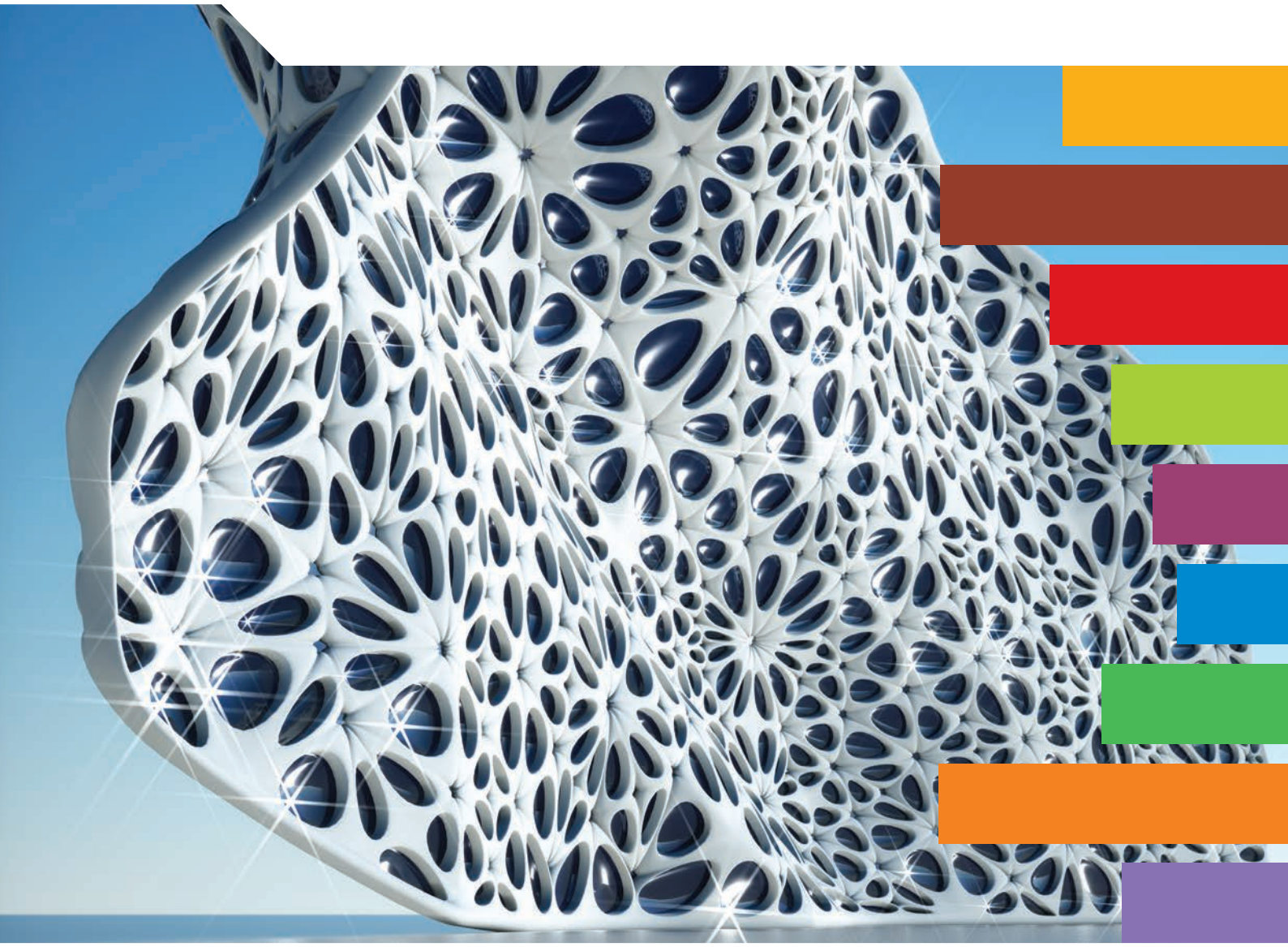
Entrepreneurship at a Glance 2014



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Entrepreneurship at a Glance 2014

BETTER POLICIES FOR BETTER LIVES

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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.*

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 new firm creations, bankruptcies, self-employment and venture capital. Also, the publication presents time series for the main indicators, to provide a temporal perspective; 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 Gueram Sargsyan and Liliana Suchodolska (as main co-authors), Frédéric Parrot, Mario Piacentini, Blandine Serve and Anita Woelfl. Nadim Ahmad provided guidance and comments.

Particular thanks go to 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, the United Kingdom and the United States; and to Cornelius Mueller from the European European Private Equity and Venture Capital Association (EVCA) for help and advice on equity capital statistics.

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Executive summary

Entrepreneurship and entrepreneurs are important sources of innovation, 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 in recent years, especially of micro and small enterprises, bears witness to these difficult conditions and highlights the need for robust and comparable statistics on entrepreneurship. *Entrepreneurship at a Glance* contains a wide range of internationally comparable measures of entrepreneurship designed to meet this need; in particular, some 20 indicators of entrepreneurial performance are presented for around 30 countries.

Diverging patterns of business start-up rates have emerged across OECD economies six years after the onset of the financial crisis. Start-up rates remain below pre-crisis levels in most Euro area economies and particularly in Denmark and Spain, although there are signs of stabilisation in these two countries. In Australia, Portugal, Sweden and the United Kingdom, creations have regained pre-crisis levels and are even displaying a positive trend.

Within large economies, regional differences in the rates of births and deaths of enterprises can be as large as 10 percentage points, driven largely by micro firms. Significant regional disparities also occur in some smaller economies: in the Slovak Republic, for example, the difference in birth rates between the best and worst performing regions is 5 percentage points, while in Denmark, for micro firms, the difference is 7 percentage points.

In all countries most businesses are micro-enterprises, i.e. firms with fewer than 10 employees. Micro-enterprises account for between 70% to 95% of all firms. There are substantial variations in the percentage of the workforce employed by micro-enterprises, ranging from more than 45% in Portugal, Slovenia, Italy and Greece to less than 20% in the Russian Federation, United States and Switzerland.

Young enterprises account for between 5% and 10% of total employment, a share that declined from 2007 to 2011. Employment creation is driven by the establishment of new enterprises, rather than by the growth of enterprises during their first years of activity.

High-growth enterprises account for a small number of firms but a relatively high proportion of employment. In 2011, for instance, France's approximately 15 000 high-growth enterprises employed more than one million employees. In most countries, high-growth enterprises account only for between 2% and 4% of the total number of enterprises.

Overall barriers to entrepreneurship have progressively reduced over the last 10 years across OECD countries. Countries with low burdens on starting-up a business tend to have higher percentages of "opportunity entrepreneurs". In half of OECD countries, pursuing a business opportunity or taking over a family business covered around 70% of actual and potential start-ups in 2012. Data indicates that necessity was a significant driver in the emerging economies of China and India but also in Korea, Estonia, Greece and Spain.

Across countries, having a suitable business idea and securing the necessary finance are the two most important considerations for starting-up, or taking over, a business. The presence of entrepreneurial role models is very important for supporting entrepreneurial intentions in Brazil, Italy, Korea, China and Portugal, while less than 50% of individuals consider it relevant in Nordic countries and in the Russian Federation. Job dissatisfaction is an important element, although typically the least significant consideration.

The lack of own funds and the high perceived costs of innovating are the two factors most cited as hampering innovation across all countries. Other hampering factors include uncertain demand for new products and innovative processes, the presence of established enterprises that dominate the market and the lack of external finance. In general, hampering factors are more of an obstacle for small firms in pursuing innovation than for medium and large firms. Among OECD countries, Spain and Turkey have the highest percentages of firms facing hampering factors.

In countries where co-operation for innovation is relatively high, small firms tend to assign less relevance to obstacles to innovation. This suggests that either the same barriers to innovation also impede on co-operation or that co-operation is an effective tool to overcome barriers and their perceived impact.

State support for innovation varies considerably between countries. In the Slovak Republic, Estonia and Hungary, for example, more than 85% of government funding for R&D goes to SMEs. By contrast, in Japan, Luxembourg, the United States and Sweden more than 80% of support goes to large firms. Overall, more large firms that innovate take advantage of some government funding compared to SMEs that innovate.

The crisis has severely affected the venture capital industry. In 2013, in most countries the level of venture capital investments was still below 2007 levels. Venture capital still represents a very small percentage of GDP in the majority of countries, often less than 0.04%. Exceptions are Israel and the United States, where the venture capital industry is more mature.

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, France, Hungary, Germany, Israel, Italy, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States.

A selection of **indicators of determinants of entrepreneurship** is also included in the publication: the choice of the indicators is 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) Venture capital

E) Enterprises by size

F) Employment by enterprise size

G) Value added by enterprise size

H) Labour productivity by enterprise size

I) Exports by enterprise size

J) Birth rate of employer enterprises

K) Death rate of employer enterprises

L) Churn rate of employer enterprises

M) Survival of employer enterprises

N) Regional business demography

O) Employment creation and destruction by employer enterprise births and deaths

P) Employment creation and destruction in surviving enterprises

Q) High-growth enterprises rate

R) Innovation by enterprise size

S) Collaboration in innovation by enterprise size

T) Factors hampering innovation by enterprise size

U) Public support for innovation by enterprise size

V) Regulatory framework: Starting a business

W) Culture: Reasons for starting a business

X) Access to finance: Equity 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 indicator C the sources are labour force surveys and the Current Population Survey of the United States. The source of Indicator D is the *OECD Entrepreneurship Financing Database*.

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

Indicators R to T are sourced from Eurostat *Community Innovation Survey* for European countries and Turkey, and from national sources for other countries. For Indicator U, data also draw from the *OECD Research and Development Statistics Database*.

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 typical 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 comprises: 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 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.

The original data for Canada are received in NAICS 2012 at the level of sectors or higher. The data are then converted into ISIC rev.4. Data for 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, not always related to the creation of financial wealth; for example, they may be related to increasing employment, tackling inequalities or 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. business 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 regulation	Access to the domestic market	Venture Capital	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	Share of high growth firms	Share of high growth firms (by turnover)
Employer enterprise death rates	Share of gazelles (by 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

Venture capital

New enterprise creations

Key facts

- Diverging patterns of business start-up rates have emerged across OECD economies six years after the onset of the financial crisis.
- Start-up rates remain below pre-crisis levels in most Euro area economies, and particularly in Denmark and Spain, where signs of stabilisation are however observed. In Australia, Portugal, Sweden and the United Kingdom creations have regained the pre-crisis levels and even displayed a positive trend.
- In France start-up rates continue to be boosted by new legislation supporting *auto-entrepreneurs* introduced in 2009.

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 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.

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. agriculture or 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'auto-entrepreneur*) 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.

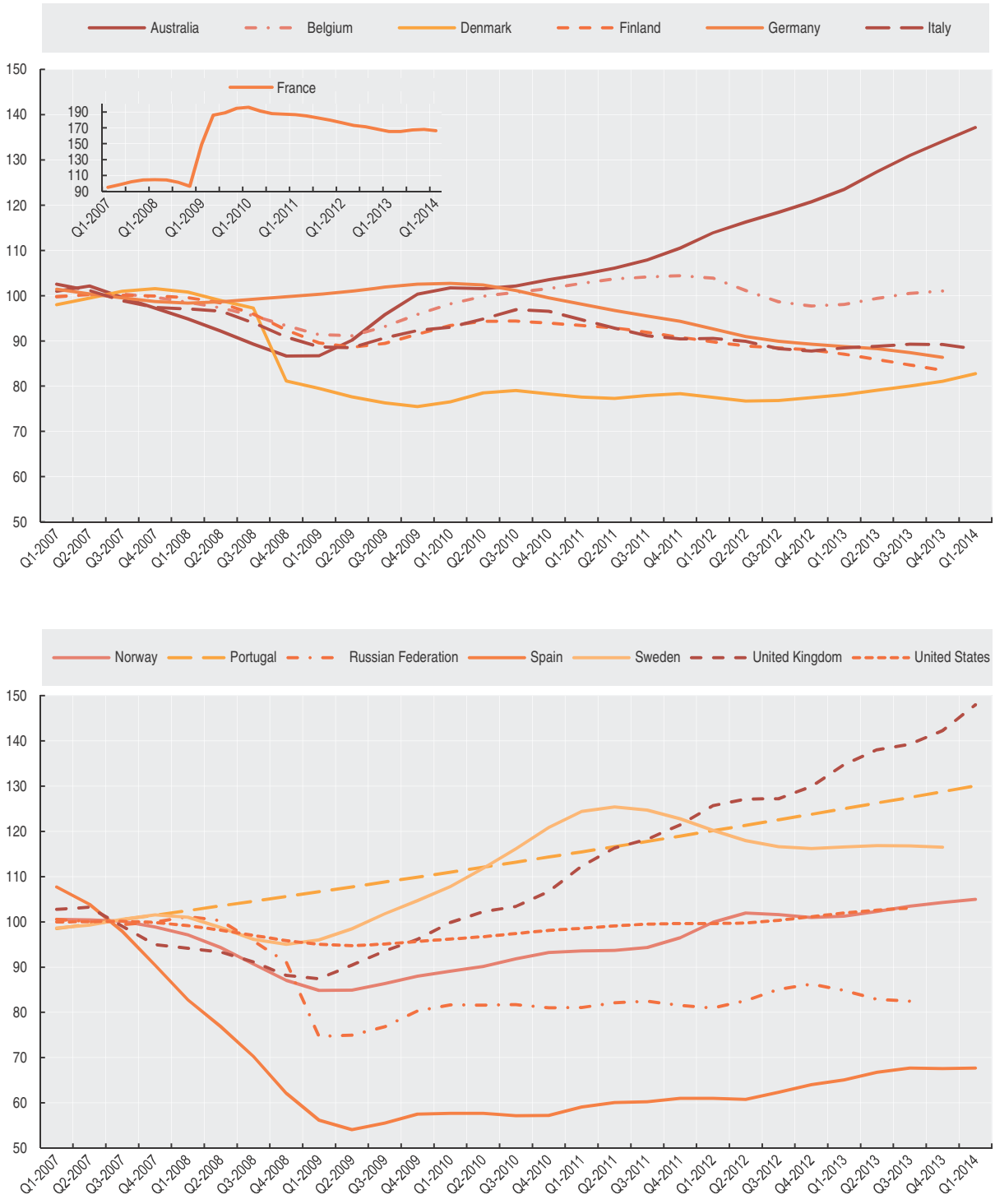
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15. *www.oecd.org/dataoecd/50/56/46413155.pdf*.

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



StatLink http://dx.doi.org/10.1787/888933063176

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.

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 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 Entrepreuneurship Database* uses data base on national definition only. When possible, adjustments are made to get as close as possible to the *Eurostat-OECD Manual on Business Demography Statistics* standard definitions (for exemple by removing agriculture and public companies, etc.).

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

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

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

Comparability

The concept of enterprise "failure" reflected in the data differs across countries due to differences in bankruptcy laws. 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. For this reason, 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, international comparisons of bankruptcy 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.

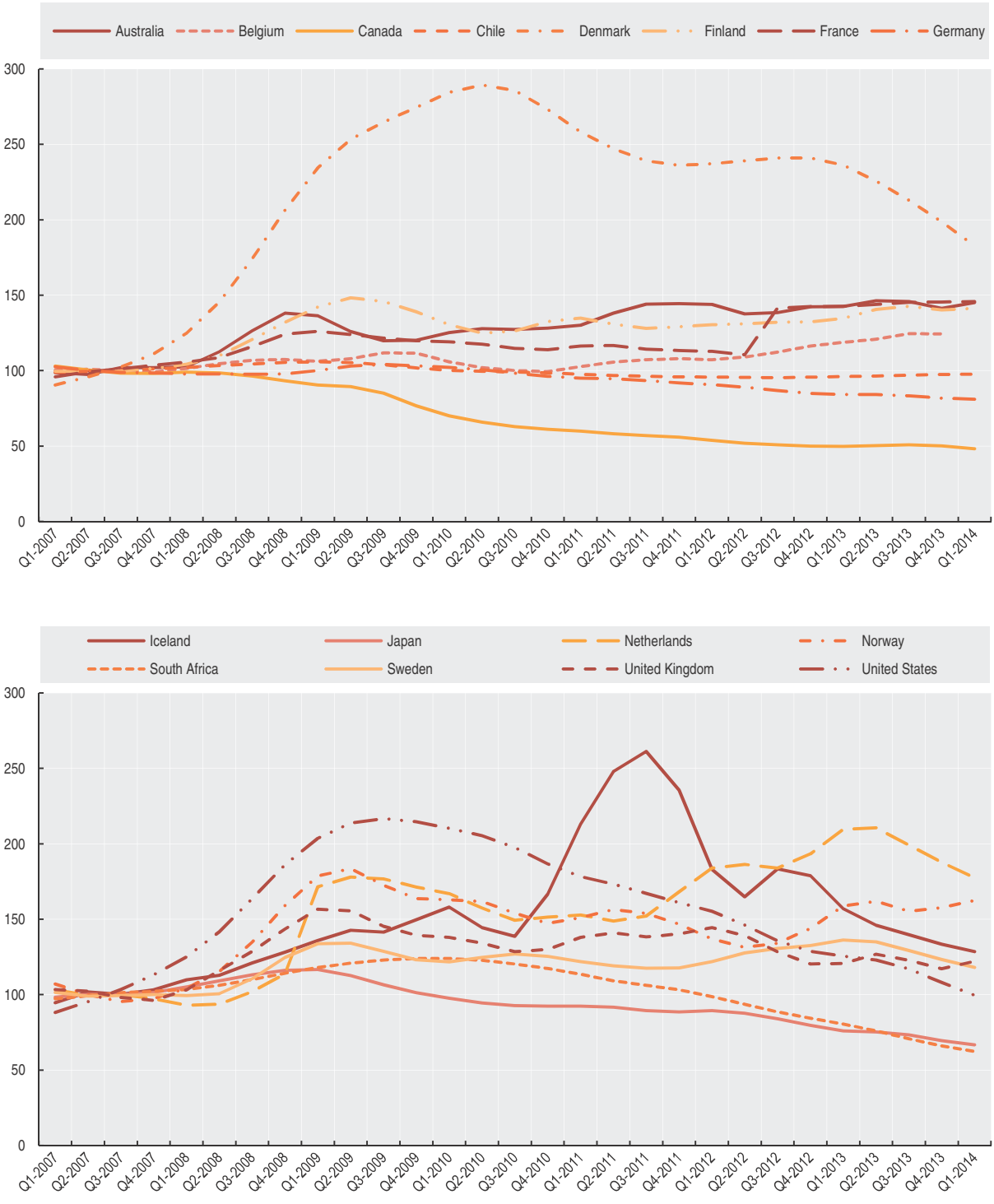
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15, *www.oecd.org/dataoecd/50/56/46413155.pdf*.

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



StatLink http://dx.doi.org/10.1787/888933063195

Self-employment

Key facts

- Self-employment levels across countries have exhibited varying and diverging trends in the wake of the crisis, reflecting, in part, differences in the impact of the crisis on employment, the regulatory environment and the mechanisms used to mitigate the effects of the crisis.
- In Australia, Korea, Japan, and the United States, trend self-employment levels remain significantly below their pre-crisis level, reflecting in part a shift towards contractual employment, where employment levels were less adversely affected by the crisis. The most recent data however points to a decelerating trend, pointing to a possible turning point in the short-term.
- Self-employment levels in Spain and Greece remain significantly below pre-crisis levels but have begun to stabilise in recent periods and have outperformed overall employment levels in general, indicating that many of these jobs may be less about entrepeneurialism than coping strategies.
- Self-employment levels are significantly above pre-crisis levels in Mexico, France and the United Kingdom. In Mexico, and to a lesser extent the United Kingdom, this has been against a back-drop of a growing labour market in general. While in France, where a change in legislation to simplify the creation of small businesses drove the increase in self-employment, employee jobs show little change on their pre-crisis levels.

Relevance

Self-employment can be an important driver of entrepreneuralism.

Definitions

The *self-employed* are defined as those who own and work in their own businesses, including unincorporated businesses and own-account workers, and declare themselves as "self-employed" in population or labour force surveys.

The self-employed rate refers to the number of self-employed as a percentage of total employment.

Comparability

Some care is needed in interpretation. Evidence in many countries points to rising shares of part-time employees, which may impair the 'economic' comparability of both self-employment and self-employment rates across time and countries.

For, Japan, New Zealand and Norway the data for self-employment do not include owners who work in their incorporated businesses, and instead are counted as employees.

Additional care is needed in interpreting the results with regards to entrepreneurship. Not insignificant shares of the self-employed in some countries may reflect arts and crafts type or subsistence type activities.

Source/online databases

OECD estimates based on:

Labour Force Survey (Australia), *www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0*.

Labour Force Survey (Canada), *www.statcan.gc.ca/imdb-bmdi/3701-eng.htm*.

Eurostat Labour Force Surveys, *http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/lfs*.

Labour Force Survey (Japan), *www.stat.go.jp/english/data/roudou/*.

Economically Active Population Survey (Korea), *http://kostat.go.kr/portal/english/surveyOutlines/2/3/index.static*.

Encuesta National de Empleo (Mexico), *www.inegi.org.mx/est/contenidos/proyectos/encuestas/hogares/historicas/ene/default.aspx*.

Current Population Survey (United States), *www.census.gov/cps/*.

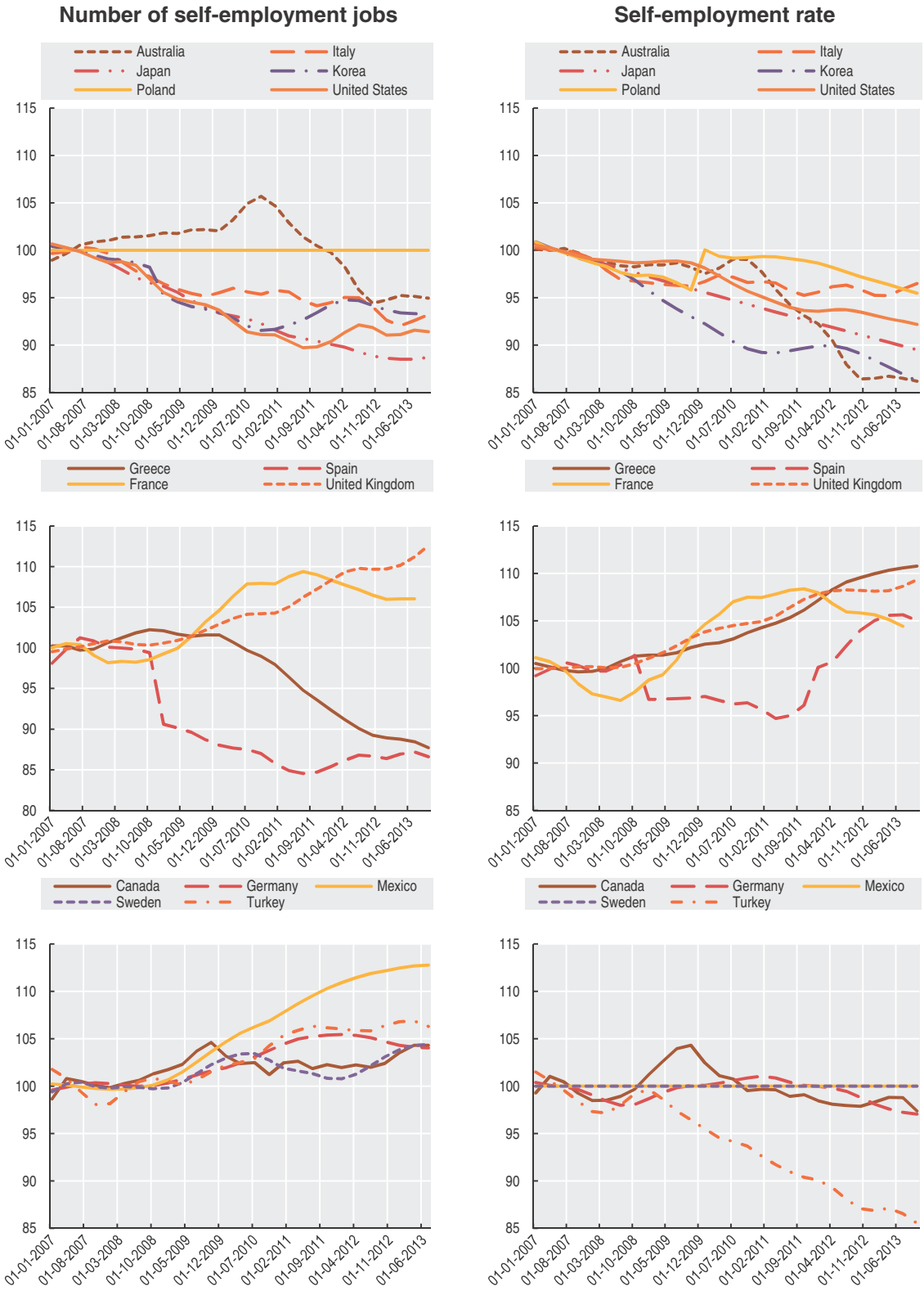
For further reading

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

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. **Self-employment jobs**

Trend-cycle average 2007 = 100



StatLink http://dx.doi.org/10.1787/888933063214

Venture capital

Key facts

- Venture capital investments slowed sharply at the height of the financial crisis in Europe and the United States, reflecting in part the credit crunch and slowing markets.
- The impact of the crisis has been far more pronounced in Europe than the United States. Despite tentative signs of recovery in 2013, total venture capital investments in Europe remain at around half their pre-crisis peak. In the United States investments surpassed their pre-crisis peak in 2013. The recovery in Europe is progressing but at a slower rate; also, the number of companies backed by venture capital is again at the level of 2007, indicating that the average amount of investments in Europe has lowered.
- In both Europe and the United States, *seed and start-up stage* financing held-up better than *later-stage* financing. In Europe, *seed and start-up stage* financing in 2013 was around 30% below its pre-crisis peak compared to about 70% for *later-stage*, while in the United States, *seed and start-up stage* financing was around 50% higher than its pre-crisis peak.

Relevance

Venture capital is a particularly important form of equity financing (i.e. equity capital provided to firms not quoted on the stock market) for young companies with innovation and growth potential, replacing and/or complementing traditional bank finance, and is therefore an important determinant of entrepreneurship.

Definitions

Venture capital is a subset of the private equity industry and refers to equity investments made to support the *pre-launch, launch* and *early stage* development phases of a business.

In the *OECD Entrepreneurship Financing Database*, venture capital comprises the sum of ***early stage*** (including *pre-seed, seed, start-up* and *other early stage*) and ***later stage*** venture capital. As there are no internationally 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.

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 sourced from national or regional venture capital associations that produce them. Annex B presents correspondence tables between original data received and collected by the OECD and OECD harmonised data.

Some care is needed in interpretation. The statistics presented correspond to the location of the portfolio companies (i.e. the investee companies), regardless of the location of the private equity firms.

Sources/online databases

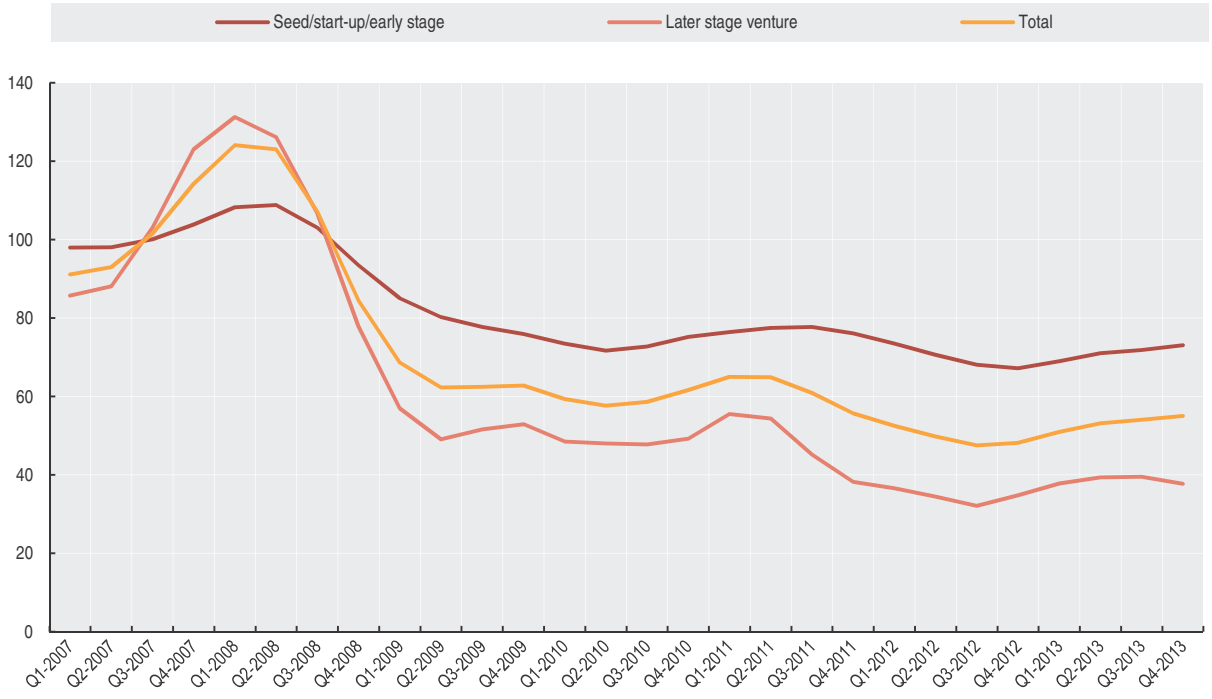
OECD Entrepreneurship Financing Database, drawing from:

EVCA (European Private Equity and Venture Capital Association), *EVCA Yearbook*, *www.evca.eu/knowledgecenter/statisticsdetail.aspx?id=6392*.

NVCA (National Venture Capital Association, United States), Thomson Reuters data, *www.nvca.org/*.

Figure 1.4. **Venture capital investments, Europe**

Trend-cycle average 2007 = 100



StatLink http://dx.doi.org/10.1787/888933063233

Figure 1.5. **Venture capital investments, United States**

Trend-cycle average 2007 = 100

StatLink http://dx.doi.org/10.1787/888933063252

2. STRUCTURAL AND PERFORMANCE INDICATORS ON ENTERPRISE POPULATION

Enterprises by size

Employment by enterprise size

Value added by enterprise size

Productivity by enterprise size

Exports by enterprise size

Enterprises by size

Key facts

- In all countries most business are micro-enterprises, i.e. firms with less than ten employees; 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 as elsewhere 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 *Nonemployer Statistics Database* was added to the number of employer firms from *Statistics of U.S. Businesses*, so to obtain the total number of enterprises.

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 "11-50" for Mexico; the size class "20-49" refers to "20-199" for Australia and "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).

For Mexico and the Russian Federation data refer to employees. Data for Canada and Korea do not include non-employer enterprise counts.

Source/online database

Data on enterprises without employees are sourced from Eurostat, Business demography by size class, *http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database*.

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*.

For further reading

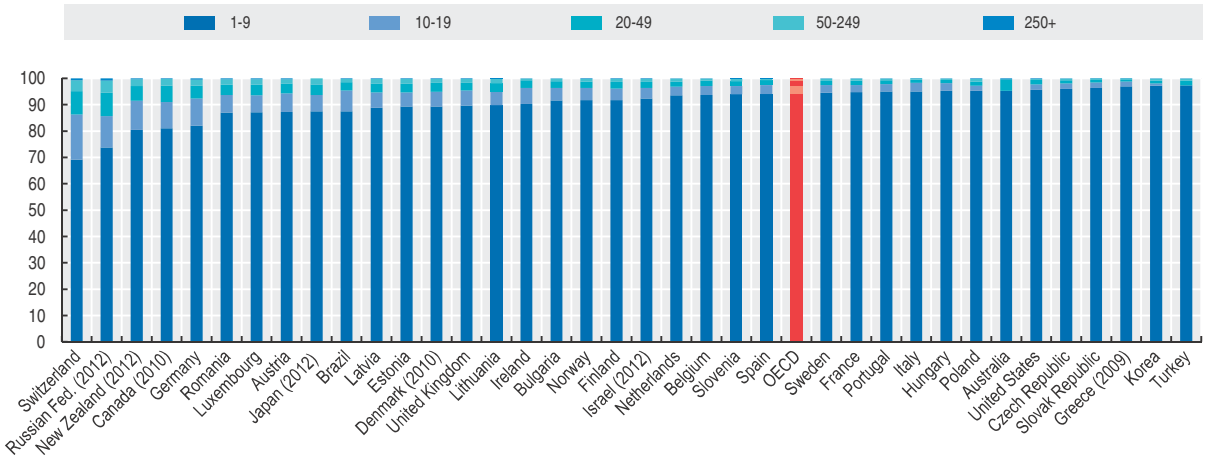
OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

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 2.1. **Enterprises by size**

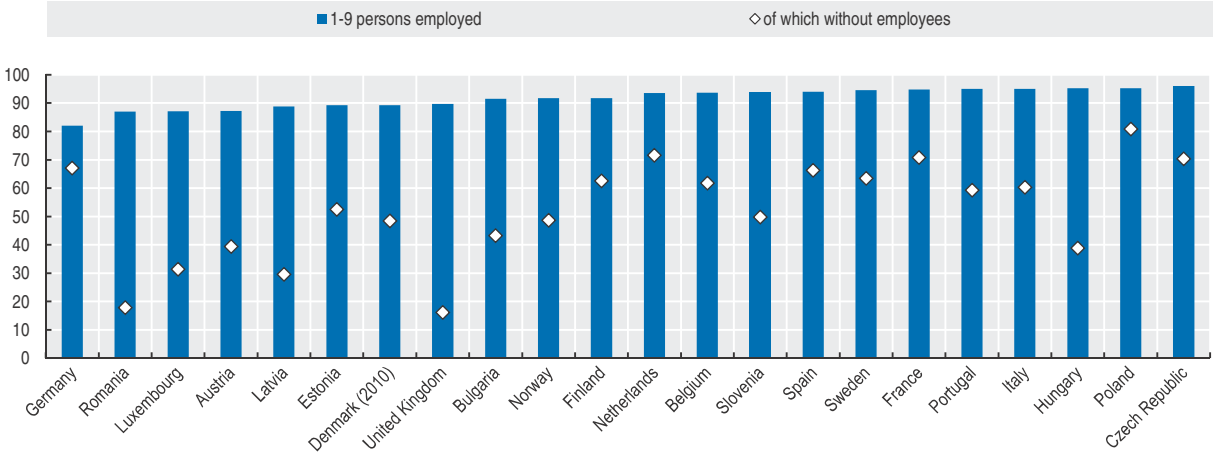
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063271

Figure 2.2. **Percentage of non-employers and micro-firms**

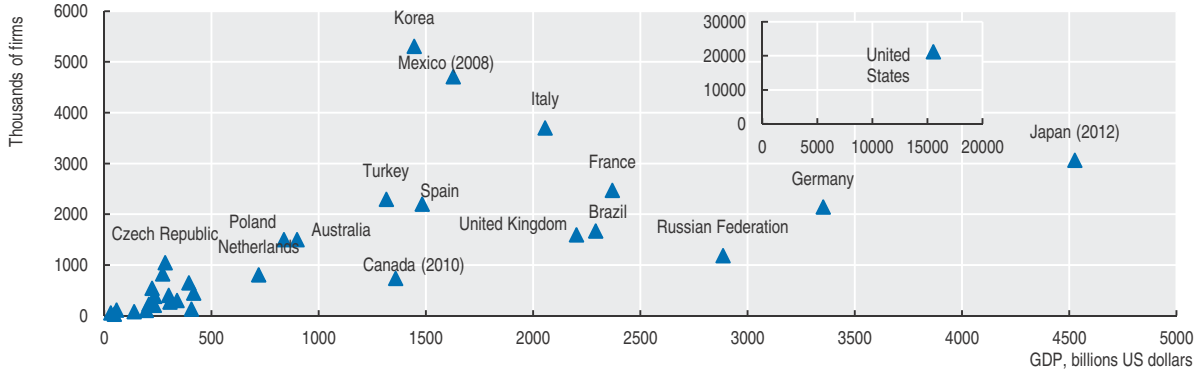
Percentages of total business population, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063290

Figure 2.3. **Number of enterprises and GDP**

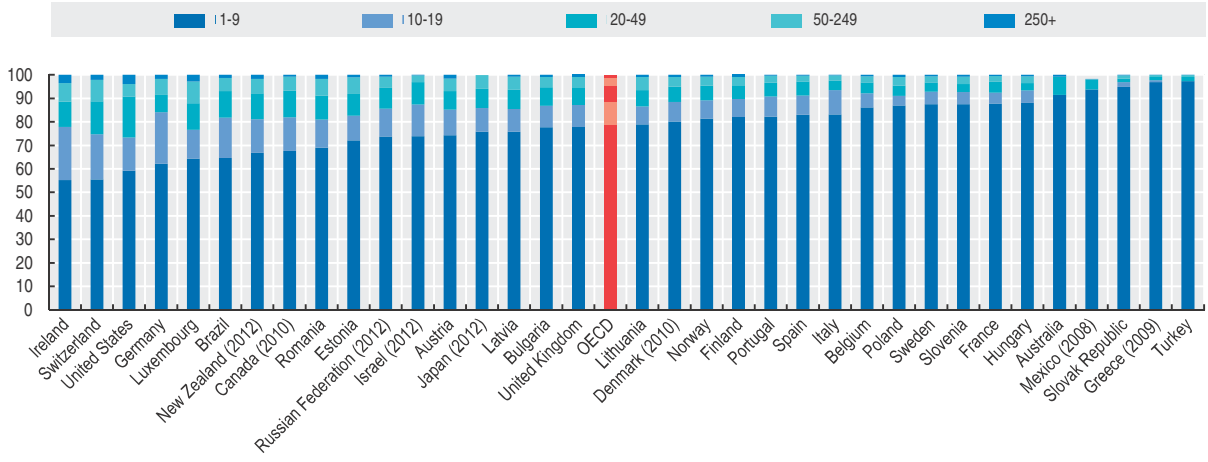
2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063309

Figure 2.4. **Enterprises by size, manufacturing**

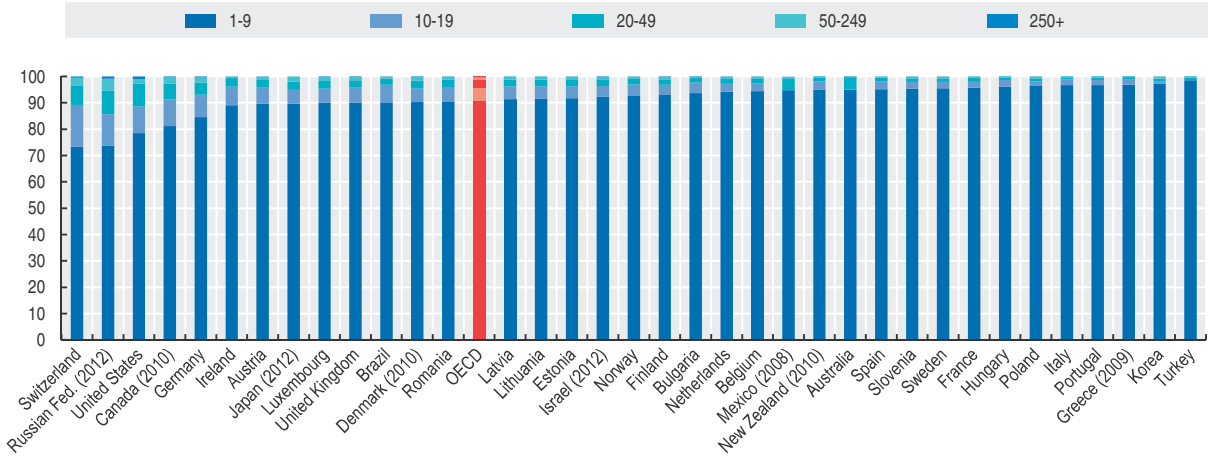
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063328

Figure 2.5. **Enterprises by size, services**

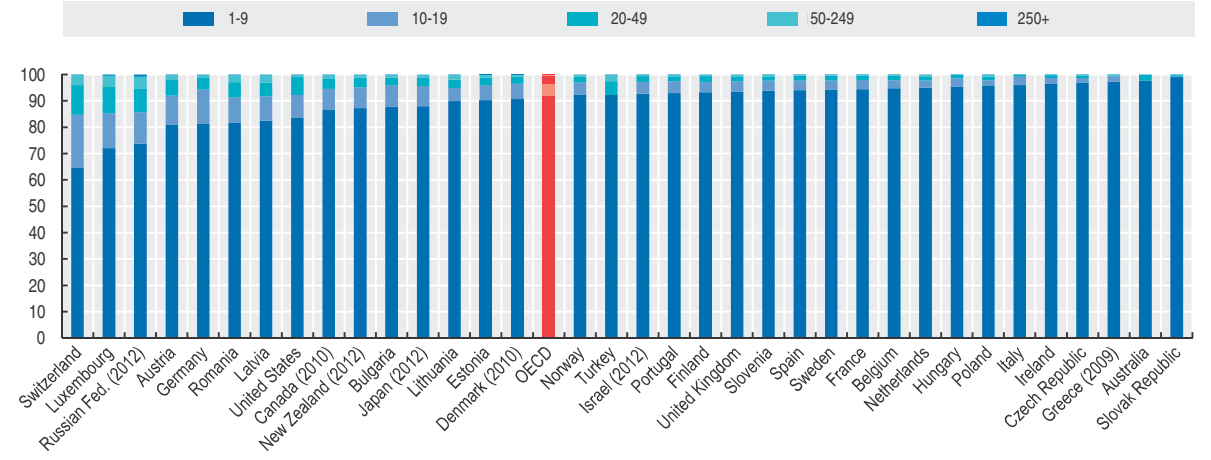
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063347

Figure 2.6. **Enterprises by size, construction**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063366

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

Percentage, 2011 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	91.5	-	7.8	-	0.7	95.0	-	4.6	-	0.3	97.6	-	2.2	-	0.1
Austria	74.3	10.9	7.9	5.3	1.7	89.6	6.0	2.9	1.2	0.2	81.0	10.9	5.9	1.9	0.2
Belgium	86.2	6.0	4.6	2.6	0.6	94.2	3.2	1.8	0.7	0.1	94.8	3.1	1.6	0.5	0.1
Brazil	64.6	17.2	11.3	5.6	1.3	90.1	6.8	2.2	0.7	0.2					
Bulgaria	77.7	9.1	8.0	4.3	0.9	93.6	4.0	1.8	0.5	0.1	87.9	8.1	2.8	0.9	0.3
Canada (2010)	67.7	14.2	11.3	6.0	0.8	81.2	10.0	6.0	2.5	0.3	86.4	8.0	4.1	1.4	0.1
Czech Republic	92.7	2.8	2.3	1.7	0.5	96.7	1.9	1.0	0.4	0.1	96.9	1.7	1.0	0.4	0.0
Denmark (2010)	80.2	8.2	6.7	4.1	0.9	90.2	5.2	3.0	1.3	0.2	90.6	5.8	2.7	0.8	0.1
Estonia	72.1	10.6	9.2	7.1	1.0	91.8	4.5	2.4	1.2	0.2	90.1	5.8	2.8	1.1	0.1
Finland	82.2	7.6	5.7	3.6	0.9	92.9	3.9	2.1	0.9	0.2	93.1	4.2	2.1	0.6	0.1
France	87.8	4.5	4.7	2.5	0.5	95.7	2.2	1.5	0.5	0.1	94.3	3.6	1.6	0.4	0.1
Germany	62.2	21.9	7.3	6.8	1.8	84.6	8.5	4.7	1.9	0.3	81.4	12.9	4.3	1.3	0.1
Greece (2009)	96.9	0.8	1.4	0.8	0.1	96.8	2.0	1.0	0.2	0.0	97.3	1.9	0.3	0.4	0.0
Hungary	88.1	5.2	3.1	2.9	0.6	96.1	2.5	0.9	0.3	0.1	95.2	3.3	1.4	0.1	0.0
Ireland	55.3	22.6	10.8	7.9	3.5	89.0	7.0	3.3	0.6	0.1	96.6	2.0	1.1	0.3	0.0
Israel (2012)	80.8	8.0	6.0	4.4	0.8	85.2	7.6	4.7	2.1	0.4	92.6	4.5	2.2	0.6	0.1
Italy	83.2	10.3	4.1	2.1	0.3	96.7	2.2	0.7	0.3	0.1	96.0	3.2	0.6	0.2	0.0
Japan (2012)	75.8	10.1	8.1	5.9	-	89.7	5.2	3.2	1.9	-	87.9	7.6	3.4	1.1	-
Korea						97.2	0.8	1.1	0.8	0.1					
Latvia	75.8	9.7	8.1	5.6	0.8	91.2	5.0	2.6	1.1	0.2	82.5	9.2	5.2	2.9	0.2
Lithuania	78.9	7.7	7.0	5.6	0.9	91.5	4.7	2.6	1.1	0.1	89.9	5.0	3.2	1.8	0.2
Luxembourg	64.4	12.3	11.3	9.3	2.8	90.0	5.3	2.9	1.5	0.3	72.0	13.3	9.9	4.2	0.5
Mexico (2008)	95.5	-	4.4	0.1	>0.1	95.0	-	4.2	0.7	0.1					
Netherlands	82.6	7.2	5.5	4.0	0.7	94.2	3.0	1.8	0.9	0.2	95.0	2.7	1.5	0.7	0.1
Norway	81.4	7.8	6.2	3.8	0.8	92.6	4.3	2.1	0.8	0.2	92.2	4.8	2.3	0.6	0.1
Poland	86.9	4.1	4.3	3.8	0.9	96.6	1.6	1.1	0.6	0.1	95.8	2.0	1.3	0.7	0.1
Portugal	82.3	8.6	5.8	3.0	0.4	96.7	1.9	0.9	0.4	0.1	92.9	4.5	1.9	0.6	0.1
Romania	69.0	11.9	10.3	7.1	1.7	90.6	5.4	2.8	1.1	0.2	81.8	9.4	5.8	2.6	0.3
Russian Federation (2012)	79.5	9.2	6.8	3.8	0.7	79.5	9.2	6.8	3.8	0.7	79.5	9.2	6.8	3.8	0.7
Slovak Republic	94.9	2.0	1.6	1.3	0.3	95.6	2.9	1.0	0.4	0.1	99.0	0.2	0.6	0.2	0.0
Slovenia	87.6	5.1	3.5	3.2	0.7	95.4	2.6	1.4	0.6	0.1	93.8	3.9	1.6	0.6	0.1
Spain	83.0	8.3	5.9	2.5	0.4	95.2	2.9	1.3	0.5	0.1	94.0	3.7	1.8	0.5	0.1
Sweden	87.5	5.3	3.9	2.6	0.6	95.4	2.4	1.4	0.6	0.1	94.2	3.5	1.8	0.5	0.0
Switzerland	55.5	19.3	14.0	9.1	2.2	73.3	15.9	7.3	3.0	0.5	64.6	20.1	11.3	3.8	0.3
Turkey	92.4	-	4.9	2.3	0.4	98.5	-	1.0	0.4	0.1	92.2	-	5.3	2.4	0.2
United Kingdom	77.8	9.5	7.1	4.6	1.0	90.0	5.8	2.7	1.2	0.3	93.4	4.0	1.8	0.7	0.1
United States	59.2	14.2	17.4	5.3	3.9	78.5	10.1	8.5	1.9	1.0	83.7	8.5	6.8	0.8	0.2

StatLink http://dx.doi.org/10.1787/888933064772

Employment by enterprise size

Key facts

- There are significant variations across countries in the distribution of employment among enterprises of different sizes: in Portugal, Slovenia, Italy and Greece more than 45% of employment is in enterprises with less than ten persons, while in Russian Federation, United States and Switzerland the share is less than 20%.
- Micro-enterprises (less than 10 persons employed) in construction and services account on average for around 42 and 36% of total employment in their sectors correspondingly, 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 around 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 enterprise size can be useful therefore in assessing the underlying potential that exists within an economy to generate employment growth.

Definitions

The *number of persons employed* 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, Korea and Mexico, which use establishments. Data for all countries refer to the number of persons employed, with the exception of Mexico and the Russian Federation 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; "1-19" for Australia and Turkey; the size class "10-19" refers to "11-50" for Mexico; the size class "20-49" refers to "20-199" for Australia and "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

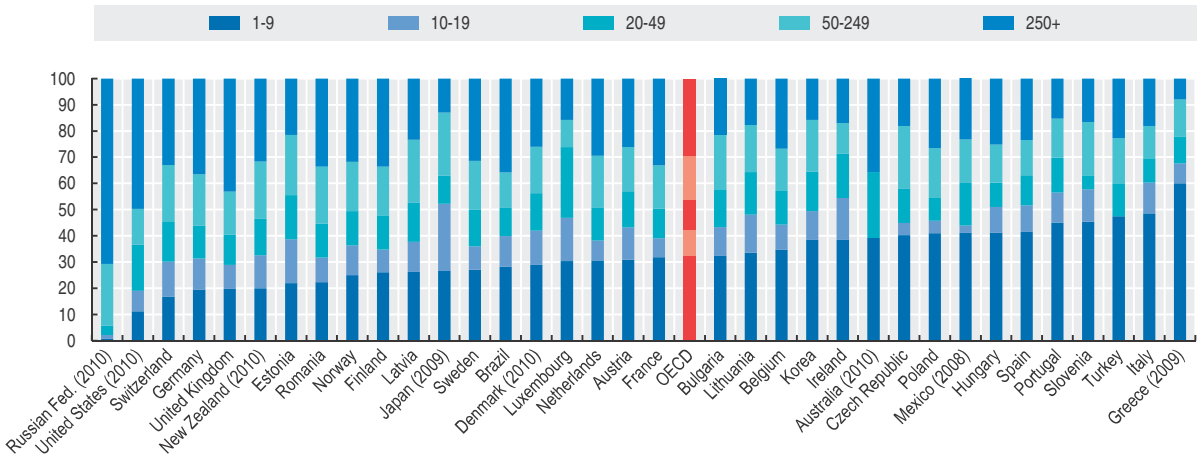
OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en.*

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

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

Figure 2.7. **Employment by enterprise size**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063385

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

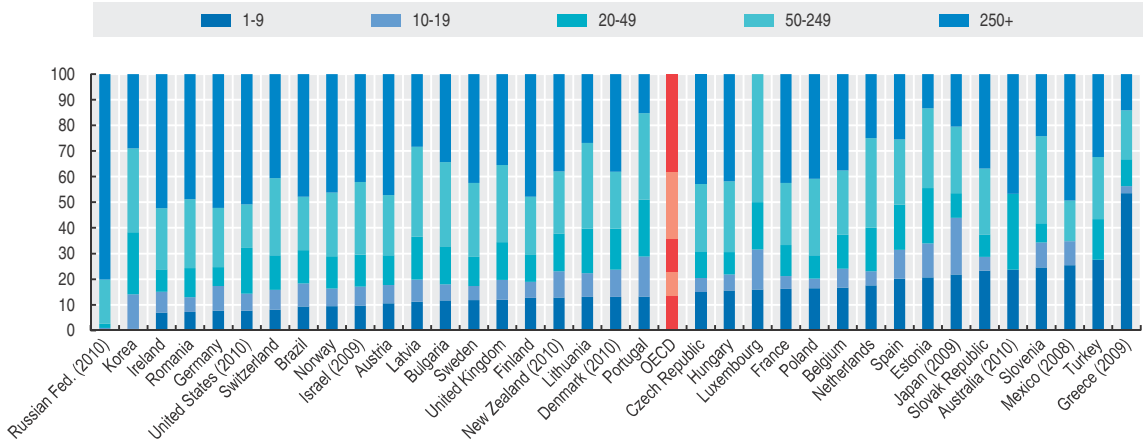
2011 or latest available year

	1-9	10-19	20-49	50-249	250+	Total
Australia (2010)	2 584 127	-	1 661 368	-	2 358 621	6 604 115
Austria	643 941	257 599	290 140	350 104	547 282	2 089 066
Belgium	732 271	199 509	268 151	339 978	562 459	2 102 368
Brazil	4 233 449	1 761 077	1 621 920	2 038 506	5 382 332	15 037 284
Bulgaria	490 239	165 306	214 824	319 912	324 825	1 515 106
Czech Republic	1 137 437	264 922	368 529	668 998	1 025 312	3 465 198
Denmark (2010)	316 698	144 144	156 065	195 111	284 998	1 097 016
Estonia	35 031	26 593	26 903	36 604	34 333	159 464
Finland	279 270	92 234	137 101	200 018	358 719	1 067 342
France	4 287 617	972 494	1 521 840	2 230 584	4 455 774	13 468 309
Germany	4 840 395	2 931 550	3 105 941	4 856 491	9 048 359	24 782 736
Greece (2009)	689 274	87 289	115 111	164 562	91 470	1 147 706
Hungary	870 368	207 936	196 633	307 116	531 119	2 113 172
Ireland	213 739	89 145	94 526	64 686	94 438	556 534
Israel (2009)	396 226	257 889	597 382	975 826	378 444	2 605 767
Italy	6 626 115	1 616 302	1 230 174	1 713 624	2 471 344	13 657 559
Japan (2009)	11 758 419	11 322 099	4 729 586	10 642 397	5 711 923	44 164 424
Korea	3 189 851	913 931	1 246 647	1 649 675	1 308 337	8 308 441
Latvia	139 721	61 547	79 464	128 607	124 388	533 727
Lithuania	175 290	75 849	84 929	94 056	92 723	522 847
Luxembourg	26 851	14 555	23 861	9 076	13 976	88 319
Mexico (2008)	10 847 170	738 328	4 360 272	4 315 095	6 859 924	27 120 789
Netherlands	1 432 169	353 807	583 733	930 338	1 378 924	4 678 971
New Zealand (2010)	209 670	132 790	145 240	229 265	332 850	2 557 282
Norway	369 418	167 562	194 104	276 726	469 812	1 477 622
Poland	3 021 420	350 055	644 878	1 400 412	1 958 847	7 375 612
Portugal	1 152 205	293 771	339 784	381 091	391 438	2 558 289
Romania	850 618	359 098	490 960	829 318	1 281 509	3 811 503
Russian Federation (2010)	157 088	234 944	644 452	4 234 316	12 717 755	17 988 555
Slovak Republic	465 668	95 370	99 857	181 046	225 042	1 066 983
Slovenia	151 468	40 950	16 965	68 598	55 239	333 220
Spain	4 176 781	1 017 672	1 158 114	1 350 446	2 357 515	10 060 528
Sweden	642 749	210 322	328 557	444 593	743 616	2 369 837
Switzerland	435 316	346 107	394 112	561 495	856 733	2 593 763
Turkey (2009)	2 580 470		663 310	1 316 874	2 069 109	6 629 763
United Kingdom	2 946 175	1 351 051	1 724 792	2 433 410	6 418 305	14 873 733
United States (2010)	8 491 267	5 965 694	13 339 600	10 325 133	37 779 367	75 901 061

StatLink http://dx.doi.org/10.1787/888933064791

Figure 2.8. **Employment by enterprise size, manufacturing**

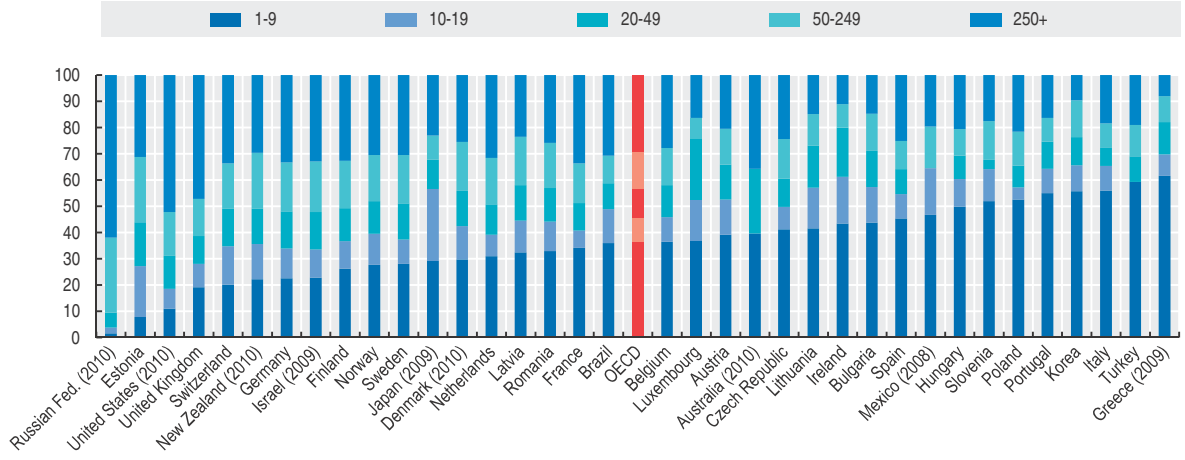
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063404

Figure 2.9. **Employment by enterprise size, services**

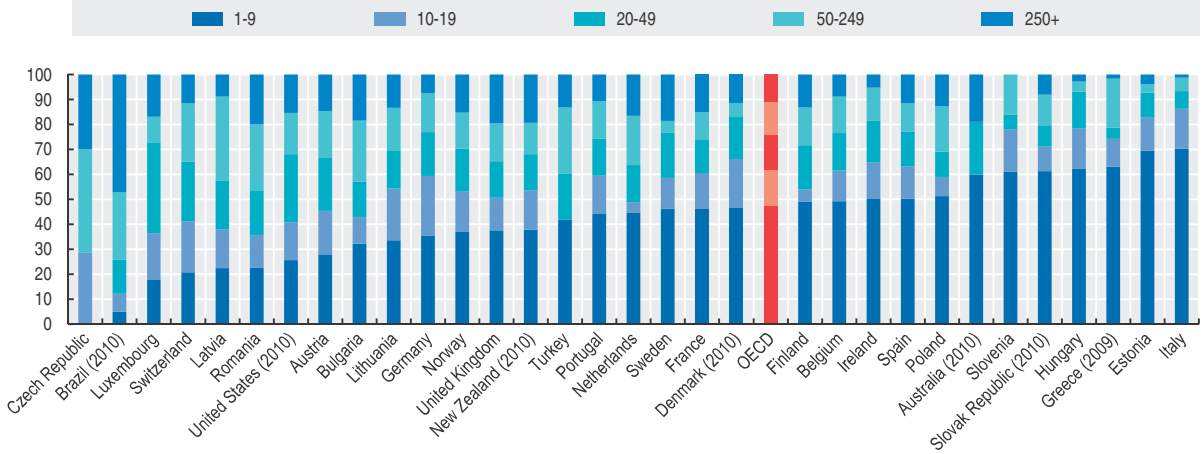
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063423

Figure 2.10. **Employment by enterprise size, construction**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063442

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

Percentage, 2011 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 (2010)	23.7	-	29.6	-	46.7	39.6	-	24.7	-	35.7	59.8	-	21.2	-	19.0
Austria	10.6	7.1	11.6	23.5	47.2	39.1	13.3	13.3	13.8	20.5	27.9	17.5	21.2	18.8	14.6
Belgium	16.7	7.4	13.2	25.2	37.6	36.4	9.4	12.2	14.2	27.9	49.3	12.3	14.9	14.6	8.9
Brazil	9.4	9.0	13.0	20.8	47.9	36.0	12.9	9.9	10.5	30.8	-	-	-	-	-
Bulgaria	11.7	6.2	14.8	32.9	34.3	43.7	13.5	13.8	14.2	14.7	32.2	10.8	14.1	24.5	18.5
Czech Republic	14.9	5.4	9.8	25.9	44.0	61.5	-	16.0	22.5	-	51.5	10.2	12.7	14.8	10.8
Denmark (2010)	13.1	10.6	15.9	22.2	38.2	29.7	12.7	13.4	18.7	25.5	46.7	19.5	16.9	5.7	11.2
Estonia	20.6	13.3	21.5	31.1	13.4	7.7	19.4	16.7	24.9	31.2	69.5	13.3	9.9	3.5	3.8
Finland	12.7	6.2	10.6	22.7	47.8	26.2	10.4	12.6	18.0	32.7	49.0	5.0	17.7	15.1	13.2
France	16.2	5.0	12.2	24.2	42.4	34.1	6.6	10.6	15.1	33.7	46.4	14.0	13.4	11.3	14.8
Germany	7.7	9.7	7.4	23.0	52.3	22.5	11.4	14.1	18.7	33.4	35.5	23.9	17.5	15.5	7.6
Greece (2009)	53.6	2.7	10.5	19.1	14.2	61.5	8.2	12.3	9.9	8.1	63.1	11.1	4.5	19.7	1.6
Hungary	15.6	6.3	8.7	27.6	41.8	49.8	10.6	8.8	10.1	20.7	62.2	16.1	14.8	4.1	2.8
Ireland	7.0	8.1	8.8	23.8	52.3	43.4	17.8	18.7	8.9	11.2	50.1	14.6	16.7	13.3	5.3
Israel (2009)	9.8	7.3	12.5	28.3	42.1	22.8	10.7	14.3	19.2	33.0	-	-	-	-	-
Italy	24.9	15.2	13.8	22.2	24.0	55.9	9.4	7.0	9.2	18.4	70.3	16.0	7.1	5.3	1.4
Japan (2009)	21.8	22.2	9.6	26.0	20.5	29.1	27.4	11.3	9.2	23.0	-	-	-	-	-
Korea	0.6	13.5	24.2	32.7	29.0	55.7	9.8	10.8	14.0	9.7	-	-	-	-	-
Latvia	11.2	8.6	16.6	35.1	28.4	32.4	12.0	13.5	18.5	23.6	22.4	15.6	19.6	33.6	8.8
Lithuania	13.1	9.3	17.3	33.5	26.8	41.5	15.5	16.0	12.0	14.9	33.6	20.7	15.0	17.3	13.3
Luxembourg	16.0	15.5	18.5	50.0	-	36.9	15.6	23.4	7.7	16.4	17.7	18.7	36.4	10.3	16.9
Mexico (2008)	25.4	9.3	-	15.9	49.3	46.7	17.8	-	15.8	19.7	-	-	-	-	-
Netherlands	17.6	5.5	17.0	34.9	25.0	30.9	8.3	11.5	17.7	31.6	44.7	4.2	14.8	19.8	16.5
New Zealand (2010)	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	9.4	6.9	12.6	24.9	46.2	27.6	11.8	12.5	17.6	30.5	36.9	16.2	17.2	14.5	15.2
Poland	16.5	3.8	9.0	29.9	40.8	52.5	4.7	8.3	13.0	21.6	51.3	7.6	10.2	18.2	12.6
Portugal	13.2	15.6	22.2	33.7	15.3	54.9	9.4	10.3	9.1	16.4	44.3	15.2	14.7	15.2	10.6
Romania	7.2	5.8	11.3	26.8	48.9	32.9	11.2	12.9	17.2	25.8	22.7	13.0	17.9	26.4	20.0
Russian Federation (2010)	0.3	0.6	1.7	17.3	80.1	1.6	2.2	5.8	28.6	61.9	-	-	-	-	-
Slovak Republic	23.4	5.3	8.8	25.7	36.8	47.9	12.8	9.1	13.0	17.2	72.1	1.6	11.5	13.4	1.4
Slovenia	24.5	9.8	7.5	34.0	24.3	52.0	12.1	3.6	14.7	17.6	61.0	17.2	5.8	16.1	-
Spain	20.2	11.2	17.7	25.5	25.5	45.4	9.3	9.5	10.7	25.2	50.2	13.0	13.9	11.4	11.5
Sweden	11.9	5.5	11.3	28.9	42.5	28.0	9.2	13.8	18.4	30.5	46.3	12.3	18.3	4.6	18.6
Switzerland	8.0	7.8	13.6	30.0	40.6	20.1	14.6	14.2	17.4	33.7	20.7	20.3	24.0	23.4	11.5
United Kingdom	12.0	7.7	14.8	30.1	35.4	19.1	8.9	10.7	14.1	47.3	37.6	13.1	14.6	15.1	19.6
United States (2010)	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/10.1787/888933064810

Value added by enterprise size

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 – 34% on average – despite less than 1% of businesses.
- The share of value added created by large enterprises varies significantly across countries with over 50% in Brazil and around 20% and less in Estonia, Greece, Latvia, Lithuania and Slovenia.
- Micro-enterprises contribute typically around 20 to 25% of value added in most economies, with Greece exceeding 40%.

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 enterprise size 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+ 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 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. For Korea in mining industry division, size class "10-19" refers to "1-19".

Source/online database

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

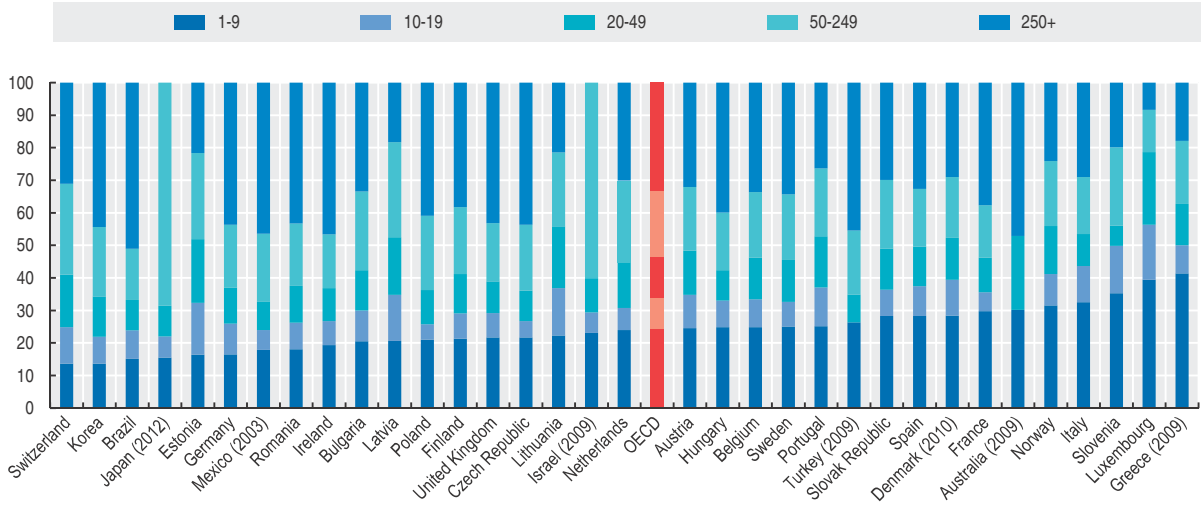
For further reading

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 2.11. **Value added by enterprise size**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063461

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

Percentage, 2011 or latest available year

	1-9	10-19	20-49	50-249	250+
Australia (2009)	30.18	-	22.66	-	47.16
Austria	24.62	10.20	13.59	19.50	32.09
Belgium	24.89	8.54	12.76	20.19	33.63
Brazil	15.17	8.70	9.31	15.73	51.08
Bulgaria	20.56	9.45	12.40	24.13	33.46
Czech Republic	21.73	4.98	9.32	20.28	43.68
Denmark (2010)	28.40	11.04	12.88	18.65	29.02
Estonia	16.37	15.96	19.55	26.47	21.65
Finland	21.32	7.74	12.14	20.52	38.29
France	29.78	5.81	10.62	16.07	37.72
Germany	16.52	9.40	11.07	19.29	43.72
Greece (2009)	41.39	8.64	12.73	19.37	17.87
Hungary	24.86	8.21	9.27	17.70	39.96
Ireland	19.35	7.40	10.08	16.53	46.65
Israel (2009)	23.07	6.31	10.52	60.10	-
Italy	32.54	11.07	9.88	17.52	28.99
Japan (2007)	3.98	5.97	11.36	28.01	50.68
Korea	13.67	8.26	12.37	21.35	44.34
Latvia	20.68	14.14	17.66	29.26	18.26
Lithuania	22.35	14.53	18.93	22.71	21.48
Luxembourg	39.37	16.98	22.34	12.92	8.38
Mexico (2003)	17.85	6.16	8.65	20.94	46.39
Netherlands	23.98	6.78	13.95	25.18	30.11
Norway	31.57	9.66	14.76	19.90	24.12
Poland	20.99	4.79	10.48	22.87	40.88
Portugal	25.14	11.89	15.79	20.77	26.40
Romania	18.10	8.09	11.31	19.26	43.23
Slovak Republic	28.30	8.08	12.58	21.15	29.89
Slovenia	35.25	14.57	6.17	24.09	19.91
Spain	28.31	9.18	12.18	17.72	32.61
Sweden	25.08	7.51	12.89	20.21	34.30
Switzerland	13.62	11.23	16.13	27.92	31.10
Turkey (2009)	26.37	0.00	8.54	19.69	45.39
United Kingdom	21.69	7.51	9.72	17.90	43.17

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Value added by enterprise size

Figure 2.12. **Value added by enterprise size and industrial division, Europe**

Percentage, 2011

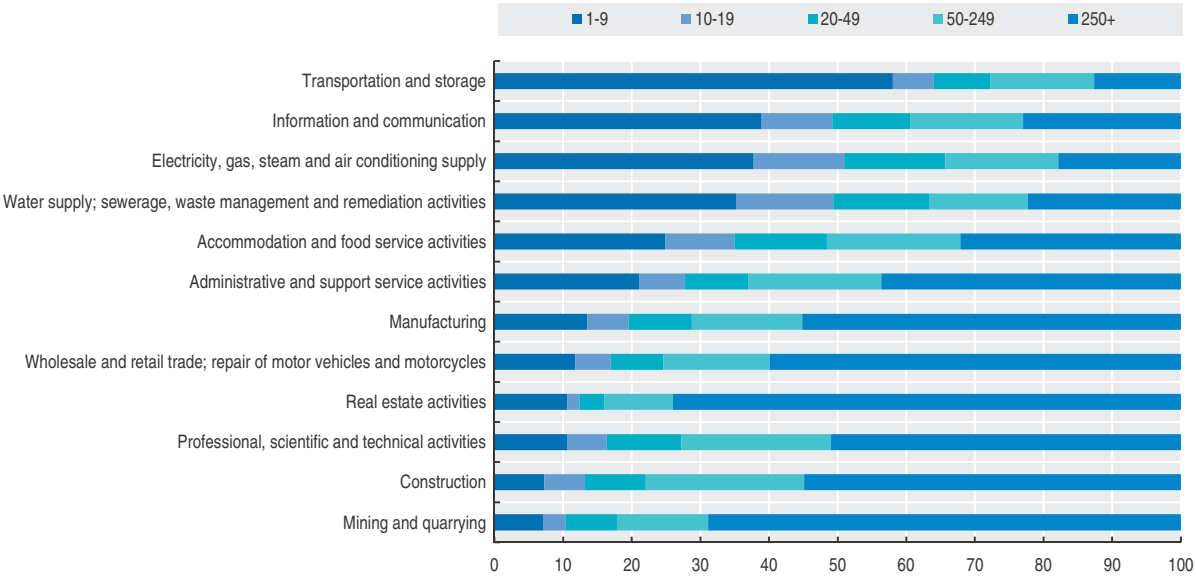

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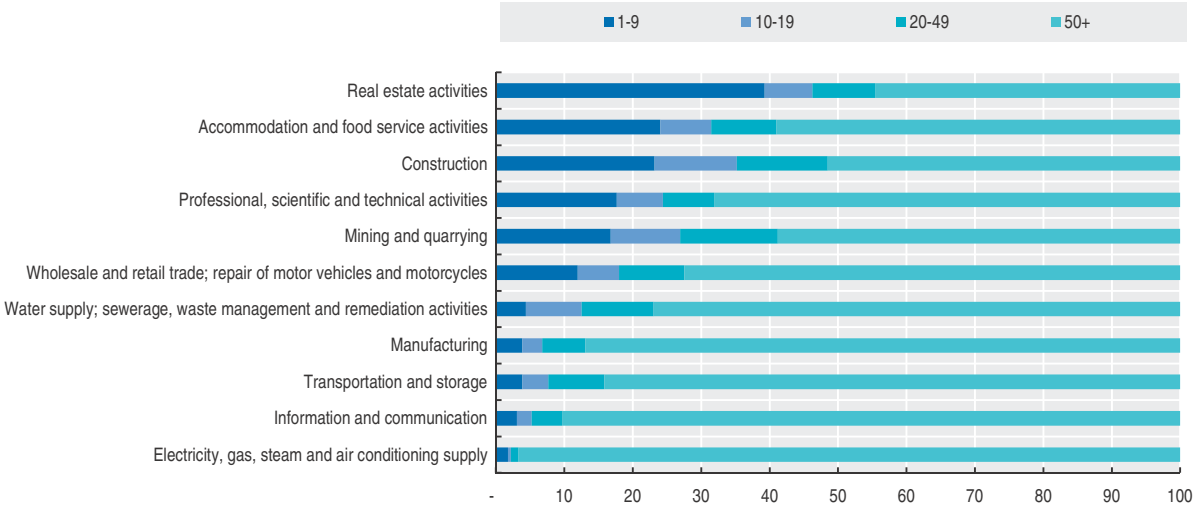
Figure 2.13. **Value added by enterprise size and industrial division, Japan**

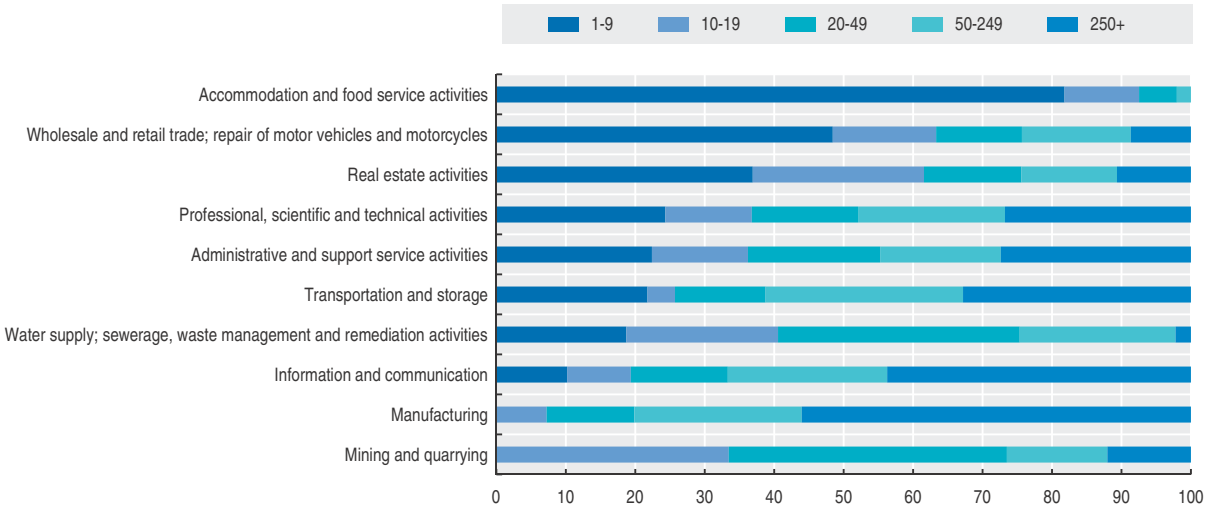
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933063499

Figure 2.14. **Value added by enterprise size and industrial division, Korea**

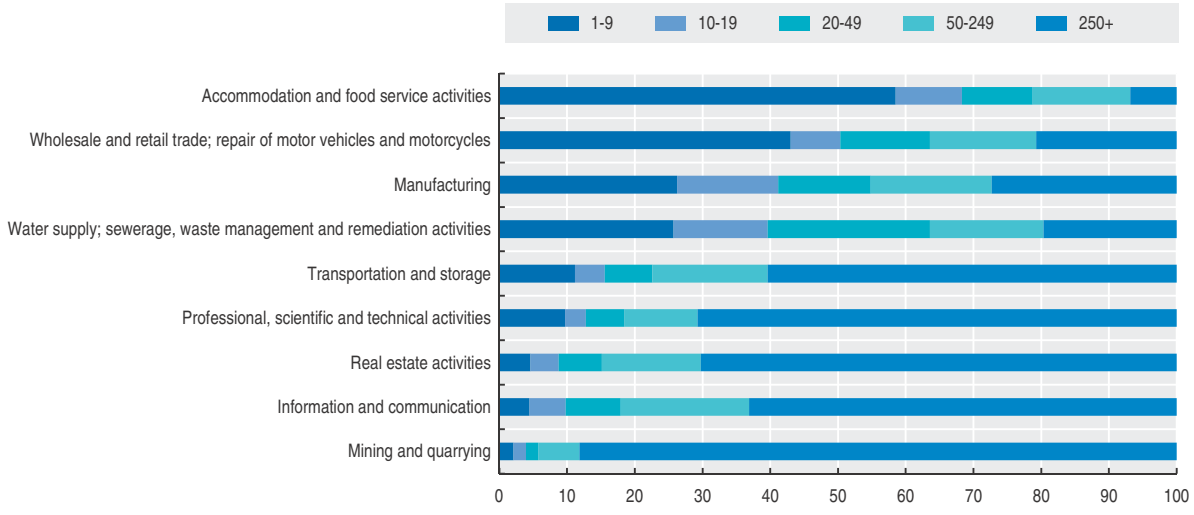
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933063518

Figure 2.15. **Value added by enterprise size and industrial division, Brazil**

Percentage, 2011



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Productivity by enterprise size

Key facts

- Firm size matters for productivity. Larger firms are on average more productive than smaller ones, particularly in the manufacturing sector, partly reflecting gains from returns to scale, for instance through capital-intensive production. However, this is not universally true. In some countries, for example Switzerland, data indicates that medium-sized firms have higher productivity than larger firms, possibly reflecting specialisation in high-value products.

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 also by stimulating productivity enhancing changes in incumbents.

Definitions

In Figure 2.16 and Table 2.5, *Labour productivity levels* are measured as current price gross value added per person employed. For international comparisons, data on value added are converted to a common currency using Purchasing Power Parities (PPPs). These are the rates of currency conversion that equalise the purchasing power of different currencies by eliminating the differences in price levels between countries.

For the definition of "Total economy", "Manufacturing", "Services" and "Construction", see Reader's Guide. Note, in particular, that "Manufacturing" includes mining; also, financial services activities are not included, and so care is needed when extrapolating the results in drawing conclusions for total market sector activities across countries, in particular those with relatively large financial services activities such as Luxembourg, Switzerland and the United Kingdom for example.

Comparability

The value added and employment estimates presented by size class are based on *Structural Business Statistics* (SBS) and will not usually align with estimates produced according to the *System of National Accounts* (SNA). The latter includes a number of adjustments to reflect businesses and activities that may not be measured in structural business statistics, such as the inclusion of micro firms or self-employed, or those made to reflect the Non-Observed Economy.

Comparability across size classes, industries and indeed countries, may also be affected by differences in the shares of part-time employment. In some countries, for instance Germany, relatively low estimates of value added per employed person may be due to relatively high shares of part-time employment.

For productivity analysis, the preferred measure of 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, differences can arise in the short run, which can distort cross-country and cross-industry comparability.

Finally, to which extent productivity levels increase with firm size also depends on the types of products sold. Some countries are specialised in particularly high value added goods or services, which can be produced in small or medium-sized firms.

Sources

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 2.16. **Labour productivity levels by enterprise size, total economy**

Thousands of USD per employed person, 2011

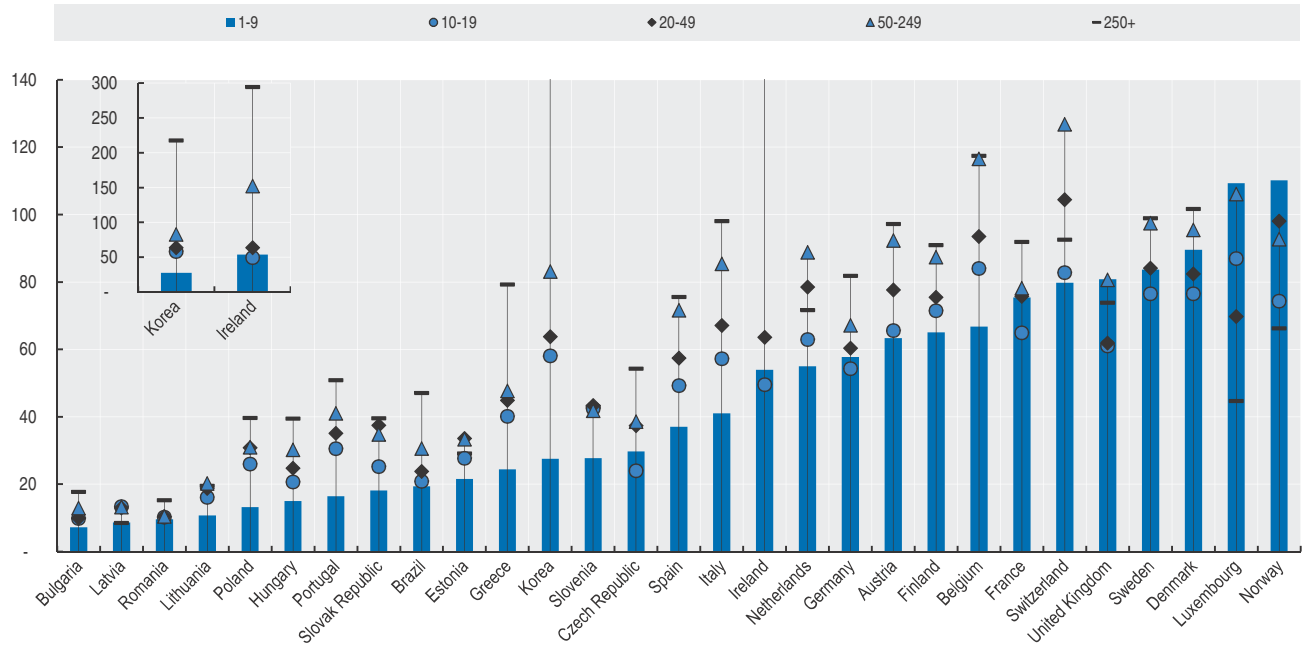

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Table 2.5. **Labour productivity levels by enterprise size and sector**

Thousands of USD per employed person, 2011

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+
Austria	60.9	60.8	72.0	95.3	123.9	94.1	96.8	116.4	125.0	85.9	82.7	90.4	98.8	114.1	128.1
Belgium	85.8	64.1	74.5	94.2	126.2	71.0	97.3	109.2	136.9	116.1	83.7	103.7	106.0	120.7	141.1
Brazil	48.1	44.3	45.1	63.8	146.0	73.7	81.0	97.5	121.3	124.9					
Bulgaria	64.4	59.3	57.5	84.6	152.7	66.7	101.9	113.9	141.4	144.1	81.9	79.2	61.8	137.1	123.6
Czech Republic	60.4	49.2	69.9	82.0	138.9	81.3	80.1	105.0	121.4	123.0	-	156.1	-	275.7	401.6
Denmark	109.5	71.0	79.7	91.1	118.5	104.3	86.8	92.4	106.0	101.2	91.3	99.1	100.2	112.1	131.4
Estonia	69.9	83.0	112.6	127.4	79.5	100.8	93.2	113.9	102.0	95.0	86.0	116.5	130.2	167.0	156.6
Finland	91.7	75.6	81.6	90.4	114.0	85.4	98.7	104.7	116.8	101.1	92.0	97.5	98.4	119.0	111.1
France	70.9	76.5	80.6	85.5	127.7	97.6	93.7	100.3	101.8	102.7	108.5	57.7	92.3	86.7	130.4
Germany	52.4	66.7	73.2	84.0	124.0	102.0	86.2	96.4	103.3	103.0	74.5	94.1	113.0	122.6	161.4
Greece	66.8	93.5	91.6	118.6	207.9	68.2	108.7	141.5	186.6	163.6	86.7	223.8	51.5	70.8	257.8
Hungary	45.3	58.1	65.7	86.3	142.8	70.7	100.4	123.3	141.7	139.9	80.1	106.8	128.8	173.5	242.4
Ireland	29.5	20.8	26.1	62.1	151.2	73.7	77.8	97.5	218.1	147.8	122.1	55.4	88.4	87.3	82.8
Italy	50.2	72.6	90.8	120.2	155.7	76.1	105.7	114.5	132.9	147.9	85.2	114.1	131.8	177.2	232.8
Korea	35.1	45.2	50.8	72.8	198.8	72.1	126.9	115.9	118.5	188.7					
Latvia	94.7	42.3	108.8	168.7	29.4	70.1	140.9	128.9	116.4	90.8	101.4	66.7	96.5	112.4	116.1
Lithuania	45.8	51.8	80.2	108.9	144.8	72.7	115.7	131.8	137.1	95.4	38.2	97.1	120.5	156.0	164.5
Luxembourg	114.8	81.5	78.0	109.2		125.5	108.1	83.3	150.5	35.0	118.0	97.9	90.3	92.7	109.0
Netherlands	51.8	55.6	62.8	86.8	187.2	87.1	98.4	128.0	133.5	84.1	83.8	139.0	105.9	124.9	98.8
Norway	116.8	78.5	115.9	102.3	94.2	131.7	90.5	111.1	106.0	67.0	108.4	70.0	110.7	120.0	80.5
Poland	42.1	66.2	72.4	88.1	141.3	53.8	127.7	157.5	157.8	149.6	73.2	99.7	129.5	115.8	162.4
Portugal	39.5	56.7	74.2	92.9	249.5	61.8	138.9	149.8	169.5	136.2	60.3	87.2	111.9	154.4	189.4
Romania	77.8	63.1	49.6	89.1	125.3	83.5	104.1	116.9	89.9	117.5	107.1	71.3	90.6	69.4	159.4
Slovak Republic	53.1	68.1	88.0	101.9	135.8	74.0	97.0	179.2	128.7	111.0	80.6	150.0	102.7	186.4	188.2
Slovenia	71.0	101.3	104.7	98.6	129.3	82.8	134.3	120.9	130.5	97.5	82.6	116.5	170.5	122.9	
Spain	69.1	68.9	87.3	105.5	141.5	71.8	101.3	109.1	132.0	133.3	75.2	86.2	103.0	140.5	180.0
Sweden	71.4	76.5	70.9	84.9	129.0	105.3	88.3	101.6	112.8	90.2	87.3	98.8	101.3	113.9	127.6
Switzerland	37.7	58.3	74.3	88.3	137.5	99.1	93.6	124.4	179.7	51.9	92.6	108.3	119.5	74.3	110.2
United Kingdom	73.7	62.5	64.8	88.4	141.6	119.7	88.5	87.3	112.0	93.5	104.0	80.8	88.0	103.6	111.4

StatLink http://dx.doi.org/10.1787/888933064848

Exports by enterprise size

Key facts

- In the majority of countries, more than 50% of total exports are accounted for by enterprises with 250 employees or more.
- High-value exporters are concentrated among the largest firms. Finland has the biggest gap in the value of average exports between large (more than 50 employees) and small firms (less than 10 employees), while Turkey has the smallest. Across all size classes, Belgium has the highest value of exports per firm.

Relevance

Production has become increasingly fragmented in global value chains. Data on exports and imports by enterprise characteristics can help policy-makers identify instruments that support the international competitiveness of firms of different size and sectors.

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 2.17 shows the merchandise exports of enterprises in each size class as a percentage of exports of all enterprises.

Figure 2.18 presents the value (in million US dollar) of exports divided by the number of exporting enterprises, by size classes.

Comparability

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

For the first time in this year's data release, the data for EU member states refer to all exporters, either trading within the EU or outside the EU. In the past, intra-EU and extra-EU trade were treated separately, with a possible double counting of exporters compromising the comparisons with non-EU countries.

Some international differences may 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 for four enterprise size classes: from 0 to 9 employees; between 10 and 49 employees; between 50 and 249 employees; and equal to or more than 250 employees. The category "Unknown" refers to trade flows that cannot be linked to an individual enterprise (and its characteristics) in the business register, either as a result of matching problems or because of substantive reasons (e.g. VAT traders in Europe). When comparing countries in Figure 2.17, it should be kept in mind that the percentage of firms with unknown size class is high in several countries (and particularly in Luxembourg and Belgium).

Source/online databases

OECD Trade by Enterprise Characteristics Database (TEC).

For further reading

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

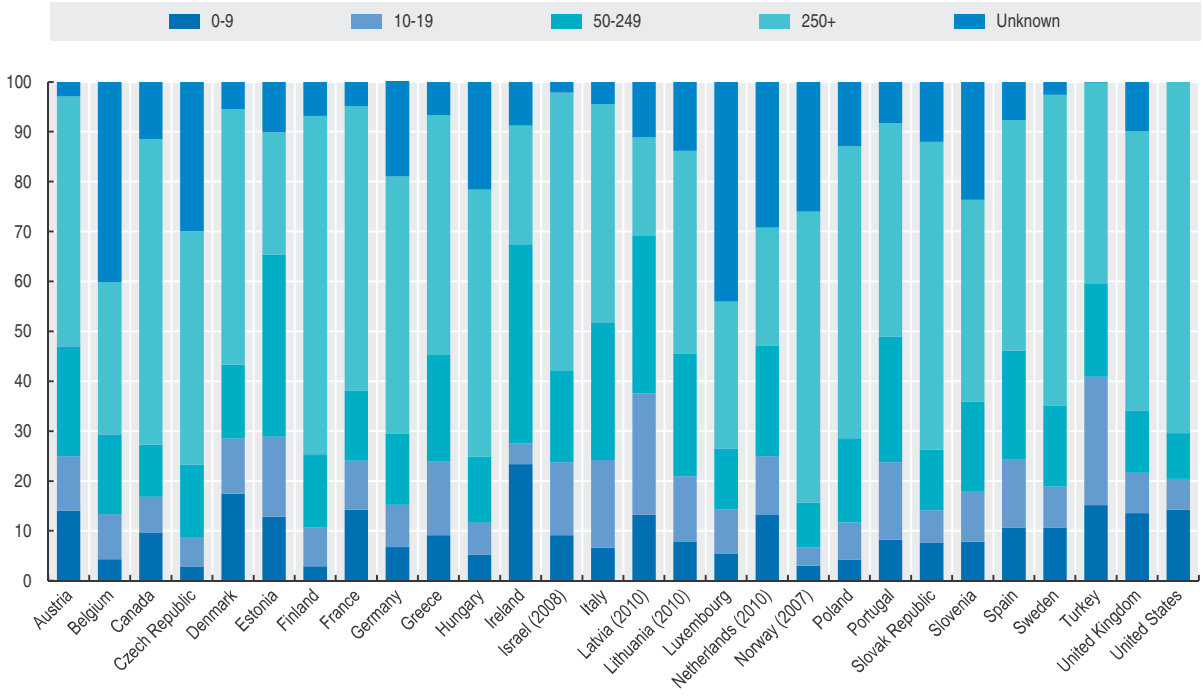
OECD (2011), "Selling to Foreign Markets: a Portrait of OECD Exporters", *Statistics Brief* No, *www.oecd.org/std/47014723.pdf*.

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

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 2.17. **Exports by enterprise size**

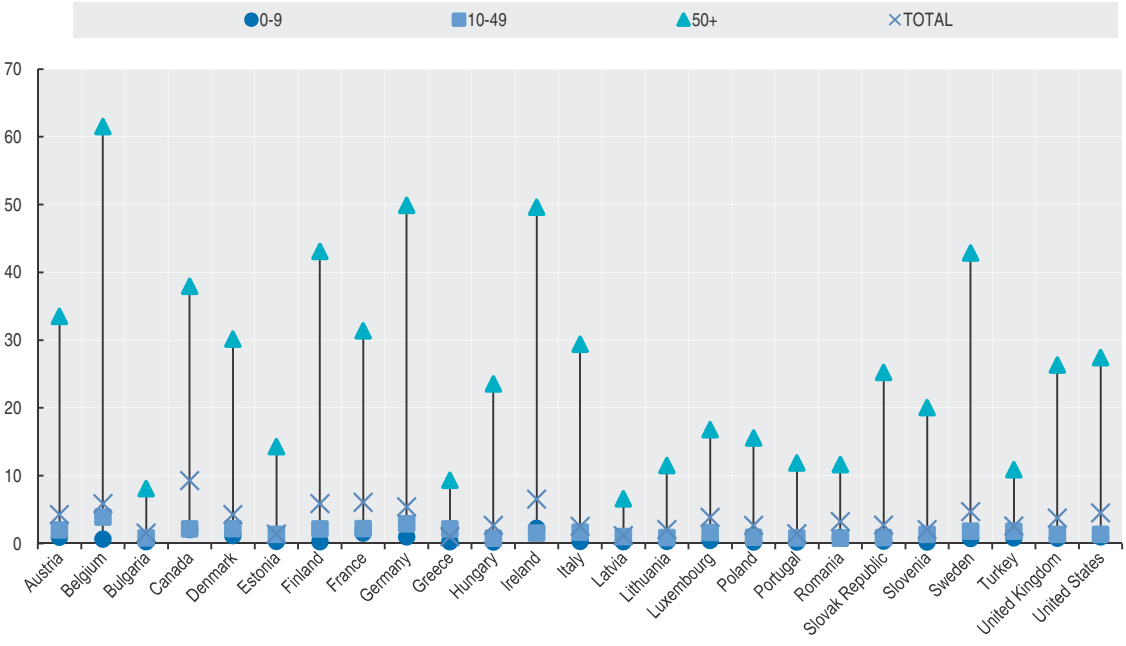
Percentage of exports of all exporting enterprises, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063575

Figure 2.18. **Average value of export per enterprise, by enterprise size**

In millions USD, 2011



StatLink http://dx.doi.org/10.1787/888933063594

3. ENTERPRISE BIRTH, DEATH AND SURVIVAL

Birth rate of employer enterprises

Death rate of employer enterprises

Churn rate of employer enterprises

Survival of employer enterprises

Regional business demography

Birth rate of employer enterprises

Key facts

- Birth rates of employer enterprises (i.e. firms with at least one employee) are higher in the construction and services sectors than in manufacturing. Newly created firms typically employ one to four employees, while few start with more than ten employees.
- While between 2007 and 2010 birth rates decreased in all countries as the effect of the global crisis, an improvement is observed in a number of countries starting from 2011.

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 then 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 per-centage 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 thresholds 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 zero employees to one or more employees status, i.e. the transition of a non-employer enterprise to the status of employer firm is not considered as an "employer enterprise birth".

Source/online database

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*.

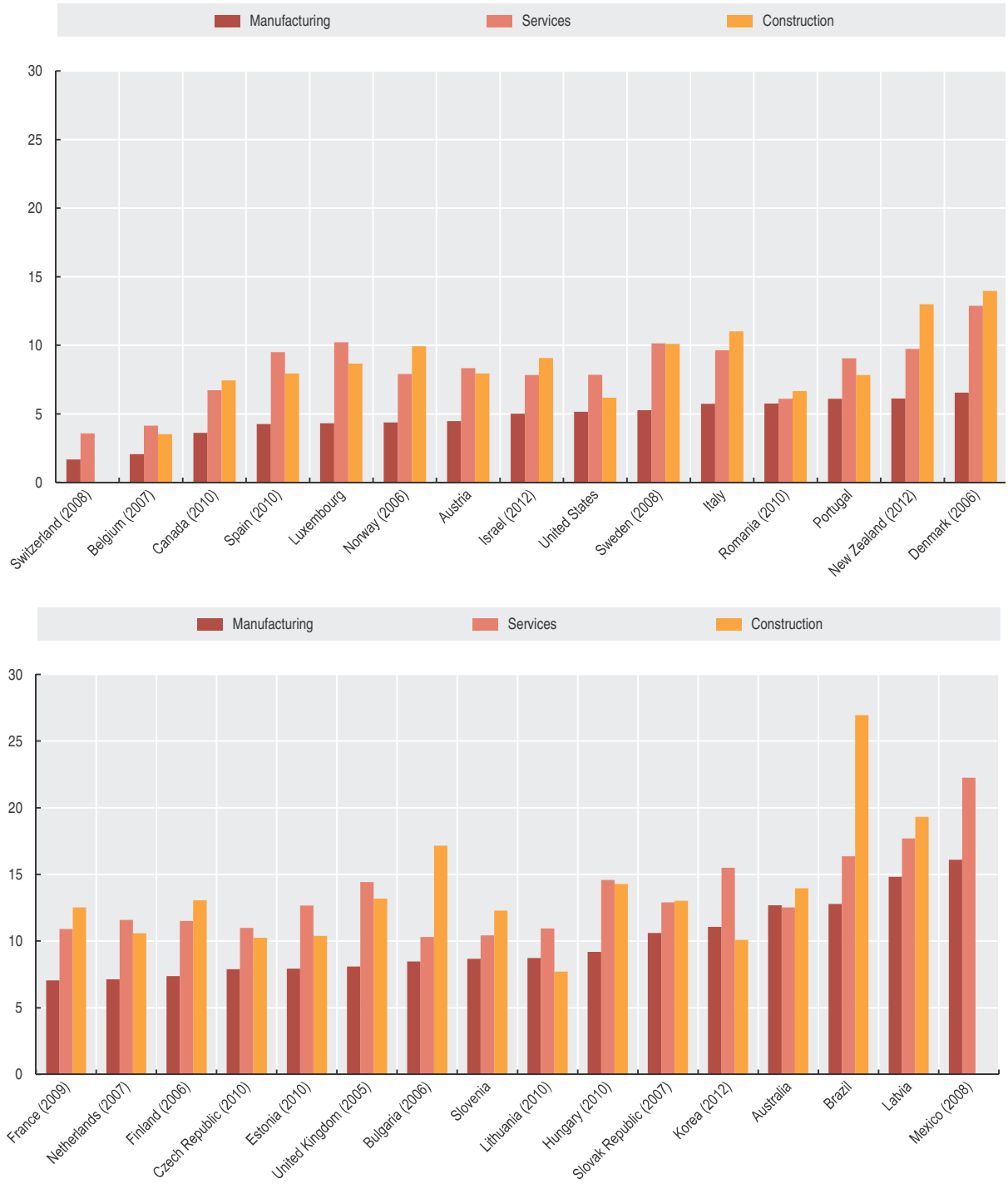
Figure 3.1. **Employer enterprise birth rate, total economy**

Percentage

StatLink http://dx.doi.org/10.1787/888933063613

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

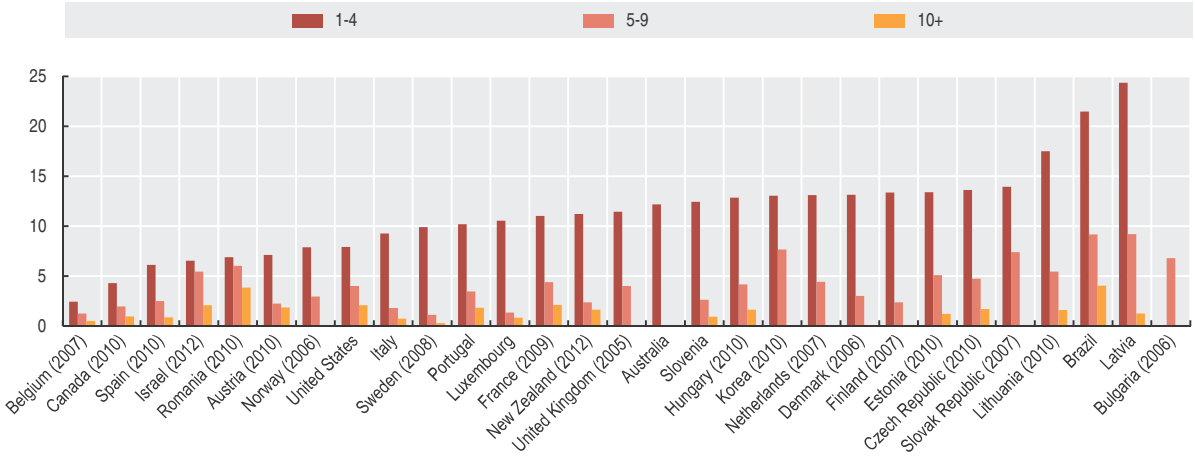
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063632

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

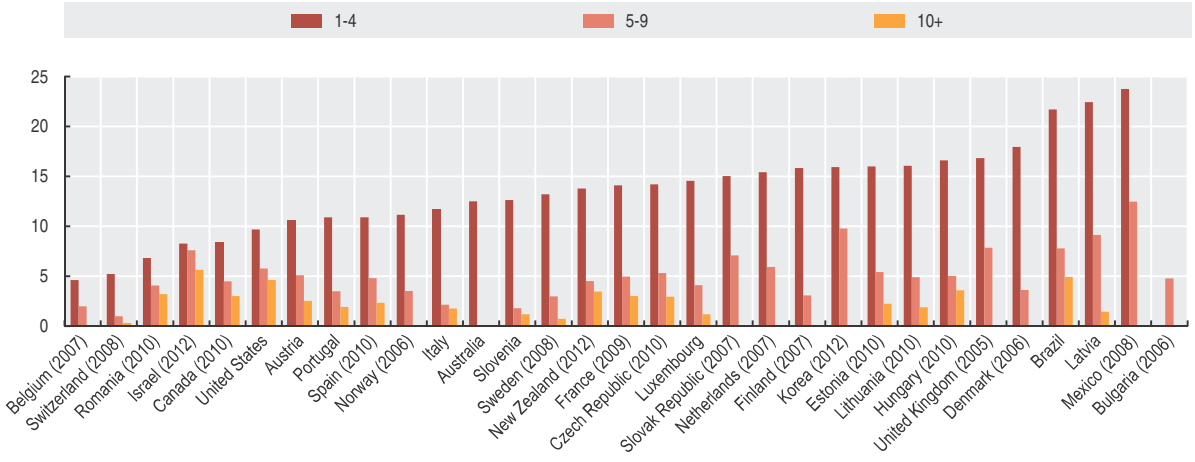
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063651

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

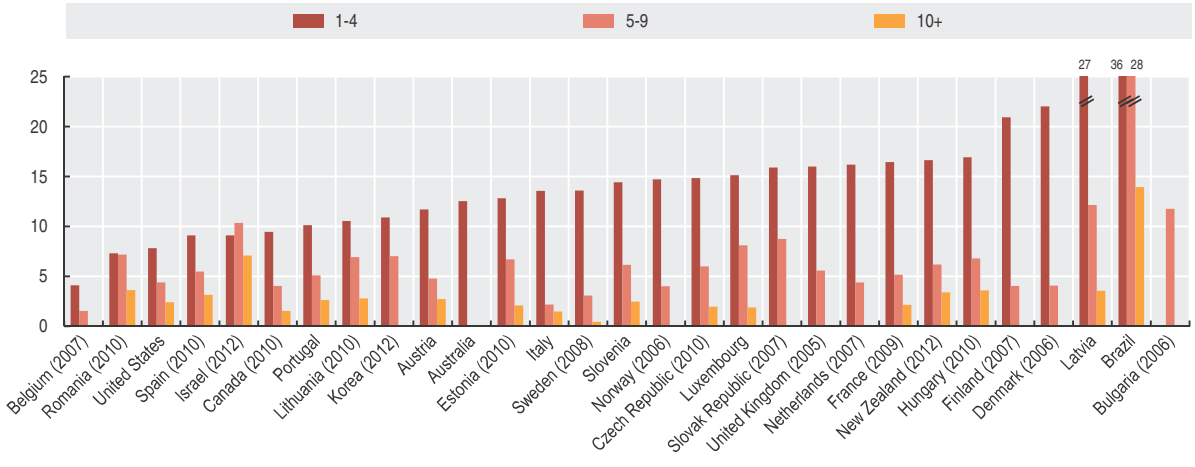
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063670

Figure 3.5. **Employer enterprise birth rate by size, construction**

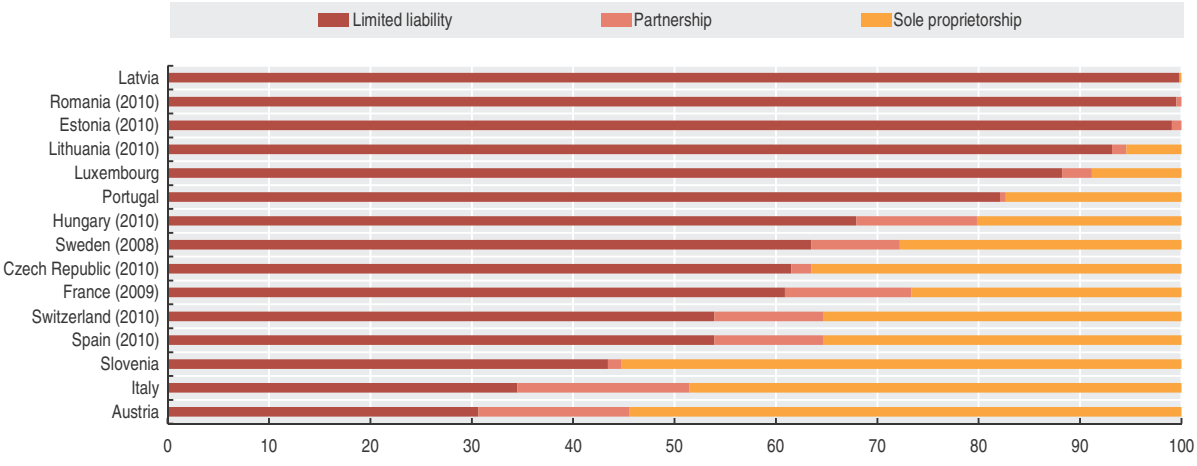
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063689

Figure 3.6. **Employer enterprise births by legal form, manufacturing**

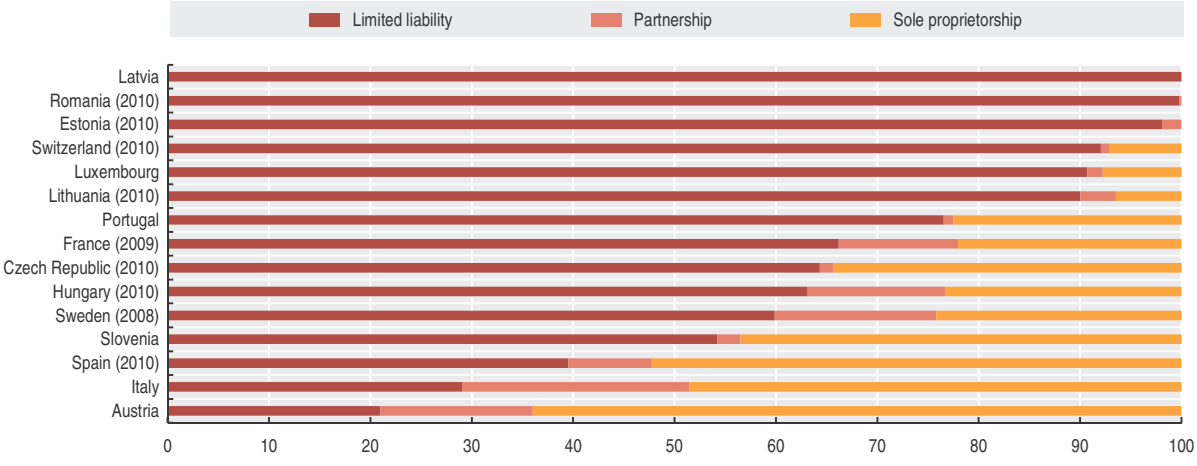
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063708

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

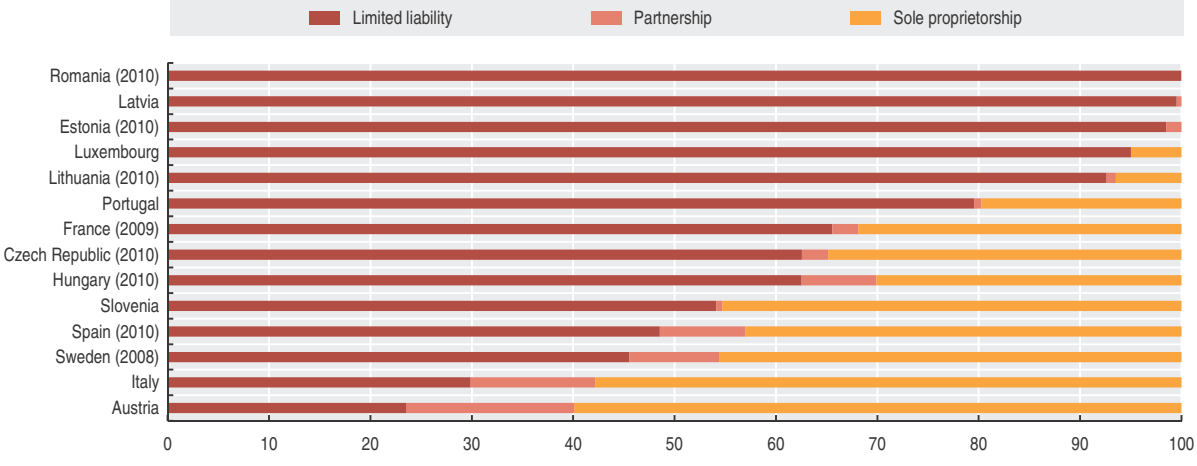
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063727

Figure 3.8. **Employer enterprise births by legal form, construction**

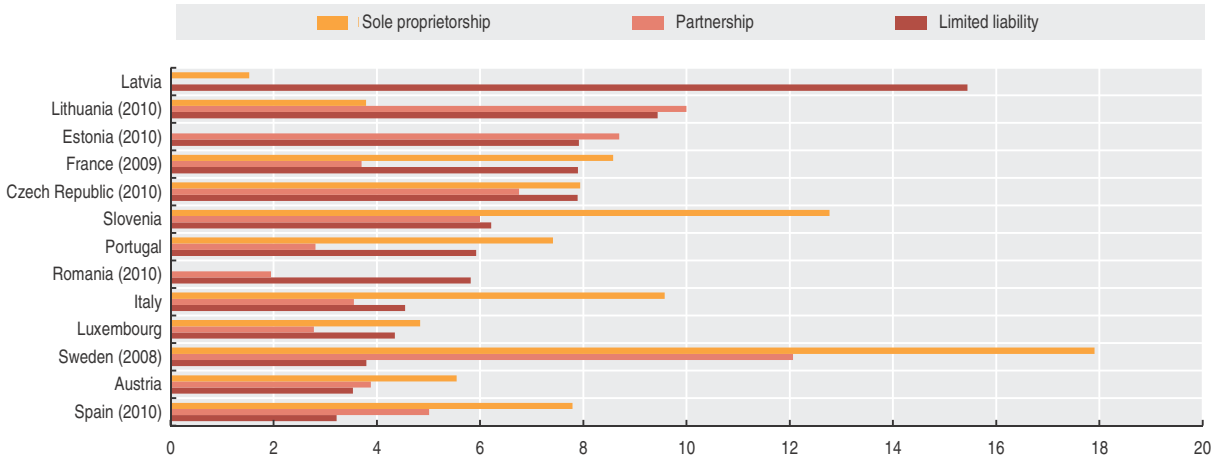
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063746

Figure 3.9. **Employer enterprise birth rates by legal form, manufacturing**

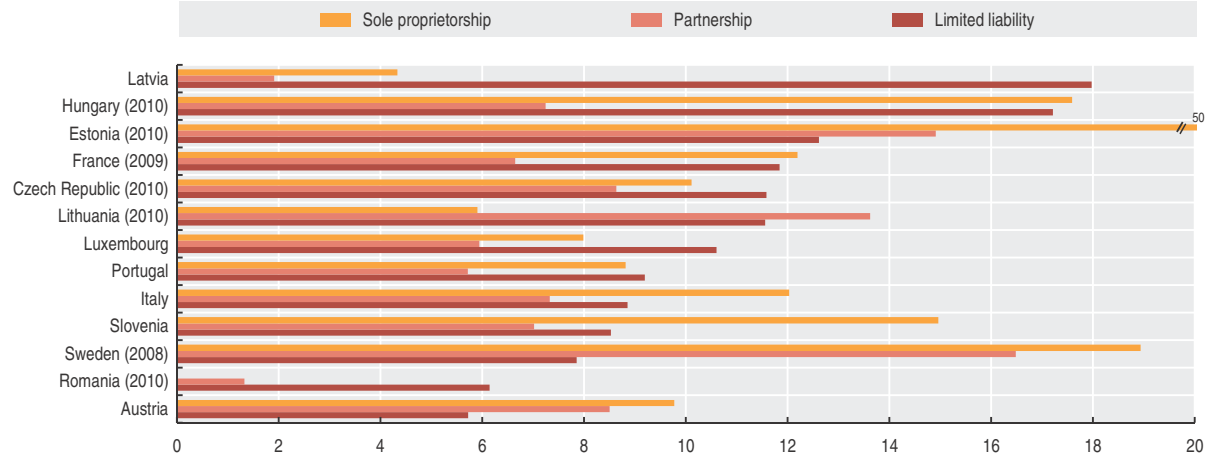
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063765

Figure 3.10. **Employer enterprise birth rates by legal form, services**

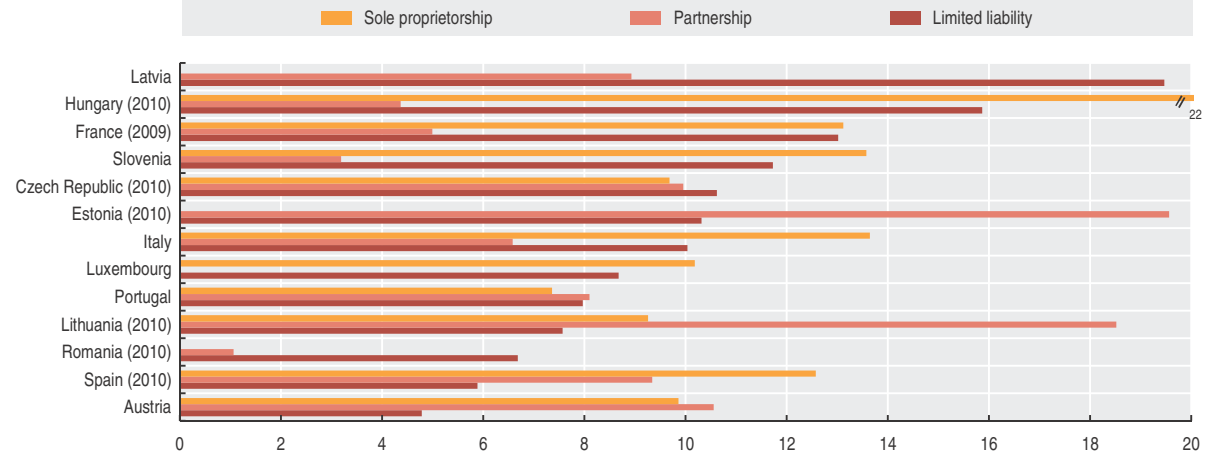
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063784

Figure 3.11. **Employer enterprise birth rates by legal form, construction**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933063803

Death rate of employer enterprises

Key facts

- In all countries, the death rates of employer enterprises in the construction and services sectors 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 between 2008 and 2010.
- 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 per-centage 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 the computation 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 2010, and not to 2011 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 thresholds 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*.

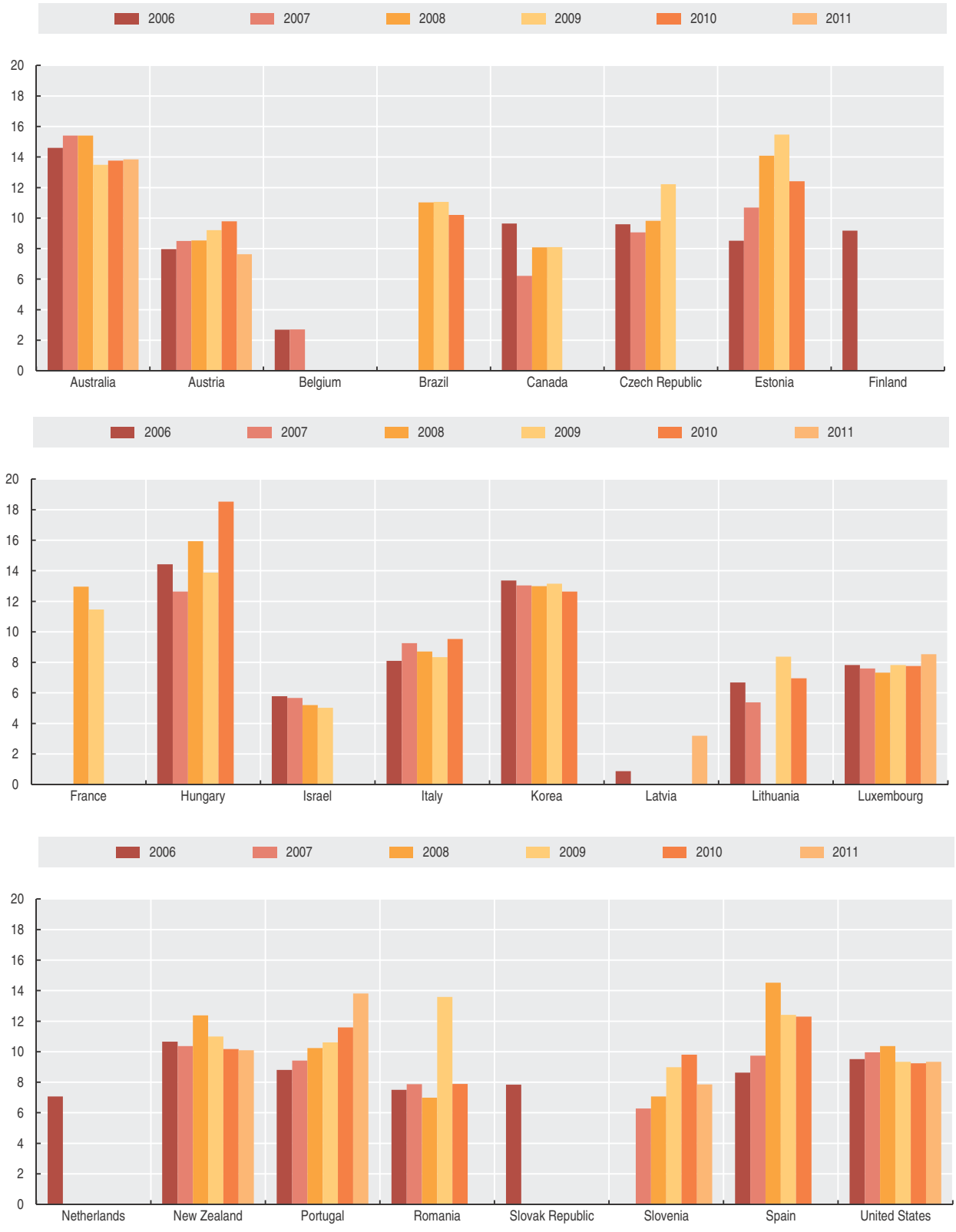
Eurostat/OECD (2007), Eurostat-OECD *Manual on Business Demography Statistics*, OECD Publishing, *www.oecd.org/std/39974460.pdf*.

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 3.12. **Employer enterprise death rate, total economy**

Percentage



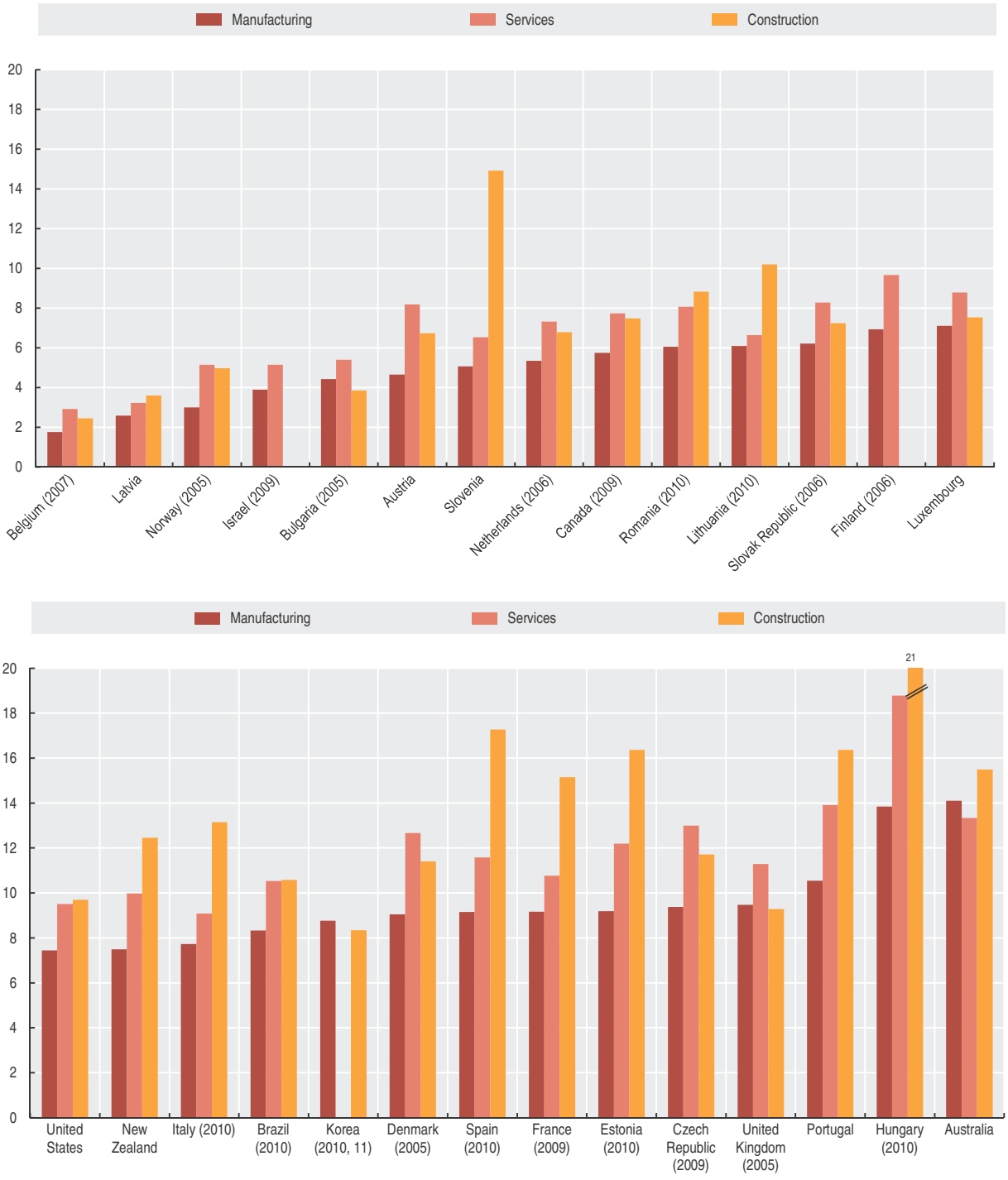
StatLink http://dx.doi.org/10.1787/888933063822

Death rate of employer enterprises

A corrigendum has been issued for this page. See: http://www.oecd.org/about/publishing/Corrigendum-Entrepreneurship-at-a-Glance-2014.pdf

Figure 3.13. **Employer enterprise death rates by sector**

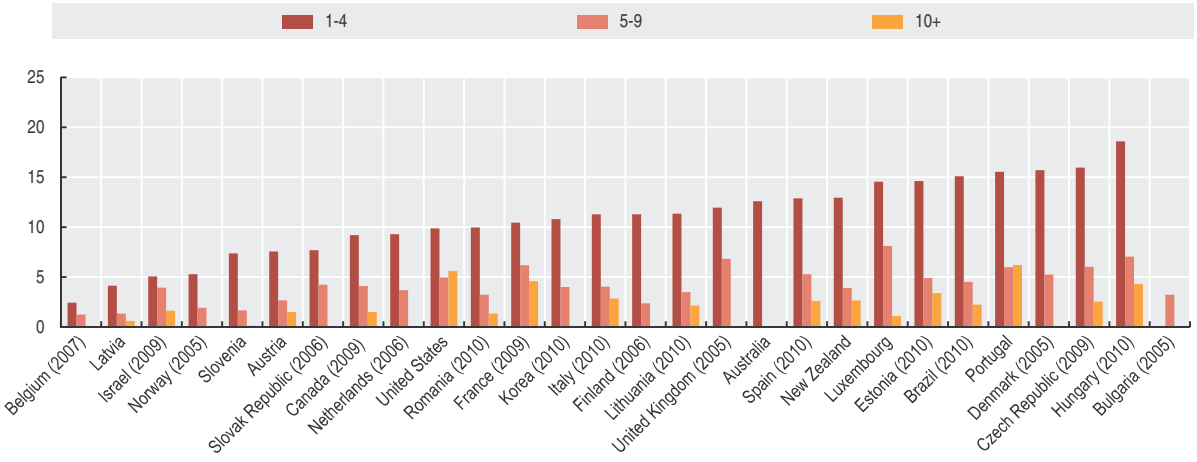
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063841

Figure 3.14. **Employer enterprise death rate by size, manufacturing**

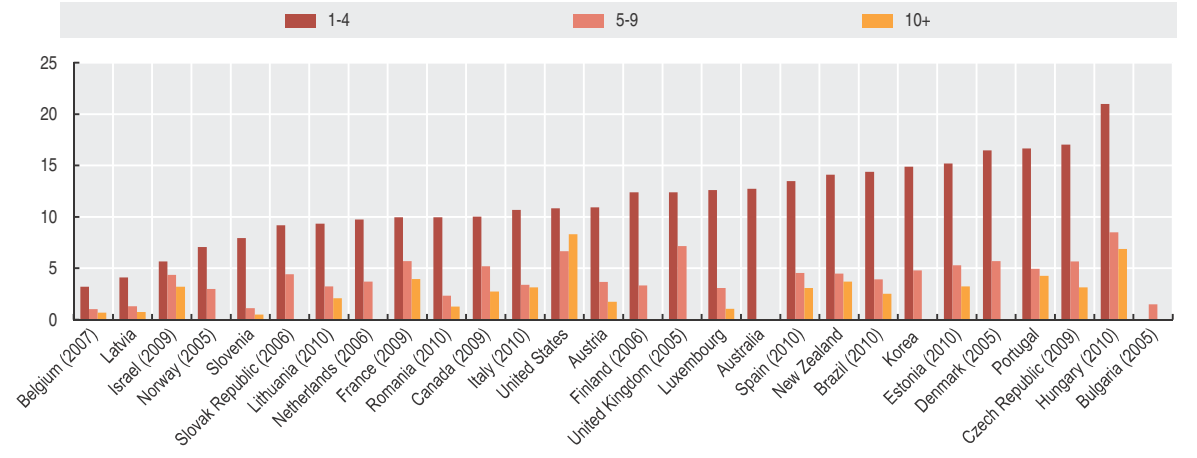
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063860

Figure 3.15. **Employer enterprise death rate by size, services**

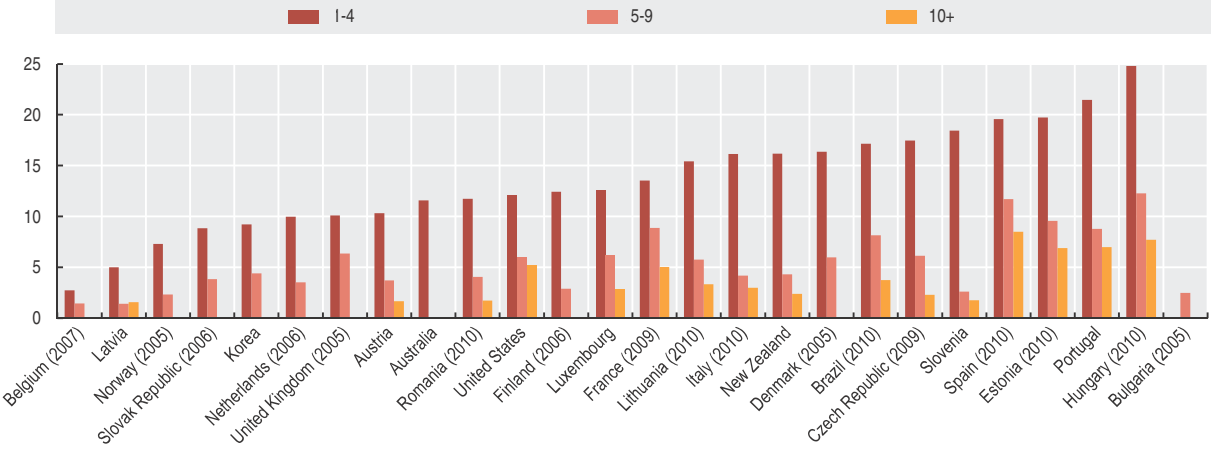
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063879

Figure 3.16. **Employer enterprise death rate by size, construction**

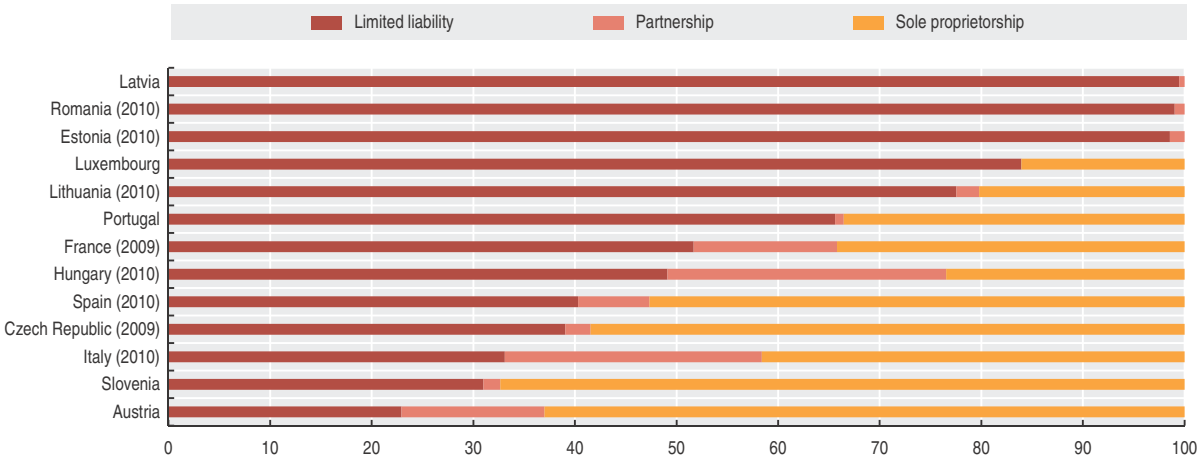
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063898

Figure 3.17. **Employer enterprise deaths by legal form, manufacturing**

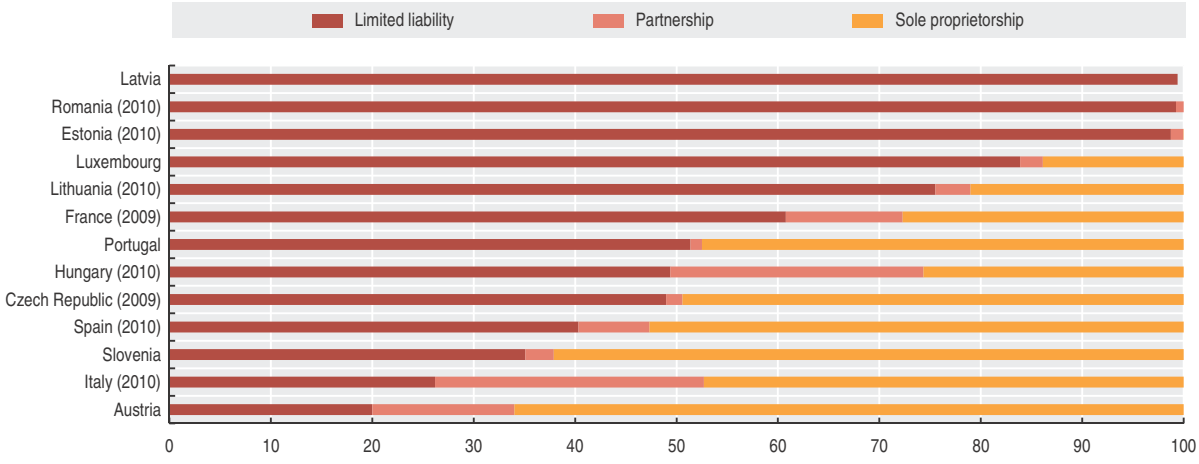
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063917

Figure 3.18. **Employer enterprise deaths by legal form, services**

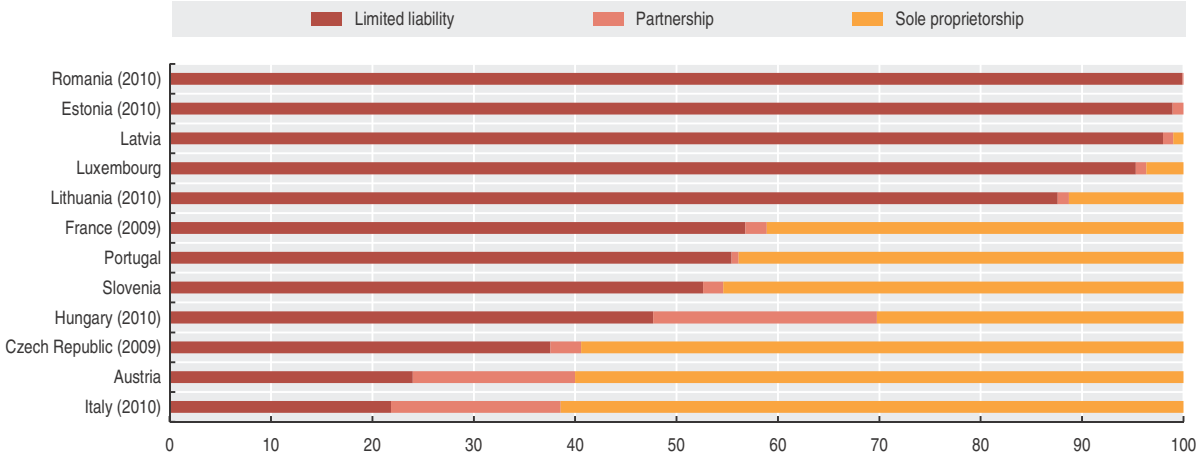
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063936

Figure 3.19. **Employer enterprise deaths by legal form, construction**

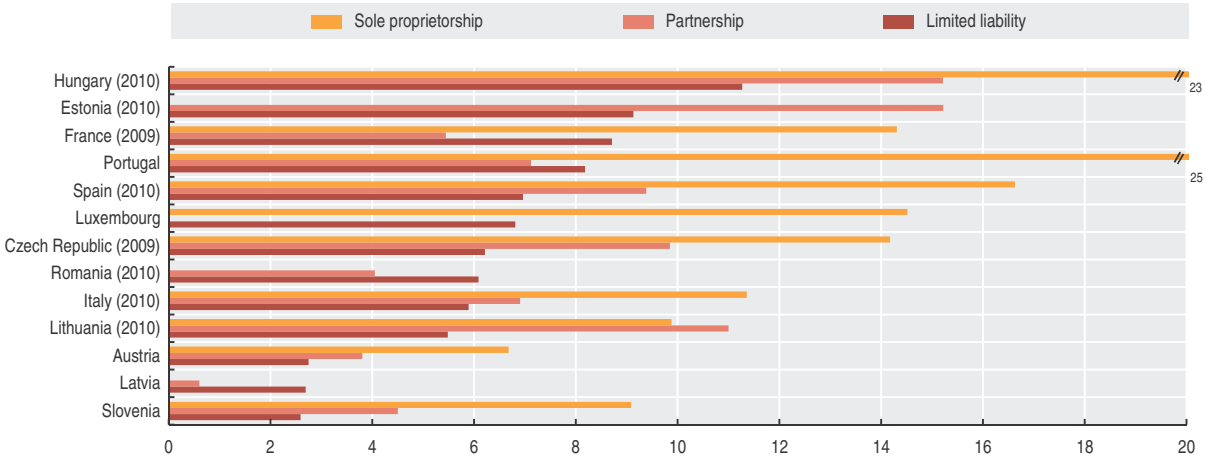
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063955

Figure 3.20. **Employer enterprise death rates by legal form, manufacturing**

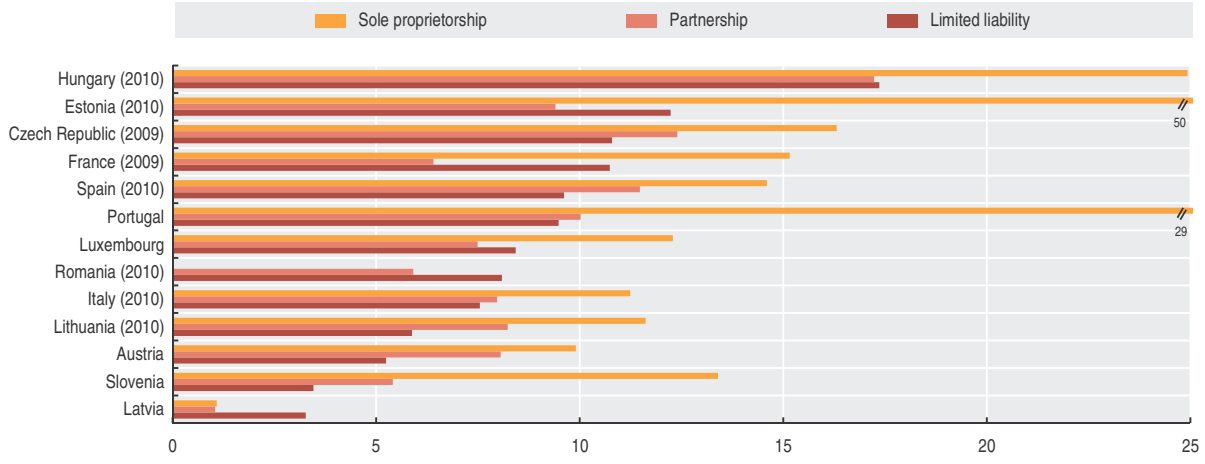
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063974

Figure 3.21. **Employer enterprise death rates by legal form, services**

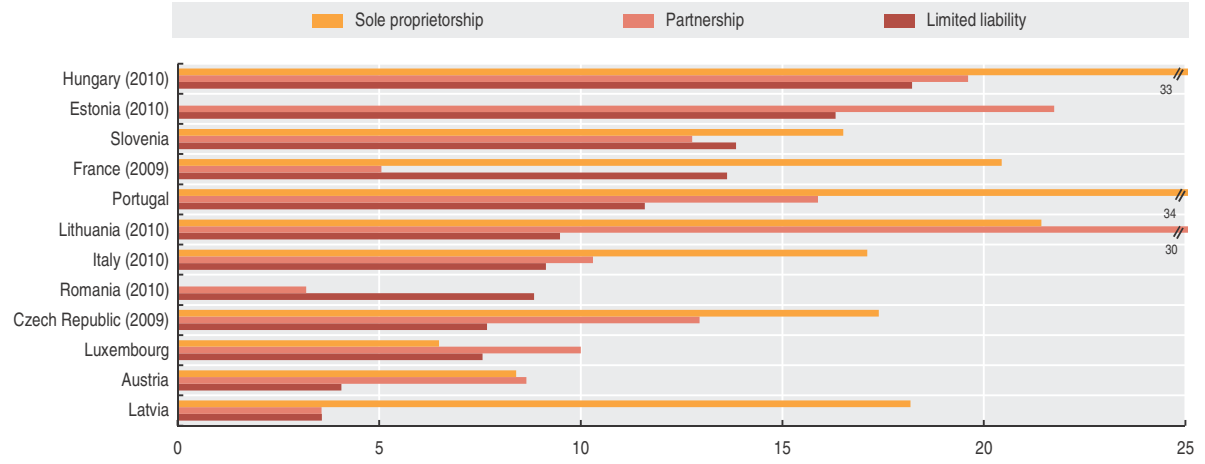
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933063993

Figure 3.22. **Employer enterprise death rates by legal form, construction**

Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933064012

Churn rate of employer enterprises

Key facts

- Churn rates of employer enterprises are higher in services and in construction rather than in manufacturing, reflecting more significant business dynamics in these sectors.
- Churn rates are relatively similar across countries and over time, ranging from 10% to 20% in manufacturing, from 15% to 30% in services and from 15% to 35% in construction. Only a few countries show much lower (Belgium, Israel) or much higher (Australia, Korea and Hungary) churn rates. The 2010-2011 churn rate in services reaches on average the 2008 level.

Relevance

The churn rate, i.e. the sum of births and deaths 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, split-offs, take overs or restructuring of a set of enterprises. It also excludes 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 1 or more employees status or *vice versa,* i.e. the transition of a non-employer enterprise 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*.

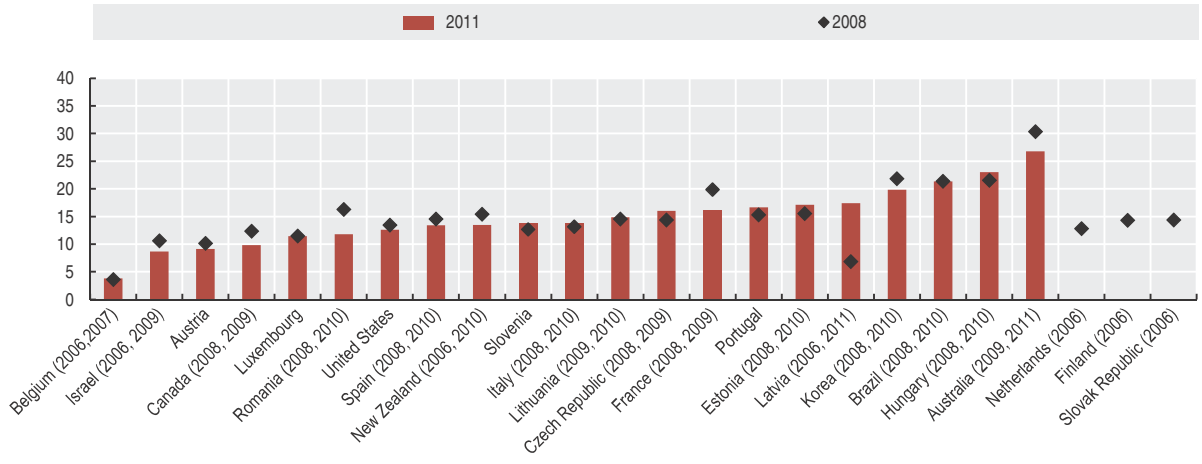
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *www.oecd.org/std/39974460.pdf*.

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 3.23. **Employer enterprise churn rate, manufacturing**

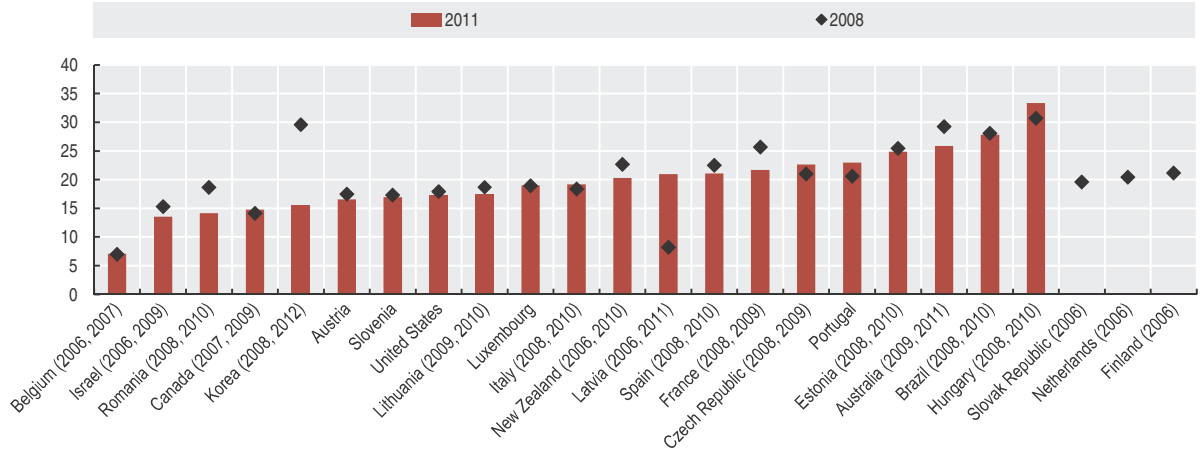
Percentage



StatLink http://dx.doi.org/10.1787/888933064031

Figure 3.24. **Employer enterprise churn rate, services**

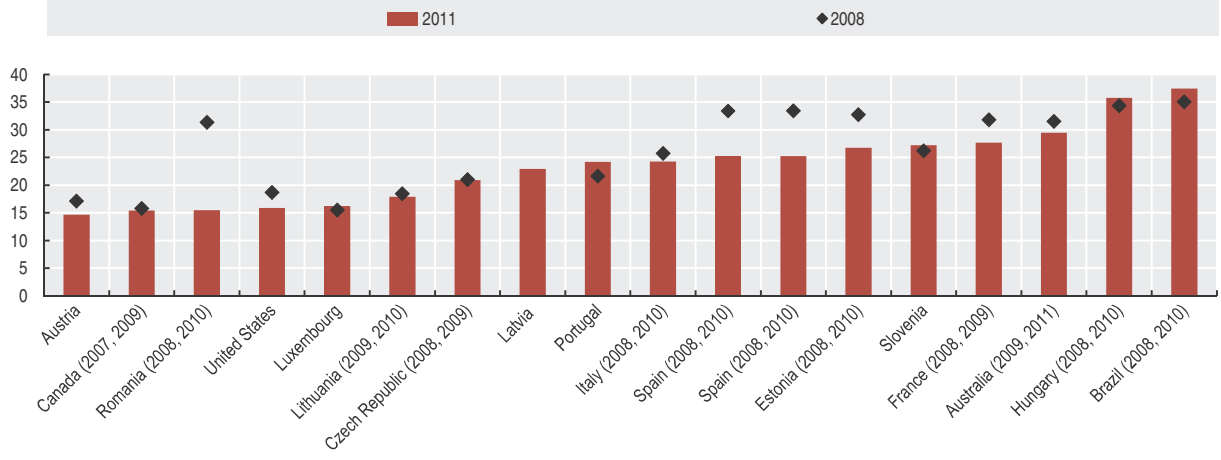
Percentage



StatLink http://dx.doi.org/10.1787/888933064050

Figure 3.25. **Employer enterprise churn rate, construction**

Percentage



StatLink http://dx.doi.org/10.1787/888933064069

Survival of employer enterprises

Key facts

- Young enterprises represent a larger share of the total population of enterprises in the construction and services sectors than in the manufacturing sector, reflecting the higher birth and death rates of construction and 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 *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, 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 enterprise 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*.

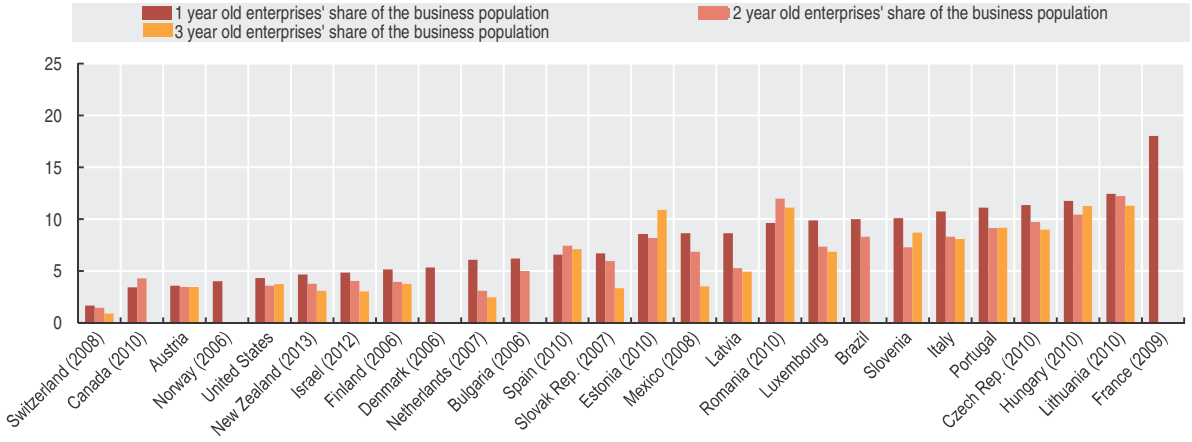
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *www.oecd.org/std/39974460.pdf*.

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 3.26. **Share of young enterprises, manufacturing**

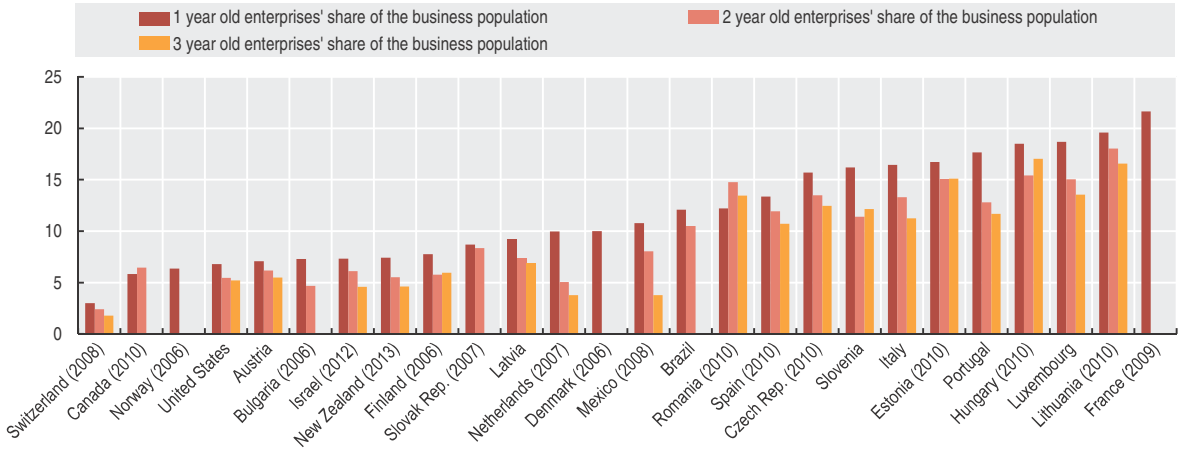
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064088

Figure 3.27. **Share of young enterprises, services**

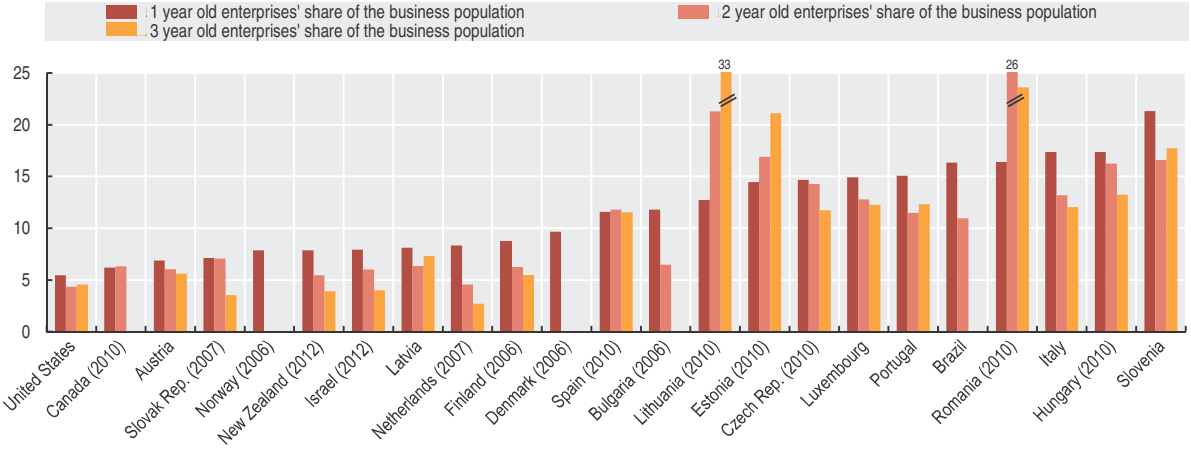
Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064107

Figure 3.28. **Share of young enterprises, construction**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064126

Regional business demography

Key facts

- Within large economies, differences in the rates of births and deaths of enterprises can be as large as 10 percentage points, driven in large part by micro firms, although for France, Italy and Spain sizeable regional differences also exist in death rates.
- Significant regional disparities also occur in some smaller economies. In the Slovak Republic for example the difference in birth rates between the best and worst performing regions is 5 percentage points, while in Denmark, for micro firms, the difference is 7 percentage points.
- Birth rates of enterprises tend to be higher in the capital region compared to the national average, while death rates are typically closer to the average.

Relevance

Entrepreneurship statistics at the national level can hide disparities at the regional level and, so, may be imperfect in informing policies designed to address regional differences in income, employment and production. Entrepreneurship statistics at the regional level provide important insights to these differences and are able to inform, and highlight the efficacy of, national and regional entrepreneurship policies.

Definitions

The definitions of enterprise, enterprise birth and enterprise death a follow the recommendations of the Eurostat-OECD Manual on Business Demography Statistics (2007). The indicators presented are defined as follows:

Enterprise birth rate at the regional level: Firms born in country y and region x/firms active in region x.

Enterprise death rate at the regional level: Firms that died in country y and last active in region x / firms active in region x. Firms that died are allocated to the region they were last active in or where they filed for bankruptcy or closure.

Comparability

Some care is needed in interpretation. Some large enterprises may have multiple local units that might be spread over multiple regions. To take this fact into account, the person employed by an enterprise are not assumed to be located in the same region, but only to be managed or controlled by an enterprise with its headquarters in the region. For this reason, the indicators presented in this section should be interpreted as reflecting the appeal or otherwise of regions for the creation/location of headquarters.

For the United States, the statistical unit is the establishment.

For the United Kingdom, data refer to non-employer business demography, therefore including also enterprises with no employees.

Data refer to the NUTS2 regional breakdown for EU countries, with the exception of the United Kingdom where NUTS1 is used; to regions for Australia and New Zealand; to provinces for Korea; and to states for the United States.

Source/online database

Eurostat, *Structural business statistics, Business demography*, *http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/special_sbs_topics/business_demography*.

Statistics Australia, *www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/514D970AA18B6DE0CA2577FF0011E061?opendocument*.

Statistics Korea, *http://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1BD0007&language=en&conn_path=I3*.

Statistics New Zealand, *http://nzdotstat.stats.govt.nz/WBOS/Index.aspxDataSetCode=TABLECODE7603*.

United Kingdom Office for National Statistics, Statistical Bulletin: Business Demography 2012, *www.ons.gov.uk/ons/rel/bus-register/business-demography/2012/stb-business-demography-2012.html#tab-Business-births-and-deaths-by-UK-region*.

United States Census Bureau, *https://www.census.gov/econ/susb/index.html*.

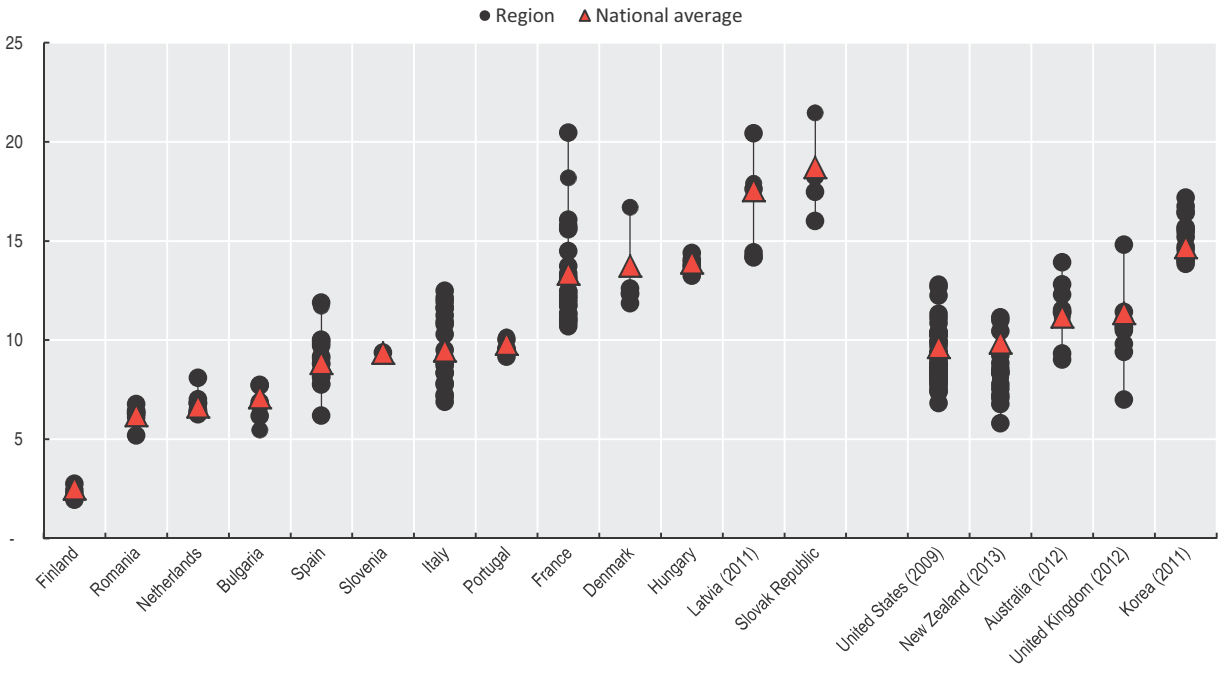
For further reading

European Commission (2014), Regional Business Demography. Data collection 2012, Directorate-General Regional Policy.

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

Figure 3.29. **Enterprise birth rate at the regional level**

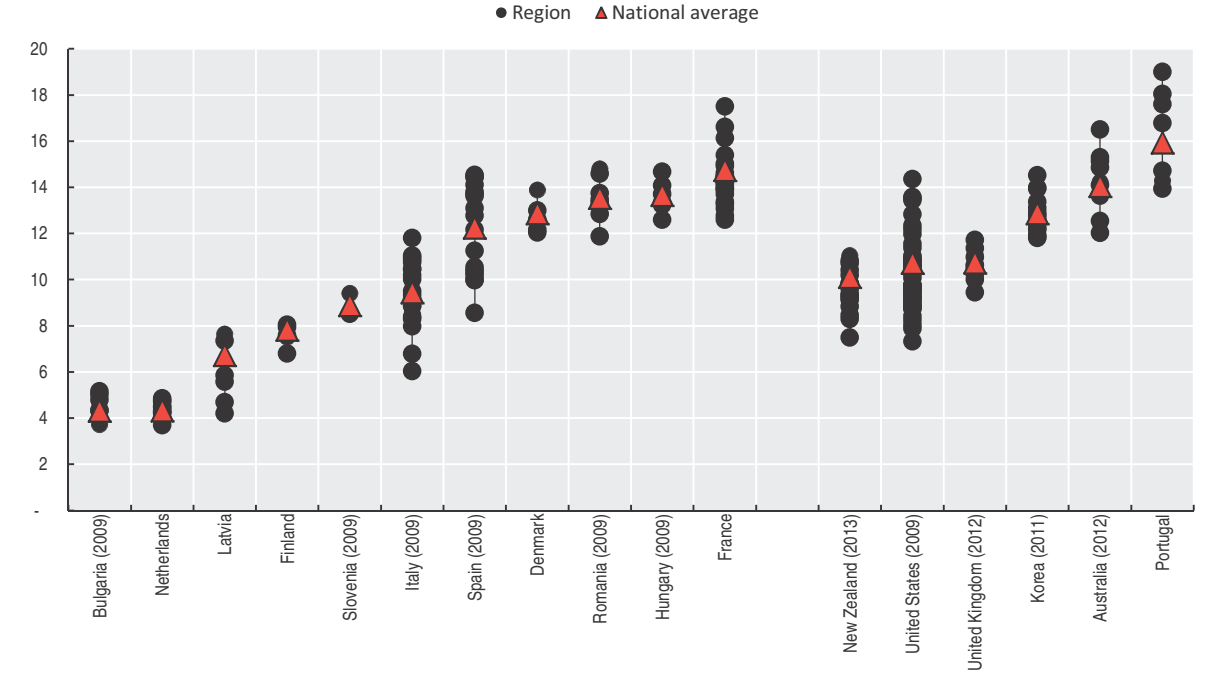
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933064145

Figure 3.30. **Enterprise death rate at the regional level**

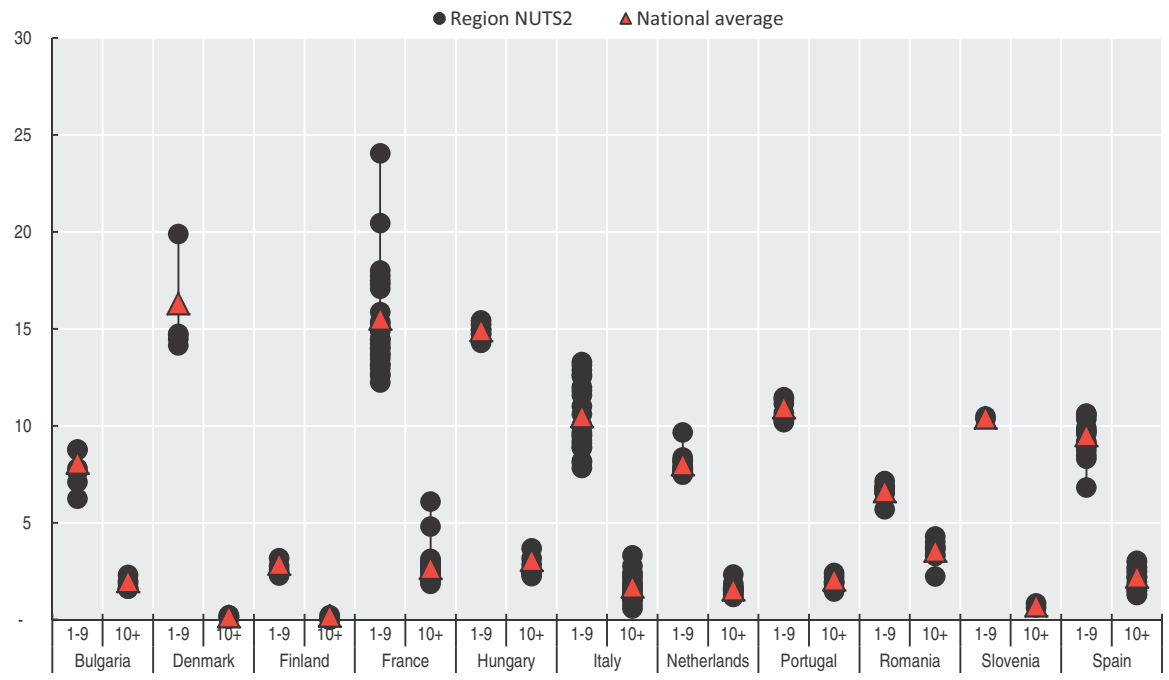
Percentage, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933064164

Figure 3.31. **Enterprise birth rate at the regional level, by enterprise size**

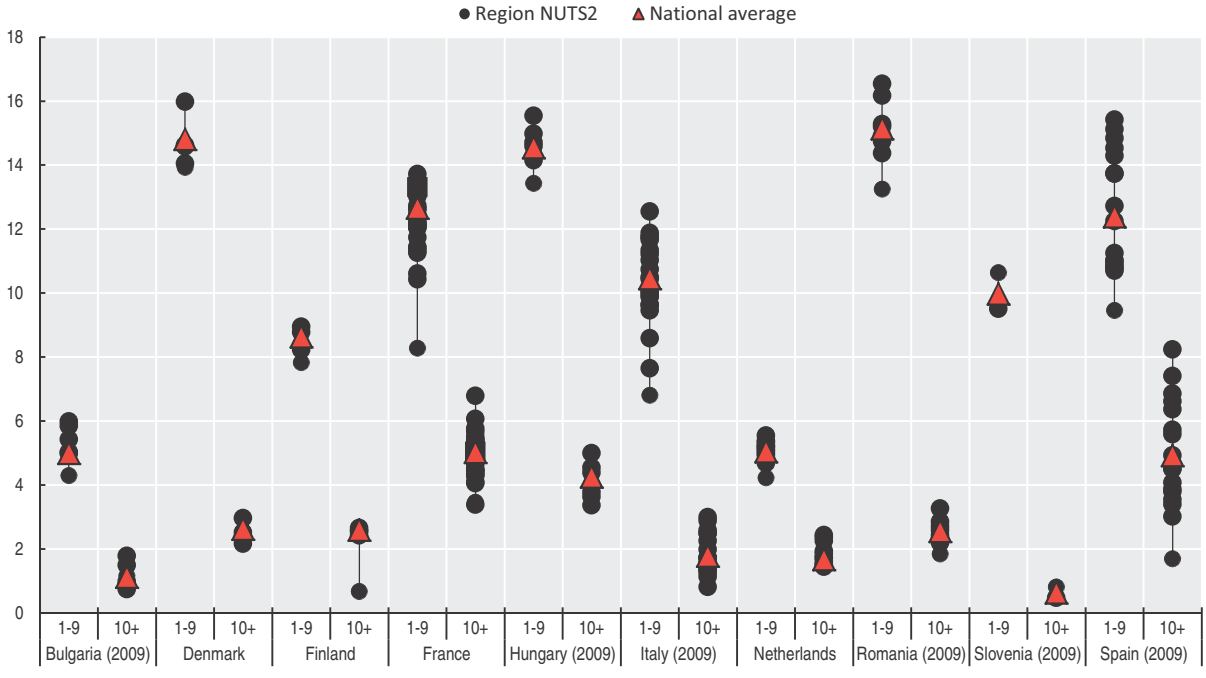
Percentage, 2010



StatLink http://dx.doi.org/10.1787/888933064183

Figure 3.32. **Enterprise death rate at the regional level, by enterprise size**

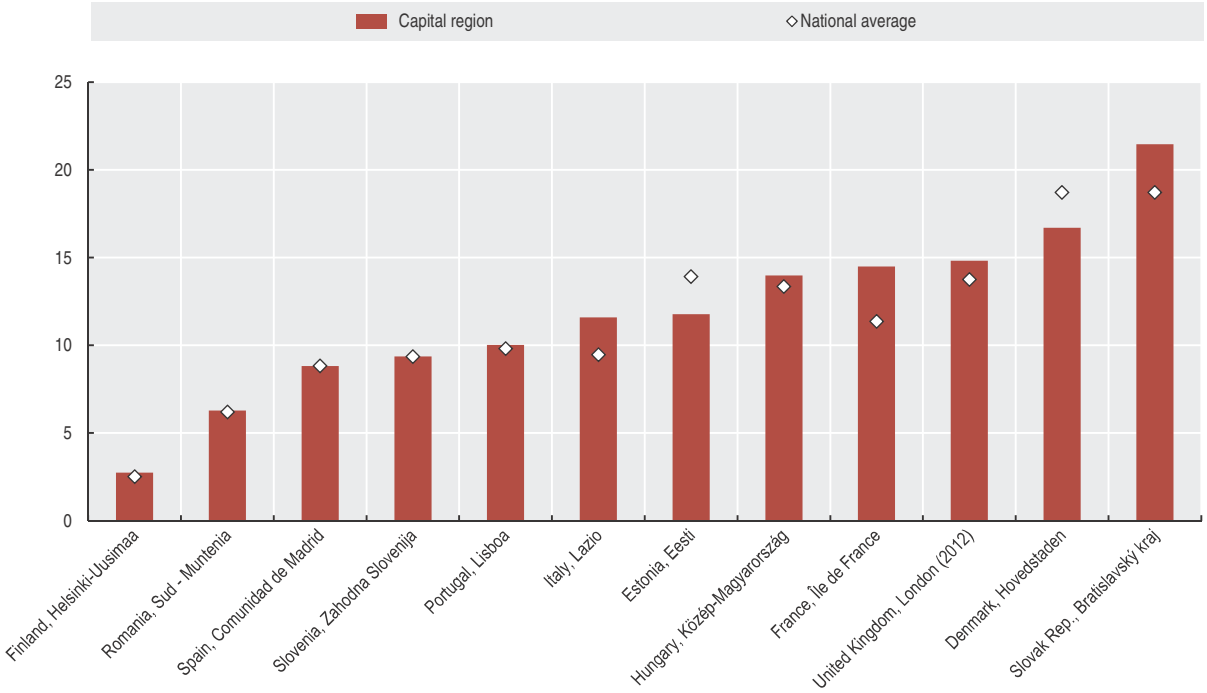
Percentage, 2010



StatLink http://dx.doi.org/10.1787/888933064202

Figure 3.33. **Enterprise birth rate, capital regions**

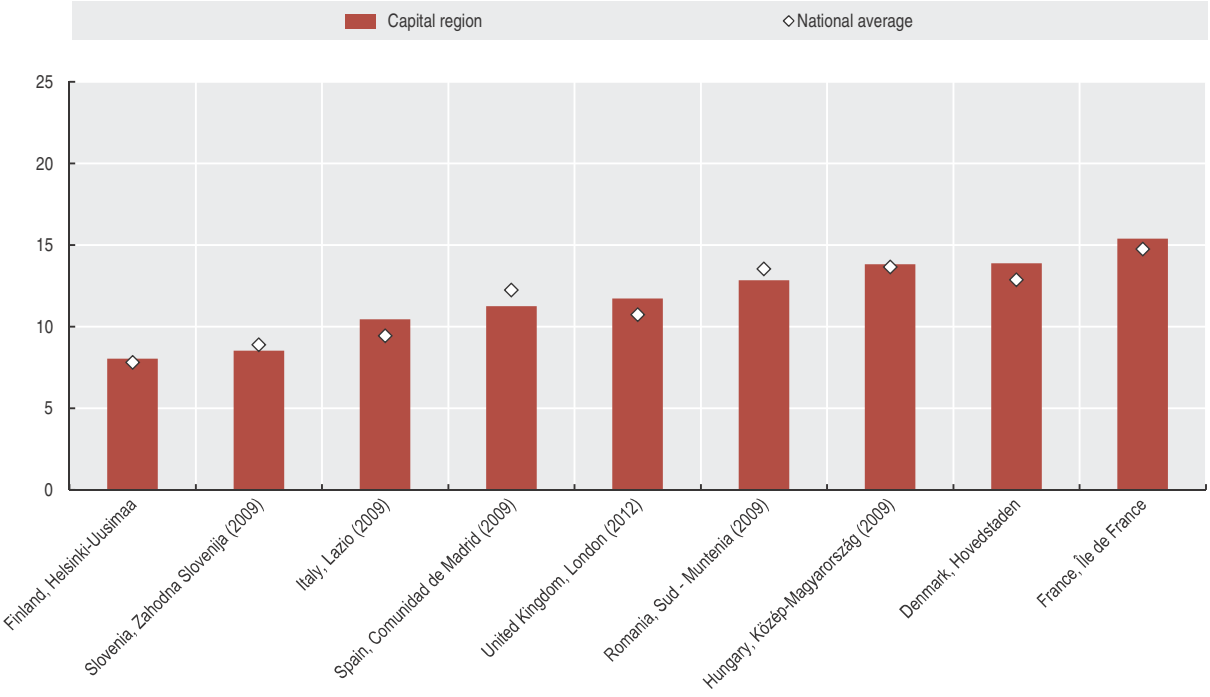
Percentage, 2010



StatLink http://dx.doi.org/10.1787/888933064221

Figure 3.34. **Enterprise death rate, capital regions**

Percentage, 2010



StatLink http://dx.doi.org/10.1787/888933064240

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

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 construction and services than in the manufacturing sector. As expected employment creation was generally lower in 2011 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 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 employer enterprises 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 employer enterprises 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*.

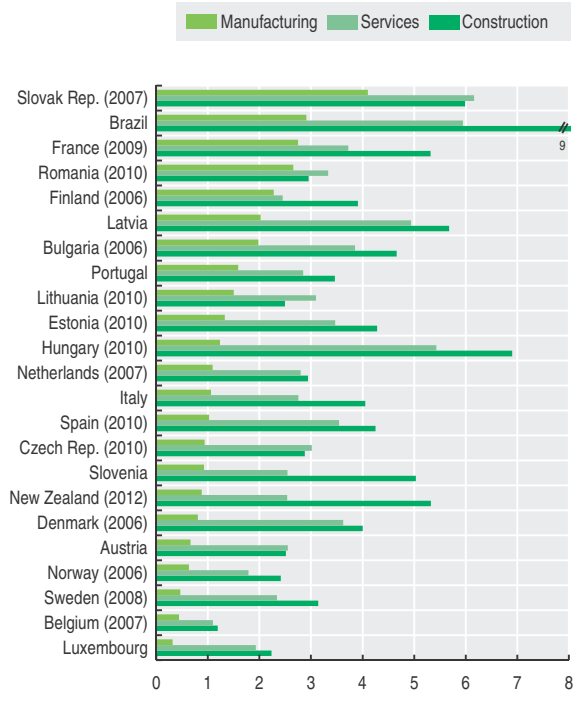
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

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 enterprises births by sector**

Percentage, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064259

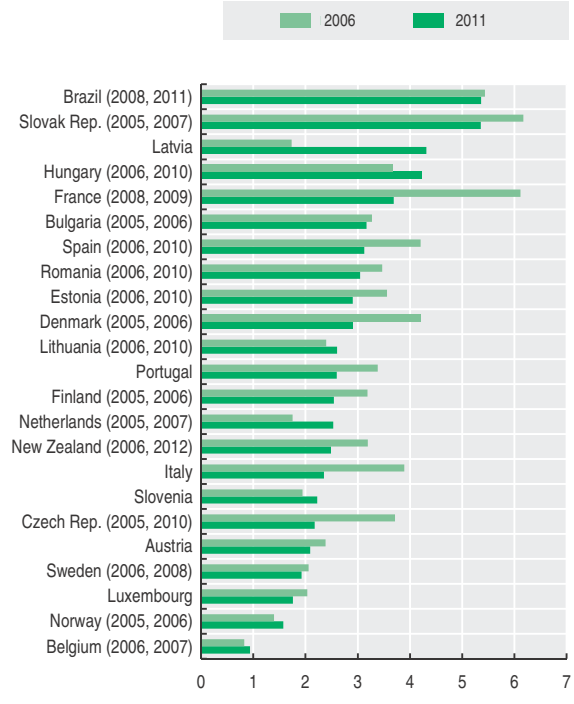
Figure 4.2. **Employment destruction by employer enterprise deaths by sector**

Percentage, 2011 or latest available year

StatLink http://dx.doi.org/10.1787/888933064278

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

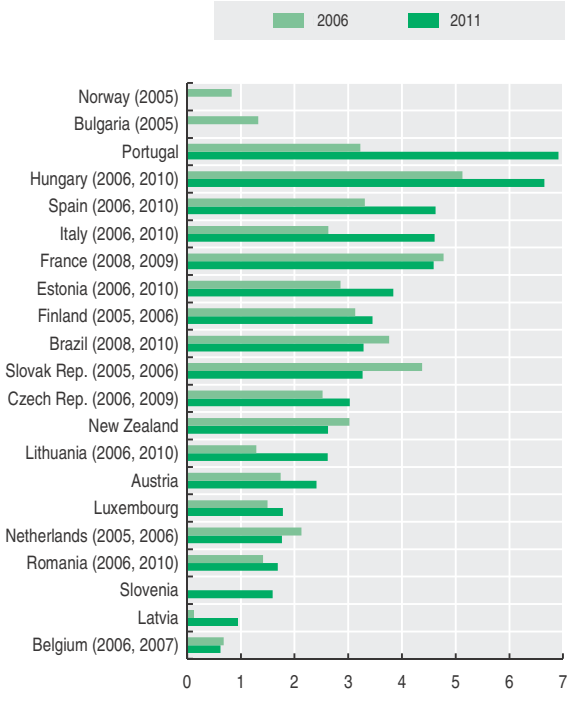
Percentage



StatLink http://dx.doi.org/10.1787/888933064297

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

Percentage



StatLink http://dx.doi.org/10.1787/888933064316

Employment creation and destruction in surviving enterprises

Key facts

- Young enterprises account from 5 to 12% of total employment. Their contribution to employment decreased from 2008 to 2011.
- 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, 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

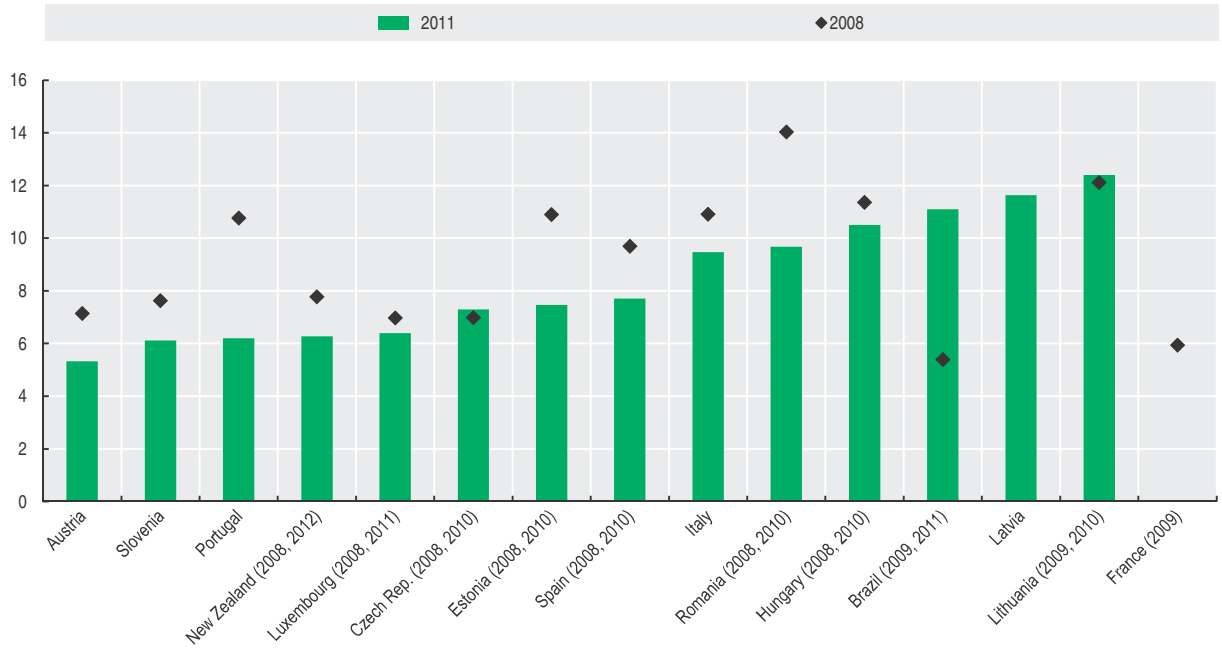
Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

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**

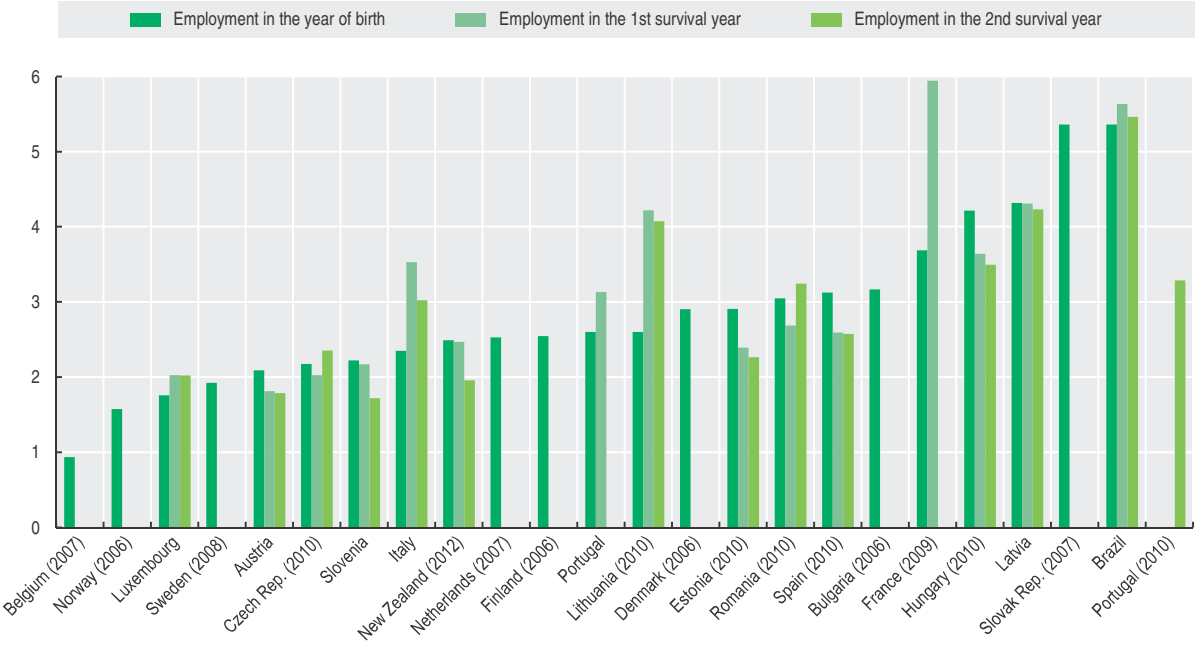
As a percentage of employment in the total economy



StatLink http://dx.doi.org/10.1787/888933064335

Figure 4.6. **Employment share in year of birth, 1st and 2nd survival year, 2011**

As a percentage of employment in the total economy



StatLink http://dx.doi.org/10.1787/888933064354

High-growth enterprises

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 6% for most countries, and around 1% for the gazelles, the high-growth firms with less than five years.
- While few in numbers, high-growth firms employ a considerable number of persons. In 2012, for instance, some fifteen thousands of fast-growing French enterprises employed more than two and a half million employees.
- In all countries high-growth firms are more prevalent in the services sector than in the rest of the market economy, apart from Brazil, Latvia and New Zealand where the highest percentage of high-growth firms is in the construction sector.

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.

Definitions

High-growth enterprises, as measured by employment, are enterprises with average annualised growth in employees 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.

Gazelles form a subset of high-growth enterprises. They are enterprises that have been employers for a period of up to five years.

Young medium-growth enterprises are a subset of medium growth enterprises. They are enterprises that have been employers for a period of up to five years.

The *share of gazelles* and the *share 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

A size threshold of ten employees at the start of any observation period was set to avoid small size class bias.

Setting the employment thresholds too low will 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.

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.

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*.

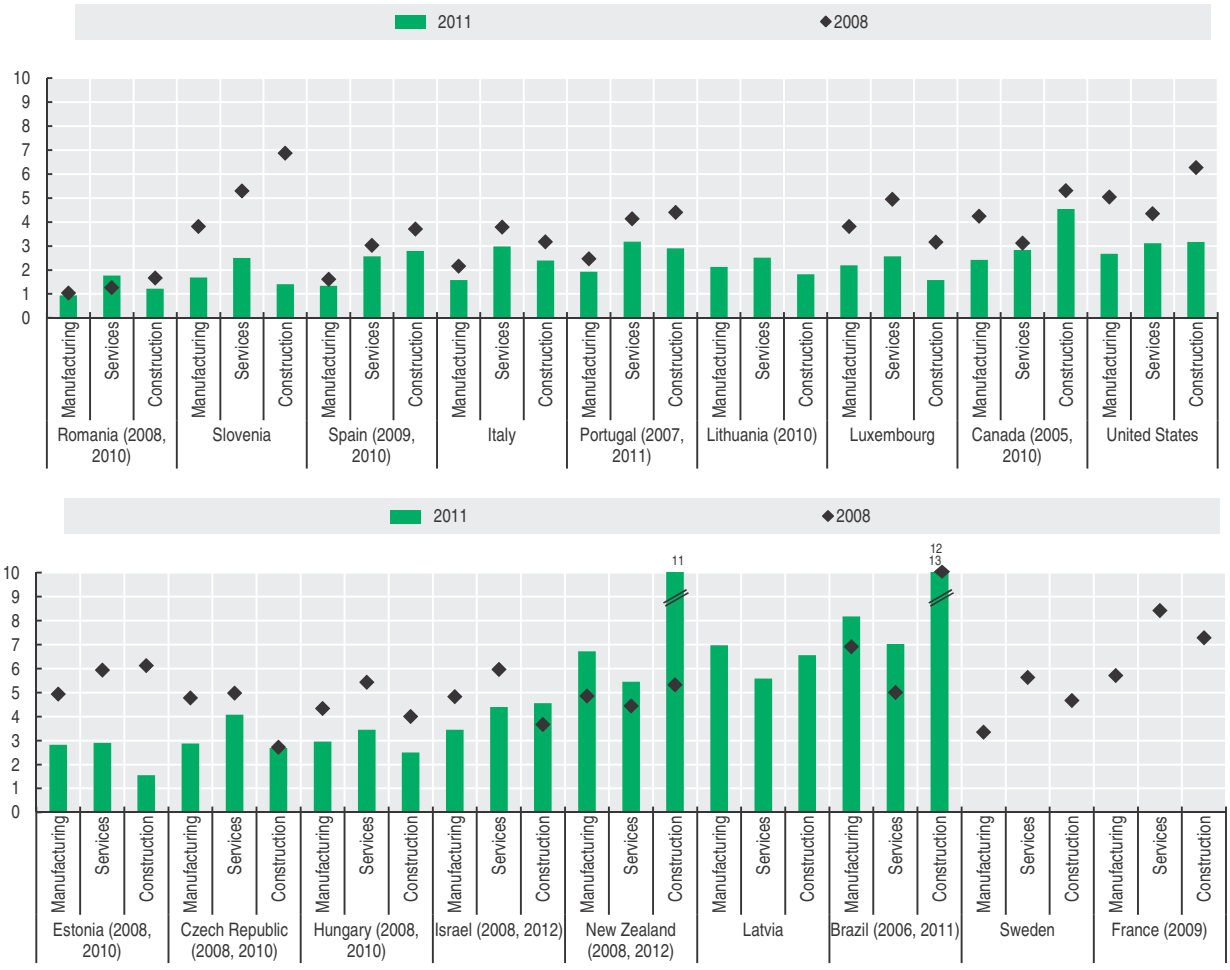
Eurostat/OECD (2007), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/9789264072886-en*.

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

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

Figure 4.7. **High-growth enterprises rate**

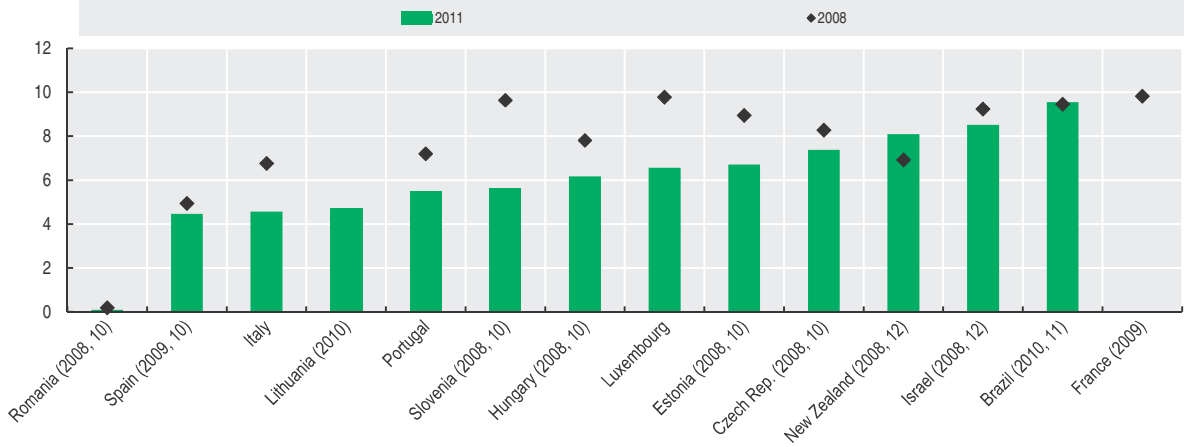
2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064373

Figure 4.8. **Medium-growth enterprises rate**

2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064392

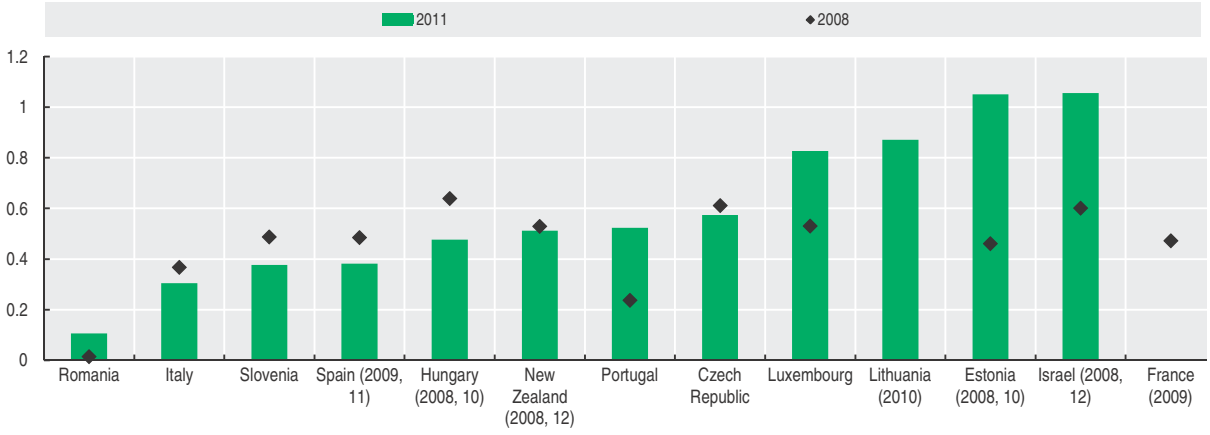
Figure 4.9. **Gazelles share**

2011 or latest available year

StatLink http://dx.doi.org/10.1787/888933064411

Figure 4.10. **Share of young medium-growth enterprises**

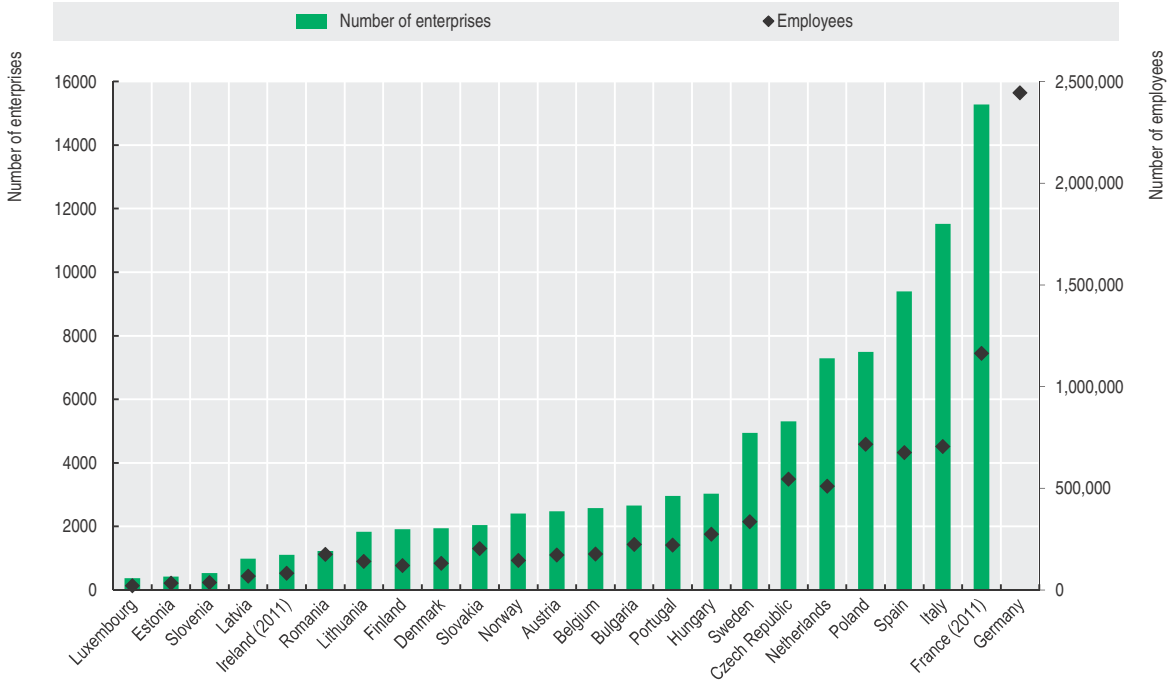
2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933064430

Figure 4.11. **Number of medium and high growth enterprises and employment**

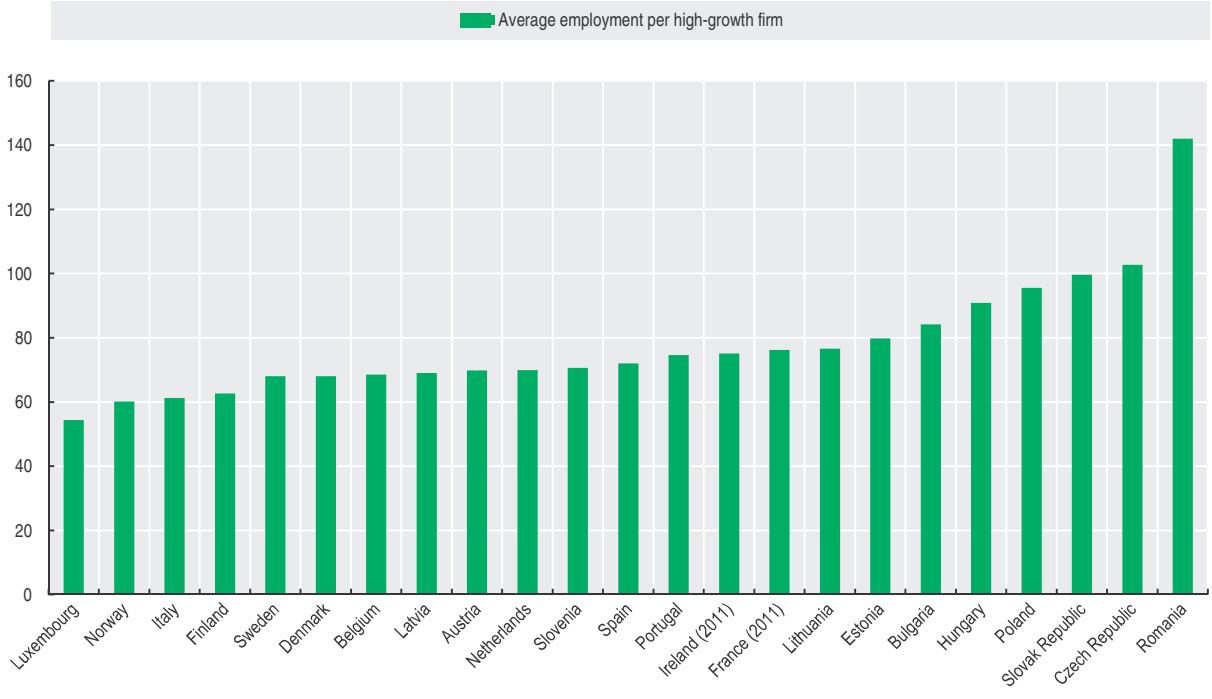
2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933064449

Figure 4.12. **Average employment in medium and high growth enterprises**

2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933064468

5. INNOVATION

Innovation by enterprise size

Factors hampering innovation by enterprise size

Collaborating in innovation by enterprise size

Public support for innovation by enterprise size

Innovation by enterprise size

Key facts

- In all countries, higher shares of large firms are involved in some innovation activity than SMEs. In most countries significantly more large firms engage in product/process and marketing/organisational innovations than either product/process or marketing/organisational. This is also true for smaller firms but less so, reflecting in part the greater degree of vertical integration in large firms and their control of production networks often using smaller processing supplier firms.

Relevance

Innovation and entrepreneurship are closely related. The creation of new products and processes, including organisational and marketing processes, define innovation. Entrepreneurialism is about bringing these ideas to market, typically estimated via start-up rates and/or high-growth rates. Innovation, therefore, is an important driver of entrepreneurship and estimates of innovation can provide an indication of the potential scale of entrepreneurialism across countries and firms, both large and small. However, different challenges to innovation exist and affect firms in different ways depending on their size, amongst other factors, requiring different policy responses to foster innovation and, in turn, entrepreneurship and, so too, economic growth and material well-being.

Definitions

Statistics refer to the percentage of enterprises that reported some innovation activity during the period covered by the innovation survey, including enterprises with abandoned/suspended or on-going innovation activities. Definitions of different modes of innovation are as follows (see *Oslo Manual*):

Product innovation: the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics.

Process innovation: the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.

Marketing innovation: the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

Organisational innovation: the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations.

Comparability

Some care is needed in comparing across countries for a number of reasons. As shown below, the reference year is not the same for all countries, and the recent crisis may have led to cutbacks in expenditures on innovation. Moreover, the coverage of activities, and the size of firms, is not the same for all countries, which may explain why some countries have relatively low shares of engagement in different types of innovation, such as product/process and marketing. For example, the data for Brazil covers only services activities, which is likely to explain why its shares of marketing/organisational innovation are relatively high and product/process innovation relatively low.

For European countries and Turkey, data come from the Community Innovation Survey 2008-2010, covering firms with more than 10 employees; sectoral coverage includes NACE Revision 2 Activities B, C, D, E, G46, H, J58, J61, J62, J63, K and M71. For Brazil, data refer to 2006-08 for the following services sector activities: ISIC Revision 4 Divisions 58, 61, 62 and 72. For Canada, data refer to 2007-09 for firms with 20 or more employees and with at least CAD 250 000 in annual revenue in 2009; firms with ongoing or abandoned innovation activities are not identified; industries covered are NAICS (2007) 31-33, 41, 48, 49, 51, 52 and 54. For Chile, data refer to 2009-10 for firms with more than UF 2 400 in annual revenue; ongoing or abandoned innovative activities are not identified; industries covered are based on ISIC Revision 3 and include a wider range of activities than the CIS, such as agriculture, forestry, fishing, construction and some services. For Israel, data refer to 2006-08. For Japan, (provisional) data refer to financial years 2009/10 and 2010/11. For Korea, data refer to 2005-07 and to firms with more than 10 employees in the manufacturing sector; product innovation only covers innovation for goods. For New Zealand, data refer to financial years 2009/10 and 2010/11 for firms with six or more employees with an annual goods and services tax (GST) turnover figure greater than NZD 30 000. For the Russian Federation, data refer to 2009-11 for firms with 15 or more employees; the industries covered are based on NACE Revision 1 and include manufacturing (D), and services (64, 72, 73, 74). For South Africa, data refer to 2005-07 for firms with 20 or more employees, with a minimum turnover of between ZAR 3 million and ZAR 6 million depending on the industry; data also include the retail trade sector.

Source

OECD Science, Technology and Industry Scoreboard, OECD Publishing, Paris, based on Eurostat Community Innovation Survey 2010 and national data sources.

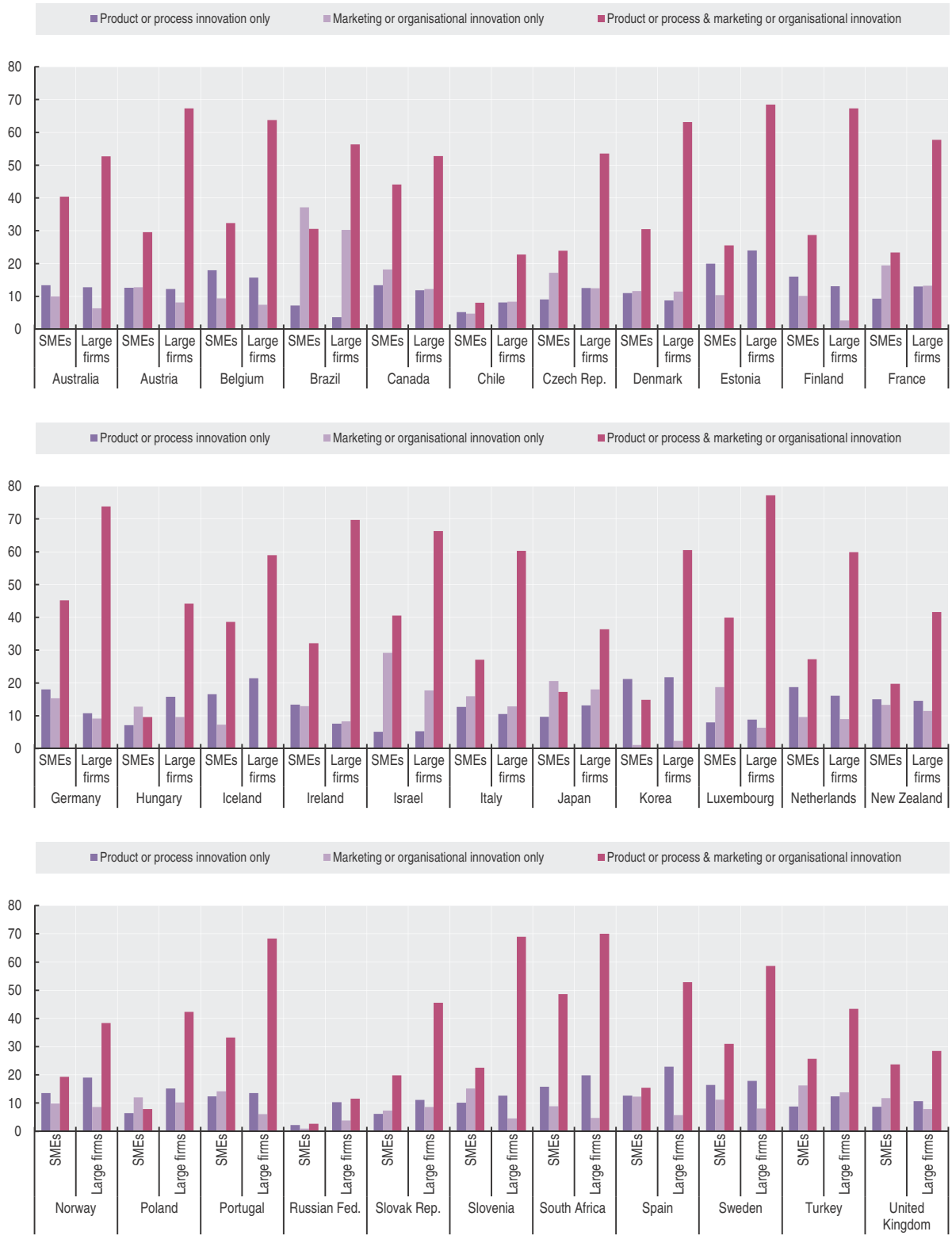
For further reading

OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en*.

OECD – Eurostat (2005), *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, 3rd Edition, *www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en*.

Figure 5.1. **Innovating enterprises by size and innovation type**

As a percentage of all enterprises within size class, 2008-10



StatLink http://dx.doi.org/10.1787/888933064487

Factors hampering innovation by enterprise size

Key facts

- Among firms that innovate, the lack of own funds and the high perceived costs of innovating are the two factors most cited as hampering innovation across all countries. The risks associated with uncertain demand for new product and process innovations, the presence of established enterprises dominating the market and the lack of external finance are also seen as important obstacles.
- In all countries, innovation by small firms appears to be more affected by hampering factors than in medium and large firms. In any given country, however, the types of factors perceived as important are the same independently of the size of the responding enterprise. Among OECD countries, Spain and Turkey are the countries where the percentages of firms facing hampering factors are highest.

Relevance

Innovation is an important driver of entrepreneurship and of growth. Understanding the factors that hamper innovation and how these differ for small, medium and large firms, provides an important tool to support policy making.

Definitions

Statistics refer to percentages of innovative firms identifying a hampering factor as highly important, including enterprises with abandoned/suspended or on-going innovation activities.

The list of highly important factors hampering innovation activities cover the following (multiple answers are possible): *lack of qualified personnel, lack of information on technology, lack of information on markets, difficulty in finding cooperation partners for innovation, markets dominated by established enterprises, uncertain demand for innovative goods or services, no need to innovate due to prior innovations, no need to innovate due to no demand for innovations, lack of funds within the enterprise or group, lack of finance from sources outside the enterprise, innovation costs too high.*

Comparability

Data are drawn from the Community Innovation Survey 2010; see "Innovation by enterprise size class" for detailed comments on comparability.

Source

Eurostat, Community Innovation Survey, *http://epp.eurostat.ec.europa.eu/portal/page/portal/science_technology_innovation/data/database.*

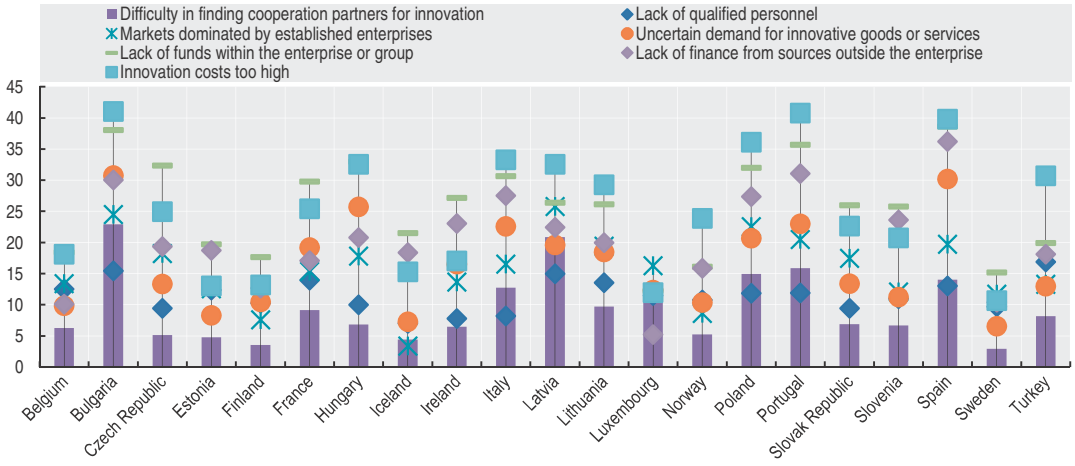
For further reading

OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en.*

OECD – Eurostat (2005), *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, 3rd Edition, *www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en.*

Figure 5.2. **Factors hampering innovation in small firms**

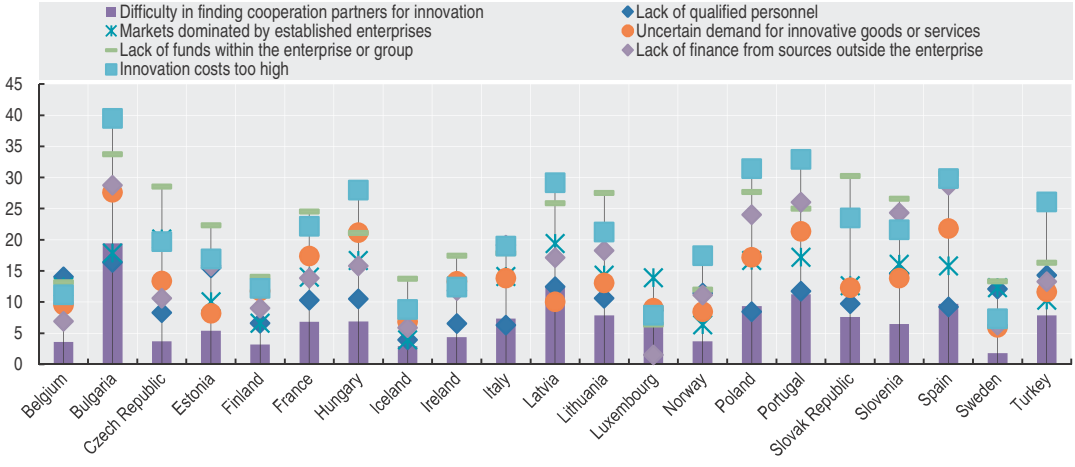
Percentages of all innovating firms with 10 to 49 employees, 2010



StatLink http://dx.doi.org/10.1787/888933064506

Figure 5.3. **Factors hampering innovation in medium-sized firms**

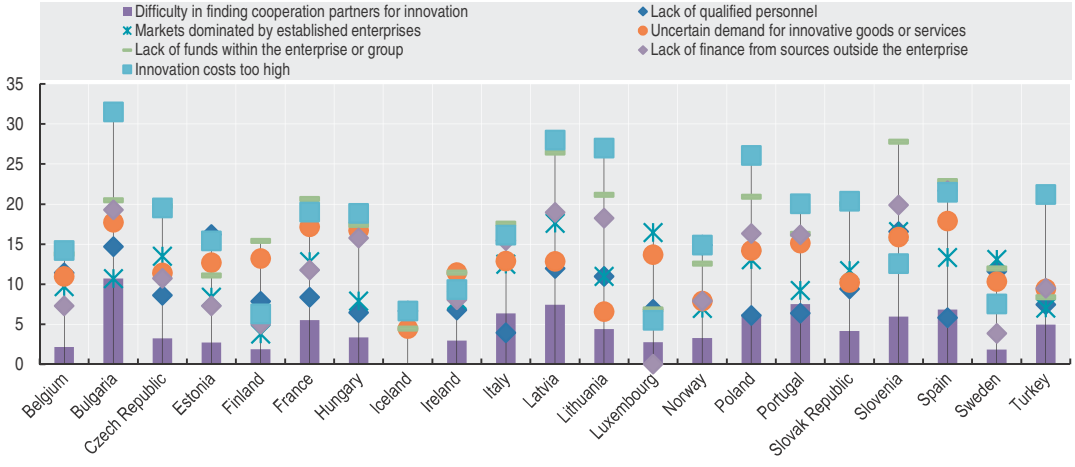
Percentages of all innovating firms with 50 to 249 employees, 2010



StatLink http://dx.doi.org/10.1787/888933064525

Figure 5.4. **Factors hampering innovation in large firms**

Percentages of all innovating firms with more than 250 employees, 2010



StatLink http://dx.doi.org/10.1787/888933064544

Collaborating in innovation by enterprise size

Key facts

- In most OECD countries, between 50% to 80% of large enterprises cooperate for product and/or process innovation with some partner(s). These percentages are twice as high as those of firms with less than 250 employees, for which shares of cooperating firms are between 20% and 40%. Mexico is the only exception, with a percentage of SMEs indicating some type of cooperation for innovation (29.2%) slightly higher than Mexican large firms (25%).
- Interestingly, in those countries where cooperation is relatively high, respondents generally rate the obstacles to innovation low, suggesting that either the same barriers to innovation also impede on cooperation or that cooperation is an effective tool to overcome barriers and their perceived impact.

Relevance

Collaboration amongst firms has been shown to be a cost-effective entry to innovation, either through pooling costs, developing technological synergies, or via network spillovers. Policies that foster collaboration amongst firms as complements to policies designed to reduce barriers to innovation are important channels for entrepreneurship and growth.

Definitions

Enterprises collaborating on innovation activities are "enterprises engaged in any type of co-operation". Type of cooperation partners include: *other enterprises within the enterprise group; suppliers; customers and clients; higher education or public research institutions; competitors or other enterprises of the same sector; consultants, commercial labs, or private R&D institutes; Government or public research institutes; domestic or international partners*. The reference population is composed of product and/or process innovative enterprises, regardless of organisational or marketing innovation, including enterprises with abandoned/suspended or on-going innovation activities.

The percentages relate to the total population of product and/or process innovative enterprises, regardless of organisational or marketing innovation (including enterprises with abandoned/suspended or on-going innovation activities).

For hampering factors, see "Factors hampering innovation by enterprise size".

Comparability

Data are drawn from the Community Innovation Survey 2010 and from national innovation surveys; see "Innovation by enterprise size" for detailed comments on comparability.

Sources

Eurostat Community Innovation Survey 2010 and national data sources.

Figure 5.5 is drawn from OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en*. It is based on Eurostat Community Innovation Survey 2010 and national data sources.

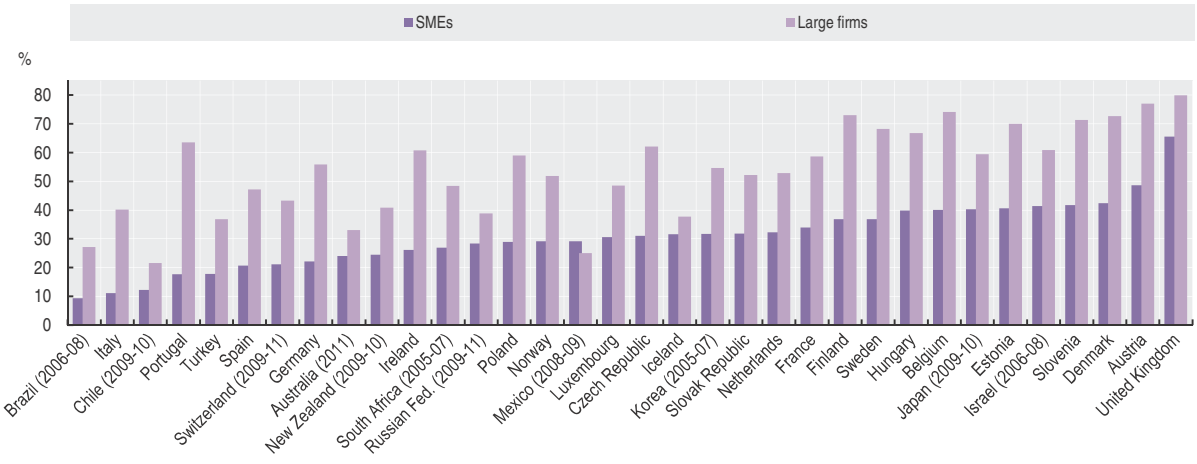
For further reading

OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en*.

OECD – Eurostat (2005), *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, 3rd Edition, *www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en*.

Figure 5.5. **Enterprises collaborating on innovation activities, by size**

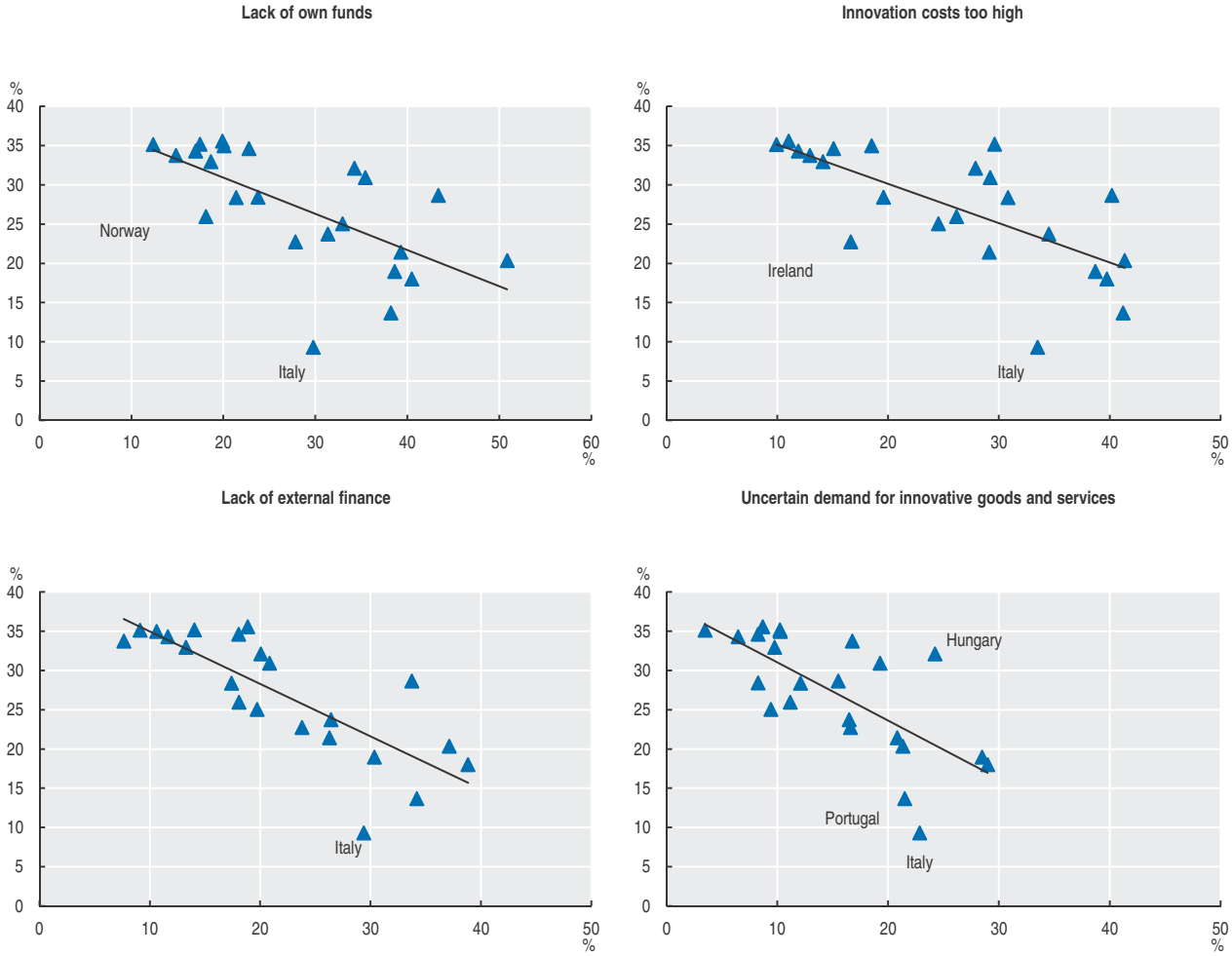
As a percentage of product and/or process innovative firms in each size class, 2008-10



StatLink http://dx.doi.org/10.1787/888933064563

Figure 5.6. **Small enterprises collaborating on innovation activities and perceived obstacles to innovation**

As a percentage of innovating enterprises within size class 10-49, 2008-10



StatLink http://dx.doi.org/10.1787/888933064582

Public support for innovation by enterprise size

Key facts

- Significant differences exist across countries in the percentage of R&D expenditures financed by government that goes to large enterprises. In the Slovak Republic, Estonia and Hungary for example more than 85% of government funding for R&D goes to SMEs, while in Japan, Luxembourg, the United States and Sweden more than 80% goes to large firms.
- In most countries, disproportionally more large firms that innovate receive some funding from government compared to SMEs that innovate. However, in Hungary, Turkey, Japan, United Kingdom, Poland, the Russian Federation and the Slovak Republic, the percentages of firms benefiting from public support for innovation are broadly similar for all size classes.

Relevance

Direct and indirect public support can play a key role in facilitating firms' investment in R&D and innovation, especially by SMEs.

Definitions

Government-financed Business Enterprise Research and Development (BERD) includes all forms of direct support such as grants, some types of loans and procurement contracts. It does not include R&D tax credits or other indirect support measures.

Public support for innovation includes financial support via tax credits or deductions, grants, subsided loans, and loan guarantees. It excludes research and other innovation activities conducted entirely for the public sector under contract.

Comparability

Government-financed BERD: National statistical agencies use different minimum thresholds for inclusion in R&D surveys. For reporting estimates, there are slight variations in the definition of small and medium-sized firms. Small firms are defined as having fewer than 50 employees but for the following countries the thresholds are: Belgium, 1-49 employees; United States, 5-49 employees; Luxembourg, Netherlands and Sweden, 10-49 employees. For Japan, the survey excludes firms with capital of less than JPY 10 million.

For Australia, Chile, France, Italy, Portugal, Spain, the United Kingdom and the United States, data refer to 2010. For Austria, Belgium, Canada, Denmark, Germany, Luxembourg, the Netherlands and Sweden, data refer to 2009. For Switzerland, data refer to 2008.

Public support for innovation: For Austria and United Kingdom, data refer to 2006-08. For Canada: data refer to 2007-09 and to firms with 20 or more employees and with at least CAD 250 000 in annual revenue in 2009.; firms with ongoing/abandoned innovation activities are not identified: data refer only to grants and tax credit programmes across all levels of government: industries covered are NAICS (2007) 31-33, 41, 48, 49, 51, 52 and 54 for 2007-09 and manufacturing only for 2002-04. For Mexico: data refer to 2008-09 and to firms with 20 or more employees; industries covered are based on ISIC Rev.3.1 and include a wider range of activities, such as agriculture, construction and some services. For South Africa: data refer to 2005-07 and to firms with 20 or more employees, with a minimum turnover of between ZAR 3 million and ZAR 6 million depending on the industry; data also include the retail trade sector. For Switzerland, data refer to 2009-11.

Sources

OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en*.

Figure 5.7 is based on the *OECD Research and Development Statistics Database*. Figure 5.8 is based on Eurostat Community Innovation Survey 2010 and national data sources.

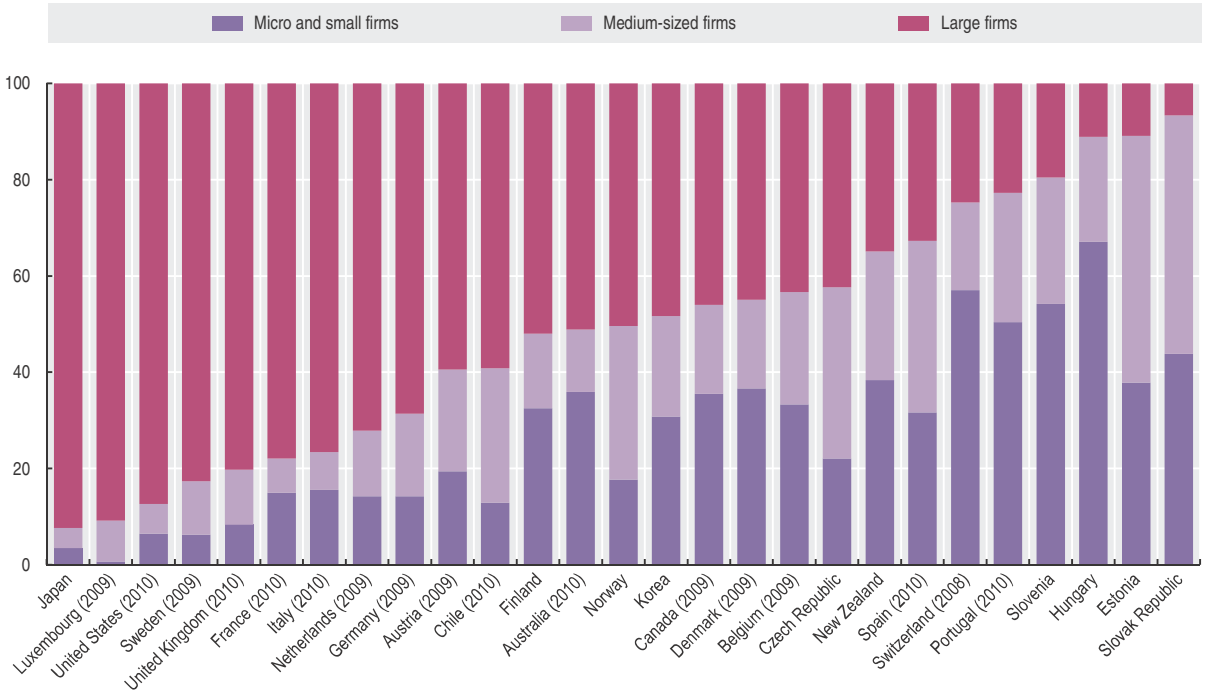
For further reading

OECD (2013), *OECD Science, Technology and Industry Scoreboard*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/sti_scoreboard-2013-en*.

OECD – Eurostat (2005), *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, 3rd Edition, *www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en*.

Figure 5.7. **Government-financed R&D in the business sector by enterprise size**

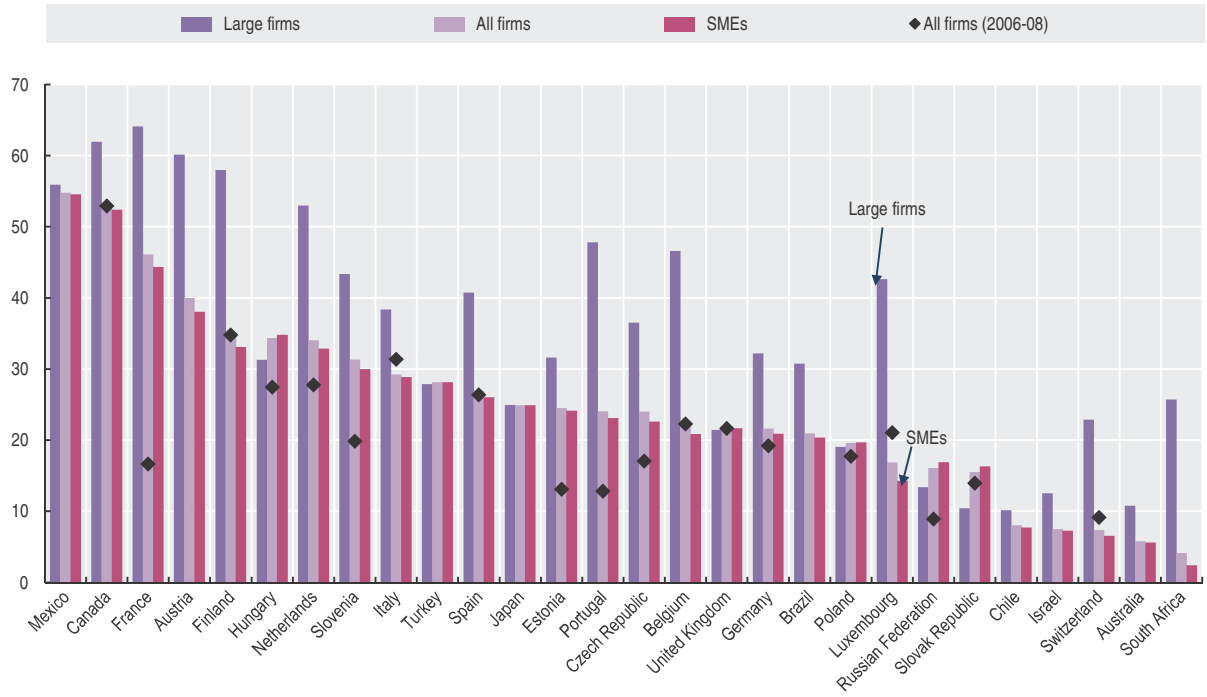
As a percentage of government-financed R&D, 2011



StatLink http://dx.doi.org/10.1787/888933064601

Figure 5.8. **Enterprises receiving public support for innovation, by enterprise size**

As a percentage of product and/or process innovative firms in each size class, 2008-10



StatLink http://dx.doi.org/10.1787/888933064620

6. DETERMINANTS OF ENTREPRENEURSHIP: SELECTED INDICATORS

Regulatory framework: Starting a business

Culture: Reasons for starting a business

Access to finance: Equity capital

Regulatory framework: Starting a business

Key facts

- Overall barriers to entrepreneurship have progressively reduced over the last ten years across OECD countries.
- Barriers to starting-up a corporation are significantly more demanding than those faced in becoming a sole proprietor in many countries, such as Ireland, Italy, and Slovenia, and more demanding in nearly all countries.
- In 2013, barriers in the services sector, specifically professional services and retail distribution, remain relatively high.

Relevance

A combination of opportunity, capabilities and resources does not necessarily lead to entrepreneurship if opportunity costs (e.g. forgone salary and loss of health insurance) and start-up costs outweigh the potential benefits. The regulatory framework, taxes, regulations etc. is therefore a critical factor affecting countries' entrepreneurial performance. This section focuses on one aspect of the regulatory framework: burdens on the creation of new enterprises.

Definitions

Barriers to entrepreneurship is a composite indicator that measures different administrative regulations in the domain of entrepreneurship and is composed of three sub-indicators weighted equally: Administrative burdens on start-ups; Regulatory and administrative opacity; and Barriers to competition.

The indicator administrative *burdens on start-ups* is a composite indicator composed of three sub-indicators weighted equally: administrative burdens for corporations; administrative burdens for sole proprietor firms; and barriers in the services sector (retail distribution, professional services). The composite indicator and sub-indicators provide a measure of a country's restrictiveness on a scale from 0, least restrictive, to 6, most restrictive.

Comparability

Data on barriers to entrepreneurship are part of the *OECD Database of Indicators of Product Market Regulation*, which measure a country's regulatory environment. Qualitative information on country laws and regulations is collected periodically through a questionnaire to national administrations and turned into quantitative indicators after peer review of the questionnaire results.

Sources/online databases

OECD Indicators of Product Market Regulation, http://stats.oecd.org/Index.aspx?DataSetCode=PMR.

For further reading

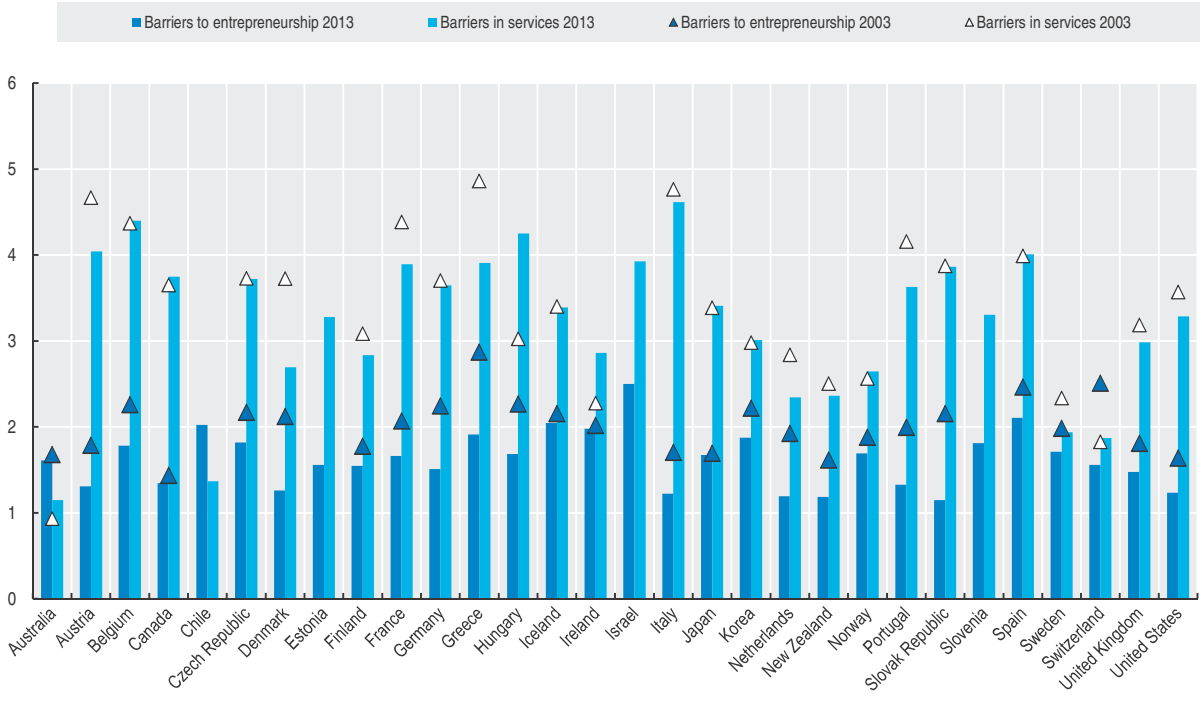
Koske, I., I.Wanner, R. Bitetti and O. Barbiero (2014), "The 2013 update of the OECD product market regulation indicators: policy insights for OECD and non-OECD countries", OECD *Economics Department Working Papers*, *forthcoming*.

Wölfl, A., et al. (2009), "Ten Years of Product Market Reform in OECD Countries: Insights from a Revised PMR Indicator", *OECD Economics Department Working Papers*, No. 695, OECD Publishing, Paris, *http://dx.doi.org/10.1787/224255001640*.

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

Figure 6.1. **Barriers to entrepreneurship**

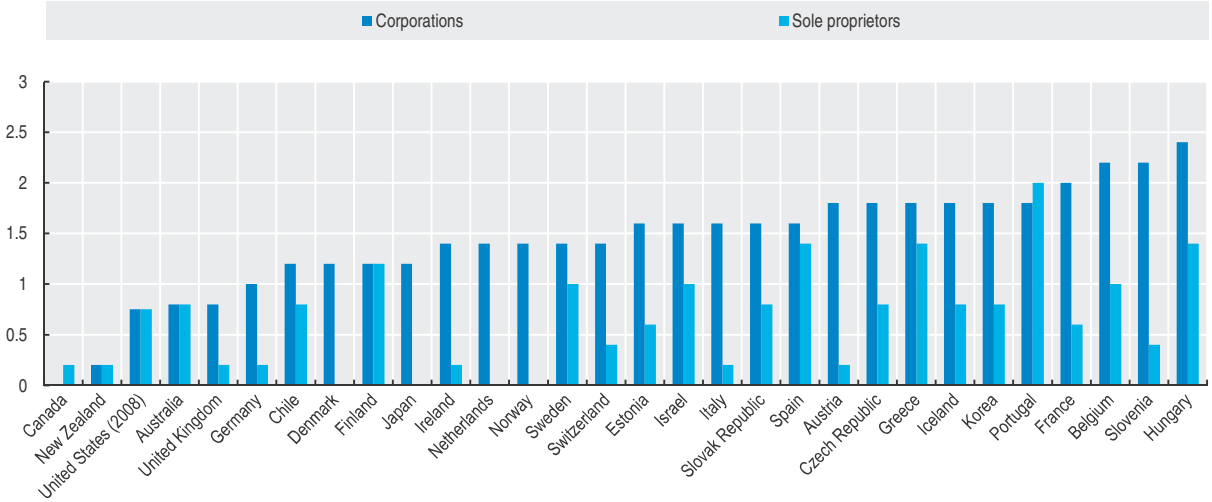
Scale from 0 to 6 from least to most restrictive



StatLink http://dx.doi.org/10.1787/888933064639

Figure 6.2. **Administrative burdens on starting-up for corporations and sole proprietor firms**

Scale from 0 to 6 from least to most restrictive



StatLink http://dx.doi.org/10.1787/888933064658

Culture: Reasons for starting a business

Key facts

- Across countries, having a suitable business idea and securing the necessary finance are generally cited as the two most important considerations for starting-up, or taking over, a business. Having a role model is very important in Brazil, Italy, Korea, China and Portugal, while less than 50% of individuals consider it relevant in Nordic countries and in the Russian Federation. Job-dissatisfaction is an important element but typically the least significant consideration cited by respondents.
- In 2012, in half of OECD countries pursuing a business opportunity or taking over a family business explained about around 70% of actual and potential start-ups. Necessity was a significant driver in the emerging economies of China and India but also in Korea, Estonia, Greece and Spain, partly reflecting the crisis.
- Countries with low burdens on starting-up a business tend to have higher percentages of "opportunity entrepreneurs".

Relevance

There are several considerations that individuals make when taking the decision to start a business. These include practical and personal elements, such as the availability of the necessary finance or the dissatisfaction in current work situation. Understanding the motivation for business start-ups provides important insights into the development of policies to support entrepreneurship and in particular policies that differentiate between "opportunity" and "necessity" entrepreneurs.

Definitions

The indicators presented in this section are the following:

Considerations in the decision to take steps to start a business or to take over one, where respondents indicate whether each of six elements was "very important", "fairly important", "not very important", and "not important at all". The elements are: an appropriate business idea, getting the necessary financing, connecting with an appropriate business partner, a role model, addressing an unmet social or ecological need, and dissatisfaction with regard to the previous work situation (Figure 6.1). Respondents only include people who started or took over a business, thought about it but gave up, or have the opportunity to take over a family business.

Reason for starting a business reflects the answer to the question "All in all, would you say that you started or you are starting your business because you came across an opportunity, out of necessity, or because there was a need/opportunity to take over a business from a family member?" (Figure 6.2). Respondents only include people who started a business or are taking steps to do so.

Comparability

Data come from the European Commission *Eurobarometer Survey on Entrepreneurship* database; which is a general survey of the adult population (aged 15 years and above) 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 1 000 individuals in each country, apart from the United States where 3 000 individuals were interviewed.

The interpretation of the results is subject to caution: as the samples are relatively small, marginal differences observed across countries might be the result of sampling errors and are 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 were 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. Non-respondents were excluded in the computation of the indicators. 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/*.

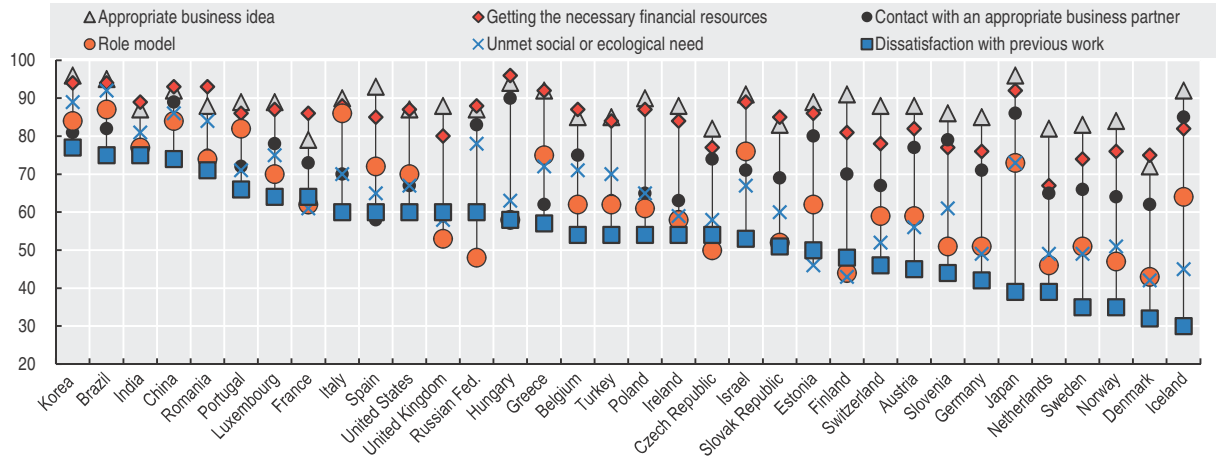
Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

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*.

Figure 6.3. **Important considerations when starting a business**

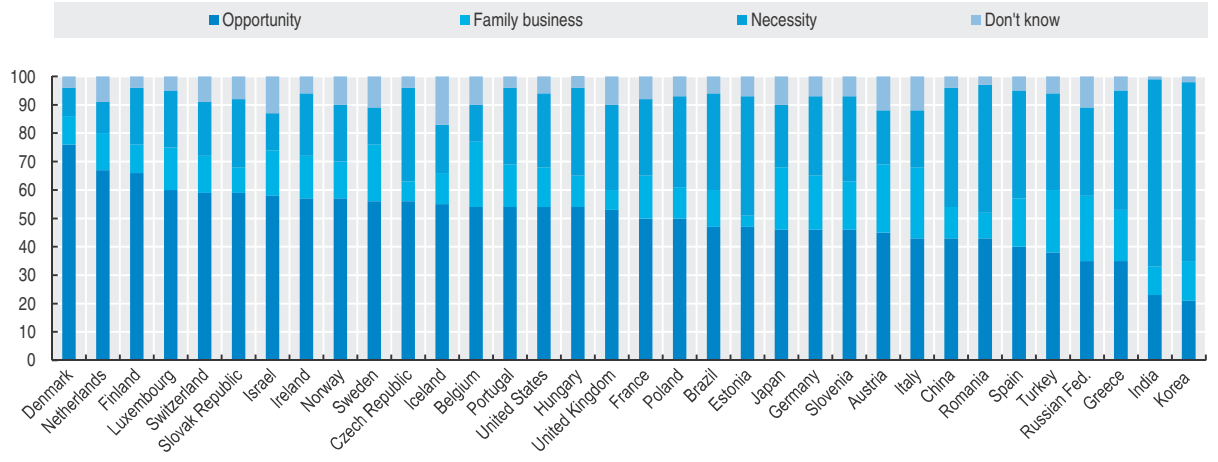
Percentages, 2012



StatLink http://dx.doi.org/10.1787/888933064677

Figure 6.4. **Reasons for starting a business**

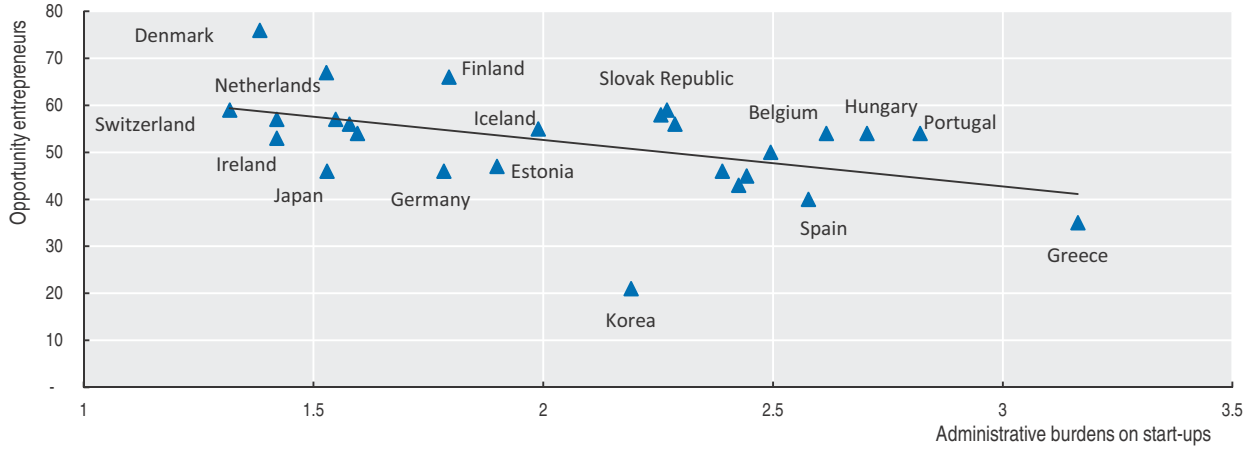
Percentages, 2012



StatLink http://dx.doi.org/10.1787/888933064696

Figure 6.5. **Administrative burdens on start-ups and opportunity entrepreneurs**

Scale 0 to 6 from least to most restrictive, 2008; Percentages, 2012



StatLink http://dx.doi.org/10.1787/888933064715

Access to finance: Equity capital

Key facts

- In the majority of countries, venture capital represents a very small percentage of GDP, e.g. often less than 0.04%. Exceptions are Israel and the United States, where the venture capital industry is more mature and represented 0.3% and 0.2% of GDP respectively.
- The crisis has severely affected the venture capital industry. In 2013, in most countries the level of venture capital investments was still below 2007 levels.

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.

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 for Australia, where the Australian Bureau of Statistics collects and publishes statistics on venture capital. For Israel, data refer only to venture capital-backed high-tech companies.

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.

Data for Australia and Japan refer to the fiscal year.

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 B. Korea, New Zealand, the Russian Federation and South Africa do not provide breakdowns of venture capital by stage that would allow meaningful international comparisons.

Annex B 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 (Canada's Venture Capital and Private Equity Association, Thomson Reuters data, *www.cvca.ca/resources/statistics/*.

EVCA (European Private Equity and Venture Capital Association), *EVCA Yearbook*, *www.evca.eu/knowledgecenter/statisticsdetail.aspx?id=6392*. This source is used for the following countries: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

KVCA (Korean Venture Capital Association), *http://eng.kvca.or.kr/sub04/sub0403.jsp*.

NVCA (National Venture Capital Association, United States), Thomson Reuters data, *www.nvca.org/*.

NZVCA (New Zealand Private Equity and Venture Capital Association), *www.nzvca.co.nz/*.

PwC MoneyTree (Israel), *www.pwc.com/il/en/venture-capital-israel/moneytree-home.jhtml*.

RVCA (Russian Venture Capital Association), *www.rvca.ru/eng/*.

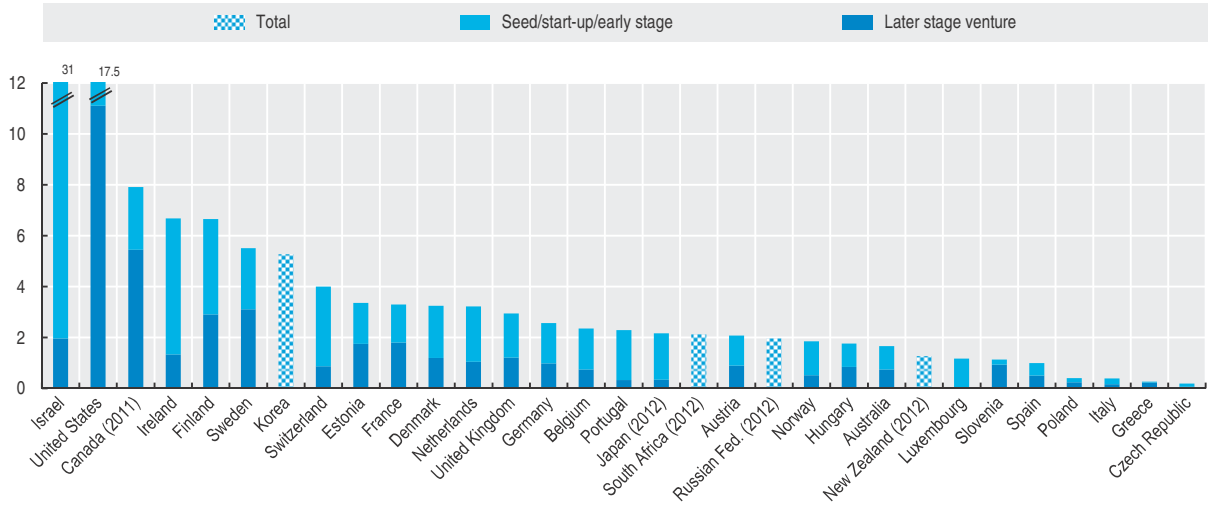
SAVCA (South African Venture Capital and Private Equity Association) / KPMG, *www.savca.co.za/kpmgsurvey/default.aspx*.

VEC (Venture Enterprise Center, Japan), *www.vec.or.jp/*.

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

Figure 6.6. **Venture capital investments as a percentage of GDP**

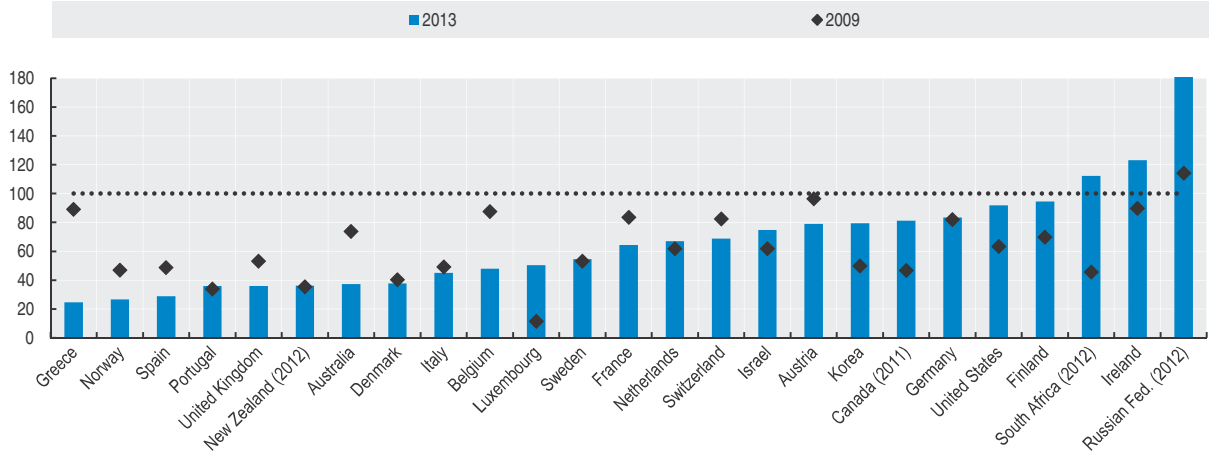
Percentage, 2013



StatLink http://dx.doi.org/10.1787/888933064734

Figure 6.7. **Venture capital trends**

Index 2007 = 100



StatLink http://dx.doi.org/10.1787/888933064753

Table 6.1. **Venture capital investments**

Million US dollars, 2013

Czech Republic	3.69	Austria	86.37	Russian Federation (2012)	398.00
Slovenia	5.28	Norway	94.57	Korea	635.47
Greece	6.42	Denmark	107.17	United Kingdom	740.38
Luxembourg	7.02	Belgium	118.83	Israel	895.00
Estonia	8.20	Spain	134.98	France	902.24
Poland	20.76	Ireland	145.46	Germany	932.85
New Zealand (2012)	21.71	Finland	170.95	Japan (2012)	1 284.58
Hungary	22.93	Australia	252.93	Canada (2011)	1 406.58
Portugal	50.40	Netherlands	257.02	United States	29 364.96
Italy	80.70	Switzerland	260.63		
South Africa (2012)	81.34	Sweden	307.26		

StatLink http://dx.doi.org/10.1787/888933064867

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**

Country	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:* Statistics Belgium. Annual data. These statistics are derived by Statistics Belgium from the Banque-Carrefour des Entreprises *http://statbel.fgov.be/fr/modules/publications/statistiques/economie/entreprises_assujetties_a_la_tva_mouvements_demographiques.jsp*
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. Data are based on the Eurostat definition. A birth refers to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. 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* Sources and definitions of enterprise creations
Iceland	*Source:* Statistics Iceland. Monthly data. Newly registered enterprises *www.statice.is/Statistics/Enterprises-and-turnover/Enterprises*

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

Country	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*
Portugal	*Source:* Statistics Portugal. Monthly data. New registrations of Legal Persons and Equivalent Entities registered by the Ministry of Justice – Directorate General for Justice Policy *www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=153385788&PUBLICACOESmodo=2*
Russian Federation	*Source:* Federal State Statistics Service. New registrations. *www.gks.ru/bgd/regl/b13_01/IssWWW.exe/Stg/d10/2-3-2.htm*
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:* Swedish Agency for Growth Policy Analysis . Quarterly data Number of newly established companies *www.tillvaxtanalys.se/sv/statistik/nystartade-foretag/nystartade-foretag/2013-10-04-nystartade-foretag-andra-kvartalet-2013.html*
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, regardles whether it is 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**

Countries	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/*
Belgium	*Source:* Statistics Belgium Monthly data. Bankruptcy statistics The figures are derived by Statistics Belgium based on the declarations of commercial courts and supplemented if necessary by information from the enterprise register of Statistics Belgium. All activities are taken into account. *http://statbel.fgov.be*

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

Countries	Sources and definitions of bankruptcies
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*
Chile	*Source:* Quiebras Publicadas en el Diario Oficial. Monthly data. Bankruptcy statistics. The figures are based on court decisions. All activities are taken into account. *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*
Finland	*Source:* Statistics Finland Monthly data. Bankruptcies The data cover bankruptcy cases referring to business enterprises and corporations instigated and decided by district courts. All activities are taken into account. *www.stat.fi*
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*
Germany	*Source:* Destatis Monthly data. Insolvencies The data cover businesses and formerly self-employed persons. All activities are taken into account. *www.destatis.de*
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*
Netherlands	*Source:* Centraal Bureau voor de Statistiek (CBS) – Registre d'entreprises. Quarterly data. *http://statline.cbs.nl*

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

Countries	Sources and definitions of bankruptcies
South Africa	*Source:* Statistics South Africa. Monthly data. Liquidation statistics: Liquidation refers to the winding-up of the affairs of a company or close corporation when liabilities exceed assest and it can be resolved by voluntary action or by an order of the court.
Spain	*Source:* Instituto Nacional de Estadistica de Espana (INE) – The Mercantile Companies (MC).for Monthly data. Companies Central Directory (CCD). For Annual data Number of exits. 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*
Sweden	*Source:* Swedish Agency for Growth Policy Analysis. Monthly data. Bankruptcy statistics. Data cover corporate bankruptcies, including sole traders, ruled by district courts. All activities are taken into account. *www.tillvaxtanalys.se*
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*
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*

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

Category of determinants	Definition	Data sources
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*
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*

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

Category of determinants	Definition	Data sources
	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*

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

Category of determinants	Definition	Data sources
Immigration		
Inflows of foreign labour	Inflows of foreign workers as a percentage of the total labor force.	OECD International Migration Outlook
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; international comparisons, however, 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 the language; 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 specialized form of private equity, characterized 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 potentials.

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

<table>
<tr><th></th><th></th><th>EVCA</th><th>NVCA</th><th>PwC Money Tree – Israel</th><th>ABS - Australia</th><th>CVCA</th><th>VEC</th><th>KVCA</th><th>NZVCA</th><th>RVCA</th><th>SAVCA</th><th>OECD</th></tr>
<tr><td rowspan="6">Private equity</td><td rowspan="4">Venture capital</td><td></td><td></td><td></td><td>Pre-seed</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Pre-seed/ Seed</td></tr>
<tr><td>Seed</td><td>Seed</td><td rowspan="2">Seed/Start-up</td><td>Seed</td><td>Seed</td><td>Seed</td><td>Early stage</td><td rowspan="2">Seed/Start-up</td><td rowspan="2">Seed/Start-up</td><td>Seed</td><td></td></tr>
<tr><td>Start-up</td><td rowspan="2">Early stage</td><td rowspan="2">Start-up</td><td>Start-up</td><td>Early stage</td><td rowspan="3">Expansion stage</td><td rowspan="2">Start-up and early stage</td><td>Start-up/ Other early stage</td></tr>
<tr><td>Other early stage</td><td>Early stage/ Expansion stage</td><td>Other early stage</td><td>Expansion</td><td>Early stage Expansion</td><td rowspan="2">Other early stages</td></tr>
<tr><td>Later-stage venture</td><td>Expansion/ Later stage</td><td>Later Stage</td><td>Early expansion</td><td>Expansion</td><td>Later</td><td>Expansion</td><td></td><td>Later stage venture</td></tr>
<tr><td>Other Private Equity</td><td>Growth/ Rescue/ Turnaround Replacement, Buyout</td><td>Buy-outs and mezzanine capital</td><td></td><td>Late Expansion, Turnaround, LBO/MBO/MBI</td><td>Acquisition/ Buyout, Turnaround, Other stage</td><td></td><td>Later stage</td><td>Turnaround
Mid-market PE, Buyout PE</td><td>Expansion
Restructuring
Later stage</td><td>Expansion and development
Replacement, Buyout</td><td>Other Private Equity</td></tr>
</table>

Note: CVCA includes "Expansion" in "Other Private Equity". NZVCA includes "Turnaround" in "Venture capital".

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 contatct to 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 cooperation 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 responses). 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 completed with information from interviews with Russian PE&VC industry experts and open sources. In 2012, the review of data covered more than 180 funds. RVCA considers that the total figures collected adequately reflect the Russian market trends.
SAVCA	Survey of PE industry participants, conducted by KPMG and SAVCA. 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. In 2012, the survey obtained 95 responses representing 102 funds; information from 15 additional PE firms representing 15 funds was added drawing from alternative sources. KPMG and SAVCA estimate that the survey represents in excess of 90% of the South African Private Equity industry by funds under management.
VEC	Survey of VC investors identified by VEC.

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