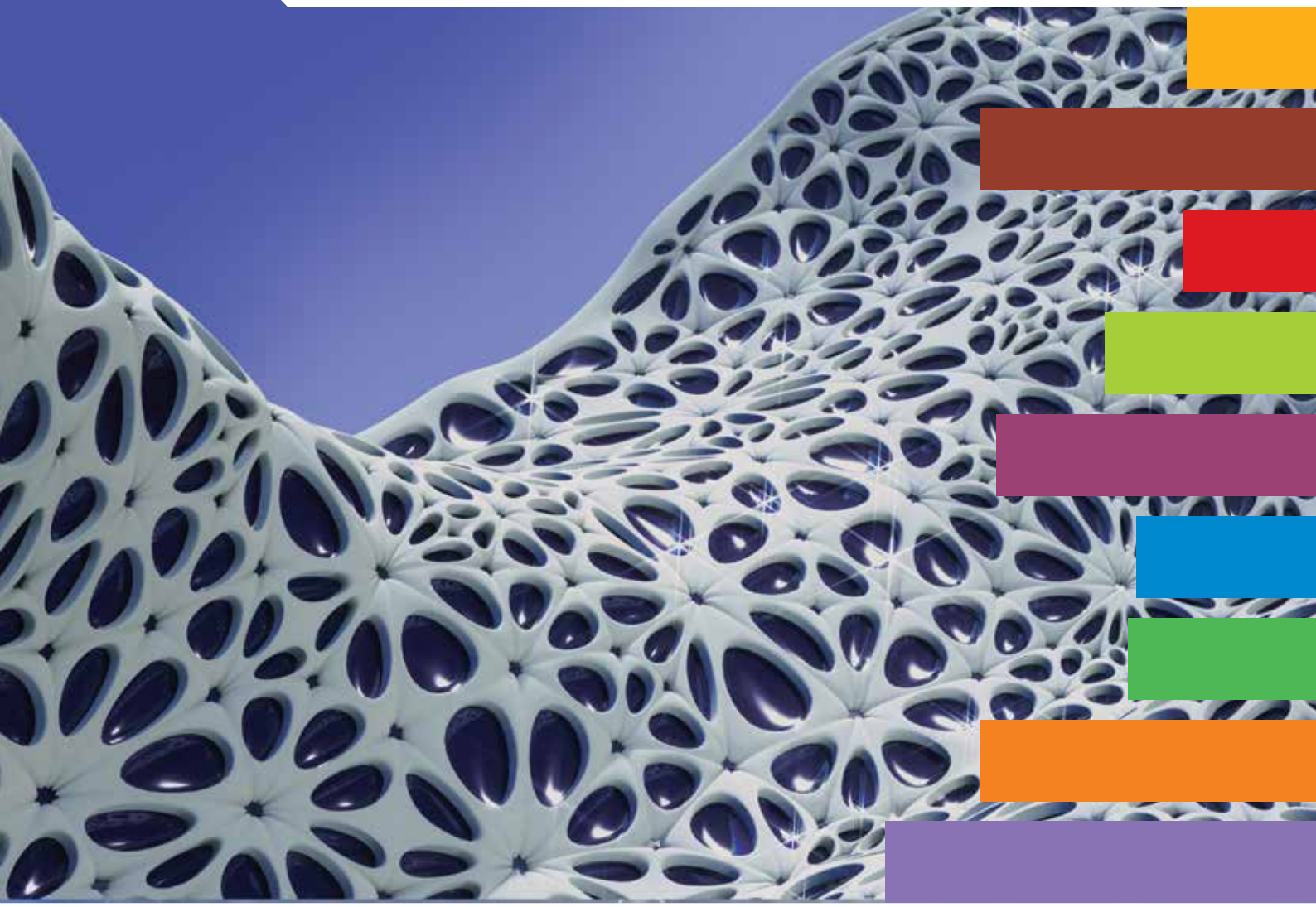
Entrepreneurship at a Glance 2015



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Entrepreneurship at a Glance 2015

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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, was the first attempt to compile and publish international data on entrepreneurship from official government statistical sources. From the outset a key feature in the development of these indicators has been to minimise compilation costs for national statistical offices and also, critically, reporting burdens on business, which is why 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 highlighted the need for more timely information on the situation of small businesses. To that purpose, Entrepreneurship at a Glance *henceforth features an opening section on recent trends in entrepreneurship, discussing new data on firm creations, bankruptcies and self-employment. Also, the publication presents time series for the main indicators, to provide a temporal perspective and breakdowns by sector, to illustrate the diversity of patterns.*

The publication was prepared by Gueram Sargsyan and Liliana Suchodolska, Frédéric Parrot, Pavlína Habartová, Mario Piacentini, Camille Urvoy and Belén Zinni in the OECD Statistics Directorate. Mariarosa Lunati provided guidance and co-ordinated the publication, which benefited from advice and comments from Nadim Ahmad.

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Executive summary

Entrepreneurship at a Glance contains a wide range of internationally comparable measures of entrepreneurship designed to inform analysis and policy on entrepreneurship and entrepreneurs, reflecting their important contribution to innovation, employment and growth.

Start-up rates have been on an upward trend since the crisis in many countries, particularly in Australia and the United Kingdom, and more recently in Denmark, Portugal and Sweden. In many Euro area economies, start-up rates nonetheless remain below pre-crisis levels.

Bankruptcies have been trending downwards in most countries in recent years, with rates in Canada, Japan, the United States and South Africa significantly below pre-crisis levels.

More than half of start-ups fail within the first five years, with rates of surviving firms varying from less than one in five firms in Lithuania to about two-thirds in Sweden. In Austria, Belgium, Luxembourg, the Netherlands and Sweden, the survival rates of start-ups are consistently higher than in other countries, independently from the birth year.

Average employment in newly born enterprises typically ranges between two and three persons employed. The size of start-ups is significantly higher in the United States, where new enterprises employ on average more than seven persons.

Young enterprises (under three years) account for between 4% and 12% of total employment in most countries. The contribution of young enterprises to total employment decreased in 2012 compared to 2008, with the notable exceptions of Latvia where shares almost doubled. Despite the relatively high probability of failure, one-year-old firms in most countries generate more employment than new firms, and two-year-old firms have relatively similar shares, reflecting employment growth in surviving firms.

While few in number, fast-growing firms employ a considerable number of persons. In 2012, 36 000 high-growth enterprises in the United States employed more than 8 million persons. 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, with higher shares (between 5% and 15%) when measured on a turnover basis.

In all countries, high-growth firms are more prevalent in the services sector than in the rest of the business economy, apart from Brazil, Canada, Latvia and New Zealand where the highest percentage of high-growth firms is in the construction sector.

Venture capital investments were higher in 2014 than in 2007 in very few countries, including Hungary, Korea, the United States, the Russian Federation and South Africa. In

the majority of countries, the average investment per company has declined compared to the pre-crisis level. In Israel and the United States however, it is well above the 2007 average. Generally, venture capital provides a financing option in less than 0.1% of firms, predominantly during their start-up phase. Significant cross-country differences exist in the type of companies likely to receive venture capital investments. In 2014, in the United States, nearly half of all investments were in computer and consumer electronics firms, over double the rate in Europe, where around one-third of all investments went to life sciences companies.

The number of manufacturing firms across all size classes declined between 2008 and 2012 in most OECD countries. In those countries in which the number of small and medium-sized enterprises (SMEs) increased, this was accompanied by falls in the number of large enterprises, suggesting that some of the increase in SMEs may have occurred as a result of lay-offs in (previously) large firms. Also, employment in manufacturing decreased in virtually all countries apart from Germany and Brazil.

Firm size matters for productivity. Larger firms are on average more productive than smaller ones, particularly in the manufacturing sector, partly reflecting gains from increasing returns to scale, for instance through capital-intensive production. But some smaller firms often outperform larger ones, pointing to competitive advantages in niche, high-brand or high-intellectual property content activities. This may be partly explained by intensive use of affordable information and communication technologies (ICT), particularly if the firms are part of a multinational group. Higher productivity levels in smaller-sized enterprises also point to firm growth dynamics, by which more productive firms expand and displace lower productivity firms.

In all countries, micro and small firms are responsible for a limited share of total exports and imports even if they represent the majority of trading enterprises. SMEs tend to export disproportionally more to neighbouring countries than large firms do, but in many OECD countries SME contribution to trade with emerging economies, notably China and India, is nevertheless significant.

In 2013, rates of male employers were two and a half times those of women employers in OECD countries. Self-employed women earned between 10% and 60% less than men across all countries, even though, over the period 2006 to 2011, the gap closed significantly (more than 10 percentage points) in some, notably in Belgium, Finland, Greece, Iceland, Luxembourg and the Netherlands.

A positive perception of entrepreneurship seems to coincide with a voluntary attitude towards entrepreneurship in a country. Yet, the economic context interferes with individual aspirations. In 2014, perceived entrepreneurial opportunities were relatively high in the United States, Canada, Norway, Denmark and Mexico, as well as Brazil and Indonesia. In several Southern European countries, Greece, Spain and Portugal in particular, the perceived entrepreneurial capabilities were instead significantly higher than the perceived opportunities. In Japan and, to a lesser extent Korea, both perceived opportunities and perceived capabilities were especially low compared to other OECD countries, but similar to the low levels observed in the past in these two countries.

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 conceptual framework that distinguishes between the manifestation of entrepreneurship, the factors that influence it, and the impacts of entrepreneurship on the economy. A defining characteristic of the programme is that it does not provide a single composite measure of overall entrepreneurship within an economy. Rather, recognising its multi-faceted nature, the programme revolves around a suite of **indicators of entrepreneurial performance** that each provide insights into one or more of these facets. Perhaps most importantly is the recognition within the programme that entrepreneurship is not only about start-ups or the numbers of self-employed for example: 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 or the self-employed.

The indicators of entrepreneurial performance, computed by National Statistical Offices, are presented for the following countries: Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, the Czech Republic, Denmark, Estonia, Finland, France, Hungary, Germany, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Romania, the Russian Federation, 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 this 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 how it is defined, together with an overview of the policy context. Additional commentary is also provided on the comparability of the indicator across countries.

Indicators

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

A) New enterprise creations

B) Bankruptcies

C) Self-employment

D) Enterprises by size

E) Employment by enterprise size
F) Value added by enterprise size
G) Turnover by enterprise size
H) Compensation of employees by enterprise size
I) Labour productivity 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) Employment creation and destruction by employer enterprise births and deaths
O) Employment creation and destruction in surviving enterprises
P) High-growth enterprises rate
Q) Concentration of trade
R) Exports and imports by enterprise size
S) Trade with emerging economies
T) Exports and imports by enterprise ownership
U) Gender differences in self-employment rates
V) Self-employment among the youth
W) Earnings from self-employment
X) Access to finance: Venture capital
Y) Access to market: Trade barriers
Z) Culture: Entrepreneurial perceptions and attitudes

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. The source of indicator C is the *OECD Main Economic Indicators (MEI) Database*.

For indicators D to P the source is the *OECD Structural and Demographic Business Statistics (SDBS) Database*. Indicators D to I refer to Structural Business Statistics, while indicators J to P consist of Business Demography statistics, generally computed from business registers. Indicators Q to T originate from the *OECD Trade by Enterprise Characteristics* (TEC) *Database*. SDBS and TEC data are collected annually via harmonised questionnaires completed by National Statistical Offices.

The indicators on self-employment come from Labour Force Surveys and Census Population data (indicators U and V) and Surveys on Income (indicators W).

The remaining indicators X, Y and Z represent a selection of determinants of entrepreneurship. The data sources for each indicator are described in more detail in the relevant sections.

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

Data are presented according to the International Standard Industrial Classification of all economic activities (ISIC), Revision 4. Total Business Economy covers: Mining and quarrying (05-09), Manufacturing (10-33), Electricity, gas, steam and air conditioning supply (35), Water supply, sewerage, waste management and remediation activities (36-39), Construction (41-43) and Services. The latter include: Wholesale and retail trade, repair of motor vehicles and motorcycles (45-47), Transportation and storage (49-53); Accommodation and food service activities (55-56), Information and communication (58-63), Financial and insurance activities (64-66), Real estate activities (68), Professional, scientific and technical activities (69-75), Administrative and support service activities (77-82).

However, for Structural Business Statistics (Chapter 2), the entire section of financial and insurance activities (64-68) is excluded from Services, except for Canada and Korea; for Business Demography (Chapters 3 and 4), activities of holding companies (642), are excluded from financial and insurance activities, with the exception of Israel and Korea and the United States.

In Chapters 3 to 5, the aggregate Industry is used and includes sectors 05 to 39. Also, Total Economy in Chapter 5 covers all sectors of ISIC Revision 4, from 01 to 99 (from agriculture to activities of extraterritorial organisations).

The original data for Canada are received in NAICS 2012 at the level of 2-digit sectors or higher, while data for Mexico are obtained in NAICS 2007 at 6-digit level. The data are then converted into ISIC Rev. 4. Data for Chile, Turkey, the United States (prior to 2012), Colombia and the Russian Federation are compiled according to ISIC Rev. 3. Data for Austria, New Zealand and Slovenia are compiled according to ISIC Rev. 4. For other countries data after 2007 are compiled in ISIC Rev. 4 and data for 2007 and before are compiled in ISIC Rev. 3.

Australian data refer to the fiscal year of 1st July to 30th June, and New Zealand data refer to the fiscal year of 1st April to 31 March.

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

New enterprise creations

Key facts

- In most countries, with the exception of Germany, Italy and Finland, new enterprise creations have been on an upward trend since the height of the crisis, particularly in Australia and the United Kingdom, and in Denmark, Portugal and Sweden in more recent periods. In many Euro area economies new creations remain, however, below pre-crisis levels.
- In France levels of new creations continue to be boosted by legislation supporting auto-entrepreneurs introduced in 2009.

Relevance

To analyse the impacts of economic cycles on new firm creation, policy makers and analysts need up-to-date data. The short-term indicators presented in this section are an attempt to respond to this need.

Definitions

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

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

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

An *enterprise creation* refers to the emergence of a new production unit. This can be either due to a real birth of the unit, or creations by mergers, break-ups, split-offs or through the re-activation of dormant enterprises.

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*).

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, this may mean that certain legal forms of enterprises (e.g. sole proprietors), sectors of activity (e.g. agriculture or education) or enterprises below a certain turnover or employment threshold may not be covered. For example, data for Australia exclude non-incorporated companies; data for Spain exclude natural persons and sole proprietors; and data for the United States only refer to establishments with employees.

The concept of enterprise "creation" reflected in the data series differs 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.

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

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

Source

OECD Timely Indicators of Entrepreneurship (TIE) Database.

Further reading

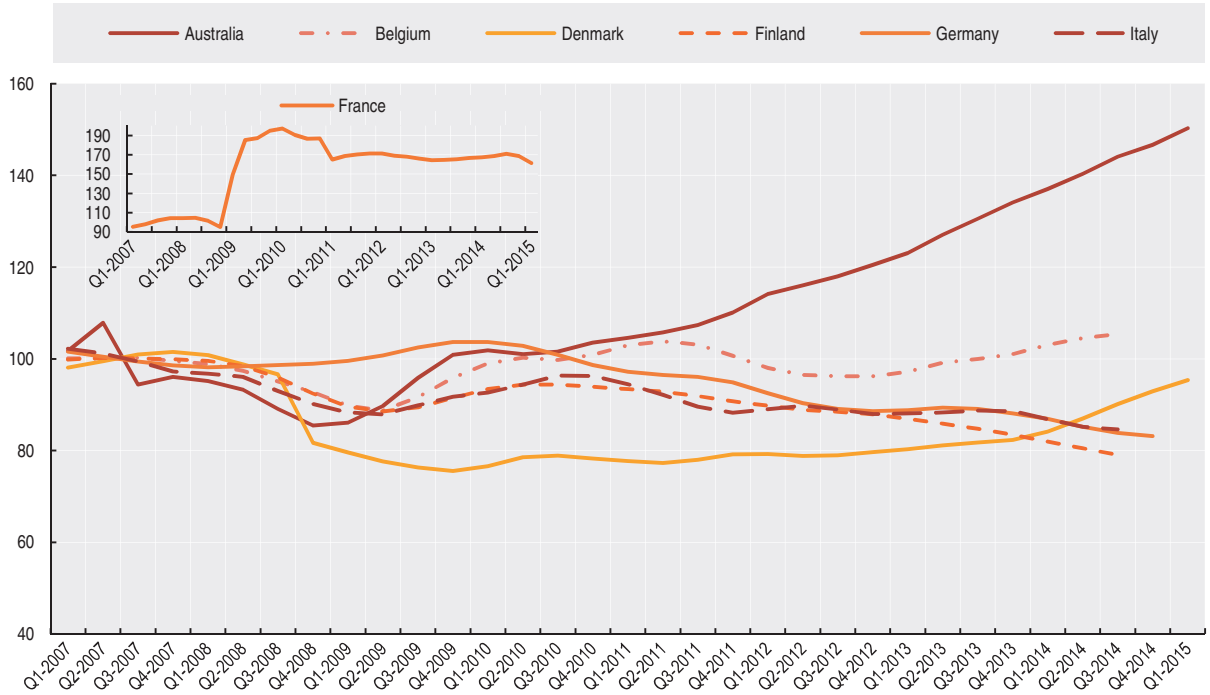
Eurostat (2010), Estimation of recent business demography data, DOC.06/EN/EUROSTAT/G2/BD/JUN10.

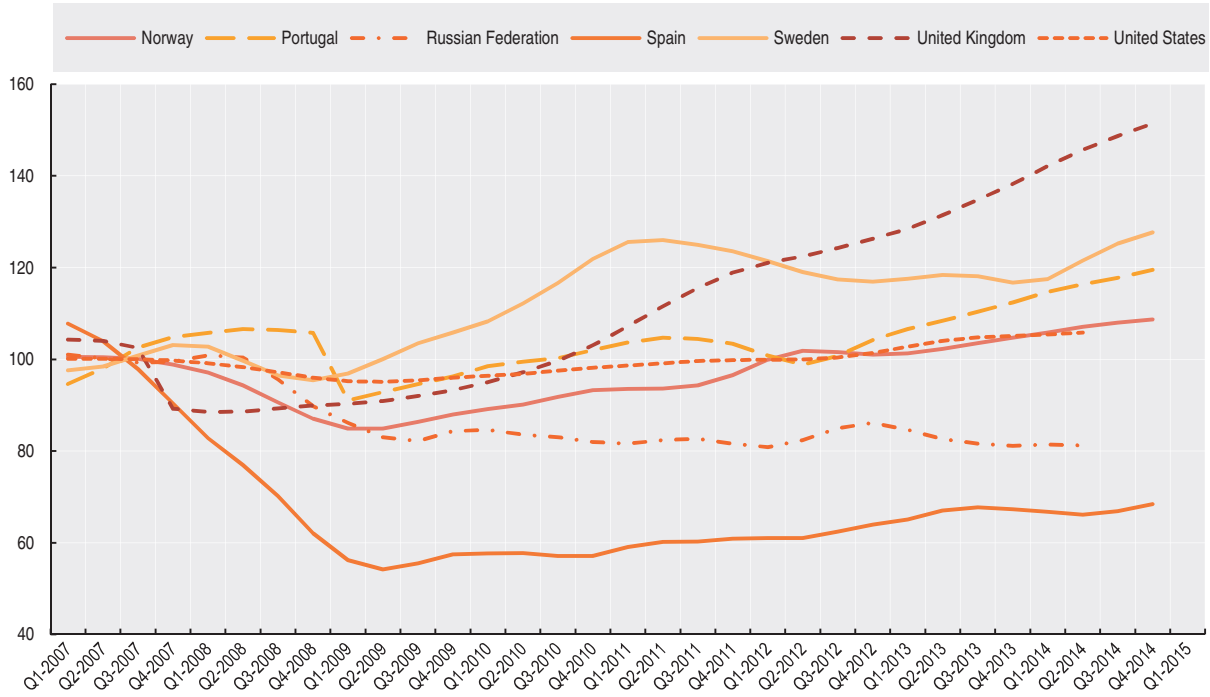
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15, *http://www.oecd.org/std/46413155.pdf*.

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, 2007 = 100





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Bankruptcies

Key facts

- Bankruptcies in most countries have been trending downwards in recent years, with rates in Canada, Japan, the United States and South Africa significantly below pre-crisis levels.
- Post-crisis bankruptcies increased significantly in Italy but the most recent data indicate that a corner may have been turned.

Relevance

To analyse the impacts of economic cycles on new firm creation and also on failures, policy makers and analysts need up-to-date data. The short-term indicators presented in this section respond to this need.

Definitions

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

Bankruptcy is used as an approximation for the enterprise deaths measure recorded elsewhere in this publication, and is based on the legal and institutional frameworks in place. A key difference in this regard with the enterprise death measure is that a "bankrupt" firm may continue to operate.

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

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*).

Comparability

Data on bankruptcies are affected by national legislation.

The concept of enterprise "failure" reflected in the data on bankruptcies 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. In addition, some bankrupt firms may eventually recover, a possibility excluded in the enterprise death concept. 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. Finally, firms close for different reasons, and not all do so through bankruptcy procedures.

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.

Source

OECD Timely Indicators of Entrepreneurship (TIE) Database.

Further reading

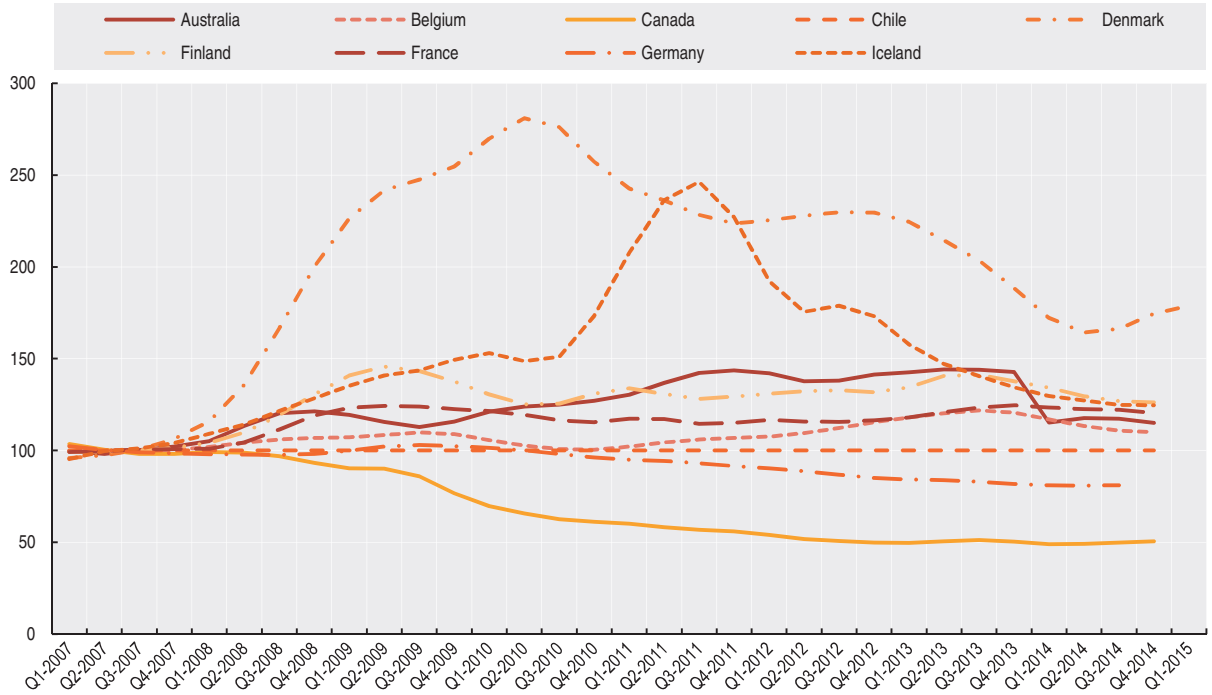
Eurostat (2010), Estimation of recent business demography data, DOC.06/EN/EUROSTAT/G2/BD/JUN10.

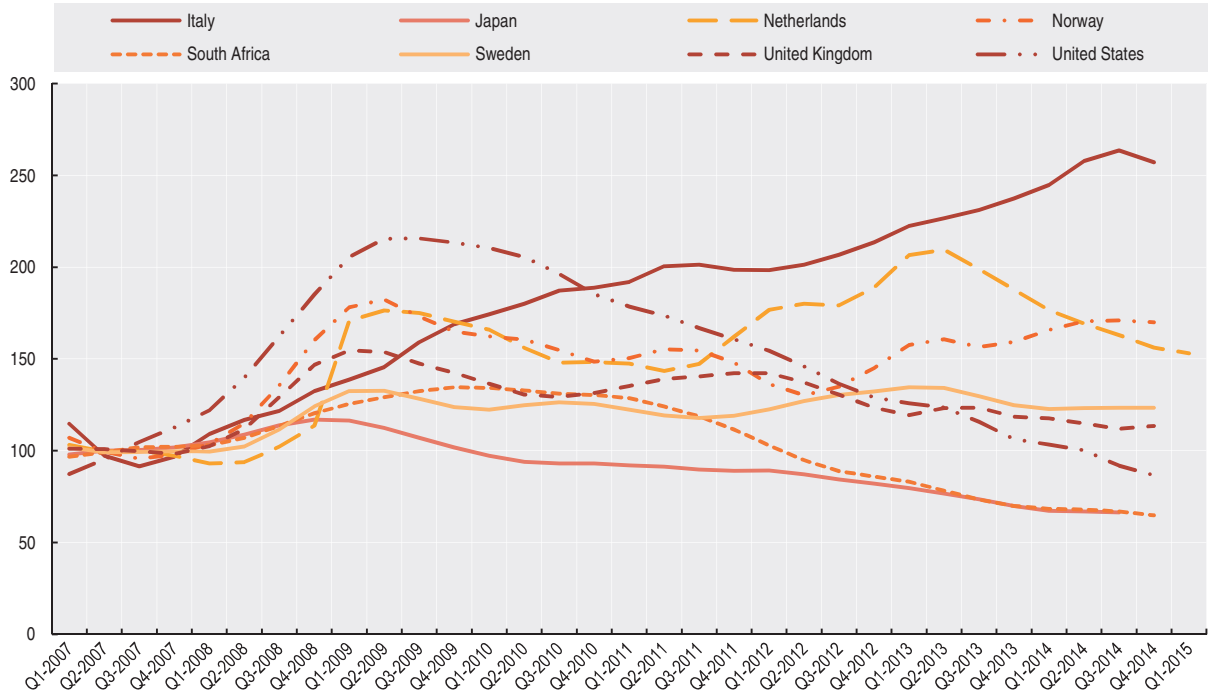
OECD (2010), "Measuring Entrepreneurship", *OECD Statistics Brief*, No. 15, *http://www.oecd.org/std/46413155.pdf*.

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, 2007 = 100





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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, Germany, Italy, Korea, Japan, Poland and the United States, self-employment levels remain below their pre-crisis levels, particularly in Japan. Employment levels overall were less adversely affected by the crisis, resulting in self-employment rates also remaining below pre-crisis levels. The most recent data however point to self-employment levels levelling off in most countries but continuing to fall in Japan.
- Self-employment levels in Spain and Greece remain significantly below pre-crisis levels but have begun to pick up slightly in recent periods and have outperformed overall employment levels in general, indicating that many of these jobs may be less about entrepreneurialism 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.

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.

Relevance

Self-employment can be an important driver of entrepreneurialism.

Comparability

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

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 or subsistence type activities.

Source

OECD estimates based on OECD *Main Economic Indicators* (database), *http://dx.doi.org/10.1787/mei-data-en*.

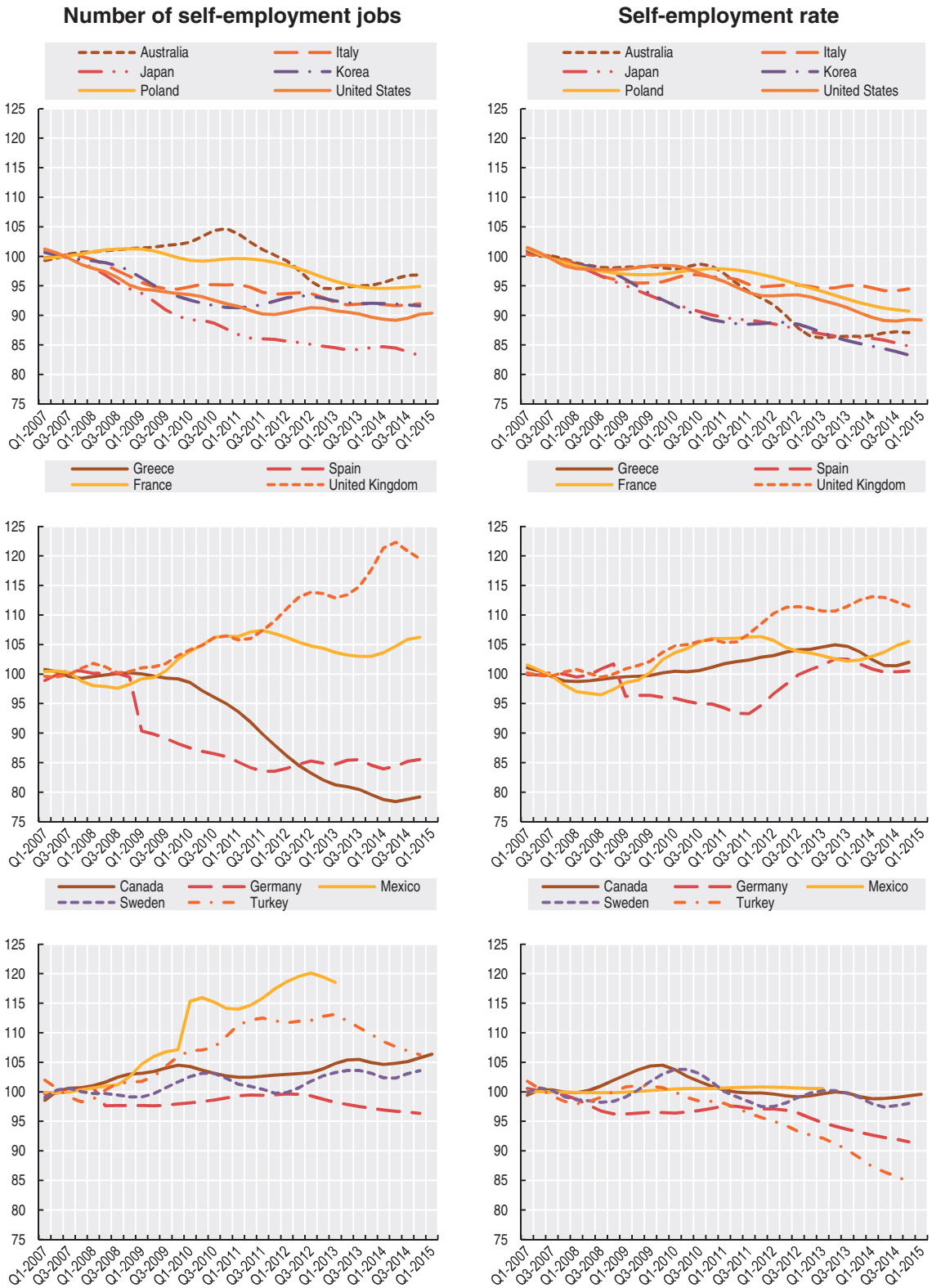
Further reading

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

OECD (2000), *OECD Employment Outlook 2000*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/empl_outlook-2000-en*.

Figure 1.3. **Self-employment jobs**

Trend-cycle, 2007 = 100



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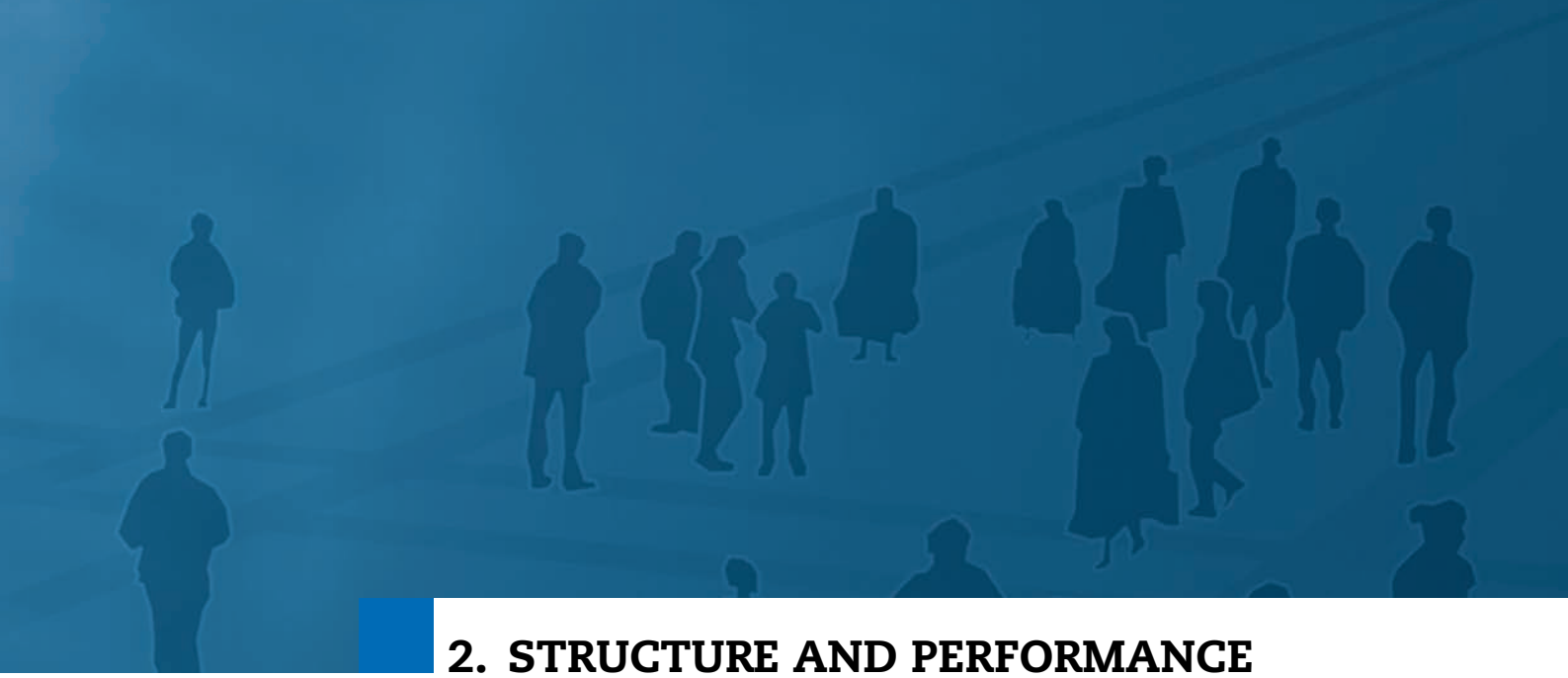

2. STRUCTURE AND PERFORMANCE OF THE ENTERPRISE POPULATION

Enterprises by size

Employment by enterprise size

Value added by enterprise size

Turnover by enterprise size

Compensation of employees by enterprise size

Productivity by enterprise size

Enterprises by size

Key facts

- In all countries between 70% and 95% of all firms are micro-enterprises, i.e. firms with less than ten persons employed. Moreover, among micro-enterprises a very large share consists of non-employer firms, i.e. enterprises with no employees.
- The highest proportion of micro-enterprises is typically found in the services sector.
- Generally, the larger the economy the greater the number of enterprises and the higher the proportion of larger enterprises. In Europe, Italy and 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.
- The population of manufacturing firms across all size classes declined between 2008 and 2012 in most OECD countries, and in those OECD countries where the population of SMEs increased, this was accompanied by falls in the population of large enterprises, suggesting that some of the increase in SMEs may have occurred as a result of lay-offs in (previously) large firms.

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.

In this publication, micro-enterprises are defined as firms with 1-9 persons employed; small enterprises: 10-49; medium enterprises: 50-249; and large enterprises: 250 and more. The group of small and medium-sized enterprises (SMEs) refers to the size class 1-249.

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

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).

The size-class breakdown 1-9, 10-19, 20-49, 50-249, 250+ provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions: the size class "1-9" refers to "1-10" for Mexico and "1-19" for Australia and Turkey; the size class "10-19" refers to "11-20" for Mexico; the size class "20-49" refers to "20-199" for Australia, "21-50" for Mexico and "20-99" for the United States (for 2011 data and earlier); the size class "50-249" refers to "50+" for Japan, "50-299" for Korea, "51-250" for Mexico and "100-499" for the United States (for 2011 data and earlier); finally, the size class "250+" refers to "200+" for Australia, "300+" for Korea, "251+" for Mexico and "500+" for the United States (for 2011 data and earlier).

For Canada and the United States and the Russian Federation data do not include non-employer enterprise counts. For the United Kingdom, in Table 2.1 and Figure 2.2 the total population of enterprises excludes 750 000 non-employer enterprises, for which the sector of activity is unknown.

In Figure 2.3 two data sources are used, Structural Business Statistics and Business Demography datasets.

Sources

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

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/industry/business-stats/38516035.pdf*.

Figure 2.1. **Number of enterprises by size, total business economy**

Percentage, 2012, or latest available year

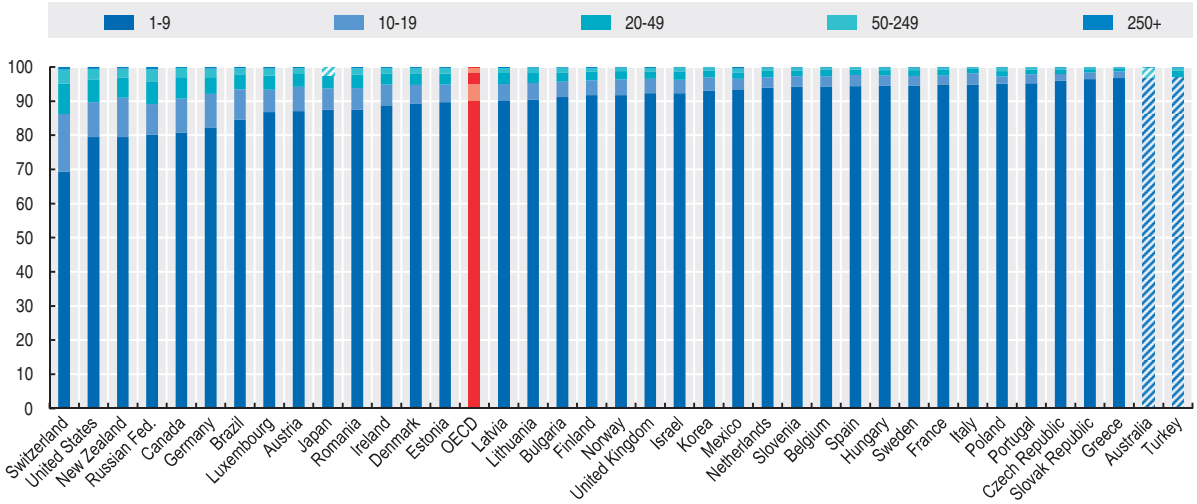

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Table 2.1. **Number of enterprises by size, by main sector**

2012, or latest available year

	Manufacturing					Services					Construction				
Country	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	113 436			6 694	590	955 015			28 412	1 821	309 292			4 544	208
Austria	17 946	2 962	2 161	1 469	465	219 294	15 196	7 356	2 971	482	26 068	3 493	1 933	609	71
Belgium	27 809	2 502	2 110	1 237	314	410 032	11 755	6 605	2 298	448	90 683	2 835	1 487	489	55
Brazil	201 505	52 199	35 146	17 890	3 905	2 222 818	192 737	79 923	27 227	5 959	65 794	16 205	12 033	7 376	1 499
Bulgaria	22 171	2 936	2 558	1 753	297	241 417	9 251	4 795	1 782	241	16 076	1 493	952	503	44
Canada	30 530	7 440	6 320	3 440	370	445 090	54 960	34 110	14 180	1 420	116 770	10 840	5 860	2 040	140
Czech Rep.	161 421	4 674	3 963	3 052	779	615 421	11 786	6 460	2 761	502	170 519	2 873	1 730	614	63
Denmark	11 077	1 917	1 403	928	199	145 634	7 531	4 544	2 096	383	28 009	1 834	1 107	313	37
Estonia	4 338	578	539	415	57	39 802	1 825	1 026	461	76	7 542	507	238	79	10
Finland	17 813	1 696	1 290	843	206	145 884	5 992	3 274	1 421	343	39 712	1 873	915	244	37
France	186 839	13 302	10 300	5 934	1 489	1 986 456	46 818	29 809	11 905	2 367	487 684	15 645	7 272	1 956	308
Germany	126 525	40 686	15 854	16 436	4 162	1 436 032	139 640	77 270	34 340	5 898	225 978	33 700	10 839	3 252	233
Greece	61 022	1 677	1 184	587	112	549 683	10 903	4 576	1 711	264	84 552	1 542	592	175	13
Hungary	42 326	3 209	2 237	1 645	381	391 363	10 558	4 579	1 963	343	57 060	2 042	885	271	26
Ireland	2 163	656	578	471	130	99 071	7 447	3 662	1 914	288	26 966	556	428	122	8
Israel	19 516	1 912	1 424	1 038	191	293 722	10 990	6 781	3 065	572	48 444	2 453	1 116	289	20
Italy	345 292	41 803	20 329	8 635	1 247	2 692 270	64 697	22 269	8 528	1 622	548 709	17 085	5 302	1 237	79
Japan	329 498	43 907	35 125	25 600		1 935 993	112 742	69 496	40 995		411 778	35 694	15 756	4 971	
Korea	296 483	32 012	21 778	9 434	687	2 215 464	61 099	29 375	13 309	1 345	96 725	12 373	5 533	2 280	242
Latvia	7 103	751	629	443	55	67 618	3 105	1 674	710	103	6 767	606	402	212	12
Lithuania	12 313	1 086	927	693	114	94 696	4 613	2 486	1 030	133	18 378	911	611	310	32
Luxembourg	507	107	101	82	25	22 264	1 347	739	364	96	2 422	444	340	143	16
Mexico	472 340	13 852	8 160	6 075	2 718	437 147	16 312	9 559	4 623	1 428	3 224	827	532	292	99
Netherlands	44 682	3 563	2 779	1 967	328	628 172	18 901	11 185	5 505	1 000	128 273	3 409	1 958	827	122
New Zealand	8 028	1 793	1 195	578	111	56 587	8 277	4 062	1 805	328	15 968	1 537	738	237	23
Norway	14 330	1 357	1 069	631	117	189 207	8 585	4 207	1 729	381	48 568	2 528	1 251	372	44
Poland	151 845	7 836	7 313	6 201	1 505	1 041 374	18 416	12 065	6 384	1 169	223 733	5 003	3 211	1 609	175
Portugal	57 217	5 678	3 902	2 009	247	607 139	11 674	5 496	2 149	410	83 216	3 507	1 511	510	53
Romania	32 102	5 242	4 753	3 151	756	296 702	17 184	8 834	3 485	567	36 864	4 030	2 489	1 102	122
Russian Fed.	143 210	24 290	23 225	16 071	4 713	1 214 885	122 056	82 501	39 619	4 435	190 118	25 199	20 275	10 192	1 257
Slovak Rep.	62 724	1 492	1 244	947	276	232 303	5 232	1 971	846	192	84 995	755	466	178	18
Slovenia	15 080	931	563	497	111	77 555	2 023	1 040	459	86	17 359	679	247	97	10
Spain	146 712	14 395	9 810	4 248	754	1 757 265	51 333	23 987	9 103	1 742	306 194	9 435	3 995	1 101	147
Sweden	47 895	2 920	2 118	1 340	342	481 672	12 323	7 034	3 131	585	88 207	3 214	1 686	446	45
Switzerland	11 373	3 808	2 691	1 824	401	67 991	14 560	6 685	2 819	530	13 059	3 956	2 238	762	63
Turkey	309 818		17 427	8 067	1 581	1 915 996		22 558	8 471	1 698	131 714		7 315	3 631	387
United Kingdom	94 218	13 191	9 591	6 252	1 347	1 166 887	77 954	38 074	17 674	4 104	239 174	10 882	4 947	1 872	317
United States	231 416	46 509	36 715	22 855	5 342	2 508 118	321 676	203 947	89 385	16 601	506 290	50 013	28 894	11 090	1 206

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Figure 2.2. **Change in number of enterprises, by main sector**

Percentage change between 2008 and 2012

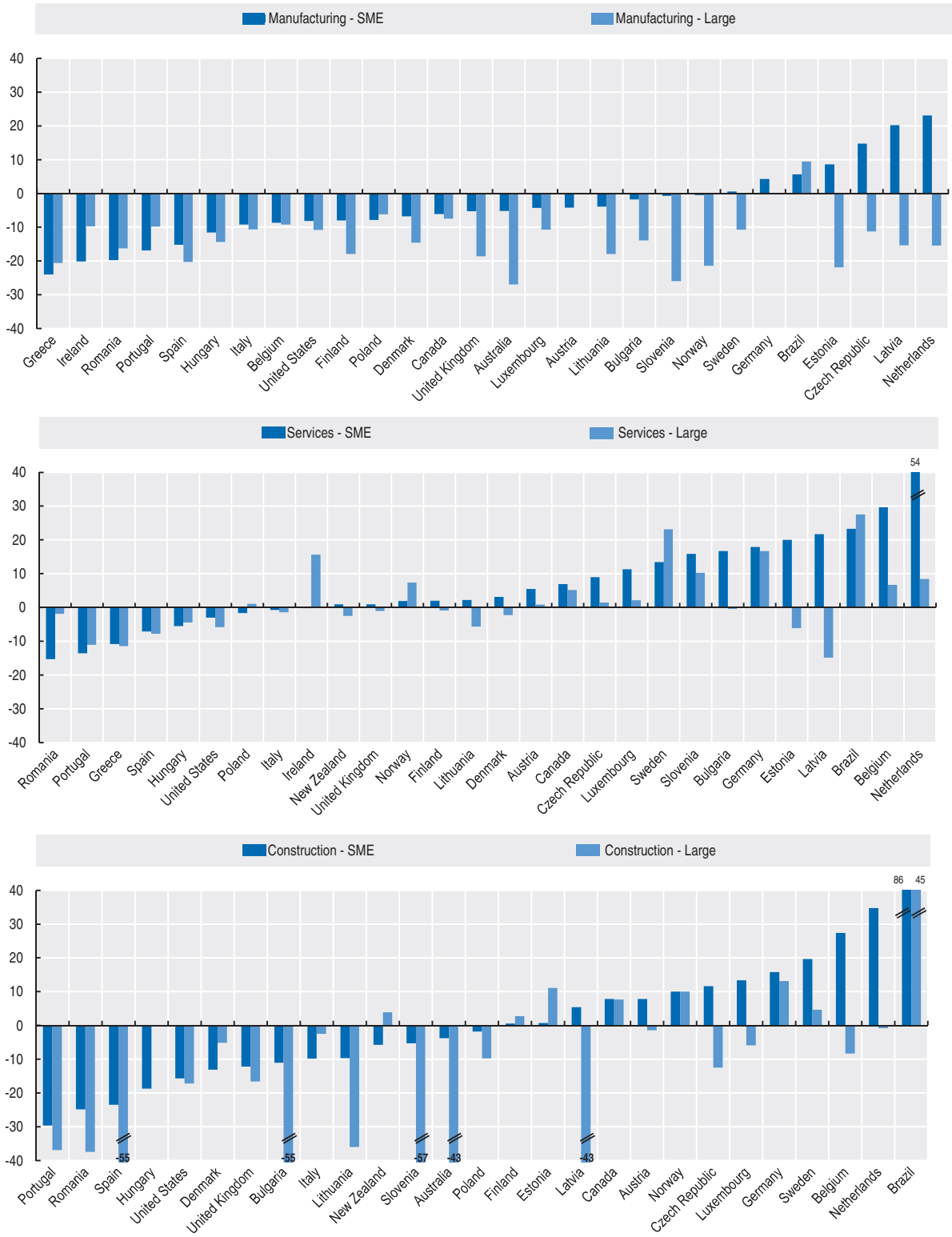

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Figure 2.3. **Non-employers and micro-enterprises**

Percentage of total business population, 2012, or latest available year

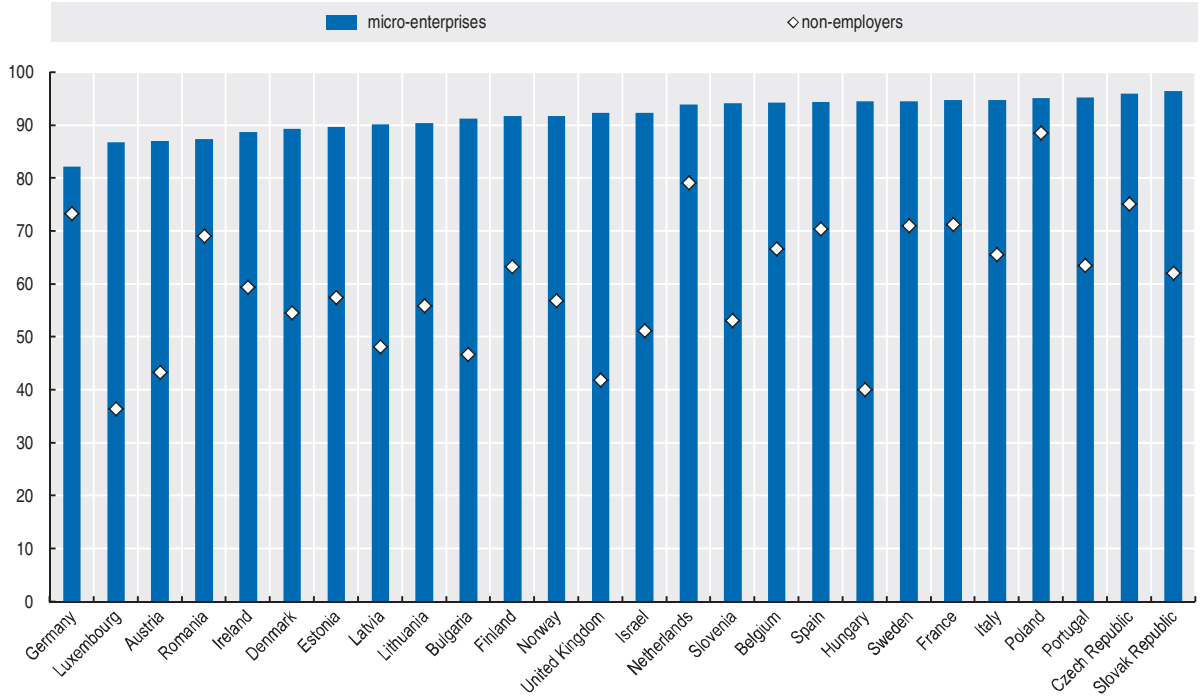

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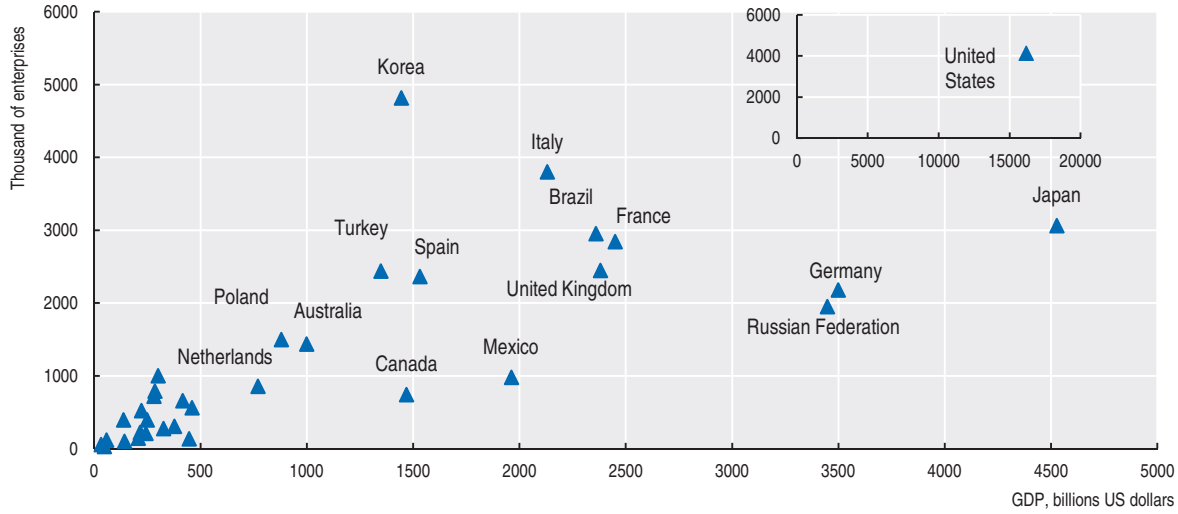
Figure 2.4. **Number of enterprises and GDP**

2012, or latest available year



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Employment by enterprise size

Key facts

- There are significant variations across countries in the distribution of employment among enterprises of different sizes. In Spain, Portugal and Italy more than 40% of employment is in micro-enterprises (enterprises with less than ten persons employed) and almost 60% in Greece, while in Japan this share is around 13%.
- In the OECD area, micro-enterprises account on average for 42% and 32% of total employment in construction and services respectively; in manufacturing their contribution to employment is 14%.
- Employment in manufacturing is dominated by large firms: they employ more than 40% of people working in the sector, despite accounting for less than 1% of all manufacturing firms. Between 2008 and 2012 employment in manufacturing decreased in virtually all countries apart from Germany and Brazil.
- There are significant differences across countries in the shares of unpaid persons employed by micro-enterprises. The highest shares are observed in the Czech Republic, Mexico and the Slovak Republic.

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.

Unpaid persons employed are a subset of persons employed and include unpaid family workers and working proprietors. Figure 2.9 shows the unpaid persons employed in micro-enterprises as a share of total employment in these firms.

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

Relevance

Information on employment by enterprise size is useful in assessing the underlying potential that exists within an economy to generate employment growth.

Comparability

All countries present information using the enterprise as the statistical unit except Japan, Korea and Mexico, which use establishments. Data on number of persons employed for Israel, the United States and Russian Federation do not include non-employer enterprise counts.

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 "0-10" for Mexico and "1-19" for Turkey; the size class "10-19" refers to "11-20" for Mexico; the size class "20-49" refers to "21-50" for Mexico and "20-99" for the United States (for 2011 data and earlier); the size class "50-249" refers to "51-250" for Mexico, "50+" for Japan, "50-299" for Korea, and "100-499" for the United States (for 2011 data and earlier); finally, the size class "250+" refers to "300+" for Korea, "251+" for Mexico and "500+" for the United States (for 2011 data and earlier).

In case of Chile data refer to industry and not manufacturing.

Some care is needed when interpreting changes over time, as the data do not track cohorts of firms. Shrinkages in large firms may lead to them subsequently being recorded as SMEs and correspondingly, expansions in SMEs may result in them being classified as large enterprises.

Source

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

Further reading

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

Figure 2.5. **Persons employed by enterprise size, total business economy**

Percentage, 2012, or latest available year

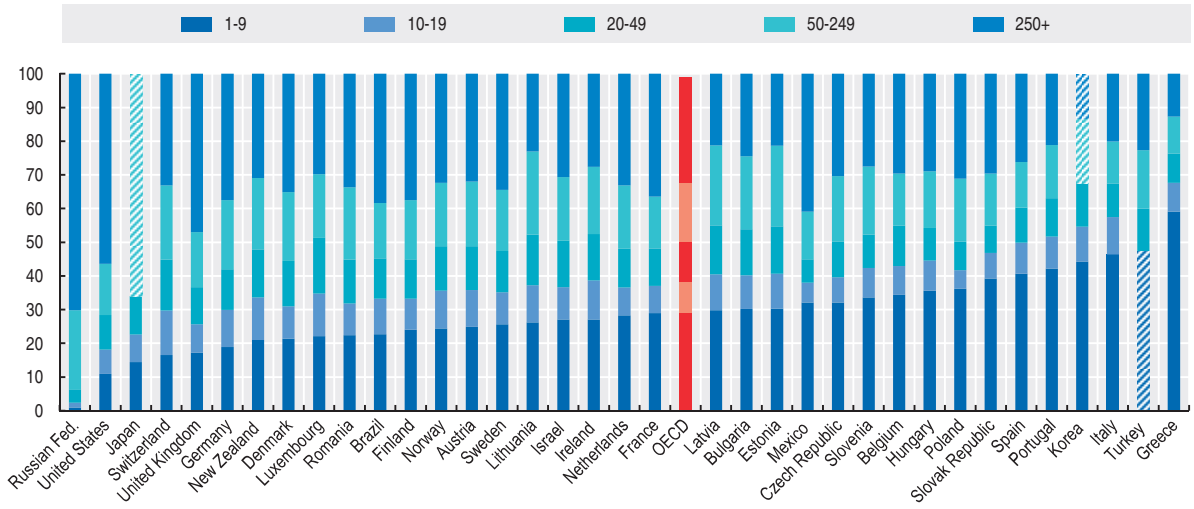

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Table 2.2. **Persons employed by enterprise size, total business economy**

2012, or latest available year

	1-9	10-19	20-49	50-249	250+	Total
Austria	663 955	291 803	346 308	511 654	853 689	2 667 409
Belgium	923 573	228 492	321 111	414 864	794 645	2 682 685
Brazil	7 439 200	3 454 837	3 930 623	5 380 858	12 565 022	32 770 540
Bulgaria	560 700	185 152	254 677	402 916	453 994	1 857 439
Czech Republic	1 125 174	261 322	374 220	678 144	1 061 276	3 500 136
Denmark	340 019	152 880	214 146	326 309	558 110	1 591 464
Estonia	116 507	39 685	54 027	91 894	81 954	384 067
Finland	344 491	131 404	167 351	252 787	536 755	1 432 788
France	4 468 390	1 250 362	1 710 685	2 363 918	5 622 970	15 416 325
Germany	4 991 051	2 890 732	3 193 156	5 401 977	9 888 574	26 365 490
Greece	1 279 201	184 421	188 121	238 195	274 140	2 164 078
Hungary	862 029	213 965	235 539	405 984	699 952	2 417 469
Ireland	279 703	120 023	141 587	206 129	285 313	1 032 755
Israel	539 278	191 120	274 667	376 932	611 831	1 993 828
Italy	6 792 243	1 640 665	1 452 061	1 833 330	2 943 880	14 662 179
Japan	4 549 468	2 598 881	3 596 887	20 858 492		31 603 728
Korea	6 053 143	1 414 906	1 748 833	2 660 476	1 800 533	13 677 891
Latvia	170 730	60 615	83 101	135 841	121 487	571 774
Lithuania	212 409	89 124	121 488	200 302	186 574	809 897
Luxembourg	43 337	24 739	32 243	36 882	58 344	195 545
Mexico	2 287 014	415 830	497 041	1 009 294	2 909 617	7 118 796
Netherlands	1 506 207	441 951	608 481	1 003 678	1 761 505	5 321 822
New Zealand	260 634	155 878	177 688	262 160	383 840	1 240 200
Norway	368 295	169 210	198 566	283 870	488 429	1 508 370
Poland	3 003 819	458 553	695 584	1 550 950	2 583 679	8 292 585
Portugal	1 237 441	278 614	332 587	462 751	619 976	2 931 369
Romania	856 873	361 433	497 432	820 615	1 291 015	3 827 368
Russian Federation	174 390	259 913	686 755	4 274 242	12 687 736	18 083 036
Slovak Republic	542 534	104 990	112 092	213 808	410 094	1 383 518
Slovenia	189 192	49 253	55 696	114 098	155 001	563 240
Spain	4 423 192	1 002 913	1 134 208	1 468 819	2 845 059	10 874 191
Sweden	773 351	284 165	369 272	546 300	1 038 239	3 011 327
Switzerland	428 701	342 545	391 711	571 707	857 088	2 591 752
Turkey		5 008 646	1 327 077	1 825 027	2 394 295	10 555 045
United Kingdom	3 058 287	1 486 827	1 963 222	2 895 240	8 345 973	17 749 549
United States	8 680 054	5 704 757	8 207 838	12 011 018	44 813 688	79 417 355

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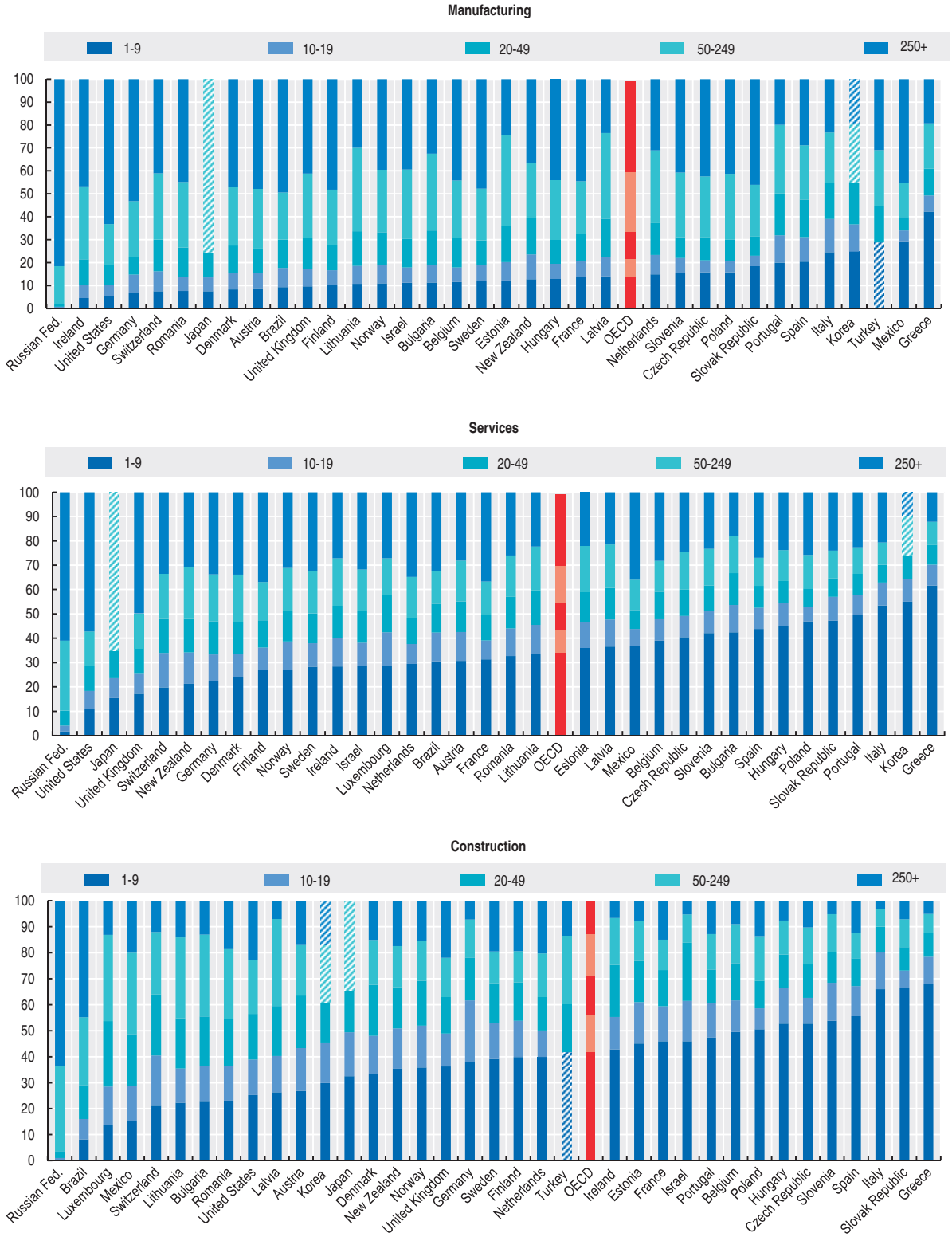
Figure 2.6. **Persons employed by enterprise size, main sectors**

Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230467

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

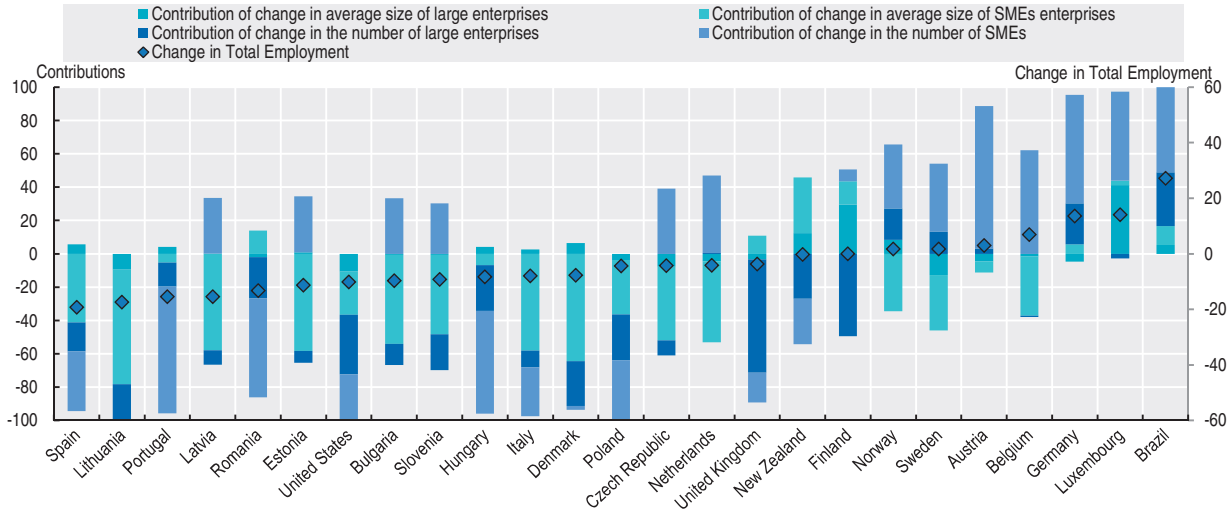
Percentage, 2012, or latest available year

	Manufacturing					Services					Construction				
	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+
Austria	9	7	11	26	48	31	12	13	17	28	27	17	20	19	17
Belgium	12	6	13	25	44	39	9	11	13	28	49	12	14	15	9
Brazil	9	8	12	21	49	30	12	12	13	32	8	8	13	26	45
Bulgaria	11	8	15	33	32	42	11	13	15	18	23	13	19	31	13
Czech Republic	16	5	10	27	42	40	9	11	15	25	53	10	13	14	10
Denmark	8	7	12	26	47	24	10	13	19	34	33	15	20	17	15
Estonia	12	8	16	40	25	36	10	13	19	22	45	16	16	15	8
Finland	10	7	11	24	48	27	9	11	16	37	40	14	15	12	19
France	14	7	12	23	45	31	8	11	14	37	46	13	14	12	15
Germany	7	8	8	24	53	22	11	14	19	34	38	24	17	15	7
Greece	42	7	12	20	19	62	9	8	9	12	68	10	9	7	5
Hungary	13	7	10	26	44	45	9	9	13	24	53	14	13	13	8
Ireland	5	6	11	32	47	28	12	13	19	27	43	12	20	18	7
Israel	11	7	12	30	39	29	10	13	17	32	46	16	22	11	5
Italy	25	15	16	22	23	53	9	7	9	21	66	14	10	7	3
Japan	8	6	11	76		15	8	11	65		32	17	16	34	
Korea	25	12	18	26	20	55	9	10	16	10	30	16	15	22	17
Latvia	14	8	17	37	24	37	11	13	18	22	26	14	19	34	7
Lithuania	11	8	15	36	30	33	12	14	18	22	22	13	19	31	14
Luxembourg						29	14	15	15	27	14	15	25	33	13
Mexico	29	5	6	15	45	37	7	8	12	36	15	13	20	31	20
Netherlands	15	8	14	32	31	29	8	11	17	35	40	10	13	17	20
New Zealand	13	11	16	24	36	21	13	14	21	31	35	15	16	16	17
Norway	11	8	14	27	40	27	12	13	18	31	36	16	17	15	15
Poland	16	5	9	29	41	47	6	8	14	26	51	8	10	17	14
Portugal	20	12	18	30	20	50	8	9	11	23	47	13	13	14	13
Romania	8	6	13	29	45	33	11	13	17	26	23	13	18	27	19
Russian Federation	0	1	1	16	82	2	2	6	29	61	0	1	3	33	64
Slovak Republic	18	5	8	23	46	47	10	8	11	24	66	7	9	11	7
Slovenia	15	7	9	28	41	42	9	10	15	23	54	15	12	15	5
Spain	20	11	16	24	29	44	9	9	12	27	56	12	11	10	13
Sweden	12	7	11	23	48	28	10	12	17	32	39	14	15	12	20
Switzerland	8	9	14	29	41	20	14	14	19	34	21	19	23	24	12
Turkey	29		16	24	31						42		19	26	13
United Kingdom	10	8	14	28	41	17	8	10	14	50	36	13	14	15	22
United States	6	5	9	18	63	11	7	10	14	57	25	14	18	21	23

StatLink http://dx.doi.org/10.1787/888933231408

Figure 2.7. **Change in employment, total business economy**

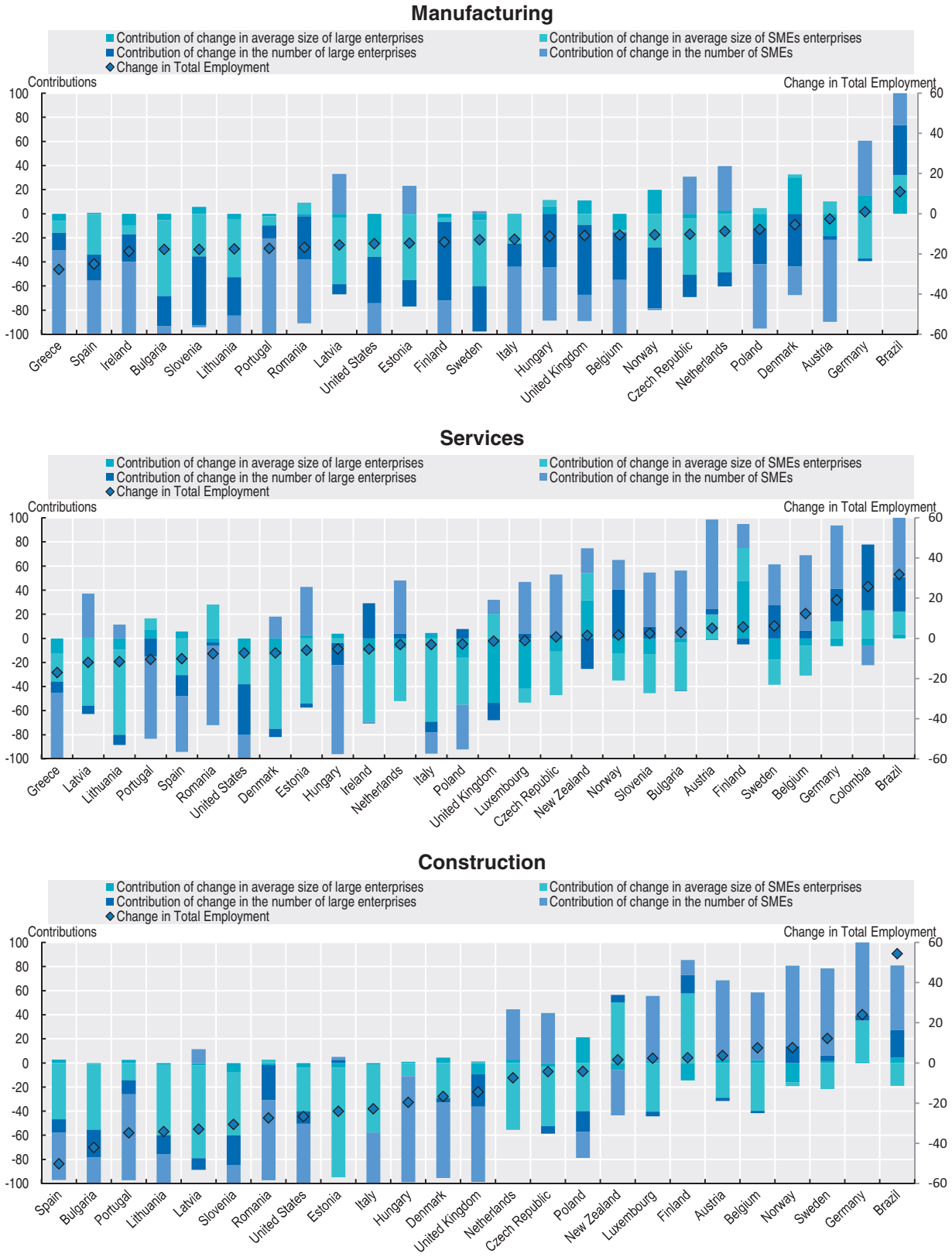
Change between 2008 and 2012



StatLink http://dx.doi.org/10.1787/888933230479

Figure 2.8. **Change in employment, by main sector**

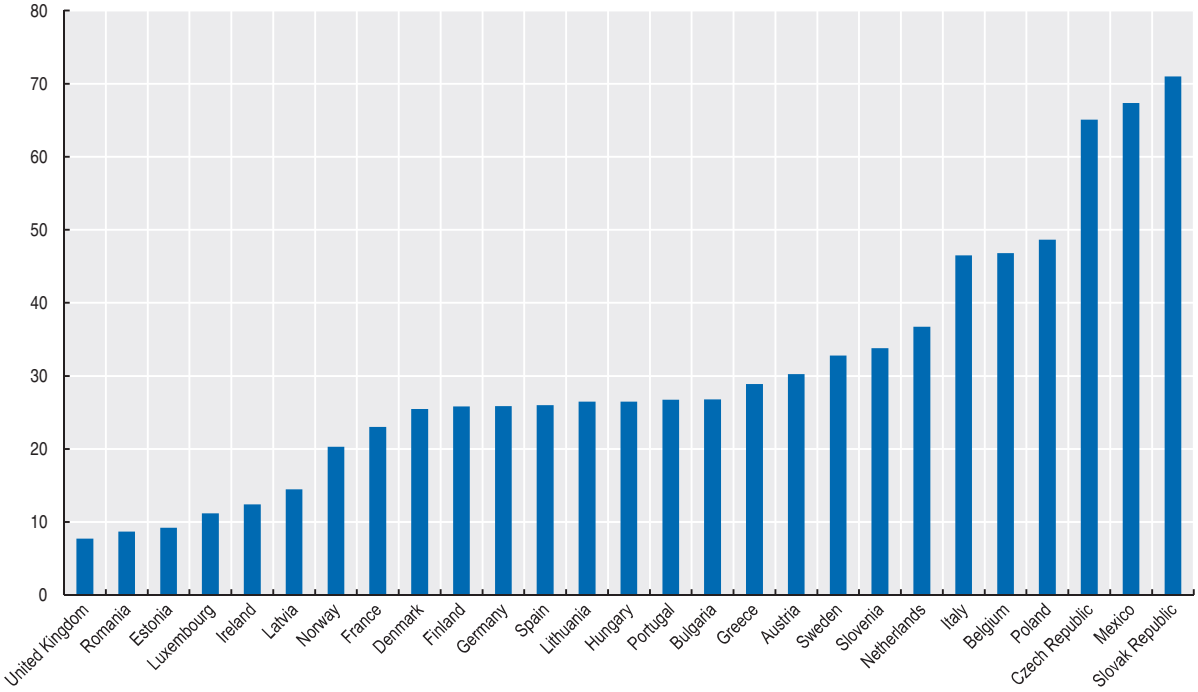
Change between 2008 and 2012



StatLink http://dx.doi.org/10.1787/888933230486

Figure 2.9. **Share of unpaid persons employed in micro-enterprises, manufacturing**

Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230495

Table 2.4. **Number of unpaid persons employed by enterprise size, manufacturing**

2012, or latest available year

	1-9	10-19	20-49	50-249	250+
Austria	16 572	1 741	531	90	21
Belgium	28 409	2 271	1 718	567	45
Bulgaria	16 024	1 662	1 454	1 111	462
Czech Republic	125 575	5 367	5 780	7 844	5 531
Denmark	7 730	1 498	519	148	256
Estonia	1 161	13	16	13	3
Finland	9 521	729	415	127	–
France	95 735	178	53	–	–
Germany	127 301	33 188	6 477	6 146	1 1443
Greece	37 978	1 205	548	248	202
Hungary	23 118	547	1 088	836	309
Ireland	900	447	313	261	5
Italy	439 401	64 251	26 290	9 521	632
Latvia	2 395	83	41	47	72
Lithuania	5 489	150	70	28	–
Luxembourg	152	22	6	–	–
Mexico	787 532	28 883	11 297	2 949	512
Netherlands	37 708	880	207	23	–
Norway	5 175	29	8	1	4
Poland	182 077	7 044	6 645	3 568	282
Portugal	34 524	189	242	236	475
Romania	7 841	116	621	1 105	1 186
Slovak Republic	58 863	339	220	76	11
Slovenia	9 953	140	35	2	–
Spain	95 992	2 574	1 428	835	963
Sweden	25 834	4 9611	5 942	11 289	22 877
United Kingdom	18 557	11 664	11 521	4 488	507

StatLink http://dx.doi.org/10.1787/888933231420

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 despite representing less than 1% of businesses. However, the share of value added created by large enterprises varies significantly across countries, partly reflecting economic size, with almost 70% in Mexico and around 16% in Luxembourg.
- Micro-enterprises typically contribute around 10 to 25% of value added in most economies, with Greece exceeding 35%.
- The construction sector has registered the highest decrease in value added between 2008 and 2012 in most countries.

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 and while smaller enterprises are often drivers of innovation, many micro-enterprises have limited growth potential. Measures of value added broken down by enterprise size 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. Measures of production used below differ by country and are valued at basic prices or factor costs. Factor cost measures exclude other taxes and subsidies on production as defined in the *2008 System of National Accounts*.

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.

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

Comparability

Data refer to value added at factor costs in European countries and value added at basic prices for other countries. The value added estimates presented by size class are based on *Structural Business Statistics* and will not usually align with estimates produced according to the *System of National Accounts*. 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.

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 Japan "50-249" refers to "50+"; 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 "1-9" refers to "1-19".

Data cover the business economy, excluding financial intermediation.

For Chile and Mexico data refer to industry (05-39 of ISIC Rev. 4) and not to manufacturing (10-33 of ISIC Rev. 4). Data of Japan, Korea and Mexico are based on establishments; see "Comparability" under "Enterprises by size" for country-specific information on coverage of non-employer enterprises.

Some care is needed when interpreting changes over time, as the data do not track cohorts of firms. Shrinkages in large firms may lead to them subsequently being recorded as SMEs and correspondingly, expansions in SMEs may result in them being classified as large enterprises.

Source

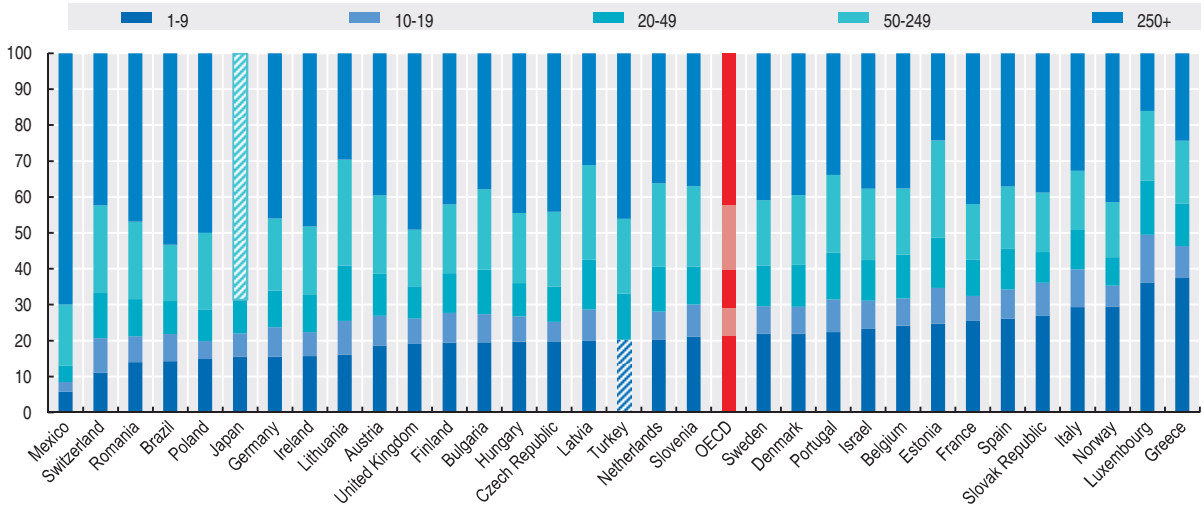
OECD Structural and Demographic Business Statistics (SDBS) (database), *http://dx.doi.org/10.1787/sdbs-data-en*.

Further reading

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

Figure 2.10. **Value added by enterprise size, total business economy**

Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230500

Table 2.5. **Value added by enterprise size, total business economy**

Percentage, 2012, or latest available year

	1-9	10-19	20-49	50-249	250+
Austria	18.52	8.4	11.68	21.9	39.56
Belgium	24.18	7.57	12.20	18.40	37.65
Brazil	14.24	7.59	9.21	15.70	53.26
Bulgaria	19.48	7.91	12.40	22.31	37.89
Czech Republic	19.77	5.42	9.84	20.88	44.09
Denmark	21.96	7.43	11.74	19.38	39.50
Estonia	24.71	9.93	14.01	27.15	24.20
Finland	19.47	8.22	11.10	19.15	42.06
France	25.51	6.97	10.04	15.49	41.99
Germany	15.52	8.22	10.23	20.04	46.00
Greece	37.44	8.95	11.81	17.46	24.33
Hungary	19.66	7.10	9.27	19.53	44.44
Ireland	15.69	6.71	10.28	19.10	48.22
Israel	23.29	7.82	11.33	19.90	37.66
Italy	29.31	10.50	10.98	16.51	32.7
Japan	15.49	6.55	9.39	68.57	
Latvia	20.06	8.66	13.82	26.32	31.13
Lithuania	16.09	9.43	15.35	29.54	29.59
Luxembourg	36.17	13.33	15.01	19.47	16.02
Mexico	5.79	2.65	4.54	17.08	69.95
Netherlands	20.31	7.75	12.52	23.24	36.19
Norway	29.52	5.77	7.94	15.33	41.44
OECD	21.27	7.88	10.46	18.30	42.09
Poland	14.91	4.92	8.87	21.35	49.95
Portugal	22.36	9.12	12.95	21.69	33.87
Romania	14.00	7.22	10.35	21.59	46.85
Slovak Republic	26.98	9.14	8.52	16.57	38.78
Slovenia	21.14	8.88	10.63	22.41	36.94
Spain	26.11	8.12	11.33	17.37	37.07
Sweden	21.93	7.64	11.30	18.21	40.92
Switzerland	11.05	9.59	12.57	24.42	42.37
Turkey	20.22		12.84	20.83	46.11
United Kingdom	19.06	7.0	9.03	15.7	49.13

StatLink http://dx.doi.org/10.1787/888933231420

Turnover by enterprise size

Key facts

- In OECD countries, SMEs account on average for 60% of total turnover. Enterprises in size classes 10-19 and 20-49 account for the smallest share of turnover, 7% and 11% respectively.
- In manufacturing, the turnover per person employed in large firms is considerably higher than the turnover per person employed in any other class of firms, including medium-sized firms (with 50-249 persons employed) in most countries.

Definitions

Turnover is defined as the total value of invoices by the observation unit during the reference period, corresponding to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice and provided by the unit. Rebates and discounts as well as the value of returned packing are deducted from revenues received by the unit in calculating turnover. Income classified as other operating income, financial income and extra-ordinary income in company accounts is excluded. Operating subsidies received from public authorities, or supranational authorities are also excluded.

Turnover in each enterprise size class is expressed as a percentage of the turnover of all enterprises.

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

Relevance

The turnover of firms is one dimension used, alone or in combination with employment, to define size classes of enterprises for policy purposes. These size classes are used to determine, for instance, eligibility for financial assistance or other programmes designed to support small enterprises.

Comparability

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 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 “1-9” refers to “1-19”; for Japan “50-249” refers to “50+”.

Source

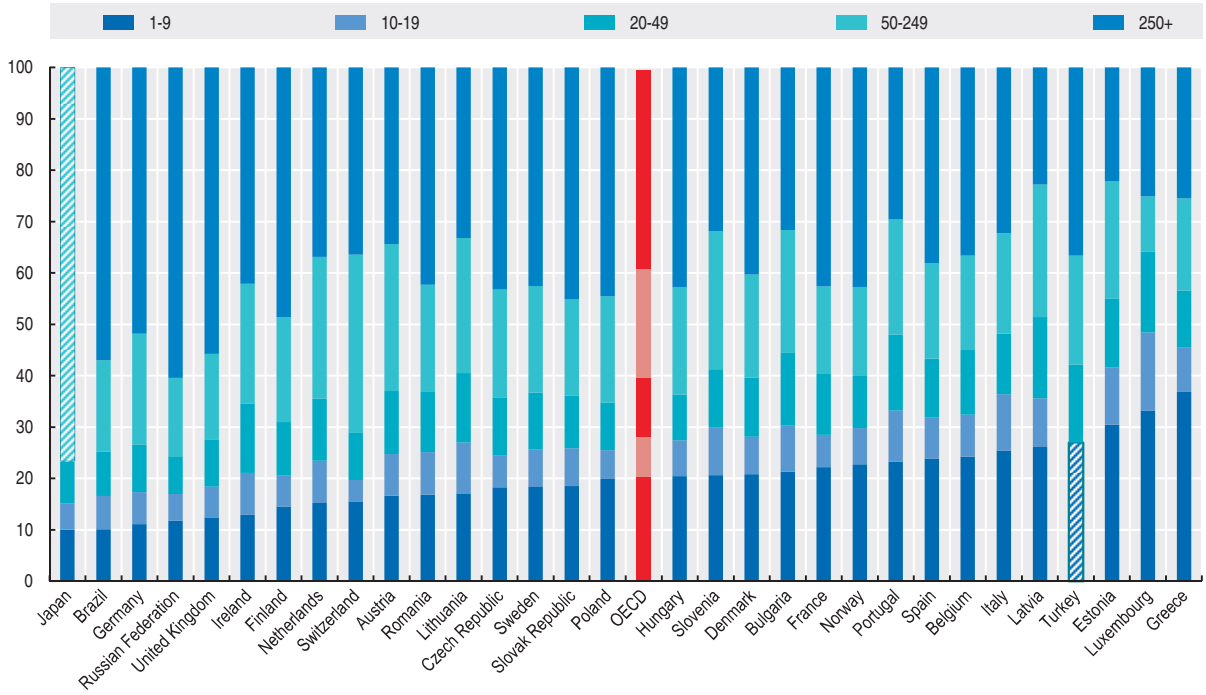
OECD Structural and Demographic Business Statistics (SDBS) (database), *http://dx.doi.org/10.1787/sdbs-data-en*.

Further reading

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

Figure 2.11. **Turnover by enterprise size, total business economy**

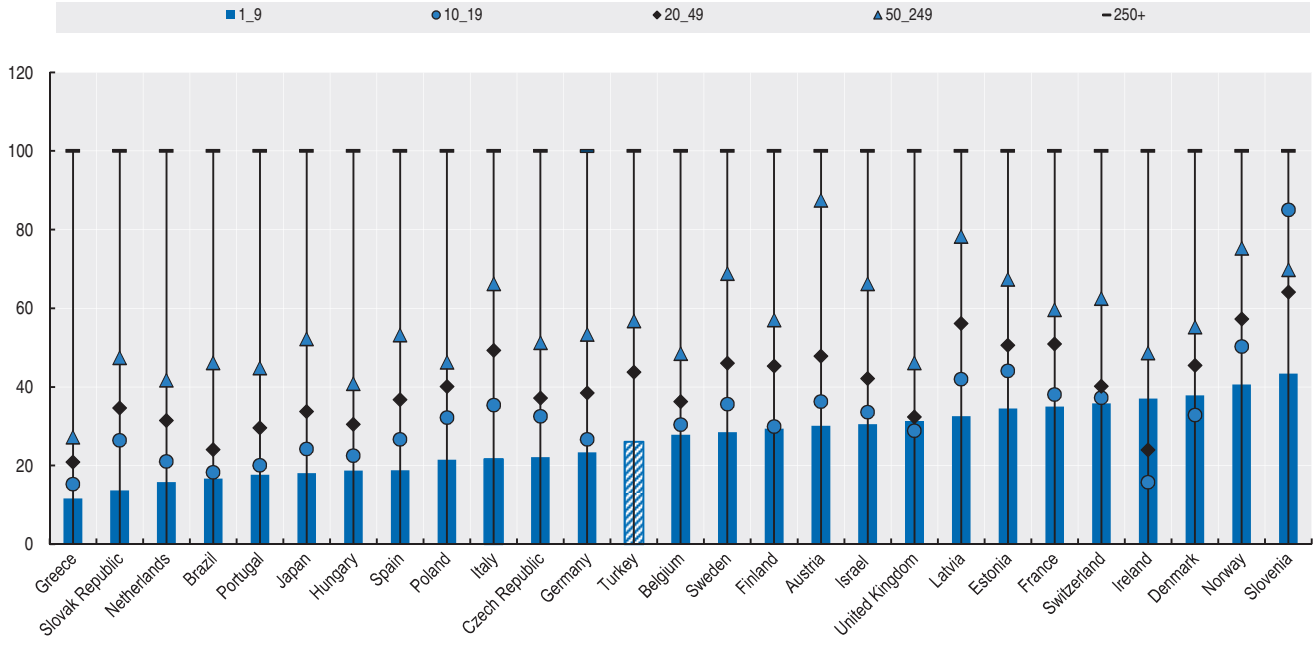
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230542

Figure 2.12. **Turnover per person employed by enterprise size, manufacturing**

Index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230554

Compensation of employees by enterprise size

Key facts

- In most countries compensation of employees is the largest part of value added, particularly in SMEs, which tend to be less capital intensive than larger firms.
- The share of compensation of employees is particularly low in Ireland and Mexico both in large and small firms. In other countries with high foreign ownership or control of supply-chains, such as Hungary, shares are also typically below the OECD average.
- Between 2008 and 2012, shares fell for both small and medium-sized enterprises and large enterprises in several countries, including Denmark, Estonia, Latvia, Lithuania, the Slovak Republic, Switzerland and the United Kingdom.

Definitions

Compensation of employees includes the total remuneration, in cash or in kind, payable to an employee in return for work done by the latter during the reference period. No compensation of employees is payable in respect of unpaid work undertaken voluntarily, including the work done by members of a household within an unincorporated enterprise owned by the same household. Compensation of employees does not include any taxes payable by the employer on the wage and salary. It includes therefore wages and salaries of employees and other employers' social contributions.

Compensation of labour for all persons employed is equivalent to the sum of wages and salaries of all persons employed and other employers' social contributions for employees.

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

Relevance

There has been increased attention in recent years on labour's share of value-added, in particular on the role that increasing/decreasing labour-capital wedges have on inequality.

Comparability

Many SMEs are unincorporated enterprises meaning that the owners of these firms do not pay themselves a salary but instead receive compensation through *mixed income* (as defined in the 2008 *System of National Accounts*), which is a component of *value-added*. This means that estimates that focus only on compensation of employees as share of total value-added are likely to underestimate the relative contribution made by labour to SMEs compared to estimates for larger enterprises. This may help to explain the lower shares for example for Italy and Latvia.

For Mexico data for manufacturing refer to industry (05-39 of ISIC Revision 4). Data for Brazil, Israel and Mexico refer to compensation of all persons employed. Data for Korea and the United States are based on Annual National Accounts data and not on annual business surveys.

Source

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

Further reading

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

Figure 2.13. **Compensation of employees over value added, manufacturing**

Percentage

StatLink http://dx.doi.org/10.1787/888933230566

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 increasing returns to scale, for instance through capital-intensive production. But smaller firms in some manufacturing sectors and countries often outperform larger pointing to competitive advantages in niche, high-brand or high intellectual property content activities.
- Differences in productivity across size classes are relatively smaller in the market services sector. In some countries, medium-sized services firms outperform larger firms. This may be partly explained by intensive use of affordable information and communication technologies (ICT), particularly if the firms are part of an MNE group.
- Higher productivity levels in smaller-sized enterprises also point to firm growth dynamics, by which more productive firms expand and displace lower productivity firms.
- Labour productivity levels in large Irish manufacturing firms are on average significantly higher than in other countries, reflecting in large part the high intellectual property content of output, typically provided by foreign parents.

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

Labour productivity is measured as the current price, gross value added per person employed. For comparison purposes, data are presented as percentage of labour productivity in large firms.

For the definition of "Manufacturing", "Services" and "Construction", see Reader's guide. Note that 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.

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

Comparability

The value added and employment estimates presented by size class are based on *Structural Business Statistics* and will not usually align with estimates produced according to the *System of National Accounts*. 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. For these reasons, in productivity analysis, the preferred measure of labour input is total hours worked rather than employment, but these data are typically not available by size class.

Productivity differences in main aggregate sectors could mask different productivity patterns in more narrowly defined industries. This may partly reflect differences in the value of goods and services produced as well as different intensities in the use of knowledge-based capital. In addition, data gaps due to confidentiality rules in the reporting countries may further hinder international comparability.

Sources

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

OECD National Accounts Statistics (database), *http://dx.doi.org/10.1787/na-data-en*.

OECD Productivity Statistics (database), *http://dx.doi.org/10.1787/pdtvy-data-en*.

Further reading

OECD (2001), *Measuring Productivity – OECD Manual: Measurement of Aggregate and Industry-level Productivity Growth*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264194519-en*.

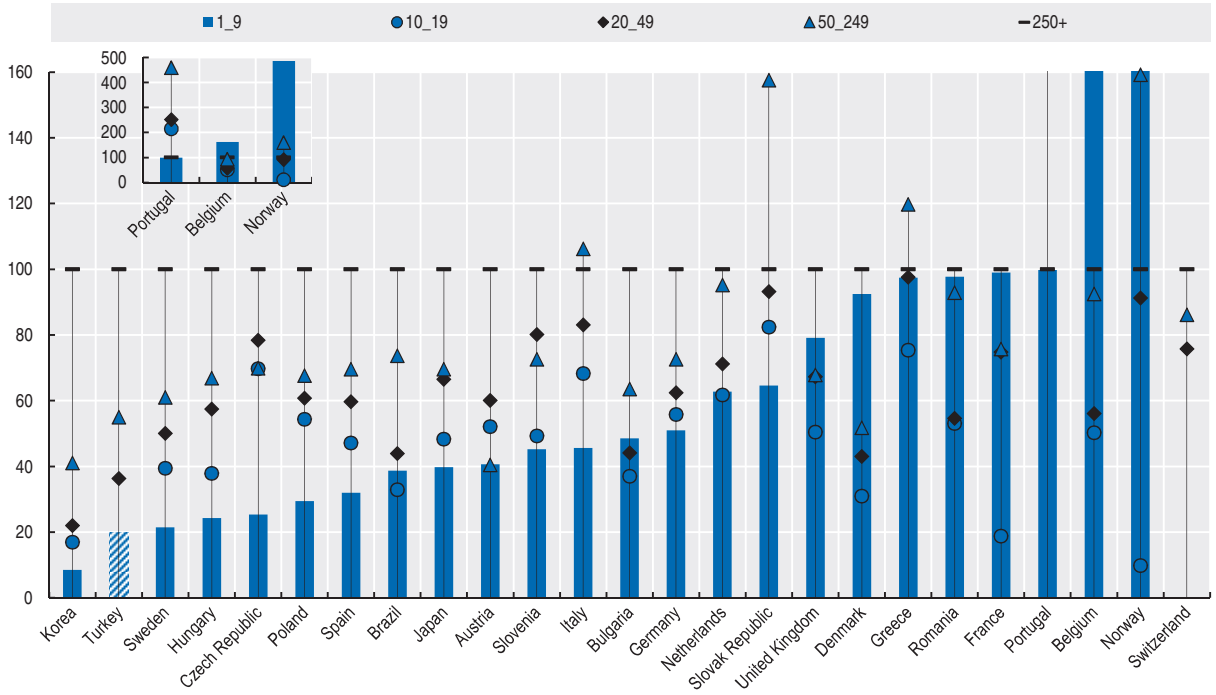
Figure 2.14. **Labour productivity by enterprise size and by main sector**

Value added per person employed, index 250+ = 100, 2012, or latest available year

StatLink http://dx.doi.org/10.1787/888933230576

Figure 2.15. **Labour productivity by enterprise size, manufacture of chemicals and chemical products**

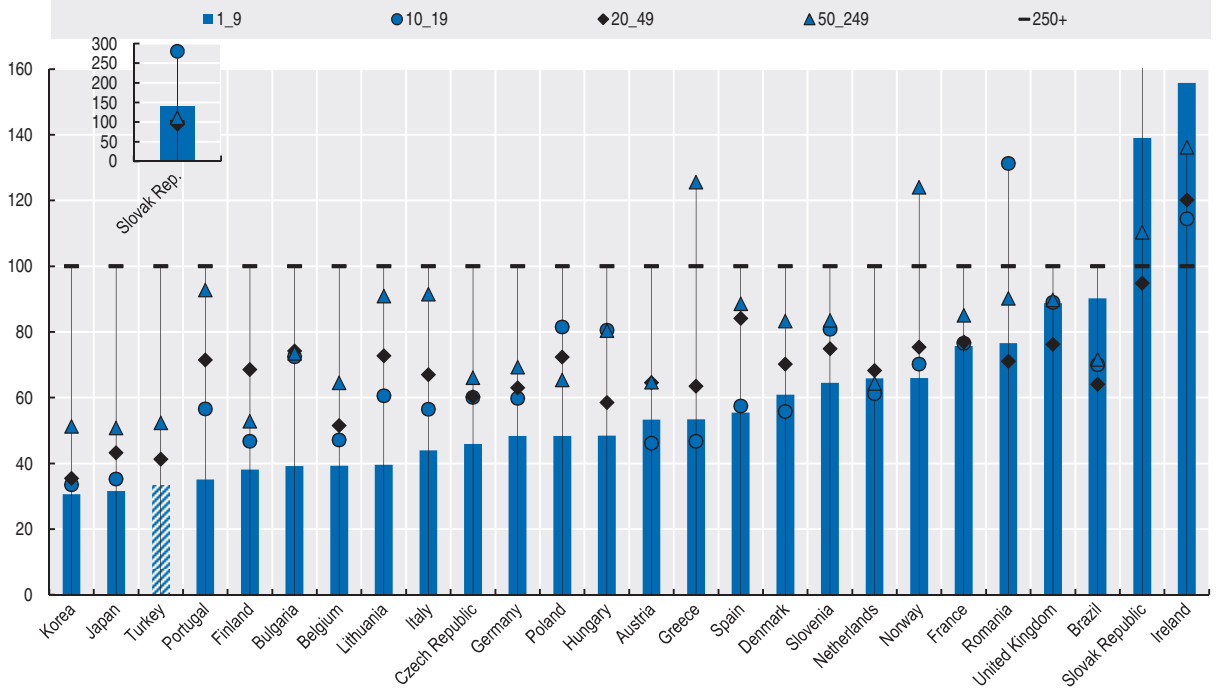
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230584

Figure 2.16. **Labour productivity by enterprise size, manufacture of electrical equipment**

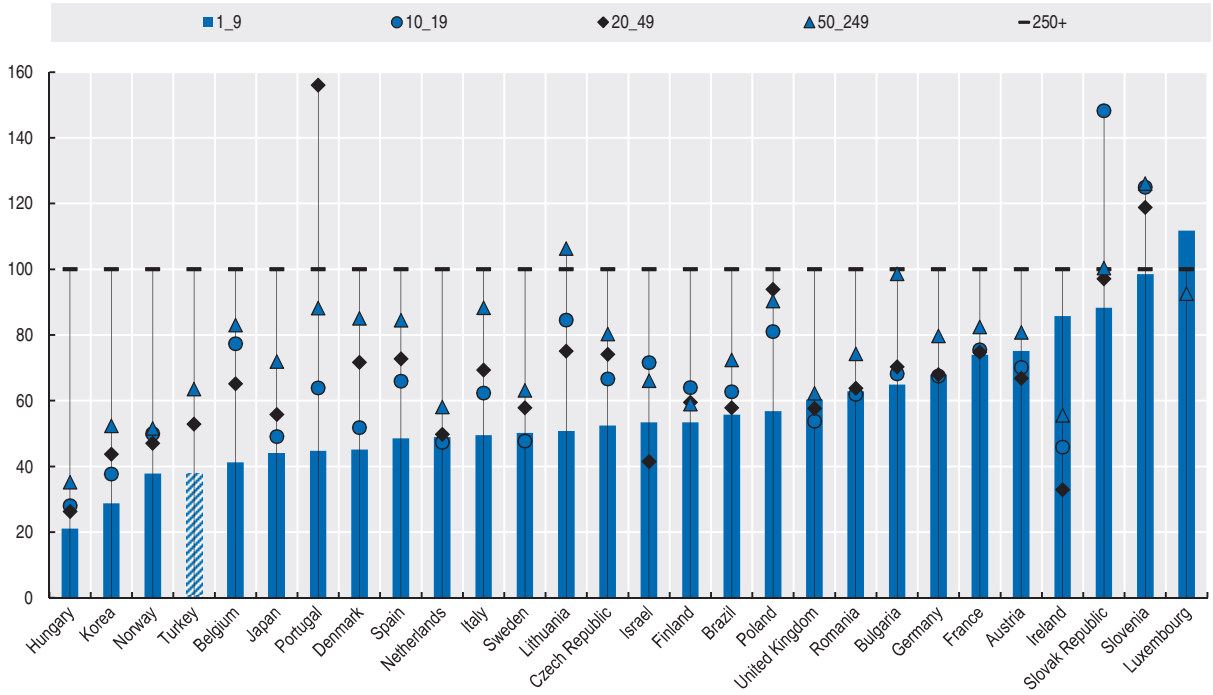
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230598

Figure 2.17. **Labour productivity by enterprise size, manufacture of machinery and equipment n.e.c.**

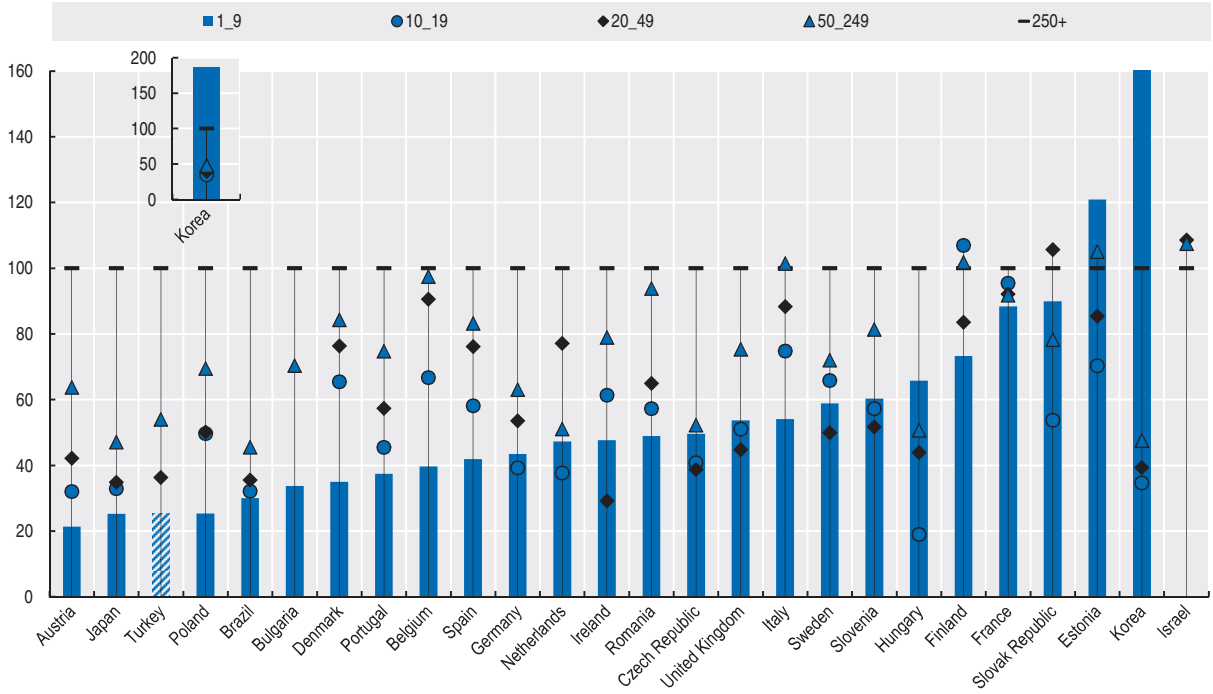
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230609

Figure 2.18. **Labour productivity by enterprise size, manufacture of motor vehicles, trailers and semi-trailers**

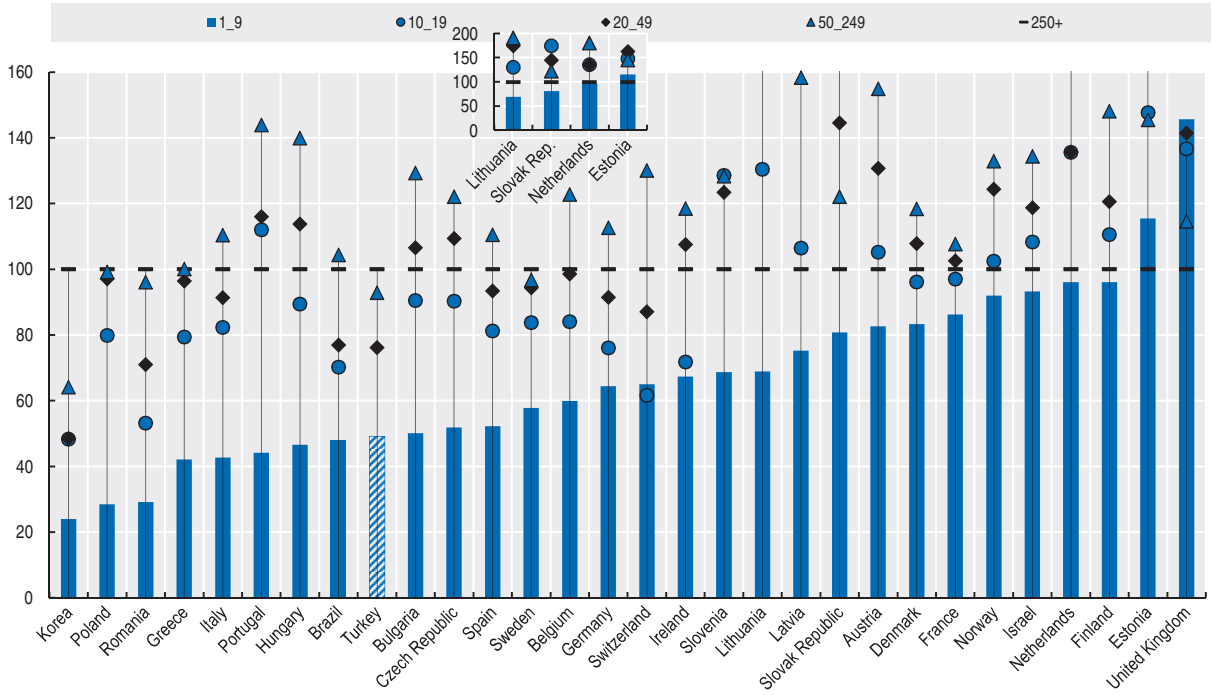
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230613

Figure 2.19. **Labour productivity by enterprise size, wholesale and retail trade; repair of motor vehicles and motorcycles**

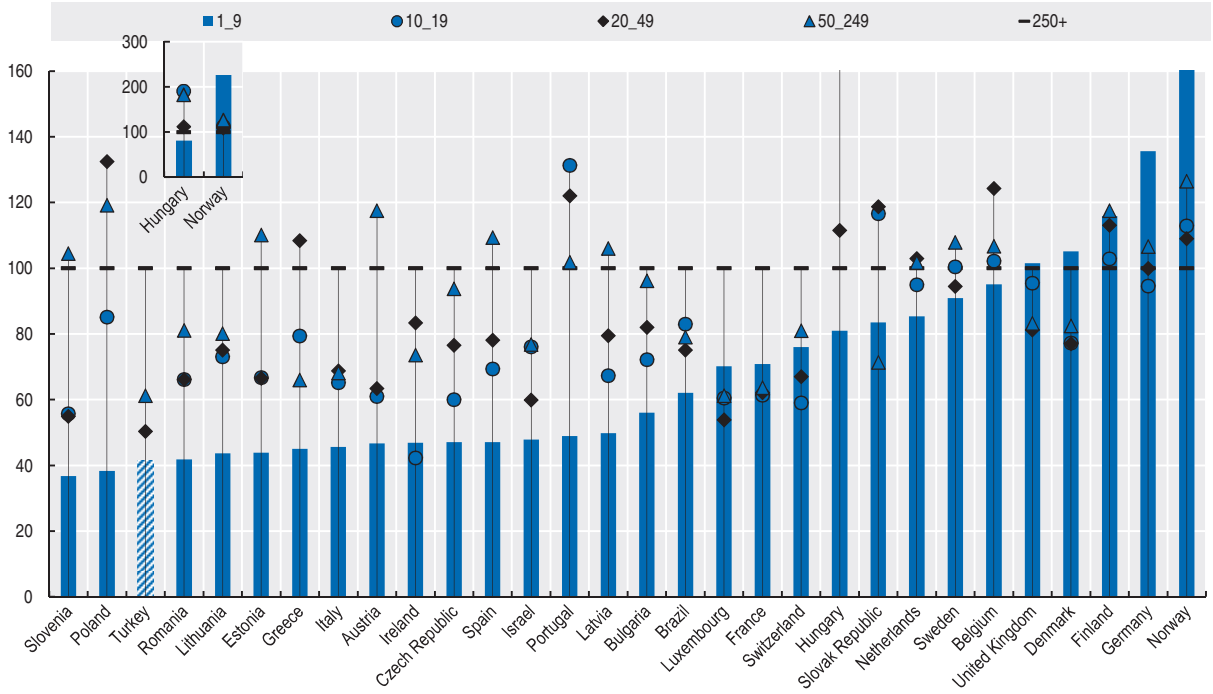
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230624

Figure 2.20. **Labour productivity by enterprise size, transportation and storage**

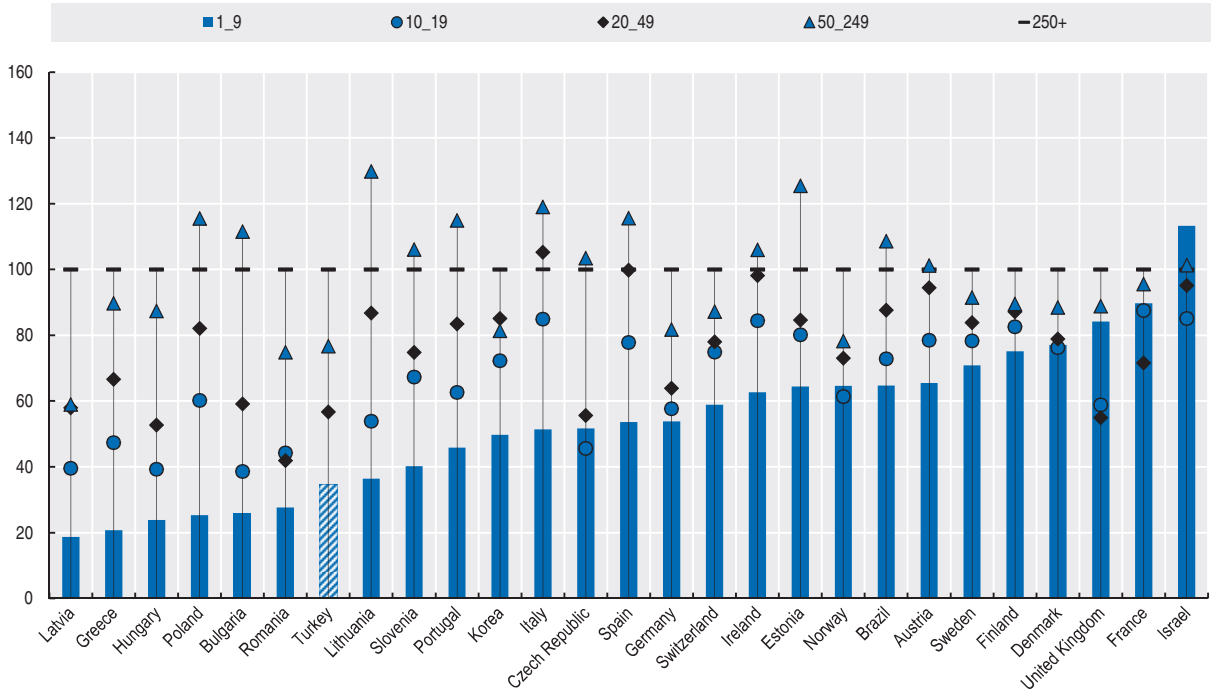
Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230634

Figure 2.21. **Labour productivity by enterprise size, accommodation and food services activities**

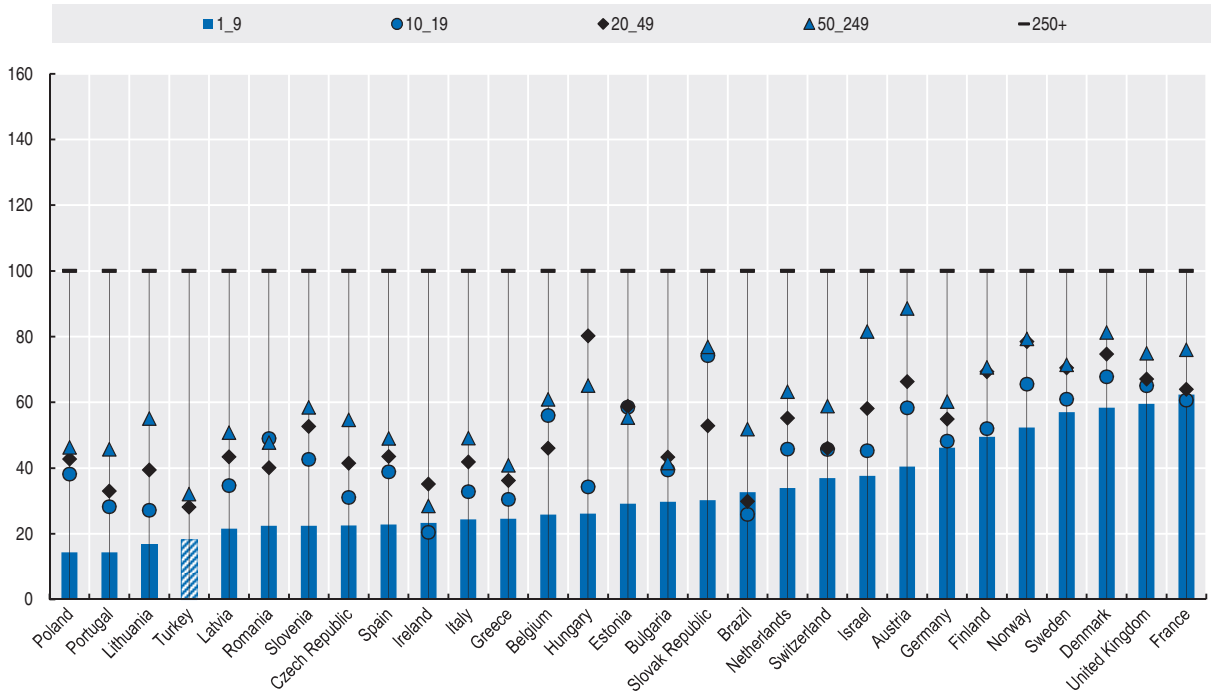
Value added per person employed, index 250+ = 100, 2012, or latest available year



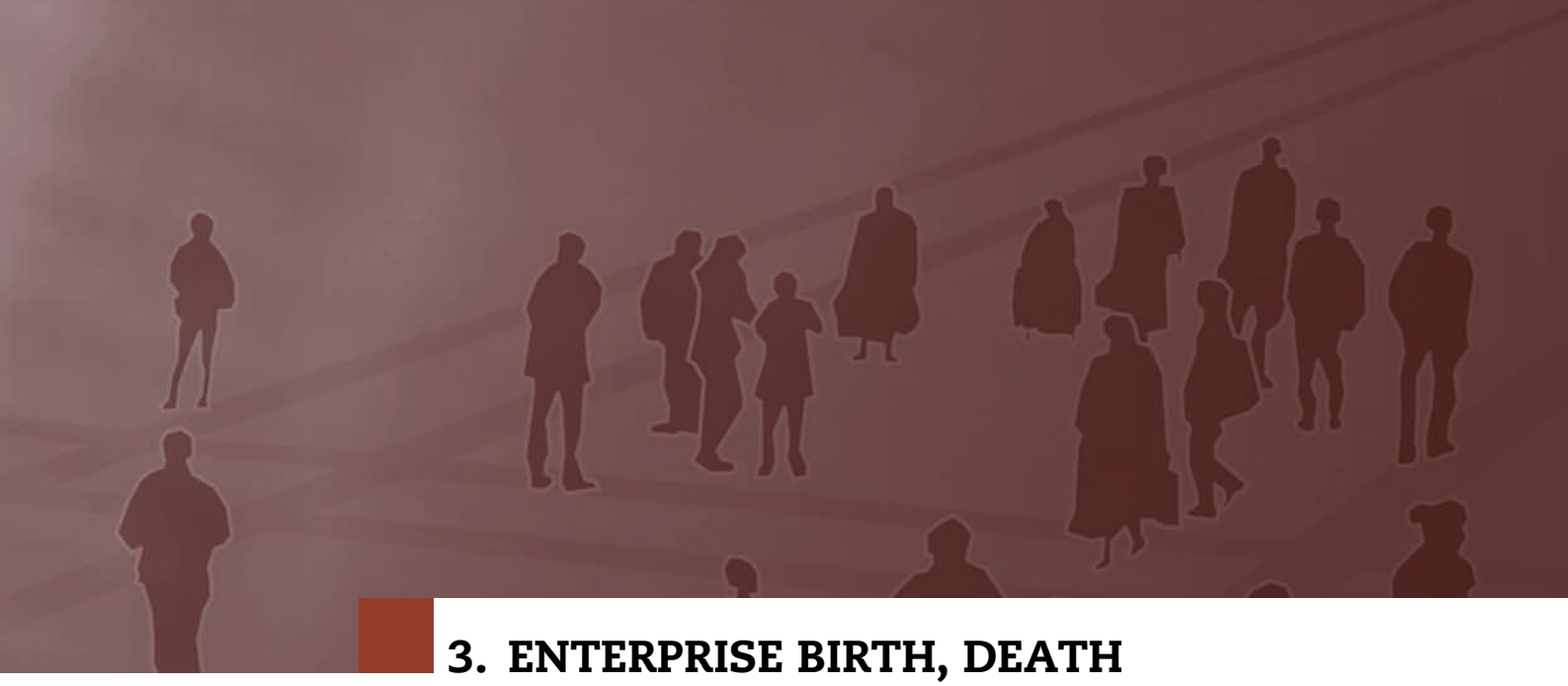
StatLink http://dx.doi.org/10.1787/888933230640

Figure 2.22. **Labour productivity by enterprise size, information and communication**

Value added per person employed, index 250+ = 100, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230655



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

Birth rate of employer enterprises

Key facts

- Birth rates decreased in most countries in the aftermath of the crisis, remaining broadly stable since then. In some countries however, notably Italy, Korea, Portugal and the United States, rates have continued to decline, particularly in the United States where start-up rates in 2012 fell to one-third pre-crisis rates.
- In nearly all countries birth rates are higher in the construction and services sectors than in industry, partly reflecting the lower fixed capital entry costs.
- Across all sectors and countries most start-ups do so with between one and four employees.

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.

Comparability

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

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

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees. Data for the United States are compiled according to ISIC Revision 3.

For Australia 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". For Korea, data include non-employer enterprises.

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 percentage of the population of active enterprises with at least one employee.

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

Source

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

Further reading

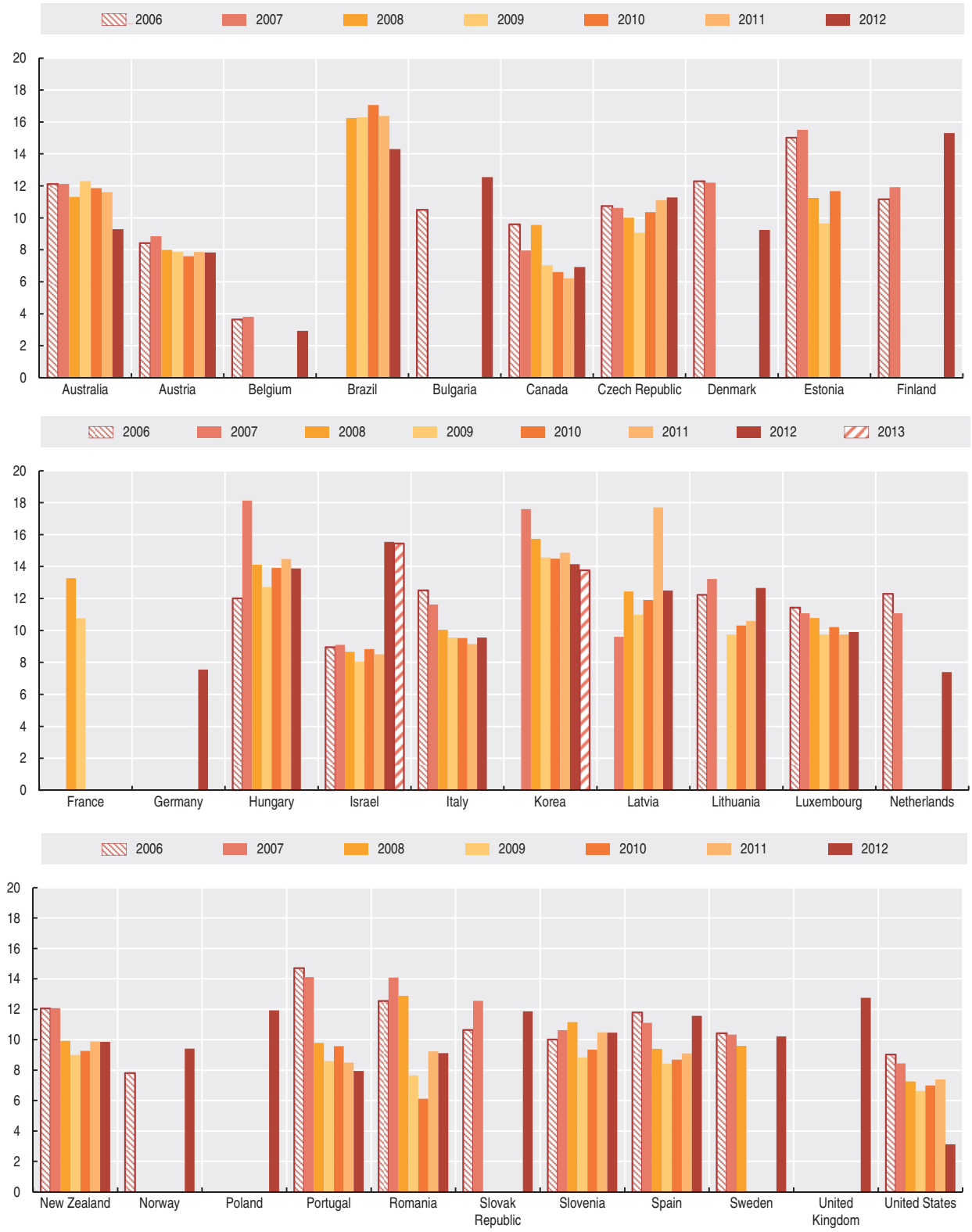
Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

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

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

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

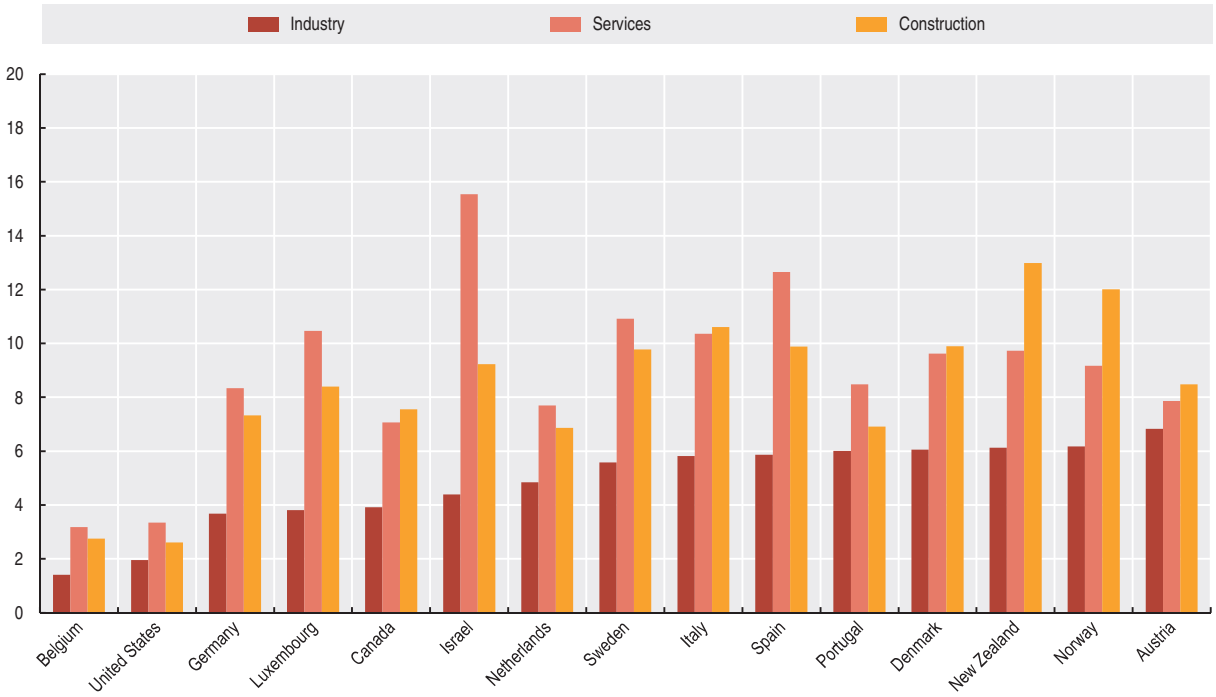
Percentage

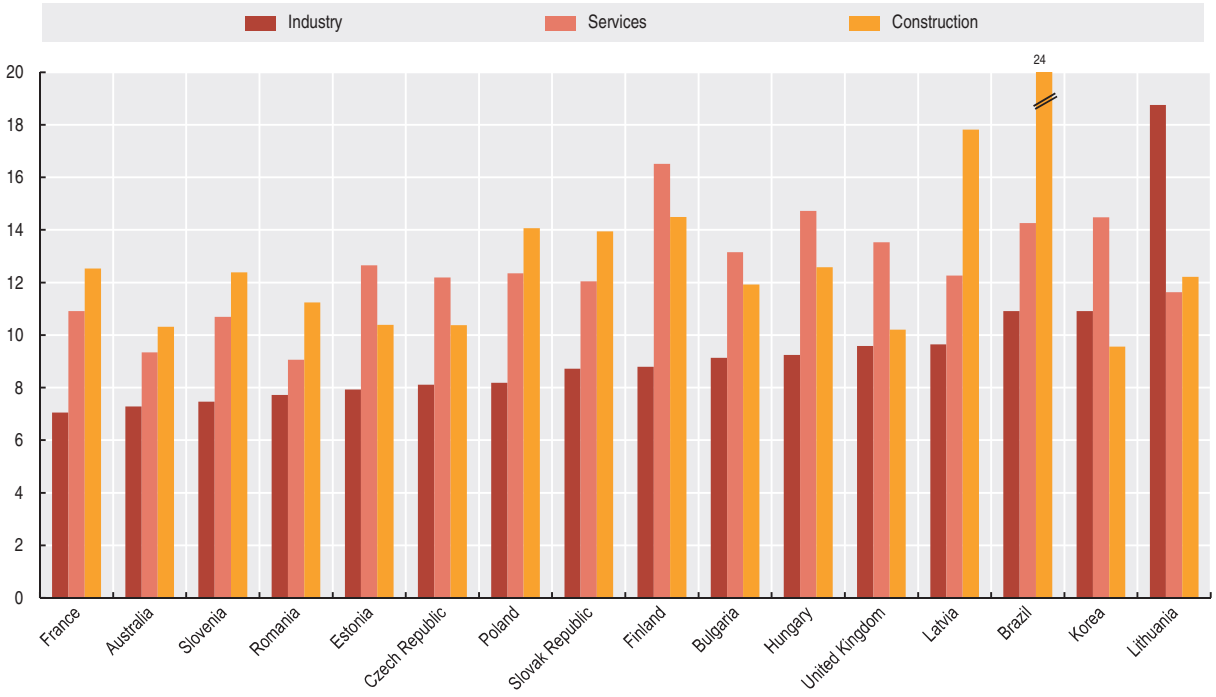


StatLink http://dx.doi.org/10.1787/888933230667

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

Percentage, 2012, or latest available year





StatLink http://dx.doi.org/10.1787/888933230676

Figure 3.3. **Employer enterprise birth rate by size, main sectors**

Percentage, 2012, or latest available year

StatLink http://dx.doi.org/10.1787/888933230688

Death rate of employer enterprises

Key facts

- The evolution of the death rate of employer enterprises over time tends to follow that of birth rates. Death rates decreased in several countries between 2007 and 2010, reflecting the parallel decline in birth rates, while, like birth rates, they picked-up in more recent years.
- In all countries, the death rates of employer enterprises in the construction and services sectors are consistently higher than the corresponding rates in industry.
- 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 helps the understanding, for example, of the process of "creative destruction" and the impact of economic cycles on entrepreneurship.

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 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.

The computation of enterprise deaths requires an additional time lag compared to data on enterprise births; this is due 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.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees. Data for the United States are compiled according to ISIC Revision 3.

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 non-employer enterprise is not considered as an "employer enterprise death". For Korea, data include non-employer enterprises.

Definitions

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

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

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

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

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

Source

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

Further reading

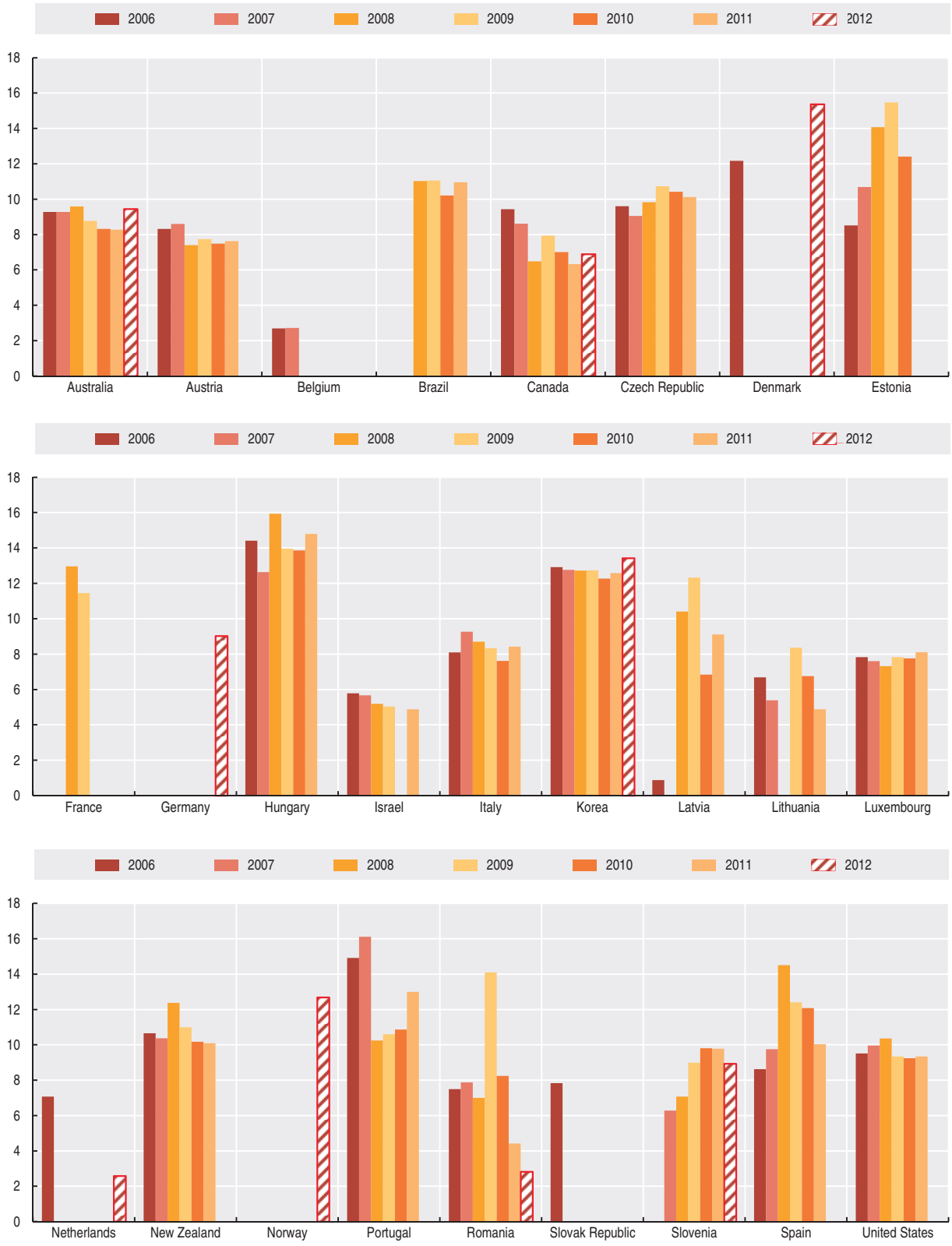
Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers*, 2006/3, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

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

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

Figure 3.4. **Employer enterprise death rate, total business economy**

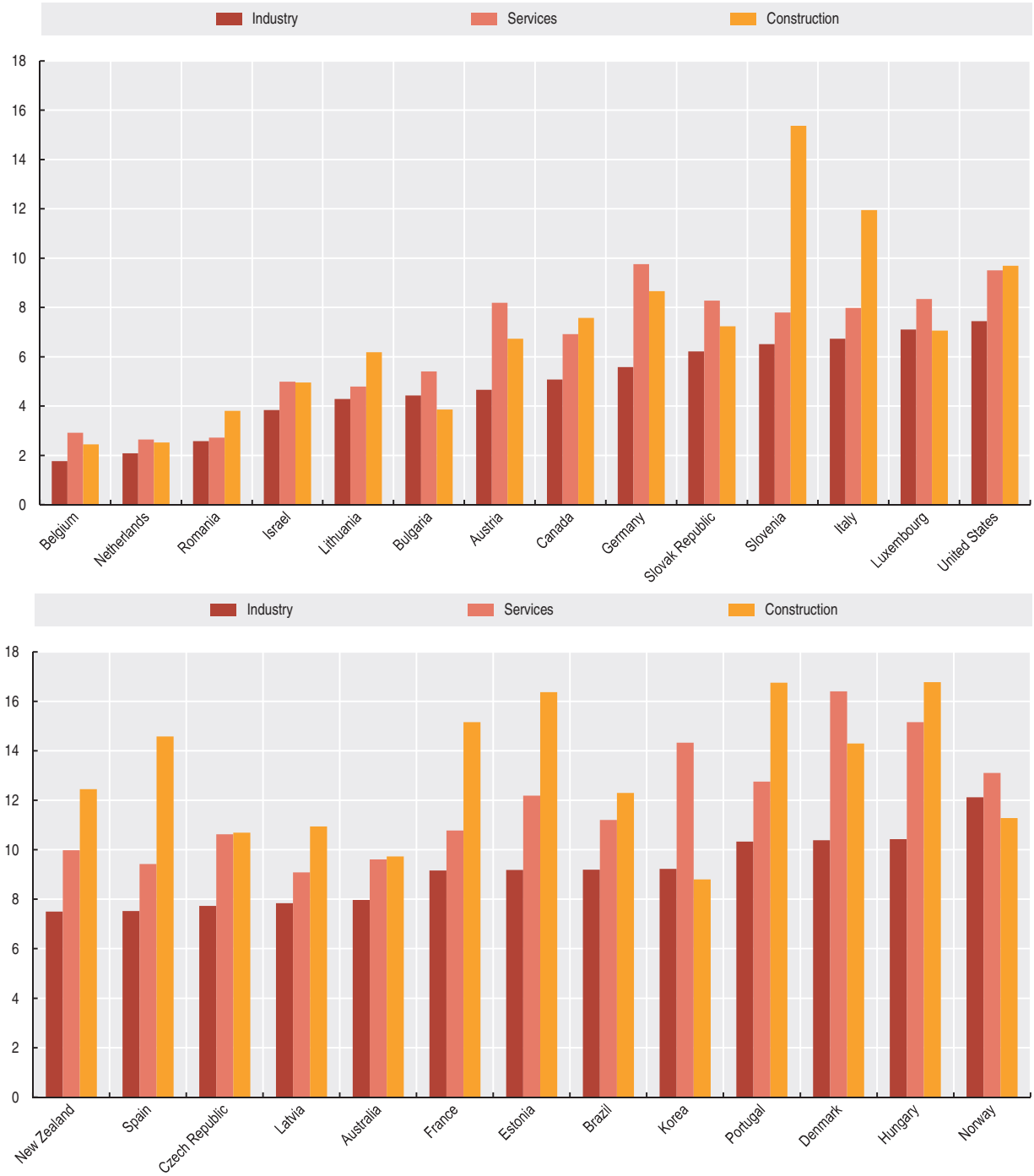
Percentage



StatLink http://dx.doi.org/10.1787/888933230697

Figure 3.5. **Employer enterprise death rates by main sector**

Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230700

Figure 3.6. **Employer enterprise death rate by size, main sectors**

Percentage, 2012, or latest available year

StatLink http://dx.doi.org/10.1787/888933230719

Churn rate of employer enterprises

Key facts

- The churn rates of employer enterprises range on average between 10% and 20% in industry and between 15% and 30% in services and construction. Only a few countries show much lower (the Netherlands) or much higher (Brazil) churn rates.
- The churn rates of employer enterprises are higher in services and construction than in industry, reflecting more significant business dynamics in these sectors. The 2012 churn rate in services reaches on average the 2007 level.

Relevance

The churn rate, i.e. the sum of births and deaths of enterprises, indicates how frequently new firms are created and 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 supports, for example, the analysis of the contribution of firm churning to aggregate productivity growth.

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* (2008).

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. Data for the United States are compiled according to ISIC Revision 3.

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".

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 business economy", see Reader's guide.

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

Source

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

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*.

Criscuolo, C., P. N. Gal and C. Menon (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", *OECD Science, Technology and Industry Policy Papers*, No. 14, OECD Publishing, *http://dx.doi.org/10.1787/5jz417hj6hg6-en*

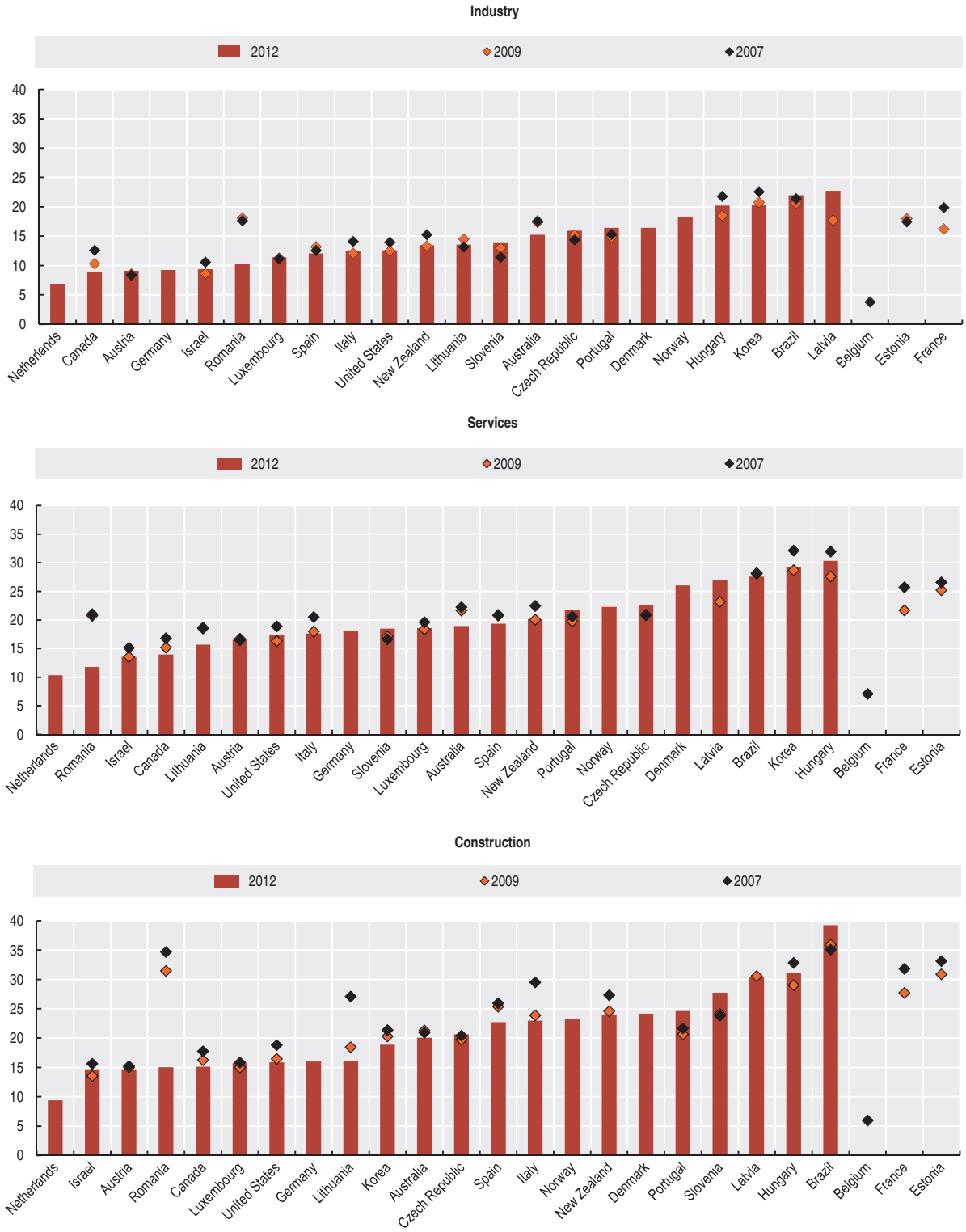
OECD (2010), *Structural and Demographic Business Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264072886-en*.

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

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, OECD Publishing, Paris, *http://dx.doi.org/10.1787/547061627526*.

Figure 3.7. **Employer enterprise churn rate, by main sector**

Percentage



StatLink http://dx.doi.org/10.1787/888933230720

Survival of employer enterprises

Key facts

- In most countries more than half of start-ups fail within the first five years, varying from less than one in five firms in Lithuania to about two-thirds in Sweden.
- Survival after the first year does not necessarily increase the conditional probability of survival. In many countries the probability of failure of start-ups and one-year old firms is similar, with two-year old firms showing only a marginal improvement in the probability of survival.
- In a few countries including Austria, Belgium, Luxembourg, the Netherlands and Sweden the survival rates of cohorts of enterprises born in different years are consistently high.

Definitions

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

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

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

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

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

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

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

Relevance

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

Comparability

Employer enterprise survival data in this publication follow the definition from the *Eurostat-OECD Manual on Business Demography Statistics* (2008).

For Korea data refer to the total economy except agriculture. Data for the United States are compiled according to ISIC Revision 3. Figure 3.10 refers to all enterprises, including non-employers.

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

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

Further reading

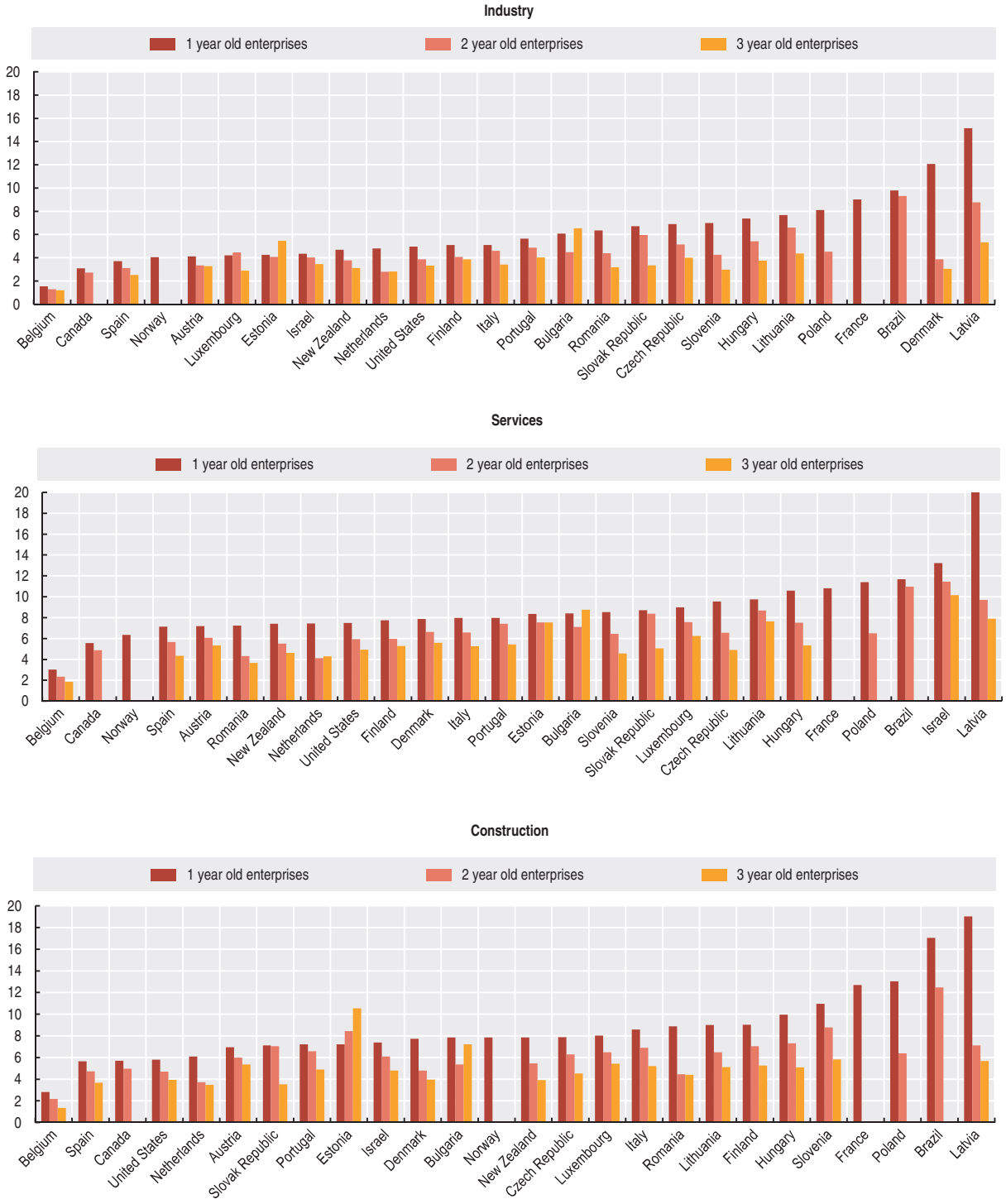
Ahmad, N. (2006), "A Proposed Framework for Business Demography Statistics", *OECD Statistics Working Papers, 2006/3*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/145777872685*.

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

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

Figure 3.8. **Young employer enterprises' share in business population, by main sector**

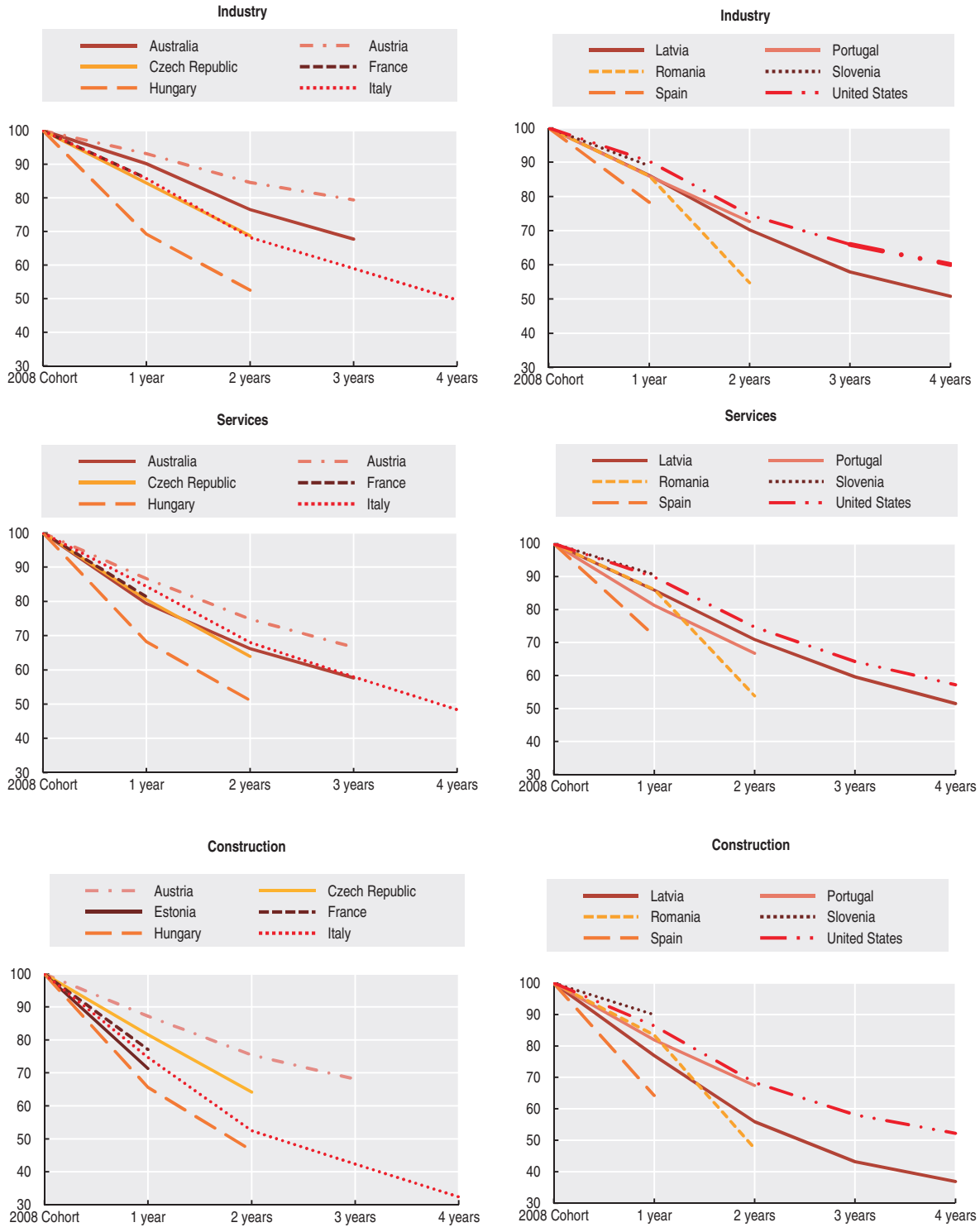
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230732

Figure 3.9. **Employer enterprise survival rates, by main sector**

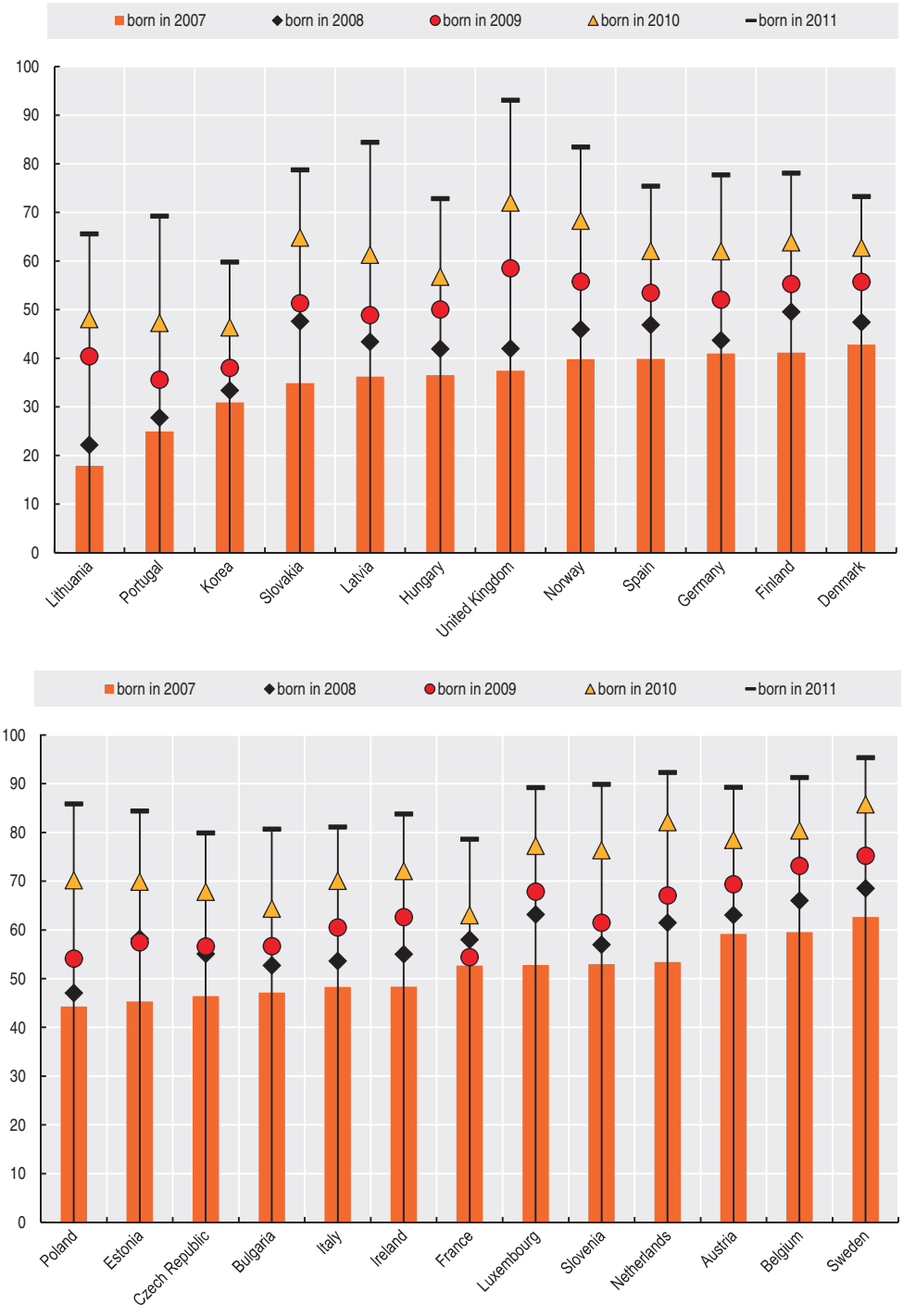
Percentage, 2008 cohort



StatLink http://dx.doi.org/10.1787/888933230740

Figure 3.10. **Survival rates of all enterprises born over the previous 5 years, total business economy**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933230755

4. ENTERPRISE GROWTH AND EMPLOYMENT CREATION

Employment creation and destruction by employer enterprise births and deaths

Employment creation and destruction in surviving enterprises

High-growth enterprises rate

Employment creation and destruction by employer enterprise births and deaths

Key facts

- Rates of employment creation and destruction by employer enterprise births and deaths vary widely across countries, rarely exceeding more than 6% of total employment.
- In many countries, rates of employment creation and destruction are closely correlated, but not always. For example, employment creation and destruction rates were similar (3%) in 2008 in Italy, but the employment destruction rate approached 5% in 2012 whilst the employment creation rate fell to just over 2%.
- The average number of persons employed in enterprise births and deaths is typically higher in industry than in other sectors, partly reflecting economy of scale factors. For most countries, average employment in newly-born enterprises ranges between two and three persons employed. The size of start-ups is significantly higher in the United States, where newly-born enterprises employ on average six persons or more.

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 business economy", see Reader's guide.

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

Relevance

The observation of 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, and in particular the important contribution to employment growth made by start-ups.

Comparability

Data presented refer to the whole population of employer enterprises.

Data for the United States are compiled according to ISIC Revision 3.

Source

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

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*.

Criscuolo, C., P.N. Gal and C. Menon (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", *OECD Science, Technology and Industry Policy Papers*, No. 14, OECD Publishing, *http://dx.doi.org/10.1787/5jz417hj6hg6-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*.

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

Figure 4.1. **Employment creation by employer enterprise births, % of total employment, business economy**

Percentage

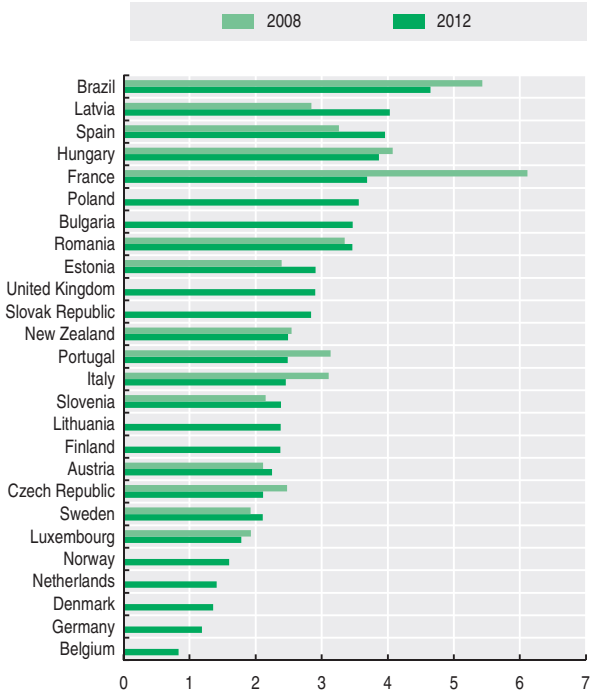


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Figure 4.2. **Employment destruction by employer enterprise deaths, % of total employment, business economy**

Percentage

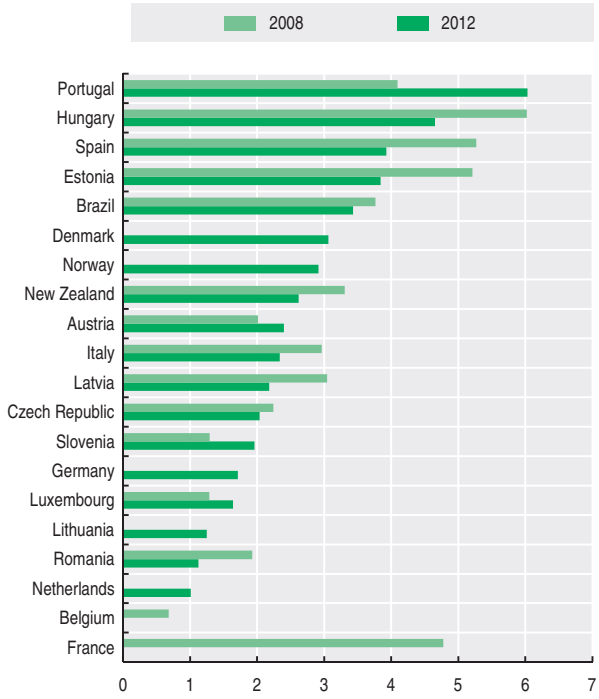

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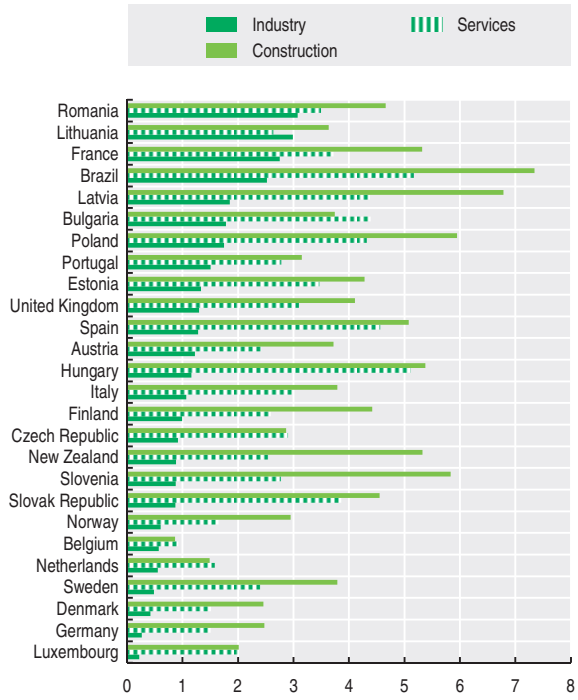
Figure 4.3. **Employment creation by employer enterprise births, % of total sector employment**

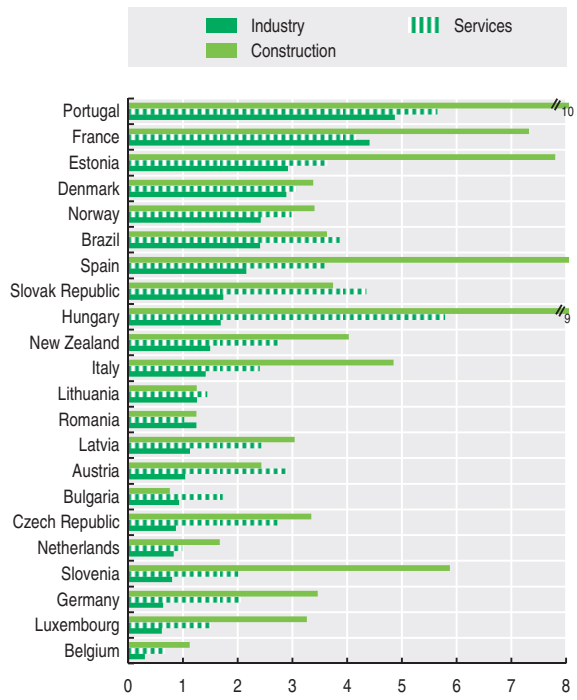
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230780

Figure 4.4. **Employment destruction by employer enterprise deaths, % of total sector employment**

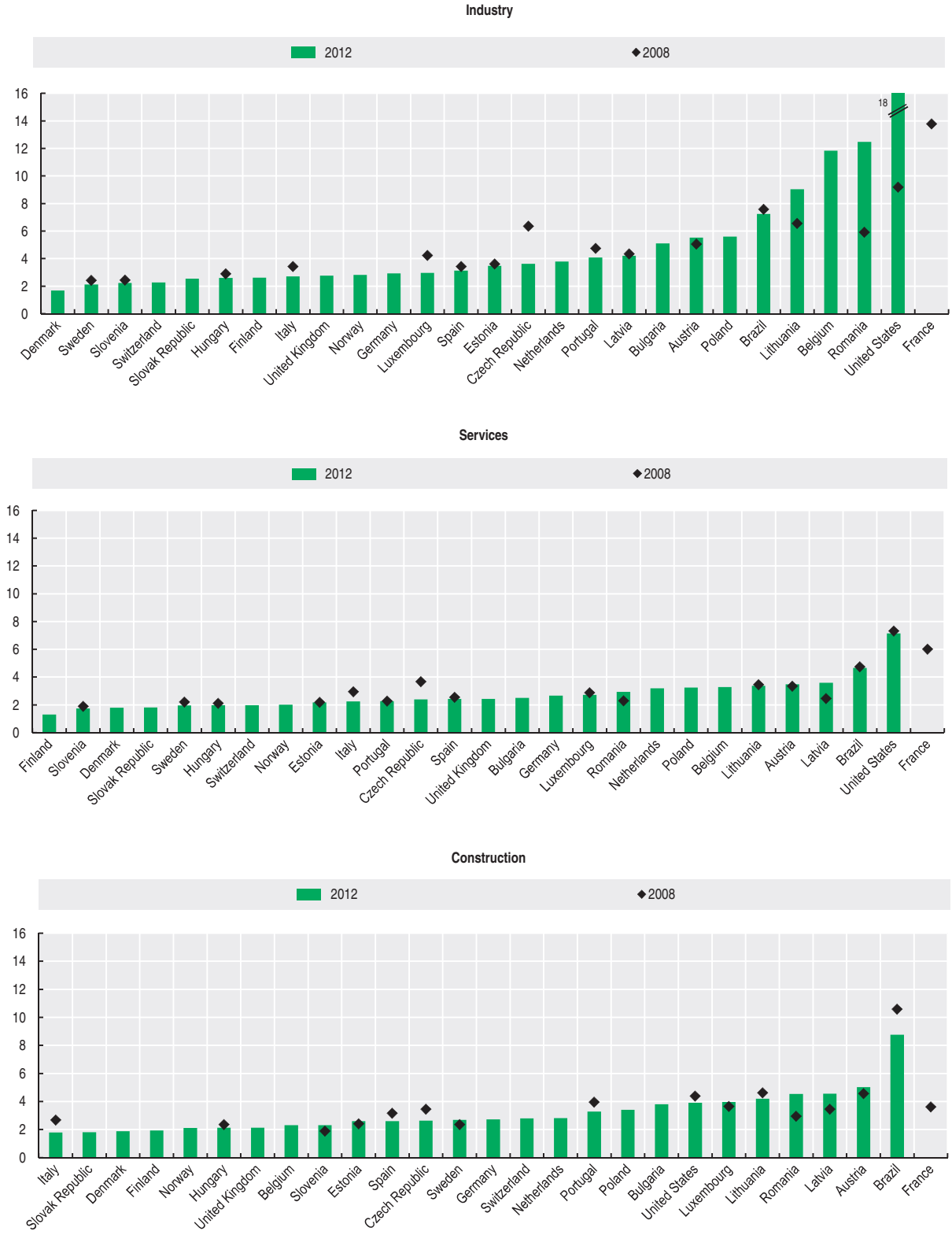
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230795

Figure 4.5. **Average employment in newly born enterprises, by main sector**

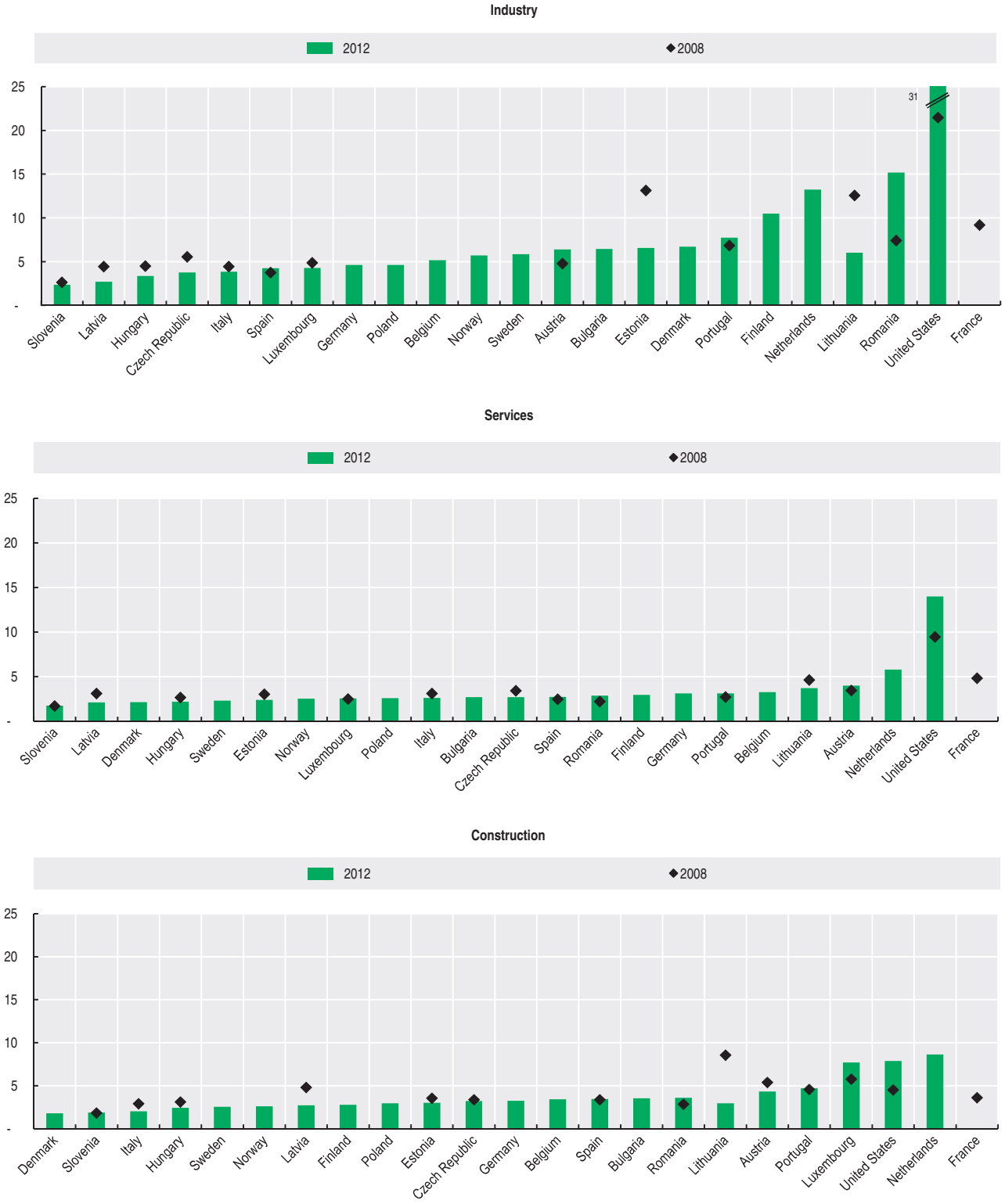
Number of persons employed per employer enterprise birth



StatLink http://dx.doi.org/10.1787/888933230800

Figure 4.6. **Average employment in enterprise deaths, by main sector**

Number of persons employed per employer enterprise death



StatLink http://dx.doi.org/10.1787/888933230810

Employment creation and destruction in surviving enterprises

Key facts

- Young enterprises account for between 4 to 12% of total employment in most countries. The contribution of young enterprises to total employment decreased in most countries in 2012 compared to 2008, with the notable exceptions of Latvia where shares almost doubled.
- Despite the relatively high probability of failure in their few years of operation one-year old firms in most countries generate more employment than new firms and two year old firms have relatively similar shares to one-year old firms, which reflects employment growth in surviving firms.

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 in employer enterprises.

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 in employer enterprises.

The *average size of newly born enterprises* is expressed as number of persons employed in the reference period (t) among enterprises newly born in t divided by the number of enterprises newly born in t. *Average size of one-year old (two year old) enterprises* refers to number of persons employed in the reference period (t) among enterprises newly born in t-1 (t-2) having survived to t divided by the number of enterprises in t newly born in t-1 (t-2) having survived to t.

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

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

Relevance

The study of employment shares in young surviving enterprises contributes to the understanding of the role that different firms have in overall employment changes in the economy.

Comparability

Data presented refer to the whole population of employer enterprises. In Figure 4.7 data for Brazil include only 1 and 2 year old enterprises.

Source

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

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*.

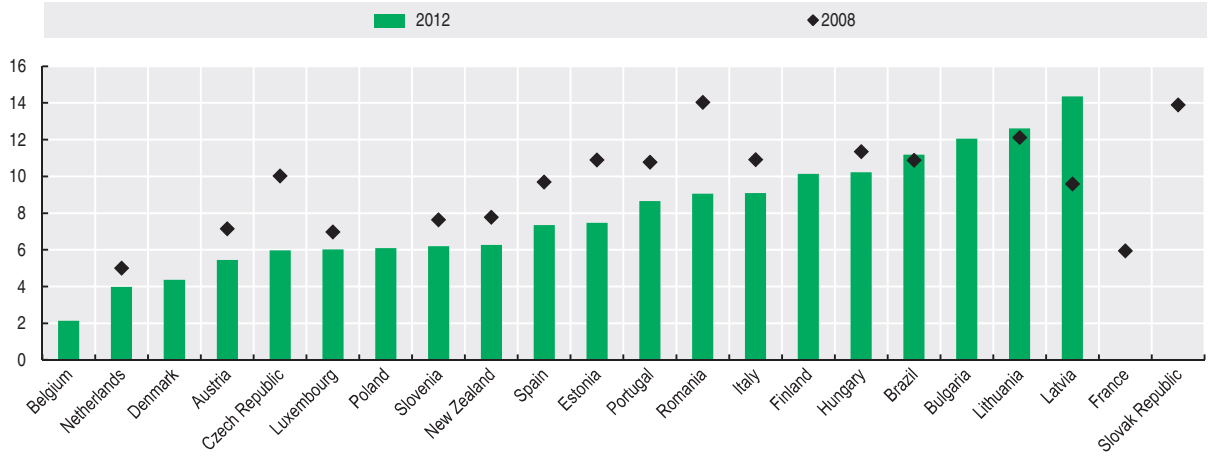
Criscuolo, C., P.N. Gal and C. Menon (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", *OECD Science, Technology and Industry Policy Papers*, No. 14, OECD Publishing, *http://dx.doi.org/10.1787/5jz417hj6hg6-en*.

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*.

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

Figure 4.7. **Employment share of young enterprises**

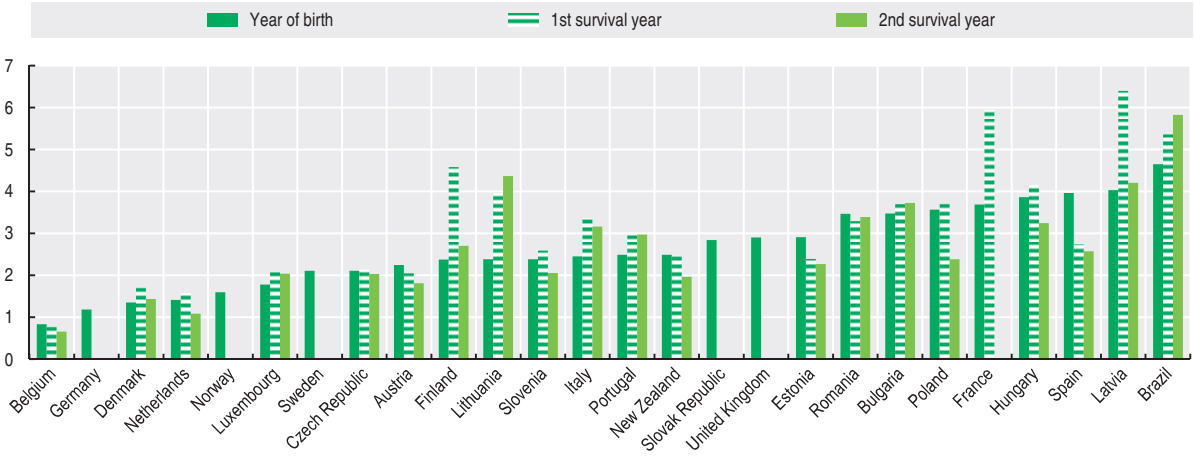
As a percentage of employment in total business economy



StatLink http://dx.doi.org/10.1787/888933230821

Figure 4.8. **Employment share of young enterprises in year of birth, 1st and 2nd survival year**

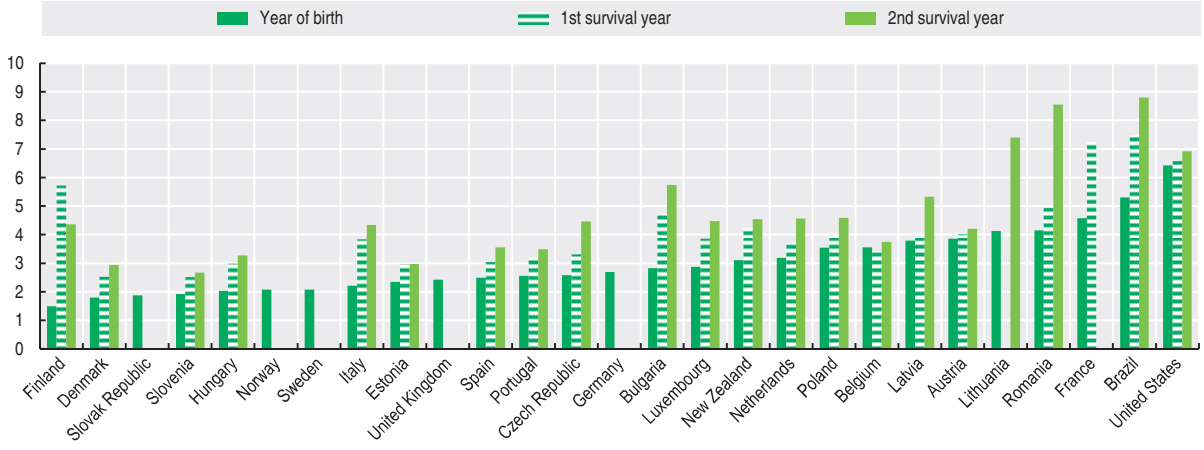
As a percentage of employment in total business economy, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230830

Figure 4.9. **Average enterprise size in year of birth, 1st and 2nd survival**

Year 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230843

High-growth enterprises rate

Key facts

- High-growth enterprises represent on average a small share of the total enterprise population. Typically, when measured on the basis of employment growth, the share ranges between 2% and 6% for most countries, with higher shares (between 5% and 15%) when measured on a turnover basis.
- In a majority of countries, less than 2% of firms with ten or more employees are gazelles, i.e. high-growth firms less than five years old, whether the growth measure is based on employment or turnover.
- In all countries high-growth firms are more prevalent in the services sector than in the rest of the business economy, apart from Brazil, Canada, Latvia and New Zealand where the highest percentage of high-growth firms is in the construction sector.
- While few in numbers, fast-growing firms employ a considerable number of persons. In 2012, thirty six thousands high-growth enterprises in the United States employed more than eight million persons.

Definitions

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

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

The *rate of high-growth enterprises* measure the number of high-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.

The *share of gazelles,* as measured by employment (or turnover), corresponds to the number of gazelles as a percentage of the population of enterprises with ten or more employees.

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

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

Relevance

High-growth firms are important drivers of job and wealth creation. Better knowledge of these firms would allow policy makers to develop appropriate approaches to support growth ambitions of firms.

Comparability

A size threshold of ten employees at the start of any observation period is set to avoid introducing a small size class bias. The choice of size class threshold will necessarily have a bigger or lower impact on the representativeness of the results depending on the size of the country.

In Figures 4.10 and 4.11, data for Brazil, Canada, Israel, New Zealand, and the United States show only high-growth enterprises and do not cover medium-growth companies.

Data presented refer to the whole population of employer enterprises, with the exception of Canada, for which data for 2007 and earlier years refer to employer enterprises with less than 250 employees. Data for the United States are compiled according to ISIC Revision 3.

Source

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

Further reading

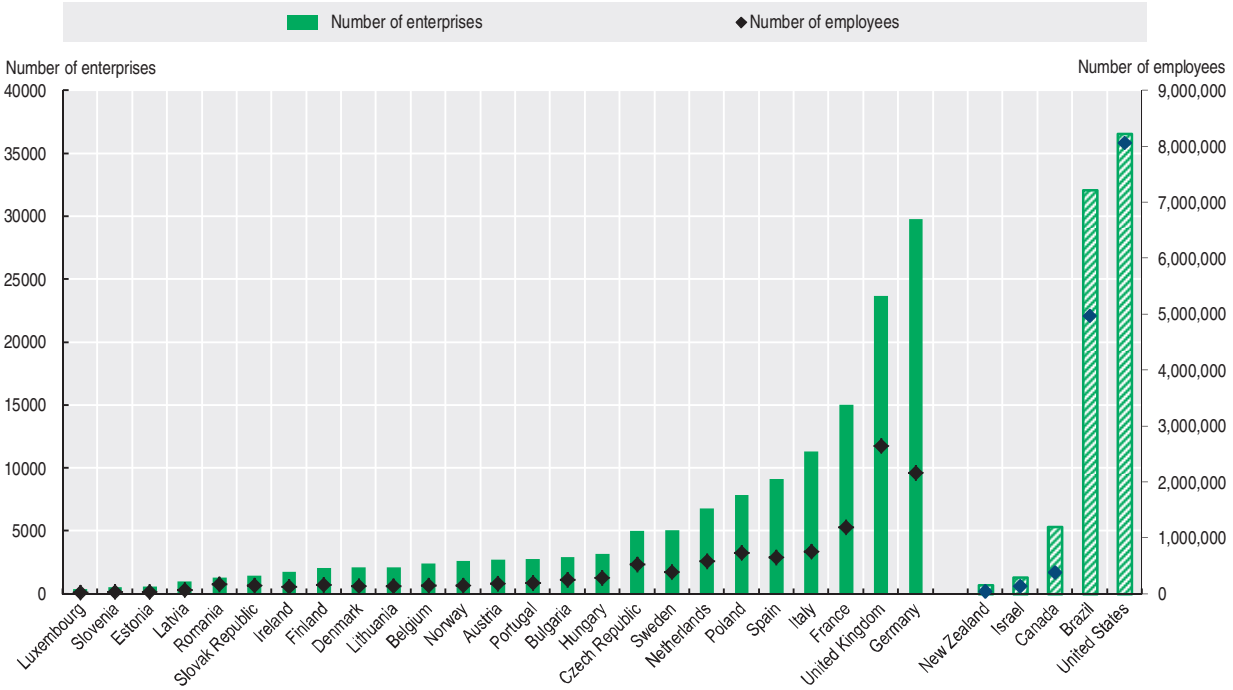
Ahmad, N. and D. Rude Petersen (2007), High-Growth Enterprises and Gazelles – Preliminary and Summary Sensitivity Analysis, OECD-FORA, Paris, *www.oecd.org/document/31/0.3746,en_2825_499554_39151327_1_1_1_1.00.html*.

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

OECD/Eurostat (2008), *Eurostat-OECD Manual on Business Demography Statistics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041882-en*.

Figure 4.10. **Number of medium and high growth enterprises and employment, total business economy**

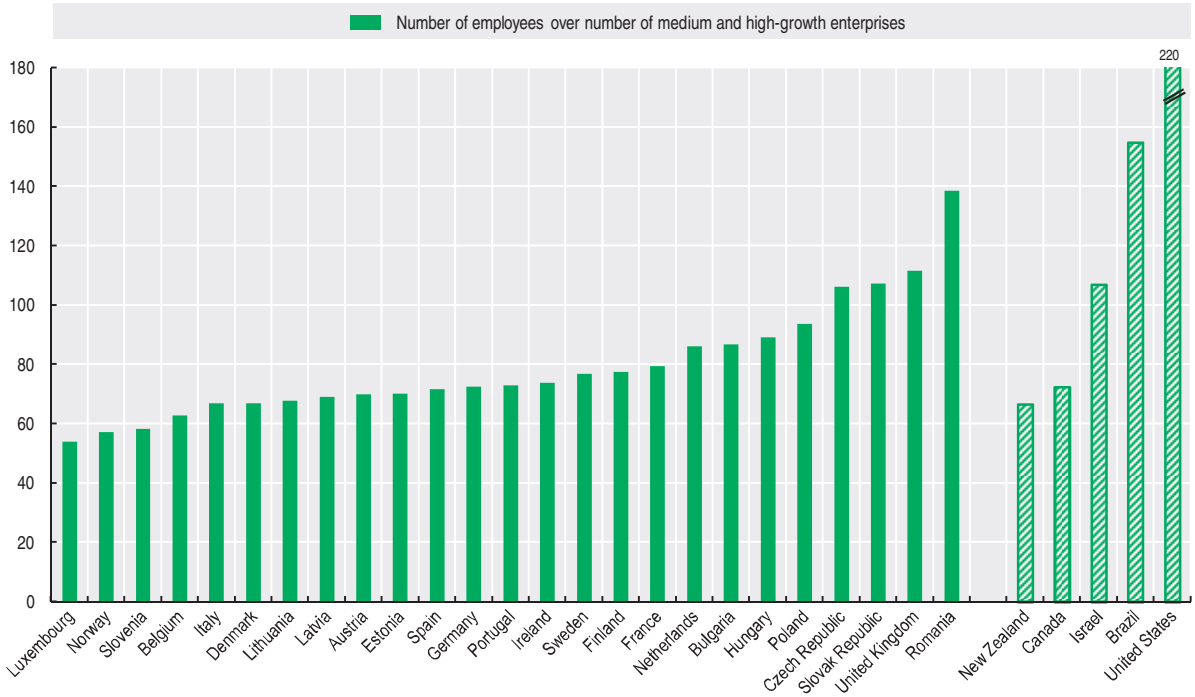
2013, or latest available year



StatLink http://dx.doi.org/10.1787/888933230855

Figure 4.11. **Average employment in medium and high growth enterprises, total business economy**

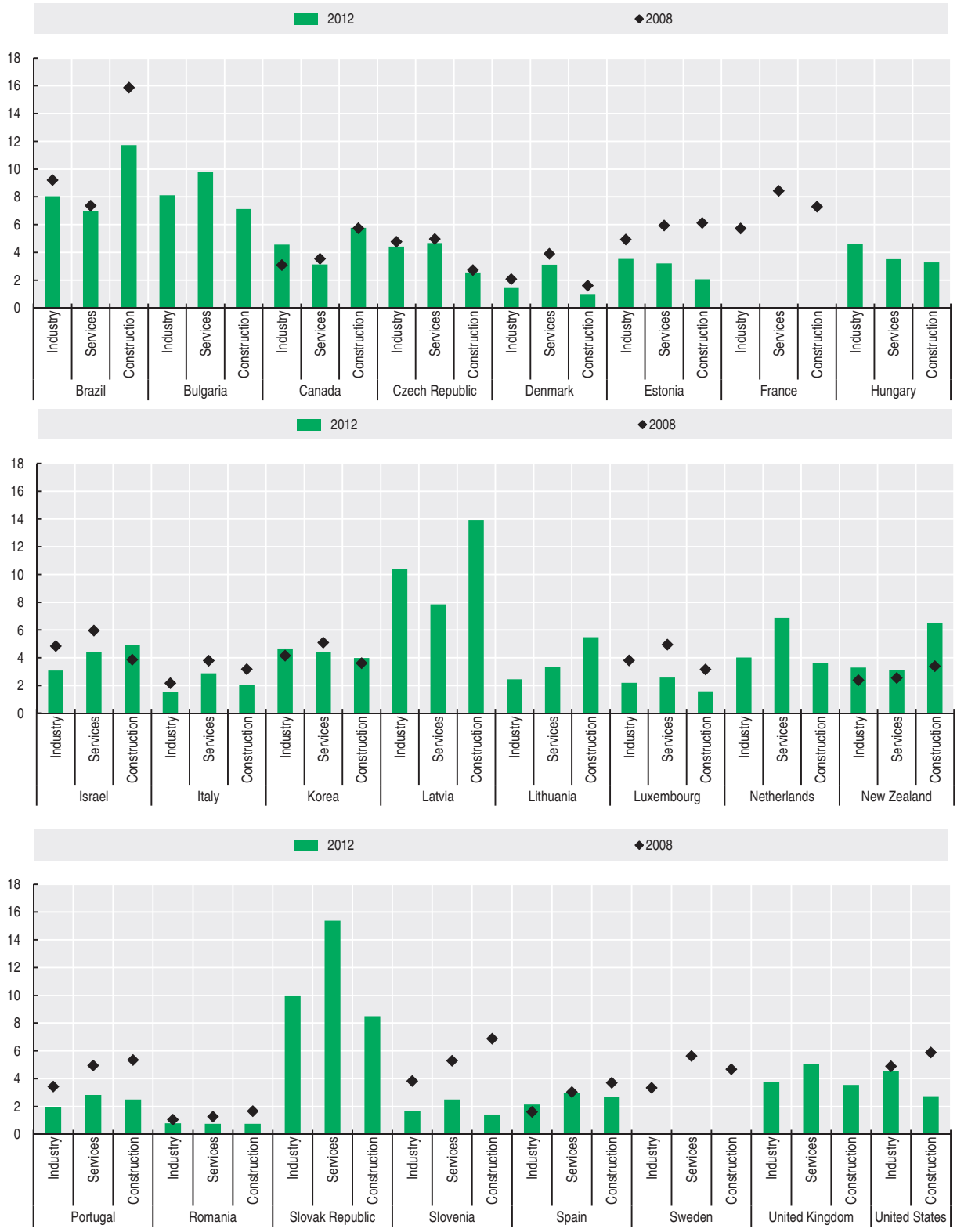
2013, or latest available year



StatLink http://dx.doi.org/10.1787/888933230866

Figure 4.12. **High-growth enterprises rate, measured by employment growth, by main sector**

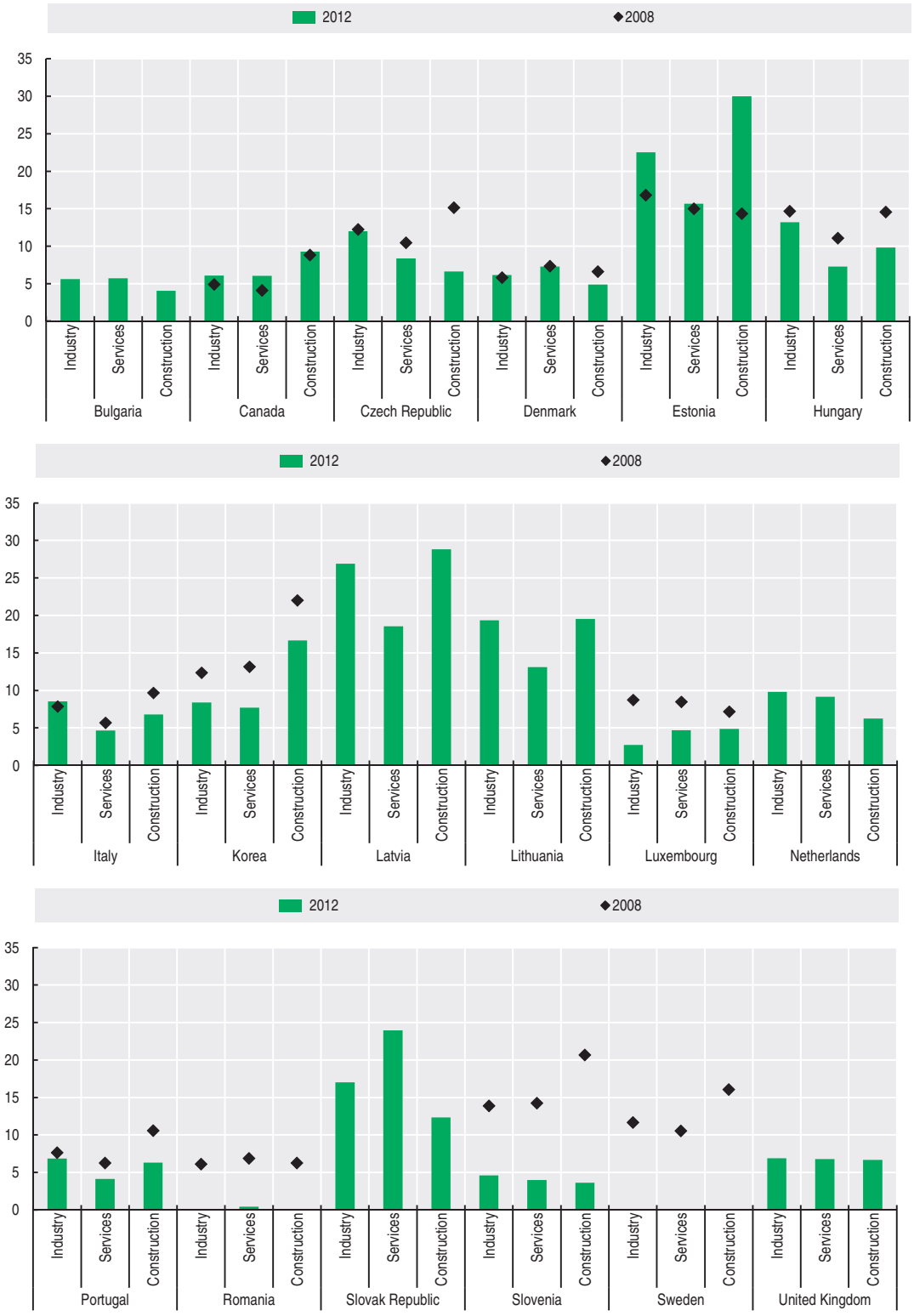
Percentage



StatLink http://dx.doi.org/10.1787/888933230874

Figure 4.13. **High-growth enterprises rate, measured by turnover growth, by main sector**

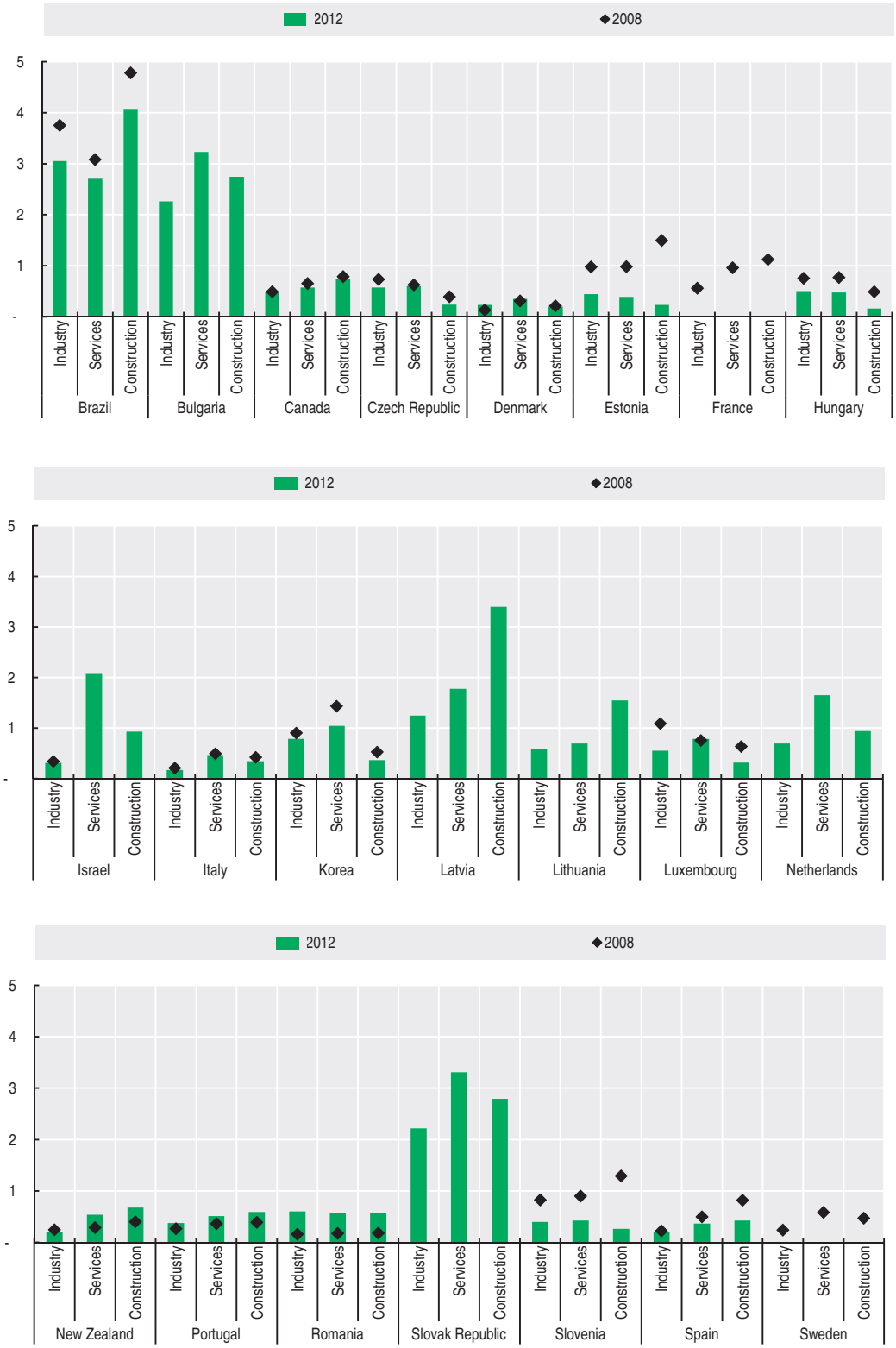
Percentage



StatLink http://dx.doi.org/10.1787/888933230883

Figure 4.14. **Gazelles share, measured by employment growth, by main sector**

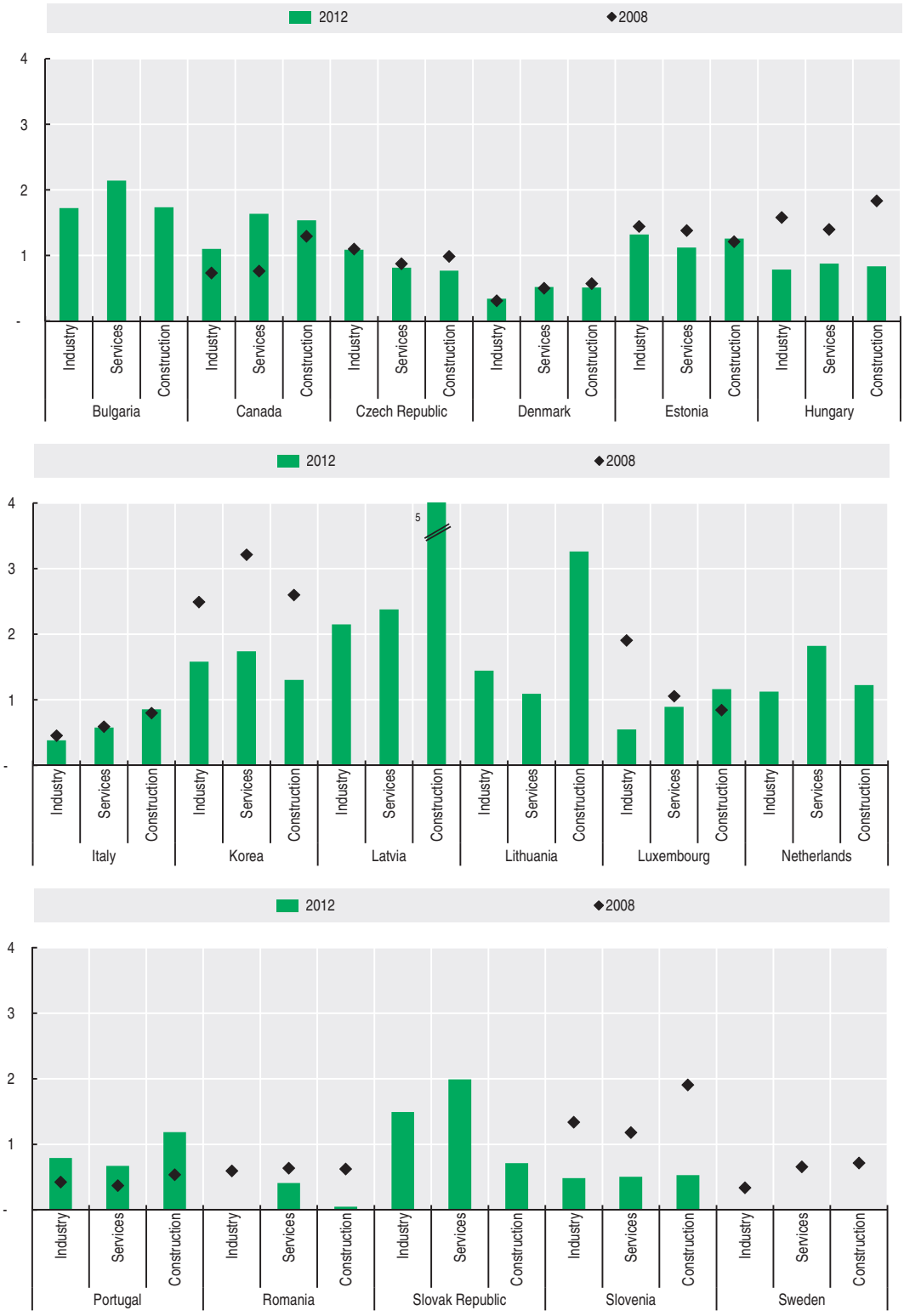
Percentage



StatLink http://dx.doi.org/10.1787/888933230893

Figure 4.15. **Gazelles share, measured by turnover growth, by main sector**

Percentage



StatLink http://dx.doi.org/10.1787/888933230903

5. SMES AND INTERNATIONAL TRADE

Trade concentration

Trade by enterprise size

Trade with emerging economies

Trade by enterprise ownership

Trade concentration

Key facts

- The top 100 exporting companies account for a significant share of exports in all countries, ranging from about one-quarter in Italy to over 80% in Luxembourg.
- In a majority of OECD economies 50% or more of exporting enterprises trade with only one country. These one-country exporters, however, typically account for a small share of the total value of a country's export. Typically firms that export to more than 10 countries dominate trade, reflecting around 90% or more of total exports in Finland, France, Germany and the United Kingdom.

Definitions

Exports of goods and services consist of sales, barter or gifts or grants, of goods and services (included in the production boundary of GDP) from residents to non-residents. Imports reflect the same transactions from non-residents to residents. Not all goods need to physically enter a country's border to be recorded as an export or import. Transportation equipment, goods produced by residents in international waters sold directly to non-residents, and food consumed in ships or planes are but a few examples of transactions which may be recorded as exports or imports without physically crossing borders. Equally not all goods that enter a country's borders are necessarily imports or exports. Transportation equipment, goods sent abroad for minor processing (or which enter and leave a country in their original state and ownership) are examples of goods that cross bonders but are not recorded as imports or exports (*OECD Factbook*, 2014).

The *concentration of exports by exporting enterprises* is calculated as the ratio of the value of exports by each rank (top 10, top 11 to 50, and top 51 to 100 exporting enterprises) divided by the total value of exports.

The *percentage of exporters and of export value to x partner countries* is respectively calculated as the ratio of the number of exporters who export to x countries to the total number of exporting enterprises; and as the ratio of the value of exports by enterprises who have x partner countries to the total value of exports.

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

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

Relevance

International fragmentation of production has fuelled the growth in Global Value Chains in recent decades, characterised by increasing trade in intermediates, but differences across countries remain in the scale of integration, particularly in SMEs, and the scale of market(s) penetration. Diversity in markets can often indicate comparative advantages and resilience to supply and demand shocks.

Comparability

Data presented refer to the total economy. For the United States, data on concentration of exports refer to 2011, and data by number of partner countries refer to 2010. Some care is needed in interpreting the data which reflect direct export channels only, and so may understate the true underlying scale of integration within global value chains (particularly by size class), for example by upstream SME producers of intermediates supplying goods and services to larger exporting firms. Similarly many, particularly small, firms may export via intermediary wholesalers.

Data shown in Figures 5.2 and 5.3 result from the combination of two data sources, namely OECD SDBS and TEC databases. However, coverage of two databases may in some instances differ, due partly to different thresholds for inclusion of the smaller units.

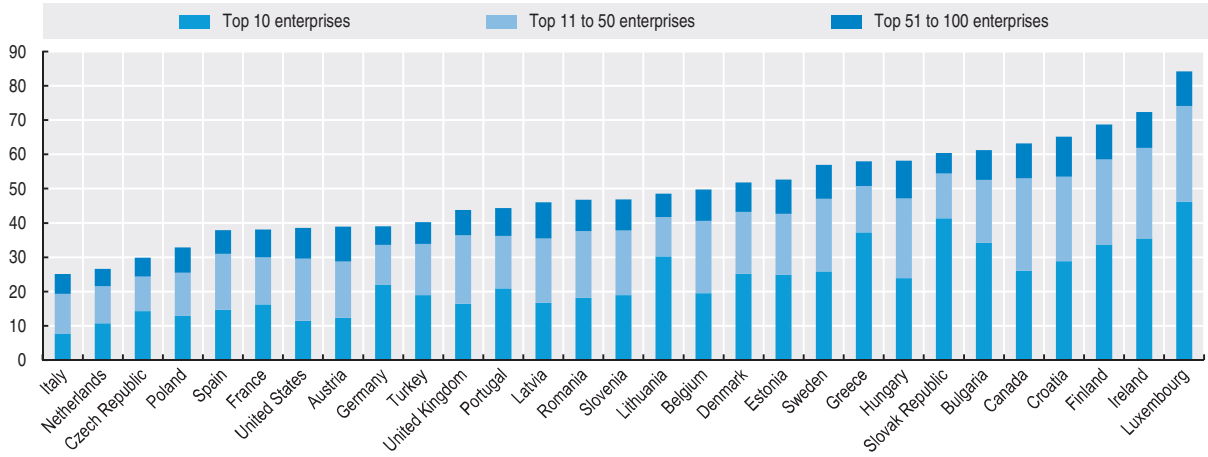
Source

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

OECD Trade by Enterprise Characteristics Database (TEC), http://stats.oecd.org/Index.aspx?DataSetCode=TEC1_REV4.

Figure 5.1. **Concentration of exports by exporting enterprises, total economy**

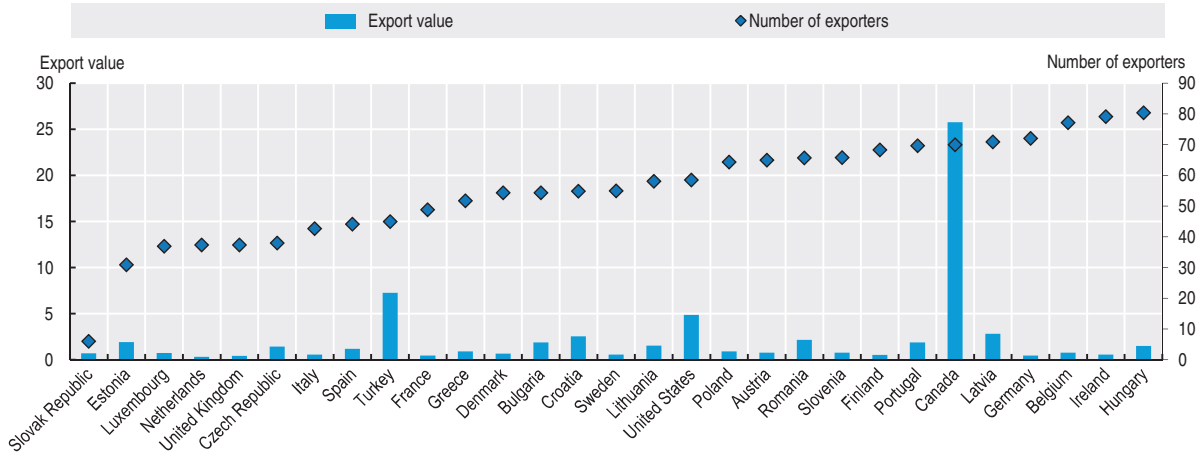
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230914

Figure 5.2. **Exporters with, and export value to, only one partner, total economy**

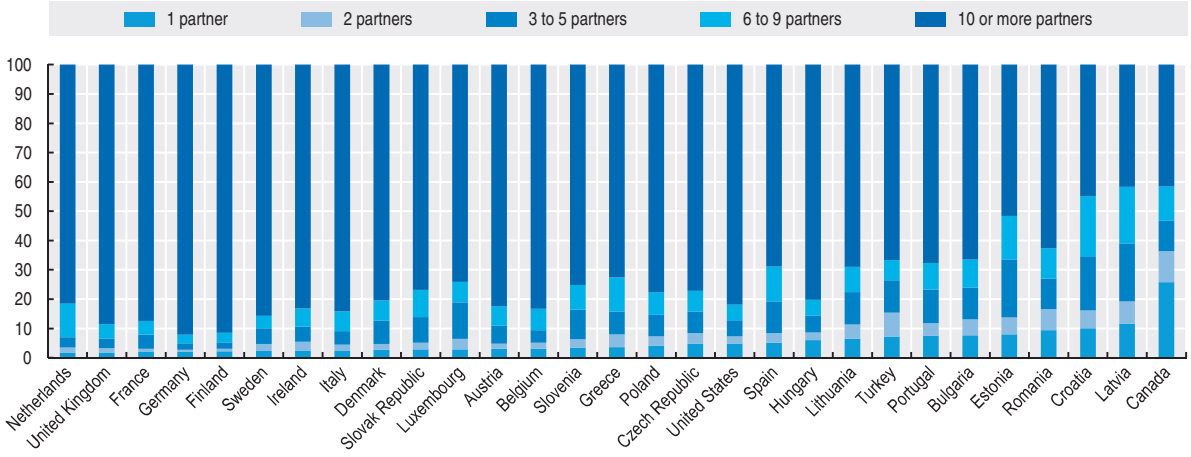
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230923

Figure 5.3. **Concentration of the value of exports by number of partners, total economy**

Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230932

Trade by enterprise size

Key facts

- In all countries, micro and small firms, i.e. enterprises with less than 10 and between 10 and 50 employees respectively, are responsible for a limited share of total exports even if they represent the majority among all exporting enterprises. The distribution of imports by enterprise size largely reflects export patterns, with large firms accounting for shares of total imports between 50% and 80%.
- The ratio of exports (imports) over the total turnover is on average higher in large firms than in smaller firms. In smaller economies the ratio, for both exports and imports, tends to be higher.
- The average trade value typically increases with enterprise size. There are a few exceptions; for instance, microenterprises in Ireland and the United States have an average value of exports greater than the average value for small enterprises; and in France, Mexico and the United States the average import value per micro enterprise is higher than the average value per small enterprise.

Definitions

The shares of exports (imports) by enterprise size are calculated as the ratio of the value of exports (imports) by each size class over the total value of exports (imports).

Export (import) to turnover ratio is defined as the ratio of the value of exports (imports) of exporting (importing) enterprises to the total turnover of all enterprises.

Average value of exports (imports) per enterprise is defined as the value of exports (imports) divided by the number of exporting (importing) enterprises.

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

Relevance

Statistics on trade by enterprise size contribute to accounting for business heterogeneity in international trade. Trade data, however, can underestimate the full contribution of smaller enterprises as they do not reflect SME participation through supply of intermediate goods to larger domestic enterprises.

Comparability

Data cover industry, except for Mexico where data are available only for manufacturing.

The indicator on ratio of export (import) value to turnover should be considered experimental; it is in fact obtained by combing two distinct databases, OECD TEC and AMNE that are developed according to different methodologies. The TEC data are derived from the linkage of business registers with trade registers identifying all the traders resident in an economy, so they are fully based on administrative sources. The export and import values by industry reported in TEC can deviate from the 'real' value because of incomplete coverage of the registers or because of matching issues between the trade and business registers. The AMNE data are instead often compiled through a combination of administrative and survey data, so they might involve imputation and estimation.

Some care is needed in interpreting the data which reflect direct export channels only, and so may understate the true underlying scale of integration within global value chains (particularly by size class), for example by upstream SME producers of intermediates supplying goods and services to larger exporting firms. Similarly many (particularly small) firms may export via intermediary wholesalers.

Source

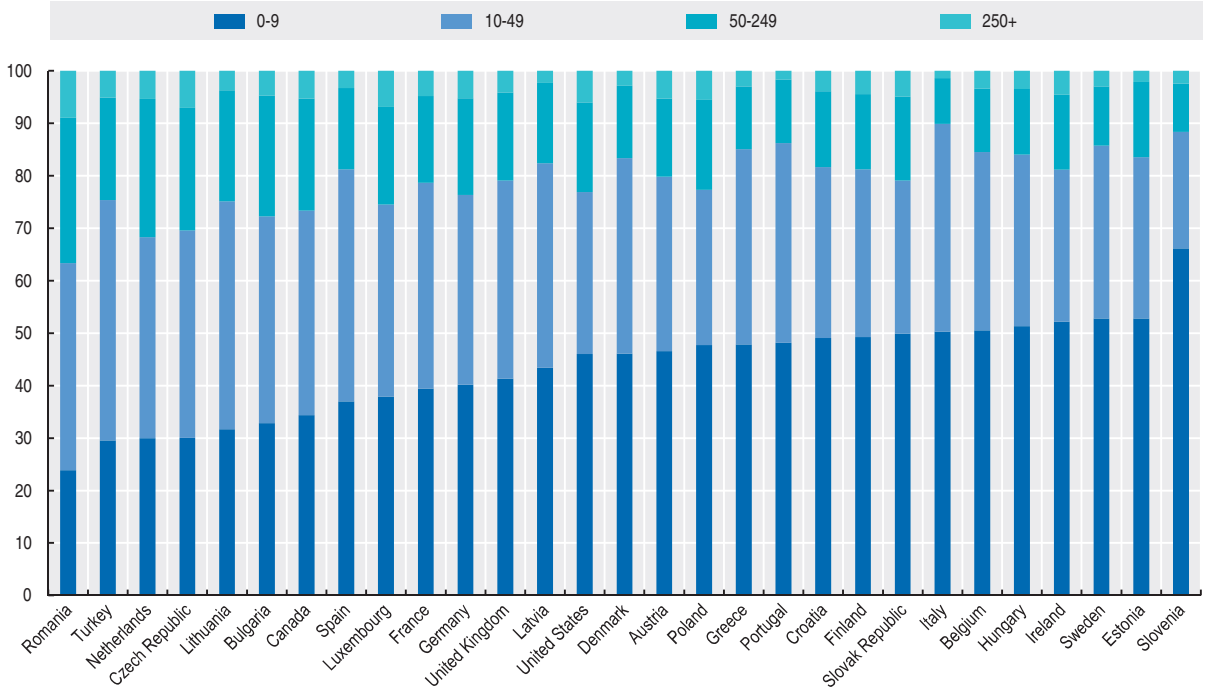
OECD Structural and Demographic Business Statistics (SDBS) (database), *http://dx.doi.org/10.1787/sdbs-data-en*.

OECD Trade by Enterprise Characteristics Database (TEC), http://stats.oecd.org/Index.aspx?DataSetCode=TEC1_REV4.

OECD Activity of Multinational Enterprises Database (AMNE), http://stats.oecd.org/Index.aspx?DataSetCode=AMNE_IN.

Figure 5.4. **Share of exporters by enterprise size, industry**

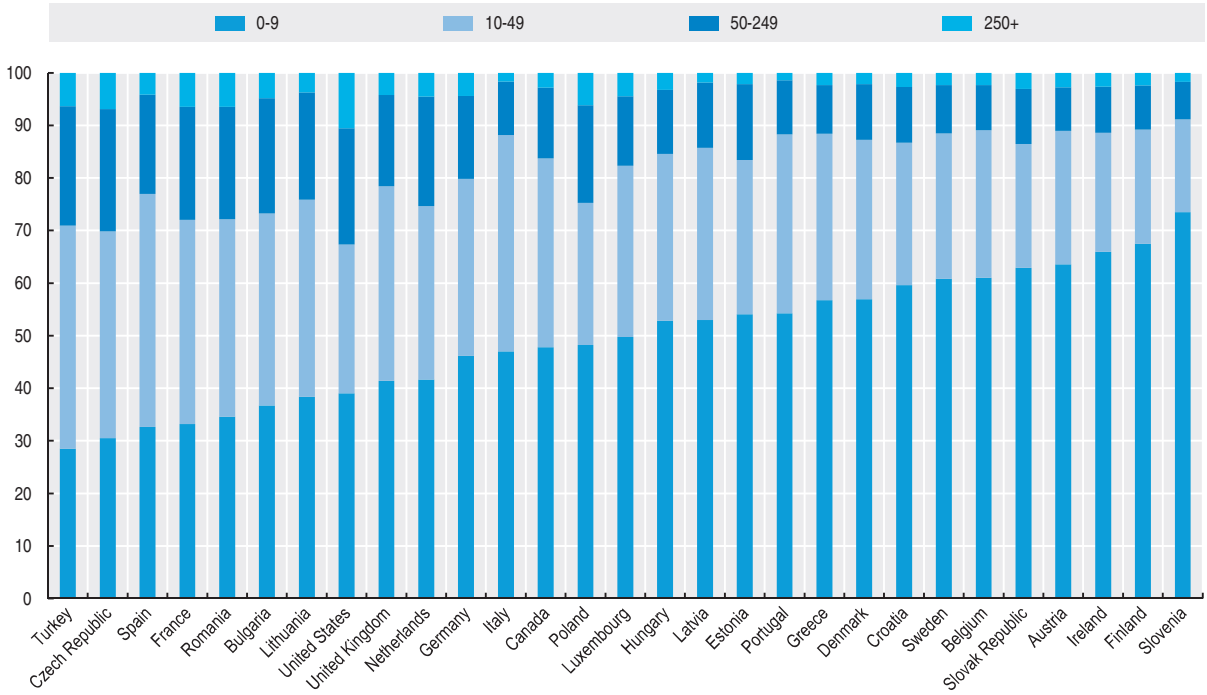
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230941

Figure 5.5. **Share of importers by enterprise size, industry**

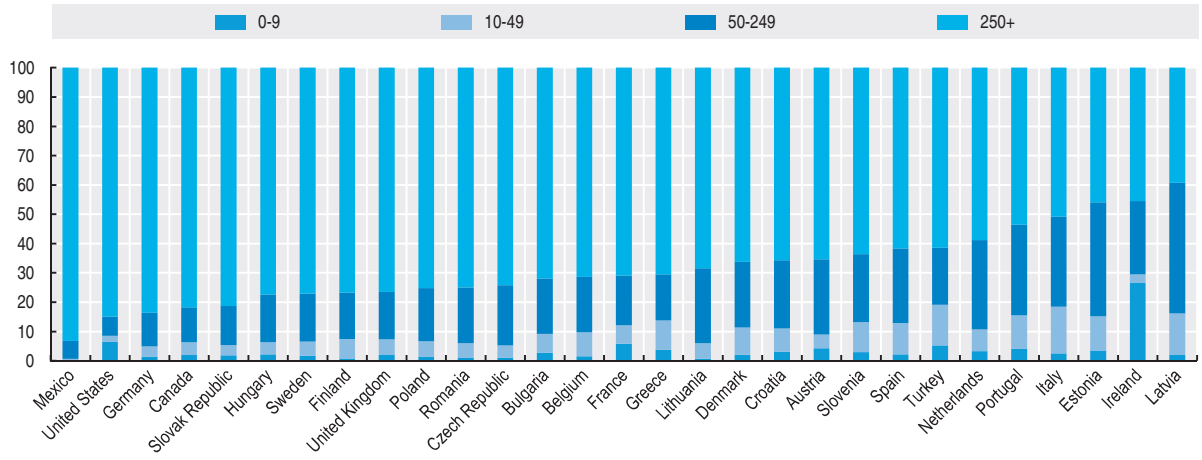
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230954

Figure 5.6. **Share of exports by enterprise size, industry**

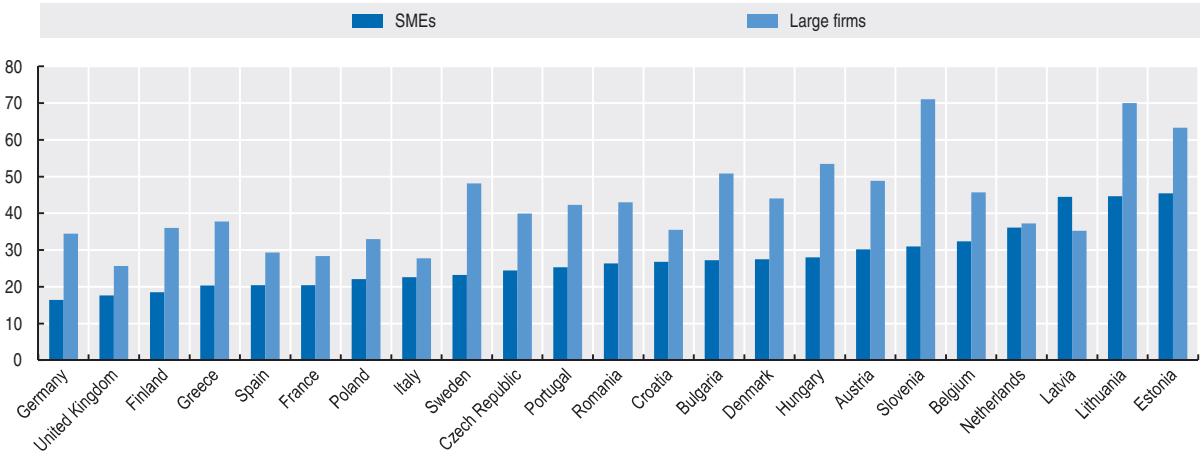
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230960

Figure 5.7. **Export value to turnover ratio by enterprise size, industry**

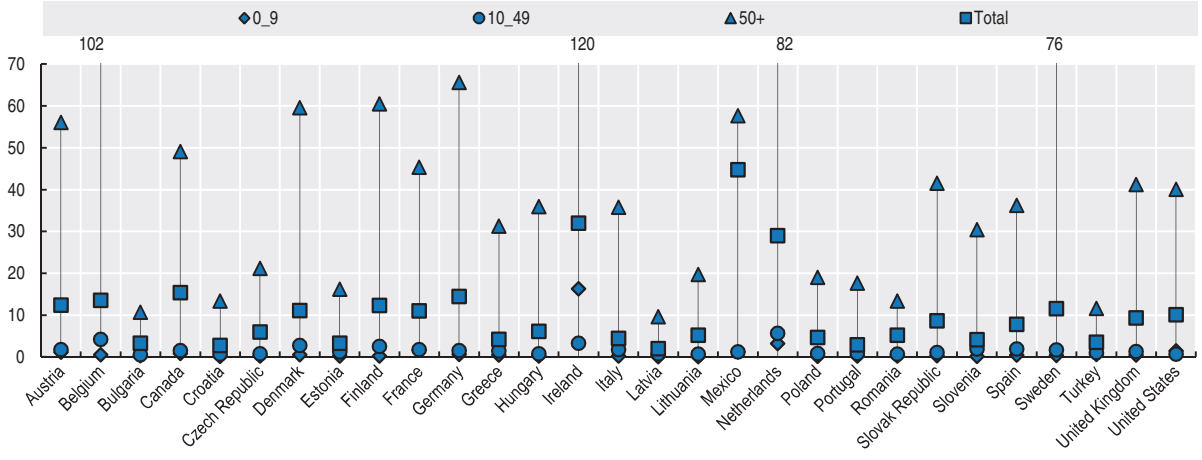
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933230971

Figure 5.8. **Average value of exports per enterprise, by enterprise size, industry**

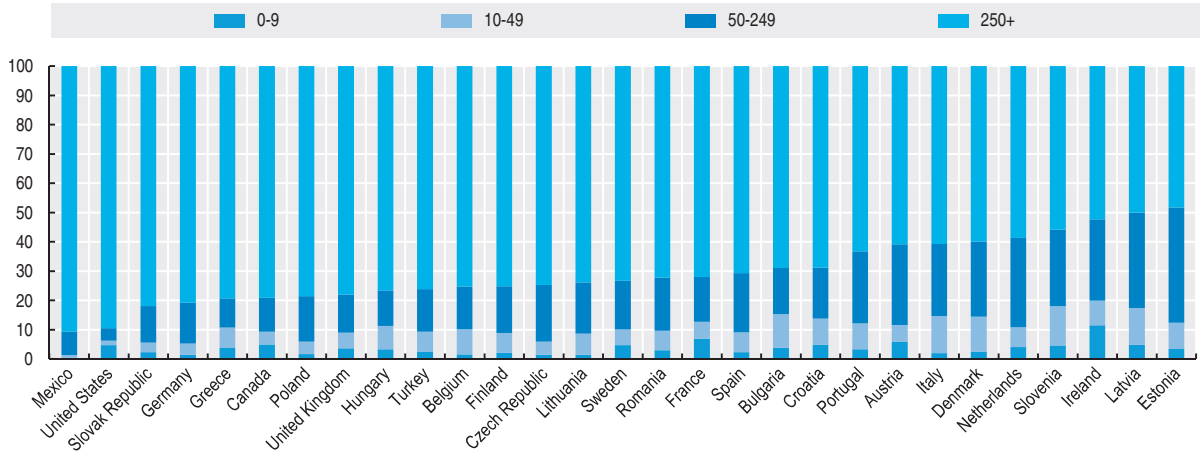
Million US dollars, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230986

Figure 5.9. **Share of imports by enterprise size, industry**

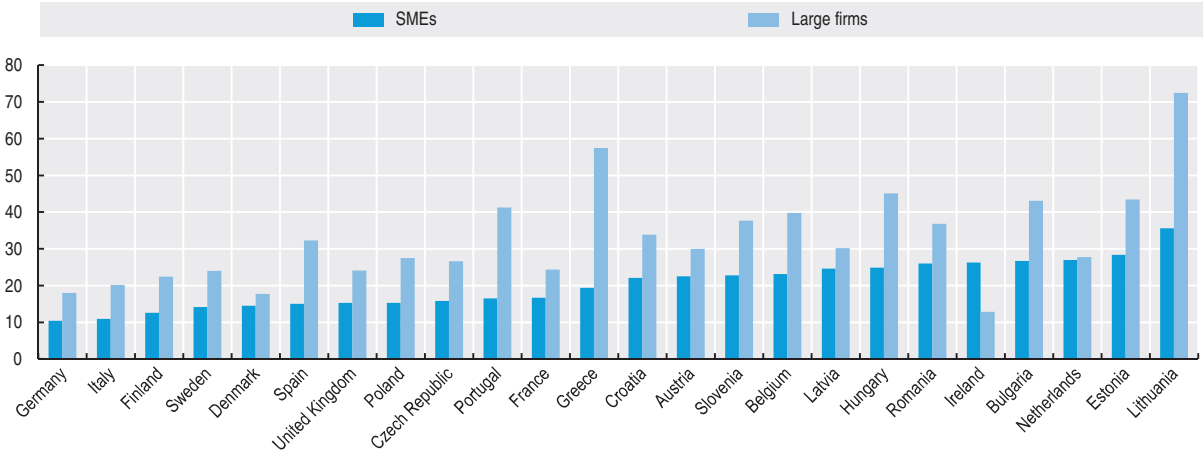
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933230994

Figure 5.10. **Import value to turnover ratio by enterprise size, industry**

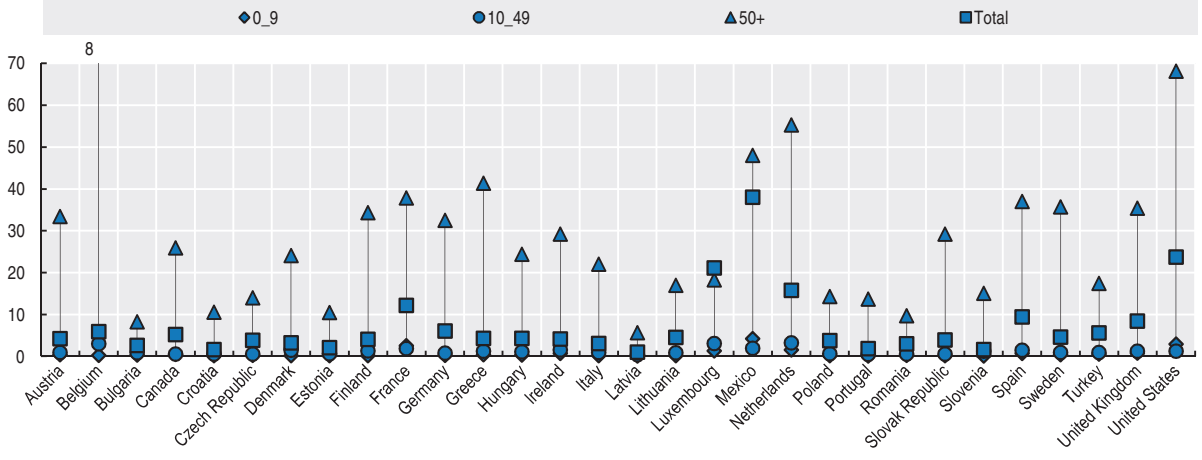
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933231004

Figure 5.11. **Average value of imports per enterprise, by enterprise size, industry**

Million US dollars, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933231010

Trade with emerging economies

Key facts

- SMEs typically export disproportionally more to neighbouring countries than large firms. Though, SME participation in trade with emerging economies is relevant in many countries, where large shares of SMEs trade with China and India.
- In several countries, the SME share of exports and imports to China and India is higher than the SME share in overall exports and imports.

Definitions

The shares of exports (imports) by enterprise size are calculated as the ratio of the value of exports (imports) by each size class over the total value of exports (imports).

The *share of SMEs among exporters (importers)* is the number of exporting (importing) SMEs divided by the total number of exporting (importing) enterprises. The share of *SMEs among exporters (importers) to country x* is calculated as the number of SMEs exporting (importing) to country x divided by the total number of enterprises exporting (importing) to that country.

SME share of exports (imports) to country x is calculated as the value of SME exports (imports) to country x divided by the total exports (imports) to that country.

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

Relevance

Enhancing the integration of SMEs into global markets of goods, services and knowledge is a policy priority for many countries around the world. Trade data support the analysis of SME involvement in trade; however, they can underestimate the full contribution of smaller enterprises as they do not reflect SME participation through supply of intermediate goods to larger domestic enterprises.

Comparability

Data cover goods producing industries (ISIC Rev.4 sectors 05 to 39).

Some care is needed in interpreting the data which reflect direct export channels only, and so may understate the true underlying scale of integration within global value chains (particularly by size class), for example by upstream SME producers of intermediates supplying goods and services to larger exporting firms. Similarly many (particularly small) firms may export via intermediary wholesalers.

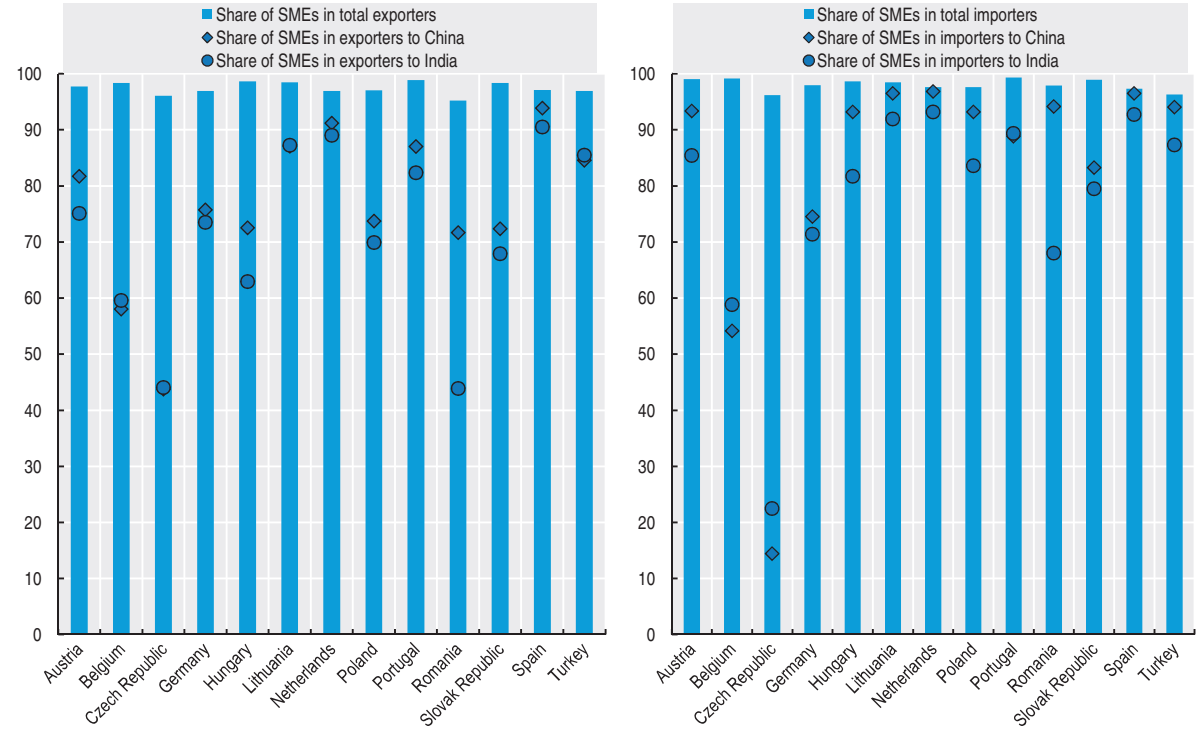
Source

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

OECD Trade by Enterprise Characteristics Database (TEC), *http://stats.oecd.org/Index.aspx?DataSetCode=TEC1_REV4*.

Figure 5.12. **SME traders with China and India, total economy**

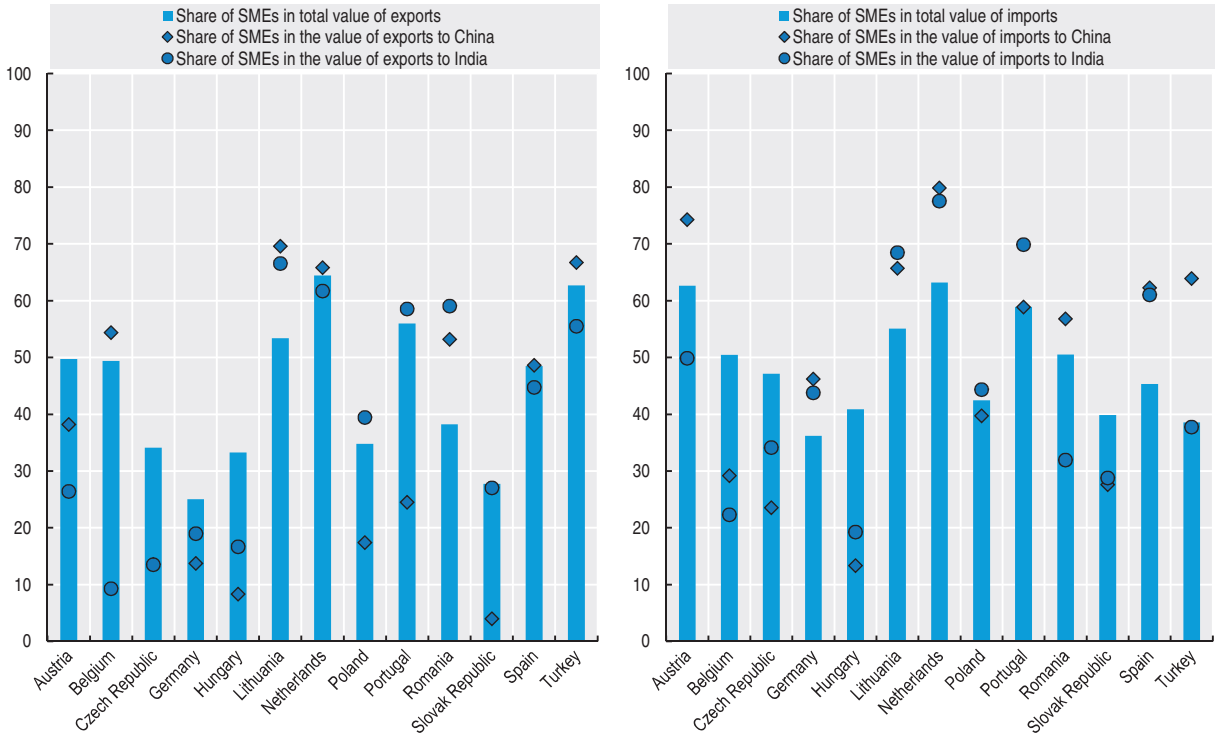
Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933231029

Figure 5.13. **SME share of trade with China and India, total economy**

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933231038

Trade by enterprise ownership

Key facts

- The share of exports and imports of foreign-owned firms is typically higher than their share in the total number of exporters and importers. In Hungary and the Slovak Republic, foreign-owned exporters account for more than 80% of the total value of exports and imports.
- In a majority of countries, enterprises that are foreign-owned have higher ratios of exports and imports to turnover than domestically-owned enterprises. In Austria and the Slovak Republic the ratios for domestic and foreign enterprises are similar, and even higher for exports of domestic enterprises in Germany.
- The average trade value per enterprises in industry is higher for foreign-owned firms, with the exception of imports in the Czech Republic.

Definitions

Ownership is defined in terms of control. The notion of control implies the ability to appoint a majority on the company board, guide its activities and determine its strategy. This ability is exercised by a single direct investor or a group of associated shareholders acting in concert and controlling the majority (more than 50%) of ordinary shares or voting power. The control of an enterprise may be direct or indirect, immediate or ultimate.

The *share of exports (and imports) of foreign-owned enterprises* is calculated as the value of exports (imports) by foreign-owned enterprises divided by the total value of exports.

Export (import) to turnover ratio is defined as the ratio of the value of exports (imports) of exporting (importing) enterprises to the total turnover of exporting (importing) enterprises.

Average value of exports (imports) per enterprise is defined as the value of exports (imports) divided by the number of exporting (importing) enterprises.

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

Relevance

Global value chains are dominated by multinationals, which increasingly allocate stages of production to different locations on the basis of relative specialisations (skills, access to natural resources, infrastructure, regulatory environment) and access to markets, driving disproportionate growth in trade in intermediates. Understanding the nature of these chains and the role of foreign affiliates in generating spillovers, both from knowledge and through the development of upstream domestic supplier chains, is a crucial component of upgrading strategies.

Comparability

The indicator on ratio of export (import) value to turnover should be considered experimental; it is in fact obtained by combing two distinct databases, OECD *Trade by Enterprise Characteristics (*TEC) and *Activity of Multinational Enterprises* (AMNE), that are developed according to different methodologies. The TEC data are derived from the linkage of business registers with trade registers identifying all the traders resident in an economy, so they are fully based on administrative sources. The export and import values by industry reported in TEC can deviate from the "real" value because of incomplete coverage of the registers or because of matching issues between the trade and business registers. The AMNE data are instead often compiled through a combination of administrative and survey data, so they might involve imputation and estimation.

Some care is needed in interpreting the data which reflect direct export channels only, and so may understate the true underlying scale of integration within global value chains (particularly by size class), for example by upstream SME producers of intermediates supplying goods and services to larger exporting firms. Similarly many (particularly small) firms may export via intermediary wholesalers.

Source

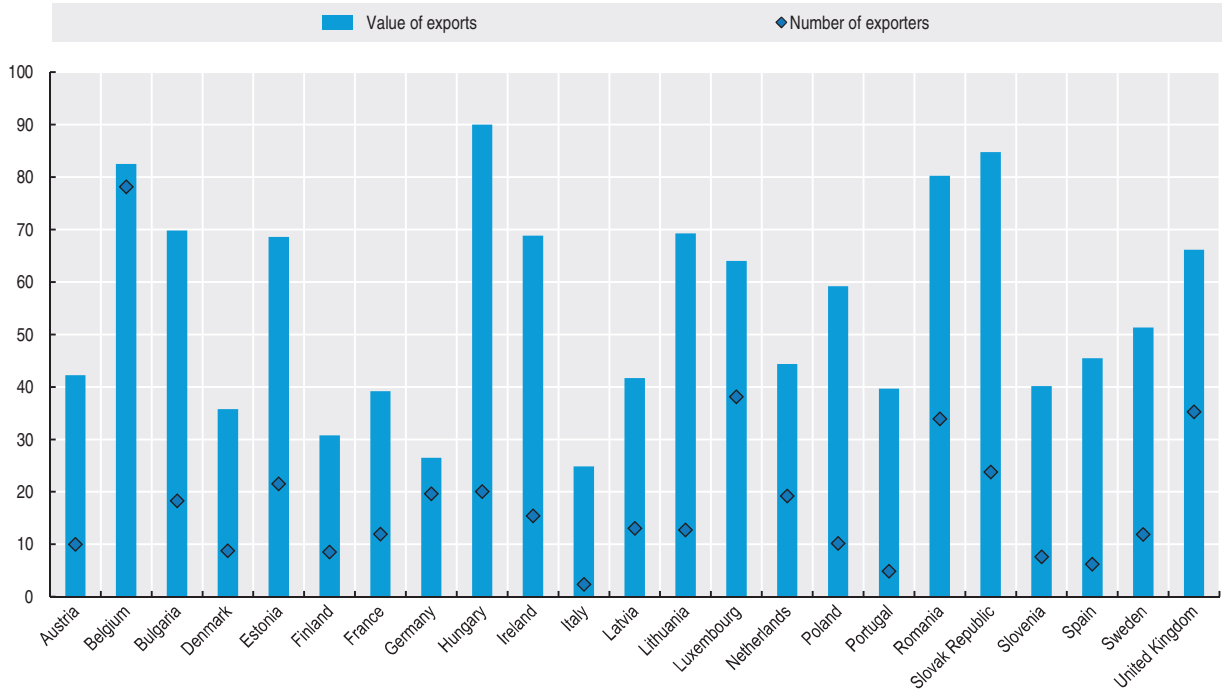
OECD Structural and Demographic Business Statistics (SDBS) (database), *http://dx.doi.org/10.1787/sdbs-data-en*.

OECD Trade by Enterprise Characteristics Database (TEC), http://stats.oecd.org/Index.aspx?DataSetCode=TEC1_REV4.

OECD Activity of Multinational Enterprises Database (AMNE), http://stats.oecd.org/Index.aspx?DataSetCode=AMNE_IN.

Figure 5.14. **Share of exporters and export value, foreign-owned enterprises, industry**

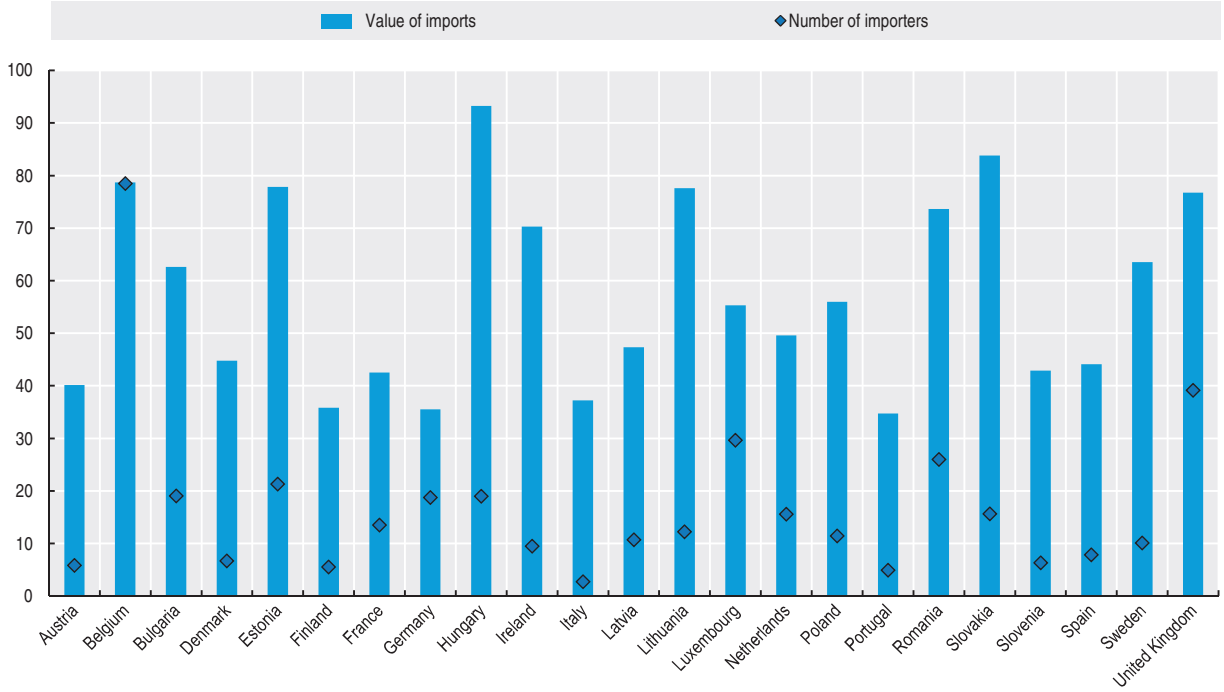
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933231046

Figure 5.15. **Share of importers and import value, foreign-owned enterprises, industry**

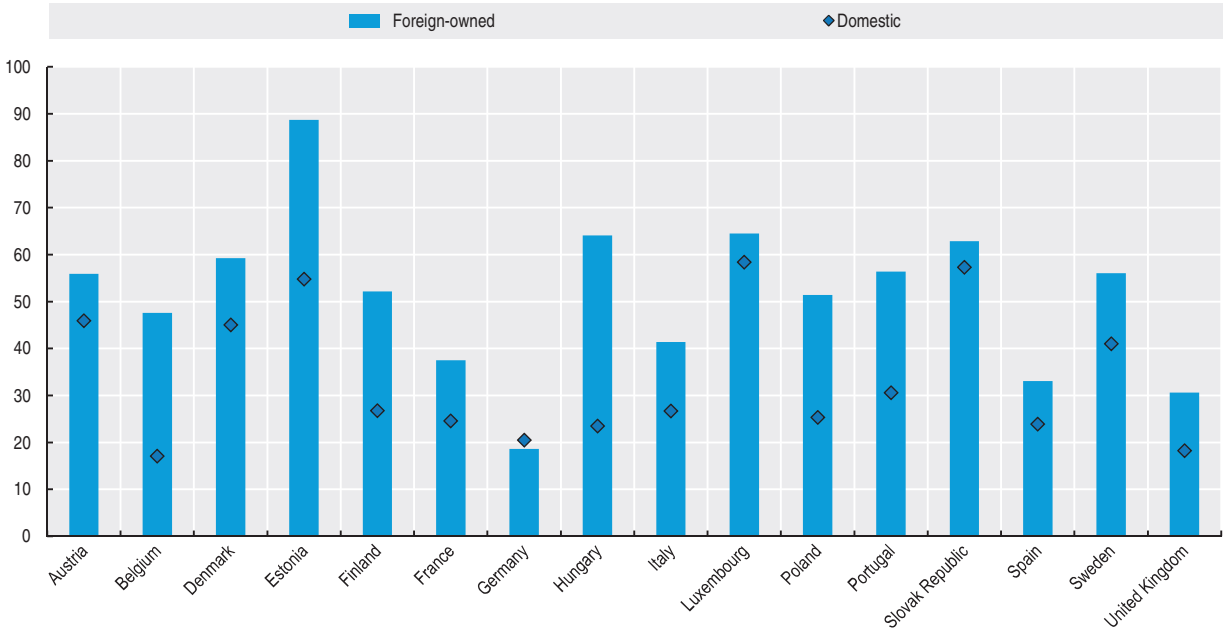
Percentage, 2012, or latest available year



StatLink http://dx.doi.org/10.1787/888933231054

Figure 5.16. **Export to turnover ratio by enterprise ownership, industry**

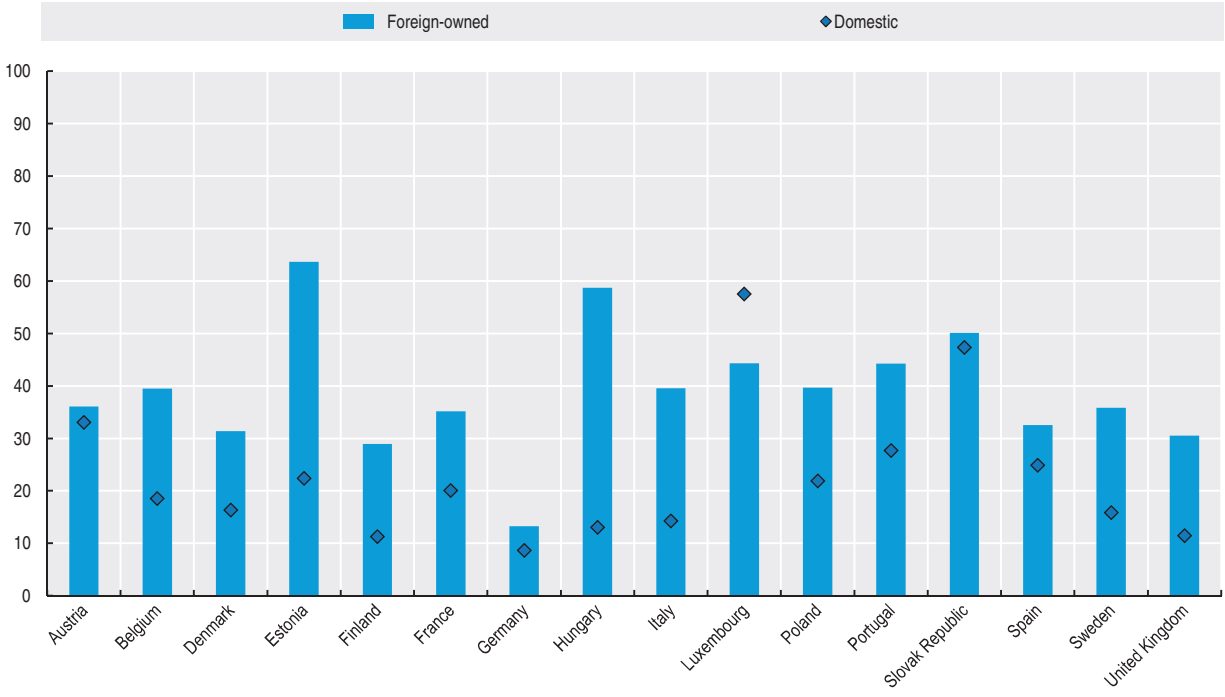
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933231069

Figure 5.17. **Import to turnover ratio by enterprise ownership, industry**

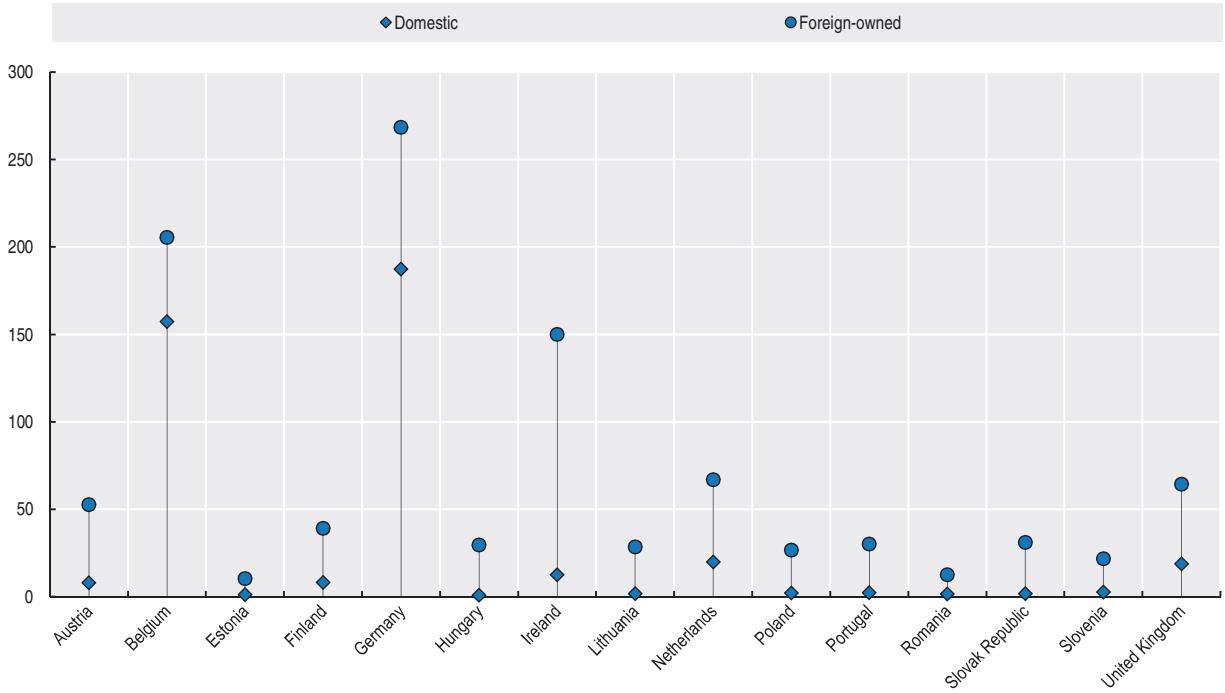
Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933231076

Figure 5.18. **Average value of exports per enterprise, by enterprise ownership**

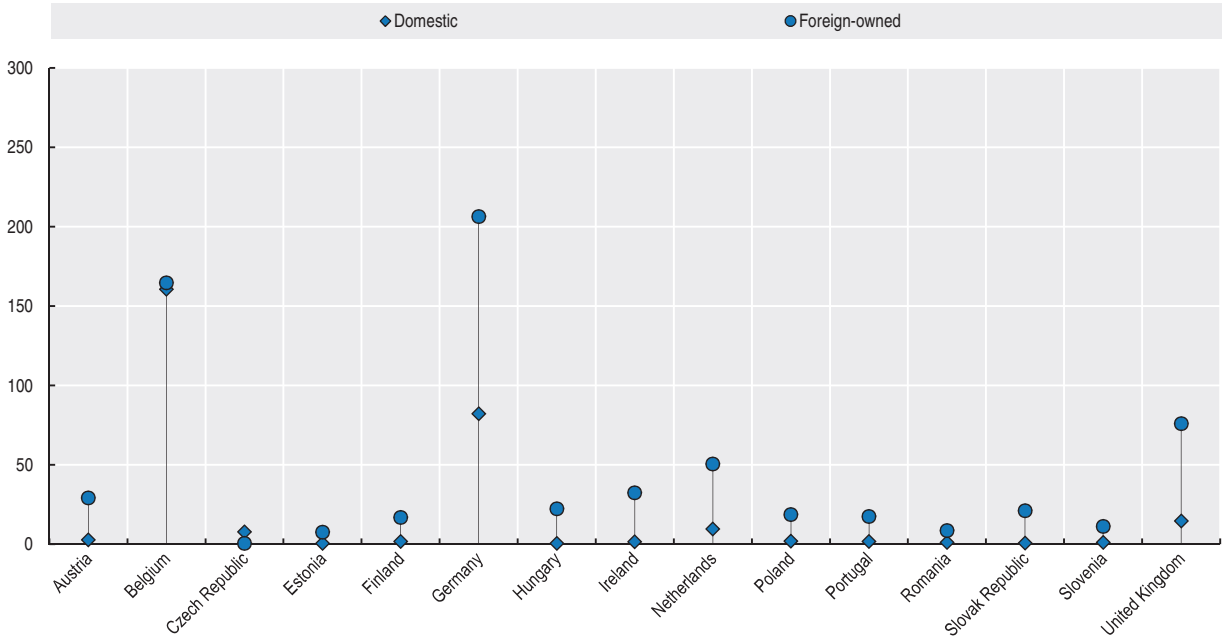
Million US dollars, 2012



StatLink http://dx.doi.org/10.1787/888933231088

Figure 5.19. **Average value of imports per enterprise, by enterprise ownership**

Million US dollars, 2012



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6. THE PROFILE OF THE ENTREPRENEUR

Gender differences in self-employment rates

Self-employment among the youth

Earnings from self-employment

Gender differences in self-employment rates

Key facts

- In OECD economies, two and a half times as many men as women are self-employed with paid employees.
- In all OECD economies, except Turkey, self-employed women are more likely than self-employed men to work in the services sector. About 80% of self-employed women work in the services sector compared to less than 60% for men. In Germany, Israel and the United Kingdom the share of self-employed women working in the services sector is above 90%.
- Around 70% of women employers in the OECD area own firms in market services and more particularly in trade, hotels and transport activities. In all OECD countries except Poland, the share of female own account workers is higher in the services sector than in agriculture, industry and construction.

Relevance

Women entrepreneurship is increasingly recognised as a key source of employment creation and innovation and for addressing inequalities. However, gender differences in entrepreneurship are often difficult to measure, complicating the evaluation of support policies for women entrepreneurs.

Definitions

The number of women employers is given by the number of women who report their status as "self-employed with employees" in population surveys. The number of women own-account workers is given by the number of women who report their status as "self-employed without employees". The share of women employers (own-account workers) is given in relation to the total number of women in employment. The same indicators are calculated for self-employed men.

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

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

Comparability

The main comparability issue relates to the classification of "self-employed" owners of incorporated businesses. Some countries, for example Japan, New Zealand, Norway and the United States, include only the self-employed owners of unincorporated businesses, following the 2008 SNA. To improve international comparability, the number of incorporated employers and own-account workers in the United States has been estimated, using information from the Contingent and Alternative Work Arrangements Surveys.

In Figures 6.4 and 6.5, based on Labour Force Surveys data, services include ISIC Rev. 4 sectors 45-75.

In Figure 6.6, based on population census data, agriculture includes agriculture, forestry and fishing; industry includes manufacturing, mining and quarrying, and other industries; trade, hotels and transport include wholesale and retail trade, transportation and storage, accommodation and food service activities; other services include information and communication, financial and insurance activities, real estate activities and other services; professional services include professional, scientific, technical, administrative and support service activities; public and social services include public administration, defence, education, human health and social work activities.

Not all the self-employed are "entrepreneurs". Self-employment statistics include, for example, craft-workers and farmers. Care is thus needed in interpreting the data in analyses of entrepreneurship.

Sources

Australia: Labour Force Survey; Census Population and Housing, 2011.

Chile: Encuesta Nacional de Empleo.

Canada: Labour Force Survey.

Eurostat: Labour Force Surveys; Census Hub.

Israel: Labour Force Survey.

Japan: Labour Force Survey; 2010 Population Census of Japan.

Korea: Economically Active Population Survey; Population Census.

Mexico: Encuesta Nacional de Empleo.

United States: Current Population Survey.

Brazil: National Household Sample Survey; 2010 Population Census.

South Africa: Labour Force Survey.

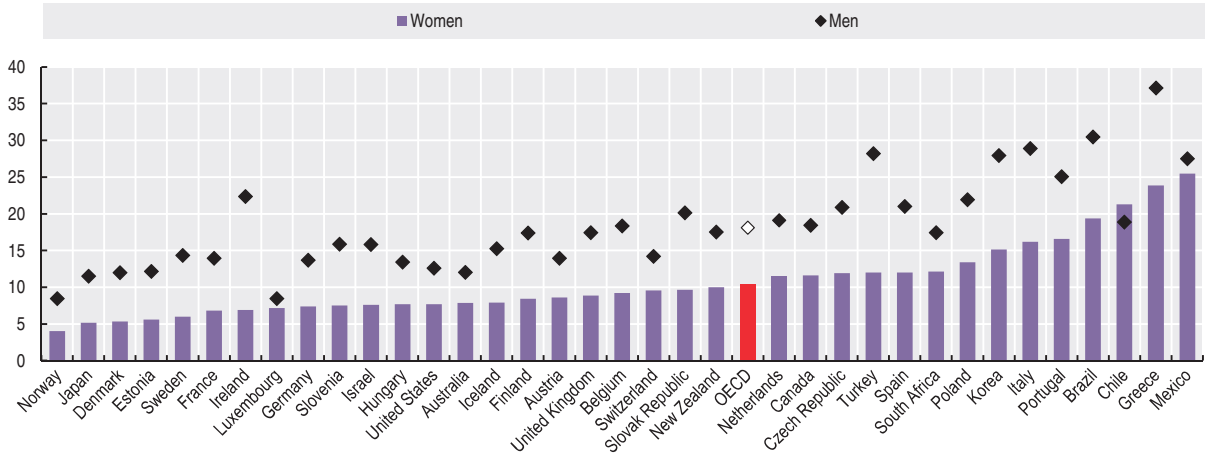
Further reading

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

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

Figure 6.1. **Share of self-employed men and women**

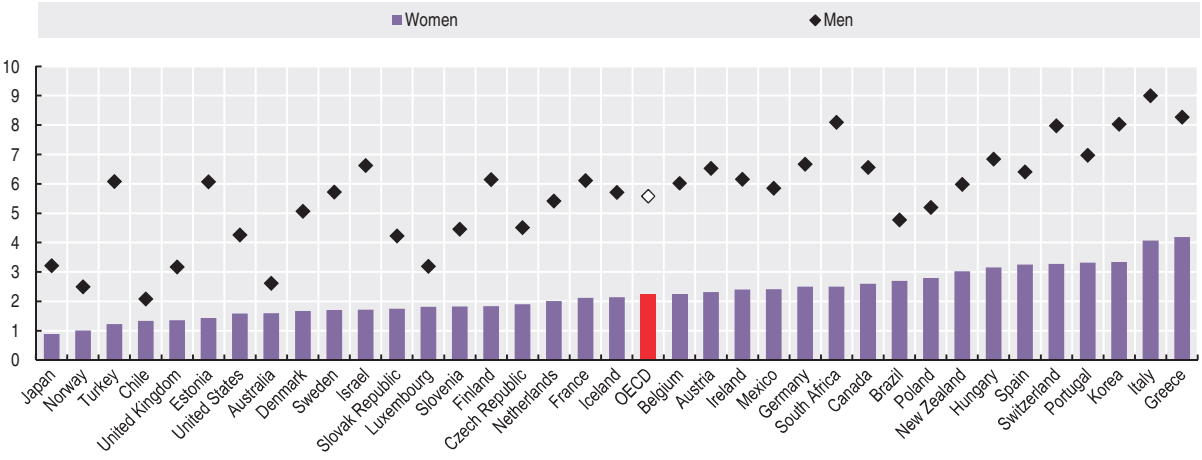
Percentage, 2013



StatLink http://dx.doi.org/10.1787/888933231106

Figure 6.2. **Share of men and women employers**

Percentage, 2013



StatLink http://dx.doi.org/10.1787/888933231115

Figure 6.3. **Share of men and women own-account workers**

Percentage, 2013

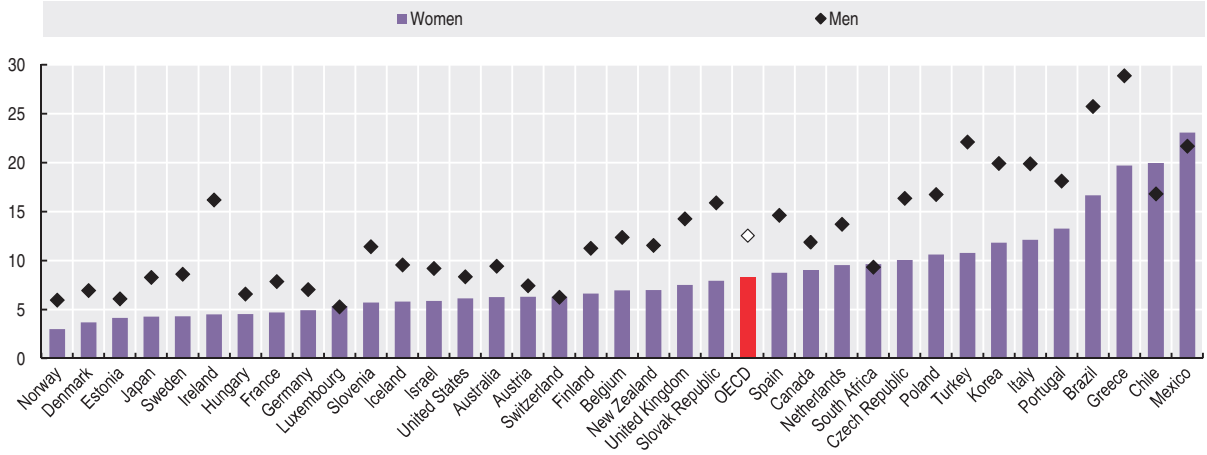


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Figure 6.4. **Self-employed whose activity is in manufacturing and construction**

Percentage, 2013

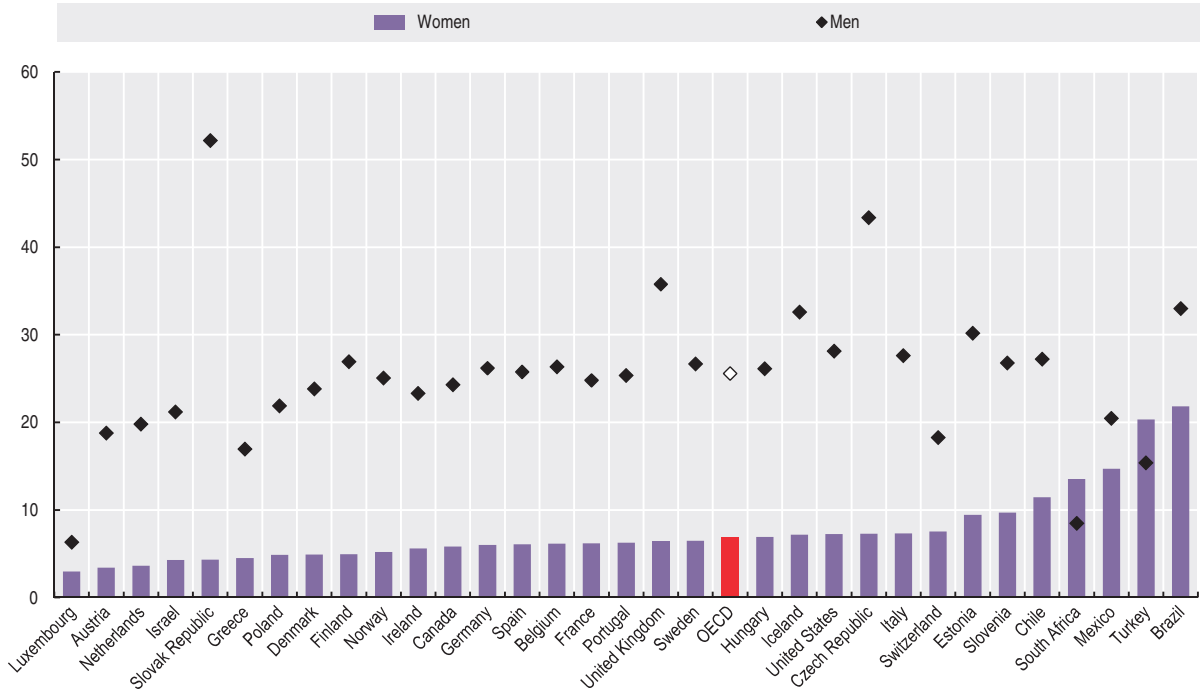

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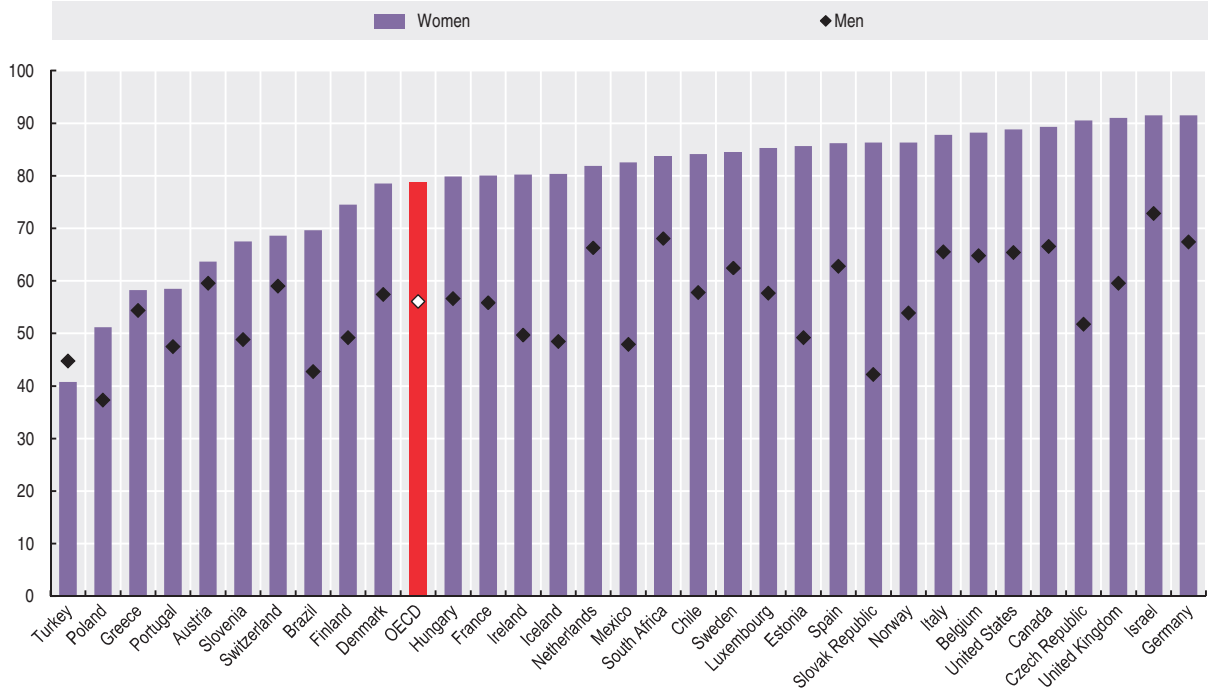
Figure 6.5. **Self-employed whose activity is in services**

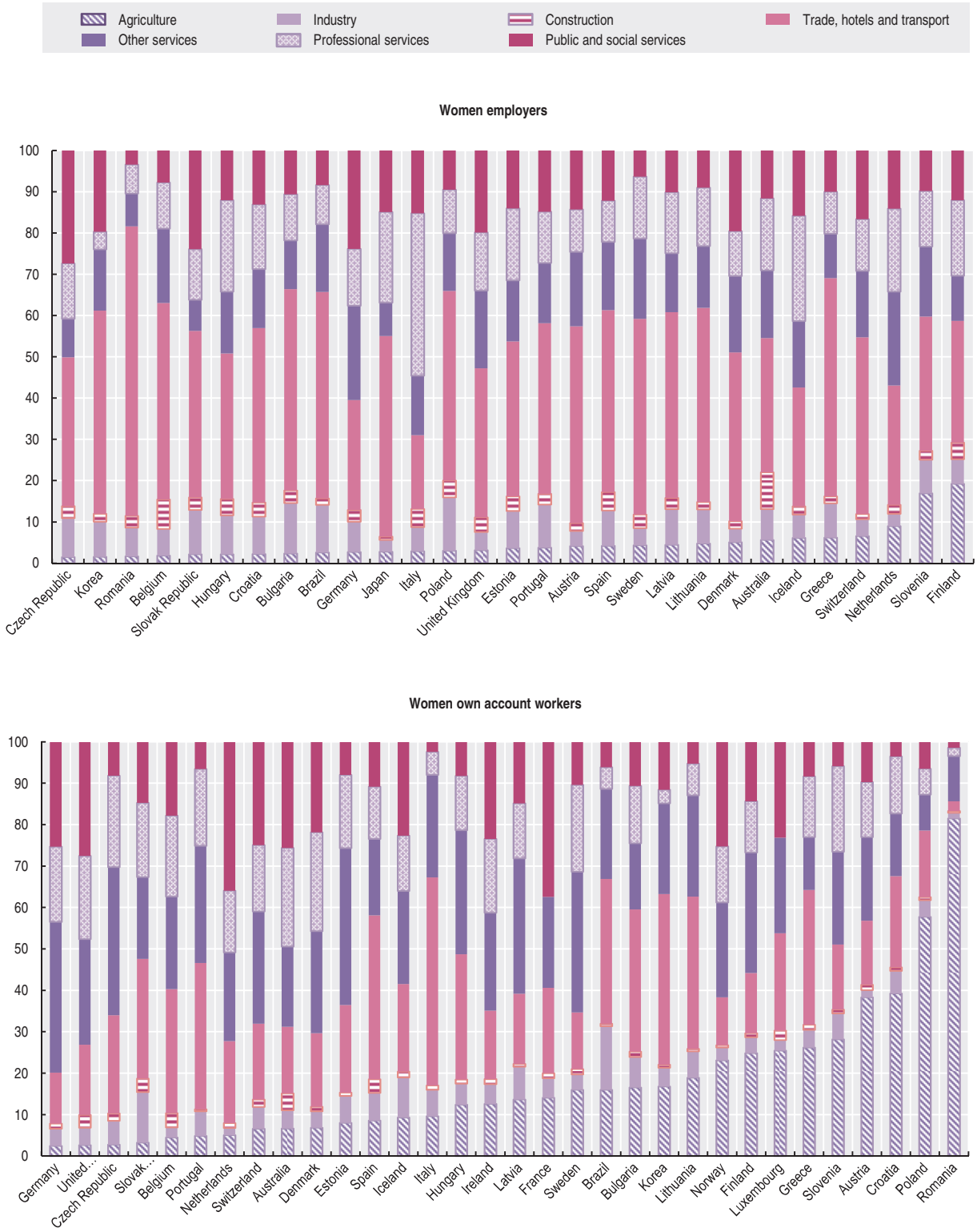
Percentage, 2013



StatLink http://dx.doi.org/10.1787/888933231144

Figure 6.6. **Distribution of self-employed women by sector**

Percentage



StatLink http://dx.doi.org/10.1787/888933231150

Self-employment among the youth

Key facts

- People under 25 have relatively low self-employment rates: around 4.4% and 7.2% on average in the OECD countries for women and men respectively. In Italy and Greece the self-employment rate among the youth is above 10% for both women and men.
- In most countries between 60% and 80% of young women employers (age 20-29) own businesses in market services, but the evidence points to considerable diversity in many countries suggesting that stereotype barriers may be being eroded. Indeed, in most OECD countries, between 12% and 25% of young women employers own business in the construction sector.

Relevance

Increasing self-employment rates in the youth population can form an important policy target to address high youth unemployment.

Definitions

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

The population census-based number of young women employers is defined as the number of women aged 20 to 29 who report their status as "self-employed with employees" in population surveys. All economic activities are covered, including agriculture.

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

Comparability

Self-employment rates for the youth are close to zero in several countries. Comparability issues can be generated by the different treatment of incorporated self-employed, who are considered employees in Japan, New Zealand, Norway and the United States. As the young are less likely to have incorporated their business, youth self-employment rates may be higher in countries that restrict the self-employed to those owning unincorporated businesses.

For the sector breakdown in Figure 6.8, see "Comparability" under "Gender differences in self-employment rates".

Sources

Australia: Labour Force Survey.

Chile: Encuesta Nacional de Empleo.

Canada: Labour Force Survey.

Eurostat: Labour Force Surveys.

Israel: Labour Force Survey.

Mexico: Encuesta Nacional de Empleo.

United States: Current Population Survey.

Brazil: National Household Sample Survey.

South Africa: Labour Force Survey.

Further reading

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

OECD/European Union (2012), "Policy Brief on Youth Entrepreneurship. Entrepreneurial activities in Europe", *www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

Figure 6.7. **Self-employment rates for the youth (15-24), by gender**

Percentage, 2013

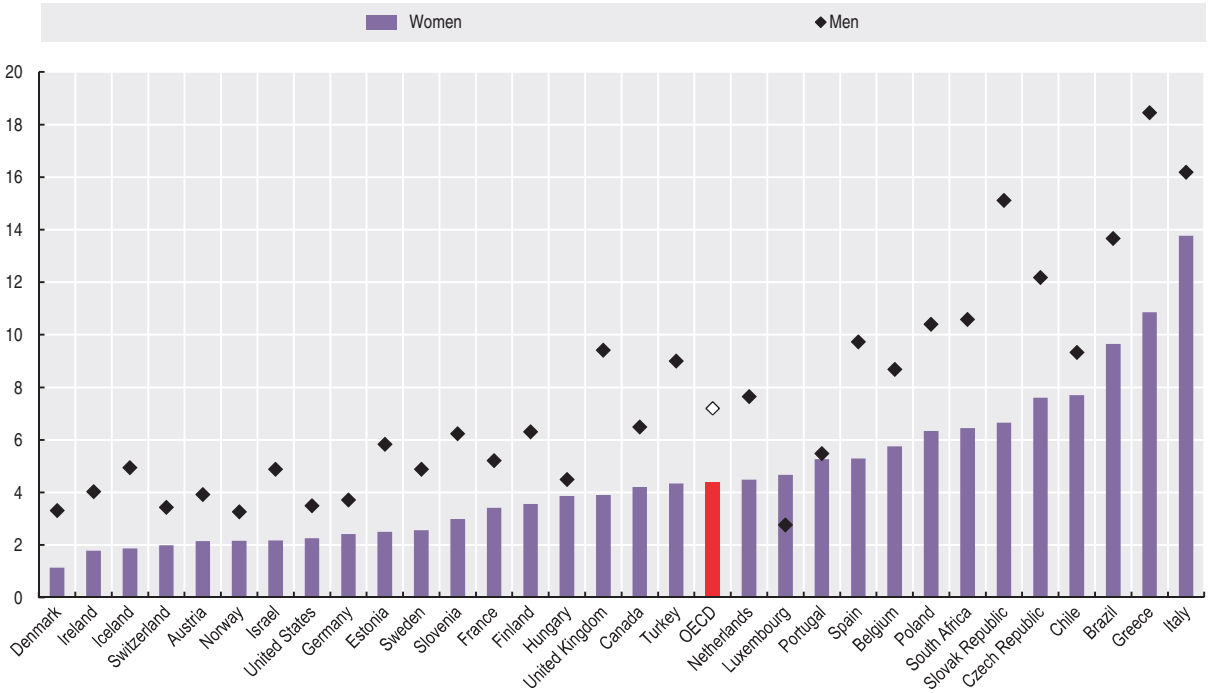


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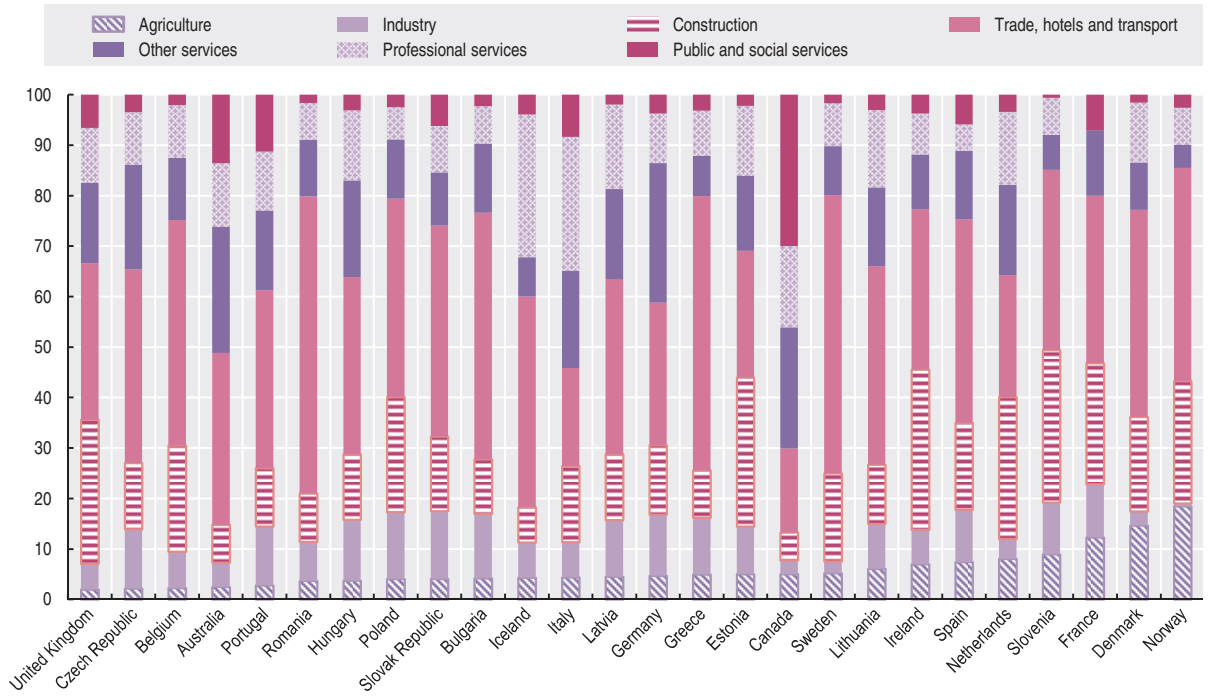
Figure 6.8. **Distribution of young women employers by sector (age 20-29)**

Percentage, 2010 or 2011



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Earnings from self-employment

Key facts

- In 2011 self-employed women earned between 10 and 60% less than men across all countries, but over the period 2006 to 2011 the gap closed significantly in some, more than 10 percentage points in Belgium, Finland, Greece, Iceland, Luxembourg and the Netherlands.
- In Denmark, one of the countries where the gap in self-employment earning between women and men is lowest, it nevertheless increased by almost 8 percentage points since 2006.

Relevance

The fear of low or erratic earnings is one of the main reasons why many people do not become entrepreneurs. While entrepreneurship is a pathway to wealth for highly successful individuals, many self-employed struggle with relatively low incomes. Low incomes mean lower opportunities to accumulate savings, and thus a higher likelihood of falling into poverty if the business fails.

Definitions

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

The *changes in gender gap in self-employment earnings* are defined as the percentage-point difference between two years of the gender gap in self-employment earnings.

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

Comparability

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

Sources

European Union Statistics on Income and Living Conditions (EU-SILC), 2011 wave.

American Community Survey, 2011 wave.

New Zealand Income Survey, 2011.

Survey of Labour and Income Dynamics (Canada), 2010.

For further reading

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

OECD (2012), *Closing the Gender Gap: Act Now*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264179370-en*.

Figure 6.9. **Gender gap in self-employment earnings**

Percentage

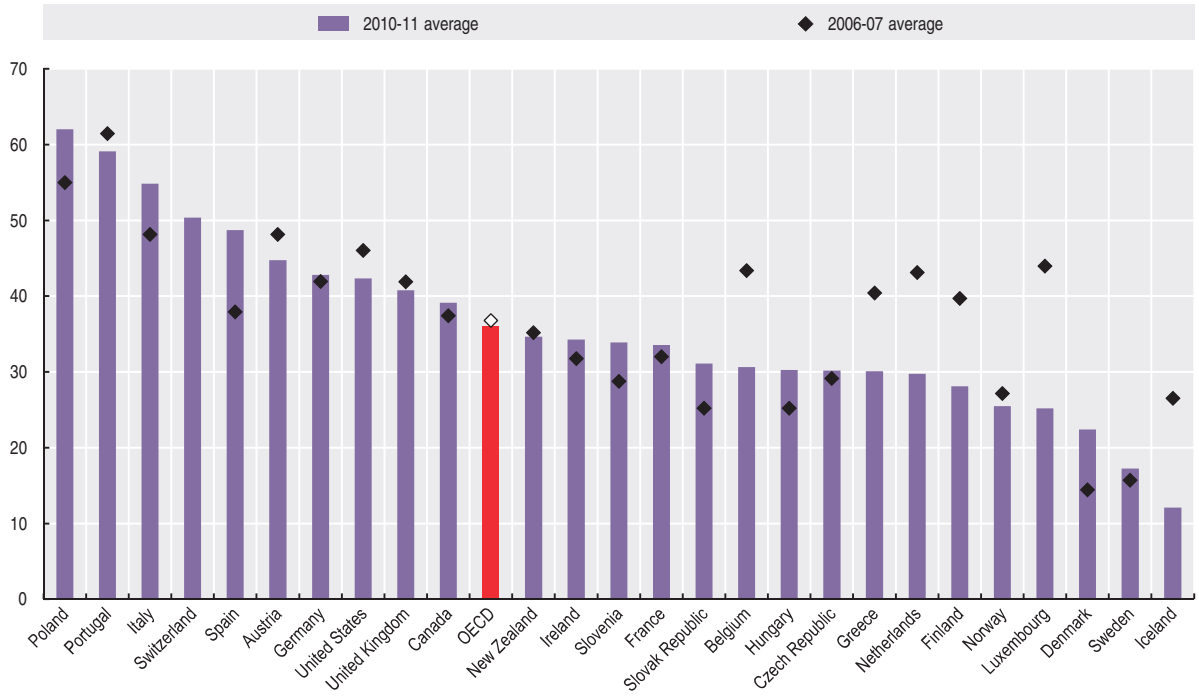

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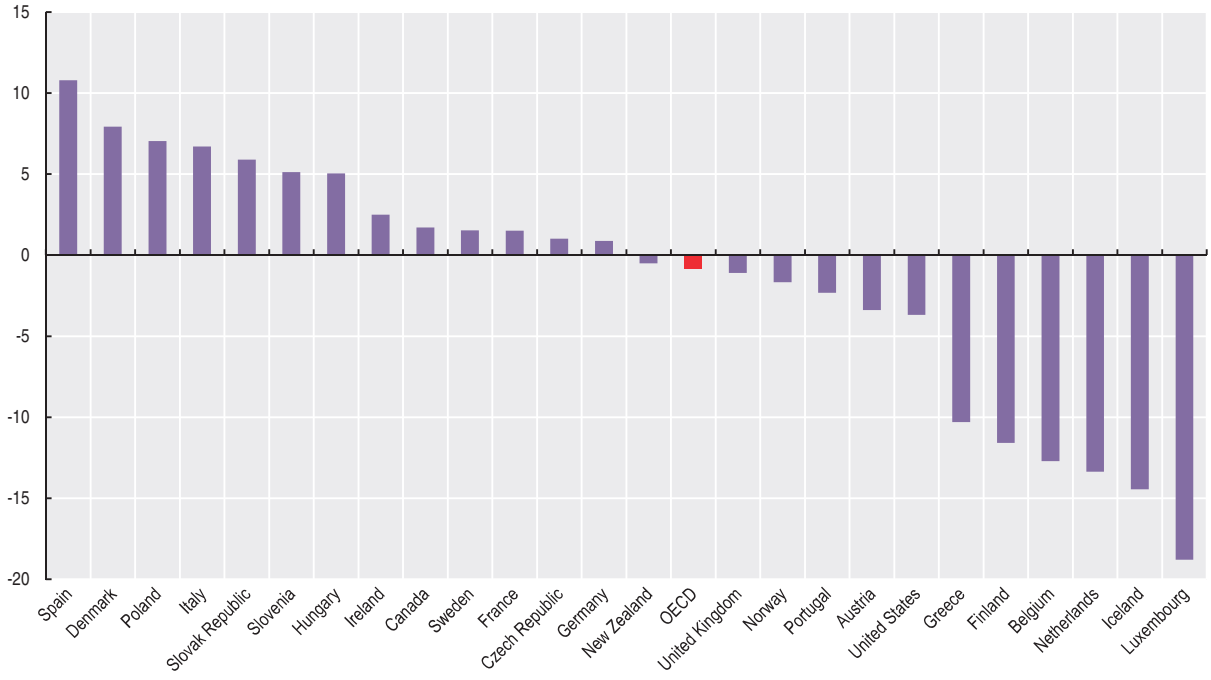
Figure 6.10. **Changes in gender gap in self-employment earnings**

Percentage points, 2010-11 average compared to 2006-07 average



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7. DETERMINANTS OF ENTREPRENEURSHIP: SELECTED INDICATORS

Access to finance: Venture capital

Market access: Trade barriers

Culture: Entrepreneurial perceptions and attitudes

Access to finance: Venture capital

Key facts

- In the majority of countries, venture capital represents a very small percentage of GDP, e.g. often less than 0.05%. Exceptions are Israel and the United States, where the venture capital industry is more mature and represented respectively 0.38% and 0.28% of GDP in 2014. Venture capital investments in the United States accounted for more than 80% of the OECD total in 2014.
- The crisis severely affected the venture capital industry, with seed and start-up stage financing holding up better than later-stage financing. Venture capital investments were higher in 2014 than in 2007 in only a few countries, including Hungary, Korea, the United States, the Russian Federation and South Africa. In the United States, in particular, investments doubled in the last two years alone, but remained below the exceptionally high levels reached in 2000 at the height of the dot.com boom.
- Significant cross country differences exist in the type of companies likely to receive venture capital investments. In 2014, in the United States, nearly half of all investments were in computer and consumer electronics firms, over double the rate in Europe, where around one-third of all investments went to life sciences companies.
- Typically venture capital provides a financing option in less than 0.1% of firms, predominantly during their start-up phase. In the majority of countries, the average investment per company has declined compared to the pre-crisis level; in Israel and the United States, though, it is well above the 2007 average.

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, and replaces and/or complements traditional bank finance.

Comparability

With the exception of Australia, data on venture capital are drawn from national or regional venture capital associations in some cases with the support of commercial data providers. Australian data are collected by the Australian Bureau of Statistics.

The statistics presented correspond to the aggregation of investment data according to the location of the portfolio 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.

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 (also called portfolio companies or investee companies) are new or young enterprises that are (partially or totally) financed by venture capital.

The *average venture capital investment* per company is the ratio between the total venture capital investments in a country and the number of venture capital-backed companies in the country.

The *venture-capital backed companies rate* is computed as the number of enterprises that received venture capital over 1000 employer enterprises.

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*).

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

Data for Australia refer to the fiscal year. Data for Israel refer only to venture capital-backed high-tech companies. For Canada, data are shown only for 2014, as the series of Canadian data is being revamped.

In figure 7.5, percentages for the United States relate to the number of investment deals by development stage.

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

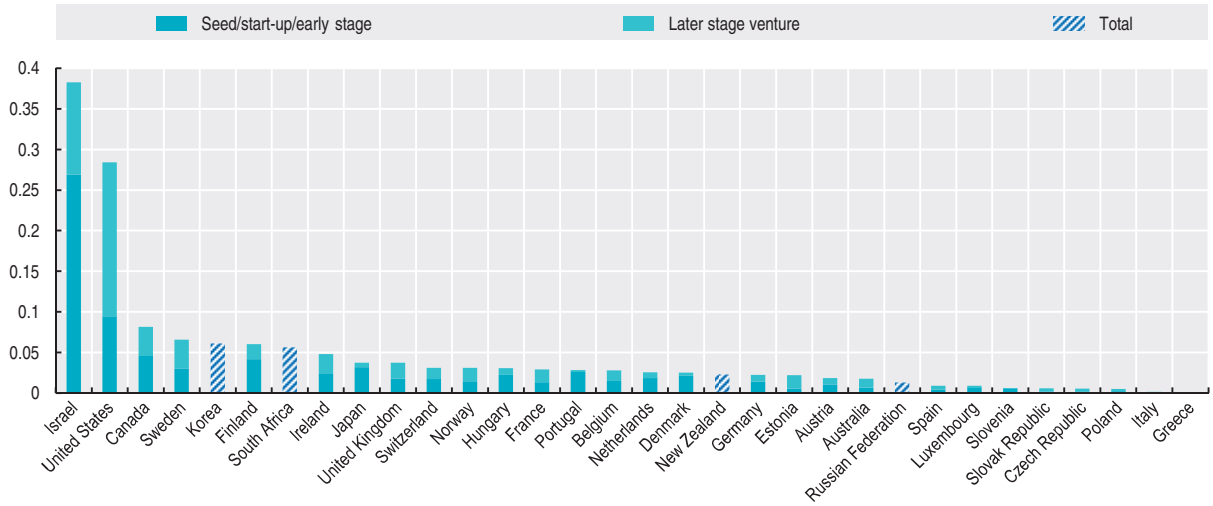
Annex C presents correspondence tables between original data and OECD harmonised data.

Source

OECD Entrepreneurship Financing Database.

Figure 7.1. **Venture capital investments as a percentage of GDP**

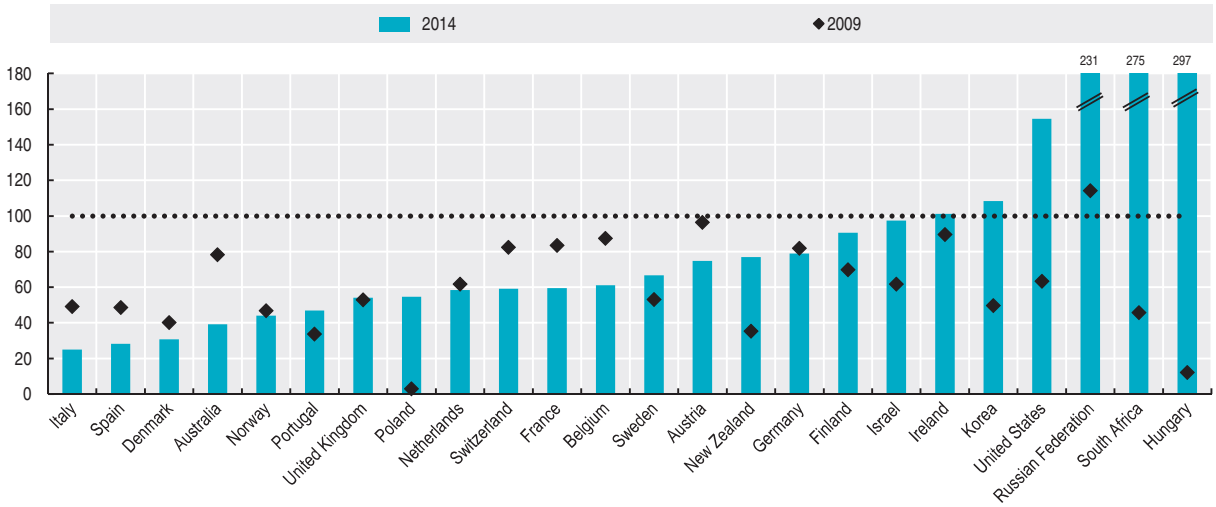
Percentage, 2014 or latest available year



StatLink http://dx.doi.org/10.1787/888933231207

Figure 7.2. **Trends in venture capital investments**

Index 2007 = 100



StatLink http://dx.doi.org/10.1787/888933231219

Table 7.1. **Venture capital investments**

Million US dollars, 2014 or latest available year

Greece	0.26	Austria	81.76	Australia	265.92
Slovenia	3.32	Denmark	87.51	Sweden	376.20
Estonia	5.84	Ireland	119.41	France	835.84
Luxembourg	5.86	Spain	132.42	Korea	865.51
Slovak Republic	6.24	Belgium	151.17	Germany	880.69
Czech Republic	12.03	Norway	157.18	United Kingdom	1 112.62
Poland	29.21	Finland	163.73	Israel	1 165.00
Hungary	42.65	South Africa (2013)	199.38	Canada	1 464.82
Italy	44.77	Switzerland	224.11	Japan (2013)	1 862.79
New Zealand	46.29	Netherlands	224.56	Total Europe	4 793.95
Portugal	65.91	Russian Federation	250.71	United States	49 532.43

StatLink http://dx.doi.org/10.1787/888933231439

Figure 7.3. **Venture capital investments, Europe**

Trend-cycle, 2007 = 100

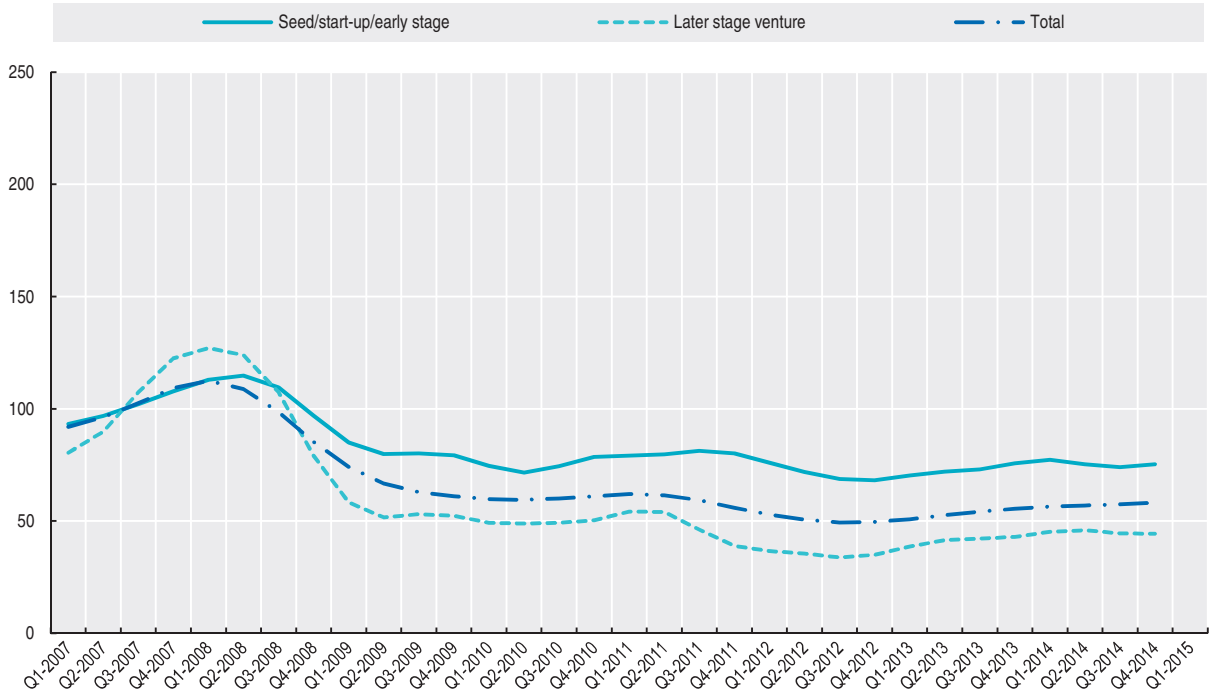


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Figure 7.4. **Venture capital investments, United States and Israel**

Trend-cycle, 2007 = 100

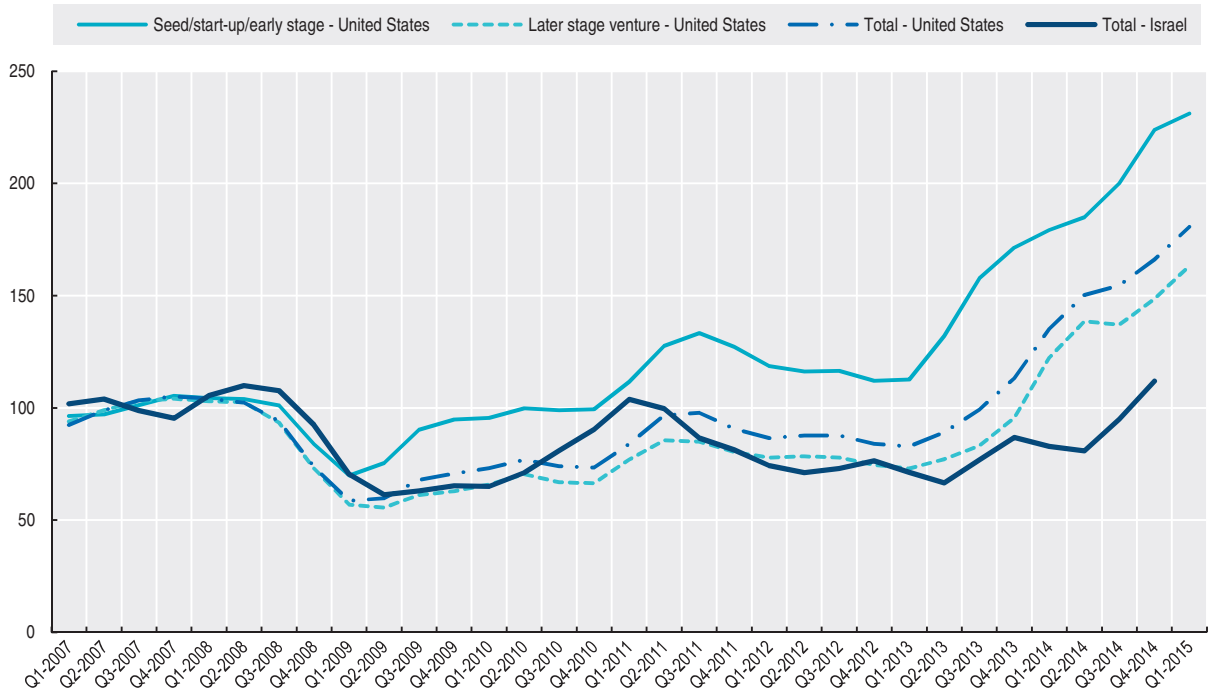

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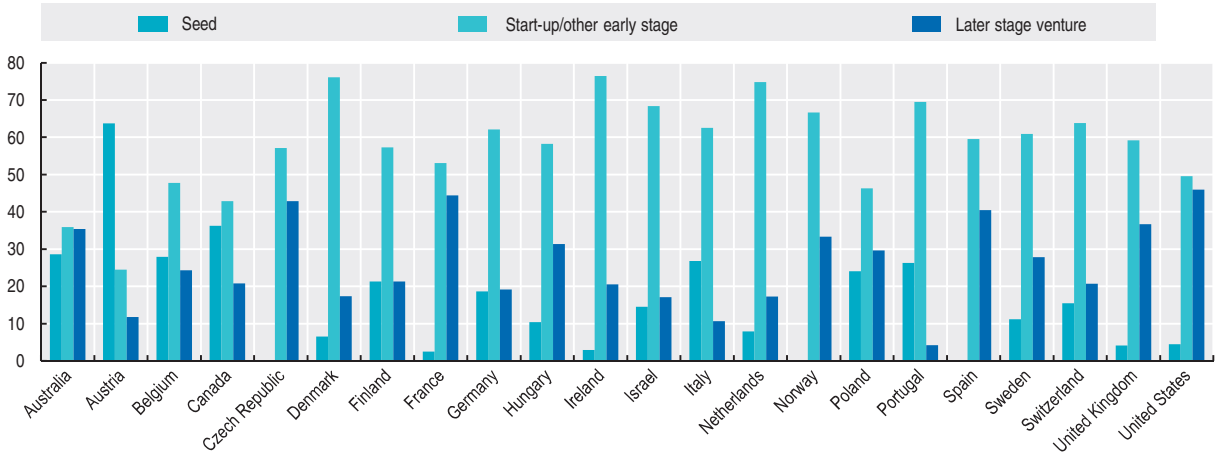
Figure 7.5. **Venture-backed companies by development stage**

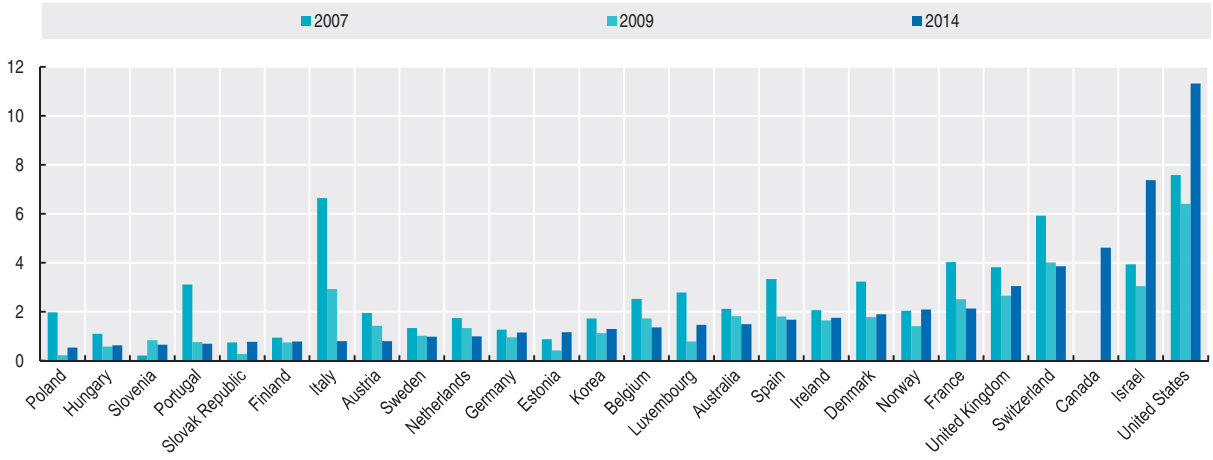
Percentage, 2014 or latest available year



StatLink http://dx.doi.org/10.1787/888933231241

Figure 7.6. **Average venture capital investments per company**

Million US dollars



StatLink http://dx.doi.org/10.1787/888933231251

Figure 7.7. **Venture-backed companies rate**

Per 1000 employer enterprises, 2014

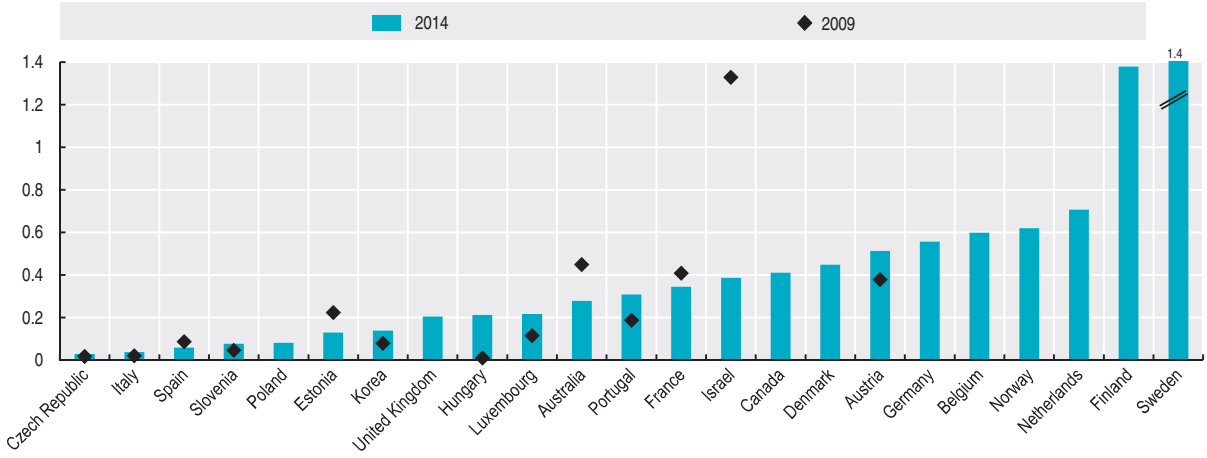


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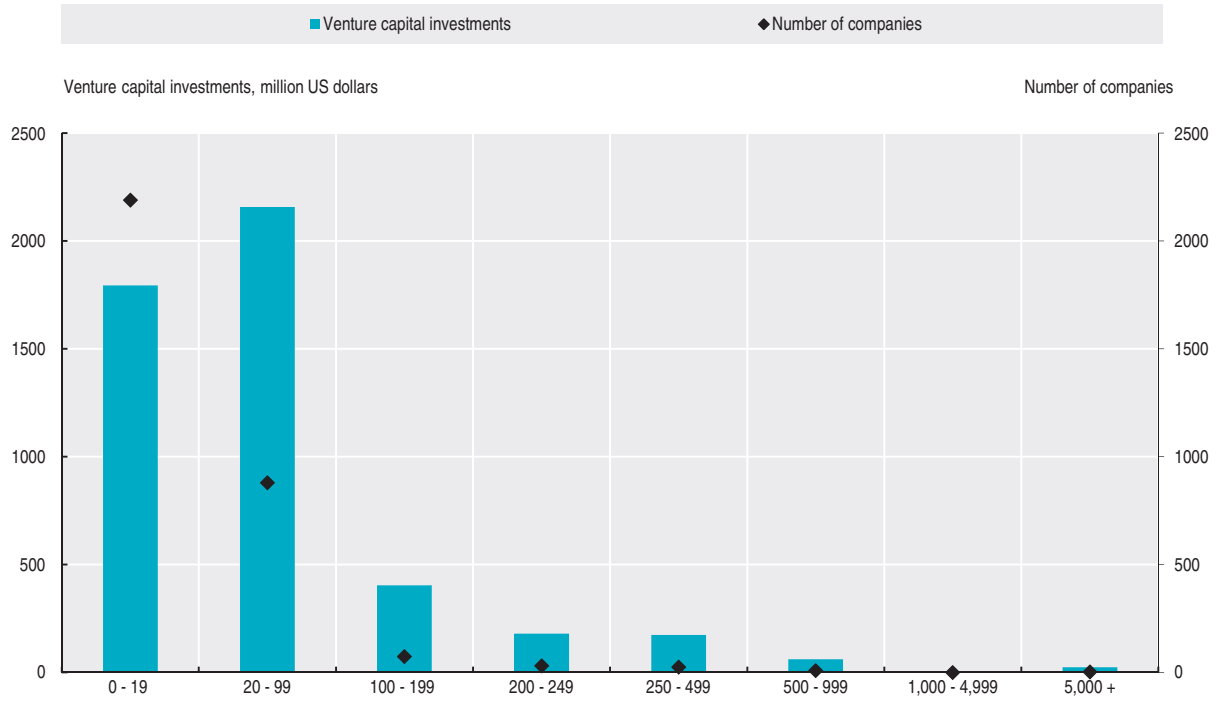
Figure 7.8. **Venture capital investments by size of venture-backed companies, Europe**

Million US dollars, 2014; Number of companies



StatLink http://dx.doi.org/10.1787/888933231276

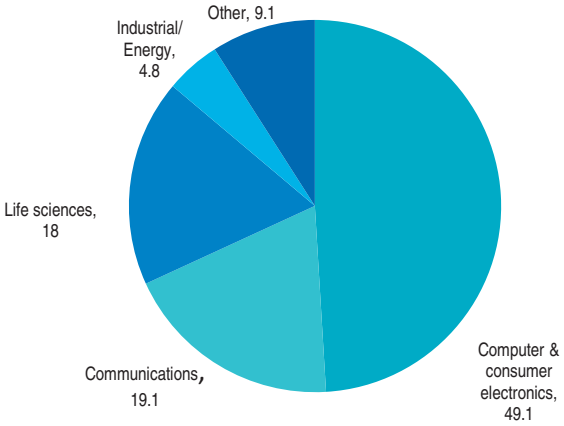
Figure 7.9. **Trends in venture capital investments in SMEs, Europe**

Million US dollars

StatLink http://dx.doi.org/10.1787/888933231281

Figure 7.10. **Venture capital investments by sector, United States**

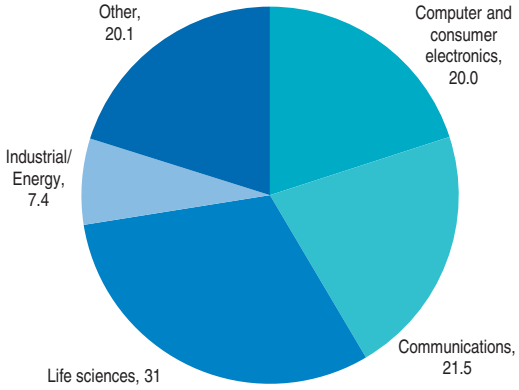
Percentage, 2014



StatLink http://dx.doi.org/10.1787/888933231295

Figure 7.11. **Venture capital investments by sector, Europe**

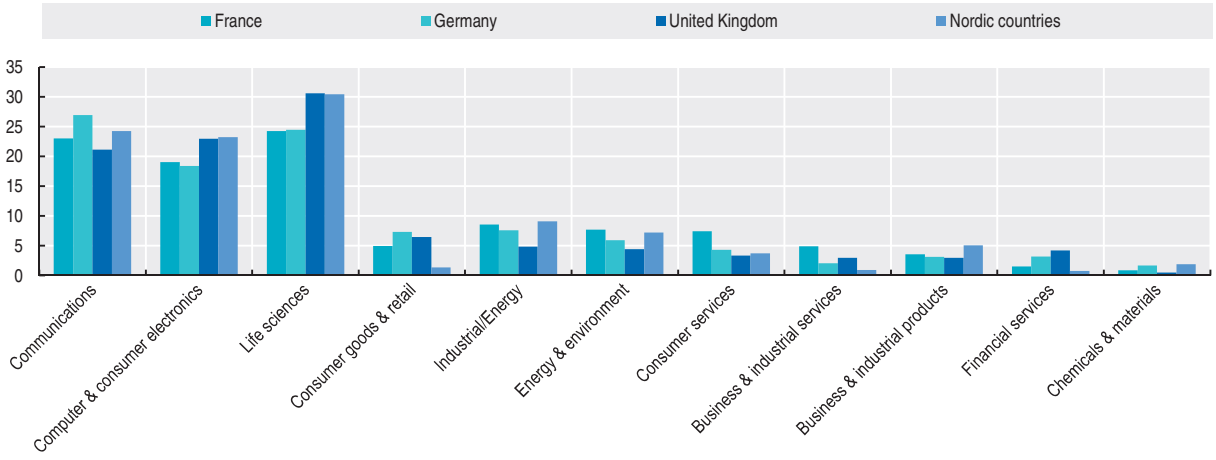
Percentage, 2014



StatLink http://dx.doi.org/10.1787/888933231309

Figure 7.12. **Venture capital investments by sector, selected European countries**

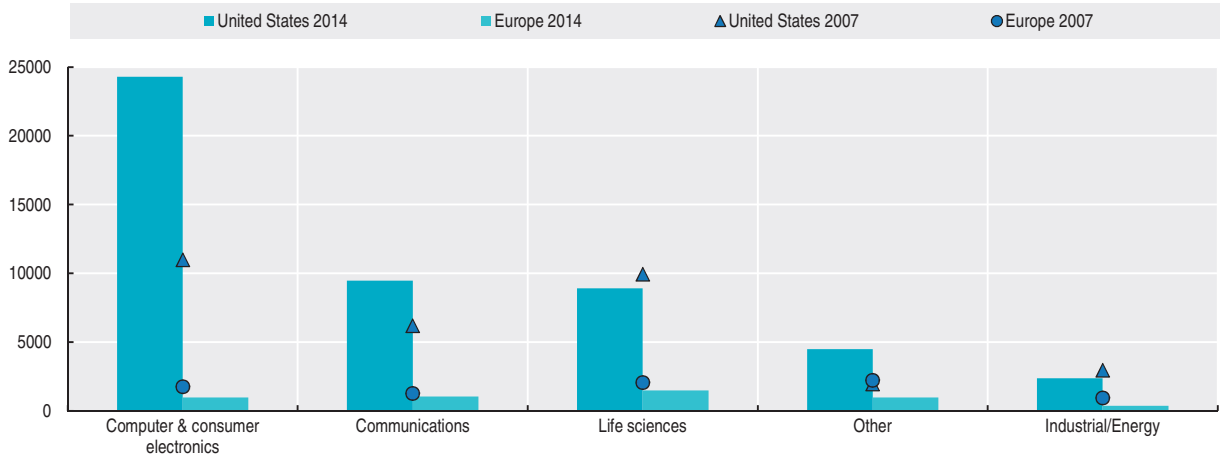
Percentage, 2014



StatLink http://dx.doi.org/10.1787/888933231315

Figure 7.13. **Venture capital investments by sector**

Million US dollars



StatLink http://dx.doi.org/10.1787/888933231324

Market access: Trade barriers

Key facts

- Explicit barriers to foreign direct investment (FDI) and tariff barriers to trade have decreased since 2008 in most countries. Exceptions are Korea, where tariff barriers increased slightly, and Brazil, where the increase concerned both explicit barriers to FDI and tariff barriers.
- Compared to explicit barriers, other barriers to trade and investment remain more stringent. In a number of countries the main remaining barriers reside in the measures discriminating foreign firms, and particularly so in the Russian Federation, South Africa and Lithuania. Also, many countries have not yet fully addressed barriers to trade facilitation; these continue to be especially restrictive in Brazil, Turkey and Israel.
- Restrictiveness of trade in services varies across sectors, with air transport, accounting and legal services being the sectors where restrictions are higher on average in the OECD area.

Relevance

In a world characterised by global value chains facilitating imports and foreign direct investment can boost competitiveness, employment and productivity of domestic firms. Barriers to trade and investment reduce participation in trade and global value chains and the associated benefits. Moreover, new research indicates that services trade restrictions seem to affect not only imports and exports of services but also exports, imports and intra-industry trade in manufactured goods.

Comparability

The *OECD Product Market Regulation (PMR) Database* contains a large amount of information on regulatory structures and policies in OECD and partner countries. Qualitative information on laws and regulations is collected periodically via a questionnaire to national administrations of OECD and partner countries, and turned into quantitative indicators after peer review of the questionnaire results. The aggregate PMR indicator in a country is the simple average of the three high-level indicators *state control*, *barriers to entrepreneurship*, and *barriers to trade and investment*.

For barriers to trade and investment the *OECD PMR Database* draws information also from the *OECD Services Trade Restrictiveness Index (STRI)* calculated on the basis of a regulatory database of comparable, standardised information on trade and investment relevant policies in force in each country. The STRI reports restrictions records that apply on a most-favoured-nation (MFN) basis and does not consider preferential regulation.

Definitions

The indicator *explicit barriers to trade and investment* measures, in a country, the *barriers to foreign direct investment* (FDI) and the *tariff barriers* (measured by simple cross-product average of effectively applied tariffs).

Together, the indicators *differential treatment of foreign suppliers* and *barriers to trade facilitation* provide a measure of other (non-explicit) barriers to trade and investment existing in a country.

For the indicators above, the information is normalised over a zero-to-six scale, where a higher value reflects a more restrictive regulatory environment towards investment and trade.

The *Services Trade Restrictiveness Index (STRI)* composite index quantifies restrictions in trade in services across five standard categories: Restrictions on foreign entry, Restrictions on the movement of people, Barriers to competition, Regulatory transparency, Other discriminatory measures.

For STRI, the indices are normalised over a zero-to-one scale. Complete openness to trade and investment yields a score of zero, while being completely closed to foreign services providers yields a score of one.

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

Sources

OECD Product Market Regulation Statistics (database), *http://dx.doi.org/10.1787/pmr-data-en*.

OECD Services Trade Restrictiveness Index, *www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm*.

Further reading

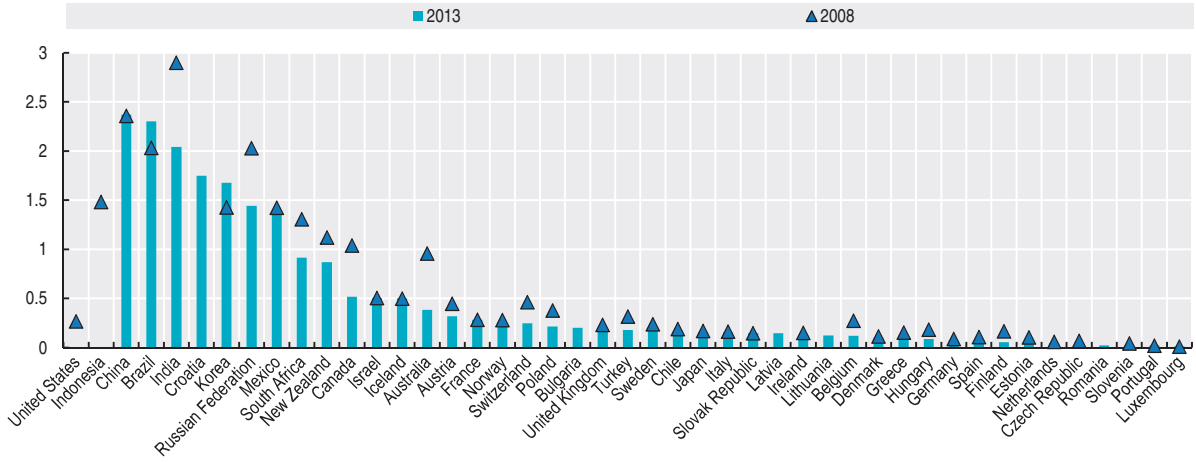
Geloso Grosso, M., et al. (2015), "Services Trade Restrictiveness Index (STRI): Scoring and Weighting Methodology", *OECD Trade Policy Papers*, No. 177, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5js7n8wbtk9r-en*.

Koske, I., et al. (2015), "The 2013 update of the OECD's database on product market regulation: Policy insights for OECD and non-OECD countries", *OECD Economics Department Working Papers*, No. 1200, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5js3f5d3n2vl-en*.

Nordås, H.K. and D. Rouzet (2015), "The Impact of Services Trade Restrictiveness on Trade Flows: First Estimates", OECD Trade Policy Papers, No. 178, OECD Publishing, *http://dx.doi.org/10.1787/5js6ds9b6kjb-en*.

Figure 7.14. **Explicit barriers to trade and investment**

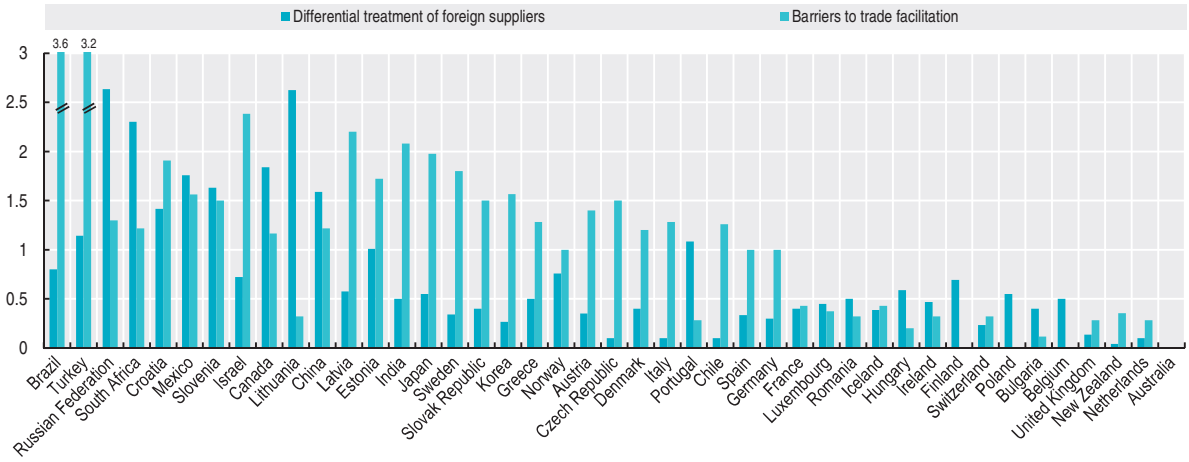
Scale from 0 to 6 from least to most restrictive



StatLink http://dx.doi.org/10.1787/888933231334

Figure 7.15. **Other barriers to trade and investment**

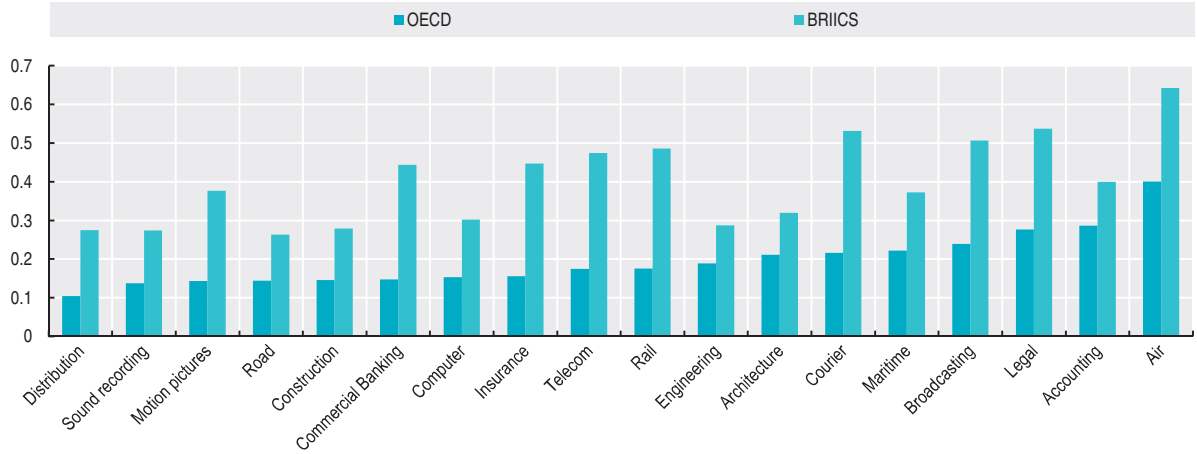
Scale from 0 to 6 from least to most restrictive, 2013



StatLink http://dx.doi.org/10.1787/888933231346

Figure 7.16. **Services Trade Restrictiveness Index (STRI)**

Scale from 0 to 1 from least to most restrictive, 2014



StatLink http://dx.doi.org/10.1787/888933231351

Culture: Entrepreneurial perceptions and attitudes

Key facts

- In 2014, in several Southern European countries, Greece, Spain and Portugal in particular, the perceived capabilities were significantly higher than the perceived opportunities, probably reflecting an unfavourable economic context. On the contrary, in the emerging economies of Brazil and Indonesia, as well as in the United States, Canada, Norway, Denmark and Mexico, perceived opportunities were relatively high.
- In Japan and, to a lesser extent Korea, both perceived opportunities and perceived capabilities were especially low compared to other OECD countries, but similar to levels observed in the past in these two countries.
- A positive perception of entrepreneurship seems to coincide with a voluntary attitude towards entrepreneurship. The economic context may also be, unsurprisingly, a factor interfering with individual aspirations.
- However, independently of a country's economic context and overall attitude toward entrepreneurship, women always appear less prone to take the risk of creating their own business than men; except for women in Mexico and South Africa.

Definitions

Perceived opportunities: The percentage of 18-64 age group who see good opportunities to start a business in the area where they live.

Perceived capabilities: The percentage of 18-64 age group who believe to have the required skills and knowledge to start a business.

Fear of failure rate: The percentage of 18-64 age group with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.

Entrepreneurship as desirable career choice: The percentage of 18-64 age group who agree with the statement that in their country, most people consider starting a business as a desirable career choice.

High-status successful entrepreneurship: The percentage of 18-64 age group who agree with the statement that in their country, successful entrepreneurs receive high status.

Media attention for entrepreneurship: The percentage of 18-64 age group who agree with the statement that in their country, they will often see stories in the public media about successful new businesses.

I would rather take a risk and build my own business than work for someone else: the percentage of total individual, by gender, who agree with the statement.

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

Relevance

The entrepreneurial culture in a country affects the attitude that individuals have towards entrepreneurship, the likelihood of choosing entrepreneurship as a career, the ambitions to success and start again after a failure, or the support provided to family and relatives planning to set up a business. All these aspects play a role, although there is scarce empirical evidence on their relative importance and differences across countries.

Comparability

Data on entrepreneurial perceptions and attitudes are produced by the Global Entrepreneurship Monitor (GEM) project. The GEM consortium coordinates an annual adult population survey of at least 2 000 individuals aged between 18 and 64 in each country participating in the GEM project. The same survey questionnaire and methodology are used by national teams in participating countries to ensure the harmonisation of data.

The process of data collection varies slightly between national teams. The method by which they identify the 2 000 participants depends largely by the percentage coverage of the landline telephone network. Where landline coverage is greater than 85% of all households, the teams are permitted to use a landline-based survey outreach to generate a suitable list of participants to contact. For those countries where landline telephone coverage is not as wide-spread, face-to-face interview techniques and/or the use of mobile phones are also used.

Figure 7.19 is based on Gallup Worldwide Research, which surveys residents in more than 150 countries, using randomly selected, nationally representative samples. The sample typically consists of 1 000 individuals, aged 15 and older, in each country. Telephone interviews and face-to-face interviews are used.

Sources

Global Entrepreneurship Monitor (GEM), *www.gemconsortium.org/data*.

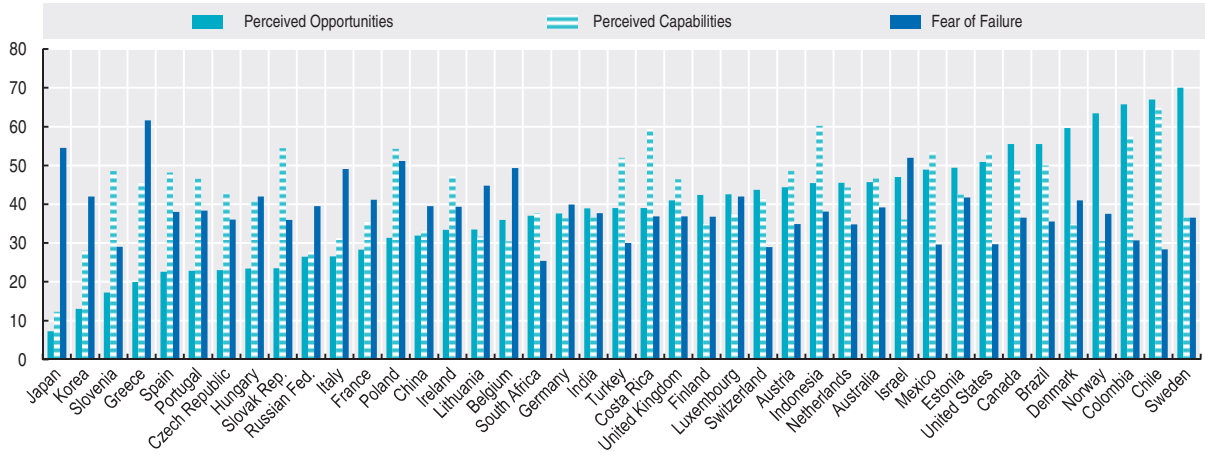
Gallup Analytics, *www.gallup.com/products/170987/gallup-analytics.aspx*.

Further readings

Singer, S., J.E. Amorós, D. M. Arreola (2015), *Global Entrepreneurship Monitor Global Report 2014*.

Figure 7.17. **Entrepreneurial perceptions**

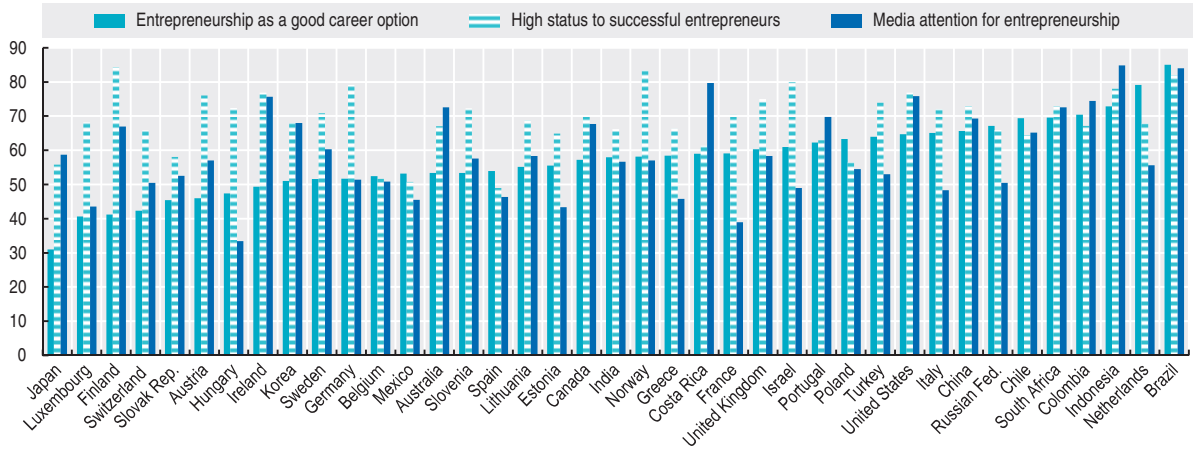
Percentage, 2014



StatLink http://dx.doi.org/10.1787/888933231360

Figure 7.18. **Attitudes towards entrepreneurship**

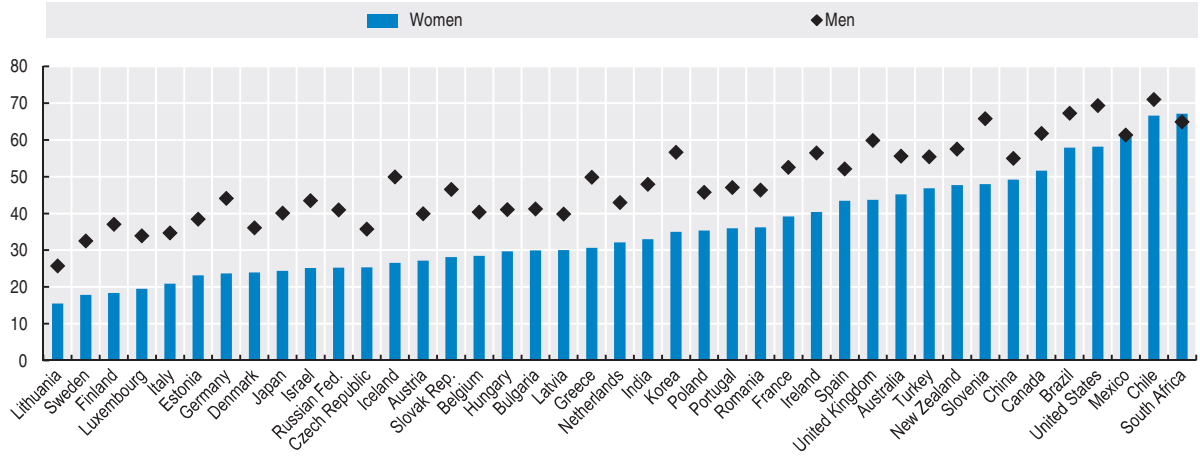
Percentage, 2014



StatLink http://dx.doi.org/10.1787/888933231376

Figure 7.19. **Preference for risk**

Percentage, 2013



StatLink http://dx.doi.org/10.1787/888933230517

ANNEX A

Sources of data on timely indicators of entrepreneurship

This Annex presents the sources and definitions used to develop the OECD Timely Indicators of Entrepreneurship; two separate tables refer to enterprise creations and bankruptcies respectively. The OECD Timely Indicators of Entrepreneurship database is available on *http://dotstat.oecd.org/Index.aspx*.

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

	Sources and definitions of enterprise creation
Australia	*Source*: Australian Securities and Investments Commission (ASIC). New company registrations. Monthly data. Incorporated companies only. *www.asic.gov.au*
Belgium	*Source*: Statistics Belgium. Annual Data. These statistics are derived by Statistics Belgium from the Banque-Carrefour des Entreprises. *http://statbel.fgov.be/en/*
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 amounts 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/en/*
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. *www.destatis.de*
Iceland	*Source*: Statistics Iceland. Monthly data. Newly registered enterprises *www.statice.is*

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

	Sources and definitions of enterprise creation
Italy	*Source*: InfoCamere, Movimprese – Business register of Italian Chambers of Commerce. Quarterly data. Number of entries (iscritte). All legal forms and all activities are taken into accounts. *www.infocamere.it*
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*
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/en/*
Sweden	*Source*: Swedish Agency for Growth Policy Analysis. Quarterly data. Number of newly established companies. *www.tillvaxtanalys.se/*
United Kingdom	*Source*: Companies House. Monthly data. New registrations (number of entries). All limited companies in England, Wales, Northern Ireland and Scotland are registered at Companies House. Entries reflect the appearance of a new enterprise within the economy, whatever the demographic event, be that a merger, renaming, split-off or birth. *www.gov.uk/government/statistics*
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/data/*

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

	Sources and definitions of bankruptcies
Australia	*Source*: Australian Securities and Investments Commission (ASIC). Monthly data. Insolvency statistics – Companies entering external administration. The statistics on "companies entering external administration" show the number of companies entering into a form of external administration for the first time. ASIC advises that a company will be included only once in these statistics, regardless of whether it subsequently enters into another form of external administration. The only exception occurs where a company is taken out of external administration, for example as the result of a court order, and at a later date re-enters external administration. Members voluntary winding 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/en/*

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

	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. *www.ic.gc.ca/eic/site/icgc.nsf/eng/home*
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.superir.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. *http://www.dst.dk/da/*
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. *http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/*
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/en/*
Germany	*Source*: Destatis Monthly data. Insolvencies. The data cover businesses and formerly self-employed persons. All activities are taken into account. *www.destatis.de/EN/Homepage.html*
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.tdb.co.jp/english/index.html*
Netherlands	*Source*: Centraal Bureau voor de Statistiek (CBS) – Business register. Quarterly data. Number of bankruptcies pronounced by Dutch courts. Excluding individuals without a sole proprietorship. *http://statline.cbs.nl*
Norway	*Source*: Statistics Norway. Quarterly data. Gross value. *http://statbank.ssb.no*

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

	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 assets and it can be resolved by voluntary action or by an order of the court. *www.statssa.gov.za/*
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 (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, 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
	REGULATORY FRAMEWORK	
Administrative burdens (entry and growth)		
Burden of government regulation	Survey responses to the question: For businesses, complying with administrative requirements permits, regulations, reporting) issued by the government in your country is (1 = burdensome, 7 = not burdensome). *www.weforum.org/global-competitiveness-report-2014-15/*	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. *www.doingbusiness.org/data/exploretopics/starting-a-business*	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 as percentage of income per capita. *www.doingbusiness.org/data/exploretopics/starting-a-business*	World Bank, *Doing Business*
Number of days for starting a business	The average time spent during each enterprise start-up procedure. *www.doingbusiness.org/data/exploretopics/starting-a-business*	World Bank, *Doing Business*

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

Category of determinants	Definition	Data sources
Number of procedures for starting a business	All generic procedures that are officially required to register a firm. *www.doingbusiness.org/data/exploretopics/starting-a-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. *www.doingbusiness.org/data/exploretopics/dealing-with-construction-permits*	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. *www.doingbusiness.org/data/exploretopics/registering-property*	World Bank, *Doing Business*
Time for paying taxes	Time it takes to prepare, file and pay the corporate income tax, vat and social contributions Time is measured in hours per year. *www.doingbusiness.org/data/exploretopics/paying-taxes*	World Bank, *Doing Business*
Bankruptcy regulations		
Cost – Average cost of bankruptcy proceedings.	The cost of the proceedings is recorded as a percentage of the estate's value. *www.doingbusiness.org/data/exploretopics/resolving-insolvency*	World Bank, *Doing Business*
Time – Average duration of bankruptcy proceedings	Time is recorded in calendar years. It includes appeals and delays. *www.doingbusiness.org/data/exploretopics/resolving-insolvency*	World Bank, *Doing Business*
Recovery rate	The recovery rate estimates how many cents on the dollar claimants – creditors, tax authorities and employees – recover from an insolvent firm. *www.doingbusiness.org/data/exploretopics/resolving-insolvency*	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. *www.doingbusiness.org/data/exploretopics/enforcing-contracts*	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. *www.doingbusiness.org/data/exploretopics/enforcing-contracts*	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. *www.doingbusiness.org/data/exploretopics/enforcing-contracts*	World Bank, *Doing Business*
Product and labour market regulations		
Difficulty of hiring	It measures whether laws or other regulations have implications for the difficulties of hiring a standard worker in a standard company. It covers components such as whether fixed-term contracts are prohibited for permanent tasks, the maximum cumulative duration of fixed-term contracts or the ratio of the minimum wage to the average value added per worker. *www.doingbusiness.org/data/exploretopics/labor-market-regulation*	World Bank, *Doing Business*

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

Category of determinants	Definition	Data sources
Difficulty of firing	It measures whether laws or other regulations have implications for the difficulties of firing a standard worker in a standard company. Components of the indicator include elements such as the length in months of the maximum probationary period or whether the employer needs to notify a third party (such as a government agency) to terminate a redundant worker. *www.doingbusiness.org/data/exploretopics/labor-market-regulation#difficultyFiring*	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 labour, 7 = does not prevent your company from employing foreign labour). *www.weforum.org/reports/global-enabling-trade-report-2014*	World Economic Forum, *Executive Opinion Survey,* 2012 and 2013
Rigidity of hours index	The indicator is an index with seven components, the most important being: i) the maximum number of days allowed in the work week; ii) the premium for night work; iii) whether there are restrictions on night work; iv) whether there are restrictions on weekly holiday work; vii) the average paid annual leave for workers. *www.doingbusiness.org/data/exploretopics/labor-market-regulation#rigidityHours*	World Bank, *Doing Business*
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. *http://dx.doi.org/10.1787/data-00265-en*	*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. *http://dx.doi.org/10.1787/data-00265-en*	*OECD Revenue Statistics*
Revenue from bequest tax	The revenue from bequest tax as a per cent of GDP. *http://dx.doi.org/10.1787/ctpa-rev-data-en*	*OECD Revenue Statistics*
Revenue from net wealth tax	The revenue from net wealth tax as a per cent of GDP. *http://dx.doi.org/10.1787/ctpa-rev-data-en*	*OECD Revenue Statistics*
Business and capital taxes		
SME tax rates	*www.oecd.org/ctp/tax-policy/Table%20II.2-May-2014.xlsx*	*OECD Revenue Statistics*
Taxation of corporate income revenue	The revenue from corporate income tax as percentage of GDP. *http://dx.doi.org/10.1787/ctpa-rev-data-en*	*OECD Revenue Statistics*
Taxation of stock options	The average tax wedge for purchased and newly listed stocks. Average incomes are used. *http://dx.doi.org/10.1787/9789264012493-en*	OECD, The Taxation of Employee Stock Options – *Tax Policy Study No. 11*
Patent system; standards		
Intellectual property protection	Survey responses to the question: in your country, how strong is the protection of intellectual property, including anti-counterfeiting measures? (1 = extremely weak, 7 = extremely strong). *www.weforum.org/global-competitiveness-report-2014-15/*	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). *www.weforum.org/global-competitiveness-report-2014-15/*	World Economic Forum, *Global Competitiveness Report*
	MARKET CONDITIONS	
Access to Foreign Markets		
Trading across borders	The indicator is an index composed of three components: 1) Total number of documents required per shipment to import/export goods, 2) Time, in days, to comply with all procedures required to import/export goods, 3) The cost associated with all procedures required to import/export goods. *www.doingbusiness.org/data/exploretopics/trading-across-borders*	World Bank, *Doing business*

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

Category of determinants	Definition	Data sources
Barriers to trade and investment	This indicator measures explicit barriers and other barriers to trade and investment. It is based on qualitative information on laws and regulations collected periodically and turned into quantitative indicators. *www.oecd.org/eco/growth/indicatorsofproductmarketregulationhomepage.htm#indicators*	OECD, *Product Market Regulation Indicators*
Services Trade Restrictiveness Index (STRI)	The indicator is calculated on the basis of a regulatory database of comparable, standardised information on trade and investment relevant policies in force in each country. *www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm*	OECD, *Services Trade Restrictiveness Index Regulatory Database*
Degree of public involvement		
Government enterprises and investment	Data reflect the number, composition and share of output supplied by State-Operated Enterprises (SOEs) and government investment as a share of total investment. *www.freetheworld.com/2014/Master-Index-2014-Report-FINAL.xls*	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. *http://iresearch.worldbank.org/servicetrade/default.htm#*	World Bank
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). *www.weforum.org/global-competitiveness-report-2014-15/*	World Economic Forum, *Global Competitiveness Report*
	ACCESS TO FINANCE	
Access to debt financing		
Country credit rating	The indicator is based on an assessment by the *Institutional Investor Magazine Ranking*. *www.imd.org*	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. Data are from IMF's International Financial Statistics. *http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators#*	Published in *World Indicators*, World Bank. *Development*
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 = extremely difficult, 7 = extremely easy). *www.weforum.org/global-competitiveness-report-2014-15/*	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. *http://elibrary-data.imf.org/QueryBuilder.aspx?key=19784651&s=322*	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. *www.doingbusiness.org/data/exploretopics/getting-credit*	World Bank, *Doing Business*
Access to Venture Capital		
Venture Capital Availability	Survey responses to: how easy it is for entrepreneurs with innovative but risky projects to find venture capital in your country (1 = extremely difficult, 7 = extremely easy). *www.weforum.org/global-competitiveness-report-2014-15/*	World Economic Forum, *Global Competitiveness Report*
Venture Capital	Private equity investments	*OECD Entrepreneurship Finance Database*

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

Category of determinants	Definition	Data sources
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. *www.world-exchanges.org/ipo-database*	World Federation of Exchange
Capitalisation of secondary stock	An assessment of the efficiency of stock markets providing finance to companies. Ranking market goes from 1 (worst) to 10 (best). *www.imd.org*	IMD, *World Competitiveness Yearbook*
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 Suits Index), strength of Investor Protection Index (the average of the three index). *www.doingbusiness.org/data/exploretopics/protecting-minority-investors*	World Bank, *Doing Business*
Market capitalisation of newly listed companies	The market capitalization (total number of new shares issued multiplied by their value on the first day of quotation) of newly listed domestic shares relative to GDP. *www.world-exchanges.org/ipo-database*	World Federation of Exchange, IPO Database
	CREATION AND DIFFUSION OF KNOWLEDGE	
R&D activity		
Business expenditure on R&D BERD	Business enterprise expenditure on R&D (BERD) at current prices and PPPs *http://dx.doi.org/10.1787/msti-v2014-1-table23-en*	OECD, *Main Science and Technology Indicators*
Gross domestic expenditure on R&D GERD	Gross domestic expenditures on R&D covers total intramural expenditure performed on the national territory during a given period. *http://dx.doi.org/10.1787/msti-v2014-1-table12-en*	OECD, *Main Science and Technology Indicators*
Higher education expenditure on R&D HERD	Higher education expenditure on R&D (HERD) at 2005 prices and PPPs. *http://dx.doi.org/10.1787/msti-v2014-1-table45-en*	OECD, *Main Science and Technology Indicators*
International co-operation between patent applications at PCT	The indicator measures international co-operation between patent applications under the Patent Cooperation Treaty (PCT). The measure is calculated as a percentage of total patents (by application date). *http://dx.doi.org/10.1787/data-00507-en*	*OECD Patent Statistics*
Patents awarded	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). *http://dx.doi.org/10.1787/data-00507-en*	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 in 2005 dollars, at PPP. *http://dx.doi.org/10.1787/data-00189-en*	OECD *Science and Technology Statistics*
Patents filed by universities and public labs	Patents filed by universities and public labs per GDP. Only countries having filed at least 250 patents over the period are included. *http://dx.doi.org/10.1787/data-00669-en*	OECD Science, Technology and R&D Statistic
Universities or other Public Research Organizations as source of information	The share of innovative enterprises that states universities or other PROs as an important source of information for product and process innovation.	(National) Innovation Surveys
University/Industry Research collaboration	Survey responses to: the level of collaboration between business and universities in R&D (1 for non-existent collaboration to 7 for extensive collaboration). *www.weforum.org/global-competitiveness-report-2014-15/*	World Economic Forum, *Global Competitiveness Report*
Co-operation among firms		
SMEs co-operating with other firms for innovation	Share of innovative SMEs stating any type co-operation as the source of innovation.	(National) Innovation Surveys

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

Category of determinants	Definition	Data sources
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. *http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tin00110&plugin=1*	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. *http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tin00107&plugin=1*	Eurostat, *Information Society Statistics*
ICT expenditure	Expenditure for ICT equipment, software and services as a percentage of GDP. *http://ec.europa.eu/eurostat/product?code=isoc_tc_ite&language=en&mode=view*	European Information Technology Observatory (EITO)
ICT expenditure in Communications	Expenditure for telecommunications equipment and carrier services as a percentage of GDP. *http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_tc_ite&lang=en*	EITO
ENTREPRENEURIAL CAPABILITIES		
Entrepreneurship education		
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. *http://dx.doi.org/10.1787/888933114818*	OECD *Education at a Glance*
Quality of Management Schools	Survey responses to: the quality of business schools across countries is (1 = extremely poor – among the worst in the world; 7 = excellent-among the best in the world). *www.weforum.org/global-competitiveness-report-2014-15/*	World Economic Forum, *Global Competitiveness Report*
Training in starting a business	The percentage of the population aged 18-64 that received training in starting a business during school or after school. *A Global Perspective on Entrepreneurship Education and Training (2008)* *www.gemconsortium.org/docs/download/276*	Global Entrepreneurship Monitor (GEM)
Immigration		
Migrants with tertiary education	The share of highly skilled migrants as a percentage of total migrants. *www.oecd.org/els/mig/databaseonimmigrantsinoecdcountriesdioc.htm*	Database on immigrants in OECD countries (DIOC)
ENTREPRENEURSHIP CULTURE		
High status successful entrepreneurship	Percentage of 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status. *www.gemconsortium.org/*	Global Entrepreneurship Monitor (GEM)
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. *www.gemconsortium.org/*	Global Entrepreneurship Monitor (GEM)
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. *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*	European Commission, Flash Eurobarometer
Opinion about entrepreneurs	Survey responses to: overall opinion about entrepreneurs (self-employed, business owners). They are ranked against managers in large companies and professions. *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*	European Commission, Flash Eurobarometer
Fear of failure	Percentage of 18-64 population who perceives good opportunities but who indicates that fear of failure would prevent them from setting up a business. *www.gemconsortium.org/*	Global Entrepreneurship Monitor (GEM)

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

Category of determinants	Definition	Data sources
Risk for business failure	Survey responses to: being willing to start a business if a risk exists that it might fail. *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*	European Commission, Flash Eurobarometer
Second chance for entrepreneurs	Survey responses to: people who have started their own business and have failed should be given a second chance. *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*	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; 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).

The sources of venture capital data reviewed include:

Australian Bureau of Statistics, *Venture Capital and Later Stage Private Equity*.

CVCA – Canadian Venture Capital & Private Equity Association.

EVCA – European Private Equity and Venture Capital Association, *EVCA Yearbook*.

KVCA – Korean Venture Capital Association.

NVCA – National Venture Capital Association, United States, Thomson Reuters data.

NZVCA – New Zealand Private Equity and Venture Capital Association.

PwC MoneyTree, Israel.

RVCA – Russian Venture Capital Association.

SAVCA – South African Venture Capital and Private Equity Association/KPMG.

VEC – Venture Enterprise Center, Japan.

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. Seed: Financing provided to research, assess and develop an initial concept before a business has reached the start-up phase. Start-up: Financing provided to companies for product development and initial marketing. Companies may be in the process of being set up or may have been in business for a short time, but have not sold their product commercially. Later-stage venture: Financing provided for the expansion of an operating company, which may or may not be breaking even or trading profitably. Later-stage venture tends to finance companies already backed by VCs.
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).
Canadian Venture Capital and Private Equity Association (CVCA)	Control type of acquisition, growth investments (minority), debt and quasi-equity investments in mature businesses	Risk capital in new and young companies with high growth potential
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**

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

Note: 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 survey of CVCA PE/VC firms, supported with daily research of deal, news and third-party source by CVCA research team.
EVCA	Census of European PE and VC firms identified by EVCA and partner associations. Firms are surveyed on a quarterly basis; firms that did not provide quarterly surveys are invited to fill in an annual questionnaire, available on the PEREP website (PEREP_Analytics is a non-commercial pan-European private equity database with its own staff and resources). Throughout the data-collection period, PEREP analysts and co-operating national PE and VC associations contact non-respondents to encourage participation in the survey. Information is complemented by data from public sources (e.g. press, media, websites of PE and VC firms or their portfolio companies); data are included if complying with rules defining the qualifying fund managers (GPs), 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 5 000 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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