2.3	1.0	0.2	84.1	8.3	4.7	2.7	2.8
Lithuania	76.9	8.6	7.6	5.9	0.9	88.9	6.1	3.3	1.5	0.2	87.3	6.3	3.9	2.2	2.5
Luxembourg	65.7	11.3	11.0	9.3	2.7	91.4	4.1	2.6	1.4	0.5	72.5	13.5	9.3	4.2	4.7
Mexico (2008)	95.5	–	4.4	0.1	> 0.1	95.0	–	4.2	0.7	0.1					
Netherlands	82.7	6.9	5.5	4.1	0.8	94.9	2.5	1.5	0.8	0.2	94.9	2.7	1.6	0.7	0.8
New Zealand	70.2	14.7	9.5	4.6	1.0	80.1	11.6	5.4	2.5	0.4	88.0	7.7	3.3	0.9	> 0.1
Norway	80.4	8.1	6.8	3.9	0.8	94.5	3.0	1.6	0.7	0.1	92.2	4.8	2.3	0.6	0.7
Poland	87.0	3.9	4.3	3.8	0.9	97.1	1.3	0.9	0.6	0.1	96.1	1.6	1.4	0.8	0.9
Portugal	82.0	8.7	6.0	3.0	0.4	97.3	1.5	0.8	0.3	0.1	92.6	4.6	2.0	0.6	0.7
Romania	72.5	10.6	9.2	6.1	1.6	91.9	4.3	2.4	1.2	0.2	85.9	7.2	4.6	2.0	2.3
Russian Federation	54.0	14.8	14.7	12.1	4.4	76.9	11.1	7.6	3.9	0.5					
Slovak Republic	93.3	3.1	1.7	1.5	0.4	96.3	2.5	0.6	0.5	0.1	97.8	1.4	0.5	> 0.1	> 0.1
Slovenia	87.4	5.1	3.5	3.3	0.7	95.7	2.5	1.2	0.5	0.1	93.2	4.1	1.9	0.7	0.8
Spain	82.9	8.3	5.9	2.4	0.4	95.2	2.7	1.4	0.6	0.1	92.9	4.5	2.0	0.6	0.6
Sweden	87.4	5.4	3.9	2.6	0.7	96.0	2.1	1.2	0.5	0.1	94.3	3.4	1.8	> 0.1	0.5
Switzerland	55.5	19.3	14.0	9.2	2.0	73.3	15.8	7.4	3.0	0.5	64.4	20.2	11.3	3.8	4.2
Turkey (2009)	94.6	–	3.1	1.9	0.4	99.2	–	0.5	0.3	0.1					
United Kingdom	75.9	10.4	7.6	5.0	1.1	90.4	5.2	2.7	1.4	0.3					
United States	91.6	3.5	3.3	0.9	0.6	94.1	2.8	2.3	0.5	0.3	89.5	5.9	3.9	0.6	0.1

StatLink http://dx.doi.org/10.1787/888932829742

Employment by size class

Key facts

- There are significant variations across countries in the distribution of employment among enterprises of different sizes: in Greece, Italy, Mexico, Portugal and Spain more than 40% of employment is in enterprises with less than ten persons, while in Germany, New Zealand, Switzerland and the United Kingdom the share is less than 20%.
- Micro-enterprises (less than 10 persons employed) in construction and services account on average for around 30% of total employment in their sectors, while in manufacturing the contribution is only 15%.
- Employment in manufacturing is dominated by the largest firms (those with more than 250 employees): they employ more than 40% of people working in the sector, despite accounting for less than 1% of all manufacturing firms.

Relevance

Although the share of employment in small enterprises is typically small, many studies show that they are important drivers of employment growth. Information on employment by size-class can be useful therefore in assessing the underlying potential that exists within an economy to generate employment growth.

Definitions

The *number of persons employed* concept includes all persons who worked for the concerned unit during the reference year.

Total employment excludes directors of incorporated enterprises and members of shareholders' committees who are paid solely for their attendance at meetings, labour force made available to the concerned unit by other units and charged for, persons carrying out repair and maintenance work in the unit on the behalf of other units, and home workers. It also excludes persons on indefinite leave, military leave or those whose only remuneration from the enterprise is by way of a pension.

Comparability

All countries present information using the enterprise as the statistical unit except Japan and Mexico, which use establishments. Data for all countries refer to the number of persons employed, with the exception of New Zealand, the Russian Federation and the United States which use *number of employees* and therefore exclude the working-proprietors with no employees.

The size-class breakdown 1-9, 10-19, 20-49, 50-249, 250+ provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions: the size class "1-9" refers to "1-10" for Mexico, and "1-19" for Australia and Turkey; the size class "10-19" refers to "10-29" for Japan; the size class "20-49" refers to "20-199" for Australia, "30-49" for Japan, "11-50" for Mexico, "20-99" for the United States; the size class "50-249" refers to "50-299" for Japan, "51-250" for Mexico and "100-499" for the United States; finally, the size class "250+" refers to "200+" for Australia, "300+" for Japan, "251+" for Mexico and "500+" for the United States.

Australian data refer to the fiscal year (1st July -30th June).

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

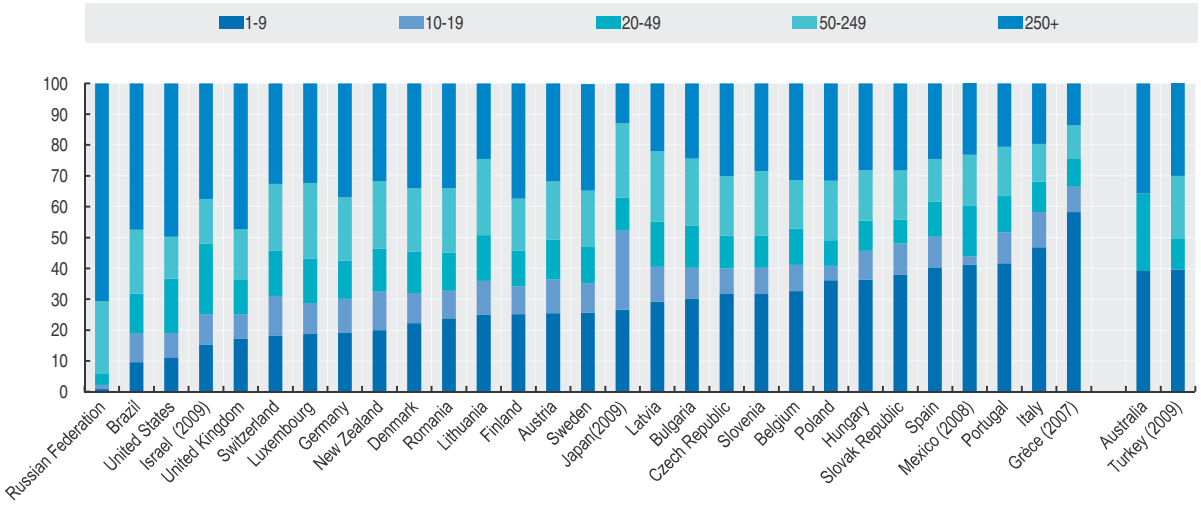
OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Ahmad N. (2007), The *OECD's Business Statistics Database* and Publication, Paper presented at the Structural Business Statistics Expert Meeting, Paris, 10-11 May 2007, *www.oecd.org/dataoecd/59/34/38516035.pdf*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 2.6. **Employment by enterprise size class**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828279

Table 2.2. **Number of persons employed by enterprise size class**

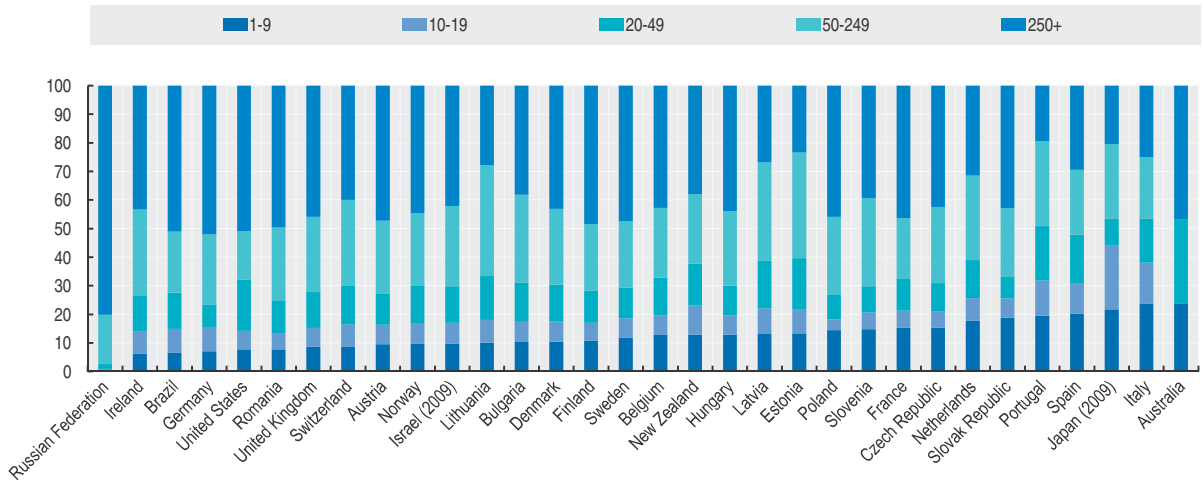
2010 or latest available year

	1-9	10-19	20-49	50-249	250+	Total
Australia	2 584 127	–	1 661 368	–	2 358 621	6 604 115
Austria	650 694	279 438	331 957	481 810	813 383	2 557 282
Belgium	864 178	224 301	312 419	416 153	832 110	2 649 161
Brazil	1 779 291	1 773 368	2 368 190	3 884 749	8 846 245	18 651 843
Bulgaria	580 293	194 264	262 492	420 392	470 494	1 927 935
Czech Republic	1 096 986	286 260	365 214	670 664	1 041 015	3 460 139
Denmark	241 375	106 164	145 111	223 269	368 920	1 084 839
Finland	356 233	128 988	164 419	238 206	530 350	1 418 196
Germany	4 794 818	2 727 783	3 070 960	5 121 257	9 217 567	24 932 385
Greece (2007)	1 513 452	213 860	241 815	276 970	353 931	2 600 028
Hungary	887 282	226 077	237 631	401 037	685 235	2 437 262
Israel (2009)	396 226	257 889	597 382	975 826	378 444	2 605 767
Italy	7 166 368	1 750 805	1 515 082	1 870 930	3 006 611	15 309 796
Japan (2009)	11 758 419	11 322 099	4 729 586	10 642 397	5 711 923	44 164 424
Latvia	157 478	61 620	78 632	123 703	118 723	540 156
Lithuania	193 252	85 327	115 487	190 920	190 217	775 203
Luxembourg	43 557	23 185	33 374	57 140	74 972	232 228
Mexico (2008)	10 847 170	738 328	4 360 272	4 315 095	6 859 924	27 120 789
New Zealand	209 670	132 790	145 240	229 265	332 850	2 557 282
Poland	3 025 091	393 186	698 409	1 608 893	2 646 801	8 372 380
Portugal	1 357 276	326 015	383 712	518 286	671 775	3 257 064
Romania	885 711	330 976	458 929	777 551	1 260 056	3 713 223
Russian Federation	157 088	234 944	644 452	4 234 316	12 717 755	17 988 555
Slovak Republic	559 194	148 927	112 549	234 800	415 968	1 471 438
Slovenia	191 945	51 198	62 832	126 633	172 117	604 725
Spain	4 832 688	1 188 320	1 375 814	1 651 414	2 940 914	11 989 150
Sweden	745 282	273 754	347 079	524 204	1 000 489	2 890 808
Switzerland	461 926	332 160	374 797	556 013	835 118	2 560 014
Turkey (2009)	2 580 470		663 310	1 316 874	2 069 109	6 629 763
United Kingdom	3 043 757	1 426 126	1 954 485	2 939 554	8 374 955	17 738 877
United States	8 491 267	5 965 694	13 339 600	10 325 133	37 779 367	75 901 061

StatLink http://dx.doi.org/10.1787/888932829761

Figure 2.7. **Employment by enterprise size class, manufacturing**

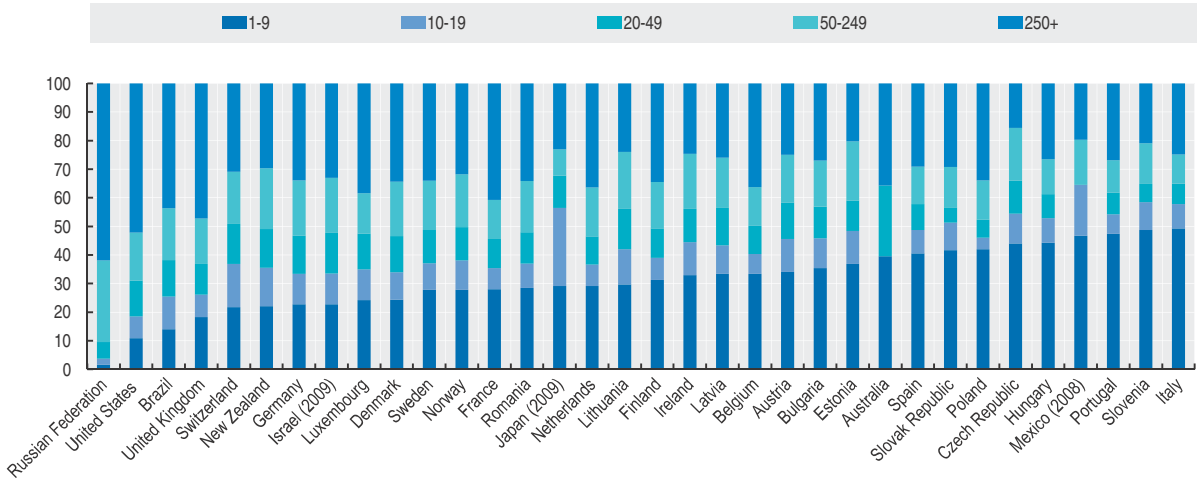
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828298

Figure 2.8. **Employment by enterprise size class, services**

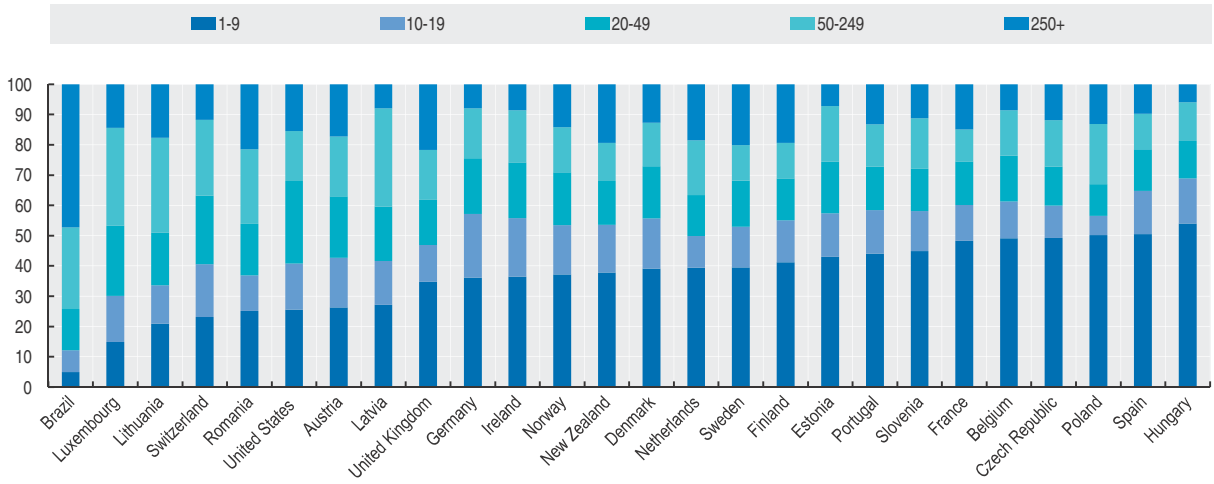
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828317

Figure 2.9. **Employment by enterprise size class, construction**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828336

Table 2.3. **Persons employed by enterprise size class and sector**

Percentage, 2010 or latest available year

	Manufacturing					Services					Construction				
	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+
Australia	23.7	–	29.6	–	46.7	39.6	–	24.7	–	35.7	59.8	–	21.2	–	19.0
Austria	9.6	6.7	11.0	25.4	47.2	34.1	11.5	12.7	16.7	24.9	26.3	16.4	20.3	19.8	17.2
Belgium	12.8	6.8	13.2	24.4	42.7	33.4	7.0	9.8	13.6	36.3	49.2	12.1	15.1	15.1	8.5
Brazil	6.7	8.2	12.6	21.5	51.0	14.0	11.5	12.7	18.2	43.6	5.0	7.2	13.6	27.0	47.2
Bulgaria	10.3	7.1	13.8	30.7	38.2	35.4	10.4	11.1	16.1	27.0					
Czech Republic	15.4	5.6	10.0	26.7	42.4	44.0	10.4	11.5	18.5	15.6	49.3	10.6	12.9	15.3	11.9
Denmark	10.5	7.0	12.8	26.5	43.1	24.3	9.6	12.8	19.0	34.4	39.2	16.5	17.2	14.4	12.7
Estonia	13.3	8.5	17.8	37.0	23.4	36.9	11.5	10.6	20.8	20.3	43.1	14.3	17.1	18.3	7.2
Finland	10.8	6.2	11.2	23.3	48.4	31.3	7.6	10.4	16.2	34.5	41.2	13.8	13.8	11.7	19.4
France	15.3	6.0	11.1	21.3	46.3	28.0	7.4	10.1	13.7	40.7	48.3	11.8	14.4	10.6	14.9
Germany	7.1	8.5	7.7	24.6	52.1	22.7	10.7	13.3	19.3	34.0	36.1	21.1	18.4	16.5	7.9
Greece (2007)	58.2	8.2	9.3	10.7	13.6										
Hungary	12.9	6.7	10.4	26.1	43.8	44.2	8.6	8.4	12.2	26.5	54.0	14.9	12.4	12.7	6.0
Ireland	6.4	7.7	12.5	30.0	43.3	32.9	11.5	11.7	19.2	24.6	36.5	19.3	18.4	17.3	8.6
Israel (2009)	9.8	7.3	12.5	28.3	42.1	22.8	10.7	14.3	19.2	33.0					
Italy	23.6	14.4	15.5	21.4	25.1	49.3	8.6	7.1	10.2	24.8	64.3	15.3	10.2	6.9	3.3
Japan (2009)	21.8	22.2	9.6	26.0	20.5	29.1	27.4	11.3	9.2	23.0					
Latvia	13.1	9.0	16.7	34.3	26.8	33.4	10.0	13.1	17.5	26.0	27.1	14.5	18.0	32.4	8.0
Lithuania	10.1	7.9	15.4	38.8	27.8	29.7	12.3	14.2	19.9	24.0	20.9	12.7	17.5	31.2	17.7
Mexico (2008)	25.4	9.3	–	15.9	49.3	46.7	17.8		15.8	19.7					
Netherlands	17.7	8.0	13.3	29.6	31.4	29.1	7.5	9.8	17.1	36.4	39.4	10.5	13.5	18.1	18.5
New Zealand	12.9	10.2	14.7	24.2	38.0	22.1	13.4	13.5	21.2	29.7	37.8	15.7	14.5	12.6	19.4
Norway	9.6	7.1	13.4	25.4	44.5	27.8	10.3	11.7	18.4	31.8	37.2	16.3	17.5	14.9	14.2
Poland	14.4	3.8	8.7	27.1	45.9	42.0	4.1	6.2	13.8	33.9	50.2	6.3	10.4	19.9	13.1
Portugal	19.6	12.2	19.0	29.7	19.5	47.4	6.9	7.6	11.2	26.9	44.0	14.4	14.4	14.0	13.2
Romania	7.8	5.7	11.3	25.7	49.5	28.4	8.5	11.0	17.9	34.1	25.1	11.8	17.1	24.7	21.4
Russian Federation	0.3	0.6	1.7	17.3	80.1	1.6	2.2	5.8	28.6	61.9					
Slovak Republic	18.8	6.7	7.5	24.1	42.9	41.6	9.7	5.1	14.3	29.3	61.2	9.9	8.1	12.7	8.0
Slovenia	14.8	5.9	9.2	30.7	39.4	48.8	9.7	6.4	14.2	21.0	44.9	13.2	13.9	16.7	11.2
Spain	20.1	10.6	17.0	22.7	29.5	40.6	8.2	9.1	13.0	29.1	50.5	14.2	13.8	11.7	9.8
Sweden	12.0	6.7	10.7	23.1	47.5	27.8	9.3	11.6	17.2	34.1	39.5	13.4	15.2	11.8	20.1
Switzerland	8.8	7.7	13.7	29.9	40.0	21.7	15.2	14.0	18.2	30.9	23.1	17.4	22.7	25.0	11.8
United Kingdom	8.7	6.6	12.5	26.3	45.9	18.2	7.9	10.7	15.9	47.3	34.8	12.1	14.9	16.6	21.6
United States	7.7	6.6	17.9	16.9	50.9	10.9	7.6	12.6	16.7	52.2	25.6	15.2	27.3	16.4	15.5

StatLink http://dx.doi.org/10.1787/888932829780

Value added by size class

Key facts

- In most countries, enterprises with more than 250 persons employed account for a considerable part of the value added of the business sector – 40% on average – despite less than 2% of businesses.
- The share of value-added created by large enterprises varies significantly across countries with over 50% in Brazil and the United Kingdom and around 25% in Greece.
- Micro-enterprises contribute around 20% of value added in most economies, with the share ranging from as little as 4% in Japan to nearly 40% in Greece.

Relevance

There are significant differences in entrepreneurship and productivity performance across countries. Part of the explanation for these differences relates to enterprise size. Larger enterprises for example have typically higher productivity levels than smaller enterprises. Measures of value added broken down by size class therefore provide important insights into structural factors that drive growth, employment and entrepreneurial value.

Definitions

Value added corresponds to the difference between production and intermediate consumption, where total intermediate consumption is valued at purchasers' prices. Depending on the valuation of production and on the treatment applied to indirect taxes and subsidies of production, the valuation of value added is either at basic prices, producers' prices or factor costs.

Data in this section present the value added in each enterprise size class (defined by the number of persons employed) as a percentage of the value added of all enterprises.

Comparability

Data refer to value added at factor costs in EU countries and value added at basic prices for other countries.

The size-class breakdown 1-9, 10-19, 20-49, 50-249, 250+ persons employed provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions: for Australia, the size class "1-9" refers to "1-19", "20-49" refers to "20-199", "250+" refers to "200+"; for Israel, "50-249" refers to "50+"; for Japan "1-9" refers to "4-9 ; for Korea "1-9" refers to "5-9"; for Mexico "1-9" refers to "1-10", "10-19" refers to "11-20", "20-49" refers to "21-50", "50-249" refers to "51-250", "250+" refers to "251+"; for Turkey the size class "1-9" refers to "1-19".

Data cover the market economy, excluding financial intermediation. Only manufacturing is covered for Japan.

Source/Online database

OECD *Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en*.

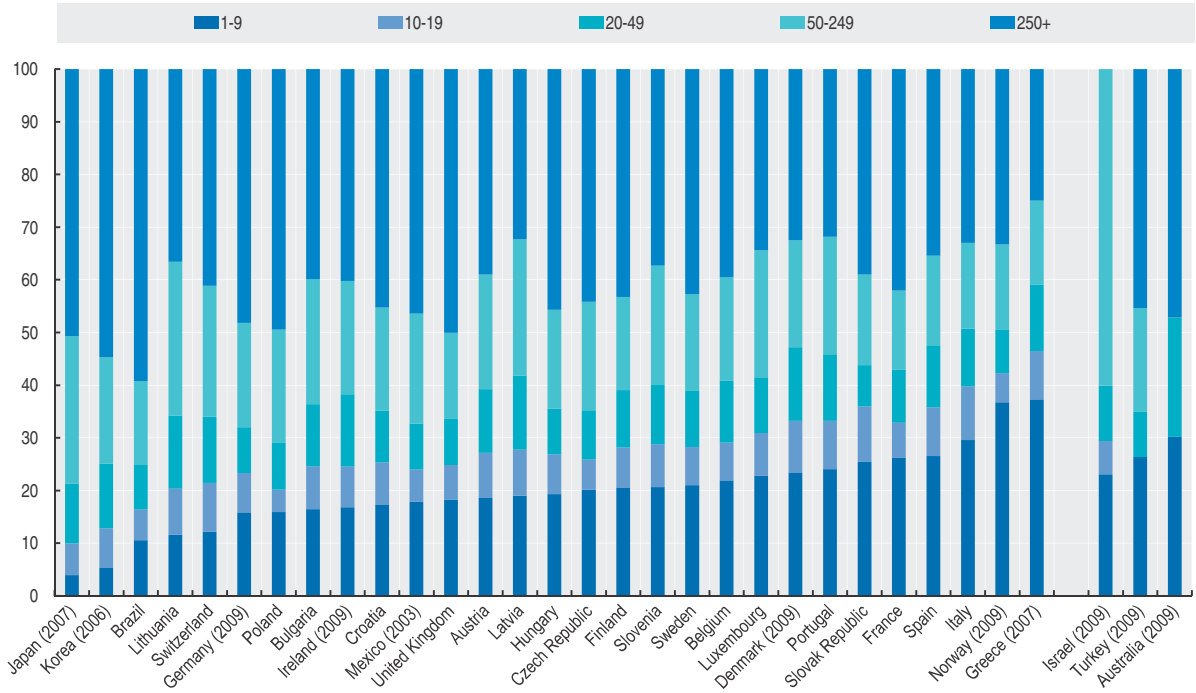
For further reading

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 2.10. **Value added by enterprise size class**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828355

Table 2.4. **Value added by enterprise size class**

Percentage, 2010 or latest available year

	1-9	10-19	20-49	50-249	250+
Australia (2009)	30.18	–	22.66	–	47.16
Austria	18.58	8.60	12.08	21.72	39.02
Belgium	21.92	7.20	11.76	19.63	39.48
Brazil	10.58	5.84	8.44	15.90	59.24
Bulgaria	16.48	8.10	11.81	23.76	39.86
Czech Republic	20.14	5.72	9.40	20.58	44.16
Denmark (2009)	23.35	9.91	13.93	20.28	32.53
Finland	20.59	7.63	10.87	17.67	43.26
France	26.18	6.71	10.08	14.97	42.05
Germany (2009)	15.86	7.48	8.66	19.85	48.15
Greece (2007)	37.29	9.20	12.64	15.92	24.95
Hungary	19.30	7.56	8.71	18.73	45.70
Ireland (2009)	16.83	7.69	13.77	21.50	40.20
Israel	23.07	6.31	10.52	60.10	
Italy	29.59	10.20	10.95	16.30	32.96
Japan (2007)	3.98	5.97	11.36	28.01	50.68
Korea (2006)	5.40	7.45	12.26	20.22	54.68
Latvia	19.01	8.76	14.01	25.91	32.30
Lithuania	11.59	8.78	13.85	29.20	36.58
Luxembourg	22.77	8.16	10.58	24.13	34.37
Mexico (2003)	17.85	6.16	8.65	20.94	46.39
Norway (2009)	36.73	5.58	8.15	16.27	33.27
Poland	15.91	4.29	8.87	21.50	49.42
Portugal	24.09	9.15	12.62	22.32	31.83
Slovak Republic	25.50	10.47	7.84	17.22	38.97
Slovenia	20.63	8.15	11.39	22.54	37.29
Spain	26.57	9.20	11.83	17.02	35.39
Sweden	21.00	7.26	10.72	18.29	42.73
Switzerland	12.19	9.25	12.58	24.85	41.13
Turkey (2009)	26.37	–	8.54	19.69	45.39
United Kingdom	18.20	6.63	8.76	16.38	50.03

StatLink http://dx.doi.org/10.1787/888932829799

Productivity by enterprise size class

Key facts

- Enterprise size matters for productivity. In most countries there is evidence of increasing returns to scale. Larger firms are on average more productive than smaller ones and this generally holds for all industries.
- Structural differences in the industrial composition of economies impact on the relative performance of large and small firms across countries. In countries with large industrial sectors and relatively low income per capita for example large firms are, on average, 2-3 times as productive as smaller firms. In countries with large services sectors however and relatively high income per capita small firms are often more productive than large firms. This reflects the importance of focusing on sectoral comparisons in addition to total economy.

Relevance

Productivity reflects the efficiency with which resources are allocated within an economy. Resource reallocation, in turn, is driven by firm dynamics, i.e. the entry of new firms and the exit of the least productive firms. To the extent that large firms can exploit increasing returns to scale, productivity should increase with firm size. Moreover, new, typically small firms are often found to spur aggregate productivity growth as they enter with new technologies and stimulate productivity enhancing changes by incumbents.

Definitions

The *labour productivity* estimates shown in Figure 2.11 are based on value added per employee.

For the definition of "Total economy", see Reader's Guide.

Comparability

The value added estimates presented for size classes are based on Structural Business Statistics and will not usually align with estimates produced in the National Accounts. The latter include a number of adjustments to reflect businesses and activities that may not be measured in structural business statistics, such as adjustments to reflect the Non-Observed Economy.

For productivity analysis the theoretically preferable measure for labour input is total hours worked rather than employment but these data are not typically available by industry and size class. While over the medium term, employment can provide an indication for trends in hours worked, in the short run, differences can arise, which can distort cross-country comparability.

The size-class breakdown, based on persons employed (1-9, 10-19, 20-49, 50-249, 250+), provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions. For Australia, the class "50-249" refers to "20-199" and the class "250+" refers to "200+".

Sources/Online databases

OECD Structural and Demographic Business Statistics (SDBS) Database, www.oecd.org/std/industry-services.

OECD Productivity Database, www.oecd.org/statistics/productivity.

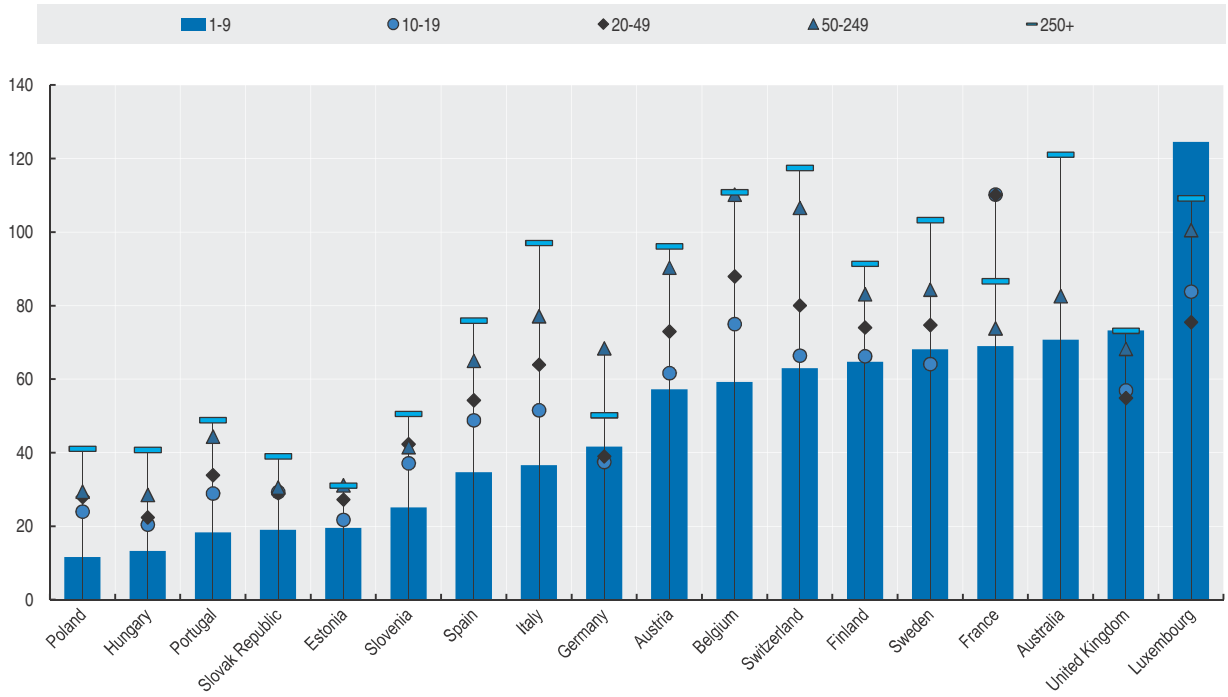
For further reading

OECD (2012), *OECD Compendium of Productivity Indicators 2012*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264188846-en*.

OECD (2001), *Measuring Productivity. OECD Manual*, OECD Publishing, Paris, *www.oecd.org/std/productivity-stats/2352458.pdf*.

Figure 2.11. **Productivity level by enterprise size class, total economy**

Thousands of US dollars per employee, 2010



StatLink http://dx.doi.org/10.1787/888932828374

Table 2.5. **Productivity level by enterprise size class and sector, total economy**

Thousands of US dollars per employee, 2010

	Total Industry					Manufacturing					Services				
	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+
Poland	11.57	24.00	27.96	29.41	41.09	11.05	18.81	21.45	26.24	48.29	15.01	28.83	35.92	35.61	34.05
Hungary	13.30	20.45	22.40	28.55	40.77	14.35	18.85	21.94	27.73	58.73	16.24	25.13	24.14	29.12	27.04
Portugal	18.30	28.93	33.91	44.41	48.86	25.84	24.63	29.85	39.99	81.76	18.61	32.00	41.60	52.10	39.36
Slovak Republic	19.01	29.30	29.02	30.57	39.05	15.23	24.09	22.04	31.99	46.82	24.61	31.49	33.31	30.57	33.13
Estonia	19.49	21.76	27.25	31.15	31.08	19.28	22.04	26.39	29.73	33.20	23.05	23.07	32.33	35.68	31.97
Slovenia	25.09	37.14	42.33	41.55	50.58	26.65	39.40	37.35	40.65	57.23	26.31	37.00	49.12	44.22	56.06
Spain	34.70	48.83	54.26	65.02	75.95	38.34	54.48	64.57	77.56	125.16	35.94	46.64	51.04	56.17	62.11
Italy	36.56	51.57	63.97	77.15	97.07	37.90	53.16	66.91	88.25	120.02	40.91	49.60	60.78	60.99	87.08
Germany	41.63	37.50	39.00	68.40	50.21	42.83	51.40	56.37	68.34	104.08	68.06	49.43	52.96	60.26	64.49
Austria	57.22	61.67	72.97	90.36	96.17	64.38	65.75	76.84	95.99	136.29	61.72	60.08	70.73	92.08	82.10
Belgium	59.26	75.01	87.97	110.23	110.86	92.72	83.36	86.45	106.47	159.60	57.83	70.77	89.60	112.11	78.40
Switzerland	62.95	66.41	80.08	106.62	117.47	84.96	90.57	116.09	129.77	198.56	77.48	65.40	101.05	112.89	140.12
Finland	64.77	66.26	74.07	83.11	91.41	71.13	71.74	79.95	93.24	126.62	73.44	64.50	80.19	77.20	74.72
Sweden	68.15	64.14	74.73	84.38	103.29	64.75	67.92	78.00	91.54	152.83	84.54	62.62	72.93	81.60	75.02
France	68.95	110.24	110.13	73.86	86.67	60.53	64.98	69.90	77.31	110.87	80.52	68.39	69.59	75.78	80.45
Australia	70.74			82.62	121.10	95.90			126.51	239.23	61.46			67.01	82.89
United Kingdom	73.24	56.96	54.90	68.28	73.20	83.82	64.40	59.82	82.95	151.50	74.68	59.07	52.49	62.76	67.71
Luxembourg	124.50	83.84	75.51	100.58	109.20	71.75	142.20	162.74			149.68	95.32	92.12	94.22	76.57
Ireland						60.44	72.59	82.70	155.95	378.01	46.16	50.84	65.77	52.26	70.87
Denmark						153.61	87.66	94.60	107.29	159.97	103.18	73.99	81.74	91.65	117.66
Norway						1996.44	141.21	131.28	222.52	247.59	169.89	90.37	99.31	117.56	111.82

StatLink http://dx.doi.org/10.1787/888932829818

Exports by enterprise size class

Key facts

- In the majority of countries, more than 50% of total exports are accounted for by enterprises with 250 employees or more. The share of exports provided by the smallest firms (micro enterprises) varies from 3% (in Norway) to 17% (in Denmark).
- Most enterprises are not exporters: in all countries, fewer than 10% of firms are exporters. The propensity to export increases with enterprise size. Across countries, less than 5% of micro-enterprises are exporters while typically half of large enterprises export.
- The average value of export per firm increases with enterprise size; Canada, Germany and the United States have the highest average values.

Relevance

Companies are increasingly engaging in global value chains to generate growth by specialising in specific tasks. Developing policies that allow smaller companies to engage either directly or indirectly into global value chains is high on the policy agenda.

Definitions

Exports refer to the outward flows of goods subtracted from the stock of material resources of a country. Goods simply being transported through a country (goods in transit) or temporarily admitted or withdrawn (except for goods for inward or outward processing) do not add to or subtract from the stock of material resources of a country and are not included in the international merchandise trade statistics (*International Merchandise Trade Statistics: Concept and Definitions 2010,* United Nations).

Figure 2.12 shows the merchandise exports of enterprises in each size class as a percentage of exports of all enterprises. For EU countries the population of the numerator and denominator refers only to enterprises exporting extra-EU.

Figure 2.13 presents the value (in million US dollar) of exports divided by exporting enterprises, by size class.

Comparability

Trade statistics by enterprise characteristics are developed by linking firms identified in trade registers to the same firms in business registers.

In European countries the enterprise is used as the statistical unit, while the establishment is used in Canada and the United States.

For EU member states, data on intra-EU and extra-EU exports are treated separately, owing to different data collection systems and thresholds. For Figure 2.12, total exports are compiled by adding intra-EU and extra-EU exports.

Some differences may also arise due to the way in which countries compile international merchandise trade statistics. The *general trade system*, used by Canada, Czech Republic, Denmark, Estonia, Norway, Slovenia, United Kingdom and the United States, is recommended by the International Merchandise Trade Statistics (IMTS) manual and includes all goods that cross the national frontier including goods that are imported into and exported from custom-bonded warehouses and free zones. The *general trade system* is in use "when the statistical territory of a country coincides with its economic territory so that imports include all goods entering the economic territory of a compiling country and exports include all goods leaving the economic territory of a compiling country". The *special trade system* is recommended by Eurostat and covers goods that cross the customs frontier plus goods that are imported into and exported from custom-bonded areas. The *special trade system* is in use when the statistical territory comprises only a particular part of the economic territory.

Data are presented by enterprise size classes of employees.

Data cover ISIC Revision 4 sectors: industry, wholesale, retail trade and repair, and other services. For Israel and Norway data are in ISIC Revision 3.

Source/Online database

OECD Trade by Enterprise Characteristics Database (TEC).

For further reading

Eurostat (2007), "External Trade by Enterprise Characteristics", Luxembourg.

OECD (2011), "Selling to Foreign Markets: a Portrait of OECD Exporters", *Statistics Brief* No. 16, *www.oecd.org/std/47014723.pdf*.

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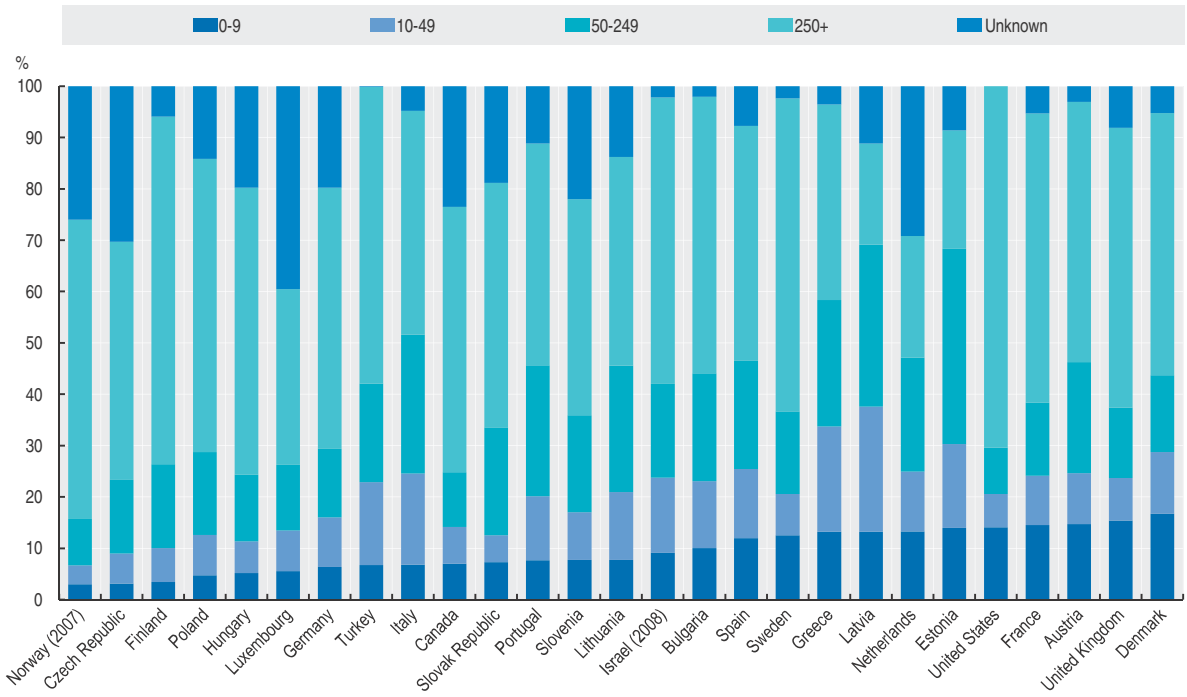
United Nations (2011), *International Merchandise Trade Statistics: Concept and Definitions 2010* (IMTS 2010), *http://unstats.un.org/unsd/trade/EG-IMTS/IMTS%202010%20%28English%29.pdf*.

Figure 2.12. **Exports by enterprise size class**

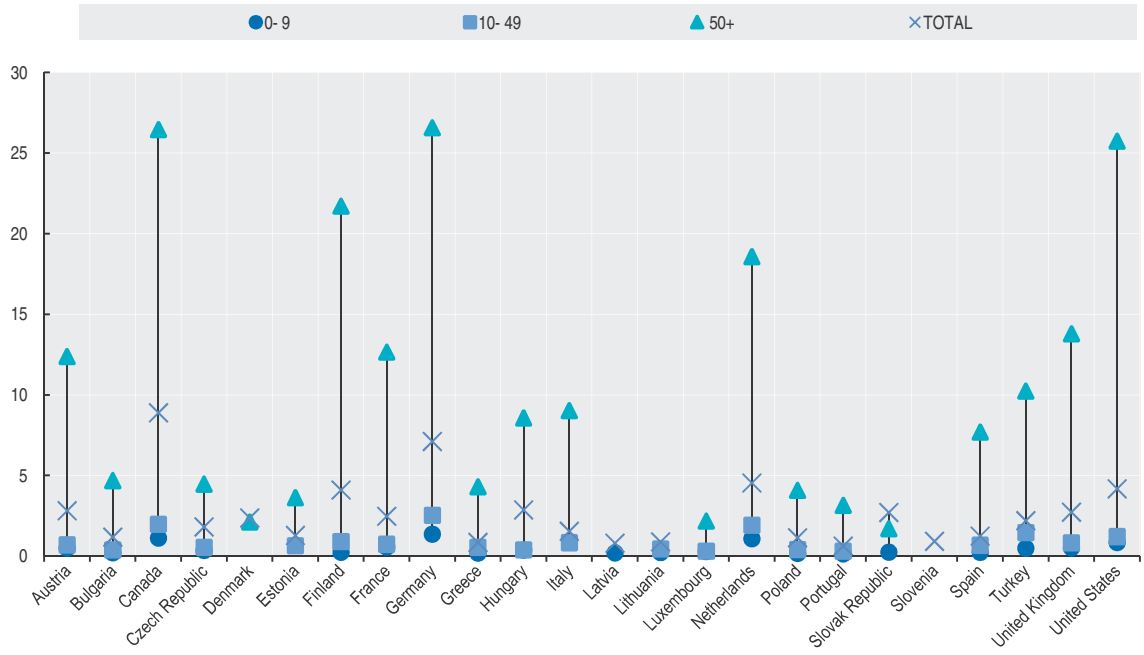
Percentage of exports of all exporting enterprises, values in US dollars, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828393

Figure 2.13. **Average value of exports per firm, by enterprise size class**

In million US dollar, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828412

3. ENTERPRISE BIRTH, DEATH AND SURVIVAL

Birth rate of employer enterprises

Death rate of employer enterprises

Churn rate of employer enterprises

Survival rate of employer enterprises

Birth rate of employer enterprises

Key facts

- Birth rates of employer enterprises (i.e. firms with at least one employee) are higher in the services sector than in manufacturing. Newly created firms typically employ one to four employees, while few start with more than ten employees.
- The effects of the global crisis are noticeable: between 2007 and 2010 birth rates decreased in all countries where data are available.

Relevance

The birth of new enterprises is a key indicator of business dynamism. It reflects an important dimension of entrepreneurship in a country, namely the capacity to start up entirely new businesses. Furthermore, the birth of employer enterprises is a different phenomenon compared to that of non-employer firms. The former are economically more relevant and more closely related to the notion of entrepreneurship as a driver of job creation and innovation.

Definitions

An *employer enterprise birth* refers to the birth of an enterprise with at least one employee. The population of employer enterprise births consists first of "new" enterprise births, i.e. new enterprises reporting at least one employee in the birth year; and second of enterprises that existed before the year under consideration but were at that time below the threshold of one employee, and that reported one or more employees in the current, i.e. birth, year.

Employer enterprise births do not include entries into the population due to: mergers, break-ups, split-offs or restructuring of a set of enterprises. They also exclude entries into a sub-population resulting only from a change of activity.

The *employer enterprise birth rate* corresponds to the number of births of employer enterprises as a percentage of the population of active enterprises with at least one employee.

For the definition of "Total economy", see Reader's Guide.

Comparability

"Employer" indicators are found to be more relevant for international comparisons than indicators covering all enterprises, as the latter are sensitive to the coverage of business registers. In many countries, the main sources of data used in business registers are administrative tax and employment registers, meaning that often only businesses above a certain turnover and/or employment threshold are captured. An economy with relatively high thresholds would therefore be expected to have lower birth statistics than similar economies with lower thresholds. An additional complication relates to changes in thresholds over time. Monetary-based thresholds change over time in response to factors such as inflation and fiscal policy, both of which can be expected to affect comparisons of birth rates across countries and over time. The use of the one-employee threshold improves comparability, as it excludes very small units, which are the most subject to threshold variations.

The concept of employer enterprise birth is not however without problems. Many countries have sizeable populations of self-employed. If a country creates incentives for the self-employed to become employees of their own company, the total number of employer enterprise births will increase. This can distort comparisons over time and across countries, even if from an economic and entrepreneurial perspective little has changed.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

For Australia and Mexico, enterprise births and indicators derived from them do not take into account the transition of enterprises from 0 employee to 1 or more employee status, i.e. the transition of a non-employer enterprise to the status of employer firm is not considered as an "employer enterprise birth".

Sources/Online databases

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

Counts of Australian Businesses, including Entries and Exits. 8165.0, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

Ahmad, N. (2006), "*A Proposed Framework For Business Demography Statistics*", OECD Statistics Working Papers, 2006/3, *http://dx.doi.org/10.1787/145777872685*.

Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, *www.oecd.org/std/39974460.pdf*.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 3.1. **Employer enterprise birth rate, total economy**

Percentage

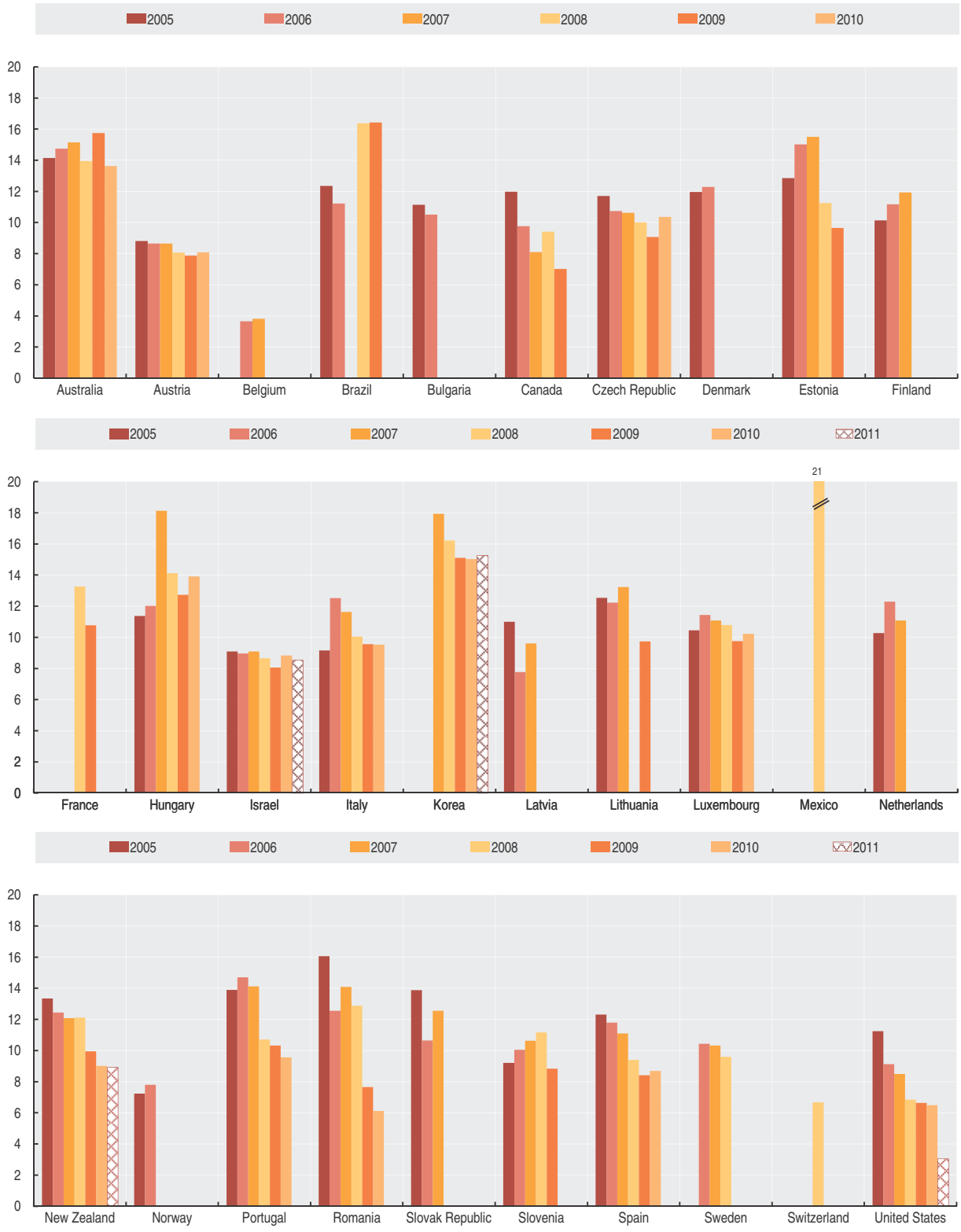


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Figure 3.2. **Employer enterprise birth rate by sector**

Percentage, 2010 or latest available year

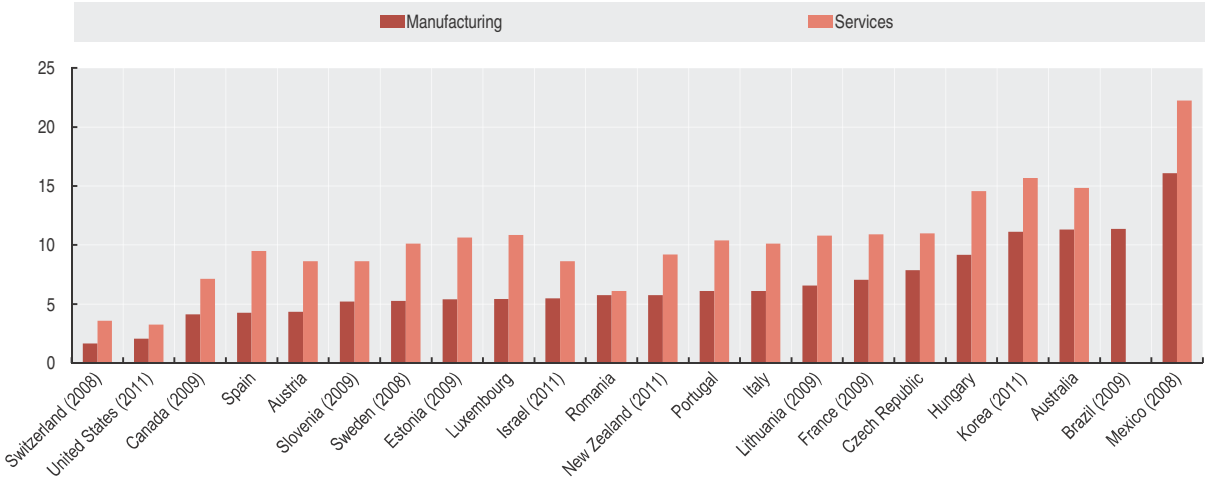

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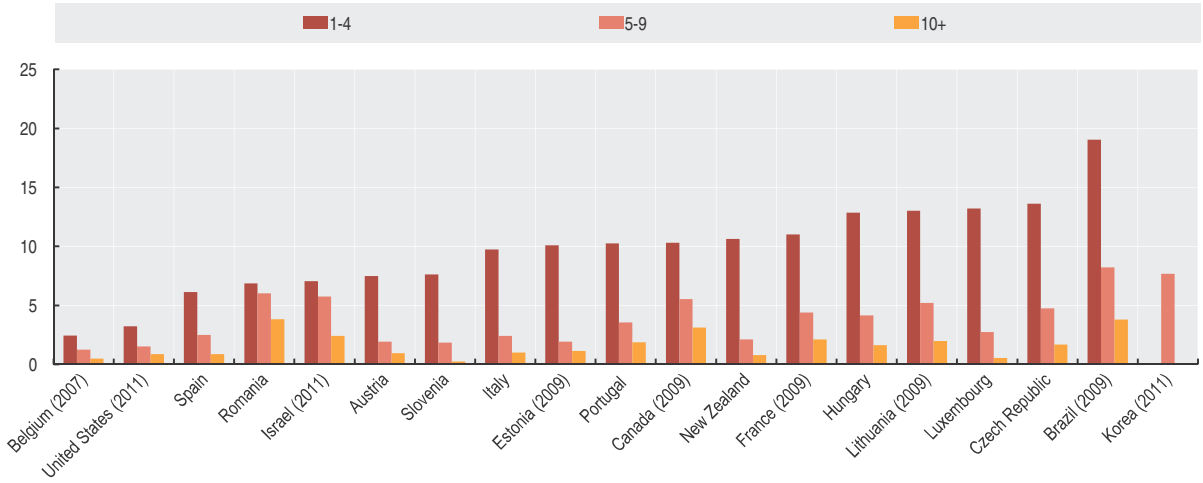
Figure 3.3. **Employer enterprise birth rate by size class, manufacturing**

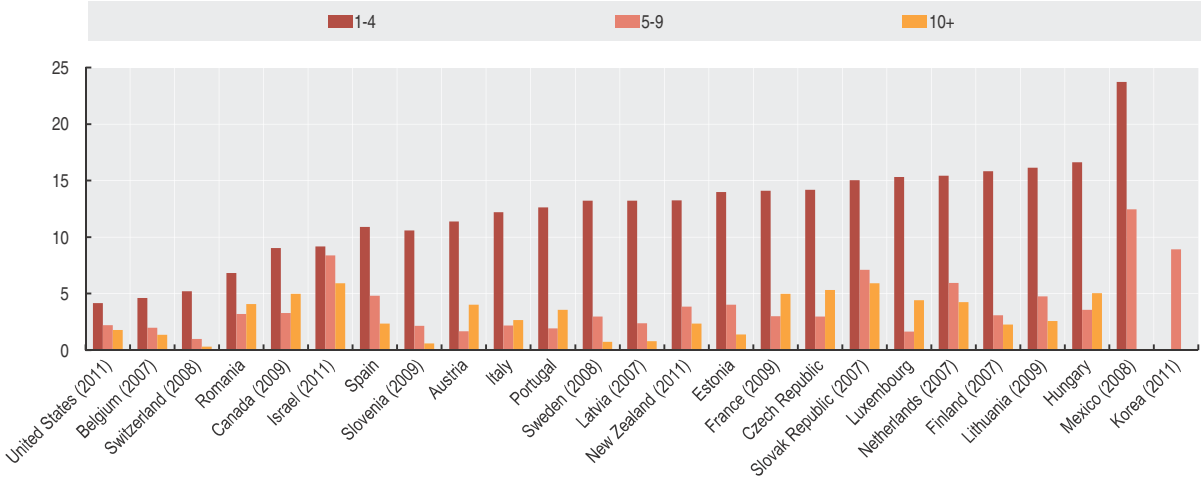
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828469

Figure 3.4. **Employer enterprise birth rate by size class, services**

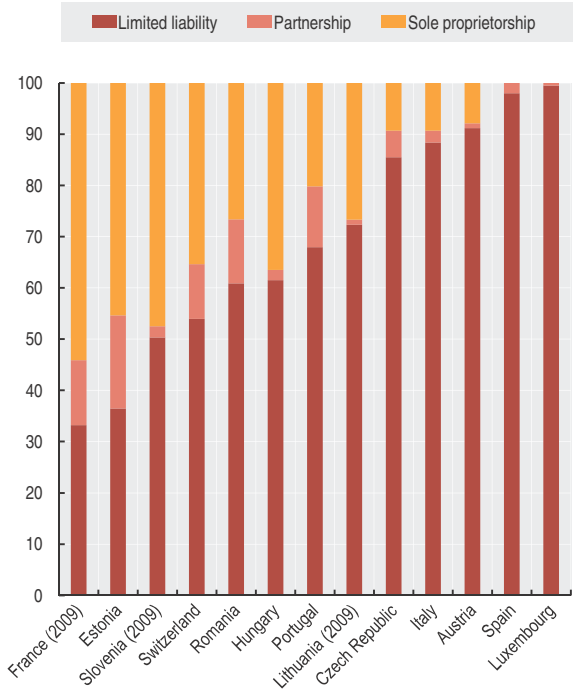
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828488

Figure 3.5. **Employer enterprise births by legal form, manufacturing**

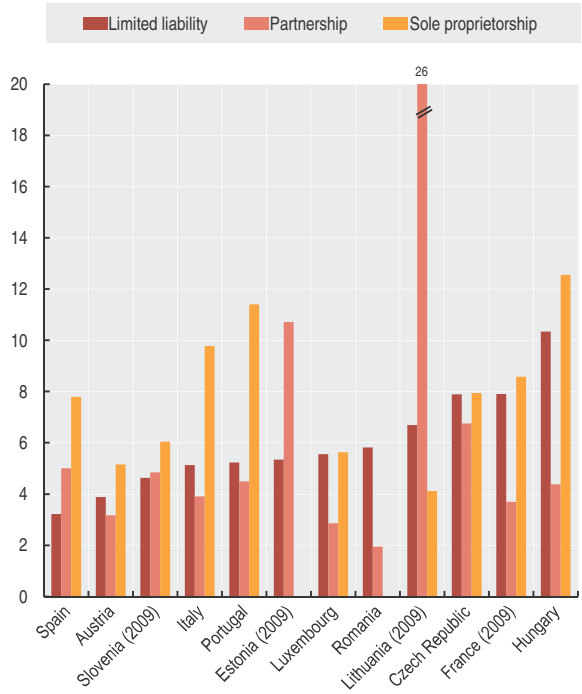
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828507

Figure 3.6. **Employer enterprise birth rates by legal form, manufacturing**

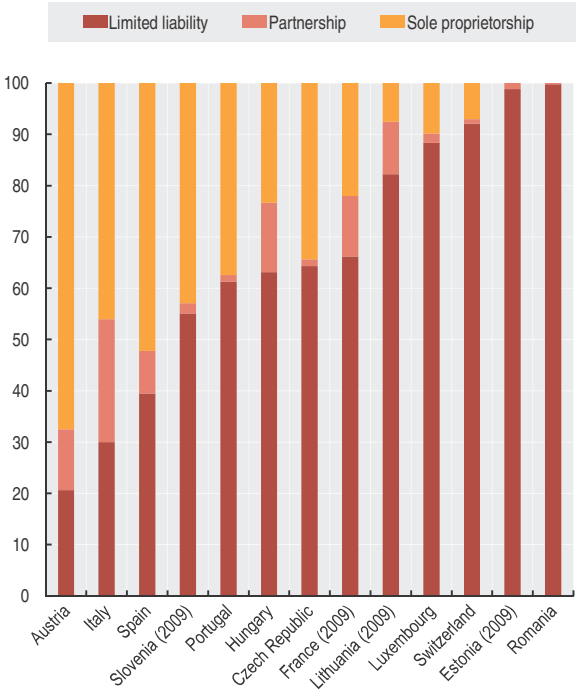
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828526

Figure 3.7. **Employer enterprise births by legal form, services**

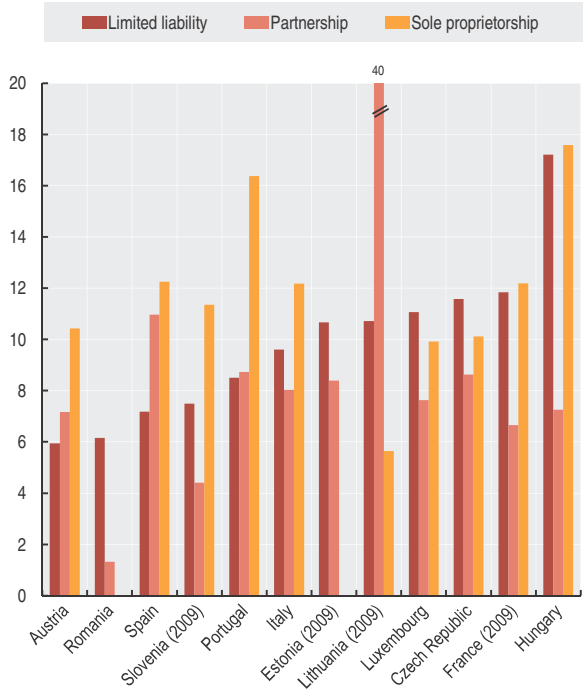
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828545

Figure 3.8. **Employer enterprise birth rates by legal form, services**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828564

Death rate of employer enterprises

Key facts

- In all countries, the death rates of employer enterprises in the services sector are consistently higher than the corresponding rates in the manufacturing sector.
- In several countries, the death rate of employer enterprises increased in 2007 at the beginning of the global crisis and continued increasing in 2008 and 2009.
- Very small firms, with one to four employees, have the highest death rates.

Relevance

The death of enterprises is an integral part of the phenomenon of entrepreneurship. Knowing the percentage of firms that die in a given year and comparing it over time and across countries is of high interest to policy makers to understand, for example, the process of creative destruction and the impact of economic cycles.

Definitions

An *employer enterprise death* occurs either at the death of an enterprise with at least one employee in the year of death or when an enterprise shrinks to below the threshold of one employee for at least two years.

Deaths do not include exits from the population due to mergers, take-overs, break-ups and restructuring of a set of enterprises. They also exclude exits from a sub-population resulting only from a change of activity.

The *employer enterprise death rate* corresponds to the number of deaths of employer enterprises as a percentage of the population of active enterprises with at least one employee.

For the definition of "Total economy", see Reader's Guide.

Comparability

Compared to data on births of employer enterprises, there is an additional time lag in data collection of enterprise deaths linked to the process of confirming the event: it has to be checked that the enterprise has not been reactivated (or had no employees) in the two years following its death. Hence, information on death rates presented in this publication refers mainly to 2009, and not to 2010 as for all other indicators.

"Employer" indicators are found to be more relevant for international comparisons than indicators covering all enterprises, as the latter are sensitive to the coverage of business registers. In many countries, the main sources of data used in business registers are administrative tax and employment registers, meaning that often only businesses above a certain turnover and/or employment threshold are captured. An additional complication in this regard relates to changes in thresholds over time. Monetary based thresholds change over time in response to factors such as inflation and fiscal policy, both of which can be expected to affect comparisons of death rates across countries and over time. The use of the one-employee threshold improves comparability, as it excludes very small units, which are the most subject to threshold variations.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

For Australia, enterprise deaths and indicators derived from them do not take into account the transition of enterprises from one or more employees to zero employees status, i.e. the transition of an employer firm to the status of a non-employer enterprise is not considered as an "employer enterprise death".

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

Ahmad, N. (2006), "*A Proposed Framework For Business Demography Statistics*", OECD Statistics Working Papers, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

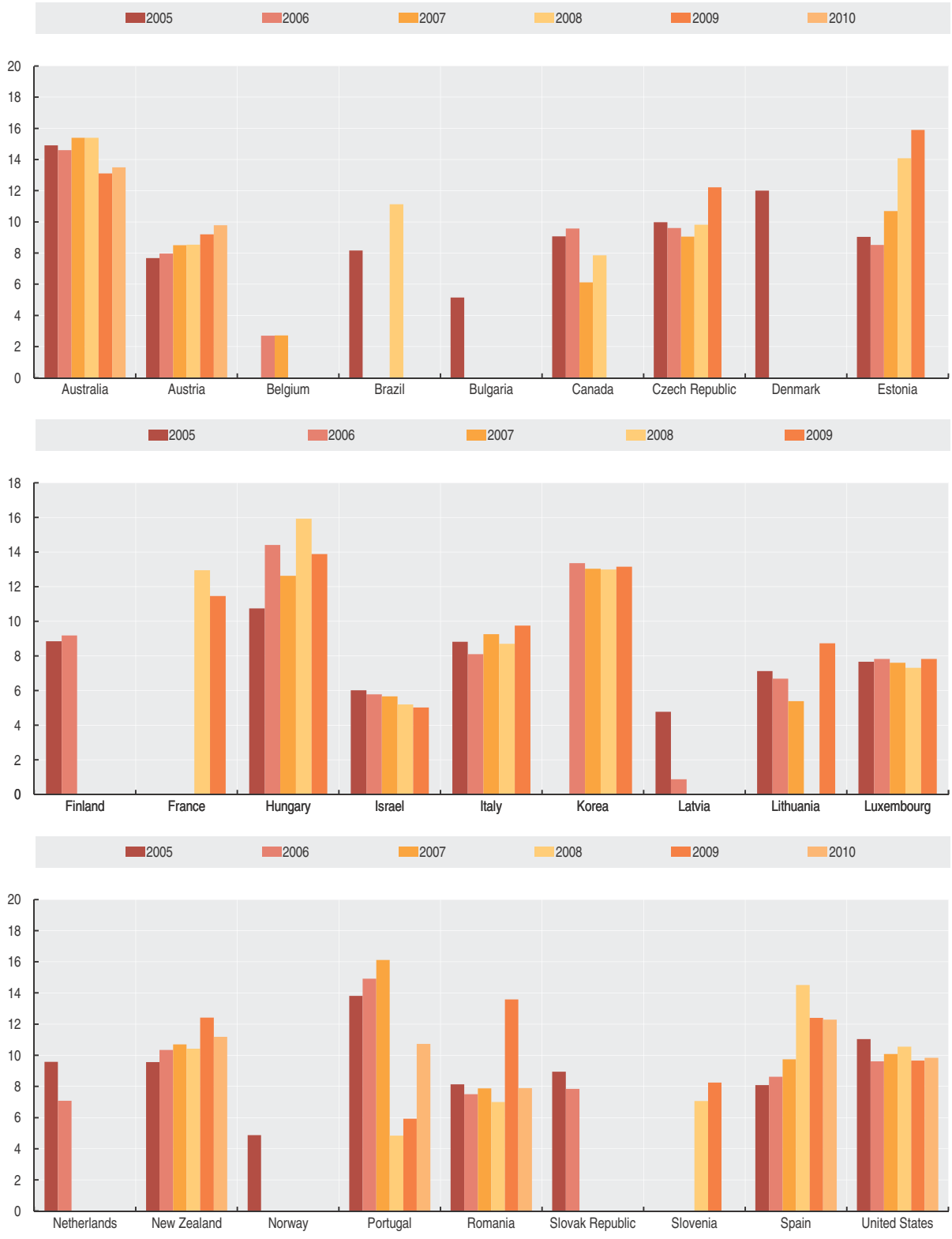
Eurostat/OECD (2007), Eurostat-OECD *Manual on Business Demography Statistics*, OECD Publishing, *www.oecd.org/std/39974460.pdf*.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 3.9. **Employer enterprise death rate, total economy**

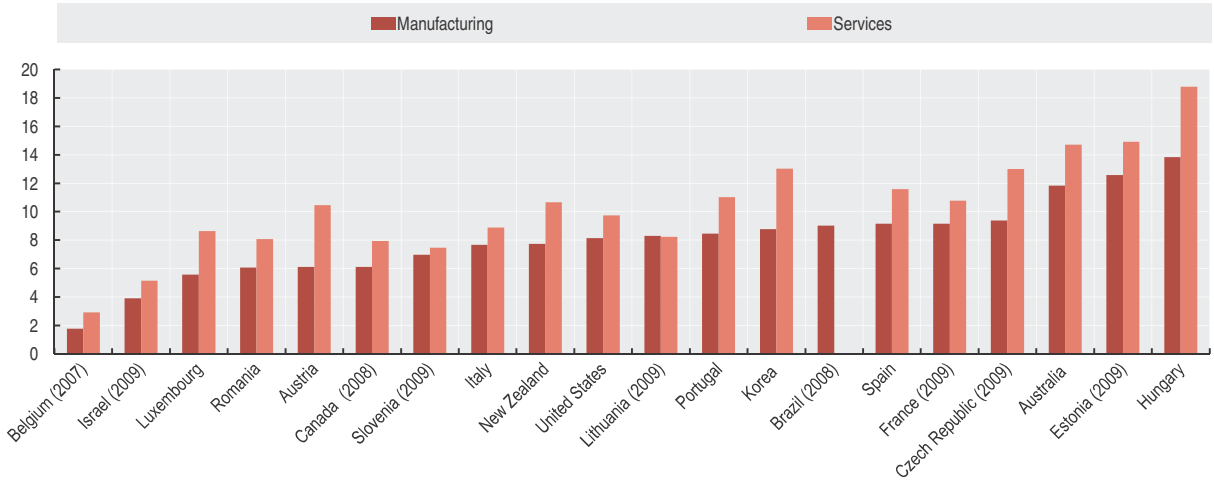
Percentage



StatLink http://dx.doi.org/10.1787/888932828583

Figure 3.10. **Employer enterprise death rates by sector**

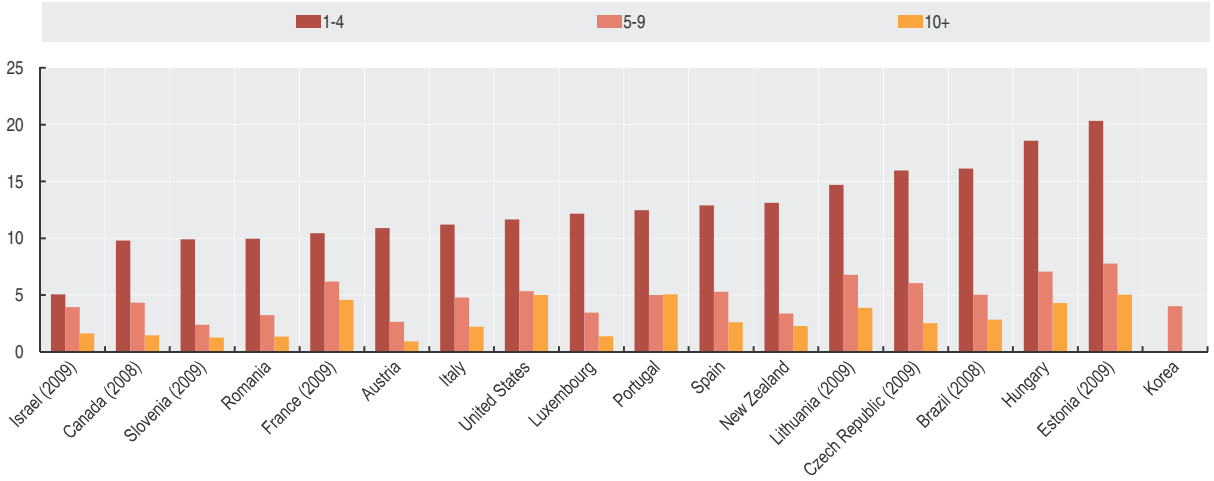
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828602

Figure 3.11. **Employer enterprise death rate by size class, manufacturing**

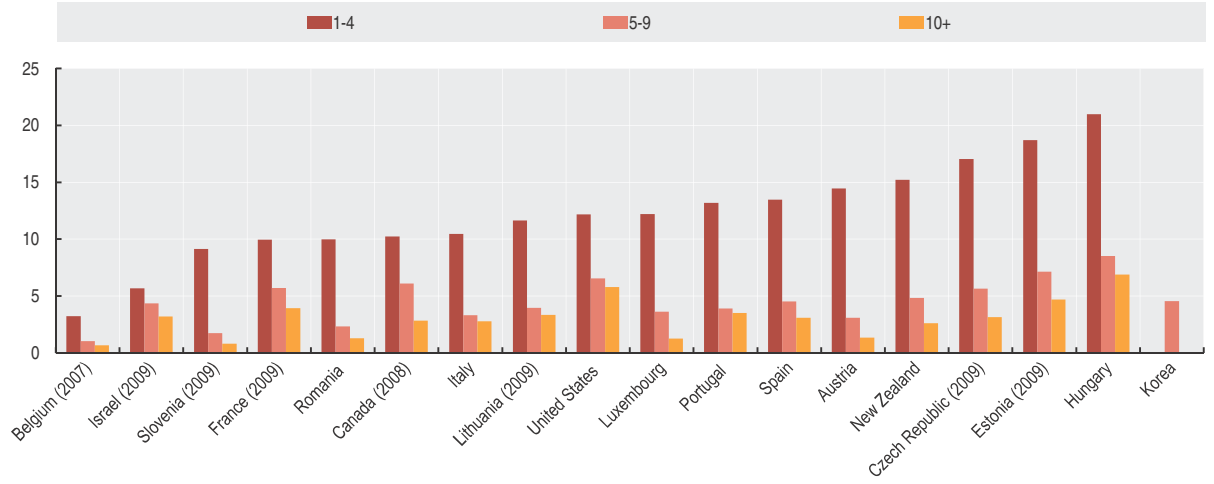
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828621

Figure 3.12. **Employer enterprise death rate by size class, services**

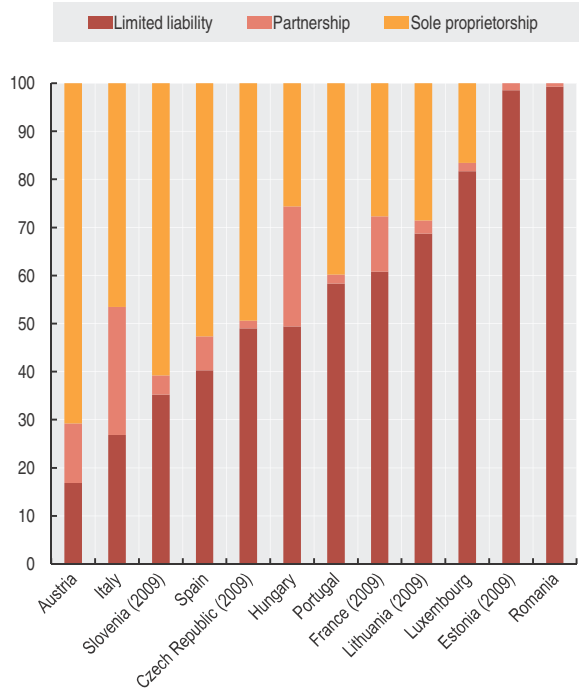
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828640

Figure 3.13. **Employer enterprise deaths by legal form, manufacturing**

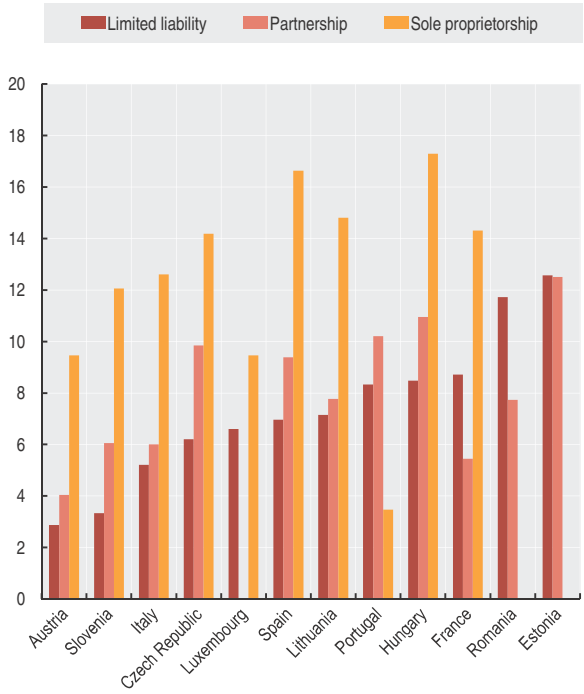
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828659

Figure 3.14. **Employer enterprise death rates by legal form, manufacturing**

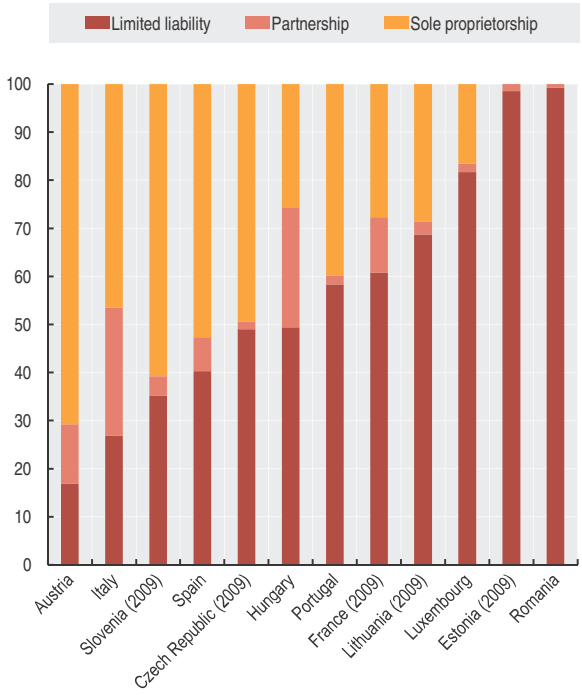
Percentage, 2009



StatLink http://dx.doi.org/10.1787/888932828678

Figure 3.15. **Employer enterprise deaths by legal form, services**

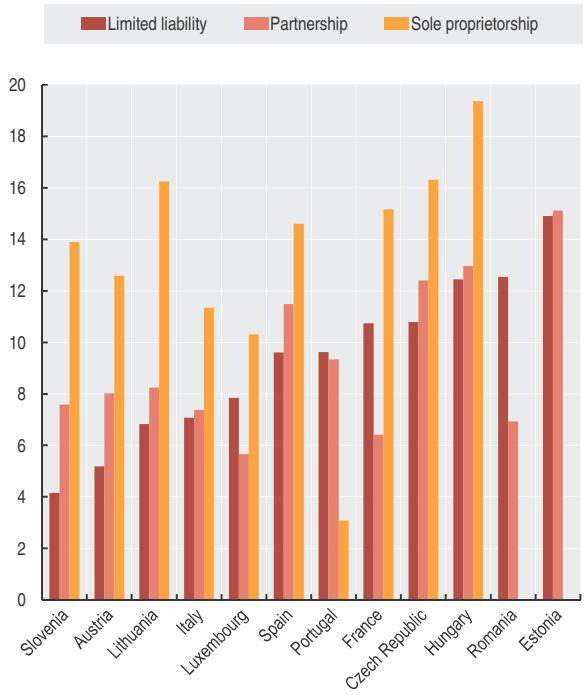
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828697

Figure 3.16. **Employer enterprise death rates by legal form, services**

Percentage, 2009



StatLink http://dx.doi.org/10.1787/888932828716

Churn rate of employer enterprises

Key facts

- Churn rates of employer enterprises are higher in the services sector than in manufacturing, reflecting more significant business dynamics in services.
- Churn rates are relatively similar across countries and over time, ranging from 10% to 20% in manufacturing and from 15% to 25% in services. Only a few countries show much lower (Belgium, Israel) or much higher (Australia, Korea and Hungary) churn rates. Portugal saw a significant drop in churn rates in services and manufacturing from 2007 to 2010.

Relevance

The churn rate, i.e. the sum of birth and death rates of enterprises, indicates how frequently new firms are created and how often existing enterprises close down. In most economies, the number of births and deaths of enterprises is a sizeable proportion of the total number of firms. The indicator reflects a country's degree of "creative destruction", and it is of high interest for analysing, for example, the contribution of firm churning to aggregate productivity growth.

Definitions

The *employer enterprise churn rate* is compiled as the sum of the employer enterprise birth rate and the employer enterprise death rate.

The *employer enterprise churn rate* does not include entries and exits into the population due to mergers, break-ups or restructuring of a set of enterprises. It does not include: exits due to take-overs; entries due to split-offs; and entries and exits into a sub-population resulting only from a change of activity.

There is a time lag in the employer enterprise churn rate compilation, linked to the process of confirmation of employer enterprise deaths.

For the definition of "Total economy", see Reader's Guide.

Comparability

Employer enterprise birth and death data used in the compilation of the employer enterprise churn rate follow the definition given in the *Eurostat-OECD Manual on Business Demography Statistics* (2007).

As shown in previous sections, "employer" indicators provide the basis for a higher degree of international comparability than indicators based on all enterprises, as the latter are sensitive to the coverage of, and thresholds used in, business registers.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

For Australia, enterprise births and deaths and indicators derived from them do not take into account the transition of enterprises from zero employees to one or more employees status or vice versa, i.e. the transition of a non-employer enterprises to the status of employer firm is not considered as an "employer enterprise birth", and the transition of an employer firm to the status of a non-employer enterprise is not considered as an "employer enterprise death".

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, *http://dx.doi.org/10.1787/sdbs-data-en*.

For further reading

Ahmad, N. (2006), "A Proposed Framework For Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

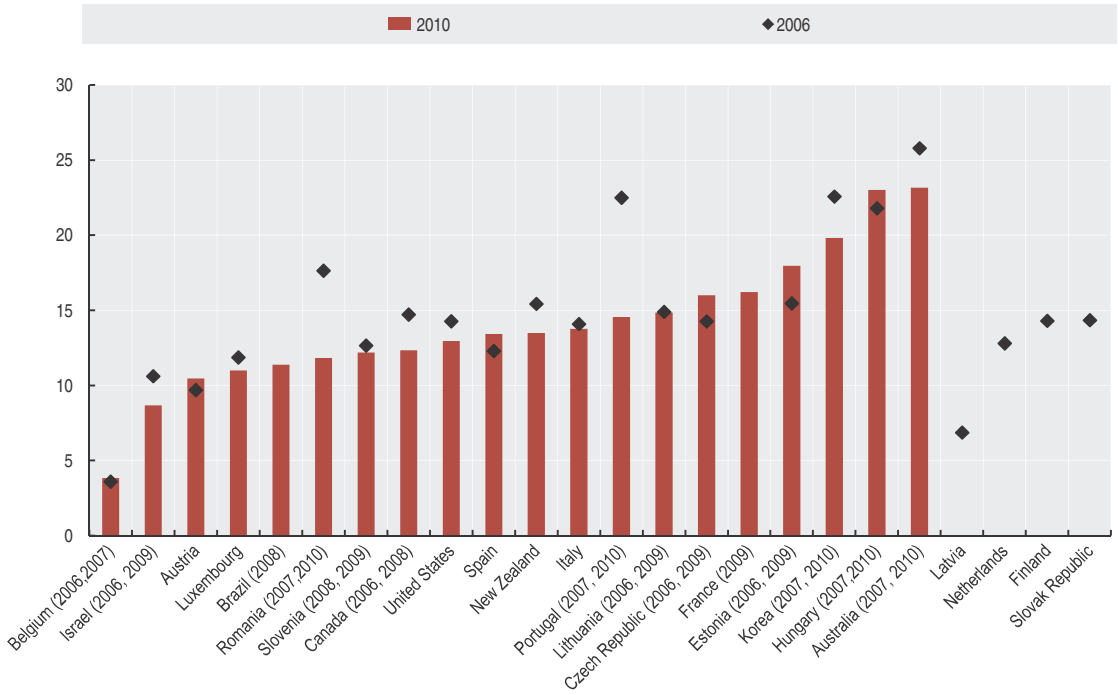
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *www.oecd.org/std/39974460.pdf*.

Scarpetta, S. et al. (2002), "The role of policy and institutions for productivity and firm dynamics: evidence from micro and industry data", *OECD Economic Department Working Papers*, No. 329, *http://dx.doi.org/10.1787/547061627926*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 3.17. **Employer enterprise churn rate, manufacturing**

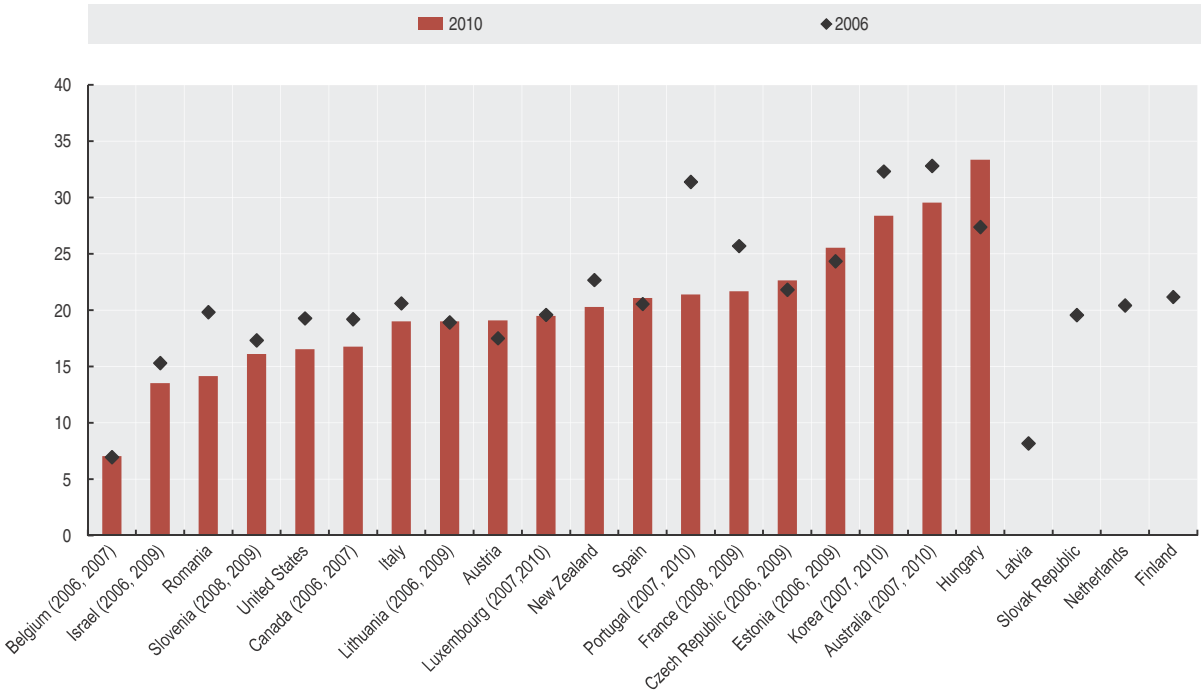
Percentage



StatLink http://dx.doi.org/10.1787/888932828735

Figure 3.18. **Employer enterprise churn rate, services**

Percentage



StatLink http://dx.doi.org/10.1787/888932828754

Survival rate of employer enterprises

Key facts

- The survival rates of employer enterprises in the manufacturing sector are typically higher than in the services sector and the difference typically persists in every year after birth; Canada and the Slovak Republic are exceptions, with almost identical survival rates in the two sectors.
- On average, survival rates after one year are 85% to 90% in manufacturing and a little lower in services, with only marginal improvements in the conditional probability of survival in the second and third year.
- Young enterprises represent a larger share of the total population of enterprises in the services sector than in the manufacturing sector, reflecting the higher birth rate of service sector enterprises.

Relevance

Observing the post-entry performance of firms is as important as analysing their birth rate. Very high failure rates for example can act as a disincentive to both budding entrepreneurs as well as potential creditors, which could stymie long term growth and innovation.

Definitions

The number of n-year survival enterprises for a particular year t refers to the number of enterprises which had at least one employee for the first time in year t-n and remained active in year t.

An enterprise is also considered to have survived if the linked legal unit(s) has (have) ceased to be active, but their activity has been taken over by a new legal unit set up specifically to take over the factors of production of that enterprise (survival by takeover). This definition of survival excludes cases in which enterprises merge or are taken over by an existing enterprise in year t-n.

The survival of an enterprise is an event that should always be observed between two consecutive years. For instance, an enterprise born in year t-2 should be considered as having survived to t only if it had at least one employee also in year t-1, and so forth.

The employer enterprise survival rate measures the number of enterprises of a specific birth cohort that have survived over different years. The n-year survival rate for a reference year t is calculated as the number of n-year survival enterprises as a percentage of all enterprises that reported at least one employee for the first time in year t-n.

The share of n-year-old employer enterprises for a particular year t refers to the number of n-year survival enterprises as a percentage of the total employer enterprise population in year t.

For the definition of "Total economy", see Reader's Guide.

Comparability

Employer enterprise survival data in this publication follow the definition from the *Eurostat-OECD Manual on Business Demography Statistics* (2007).

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

For Australia and Mexico, enterprise births and deaths and indicators derived from them do not take into account the transition of enterprises from zero employees to one or more employees status or vice versa, i.e. the transition of a non-employer enterprises to the status of employer firm is not considered as an "employer enterprise birth", and the transition of an employer firm to the status of a non-employer enterprise is not considered as an "employer enterprise death".

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

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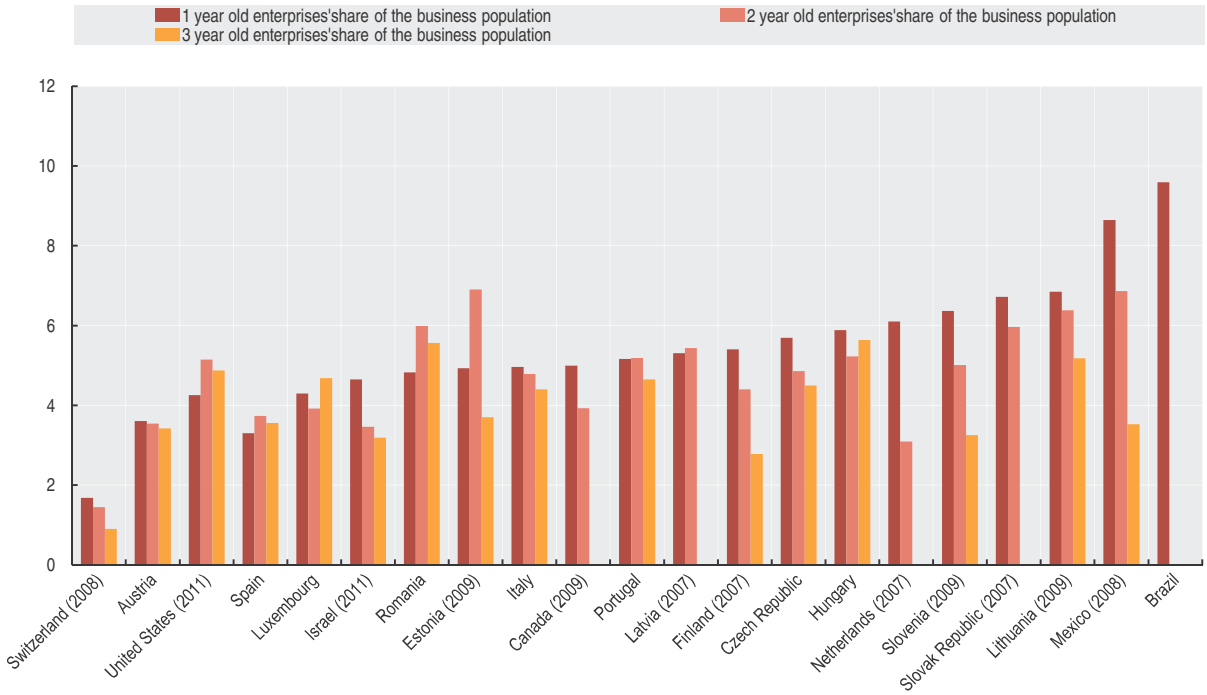
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *www.oecd.org/std/39974460.pdf*.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 3.19. **Share of young enterprises, manufacturing**

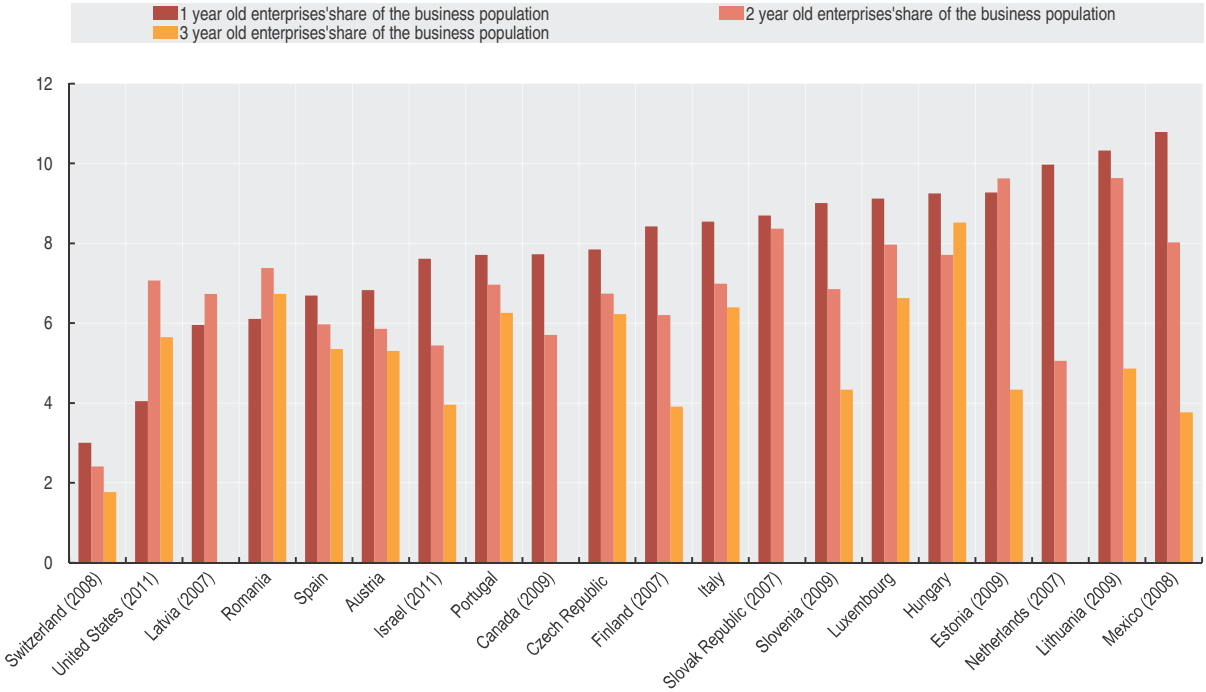
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828773

Figure 3.20. **Share of young enterprises, services**

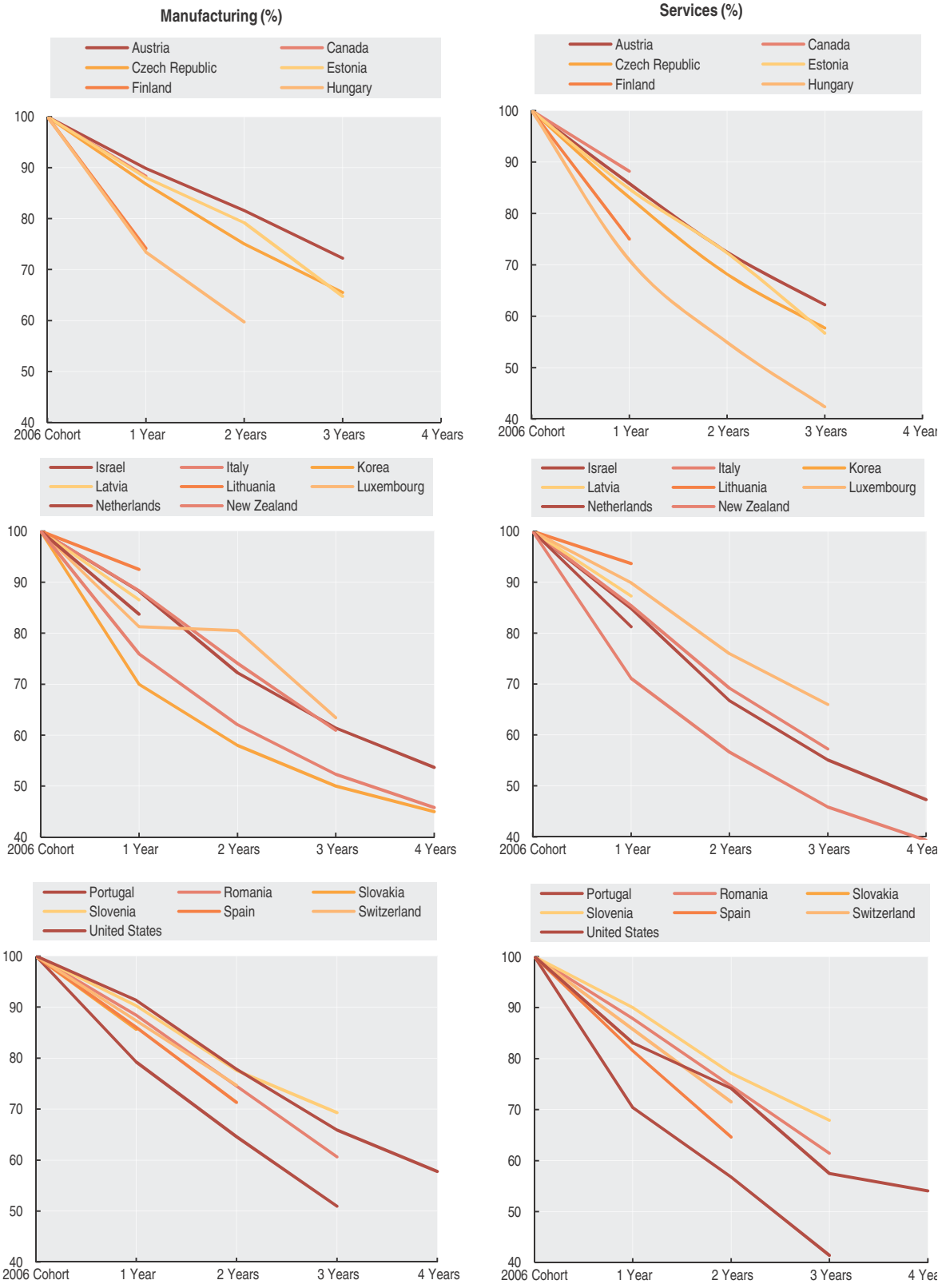
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828792

Figure 3.21. **Enterprise survival rates**

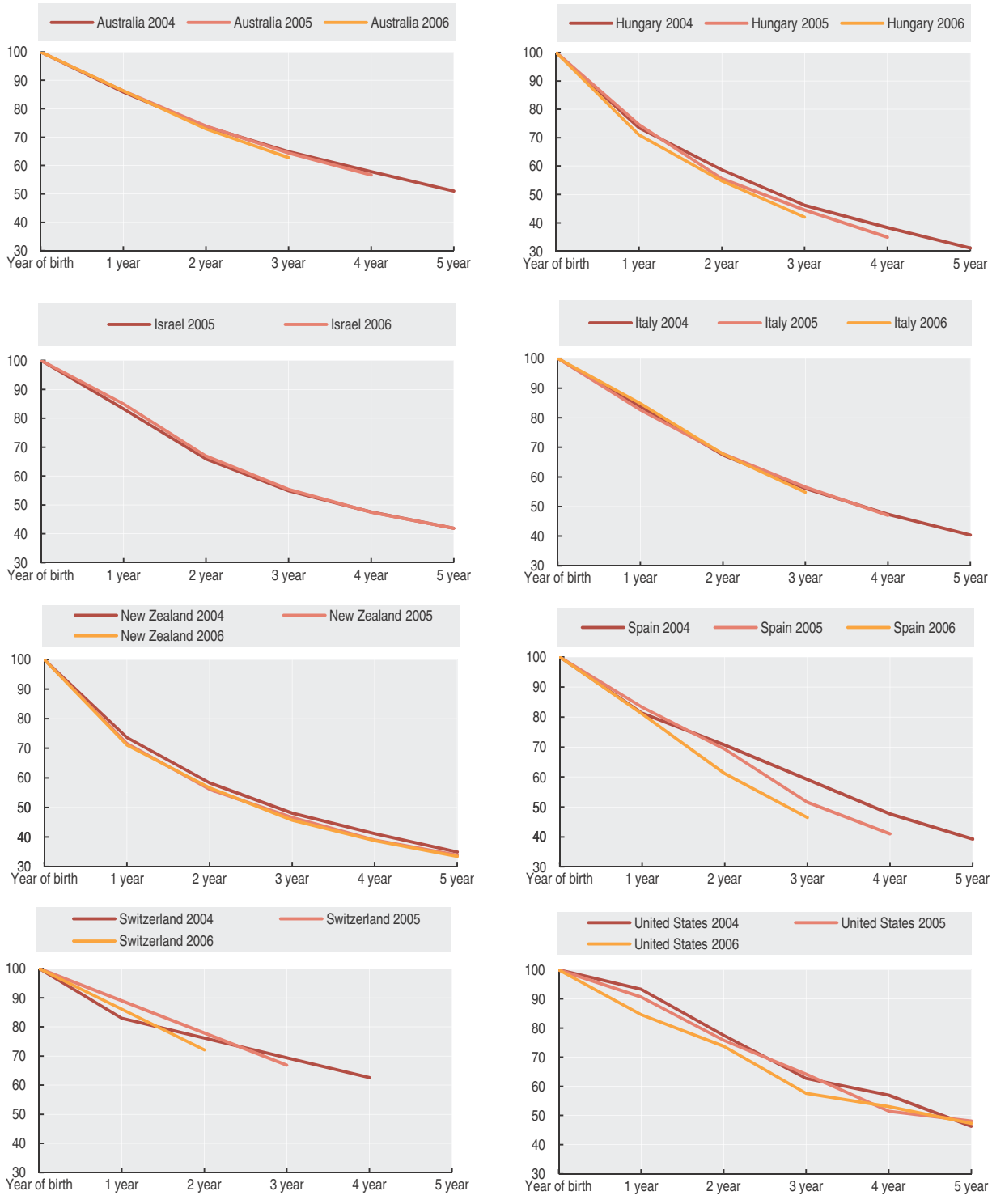
Percentage, 2006 cohort



StatLink http://dx.doi.org/10.1787/888932828811

Figure 3.22. **Survival rates of different cohort of enterprises, total economy**

Percentage



StatLink http://dx.doi.org/10.1787/888932828830

4. ENTERPRISE GROWTH AND EMPLOYMENT CREATION

Employment creation and destruction by employer enterprise births and deaths

Employment creation and destruction in surviving enterprises

High-growth enterprises rate

Gazelles rate

Employment creation and destruction by employer enterprise births and deaths

Key Facts

– There are important differences across countries in the extent to which the birth and death of employer enterprises affect the creation and destruction of jobs in the economy. In all countries however, the level of employment churning is quite stable over the years covered, and consistently higher in services than in the manufacturing sector; only in the Slovak Republic are significant variations of the level of employment churning observed. As expected, employment creation was generally lower in 2009 and 2010 compared to 2006.

Relevance

The observation of the employment created by enterprise births or destroyed by enterprise deaths provides an indication of how enterprise business demography contributes to overall employment changes in the economy. Many studies have shown the contribution that small and large firms make to net employment growth. Research in the United States has recently highlighted that the age of enterprises could be more relevant than their size in determining their eventual contribution to employment growth.

Definitions

The *employment creation by births* is measured as the employment share of employer enterprise births. It is calculated as the number of persons employed in the reference period t in employer enterprises newly born in t divided by the number of persons employed in t in the population of employer enterprises.

The *employment destruction by deaths* is measured as the employment share of employer enterprise deaths. It is calculated as the number of persons employed in the reference period t in exiting employer enterprises divided by the number of persons employed in t in the population of employer enterprises.

For the definition of "Total economy", see Reader's Guide.

Comparability

Data presented refer to the whole population of employer enterprises.

Data for Austria, New Zealand and Slovenia are compiled according to ISIC Revision 4. For other countries data after 2007 are compiled in ISIC Revision 4 and data for 2007 and before are compiled in ISIC Revision 3.

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

Bravo-Biosca, A., C. Criscuolo and C. Menon (2013), "What Drives the Dynamics of Business Growth ?", *OECD Science, Technology and Industry Policy Papers*, No. 1, OECD Publishing, *http://dx.doi.org/10.1787/5k486qtttq46-en*.

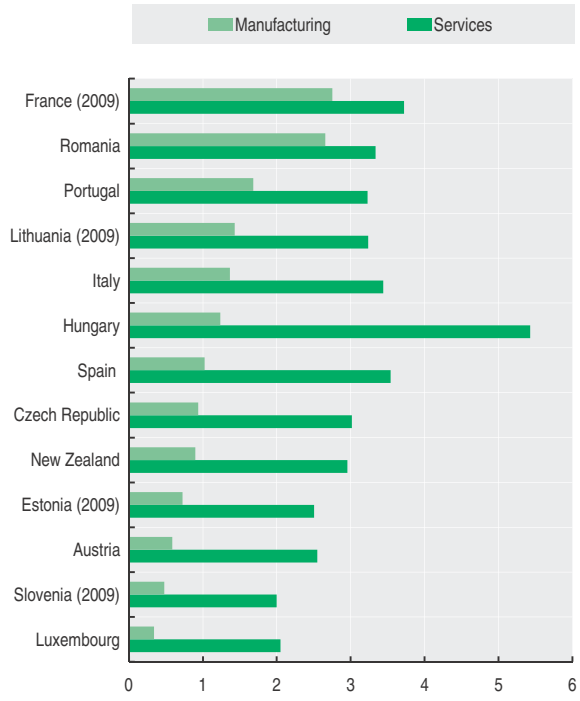
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Haltiwanger, J., R.S. Jarmin and J. Miranda (2010), "Who creates jobs? Small vs. Large vs. Young", *Discussion Papers*, US Census Bureau, *www.nber.org/papers/w16300.pdf?new_window=1*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 4.1. **Employment creation by employer enterprise births by sector**

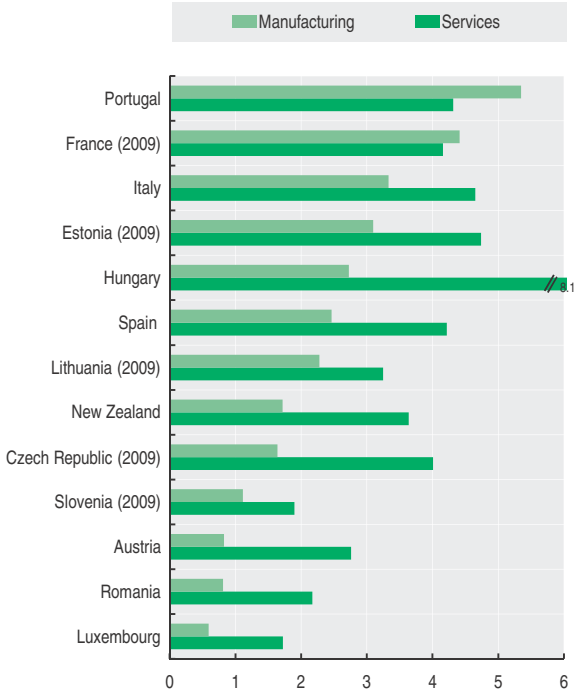
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828849

Figure 4.2. **Employment destruction by employer enterprise deaths by sector**

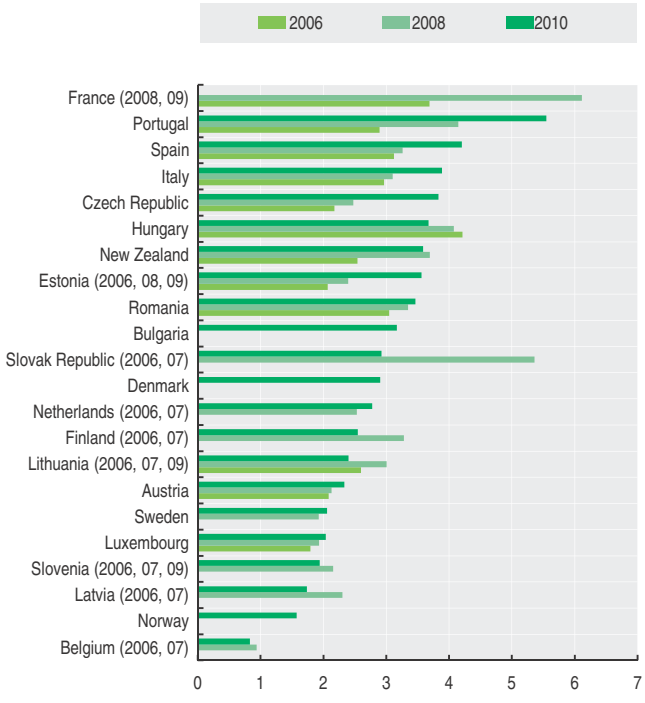
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828868

Figure 4.3. **Employment creation by employer enterprise births, total economy**

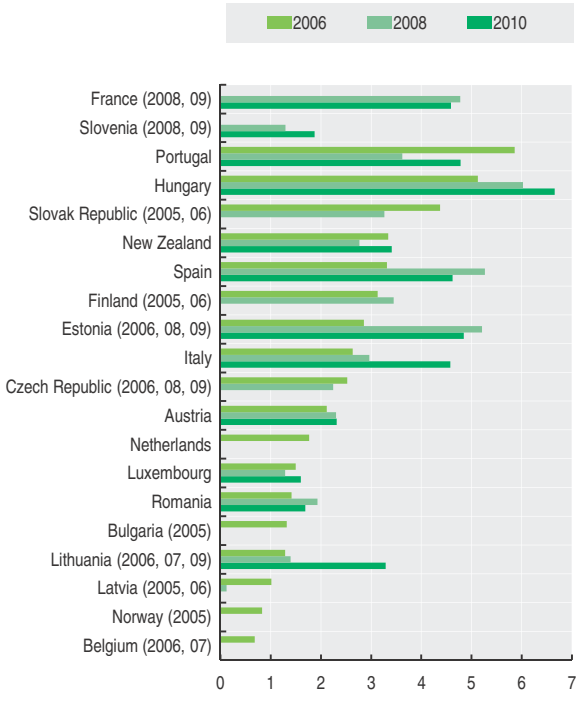
Percentage



StatLink http://dx.doi.org/10.1787/888932828887

Figure 4.4. **Employment destruction by employer enterprise deaths, total economy**

Percentage



StatLink http://dx.doi.org/10.1787/888932828906

Employment creation and destruction in surviving enterprises

Key Facts

- Young enterprises account from 5 to 10% of total employment. Their contribution to employment decreased from 2008 to 2010.
- Employment creation is driven by the establishment of new enterprises, rather than by the growth of enterprises during their first years of activity. In most of the countries with available data, enterprises that survived for two years did not increase their contribution to total employment with respect to their year of birth.

Relevance

The comparison of the employment share of one-year (two-year) old enterprises in their year of birth with their employment share after one year (two years) of existence, provides an indication of how rapidly the young surviving enterprises are increasing their number of persons employed beyond the initial level and contributing to overall employment changes in the economy.

Definitions

The *employment share of young enterprises* refers to the number of persons employed by employer enterprises that have existed for up to three years (they have survived three years), divided by the total number of persons employed.

The *employment in the first (second) survival year* refers to the number of persons employed in employer enterprises surviving one (two) years, divided by the total number of persons employed.

For the definition of "Total economy", see Reader's Guide.

Comparability

Data presented refer to the whole population of employer enterprises.

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

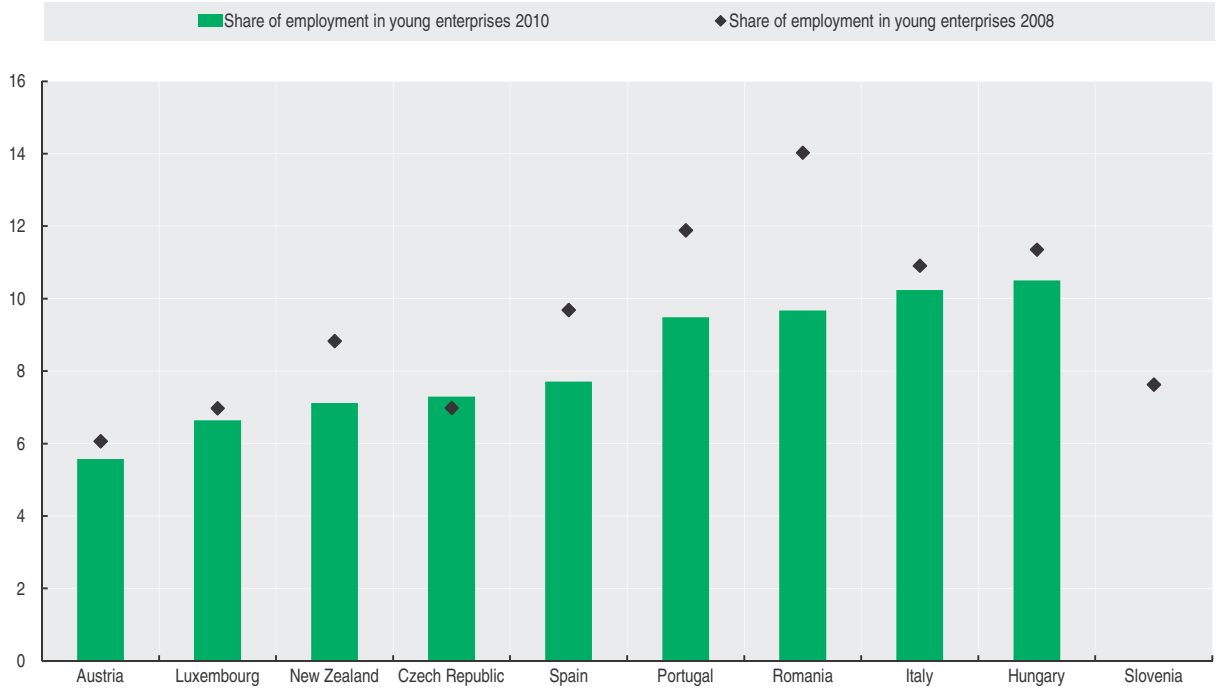
Bravo-Biosca, A., C. Criscuolo and C. Menon (2013), "What Drives the Dynamics of Business Growth ?", *OECD Science, Technology and Industry Policy Papers*, No. 1, OECD Publishing, *http://dx.doi.org/10.1787/5k486qtttq46-en*.

Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Haltiwanger, J., R.S. Jarmin and J. Miranda (2010), "Who creates jobs? Small vs. Large vs. Young", *Discussion Papers*, US Census Bureau, *www.nber.org/papers/w16300.pdf?new_window=1*.

Figure 4.5. **Employment share of young enterprises, 2008 and 2010**

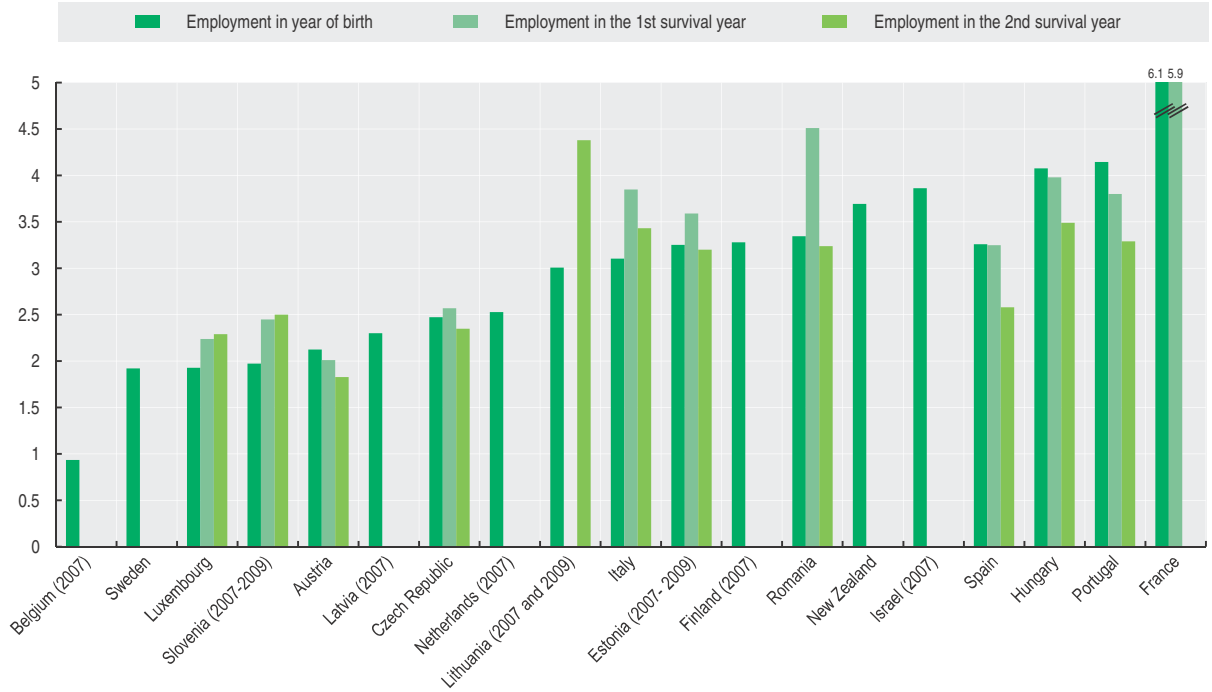
As a percentage of employment in the total economy



StatLink http://dx.doi.org/10.1787/888932828925

Figure 4.6. **Employment share in year of birth, 1st and 2nd survival year, 2010**

As a percentage of employment in the total economy



StatLink http://dx.doi.org/10.1787/888932828944

High-growth enterprises rate

Key Facts

- High-growth enterprises represent on average a small share of the total enterprise population. Typically, when measured on the basis of employment growth, the share ranges between 2% and 4% for most countries. Measures based on turnover are generally twice as high, with the rate of high growth manufacturing enterprises in Korea reaching 15%. For both measures, the shares of high-growth enterprises were lower compared to 2006 in almost all countries.
- In all countries the prevalence of high growth firms in the service sector (measured by employment) was higher than in manufacturing. This was also typically the case for measures based on turnover.

Relevance

High-growth enterprises are firms that by their extraordinary growth make the largest contribution to net job creation, despite typically representing a small proportion of the business population. Understanding the characteristics of high-growth firms is of high interest to policy makers.

Definitions

High-growth enterprises, as measured by employment (or by turnover), are enterprises with average annualised growth in employees (or in turnover) greater than 20% a year, over a three-year period, and with ten or more employees at the beginning of the observation period.

Medium-growth enterprises, as measured by employment, are enterprises with average annualised growth in employees between 10% and 20% a year, over a three-year period, and with ten or more employees at the beginning of the observation period.

The *rate of high-growth enterprises* and *rate of medium-growth enterprises* measure, respectively, the number of high-growth enterprises and the number of medium-growth enterprises as a percentage of the population of enterprises with ten or more employees.

For the definition of "Total economy", see Reader's Guide.

Comparability

A size threshold of ten employees at the start of any observation period was set to avoid the small size class bias that the above definition of high growth inevitably contains. The optimal threshold in terms of *i)* firm size at start *ii)* growth rate and *iii)* growth (observation) period needs to balance two competing criteria: the first is to provide as detailed and as meaningful information as possible, and the second is to maximise information that can be disclosed, i.e. that satisfies confidentiality rules and allows producing the indicators at as detailed an industry level as possible, and by standard (employment) size classes.

Setting the employment thresholds too low, for example, will reduce disclosure problems but at the same time result in disproportionate numbers of small enterprises appearing in the statistics. If the threshold is too high, however, disclosure problems increase, particularly for smaller economies, with significantly fewer large companies than larger economies. It is clear that an absolute threshold will affect countries and industries differently, depending on their size.

The size threshold of ten or more employees holds for both the turnover and employment measures. The advantage is that the initial population is the same, regardless of whether growth is measured in employment or turnover. Moreover, it would be difficult to apply a consistent turnover threshold across all countries because of exchange rates, inflation, etc.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

Data for Israel and the United States are compiled according to ISIC Revision 3. Data for Austria, New Zealand and Slovenia are compiled according to ISIC Revision 4. For other countries data after 2007 are compiled in ISIC Revision 4 and data for 2007 and before are compiled in ISIC Revision 3.

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database.

For further reading

Ahmad, N. and D. Rude Petersen (2007), High-Growth Enterprises and Gazelles – Preliminary and Summary Sensitivity Analysis, OECD-FORA, Paris, *www.oecd.org/document/31/0,3746,en_2825_499554_39151327_1_1_1_1,00.html.*

Ahmad, N. and E. Gonnard (2007), "High-growth Enterprises and Gazelles", paper prepared for the International Consortium on Entrepreneurship (ICE), Copenhagen, Denmark. *http://ice.foranet.dk/upload/highgrowth.pdf*.

Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

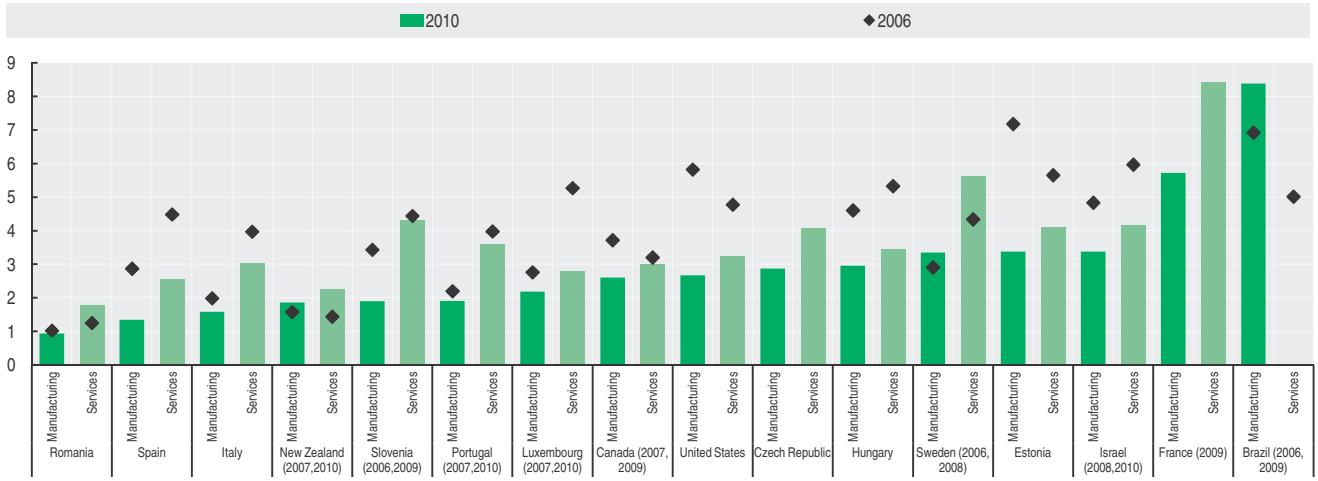
OECD(2007), The OECD Entrepreneurship Indicators Programme: Workshop on the Measurement of High-growth Enterprises, 19 November 2007, Paris.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 4.7. **High-growth enterprises rate, measured by employment growth**

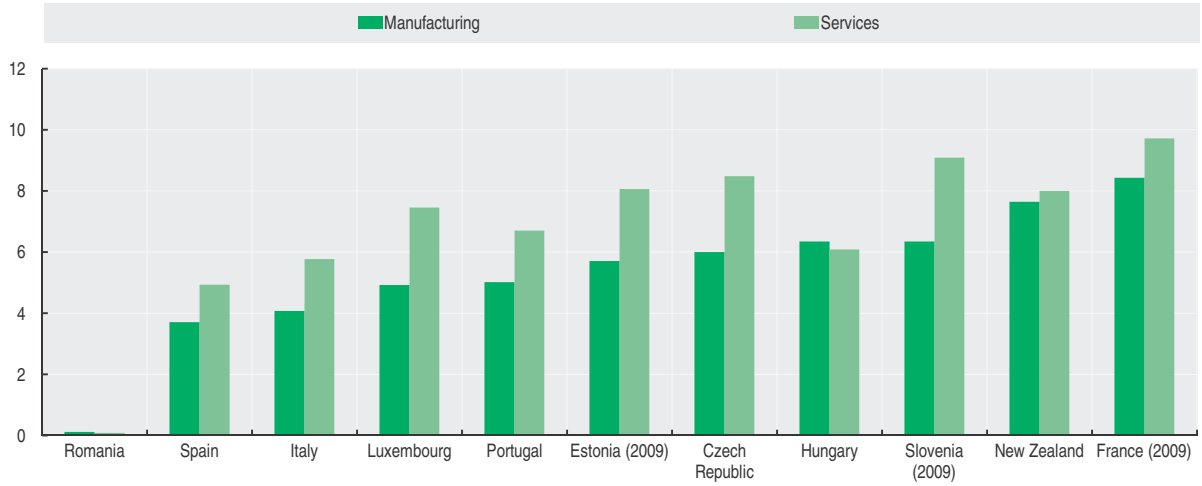
Measured by employment growth, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828963

Figure 4.8. **Medium-growth enterprises rate, measured by employment growth**

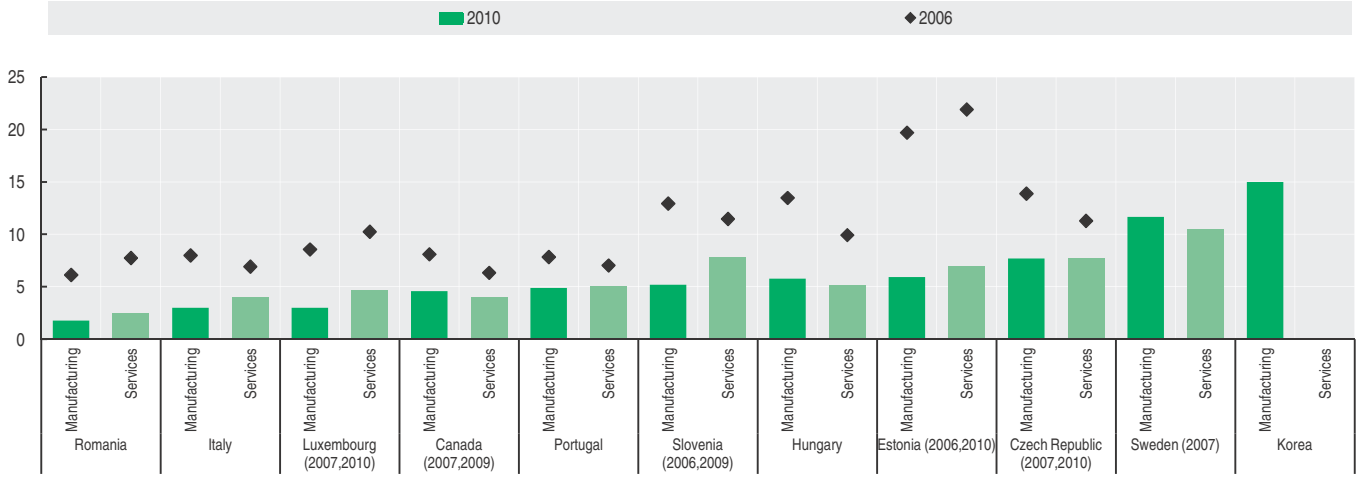
Measured by employment growth, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932828982

Figure 4.9. **High-growth enterprises rate, measured by turnover growth**

Measured by turnover growth, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932829001

Gazelles rate

Key Facts

- In a majority of countries, less than 1% of firms with ten or more employees are gazelles when the growth measure is based on employment. The share is slightly higher for gazelles as measured by turnover growth.
- In all countries the prevalence of high growth firms in the service sector (measured by employment and turnover) was higher than in manufacturing.

Relevance

Gazelles represent the young enterprises among the population of high-growth enterprises. Their role in job creation is of particular interest to policy makers.

Definitions

Gazelles form a subset of the group of high-growth enterprises; they are high-growth enterprises born five years or less before the end of the three-year observation period.

Gazelles are enterprises that have been employers for a period of up to five years, with average annualised growth in employees (or in turnover) greater than 20% a year over a three-year period and with ten or more employees at the beginning of the observation period.

Young medium-growth enterprises, as measured by employment, are enterprises that have been employers for a period of up to five years, with average annualised growth in employees between 10% and 20% per year over a three-year period and with ten or more employees at the beginning of the observation period.

The *rate of gazelles* and the *rate of young medium-growth enterprises* measure respectively the number of gazelles and the number of young medium-growth enterprises as a percentage of the population of enterprises with ten or more employees.

For the definition of "Total economy", see Reader's Guide.

Comparability

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees.

Employment data are based on the number of persons employed, with the exception of Israel, where the number of employees is used.

Source/Online database

OECD Structural and Demographic Business Statistics (SDBS) Database, http://dx.doi.org/10.1787/sdbs-data-en.

For further reading

Ahmad, N. and D. Rude Petersen (2007), "High-Growth Enterprises and Gazelles – Preliminary and Summary Sensitivity Analysis", OECD-FORA, Paris.

Ahmad, N. and E. Gonnard, (2007), "High-growth Enterprises and Gazelles", paper prepared for the International Consortium on Entrepreneurship (ICE), Copenhagen, Denmark, *http://ice.foranet.dk/upload/highgrowth.pdf*.

Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

OECD (2007), The OECD Entrepreneurship Indicators Programme: Workshop on the Measurement of High-growth Enterprises, 19 November 2007, Paris, *www.oecd.org/document/31/* 0,3746,en_2825_499554_39151327_1_1_1_1,00.html.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 4.10. **Gazelles rate**

Measured by employment growth, 2010 or latest available year

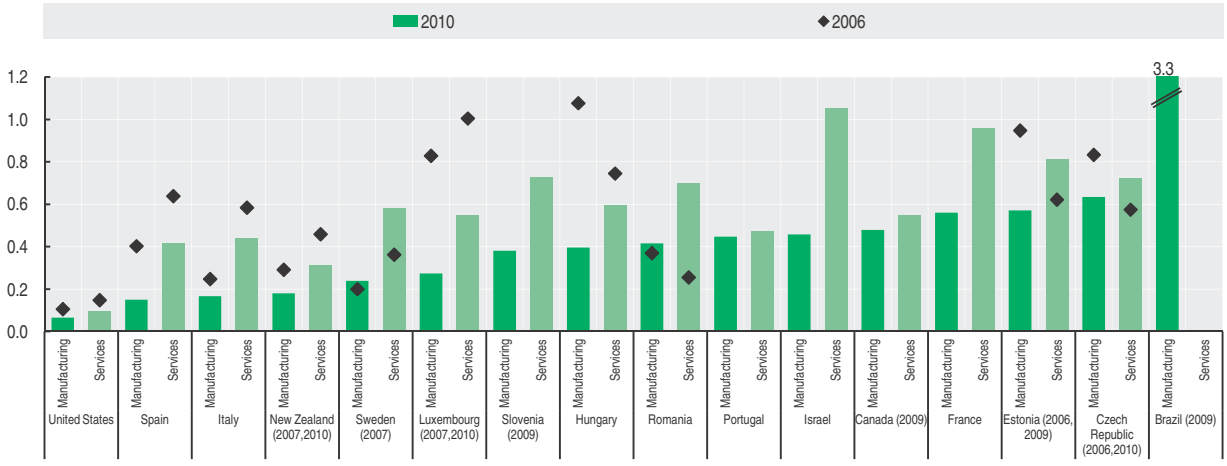


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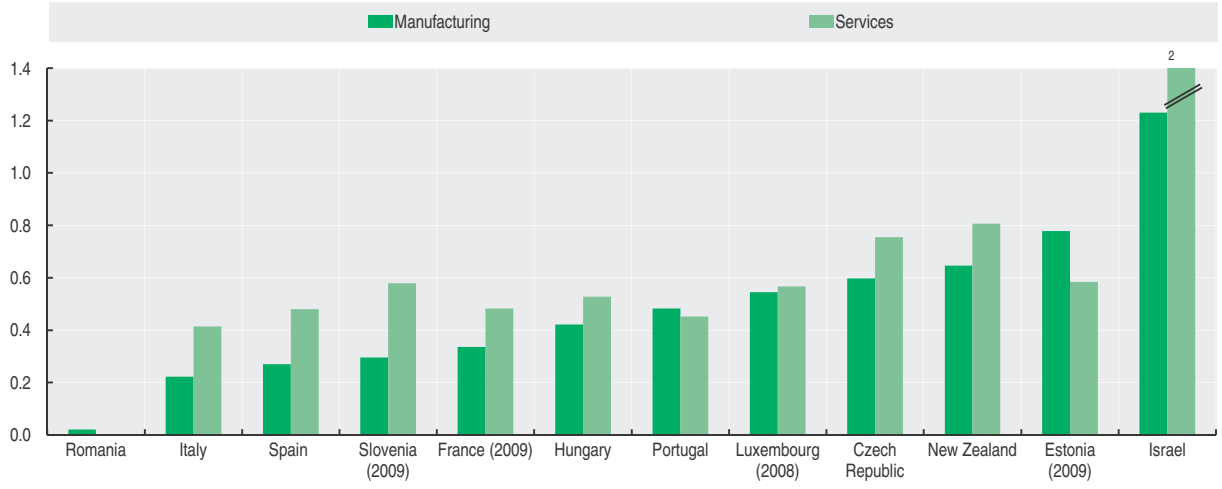
Figure 4.11. **Young medium-growth enterprises rate**

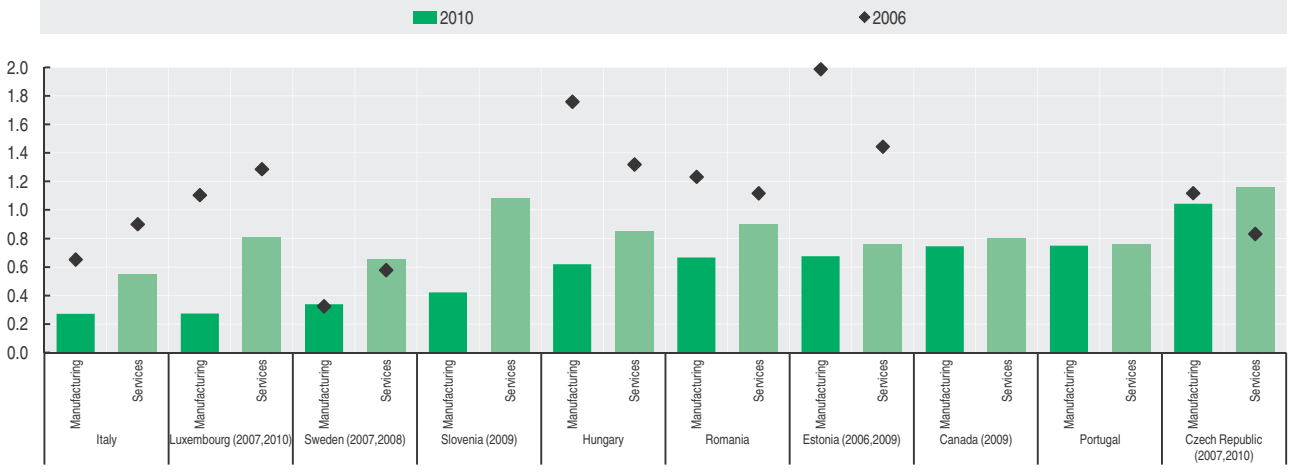
Measured by employment growth, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932829039

Figure 4.12. **Gazelles rate**

Measured by turnover growth, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888932829058

5. THE PROFILE OF THE ENTREPRENEUR

Gender differences in self-employment rates

Self-employment among the youth and seniors

Self-employment rates of migrants

Earnings from self-employment

Preferences and feasibility of self-employment

Gender differences in self-employment rates

Key facts

- Three times as many men as women are self-employed with employees. Recent data indicate a small closing of this gap, despite the general decline in the population of self-employed with employees since the beginning of the crisis.
- Own-account employment levels rose during the crisis both for men and for women. When coupled with falling employee numbers however, the likelihood is that *push* (adjustment strategies) rather than *pull* factors are the driving force.
- In all OECD economies self-employed women are more likely than men to work in the service sector. Eighty per cent of self-employed women work in the services sector compared to sixty percent for men.

Relevance

Women entrepreneurship is increasingly recognised as a key source of employment creation and innovation. However, gender differences in entrepreneurship are difficult to measure and this complicates the evaluation of support policies for women entrepreneurs. Given their availability on a timely and short-term basis, self-employment data are also highly relevant to monitor how women's entrepreneurship responds to the economic cycle.

Definitions

The number of women employers is given by the number of women who report their status as "self-employed with employees" in population surveys. *The number of women own-account workers* is given by the number of women who report their status as "self-employed without employees". *The share of women employers* and *the share of women own-account workers* are given in relation to the total number of employed women.

Self-employment jobs are defined in this section as those "jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise" (15th Conference of Labour Statisticians, January 1993). The definition therefore includes both unincorporated and incorporated businesses and as such differs from the definitions used in the System of National Accounts. It should be noted that all the self-employed are entrepreneurs.

Comparability

The main comparability issue relates to the classification of "self-employed" owners of incorporated businesses. Some countries, for example Japan, New Zealand, Norway and the United States, include only the self-employed owners of unincorporated businesses, following the 2008 SNA. This is not universally the case, partly determined by the availability of statistics. As such to improve international comparability, the number of incorporated employers and own-account workers in the United States has been estimated in this section, using information from the Contingent and Alternative Work Arrangements Surveys.

Manufacturing and construction activities include sectors classified as Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities; and Construction. Service activities include all the other activities excluding Forestry, Agriculture, Mining, Public Administration and Education.

The OECD average is calculated as the unweighted average of OECD countries.

Sources/Online databases

OECD estimates based on:

- Current Population Survey.
- Economically Active Population Survey (Korea).
- Encuesta Nacional del Empleo (Chile).
- Encuesta National de Empleo (Mexico).
- Eurostat Labour Force Surveys, 2000-11.
- Labour Force Survey (Canada).
- Labour Force Survey (Israel).
- Labour Force Survey (Japan).
- Labour Force Survey (South Africa).
- National Household Sample Survey (Brazil).

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

For further reading

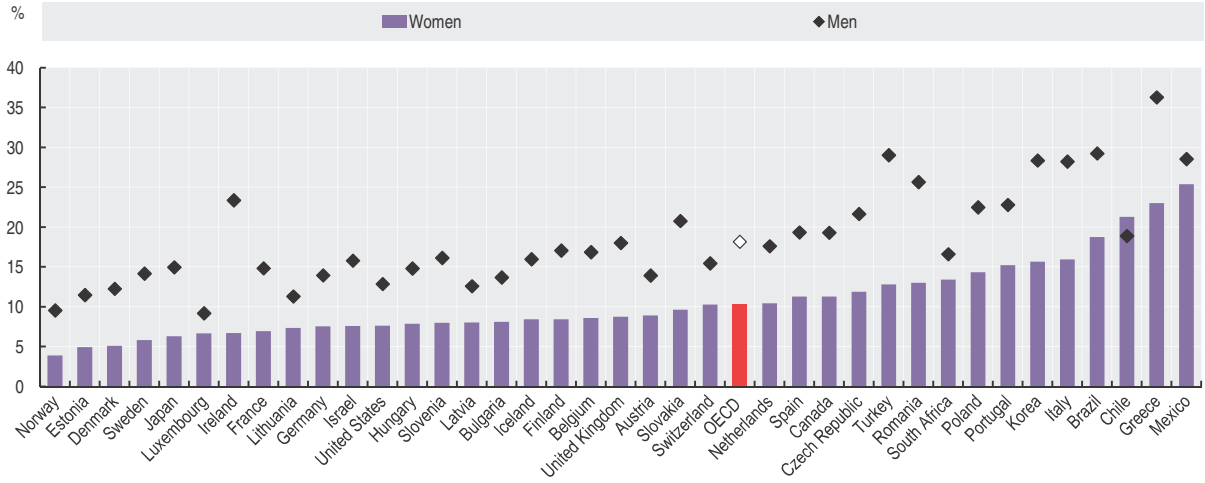
Hipple, S. (2010), "Self-employment in the United States", Monthly Labor Review, September.

OECD (2012), *Closing the Gender Gap. Act Now*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/close-the-gender-gap-now_9789264179370-en*.

OECD (2000), *OECD Employment Outlook*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/oecd-employment-outlook-2000_empl_outlook-2000-en*.

Figure 5.1. **Share of self-employed men and women**

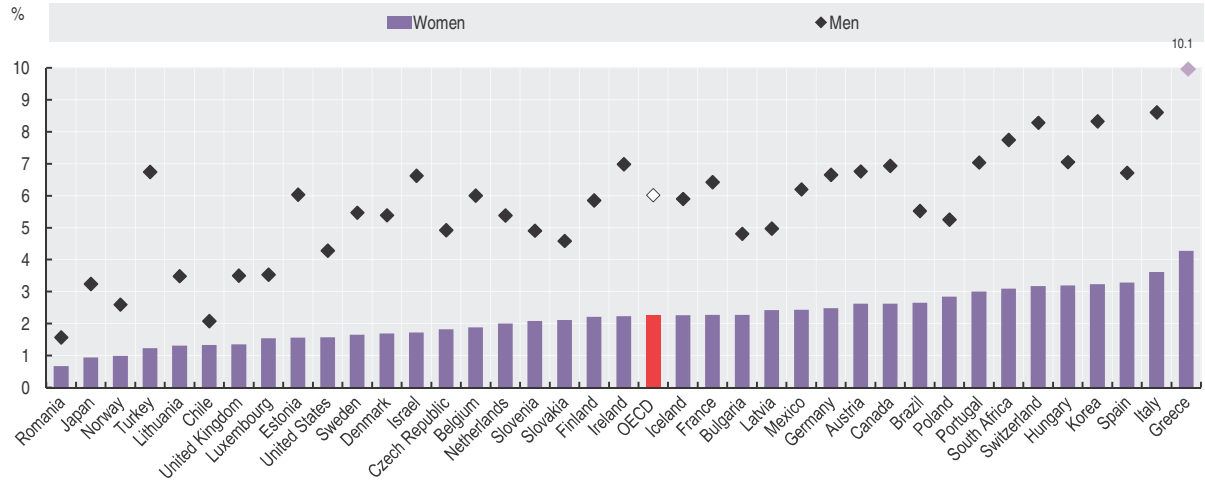
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888932829077

Figure 5.2. **Share of men and women employers**

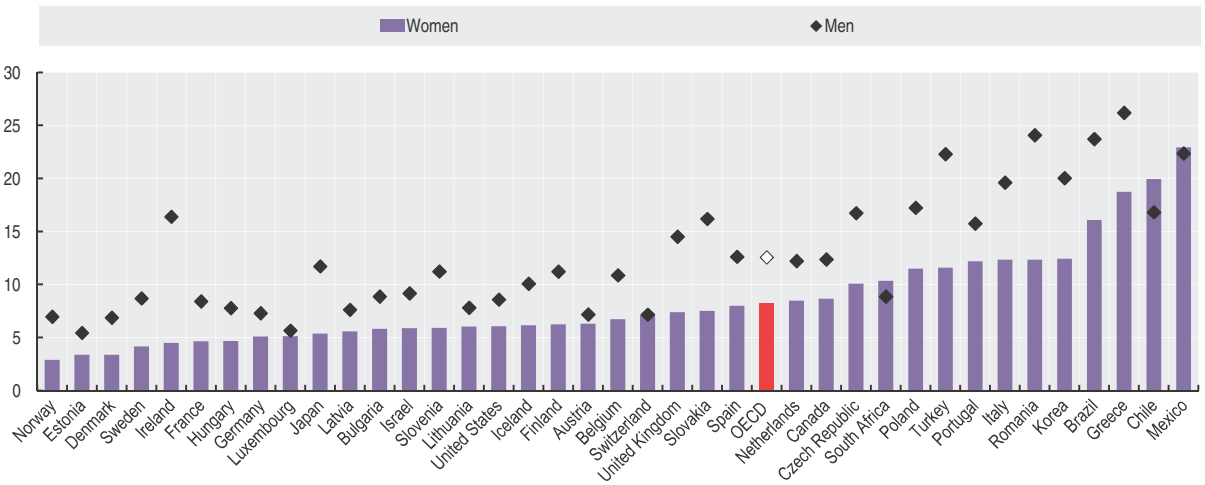
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888932829096

Figure 5.3. **Share of men and women own-account workers**

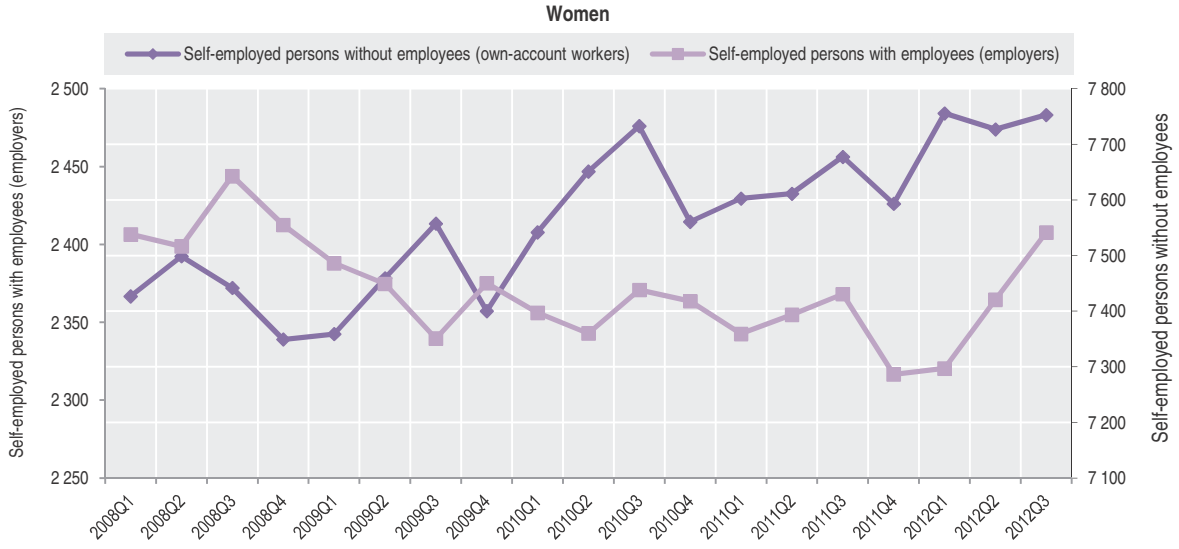
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888932829115

Figure 5.4. **Trends in employers and own-account workers, EU27**

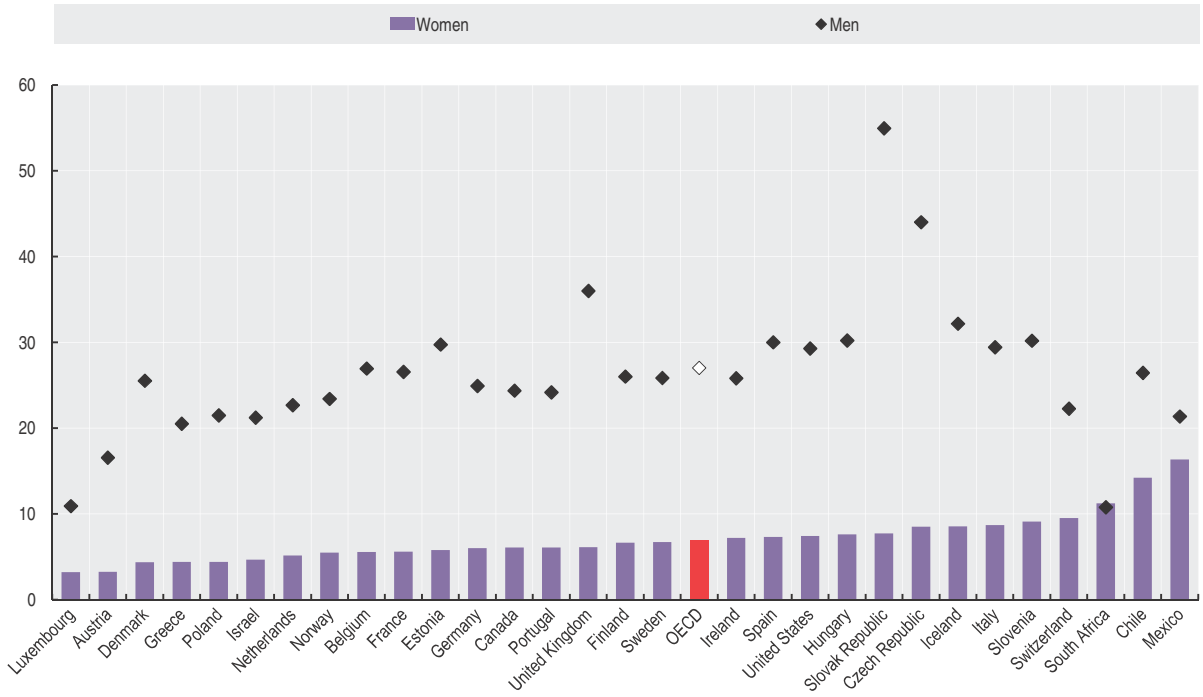
Thousands



StatLink http://dx.doi.org/10.1787/888932829134

Figure 5.5. **Self-employed whose activity is in manufacturing and construction**

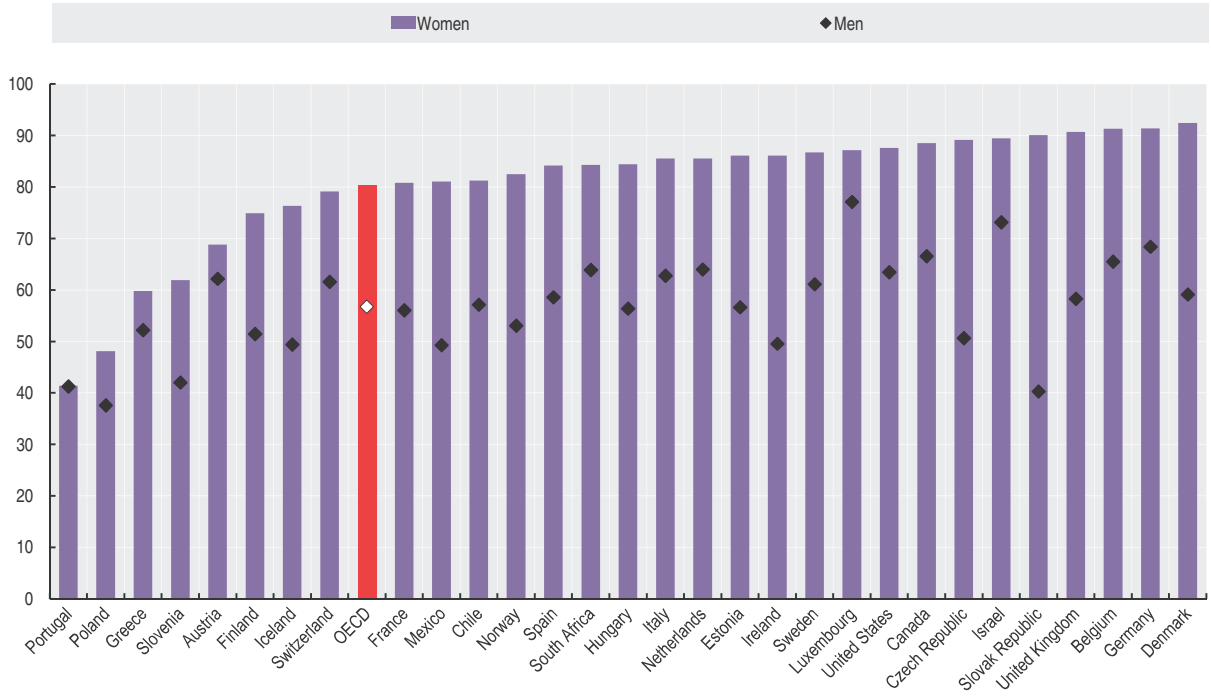
Percentage, 2010



StatLink http://dx.doi.org/10.1787/888932829153

Figure 5.6. **Self-employed whose activity is in services**

Percentage, 2010



StatLink http://dx.doi.org/10.1787/888932829172

Self-employment among the youth and seniors

Key facts

- People under the age of 25 have relatively low self-employment rates: 4% on average in the OECD area and never above 11%.
- Self-employment is an important source of revenues for individuals aged 65 or older.
- Most of the self-employed aged 65 or older have been running the same business for more than ten years.

Relevance

Increasing self-employment rates in the youth and senior population groups can form an important policy target to deal with two key economic issues: high youth unemployment and the demographic challenges posed by an ageing population.

Definitions

The *self-employment rate for the youth* is the share of employed people aged 15 to 24 who are self-employed and not working in agriculture.

The *self-employment rate for seniors* is the share of employed people 65 years and above who are self-employed and not working in agriculture.

Senior self-employment tenure is the length of time the person aged 65 or over has been self-employed, as defined above.

Comparability

Self-employment rates for the youth are close to zero in several countries, and differences across these countries cannot be evaluated. Tenure is measured in months in the European and Canadian surveys but in years in the survey of the United States (Current Population Survey). Given the low numbers of sampled self-employed youths and seniors, values are averaged over three years for all countries to increase statistical precision. This process is repeated for tenure measures except for the United States where only observations for 2010 are available from a biannual supplement. Comparability issues can be generated by the different treatment of incorporated self-employed, who are considered employees in Japan, New Zealand, Norway and the United States. As the young are less likely to have incorporated their business, youth self-employment rates may be lower in countries that restrict the self-employed to those owning unincorporated businesses.

Sources/Online databases

OECD estimates based on:

- Current Population Survey (United States), 2009-11.
- Eurostat Labour Force Surveys, 2009-11.
- Labour Force Survey (Canada), 2009-11.
- Encuesta National de Empleo (Mexico).
- Labour Force Survey (Israel), 2009-11.
- Labour Force Survey (Japan), 2009-11.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

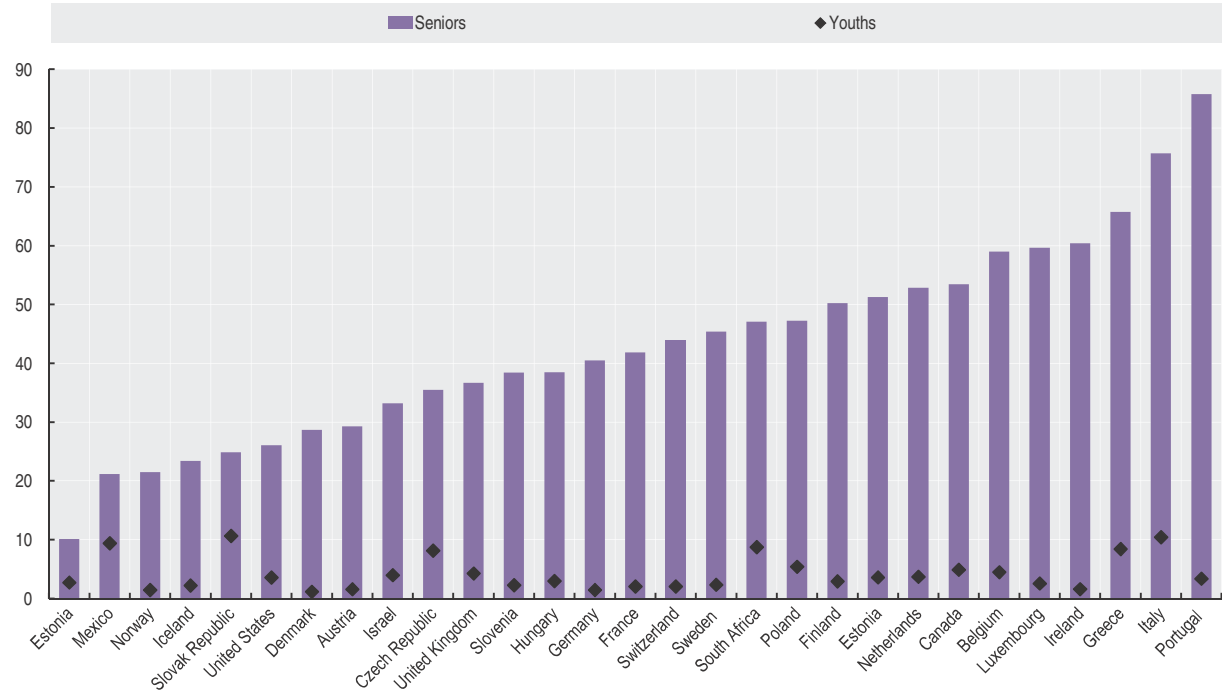
For further reading

Hipple, S. (2010), "Self-employment in the United States", Monthly Labor Review, September.

OECD (2012), "Policy Brief on Youth Entrepreneurship", *www.oecd.org/regional/leed/Youth%20Policy%20Brief.pdf*.

Figure 5.7. **Self-employment rates for the youth and seniors**

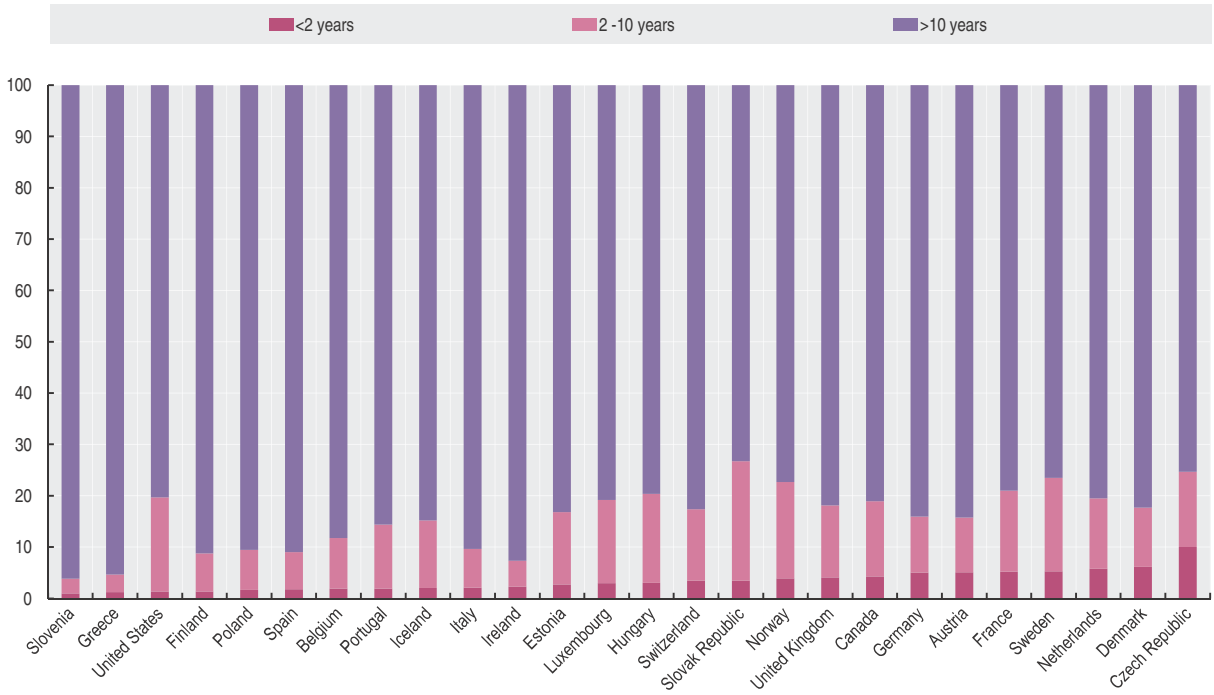
Percentage, average 2009-11



StatLink http://dx.doi.org/10.1787/888932829191

Figure 5.8. **Self-employment tenure of seniors**

Percentage, average 2009-11



StatLink http://dx.doi.org/10.1787/888932829210

Self-employment rates of migrants

Key facts

- In OECD countries, around 13% of foreign-born workers are self-employed. Migrants represent around 12% of the self-employed not working in agriculture, a percentage that changed little between 2005 and 2010. There are however very large differences across countries. While in several OECD countries, including Finland, Germany, Sweden and the United States, the rates of self-employment are similar for natives and migrants, in other countries such as the Czech Republic and Poland, the self-employment rates of immigrants are much higher than those of natives.
- In about two-thirds of the economies where information is available, self-employed immigrants typically have a higher level of educational attainment than self-employed natives.
- There is only scarce information on differences in business performance by migrant status of the owner. Available data provide important insights. For instance, in France, data suggest that enterprises funded by immigrants have significantly lower survival rates than enterprises funded by native-born. In the United States, immigrants with Asian origin own businesses that have higher sales than non-immigrants, while Hispanic immigrants are over-represented among owners of businesses with low levels of receipts.

Relevance

Immigrants bring diverse entrepreneurial skills to host countries, working in a wide range of occupations and sectors, including innovative areas. Thanks to their transnational ties, immigrant entrepreneurs can also contribute to expanding trade between the host country and their countries of origin. Self-employment data provide relevant information on trends and characteristics of immigrant entrepreneurs.

Definitions

The *self-employment rate by place of birth* indicates the share of the employed native-born and foreign-born individuals who work as self-employed and are not working in agriculture. The population includes all individuals aged 15 or above.

The *percentage of self-employed who are foreign-born* shows the share of self-employed individuals not working in agriculture who are foreign born.

The *share of owners of small businesses, by place of birth* indicates the percentage of native-born and foreign-born who own a business with less than ten employees.

Tertiary educated among the self-employed by place of birth indicates the share of foreign-born and native born self-employed in non-agricultural sectors who attained an education level equal to level 5 or higher of the International Standard Classification of Education (ISCED). ISCED level 5 corresponds to the first level of tertiary education.

Comparability

All the statistics are obtained from labour force surveys. Given the small number of foreign-born self-employed in the samples of countries with lower rates of immigration, the statistics are presented as averages of the estimates for three consecutive years (2009 to 2011). Producing estimates based on three years of data increases the statistical precision but at the cost of a loss in timeliness. The main comparability issue relates to the treatment of incorporated self-employed, that are not always included in the counts of self-employed. For the United States, the data refer only to the unincorporated self-employed. Small businesses in the United States include all business units owned by self-employed with 10 employees or less, and not with less than 10 employees as is the case in other countries. Finally, the country coverage is limited by the fact that labour force surveys do not always include or disseminate information on the country of birth.

Sources/Online databases

OECD estimates based on:

- Current Population Survey (United States).
- Eurostat Labour Force Surveys (2000-11).
- Labour Force Survey (Israel).

Fairlie R. (2012), "Immigrant Entrepreneurs and Small Business Owners, and their access to financial capital", Report for the Small Business Administration", *www.sba.gov/sites/default/files/rs396tot.pdf*.

Système d'information sur les nouvelles enterprises (SINE) public-use microdata, INSEE.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

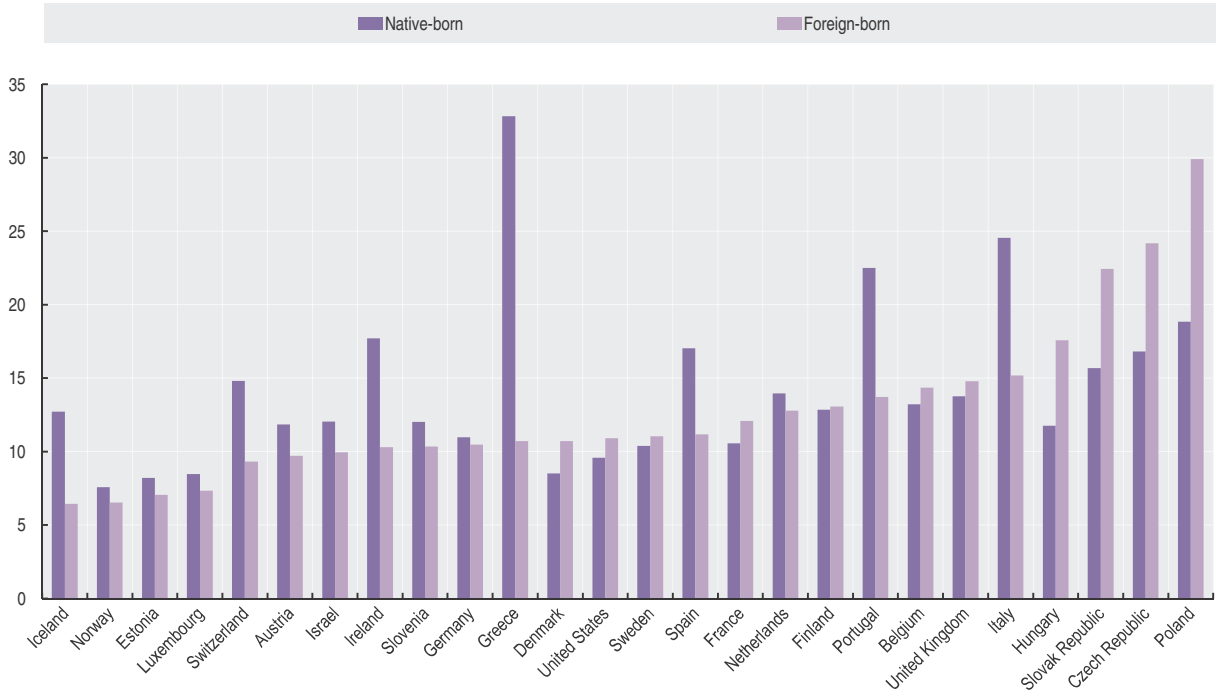
For further reading

OECD (2010), *Open for Business. Migrant Entrepreneurship in OECD countries*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/open-for-business_9789264095830-en*.

OECD (2010), "Entrepreneurship and Migrants", Report by the OECD Working Party on SMEs and Entrepreneurship, OECD, *www.oecd.org/industry/smes/45068866.pdf*.

Figure 5.9. **Self-employment rate by place of birth**

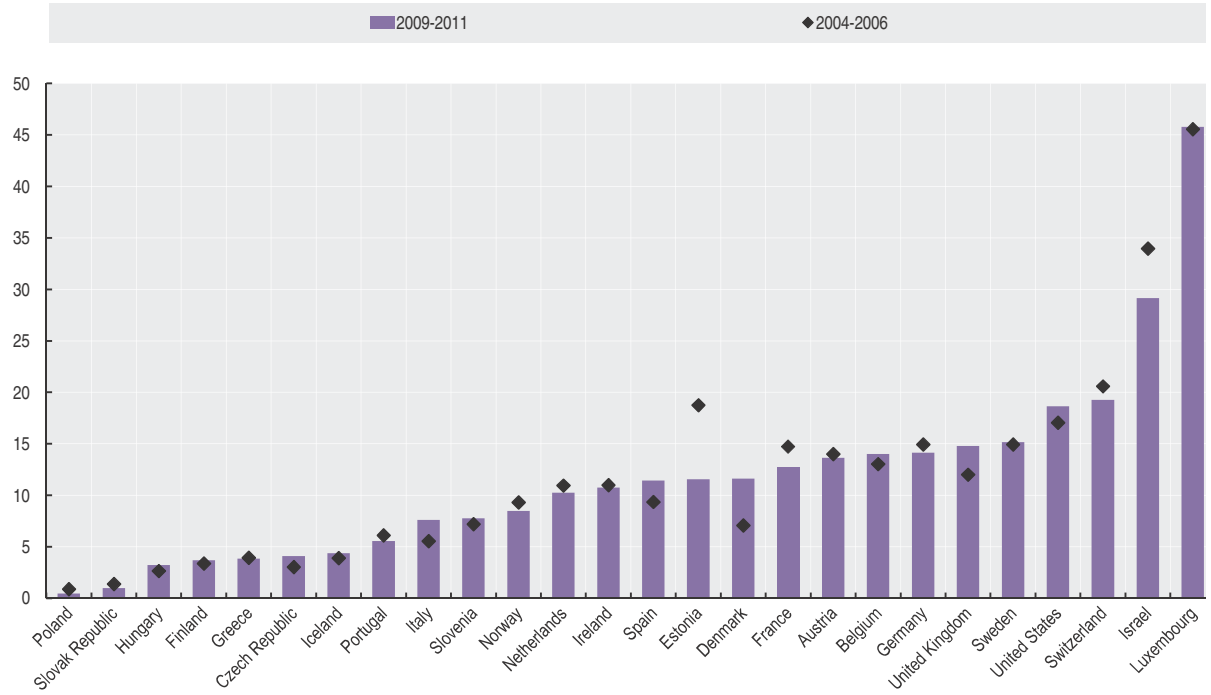
Percentage, average 2009-11



StatLink http://dx.doi.org/10.1787/888932829229

Figure 5.10. **Self-employed who are foreign-born**

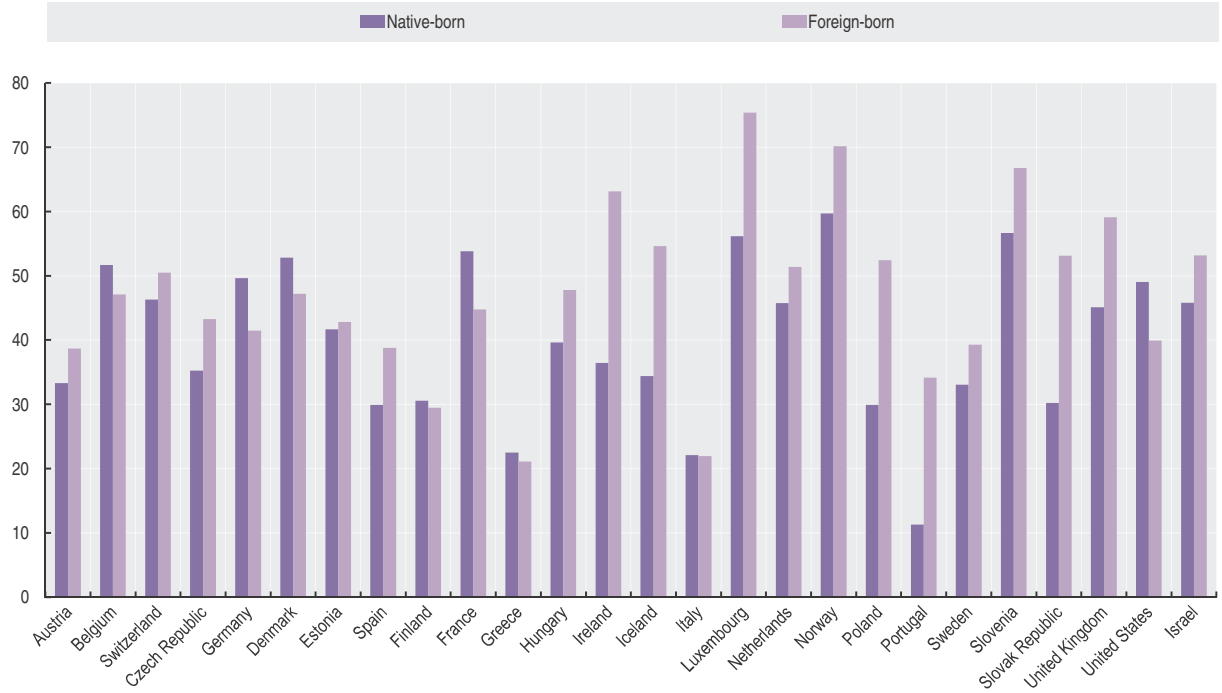
Percentage



StatLink http://dx.doi.org/10.1787/888932829248

Figure 5.11. **Tertiary educated among the self-employed by place of birth**

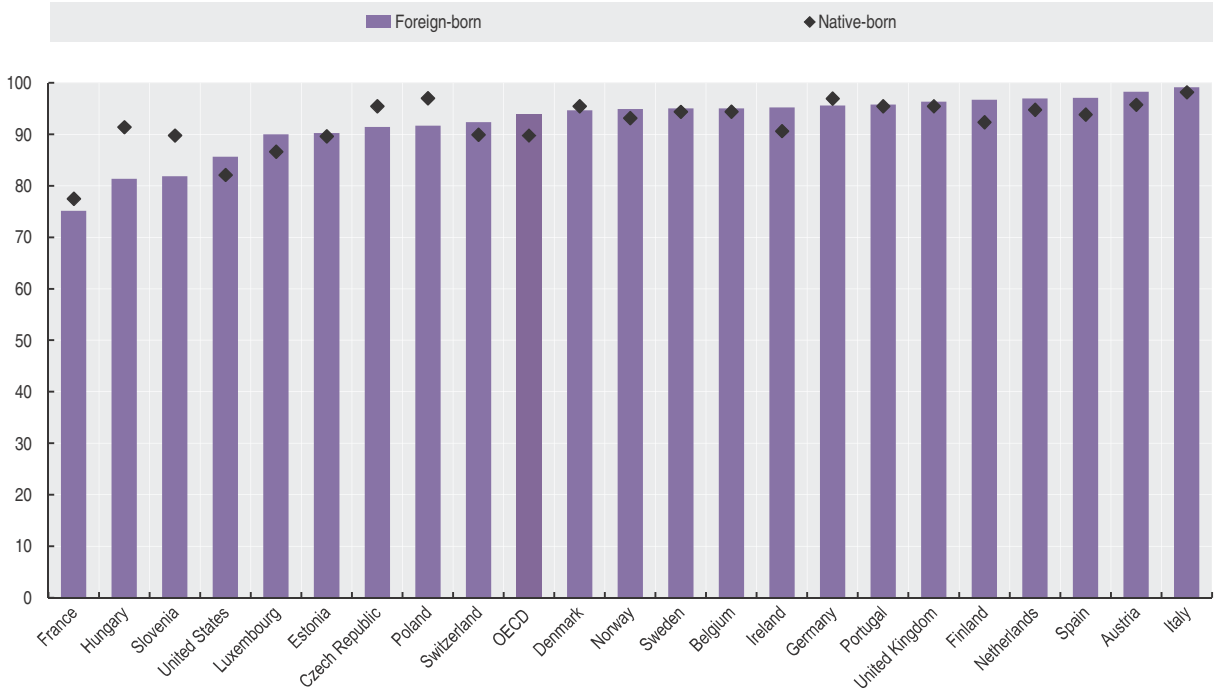
Percentage, average 2009-11



StatLink http://dx.doi.org/10.1787/888932829267

Figure 5.12. **Share of owners of small businesses, by place of birth**

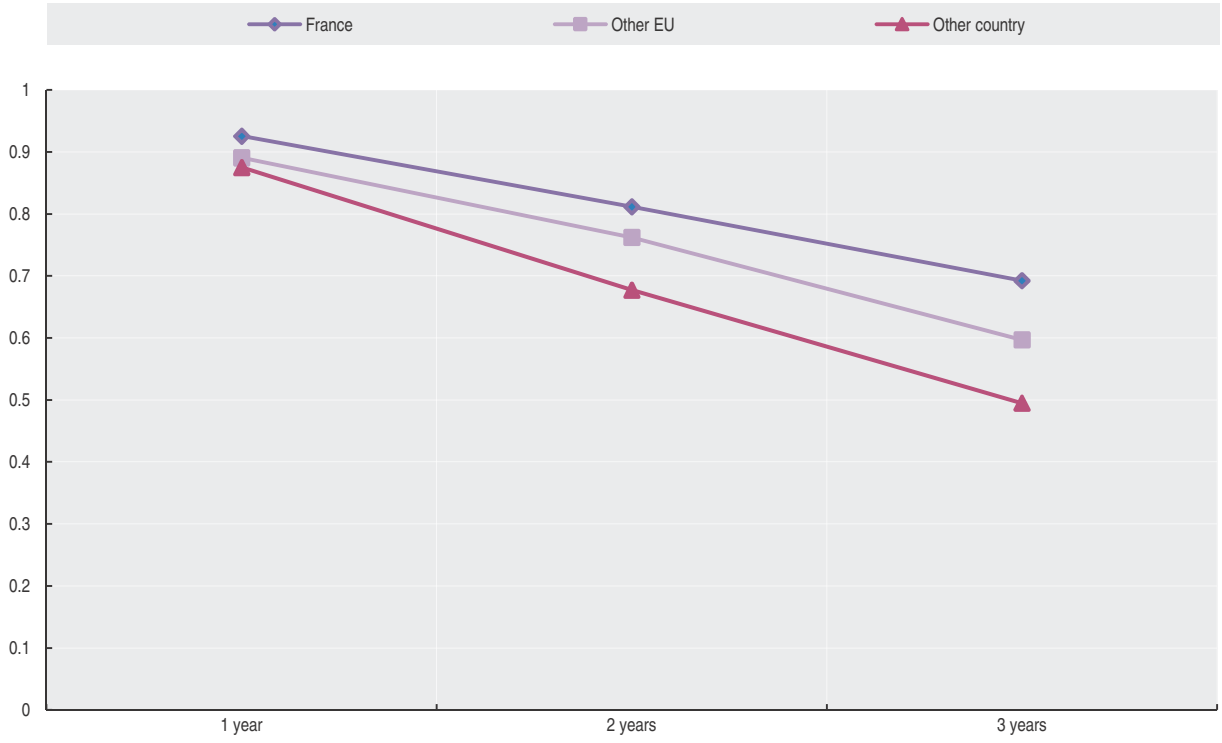
Percentage, average 2009-11



StatLink http://dx.doi.org/10.1787/888932829286

Figure 5.13. **Survival rates by nationality of the owner, France**

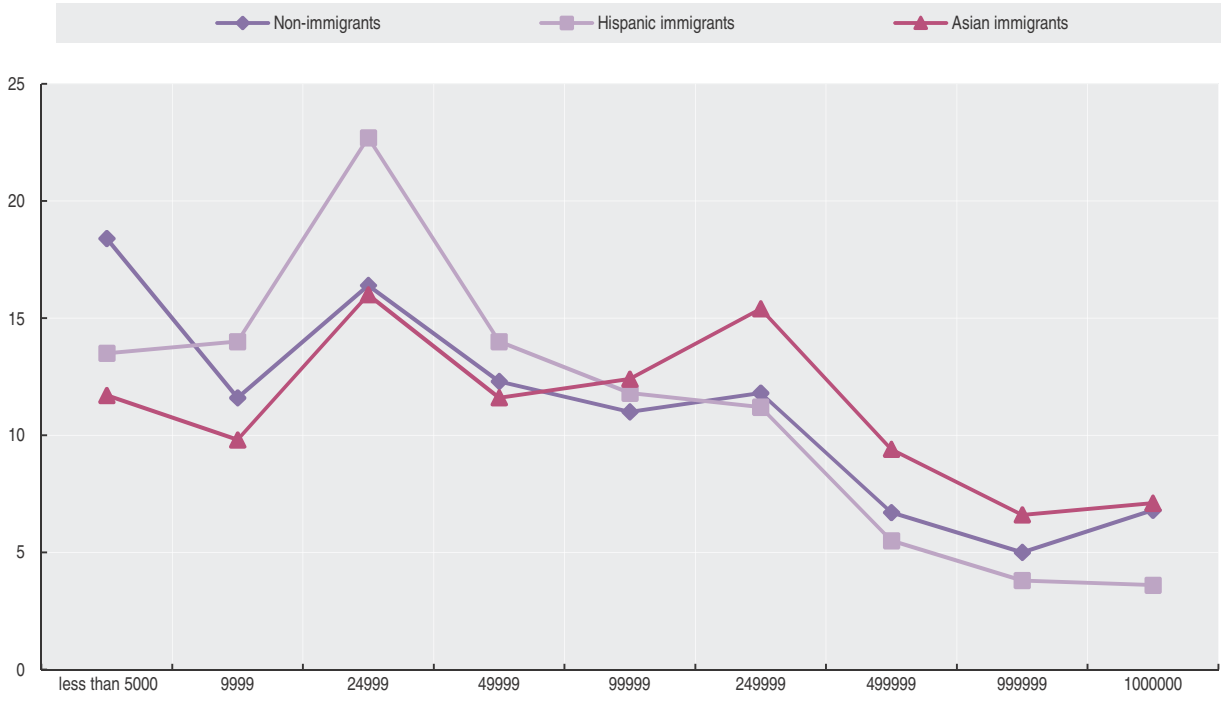
Percentage, average 2006-09



StatLink http://dx.doi.org/10.1787/888932829305

Figure 5.14. **Sales/receipts by ethnic origin of the business owners in the United States**

Percentage, 2009



StatLink http://dx.doi.org/10.1787/888932829324

Earnings from self-employment

Key facts

- Earnings from self-employment are more unequally distributed than earnings from salaried employment. High-earners in self-employment (those at the 8th decile of the earnings distribution) earn 13 times the income of low-earners (those at the 2nd decile of the distribution).
- Self-employed women earn significantly less than men across countries. The gaps in mean earnings from self-employment are substantial everywhere (35% on average) and wider than those observed in wage employment (15% on average).

Relevance

The fear of low or erratic earnings is one of the main reasons why many people do not become entrepreneurs. While entrepreneurship is a pathway to wealth for highly successful individuals, many self-employed struggle with relatively low incomes. Low incomes mean lower opportunities to accumulate savings, and thus a higher likelihood of falling into poverty if the business fails. Studying the distribution of self-employment earnings and differences among socio-economic groups is thus very relevant to assess the economic contribution of entrepreneurship and the well-being of individuals who choose this career path.

Definitions

Inequality in self-employment earnings is defined as the ratio of the gross (pre-tax) earnings of the self-employed individual at the 8th decile of the earnings distribution and the earnings of the self-employed individual at the 2nd decile of the distribution. The same definition is applied to inequality in wage-employment earnings. The estimates are restricted to individuals whose primary activity is self-employment and do not consider earnings from secondary work activities. The earnings figures only refer to the unincorporated self-employed and both positive (benefits) and negative (losses) earnings are included in the computation. The same definition is applied to earnings from wage employment. It should be noted that the estimates refer to total earnings, and not to earnings per hour worked: the more unequal distribution of self-employment earnings is partly explained by the higher inequality in hours worked among the self-employed.

The *gender gap in self-employment earnings* is defined as the difference between male and female average self-employment incomes divided by the male average self-employment income. Both positive (benefits) and negative (losses) earnings are included in the computation of the averages.

Comparability

There are still methodological hurdles that hamper the comparability of earnings statistics across countries and periods. In fact, the self-employed often have accounting practices which make it difficult for them to provide accurate responses to survey questions on earnings. Moreover, their financial and accounting framework does not relate well to the one statisticians use in constructing national accounts or household income analysis (Eurostat, 2011).

Comparisons between self-employment and wage employment earnings (Figure 5.15) are likely to be affected by the way self-employment earnings are measured. Gaps between self-employment and wage employment earnings would be in fact lower if the measure of self-employment earnings included equity invested in the firm. This is not the current practice. The country coverage is limited by the fact that some countries only record self-employment earnings for those with positive earnings, censoring at zero the losses from self-employment.

Sources/Online databases

Estimates based on:

- European Union Statistics on Income and Living Conditions (EU-SILC), 2010 wave.
- American Community Survey, 2010 wave.
- New Zealand Income Survey, 2010.
- Survey of Labour and Income Dynamics (Canada), 2010.

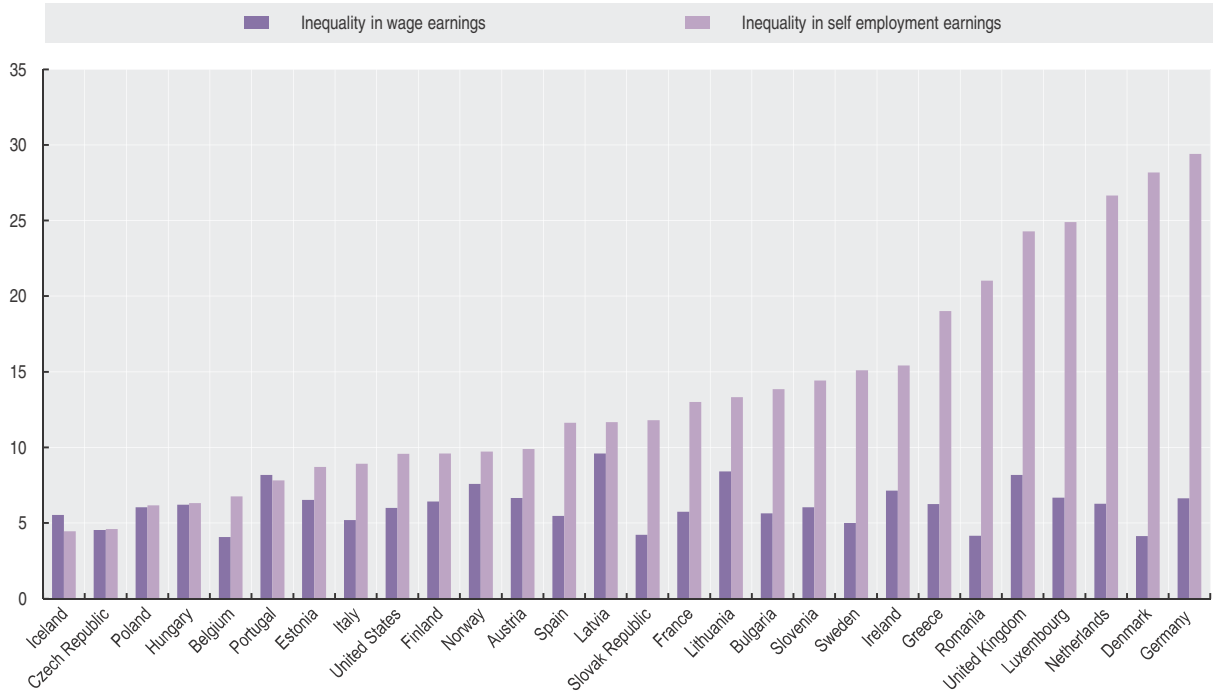
For further reading

Hamilton B.H, (2000), "Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment", *Journal of Political Economy*, University of Chicago Press, vol. 108(3), pp. 604-631, June.

OECD (2012), *Closing the Gender Gap. Act Now*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/close-the-gender-gap-now_9789264179370-en*.

Figure 5.15. **Inequality in wage and self-employment earnings**

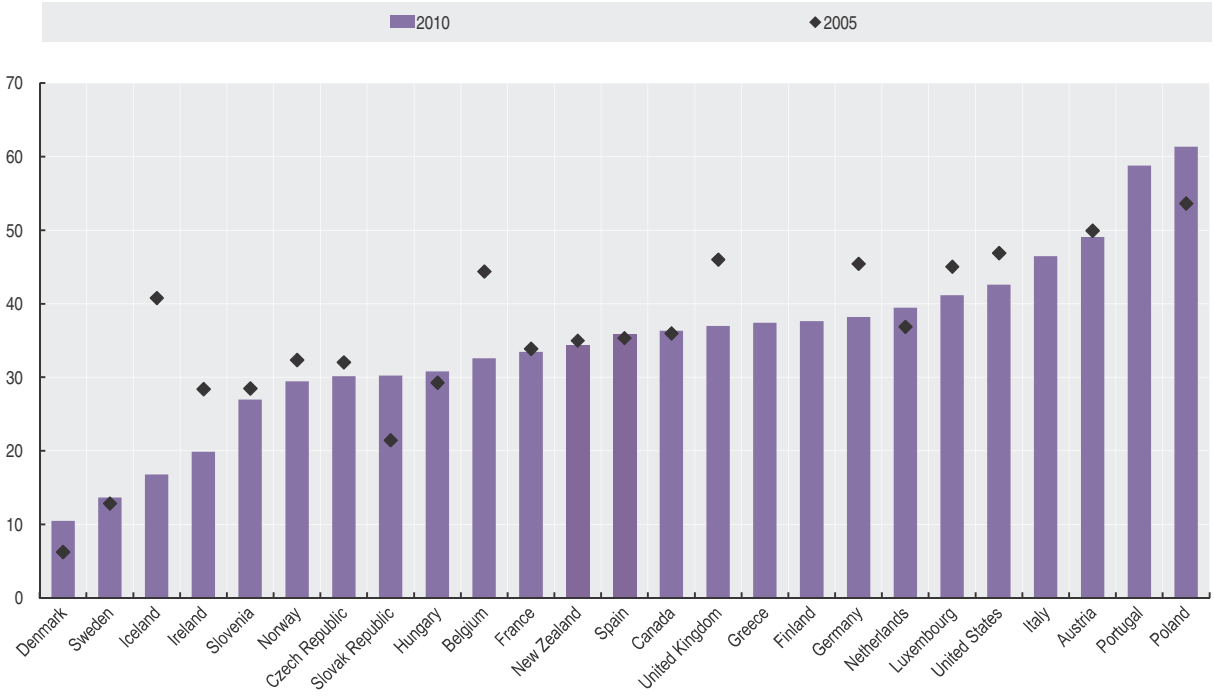
Percentage, 2010



StatLink http://dx.doi.org/10.1787/888932829343

Figure 5.16. **Gender gap in self-employment earnings**

Percentage



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Preferences and feasibility of self-employment

Key facts

- Very different attitudes towards self-employment can be observed across countries and across time, with a marked decrease in preferences for self-employment over the last three years.
- Women consistently rate self-employment as being less feasible than men do.
- Young people are more optimistic about the possibility of setting up a business in the near future, even though the actual rate of entrepreneurship among the young is particularly low.

Relevance

Stimulating entrepreneurship requires a good understanding of the reasons leading people to become self-employed. Self-reported information on preferences for self-employment, and on the feasibility of starting a business, can help policy-makers assess changes in the business environment. These data also help understand whether particular socio-economic groups perceive stronger difficulties when thinking about an entrepreneurial career. Attitudes towards entrepreneurship can be shaped by different types of policies, including entrepreneurial education, media campaigns and mentorship programmes.

Definitions

Preferences for self-employment shows the percentage of individuals declaring they would prefer to be self-employed if they were free to choose between self-employment and wage employment.

Feasibility of self-employment indicates the percentage of individuals declaring that, regardless of preferences, it would be feasible for them to become self-employed within the next five years.

Both indicators cover a population aged 15 years and above.

Comparability

Data are drawn from the *Flash Eurobarometer on Entrepreneurship*, which is a general survey of the adult population conducted periodically for the European Commission Directorate-General Enterprise and Industry. The survey is meant to gather information about peoples' entrepreneurial mindset and gain insights on how these differ across countries. It examines the motivation, choices, experiences and obstacles linked to entrepreneurship; the survey considers self-employed and business owners as entrepreneurs.

The 2012 survey covered 40 countries: the EU27, Brazil, China, Croatia, Iceland, India, Israel, Japan, Korea, Norway, the Russian Federation, Switzerland, Turkey and the United States. The size of the target sample was of 1000 individuals in each country, apart from the United States where 3000 individuals were interviewed.

The interpretation of the results is subject to caution: as the samples are relatively small, marginal differences observed across countries and gender might be the result of sampling errors and not necessarily differences in the underlying population. Interviews were conducted via telephone, both on fixed lines and mobile phones, except for India where the interviews were conducted face-to-face. The phone numbers are selected based on a randomisation procedure, with stratification by region and level of urbanisation. For all countries surveyed, a national weighting procedure was derived based on data on gender, age, region and size of locality from national statistical offices. Finally, a possible issue for comparability is the different share of non-respondents in different countries.

Sources/Online databases

European Commission, *Eurobarometer Survey on Entrepreneurship*, *http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/eurobarometer/*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

For further reading

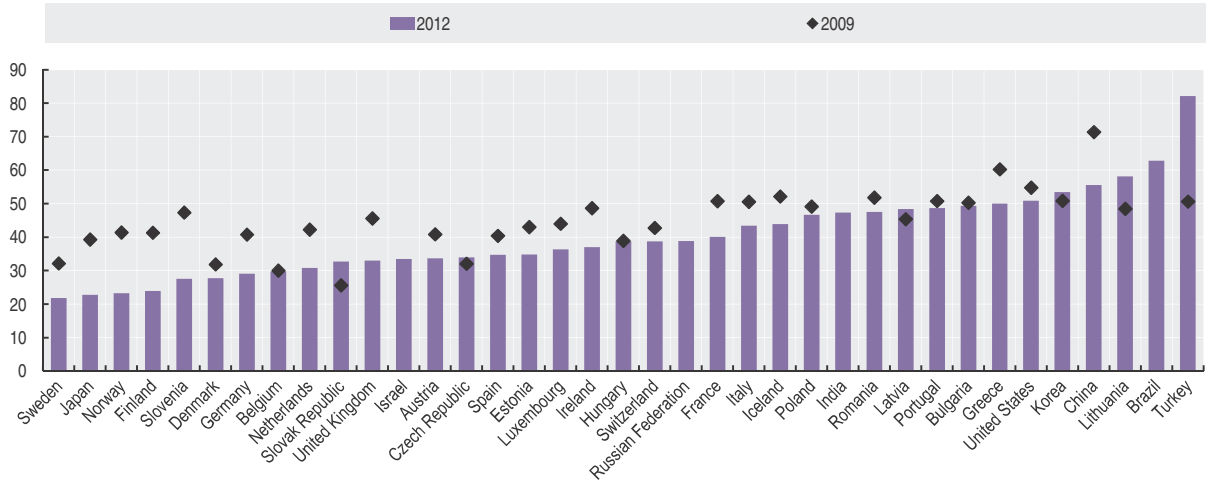
European Commission (2013), *Entrepreneurship in the EU and beyond – Flash Eurobarometer 354*, Report, *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*.

OECD (2012), *Closing the Gender Gap. Act Now*, OECD Publishing, Paris, *www.oecd-ilibrary.org/social-issues-migration-health/close-the-gender-gap-now_9789264179370-en*.

OECD (2004), *Women Entrepreneurship. Issues and Policies*, 2nd OECD Conference of Ministers Responsible for Small and Medium-Sized Enterprises (SMEs), *www.oecd.org/cfe/smes/31919215.pdf*.

Figure 5.17. **Preferences for self-employment**

Percentage



StatLink http://dx.doi.org/10.1787/888932829381

Figure 5.18. **Feasibility of self-employment by gender**

Percentage, 2012

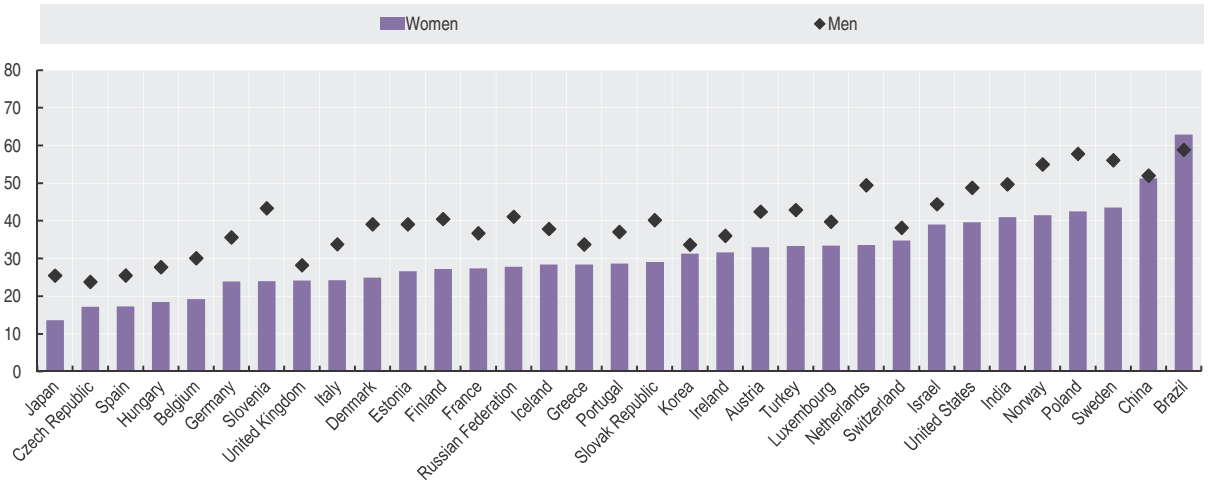


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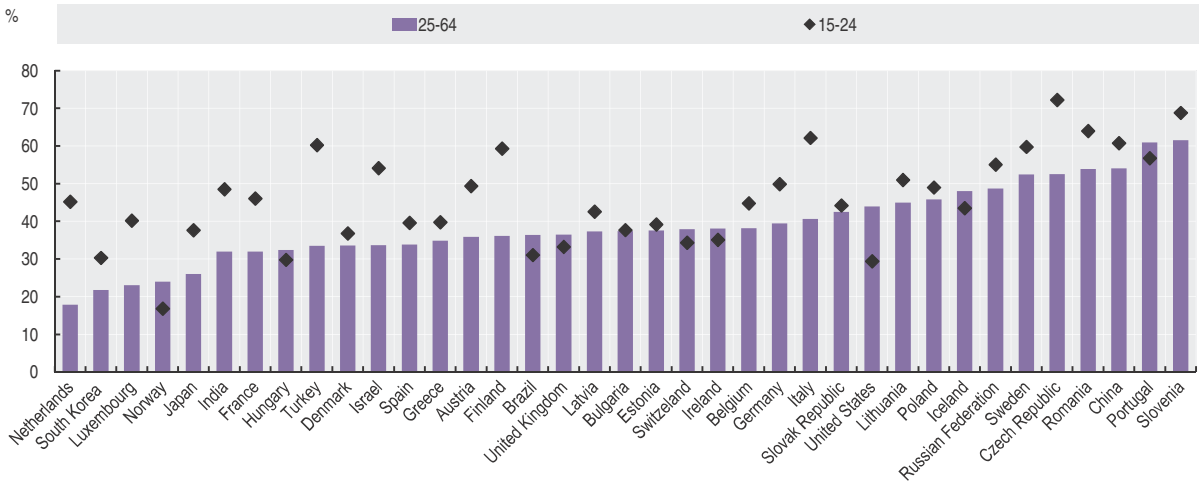
Figure 5.19. **Feasibility of self-employment by age**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829419

6. DETERMINANTS OF ENTREPRENEURSHIP: SELECTED INDICATORS

Culture: The role of entrepreneurship education

Culture: Attitude toward failure

Access to finance: Venture capital

Culture: The role of entrepreneurship education

Key facts

- There are significant cross-country differences in people's perceptions of the role that "school education" has in helping them to develop a sense of initiative and an entrepreneurial spirit. In Brazil, Norway and Portugal more than 75% of adults acknowledge the role played by school education, while in Japan this share is less than 20%.
- In Israel, Japan and the United Kingdom, 60% of people consider that not only did school education not help in developing their sense of initiative, but it did not provide them with the skills and know-how needed to start up a business. In many countries however, there is a distinction between the appreciation of the role of education in fostering entrepreneurial spirit and its role in giving practical competencies that enable someone to run a business.
- The opinions on the role that school had in forming a view on the role of entrepreneurs in society are also very diverse from one country to the other. Interestingly, the perceived image of entrepreneurs does not appear to be related to people's assessment on the role that education had in forming a view on entrepreneurs in society.

Definitions

The indicators presented in this section are the following:

- "My school education is helping/has helped me to develop my sense of initiative and a sort of entrepreneurial attitude", where respondents indicate whether they totally agree, tend to agree, disagree or totally disagree with the statement (Figure 6.1);
- "My school education is giving/has given me skills and know-how to enable me to run a business" where respondents indicate whether they totally agree, tend to agree, disagree or totally disagree with the statement (Figure 6.2);
- "My school education helped me to better understand the role of entrepreneurs in society", where respondents indicate whether they totally agree, tend to agree, disagree or totally disagree with the statement (Figure 6.3); and...
- "What is your opinion about entrepreneurs (self-employed, business owners)", where respondents choose among broadly favourable, neutral or broadly unfavourable (Figure 6.3).

Relevance

The entrepreneurial culture of a country affects the attitude that individuals have towards entrepreneurship, the likelihood of choosing entrepreneurship as a career, the ambition to succeed, to start again after a failure, or the support provided to family and relatives planning to set up a business. All these aspects play a role, although there is scarce empirical evidence on their relative importance across countries. This section provides examples of indicators developed to measure certain aspects of the entrepreneurial culture related to the image of entrepreneurs and the role of school education in forming this culture.

Comparability

Data are drawn from the *Flash Eurobarometer on Entrepreneurship*, which is a general survey of the adult population conducted periodically for the European Commission Directorate-General Enterprise and Industry; see Chapter 5, "Preferences and feasibility of self-employment".

Sources/Online databases

European Commission, *Eurobarometer Survey on Entrepreneurship*, *http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/eurobarometer/*.

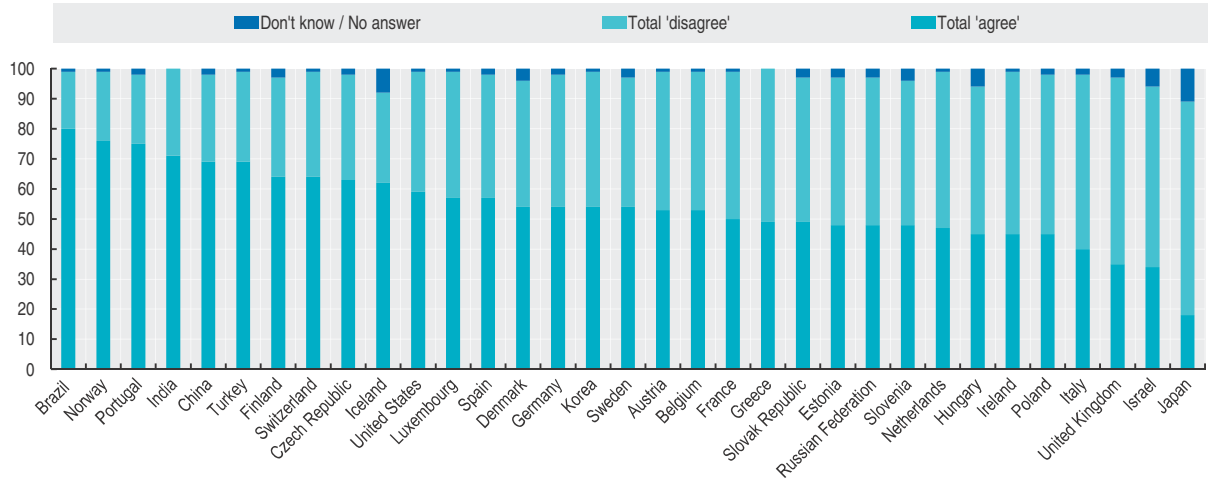
Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

For further reading

European Commission (2013), *Entrepreneurship in the EU and beyond – Flash Eurobarometer 354*, Report, *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*.

Figure 6.1. **School helped to develop a sense of initiative and a sort of entrepreneurial attitude**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829438

Figure 6.2. **School education provided enabling skills and know-how to run a business**

Percentage, 2012

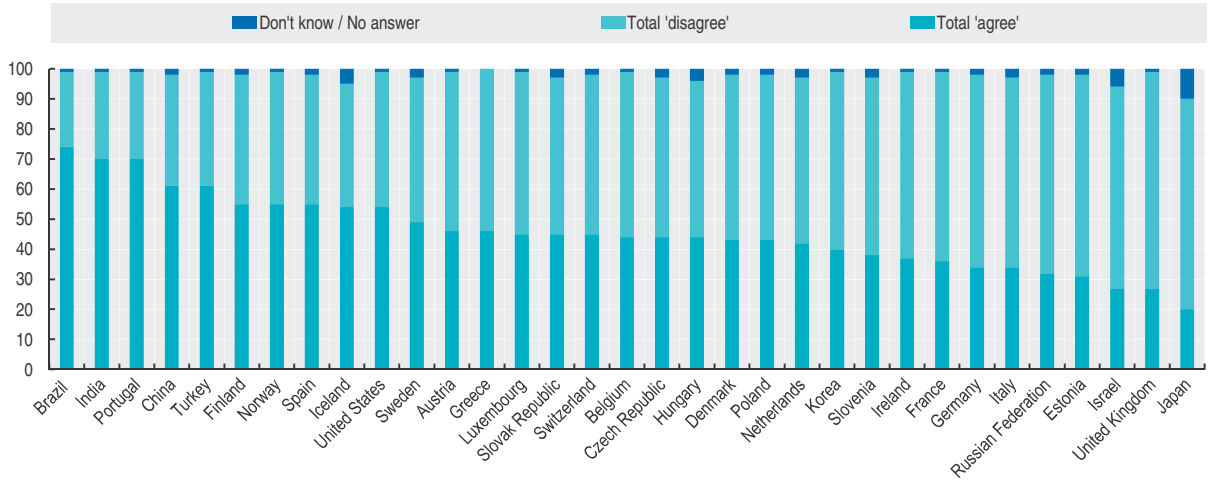


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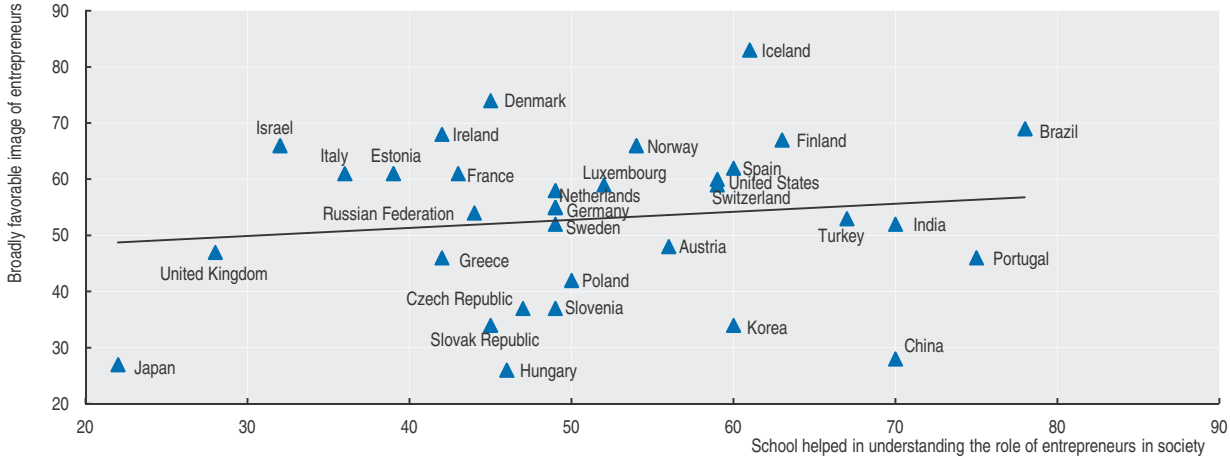
Figure 6.3. **Entrepreneurship education and the image of entrepreneurs**

Percentages, 2012



StatLink http://dx.doi.org/10.1787/888932829476

Culture: Attitude toward failure

Key facts

- Among people who do not regard entrepreneurship as a feasible career option in the immediate future, the fear of failure is not the major discouraging factor. Only 5% on average cite the risk of failure and its legal and social consequences, with percentages slightly above 10% in India and the Slovak Republic and as little as 1% in Japan, where entrepreneurship rates are traditionally low.
- Conversely, if individuals were to start a business, the fear of failure is the most important barrier. Also, the perceived fear of failure as a major obstacle for starting a business shows some correlation with the time and costs of bankruptcy procedures: high costs and lengthy procedures tend to be associated with large shares of people who see the possibility of failure as the major risk.
- In most countries, a large majority of adults believe that entrepreneurs who fail should be given a "second chance". The ratio is around or above 90% in Brazil, China, Greece, Ireland, Korea, Spain and Sweden, and exceeds 80% in several other countries including the Russian Federation and the United States. Comparing answers in 2012 with those provided in 2009 suggests that in many countries the positive attitudes relating to a 'second chance' might have been reinforced by the recent financial crisis, i.e. people have become more sympathetic towards difficulties faced by entrepreneurs.

Definitions

The indicators presented in this section are the following:

- *Why would it not be feasible for you to be self-employed within the next five years?*, where respondents can provide multiple answers choosing from a list (Figure 6.4). Respondents only include people who consider that it is not feasible for them to become self-employed in the next five years.
- *If you were to start a business today, which are the two risks you would be most afraid of?*, where respondents can indicate a maximum of two answers: *a)*"the possibility of going bankrupt", *b)*"the risk of losing your property/home", *c)*"irregular/not guaranteed income", *d)*"lack of job security", *e)*"the possibility of suffering a personal failure", and *f)*"the need to devote too much energy or time to it" (Figure 6.5). As the items *a*, *b*, and *c* consistently received the highest scores in all countries, Figure 6.5 focuses on them. Exceptions are Bulgaria, where the third highest score is *d* and not *c*; Italy where *c* and *d* received the same score; India, where *d* should replace *a*; and Korea, where *e* should replace *a*.
- *Resolving insolvency: The recovery rate* is recorded as cents on the dollar recouped by creditors through reorganisation, liquidation or debt enforcement (foreclosure) proceedings (Figure 6.6).
- *Resolving insolvency: Time for creditors to recover their credit* is recorded in calendar years. The period of time measured is from the company's default until the payment of some or all of the money owed to the bank (Figure 6.7).
- *People who have started their own business and have failed should be given a second chance*, where respondents indicate whether they totally agree, tend to agree, disagree or totally disagree with the statement (Figure 6.8).

Relevance

In recent decades, governments' strategies to encourage entrepreneurship have generally included training programmes on setting up and growing new businesses. A variety of courses on entrepreneurship are also offered by universities and business schools; these courses typically provide guidance on the key steps and factors needed to start a new business. Some aspects of the entrepreneurial process, however, are difficult to address within these programmes. Attitude of individuals towards business failure is one of these, as it reflects a combination of personal characteristics, societal values, and the underlying business environment.

Comparability

Except for insolvency data, all the other data come from the European Commission *Eurobarometer Survey on Entrepreneurship Database*; see Chapter 5, "Preferences and feasibility of self-employment".

The data on resolving insolvency come from the *World Bank Doing Business Database*. To increase comparability, several assumptions are used on the reference business; these include: the business is a limited liability company; is located in the largest business city of the economy; has downtown real estate, where it runs a hotel, as its major asset; has 201 employees and 50 suppliers, each of which is owed money for the last delivery; is 100% domestically owned; has a 10-year loan agreement with a domestic bank and a mortgage.

Sources/Online databases

European Commission, *Eurobarometer Survey on Entrepreneurship*, *http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/eurobarometer/*.

World Bank Doing Business Database, *www.doingbusiness.org/data*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 6.4. **Why it is not feasible to become a self-employed in the next five years?**

Percentage, 2012

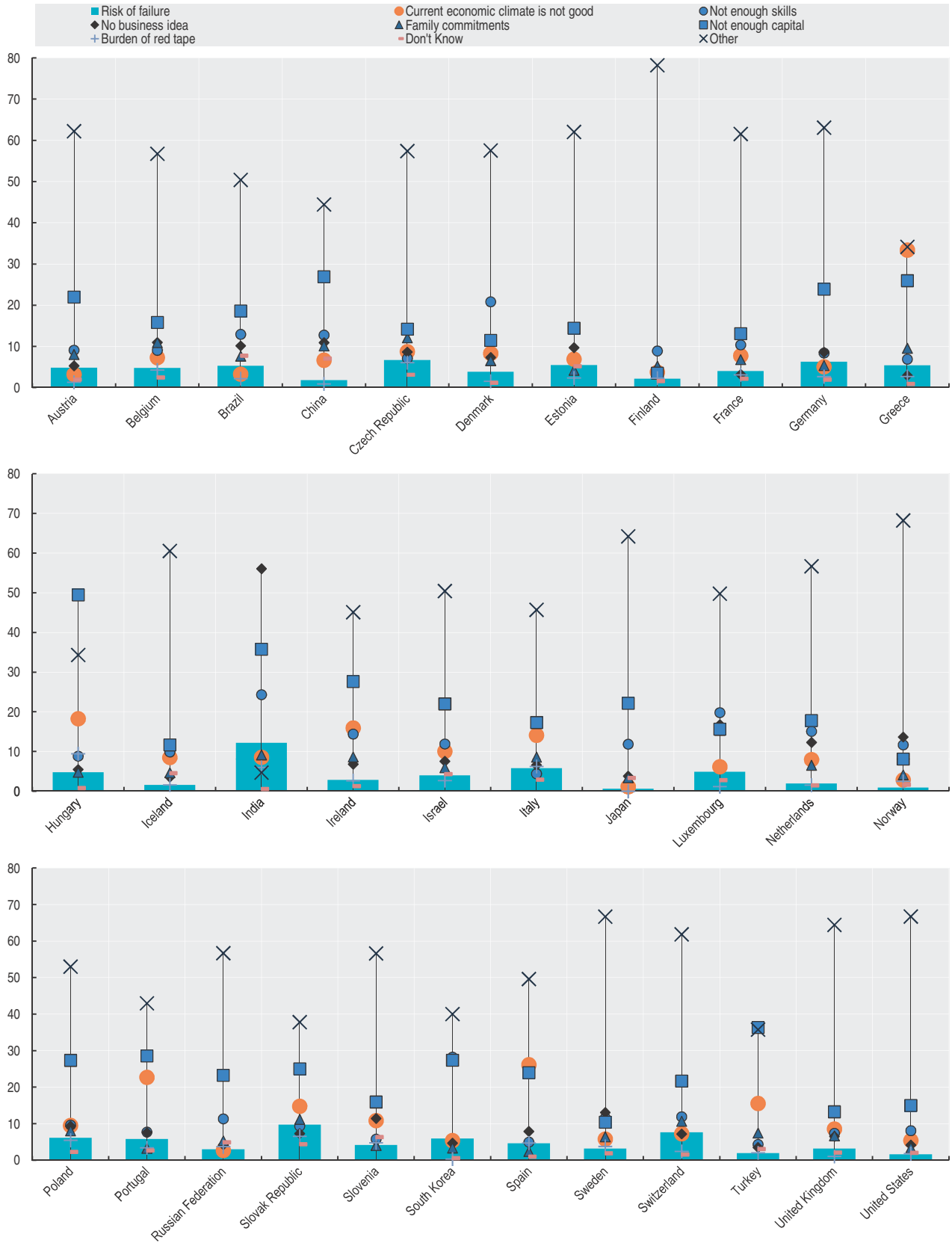


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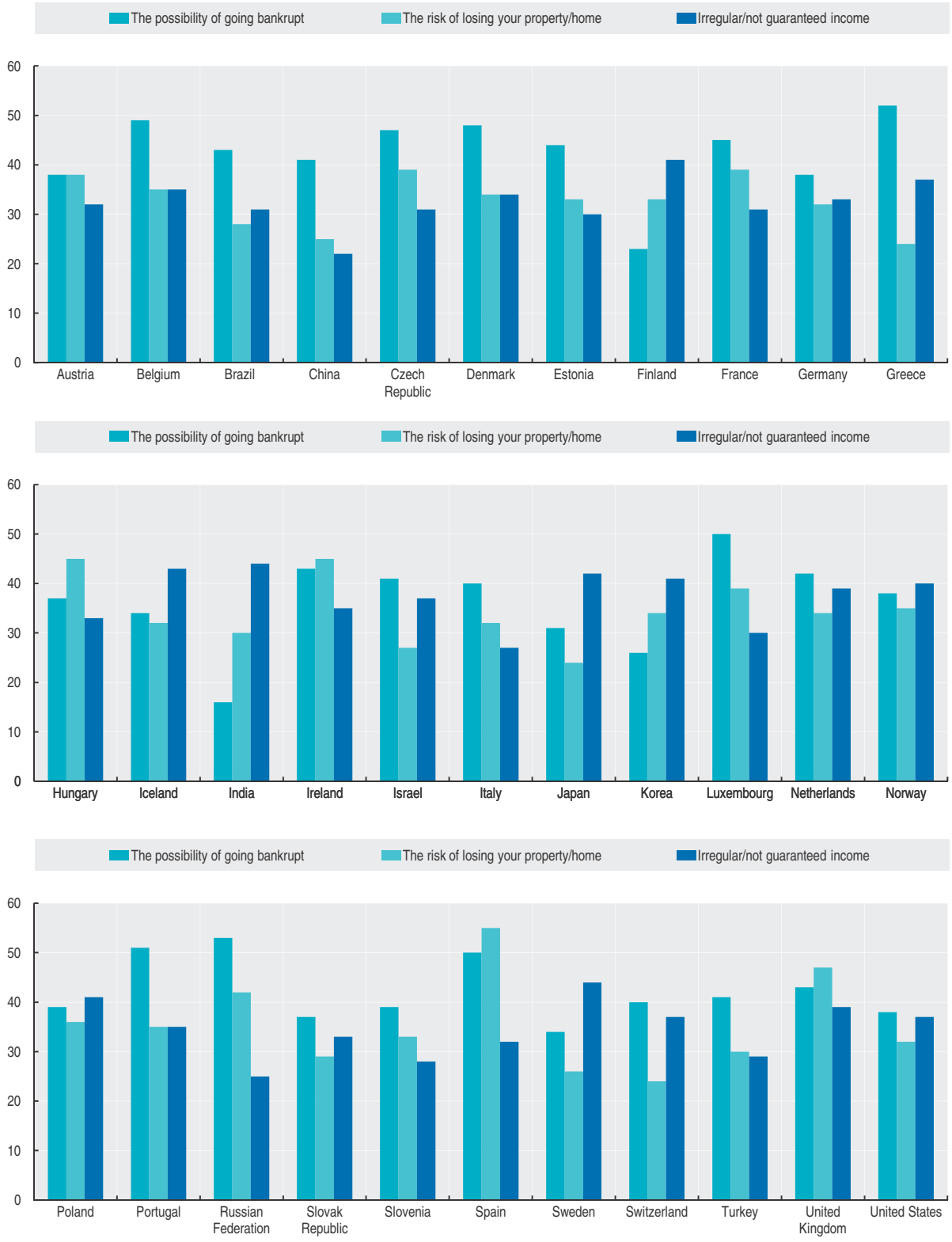
Figure 6.5. **If you were to start a business today, which are the two risks you would be most afraid of?**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829514

Figure 6.6. **Fear of failure and recovery rate in insolvency procedures**

Percentages, 2012

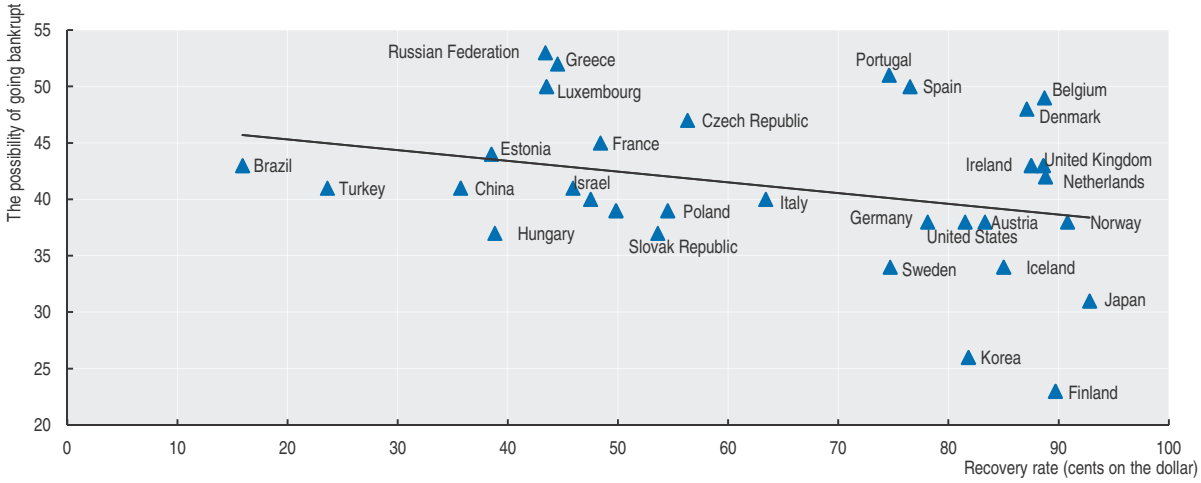


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Figure 6.7. **Fear of failure and time of insolvency procedures**

Percentage, 2012

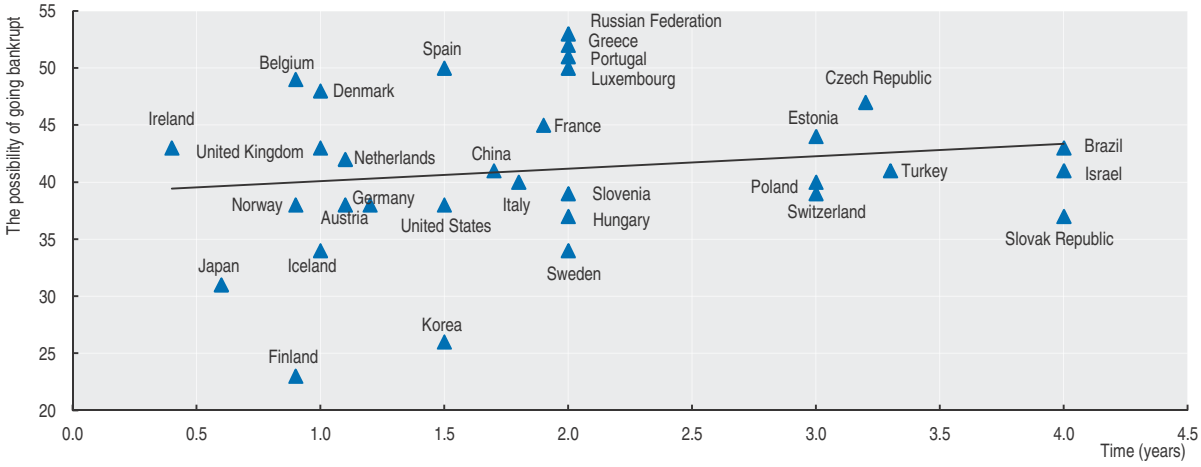

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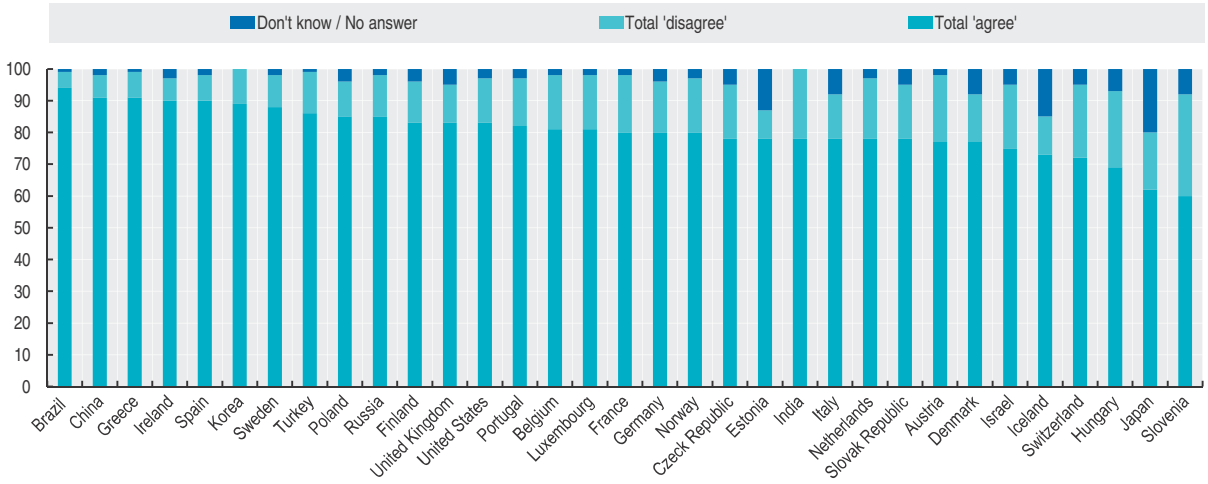
Figure 6.8. **Entrepreneurs who failed should have a second chance**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829571

Access to finance: Venture capital

Key facts

- In the majority of countries for which data are available, venture capital investments represent a very small percentage of GDP, e.g. often less than 0.03%. Exceptions are Israel and the United States, where the venture capital industry is more mature and represents 0.5% and 0.2% of GDP respectively.
- The crisis has severely affected the venture capital industry. In 2012, in most countries the level of venture capital investments was around 60% 2007 levels. In Ireland and Luxembourg however investments made in 2012 exceeded pre-crisis levels.
- In 2012, in the United States, 40% of venture capital investments were in the life sciences sector, while in Europe this share was 30%. Investments predominantly target companies in their start-up phase, followed by later-stage ventures; and only a very small number of companies are backed by ventur capital.

Relevance

Venture capital is a form of equity financing particularly important for young companies with innovation and growth potential but untested business models and no track record; it replaces and/or complements traditional bank finance. The development of the venture capital industry is considered as part of the framework conditions to stimulate innovative entrepreneurship.

Definitions

Venture capital is a subset of private equity (i.e. equity capital provided to enterprises not quoted on a stock market) and refers to equity investments made to support the pre-launch, launch and early stage development phases of a business (*Source*: EVCA, European Private Equity and Venture Capital Association).

Venture capital backed companies (portfolio companies) are new or young enterprises that are (partially or totally) financed by venture capital.

The *venture capital backed companies rate* is computed as the number of enterprises that received venture capital in year t over 1000 active enterprises in year t.

Nordic countries include Denmark, Finland, Norway and Sweden (Figure 6.13).

Comparability

There are no standard international definitions of venture capital nor of the breakdown of venture capital investments by stage of development. In addition the methodology for data collection differs across countries.

Data on venture capital are drawn mainly from national or regional venture capital associations that produce them, in some cases with the support of commercial data providers, except in Australia, where the Australian Bureau of Statistics collects and publishes statistics on venture capital.

The statistics presented correspond to the aggregation of investment data according to the location of the portfolio companies (i.e. the investee companies), regardless of the location of the private equity firms. Exceptions are Australia, Korea and Japan where data refer to the location of the investing venture capital firms.

In the *OECD Entrepreneurship Financing Database* venture capital is made up of the sum of *early stage* (including pre-seed, seed, start-up and other early stage) and *later stage* venture capital. As there are no harmonised definitions of venture capital stages across venture capital associations and other data providers, original data have been re-aggregated to fit the OECD classification of venture capital by stages; see Annex C. Korea, New Zealand, the Russian Federation and South Africa do not provide breakdowns of venture capital by stage that would allow meaningful international comparisons.

Data on venture capital investments by sector are also the result of a reclassification of original data into five sectors, namely: Computer and consumer electronics; Communications; Life science; Industrial/energy; and Others.

In Figure 6.15, percentages for the United States relate to the number of investment deals in 2011 by development stage.

Annex C presents correspondence tables between original data and OECD harmonised data for venture capital investments by stage and sector. Readers should be aware that in the field of venture capital measurement the margin for improvements of international comparability is important.

Sources/Online databases

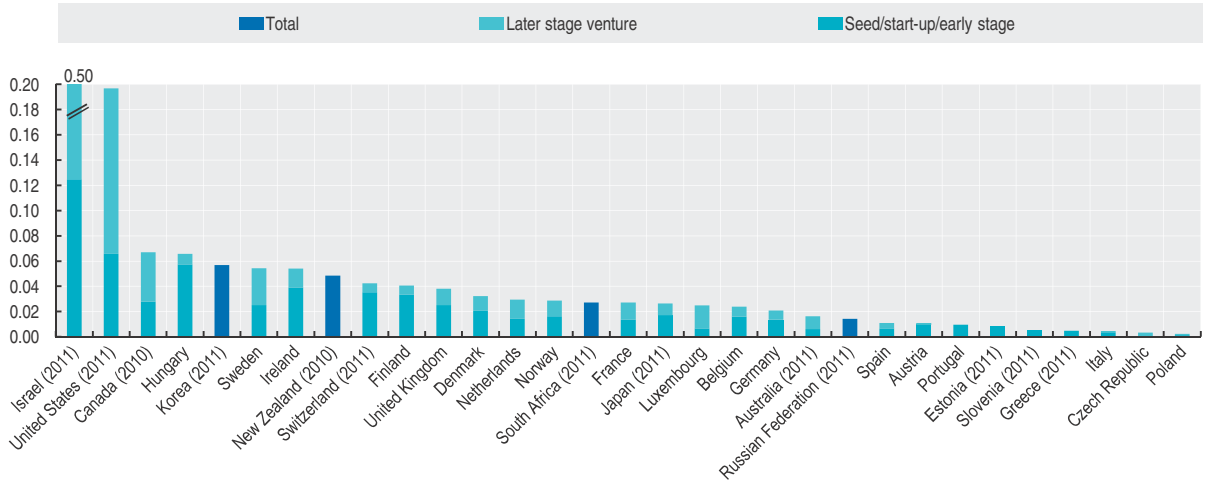
OECD Entrepreneurship Financing Database, drawing from:

- Australian Bureau of Statistics, *Venture Capital and Later Stage Private Equity, www.abs.gov.au/ausstats/abs@.nsf/mf/5678.0*.
- CVCA, Thomson Reuters data, *www.cvca.ca/resources/statistics/*.
- EVCA, *www.evca.eu/knowledgecenter/statisticsdetail.aspx?id=6392*.
- KVCA, *http://eng.kvca.or.kr/sub04/sub0403.jsp*.
- NVCA, Thomson Reuters data, *www.nvca.org/*.
- NZVCA, *www.nzvca.co.nz/*.
- PwC MoneyTree (Israel), *www.pwc.com/il/en/venture-capital-israel/moneytree-home.jhtml*.
- RVCA, *www.rvca.ru/eng/*.
- SAVCA / KPMG, *www.savca.co.za/kpmgsurvey/default.aspx*.
- VEC, *www.vec.or.jp/*.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Figure 6.9. **Venture capital investments as a percentage of GDP (US dollars)**

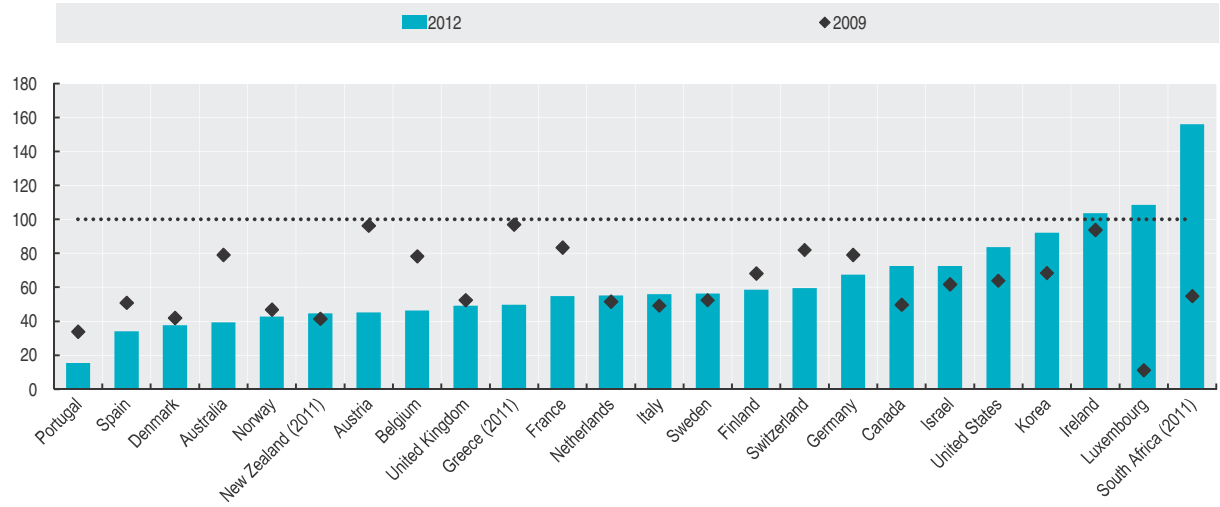
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829590

Figure 6.10. **Trends in venture capital investments**

Index 2007 = 100



StatLink http://dx.doi.org/10.1787/888932829609

Table 6.1. **Venture capital investments by country**

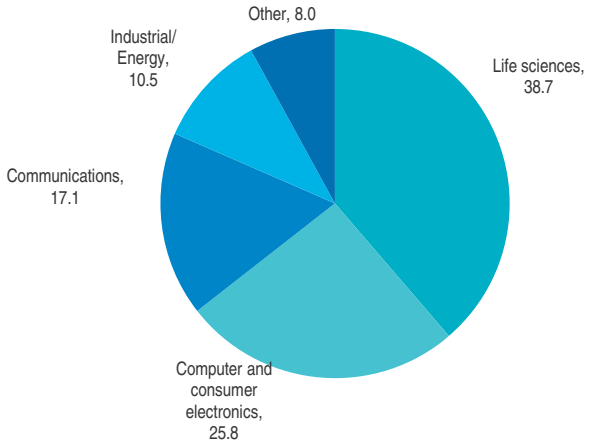
Million US dollars, 2012

Estonia (2011)	1.8	Italy	91.7	Australia	331.3
Slovenia (2011)	2.5	Finland	101.6	Korea	606.9
Czech Republic	6.7	Denmark	101.7	Germany	706.2
Russian Federation (2011)	9.3	South Africa (2011)	109.6	France	710.5
Poland	11.7	Ireland	113.5	Israel	867.0
Greece (2011)	13.7	Belgium	115.9	United Kingdom	929.1
Luxembourg	14.2	Norway	143.4	Canada	1470.1
Portugal	20.4	Spain	148.1	Japan	1553.6
New Zealand (2011)	28.9	Switzerland	209.5	United States	26652.4
Austria	43.5	Netherlands	226.5		
Hungary	82.6	Sweden	285.6		

StatLink http://dx.doi.org/10.1787/888932829837

Figure 6.11. **Venture capital investments by sector, United States**

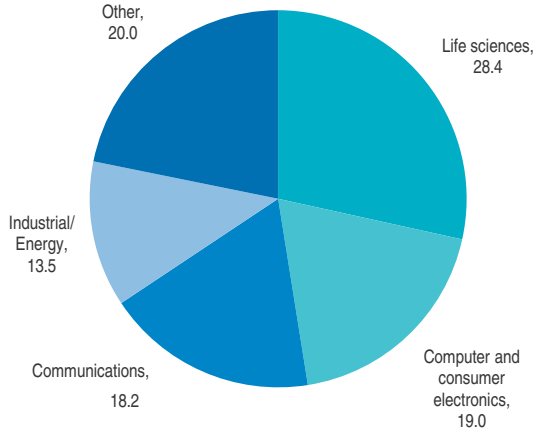
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829628

Figure 6.12. **Venture capital investments by sector, Europe**

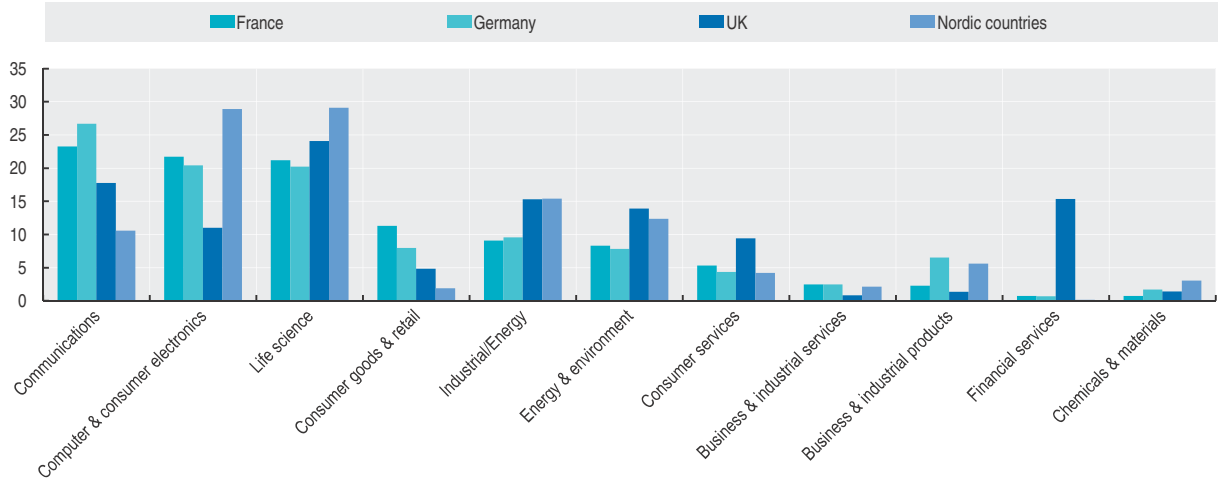
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829647

Figure 6.13. **Venture capital investments by sector, selected European countries**

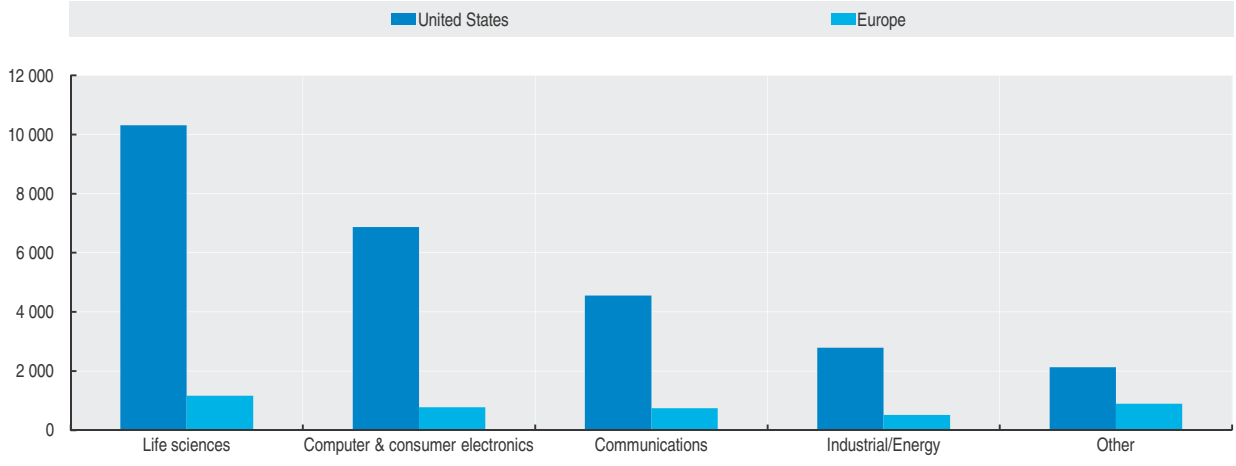
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829666

Figure 6.14. **Venture capital investments by sector**

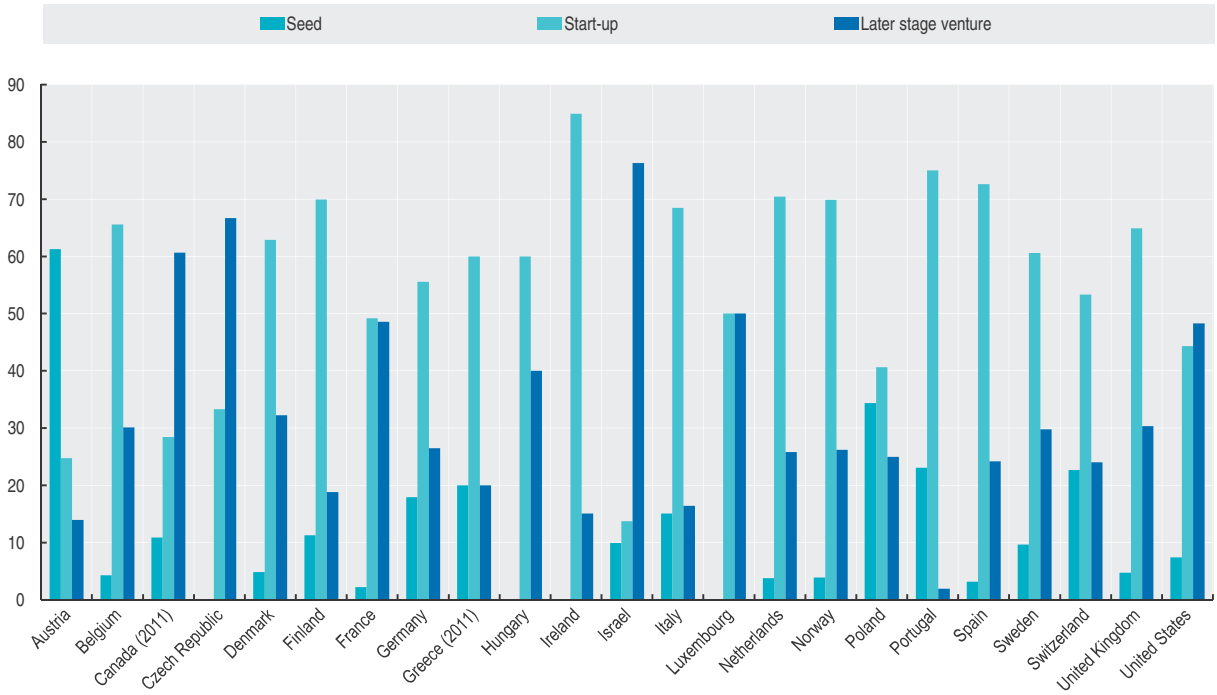
Million US dollars, 2012



StatLink http://dx.doi.org/10.1787/888932829685

Figure 6.15. **Venture capital backed companies by development stage**

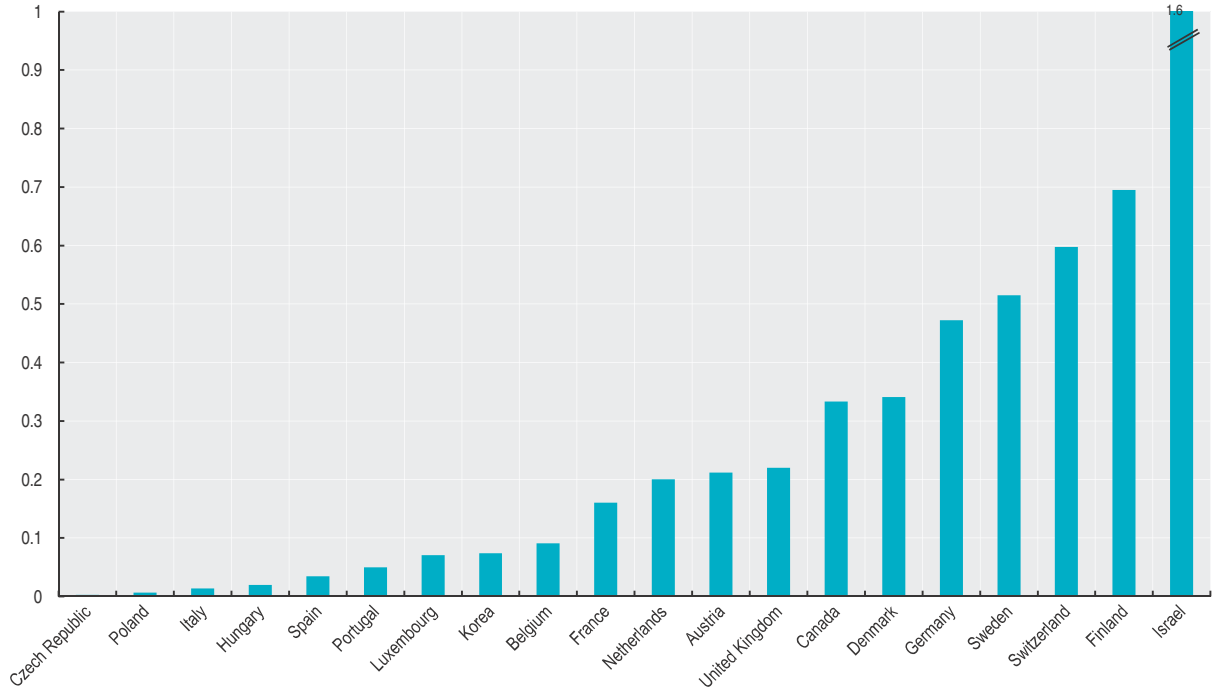
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888932829704

Figure 6.16. **Venture capital backed companies rate**

Per 1000 enterprises, 2010



StatLink http://dx.doi.org/10.1787/888932829723

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ANNEX A

Sources of data on timely indicators of entrepreneurship

This Annex presents the sources and definitions used to develop the OECD Timely Indicators of Entrepreneurship; two separate tables refer to enterprise creations and bankruptcies respectively.

The *OECD Timely Indicators of Entrepreneurship Database* is available on *http://dotstat.oecd.org/Index.aspx*.

Table A.1. **National sources and definitions of enterprise creations**

	Sources and definitions of enterprise creations
Australia	*Source:* Australian Securities and Investments Commission (ASIC). New company registrations. Monthly data. Incorporated companies only. *www.asic.gov.au/asic/ASIC.NSF/byHeadline/Insolvencies%2C%20teminations%20%26%20new%20reg%20stats%20portal%20page*
Belgium	*Source:* SPF, DGSIE Dynamique de la population des entreprises. Primo-assujetissement à la TVA. Monthly data. Number of fist VAT subjection (declaration of taxable companies that acquire the status od subject to VAT for the first time). *www.statbel.fgov.be*
Denmark	*Source:* Statistics Denmark. Quarterly data. Central Business Register *www.cvr.dk* .
Finland	*Source:* Statistics Finland. Quarterly data. These statistics are derived from data in Statistics Finland's Business Register. They cover those enterprises engaged in business activity that are liable to pay value-added tax or act as employers. Excluded are foundations, housing companies, voluntary associations, public authorities and religious communities. The statistics cover enterprises of the state but not those of municipalities. Data are provided for the number of enterprise openings. *http://pxweb2.stat.fi/Database/StatFin/Yri/aly/aly_fi.asp*
France	*Source:* INSEE, sirene. Monthly data. Number of births. A birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Both employer and non-employer enterprises are covered. Excluding data on agriculture. *www.insee.fr/fr/themes/indicateur.asp?id=41*
Germany	*Source:* Statistiches Bundesamt – Destatis. Monthly data. Number of new establishments (main offices and secondary establishments). Small units and auxiliary activities are not included. Transformation, take-over and change in ownership are excluded. New enterprises coming from abroad are also removed from the data on birth. All activities are taken into account. *https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/UnternehmenHandwerk/UnternehmenHandwerk.html;jsessionid=097D062C21371DA040D380D3C14D01CC.cae2*

Table A.1. **National sources and definitions of enterprise creations** *(cont.)*

	Sources and definitions of enterprise creations
Italy	*Source:* InfoCamere, Movimprese – *Registre d'entreprises des chambres de commerce italiennes.* Quarterly data. Number of entries (*iscritte*). All legal forms and all activities are taken into accounts. *www.infocamere.it/movimprese.htm*
Netherlands	*Source:* Centraal Bureau voor de Statistiek (CBS) – *Registre d''entreprises.* Quarterly data. Number of establishment births (i.e. excluding mergers, take-over, change of name, change of legal form, change of ownership, gradual change of activities, nationalisation). Data are only available for Industry, trade and market services. Items A,B,E,J,K70,K73,L,M,N,O91,O92 are excluded. *http://statline.cbs.nl.*
Norway	*Source:* Statistics Norway. Quarterly data. Number of newly established enterprises. Excluding primary industries. *http://statbank.ssb.no/statistikkbanken/*
Russian Federation	*Source:* Rosstat. Monthly data. Number of newly registered organisations. *www.gks.ru*
Spain	*Source:* Instituto Nacional de Estadistica de Espana (INE). The Mercantile Companies (MC) Monthly data Number of entries. The Mercantile Companies register includes information on incorporated enterprises (natural persons or sole proprietors are excluded). Created mercantile companies" may not be active and dissolved mercantile companies might be removed from the register without having ever been active. *www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft30%2Fp151&file=inebase&L=1*
Sweden	*Source:* Sweden agency for growth analysis. Quarterly data. Number of new businesses. *www.tillvaxtanalys.se*
United Kingdom	*Source:* Companies House. Monthly data. New registrations (number of entries). All limited companies in England, Wales, Northern Ireland and Scotland are registered at Companies House. Entries reflect the appearance of a new enterprise within the economy, whatever the demographic event, be that a merger, renaming, split-off etc or birth *www.companieshouse.gov.uk/about/businessRegisterStat.shtml*
United States	*Source:* Bureau of Labor Statistics (BLS) – Business Employment Dynamics (BED). Quarterly data. Number of establishments with at least one employee. *www.bls.gov/bdm/*

Table A.2. **National sources and definitions of bankruptcies**

	Sources and definitions of bankruptcies
Australia	*Source:* Australian Securities and Investments Commission (ASIC). Monthly data. Insolvency statistics – Companies entering external administration. The statistics on companies entering external administration show the number of companies entering into a form of external administration for the first time. ASIC advises that a company will be included only once in these statistics, regardless of whether it subsequently enters into another form of external administration. The only exception occurs where a company is taken out of external administration, for example as the result of a court order, and at a later date re-enters external administration. Members voluntary windings up are excluded. May include provisional data. *www.asic.gov.au/*
Canada	*Source:* Office of the Superintendent of Bankruptcy Canada. Monthly data. A business bankruptcy is defined as the state of a business that has made an assignment in bankruptcy or against whom a bankruptcy order has been made. A business is defined as any commercial entity or organisation other than an individual, or an individual who has incurred 50 percent or more of total liabilities as a result of operating a business. *http://osb.ic.gc.ca*

Table A.2. **National sources and definitions of bankruptcies** *(cont.)*

	Sources and definitions of bankruptcies
Chile	*Source:* Superintendencia de Quiebras Ministerio de la Justicia. Monthly data. Number of bankruptcies according to the Law 18.175 declared by the xxx of justice and published into the official bulletin (Diario Oficial). *www.squiebras.gob.cl*
Denmark	*Source Statistics Denmark.* Registry-based method from January 2009 onwards, simple count method before. The number of announcements of bankruptcies is counted excluding units from the Faroe Islands and Greenland. When using the simple count method, bankruptcies of both enterprises and individuals (personal bankruptcies) were counted. After the implementation of the registry-based method, only bankruptcies of enterprises are counted, i.e. bankruptcies associated with a CVR-number. *www.statbank.dk*
France	*Source:* BODACC (*bulletin officiel d'annonces civiles et commerciales*) data processed by INSEE. Monthly data. Business failures. A business failure is defined as the opening of insolvency proceedings. The statistics on business failures cover both the opening of insolvency proceedings and direct liquidations. They do not reflect the outcome of the proceedings: continuation, take-over or liquidation. *www.insee.fr*
Iceland	*Source:* Statistics Iceland. Monthly data. Insolvencies of Icelandic enterprises by field of activity, including personal. *www.statice.is*
Japan	*source:* Japan Small Business Research Institute (JSBRI). Monthly data. Number of Bankruptcies. Statistics are from the Ministry of Economy, Trade and Industry Small and Medium Enterprise Agency Business Environment Department Planning Division Research Office. Bankruptcy is considered when it involves more than 10 million US dollars of the total liabilities of the concerned company. Included under the definition of bankruptcy are: defaults on due payments, legal and corporate reorganisations, special liquidations company. *www.jsbri.or.jp*
Netherlands	*Source:* Centraal Bureau voor de Statistiek (CBS). Quarterly data. Number of bankruptcies pronounced by Dutch courts. Excluding individuals without a sole proprietorship. *www.cbs.nl/*
Norway	*Source:* Statistics Norway. Frequency: quarterly Gross value *http://statbank.ssb.no*
United Kingdom	*Source:* Companies House. Monthly data. Incorporated companies only. Total insolvencies. Including compulsory liquidations, creditors' voluntary liquidations, and administrative orders converted to Cred. Excluding members' voluntary liquidations. *www.companieshouse.gov.uk/*
United States	*Source:*United States Courts. Quarterly data. Statistics on bankruptcy petition filings – total business filings (Chapters 7, 11 and 13). *www.uscourts.gov/*

ANNEX B

List of indicators of entrepreneurial determinants

This Annex presents a comprehensive list of indicators of entrepreneurial determinants. The list draws from past work conducted by FORA (Ministry of Economic and Business Affairs, Division for Research and Analysis, Denmark) for the annual report "*Quality Assessment of Entrepreneurship Indicators*, which was discontinued in 2012. Indicators are classified into the six categories of determinants set by the OECD-Eurostat Entrepreneurship Indicators Programme: 1. Regulatory Framework; 2. Market Conditions; 3. Access to Finance; 4; Creation and Diffusion of Knowledge; 5. Entrepreneurial Capabilities; 6. Entrepreneurial Culture. For each indicator, a short description and the source of data are provided.

While many critical factors affecting entrepreneurship are covered by the indicators presented in the table, the list should not be considered as exhaustive. On the one side, the selection of indicators reflects the current availability of data, meaning that important indicators may be missing, for instance in the determinant area access to finance, just because no source of international data was found. On the other side, empirical research on entrepreneurship is still young, especially on topics such as the relationship between culture and entrepreneurship, with the result that appropriate indicators are yet to be identified.

Table B.1. **Indicators of entrepreneurial determinants and data sources**

Category of determinants	Definition	Data sources
	1. REGULATORY FRAMEWORK	
Administrative burdens (entry and growth)		
Burden of government regulation	Survey responses to the question: Complying with administrative requirements (permits, regulations, reporting) issued by the government in your country is (1 = burdensome, 7 = not burdensome).	World Economic Forum, *Global Competitiveness Report*
Costs required for starting a business	The official cost of each procedure in percentage of Gross National Income (GNI) per capita based on formal legislation and standard assumptions about business and procedure.	World Bank, *Doing Business*
Minimum capital required for starting a business	The paid-in minimum of capital requirement that the entrepreneur needs to deposit in a bank before registration of the business starts.	World Bank, *Doing Business*
Number of days for starting a business	The average time spent during each enterprise start-up procedure.	World Bank, *Doing Business*
Number of procedures for starting a business	All generic procedures that are officially required for an entrepreneur to start an industrial or commercial business.	World Bank, *Doing Business*
Procedures time and costs to build a warehouse	Corresponds to an average of three measurements: 1) Average time spent during each procedure, 2) Official cost of each procedure and 3) Number of procedures to build a warehouse.	World Bank, *Doing Business*
Registering property	Corresponds to an average of three measurements: 1) Number of procedures legally required to register property, 2) Time spent in completing the procedures and 3) Registering property costs.	World Bank, *Doing Business*

Table B.1. **Indicators of entrepreneurial determinants and data sources** *(cont.)*

Category of determinants	Definition	Data sources
Time it takes to prepare, file and pay the corporate income tax, vat and social contributions	Time is measured in hours per year.	World Bank, *Doing Business*
Bankruptcy Regulations		
Actual cost to close a business	The cost is measured in per cent of estate, based on a standard business closure.	World Bank, *Doing Business*
Actual time to close a business	Time is recorded in calendar years. The indicator is based on a standard business closure.	World Bank, Doing Business
Bankruptcy recovery rate	The recovery rate estimates how many cents on the dollar claimants – creditors, tax authorities and employees – recover from an insolvent firm.	World Bank, Doing Business
Court and Legal Framework		
Enforcing contracts – Cost in % of claim	Cost is recorded as a percentage of the claim, assumed to be equivalent to 200% of income per capita. No bribes are recorded. Three types of costs are recorded: court costs, enforcement costs and average attorney fees.	World Bank, *Doing Business*
Enforcing contracts – number of procedures	A procedure is defined as any interaction between the parties, or between them and the judge or court officer. This includes steps to file the case, steps for trial and judgment and steps necessary to enforce the judgment.	World Bank, *Doing Business*
Enforcing contracts – Time	Time is recorded in calendar days, counted from the moment the plaintiff files the lawsuit in court until payment. This includes both the days when actions take place and the waiting periods between.	World Bank, *Doing Business*
Difficulty of firing	The index measures whether laws or other regulations have implications for the difficulties of firing a standard worker in a standard company, based on fact-based (yes/no) questions, remodelled into a 0-100 index.	World Bank, *Doing Business*
Difficulty of hiring	The index measures whether laws or other regulations have implications for the difficulties of hiring a standard worker in a standard company, based on fact-based (yes/no) questions, remodelled into a 0-100 index.	World Bank, *Doing Business*
Ease of hiring foreign labour	Survey responses to the question: Labour regulation in your country (1 = prevents your company from employing foreign labor, 7 = does not prevent your company from employing foreign labor).	World Economic Forum, *Global Competitiveness Report*
Rigidity of hours index	The indicator is an index with five components: *i)* whether night work is restricted; *ii)* whether weekend work is allowed; *iii)* whether the work week consists of five and a half days or more; *iv)* whether the workday can extend to 12 hours or more (including overtime); and *v)* whether the annual paid vacation days are 21 days or less.	World Bank, *Doing Business*
Social and Health Security		
Public expenditure on unemployment support	Public expenditure on unemployment per unemployed in USD, current PPPs. Public expenditure includes both partly, full public pay and any other programme expenditures the public has.	OECD, Public expenditure and participant stocks on Labour Market Policy (LMP)
Public health care coverage	The share of the population eligible for a defined set of health care goods and services under public programmes.	*OECD Health* data
Income taxes; Wealth/Bequest Taxes		
Average income tax plus social contributions	The average rate of taxation in percentage of the gross wage. The indicator is based on a standard case: single (without children) with high income.	OECD *Revenue Statistics*
Highest marginal income tax plus social contributions	The highest rate of taxation in percentage of the gross wage. The indicator is based on a standard case: single (without children) with high income.	OECD *Revenue Statistics*
Revenue from bequest tax	The revenue from bequest tax as a per cent of GDP on a 3 year moving average.on a standard case: single (without children) with high income.	OECD *Revenue Statistics*
Revenue from net wealth tax	The revenue from net wealth tax as a per cent of GDP on a 3 year moving average.	OECD *Revenue Statistics*
Business and Capital Taxes		
SME tax rates		OECD *Revenue Statistics*
Taxation of corporate income revenue	The revenue from corporate income tax as percentage of GDP on a three year moving average.	OECD *Revenue Statistics*
Taxation of dividends – top marginal tax rate		*OECD Tax Database*
Taxation of Stock Options	The average tax wedge for purchased and newly listed stocks. Average incomes are used.	OECD, The Taxation of Employee Stock Options – Tax Policy Study No. 11
Patent System; Standards		
Intellectual property rights	Survey responses to the question: intellectual property protection in the world (1 = is weak or nonexistent, 7 = is equal to the world's most stringent).	World Economic Forum, *Global Competitiveness Report*

Table B.1. **Indicators of entrepreneurial determinants and data sources** *(cont.)*

Category of determinants	Definition	Data sources
Property rights	Survey responses to the question: property rights, including over financial assets (1 = are poorly defined and not protected by law, 7 = are clearly defined and well protected by law).	World Economic Forum, *Global Competitiveness Report*
2. MARKET CONDITIONS		
Access to Foreign Markets		
Export burdens	An average of three measurements: 1) Number of all documents required to export goods, 2) Number of signatures required to export goods, 3) Time necessary to comply with all procedures required to export goods.	World Bank, *Doing Business*
Import burdens	An average of three measurements: 1) Number of all documents required to import goods, 2) Number of signatures required to import goods, 3) Time necessary to comply with all procedures required to import goods.	World Bank, *Doing Business*
Degree of Public Involvement		
Government enterprises and investment	Data is composed of the number, composition, and share of output supplied by State-Operated Enterprises (SOEs) and government investment as a share of total investment.	IMF, World Bank, UN National Accounts and World Economic Forum
Licensing restrictions	Zero-to-10 ratings are constructed for 1) the time cost (measured in number of calendar days required to obtain a license) and 2) the monetary cost of obtaining the license (measured as a share of per-capita income). These two ratings are then averaged to arrive at the final rating.	World Bank
Price controls	The indicator measures the extent to which prices are determined by the market or by government involvement.	IMD *World Competitiveness Yearbook*
Private Demand		
Buyer sophistication	Survey responses to: purchasing decisions are (1 = based solely on the lowest price, 7 = based on a sophisticated analysis of performance).	World Economic Forum, *Global Competitiveness Report*
3. ACCESS TO FINANCE		
Access to Debt Financing		
Country credit rating	The indicator is based on an assessment by the *Institutional Investor Magazine Ranking*.	IMD *World Competitiveness Yearbook*
Domestic credit to private sector	The indicator refers to financial resources provided to the private sector – such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable – that establish a claim for repayment.	Published in *World Development Indicators*, World Bank. Data are from IMF's International Financial Statistics
Ease of access to loans	Survey responses to: how easy it is to obtain a bank loan in your country with only a good business plan and no collateral (1 = impossible, 7 = easy).	World Economic Forum, Global Competitiveness Report
Interest rate spread	The lending rate minus deposit rate based on an average of annual rates for each country.	IMF, *International Financial Statistics*
Legal rights index	The degree to which collateral and bankruptcy laws facilitate lending. Higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit.	World Bank, *Doing Business*
Share of SME loans in business loans		*Financing SMEs and Entrepreneurs*. An OECD Scoreboard
Access to Venture Capital		
Venture Capital Availability	Survey responses to: entrepreneurs with innovative but risky projects can generally find venture capital in your country (1 = not true, 7 = true).	World Economic Forum, Global Competitiveness Report
Venture Capital	Private equity investments in young businesses with innovation and growth potential	*OECD Entrepreneurship Finance Database*, based on: ABS: Australian Bureau of Statistics EVCA: European Private Equity and Venture Capital Association VEC: Venture Enterprise Center KVCA: Korean Venture Capital Association NVCA: National Venture Capital Association NZVCA: New Zealand Venture Capital Association RVCA: Russian Venture Capital Association Thomson Reuters SAVCA: South African Venture Capital and Private Equity Association
Stock Markets		
Capitalisation of primary stock market	The capitalisation of the primary stock market (the value of the issued shares on the market) relative to GDP.	World Federation of Exchange

Table B.1. **Indicators of entrepreneurial determinants and data sources** *(cont.)*

Category of determinants	Definition	Data sources
Investor protection	The main indicators include: transparency of transactions (Extent of Disclosure Index), liability for self-dealing (Extent of Director Liability Index), shareholders' ability to sue officers and directors for misconduct (Ease of Shareholder Suit Index), strength of Investor Protection Index (the average of the three index).	World Bank, *Doing Business*
Market capitalisation of newly listed companies	The market capitalisation (total number of new shares issued multiplied by their value on the first day of quotation) of newly listed domestic shares relative to GDP.	World Federation of Exchange *Emerging Market Database*
4. CREATION AND DIFFUSION OF KNOWLEDGE		
R&D Activity		
Business Expenditure on R&D – BERD		OECD *Science and Technology Statistics*
Government Expenditure on R&D – GERD		OECD *Science and Technology Statistics*
Higher Education Expenditure on R&D – HERD		OECD *Science and Technology Statistics*
International Co-operation Between Patent Applications at PCT	The indicator measures international co-operation between patent applications under the Patent Co-operation Treaty (PCT). The measure is calculated as a percentage of total patents (by application date).	OECD *Science and Technology Statistics*
Patents Awarded Based on Inventors Residence	Number of patents awarded to inventors based on their residence. The indicator is a sum of patents awarded by the European Patent Office (EPO) and US Patent and Trademark Office (USPTO).	OECD *Science and Technology Statistics*
Private Funding of R&D Activity	Total private founded R&D investments, independent of where the founding is spent. The indicator is measured as a percentage of GDP.	OECD *Science and Technology Statistics*
Public Funding of R&D Activity	Total public funding of R&D – as a percentage of GDP.	OECD *Science and Technology Statistics*
Transfer of Non-commercial Knowledge		
Research in Higher Education Sector Financed by Business	R&D expenditure performed at higher education and funded by business, measured as a percentage of total research expenditure.	OECD *Science and Technology Statistics*
Share of Patents Owned by Universities	The percentage of patents owned by universities. Only countries/economies with more than 300 patents are included.	OECD *Patent Database*
Universities or other Public Research Organizations as Source of Innovation	The share of innovative enterprises that states universities or other PROs as an important source of innovation.	Eurostat, European Community Innovation Survey (CIS)
University/Industry Research Collaboration	Survey responses to: the level of collaboration between business and universities in R&D. (1 for minimal or nonexistent to 7 for intensive and ongoing).	World Economic Forum, *Global Competitiveness Report*
Co-operation Among Firms		
SMEs Stating Co-operation as the Source of Innovation	The share of innovative small and medium sized enterprises (SMEs) stating any type of co-operation as the source of innovation.	Eurostat, European Community Innovation Survey (CIS)
Technology availability and take-up		
Turnover from e-Commerce	Total internet sales over the last calendar year, excluding VAT, as a percentage of total turnover.	Eurostat, *Information Society Statistics*
Enterprises Using e-Government	The share of enterprises using any eGovernment services. The measure is based on all firms with 10 employees or more, excluding the financial sector.	*Information Society Statistics*
ICT expenditure	Expenditure for ICT equipment, software and services as a percentage of GDP.	European Information Technology Observatory (EITO)
ICT expenditure in Communications	Expenditure for telecommunications equipment and carrier services as a percentage of GDP.	European Information Technology Observatory (EITO)
5. ENTREPRENEURIAL CAPABILITIES		
Business and Entrepreneurship education		
International Students in Tertiary Education	The share of international students in total tertiary enrolments.	OECD *Education at a Glance*
Population with Tertiary Education	The share of persons between 25-34 of age with tertiary-type B education or tertiary-type A education and advanced research programmes.	OECD *Education at a Glance*
Quality of Management Schools	Survey responses to: the quality of management schools across Countries is (limited or of poor quality for 1, to amongst the best in the World for 7).	World Economic Forum, *Global Competitiveness Report*
Received training in starting a business during school	The percentage of the population aged 18-64 that received training – voluntary or compulsory – in starting a business during school.	Global Entrepreneurship Monitor (GEM) *2008 Executive Report*
Received Training in Starting a Business After School	the percentage of the population aged 18-64 that received training – voluntary or compulsory – in starting a business after school.	Global Entrepreneurship Monitor (GEM) *2008 Executive Report*
Immigration		
Inflows of foreign labour	Inflows of foreign workers as a percentage of the total labor force.	OECD International Migration Outlook

Table B.1. **Indicators of entrepreneurial determinants and data sources** *(cont.)*

Category of determinants	Definition	Data sources
Migrants with Tertiary Education	The share of highly skilled migrants as a percentage of total migrants.	OECD, A profile of immigrant populations in the 21st century. Database on immigrants in OECD countries (DIOC)
Self-employment by Place of Birth	The share of self-employment by foreign-born persons. Self-employment is measured as a percentage of total employment.	OECD *International Migration Outlook*
Stocks of foreign labour	The stock of foreign workers as a percentage of the total labor force.	OECD *International Migration Outlook*
6. ENTREPRENEURSHIP CULTURE		
Desirability of Becoming Self-Employed	Survey responses to: desire to become self-employed within the next 5 years. This question is asked only to non-self-employed individuals.	European Commission, Flash Eurobarometer
Entrepreneurial Intention	The percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years.	Global Entrepreneurship Monitor (GEM)
Entrepreneurial Motivation	The percentage of early stage entrepreneurs who were motivated by either *a)* a desire for independence or *b)* a desire to increase their income.	Global Entrepreneurship Monitor (GEM) 2007 Executive Report
Entrepreneurship among Managers	How senior executives rank the level of entrepreneurship of business managers in the given country from a scale of 0 to 10.	IMD *World Competitiveness Yearbook*.
The image of the entrepreneurs	Survey responses.	European Commission, *Flash Eurobarometer*
Fear of Failure	The percentage of non-entrepreneurially active adult population aged 18-64 that sees good opportunities to start a business, where fear of failure would prevent starting a business.	Global Entrepreneurship Monitor (GEM)
Good Conditions to Start a Business	The percentage of non-entrepreneurially active adult population aged 18-64 that sees good opportunities for starting a business in the next 6 months.	Global Entrepreneurship Monitor (GEM)
Image of entrepreneurs	Survey responses to: image of entrepreneurs according to their status in society. Entrepreneurs are ranked against civil servants and managers.	European Commission, Flash Eurobarometer
Risk for Business Failure	Survey responses to: being willing to start a business if a risk exists that it might fail.	European Commission, *Flash Eurobarometer*
The Wish to Own one's Own Business	Survey responses.	European Commission, *Flash Eurobarometer*
Self-Employment Preference	Survey responses to: preferences towards being self employed or being an employee.	European Commission, *Flash Eurobarometer*

ANNEX C

International comparability of venture capital data

Aggregate data on venture capital provide useful information on trends in the venture capital industry. These data are typically compiled by national or regional Private Equity and Venture Capital Associations, often with the support of commercial data providers. The quality and availability of aggregate data on venture capital have improved considerably in recent years; however, international comparisons remain complicated because of two main problems.

The first difficulty comes from the *lack of a standard international definition of venture capital*. While there is a general understanding, the definition of the types of investments included in venture capital varies across countries and regions. In some cases, differences are purely linguistic; in others, they are more substantive.

The second problem relates to the *diverse methodologies employed by data compilers*. The completeness and representativeness of venture capital statistics with respect to the venture capital industry of a country will differ depending on how data were collected.

The following tables illustrate differences concerning respectively: the definition of private equity and venture capital (Table C.1); the breakdown of venture capital by stage (Table C.2); the breakdown of venture capital by sector (Table C.3); and the methods of data collection (Table C.4).

Table C.1. **Definitions of private equity and venture capital**

Source	Private equity (PE)	Venture capital (VC)
European Private Equity and Venture Capital Association (EVCA)	PE is equity capital provided to enterprises not quoted on a stock market.	VC is a subset of private equity and refers to equity investments made to support the pre-launch, launch and early stage development phases of a business.
National Venture Capital Association – United States (NVCA)	PE is equity investment in non-public companies, usually defined as being made up of venture capital funds. Real estate, oil and gas, and other such partnership are sometimes included in the definition.	VC is a segment of the private equity industry which focuses on investing in new companies with high growth potential and accompanying high risk.
Australian Bureau of Statistics (ABS)	(Later Stage) PE is an investment in companies in later stages of development, as well as investment in underperforming companies. These companies are still being established, the risks are still high and investors have a divestment strategy with the intended return on investment mainly in the form of capital gains (rather than long-term investment involving regular income streams).	VC is a high risk private equity capital for typically new, innovative or fast growing unlisted companies. A venture capital investment is usually a short to medium-term investment with a divestment strategy with the intended return on investment mainly in the form of capital gains (rather than long-term investment involving regular income streams).
Canada's Private Equity and Venture Capital Association (CVCA)	The generic term for the private market reflecting all forms of equity or quasi-equity investment. In a mature private equity universe, there are generally three distinct market segments: Buyout Capital, Mezzanine Capital and Venture Capital.	A specialised form of private equity, characterised chiefly by high-risk investment in new or young companies following a growth path.
Korean Venture Capital Association (KVCA)	PE means an equity investment method with fund raised by less than 49 Limited Partners. It takes a majority stake of company invested, improves its value and then obtains capital gain by selling stock.	Company/Fund investing in early-stage, high-potential and growth companies.
Venture Enterprise Center -Japan (VEC)	PE is an investment method by which investors are involved in the management and governance of enterprises for the improvement of its value by providing those enterprises, in different developing stages and business environments, with necessary funds.	Funds provided via shares, convertible bonds, warrants etc. to venture businesses, which are closed (non-public) small and medium size enterprises with growth potential.

Table C.2. **Breakdown of venture capital by stage, selected VC associations and OECD**

		EVCA	NVCA	PwC Money Tree – Israel	ABS – Australia	CVCA	VEC	KVCA	NZVCA	RVCA	SAVCA	OECD
Private equity	Venture capital	Seed Start-up	Seed	Seed/ Start-up	Pre-seed Seed	Seed Start-up	Seed Early stage	Early (< 1)	Seed/ Start-up	Seed/ Start-up	Seed	Pre-seed/ Seed
		Other early stage	Early stage	Early stage/ Expansion stage	Start-up	Other early stage	Expansion	Early (< 3)	Early stage Expansion	Other early stages	Start-up and early stage	Start-up/ Other early stage
		Later-stage venture	Expansion / Later stage	Later Stage	Early expansion	Expansion	Later		Expansion			Later stage venture
	Other Private Equity	Growth/ Rescue/ Turnaround Replacement, Buyout	Buy-outs and mezzanine capital		Late Expansion, Turnaround, LBO/ MBO/MBI	Acquisition/Buyout, Turnaround, Other stage		Later (> 3)	Turnaround Mid-market PE, Buyout PE	Expansion Restructuring Later stage	Expansion and development Replacement, Buyout	Other Private Equity

Note:
CVCA includes Expansion in Other Private Equity. NZVCA includes Turnaround in Venture capital.
NZVCA: New Zealand Venture Capital Association.
RVCA: Russian Venture Capital Association.
SAVCA: South African Venture Capital and Private Equity Association.

Table C.3. **Breakdown of venture capital by sector, Europe and United States**

OECD classification	United States – NVCA	Europe – EVCA
Computer and consumer electronics	Software Semiconductors Electronics/Instrumentation Networking and Equipment Computers and Peripherals	Computer and consumer electronics
Communications	Media and Entertainment IT Services Telecommunications	Communications
Life sciences	Medical Devices and Equipment Healthcare Services	Life sciences
Industrial/Energy	Industrial/Energy	Energy and environment Chemicals and materials
Other	Consumer Products and Services Retailing/Distribution Business Products and Services Financial Services Other	Consumer goods and retail Consumer services Business and industrial products Business and industrial services Financial services Agriculture Real estate Construction Transportation Unknown

Table C.4. **Methods for collecting data on venture capital**

ABS	Census of VC and later stage PE funds domiciled in Australia and identified by the Australian Bureau of Statistics. Investments by non-resident funds in Australian investee companies are out of scope of the survey; however funds sourced from non-residents and Australian funds investing in non-resident companies are in scope.
CVCA	Quarterly surveys of PE fund managers active in the Canadian industry, conducted by Thomson Reuters. Coverage of the industry is claimed to be very high.
EVCA	Census of European PE and VC firms identified by EVCA and partner associations. Firms are surveyed on a quarterly basis; firms that did not provide quarterly surveys are invited to fill in an annual questionnaire, available on the PEREP website (*PEREP Analytics is a non-commercial pan-European private equity Database* with its own staff and resources). Throughout the data-collection period, PEREP analysts and co-operating national PE and VC associations contact non-respondents to encourage participation in the survey. Information is complemented by data from public sources (e.g. press, media, websites of PE and VC firms or their portfolio companies); data are included if complying with rules defining the qualifying players, the transaction date, the relevant amounts and the qualitative parameters. Two independent public sources are usually required before information is added to the database.
KVCA	Census of registered Korean VC firms (for registration, the capital of a VC firm should exceed 5000 won). By law, VC firms report their activities monthly.
NVCA	MoneyTree™ Report: Quarterly study of venture capital investment activity in the United States, produced by NVCA in co-operation with PricewaterhouseCoopers (PwC). The report includes the investment activity (in investee companies domiciled in the United States) of professional venture capital firms with or without a US office, Small Business Investment Companies (SBICs), corporate VC, institutions, investment banks and similar entities whose primary activity is financial investing. Angel, incubator and similar investments that are part of a VC round are included if they involve cash for equity and not buyout or services in kind. Data are primarily obtained from a quarterly survey of venture capital practitioners conducted by Thomson Reuters. Information is augmented by other research techniques including other public and private sources. All data are subject to verification with the venture capital firms and/or the investee companies.
NZVCA	Survey of VC and PE participants in the New Zealand market performed by NZVCA and Ernst & Young, including firms from both New Zealand and Australia (the 2011 sample consisted of 21 respondents). Also included is any publicly announced information (e.g. S&P Capital IQ; New Zealand Venture Investment Fund's *Young Company Finance* publication). NZVCA and Ernst & Young acknowledge that a small number of industry participants elect not to participate in the survey.
Israel/PwC	The MoneyTree™ Report: Quarterly study by PwC Israel; see above NVCA.
RVCA	Survey of PE and VC funds active in the Russian market (the 2011 sample consisted of more than 100 respondents). RVCA considers that the total figures collected adequately reflect the Russian market trends.
SAVCA	Survey of PE industry participants, conducted by KPMG and SAVCA (the 2011 sample consisted of 63 respondents; information from 8 additions PE firms was added drawing from alternative sources). Investments are included if there are made in South Africa, regardless of where they are managed from. Investments in private equity from corporates, banks and development financing institutions are covered.
VEC	Survey of VC investors identified by VEC.

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