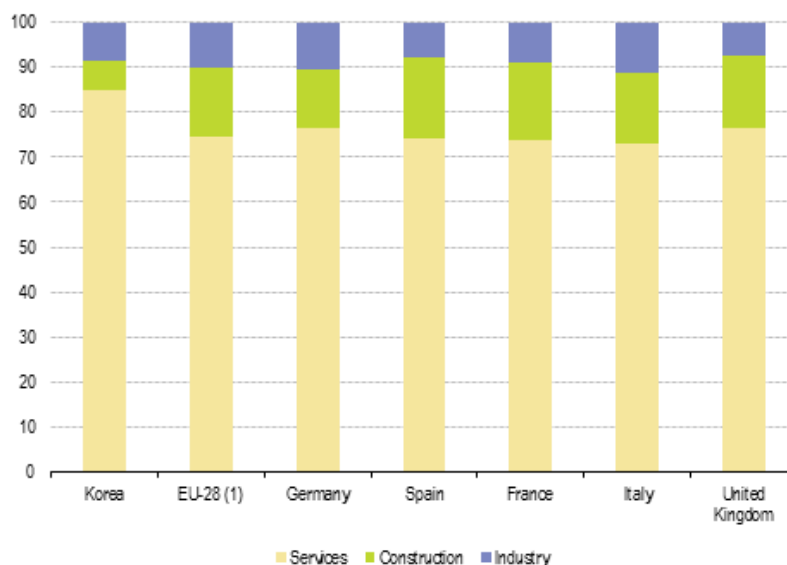


From birth to death: a closer look at business demography in selected EU countries and the Republic of Korea

Korea-EU - business demography

This article presents statistics for the Republic of Korea and for some of the largest Member States of the European Union (EU) on the number of [active enterprises](#), the [creation \('births'\) of new enterprises](#), the [survival of such new enterprises](#) and the [closure \('deaths'\) of enterprises](#). This is generally called [business demography statistics](#). The economic sectors covered are the [business economy](#), more specifically industry, construction and services. In technical terms, this corresponds to sections B to N of [NACE Rev.2](#) and the Korean activity classification KSIC, excluding activities of holding companies (K64.2).

In 2010, the EU economy was made up of around 24 million active enterprises (based on data from 26 Member States). The largest number of active enterprises in the EU was registered in Italy with 4.0 million, followed by Spain, Germany, France and the United Kingdom. In Korea, the population of active enterprises was 5.1 million in 2010. In the EU as a whole and in the five largest European economies, the service sector made up around three quarters of the active enterprises. In Korea, the service sector was even more dominant, making up 85% of the total population of active enterprises.



(1) EU-28: Data for Greece and Croatia not available

Figure 1: Active enterprises by sector, 2010 (% of the total business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2)) and Statistics Korea

In the EU, the birth and death rates of enterprises averaged around 10% of the number of active enterprises in 2009 and 2010. In Korea, these birth and death rates tend to be around 15%. In 2010, there were more enterprise births than deaths in Korea, Germany and France, while there were more deaths than births in Italy, Spain and the United Kingdom. For the EU as a whole, the one-year survival rate for enterprises created in 2009 was 81%; the five-year survival rate of enterprises born in 2005 and still active in 2010 was 46%. Amongst the five major European economies, the one-year survival rate was highest in the United Kingdom and Italy, while the five-year survival rate was highest in France and Italy. In comparison, these survival rates were lower in Korea.

In Korea, business demography statistics are produced using tax data derived from all enterprises. There is a high percentage of enterprises (just under 85%) which have no employees and where only the owner is active; these are each counted as individual enterprises.

Main statistical findings

The number of active enterprises in the Republic of Korea continued to grow in 2010

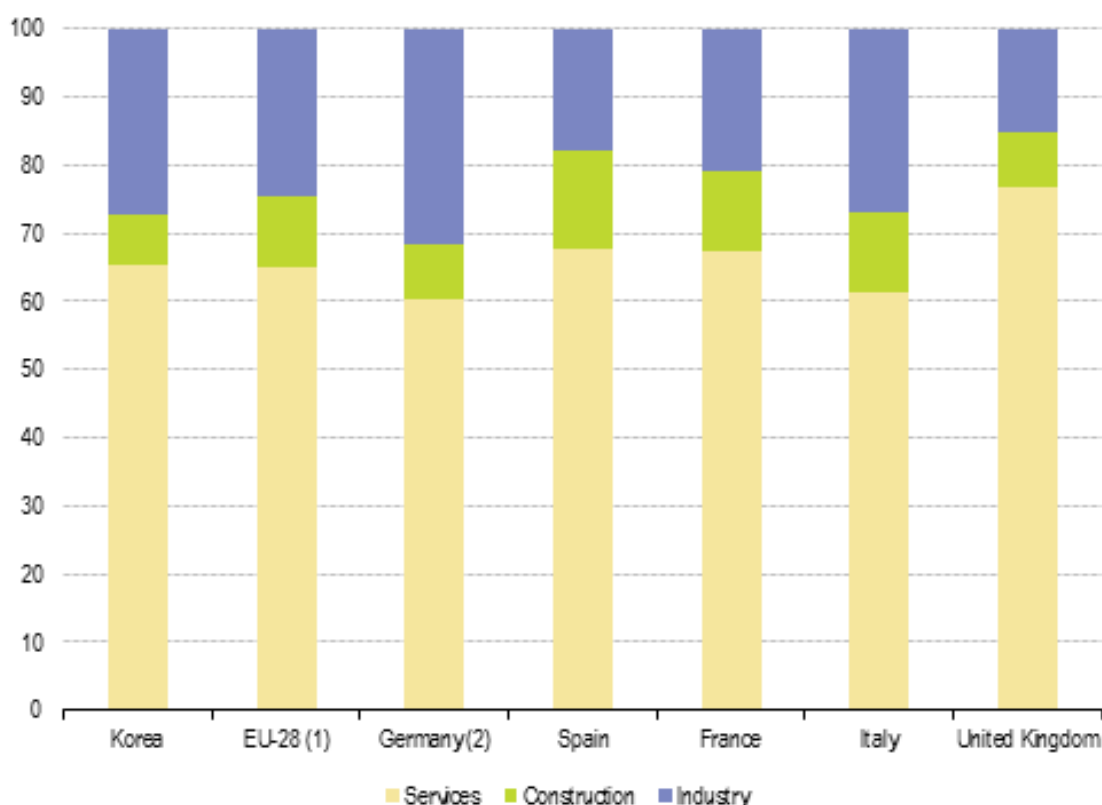
The business enterprise population consists of active enterprises in the industry sector (Sections B to E of [NACE Rev.2](#) and KSIC), the construction sector (Section F) and the service sector (Sections G to N, excluding activities of holding companies – K64.2). The aggregated data for the EU were based on the 26 Member States for which 2010 data were available (data are not yet available for Greece and Croatia).

In 2010, the total number of active enterprises in the business economy in the 26 EU Member States for which data are available was 24.1 million, an increase of 0.3% on the previous year. In the Republic of Korea, the total number of active enterprises was 5.1 million in 2010, up 2.3% from 2009; in 2011, the population of active enterprises reached 5.3 million. In comparison, in 2010 the population of active enterprises in the main economies of the EU was around 4.0 million in Italy, 3.1 million in Spain, 3.0 million in Germany, 2.9 million in France and 2.0 million in the United Kingdom. From 2009 to 2010, the number of active enterprises increased in France (+1.6%) and Germany (+0.7%), remained relatively stable in Italy (-0.3%) and decreased in Spain (-2.9%) and the United Kingdom (-4.6%).

At EU level, as in Korea and in the five key economies mentioned, the service sector made up the main share by far of the enterprise population in 2010 (see Figure 1). The dominance was strongest in Korea (85%), while the service sector in the EU as a whole and in Germany, Spain, France, Italy and the United Kingdom accounted for around three quarters (between 73% and 77%) of all active enterprises. The construction sector made up between 13% and 18% in these European economies, and the industry sector between 8% and 11%. In comparison, the industry sector in Korea (9% of the active enterprises) was at the same level as in these European economies, while the construction sector only accounted for 6% of the active enterprises.

Industry remained significant for employment in Germany and Italy

Although enterprises in the industry sector only make up a tenth of the enterprise population in the EU, they employed slightly more than a quarter of the persons employed in the business economy in 2010 (see Figure 2). In contrast, the service sector made up three quarters of the number of active enterprises, but only employed somewhat less than two thirds of the persons employed in the total business economy. In real numbers, there were 88 million persons employed in services and 33 million persons employed in industry in the 26 Member States for which 2010 data are available. This means that enterprises in the industry sector in the EU had 14 persons employed on average, while enterprises in the service sector had 5 persons employed on average.



(¹) EU-28: Data for Greece and Croatia not available

(²) Germany: Data are estimated

Figure 2: Persons employed in active enterprises by sector, 2010 (% of the total business economy)
 - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

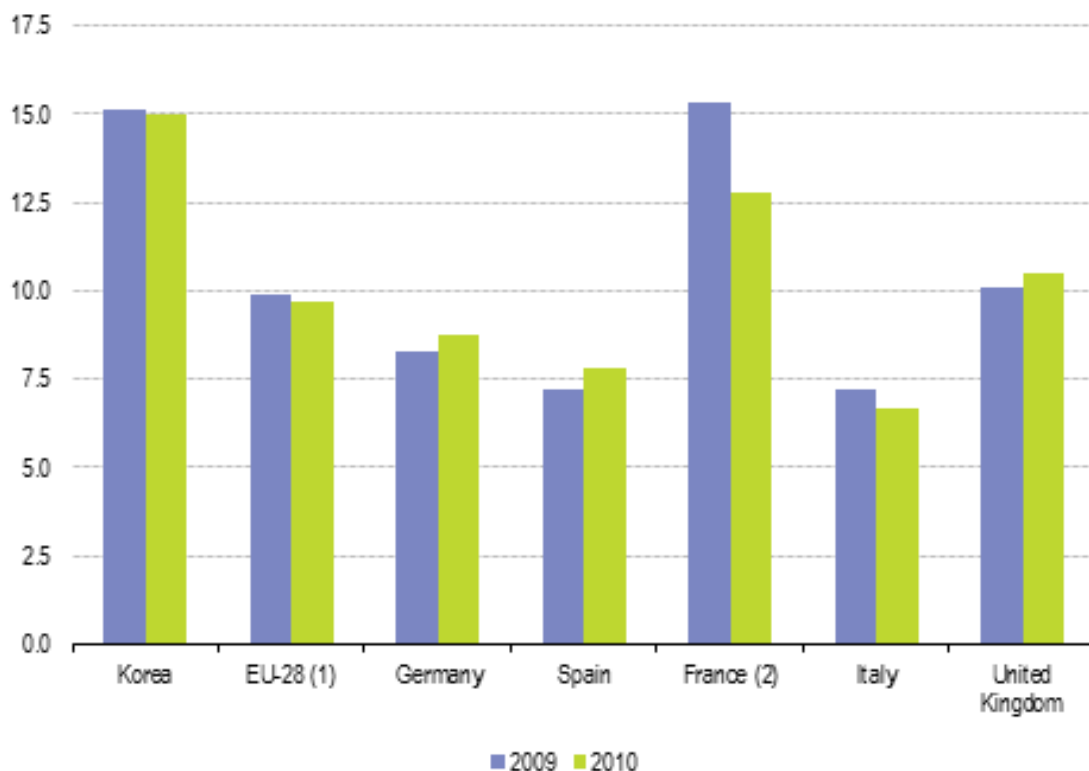
In comparison, the industry sector in the Republic of Korea employed 4.3 million persons in 2010, making up 27% of all persons employed in the business sector. The enterprises in the service sector had 10.3 million persons employed, corresponding to 65% of the total. This was a similar balance to that for the EU as a whole. Amongst the main European economies, the industry sector was most important in Germany and Italy, with 32% and 27% of the persons employed in the business economy respectively; employment in the service sector was correspondingly 60% in Germany and 61% in Italy. In the United Kingdom, employment in the service sector was much larger, accounting for 77% of the persons employed in the business economy, while the industry sector only comprised 15%.

These percentages imply that the average number of persons employed in enterprises in the industry sector was 10 in the Republic of Korea in 2010, compared with 24 in Germany and 19 in the United Kingdom. This contrasted with the average of 10 persons employed in the industrial enterprises in Italy and 9 persons employed in Spain. For the services sector on the other hand, the average number of persons employed was 2 in Korea in 2010 and 5 in the EU as a whole, while the United Kingdom stood out with an average of 9 persons employed in service sector enterprises. For the construction sector, the average number of persons employed was 4 for the EU as a whole, 3 for Korea and in the range of 3 to 5 persons for the five key European economies studied.

High enterprise birth rates in the Republic of Korea

The birth of new enterprises is often seen as an indication of the dynamism of an economy, as newly founded enterprises are considered drivers of job creation and economic growth. Through the application of the newest technologies and methods and responding to the latest market needs, new enterprises are generally considered to increase competition in the economy and thus stimulate innovation, improved productivity and the overall competitiveness of a country's enterprises.

Generally, the birth rates of enterprises average around 10% of the total number of active enterprises in the EU as a whole. However, in Korea the birth rates lay around 15%. The birth rates in the United Kingdom lay at around 10% and in the other main European economies between 6% and 9% (see Figure 3). In the EU, the share of newly born enterprises declined slightly from 2009 to 2010. It should be noted that the higher birth and death rates recorded in Korea may partly be explained by methodological differences – see the methodological notes below for more details.



(1) EU-28: Data for Greece and Croatia not available

(2) France: Birth rates are influenced by the introduction on 01.01.2009 of a new scheme to set up self-managed enterprises; revisions are expected

Figure 3: Enterprise birth rates, 2009 - 2010 (% of enterprise births among active enterprises in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

In France, a new scheme for setting up self-managed enterprises was introduced on 1 January 2009. This offered simplified procedures for the registration of such new enterprises and for the calculation of social contributions and income tax. This resulted in a steep increase in the enterprise birth rate in France from 9.7% in 2008 to levels around those of Korea in 2009 and 2010. However, from 2009 to 2010, the enterprise birth rate in France fell by 2.6 percentage points, from 15.4% to 12.8%, which was still a high level compared with the other key European economies. Please note that the French birth rates for 2009 and 2010 are expected to be revised downwards, as those new self-managed enterprises which have had no activity for eight consecutive quarters will be removed from the enterprise birth data.

In the Republic of Korea, the birth rate remained stable at around 15%. For the other main European economies there were only minor changes in the enterprise birth rate, ranging from a slight decline of 0.6 percentage points to 6.7% in Italy to an increase of 0.6 percentage points to 7.8% in Spain.

Looking at enterprise births by sector, the new enterprises in the service sector made up a slightly higher share than in the overall population of active business economy enterprises in Korea, Germany, Spain and the United Kingdom (see Figure 4). In Korea, the service sector made up 89% of enterprise births in 2010; in the other three economies this share was around 80%.

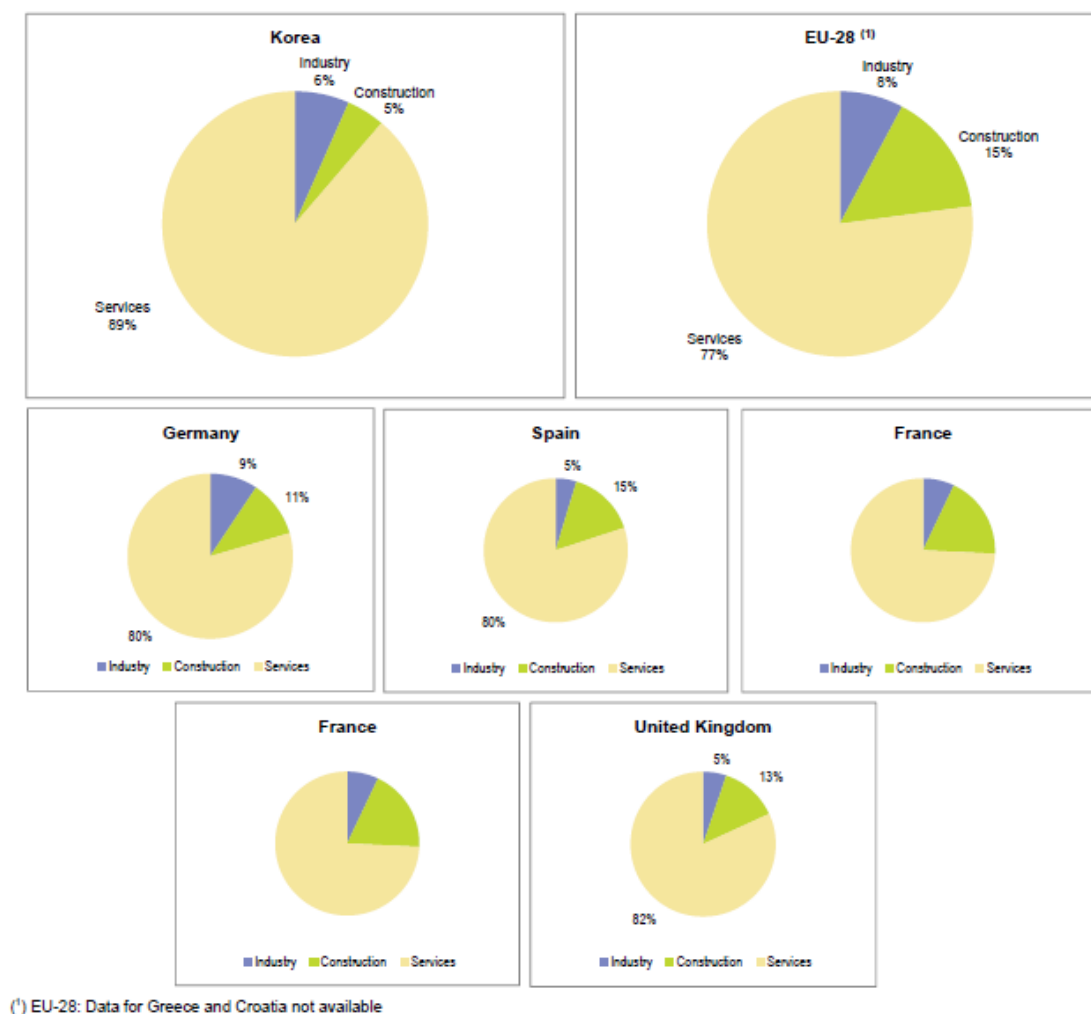


Figure 4: Enterprise births by sector, 2010 (% of total business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

In the total business economy in 2010, the share of newly born enterprises in the total number of persons employed in active enterprises was 7.7% in Korea (see Figure 5). This was considerably higher than in the five major European economies; in Germany the share was 1.7%, while it ranged from 2.6% to 3.0% in Spain, France, Italy and the United Kingdom. This confirms the trend that enterprises are rather small on average at birth in terms of employment. There were only minor changes in these shares from 2009 to 2010. However, it is worth noting that for France the share of persons employed in enterprise births within the total business economy employment only declined by 0.5 percentage points, despite the fall of 2.6 percentage points in the enterprise birth rate; this may be due to a special effect in 2009, caused by a high number of births of self-managed enterprises without employees under a new scheme which facilitated the establishment of such enterprises. This scheme began on 1 January 2009.



(¹) EU-28: Data for Greece and Croatia not available

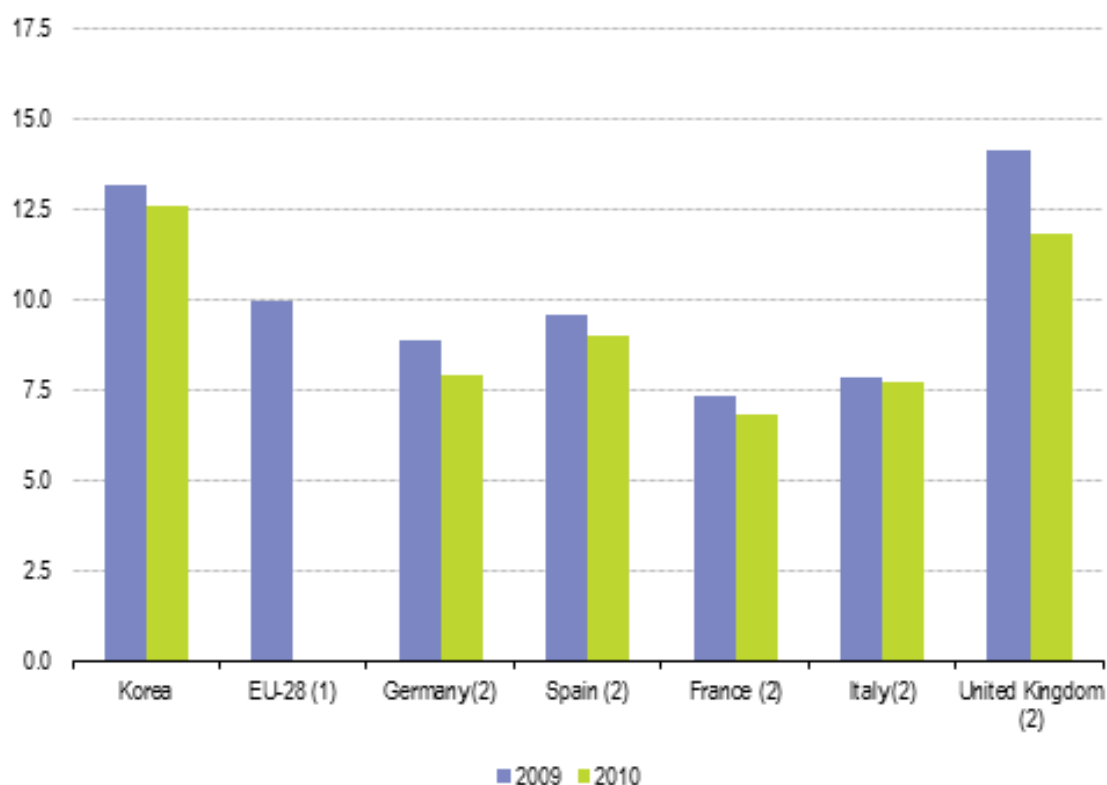
(²) Germany: Data are estimated

Figure 5: Persons employed in new-born enterprises, 2009 - 2010 (% of the total business economy)- Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

With the exception of Italy, enterprise death rates fell from 2009 to 2010

Deaths of enterprises are generally caused by an enterprise's lack of economic success. This may be caused by inefficient or outdated production processes, products that are not attractive in the market, prices that are not covering costs, or a range of other issues. The closure may be voluntary or may be caused by bankruptcy or similar. Thus, enterprise deaths tend to reflect the dynamics of the economy and changes in markets. As seen in recent years, liquidity problems and problems in finding financing in times of economic crisis may also be critical factors.

At EU level on a whole the death rates of enterprises are similar to the birth rates, at around 10% on average; in Korea the death rate was almost 13% of the active enterprises in 2010 (see Figure 6). In the United Kingdom the death rate was 11% in 2010, while the death rates in the other main European economies were between 6% and 9%. With the exception of Italy, where a marginal increase of 0.1 percentage points was registered, the enterprise death rates fell from 2009 to 2010 for the economies analysed. It should be noted that the higher level of death rates recorded in Korea may be partly explained by methodological differences – see the methodological notes below for more details.



(¹) EU-28: Data for Greece and Croatia not available

(²) Germany, Spain, France, Italy and United Kingdom: Death rates are preliminary

Figure 6: Enterprise death rates, 2009 - 2010 (% of enterprise deaths among active enterprises in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

Amongst the countries studied in this article, in 2010 the enterprise death rate was higher than the birth rate in Spain, Italy and the United Kingdom (see Figure 7). In Italy, this negative difference increased from 2009 to 2010. In contrast, in Germany the balance turned from negative in 2009 to positive in 2010. Korea and France recorded higher birth than death rates in both 2009 and 2010, with a continuously growing enterprise population. In 2010, the difference between the birth and death rates continued to grow in Korea, meaning that the growth in the enterprise population accelerated further; in France the birth rate shrank, slowing down the growth in the enterprise population. The high birth rate in France in 2009 was caused by the introduction, on 1 January 2009, of a new scheme to facilitate the setting up of self-managed enterprises.



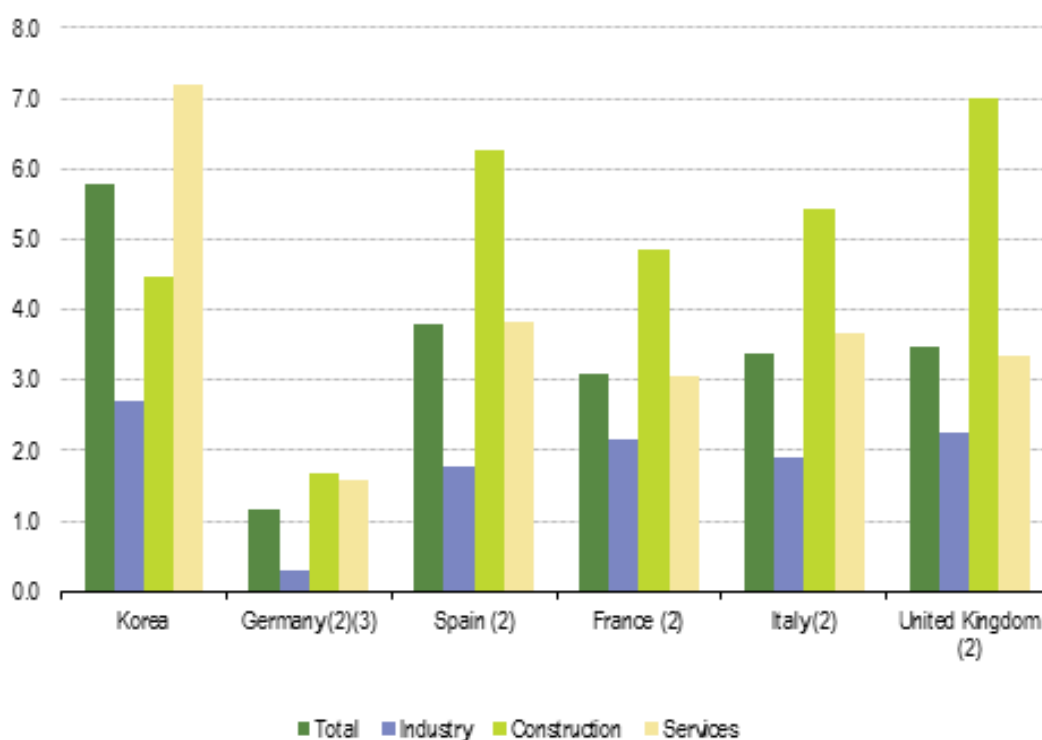
(1) EU-28: Data for Greece and Croatia not available

(2) Germany, Spain, France, Italy and United Kingdom: Death rates are preliminary

(3) France: Birth rates are influenced by the introduction on 01.01.2009 of a new scheme to set up self-managed enterprises; revisions are expected

Figure 7: Enterprise birth and death rates, 2010 (% of enterprise births/deaths among active enterprises in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

Enterprise deaths lead to the loss of jobs; in this article, this is defined as a reduction in the number of persons employed. In 2010, 5.8% of jobs in the business economy in Korea were lost due to enterprise deaths (see Figure 8). The job loss was heaviest in the service sector, where 7.2% of jobs were lost due to enterprise deaths. The corresponding share in the construction sector was 4.5% and in industry 2.7%. In the major European economies, the job loss due to enterprise deaths was strongest in the construction sector; hardest hit was the United Kingdom, where 7.0% of construction jobs were lost. Germany recorded by far the lowest job losses amongst these economies; in 2010 the shares of jobs lost due to enterprise deaths were merely 0.3% in industry, 1.6% in services and 1.7% in construction. This may suggest that the majority of jobs had been lost already before the year when the activities of the enterprise effectively stopped, or it may indicate that the deaths predominantly affected smaller enterprises.



(¹) EU-28 not available

(²) Germany, Spain, France, Italy and United Kingdom: Death rate preliminary

(³) Germany: Data are estimated

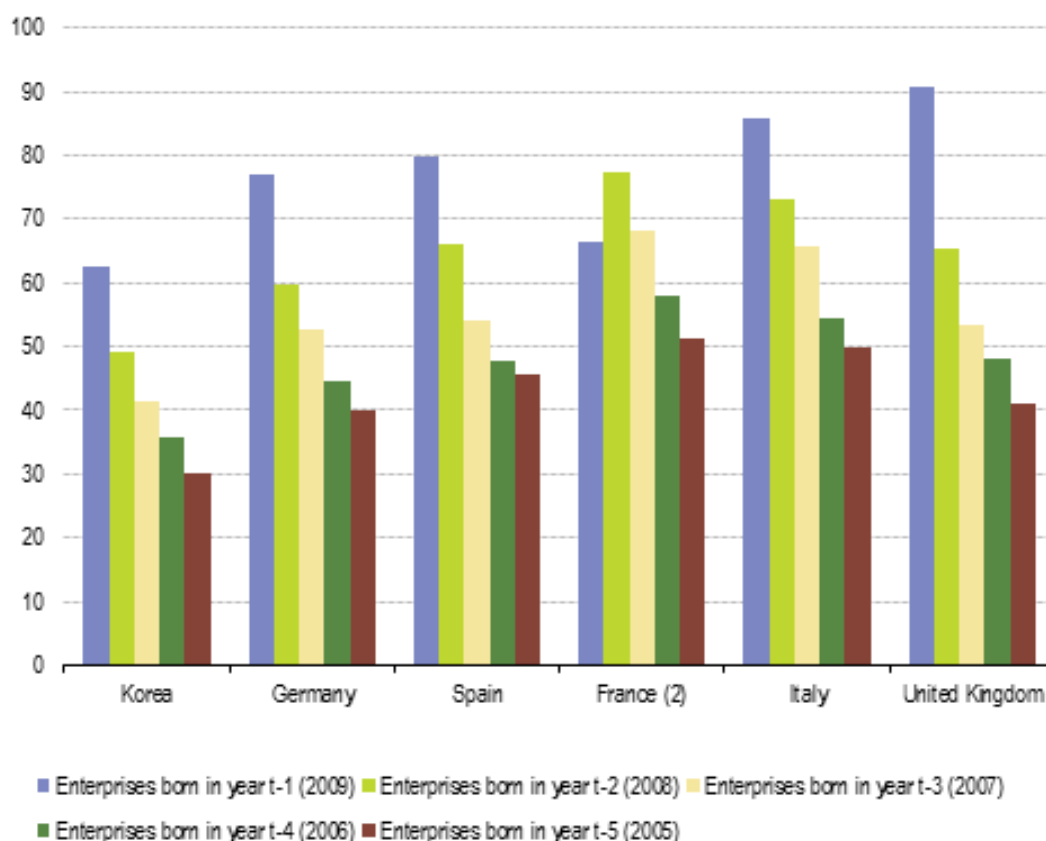
Figure 8: Employment loss through deaths of enterprises by sector, 2010 (% of total number of persons employed in the sector) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

High short term survival rate in the United Kingdom and Italy

A critical element of the potential of newly born enterprises to stimulate economic growth and employment is their ability to survive. Thus, business demography statistics focus on the survival rate of newly born enterprises up to five years after their creation, tracing how many have survived during that period. Data are presented for the one- to five-year survival rates.

The available data show relatively low one- to five-year survival rates for Korea. However, this may to a certain extent be influenced by methodological issues, as Korea records the death of an enterprise when there has been one calendar year without activity; the Eurostat-OECD methodology, on the other hand, records the death of an enterprise after two years without activity.

The one-year survival rate for enterprises shows that very high shares of newly born enterprises survive in the United Kingdom and Italy; in the United Kingdom, 91% of the enterprises survive their first year, in Italy 86%. In contrast, only 67% and 63% of enterprises in France and Korea respectively survived their first year from 2009 to 2010 (see Figure 9).



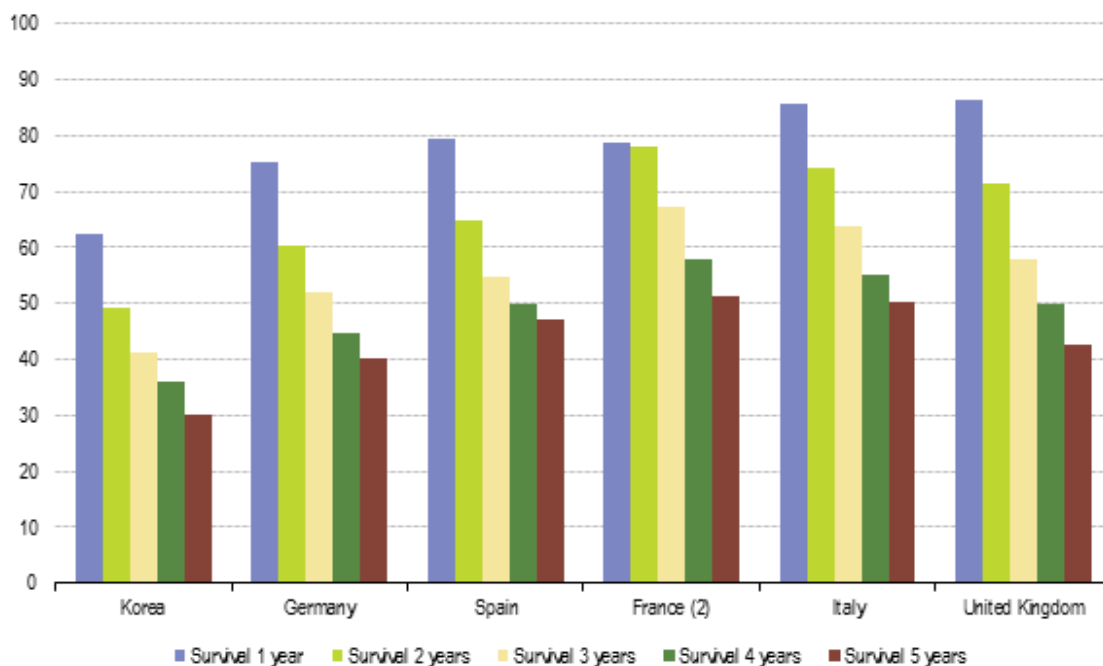
(¹) EU-28 not available

(²) France: Birth rates are influenced by the introduction on 01.01.2009 of a new scheme to set up self-managed enterprises; revisions are expected

Figure 9: Survival rates of enterprises born over the previous 5 years, 2010 (% of total enterprise births in the birth year in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

The survival rates fall gradually over the five years following the birth of enterprises, but the decrease in the year-on-year survival rates slows down over the period. The decrease in survival rates is sharpest from one-year survival to two-year survival. The data indicate that if enterprises survive the first years after their birth, they have a better chance of surviving long-term.

France (51%) and Italy (50%) had the highest average five-year survival rates of enterprises (see Figure 10). Amongst the main European economies, the lowest average five-year survival rates were recorded in Germany (40%) and in the United Kingdom (43%). In contrast, the average five-year survival rate was 30% in Korea.



(¹) EU-28 not available

(²) France: Birth rates are influenced by the introduction on 01.01.2009 of a new scheme to set up self-managed enterprises; revisions are expected

Figure 10: Average survival rates over 1 to 5 years (% of total enterprise births 2004-2009 in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

A special case is France, where the one-year survival rate from 2009 to 2010 was *lower* than the two-year survival rate from 2008 to 2010; in all other cases analysed here, the one-year survival rate is substantially higher than the two-year rate.

	Active enterprises		Enterprise births		Enterprise deaths	
	2009	2010	2009	2010	2009	2010
Korea	84.9	84.4	91.4	91.3	94.8	94.0
EU-28 (¹)	53.3	55.8	71.6	73.2	62.3	:
Germany	53.3	53.3	69.5	71.0	90.9	91.4
Spain	55.0	55.8	77.5	77.6	64.8	63.5
France	64.5	65.0	93.6	92.8	75.4	75.9
Italy	64.8	65.0	78.6	75.2	73.7	77.9
United Kingdom (²)	15.6	15.1	15.4	15.7	15.3	16.9

(¹) EU-28: Data for Greece and Croatia not available

(²) United Kingdom: Due to the registration threshold, sole proprietors with no employees and a low turnover are not generally included in the statistical business register

Table 1: Enterprises with 0 employees, 2009-2010 (% of the total enterprise population, births and deaths in business economy) - Source: Eurostat (online data code: (bd_9b_sz_cl_r2) and Statistics Korea

Data sources and availability

In the European Union, business demography data has been collected on a voluntary basis since 2002. Up to 2007, business demography statistics were produced and provided by most of the NSIs on the basis of informal, gentlemen's agreements. Following the amendment of the SBS Regulation, the business demography data collection has become part of the regular annual collection of structural business statistics; Annex IX of the [recast Structural Business Statistics Regulation](#) provides a detailed module for the collection of statistics on business demography. It requires the national statistical institutes (NSIs) to produce statistics on enterprise births, deaths and survivals, using common definitions and methodology, which ensure greater comparability in this field. National business registers and other administrative sources constitute the basis for the European business demography statistics.

Statistics Korea has carried out an annual census of Korean enterprises (legal units). This census is being replaced by administrative data drawn from different administrative sources. In December 2012, Statistics Korea published business demography statistics based on taxation data for the first time.

Generally, the Korean business demography statistics follow the international methodologies and recommendations laid down in the [Eurostat-OECD Manual on Business Demography Statistics](#). However, there are some differences that should be kept in mind:

- Birth of enterprise: The Korean data records the birth of an enterprise if the enterprise was not active the previous calendar year (t-1); the Eurostat-OECD methodology is to record a birth if the enterprise was not active in the *two* previous calendar years (t-1 and t-2).
- Death of enterprise: The Korean data records the death of an enterprise if the enterprise was active in calendar year t but not in the following full calendar year (t+1); the Eurostat-OECD methodology is to record a death if the enterprise was not active in the *two* following calendar years (t+1 and t+2).
- The Korean employment figures associated with the birth, deaths and survival of enterprises only include permanent employees and owners; temporary employees and day-workers have not been included.
- In Korea, as in the EU, one-person enterprises where only the owner is active (no employees) are included in the statistics as full enterprises; the share of one-person enterprises is quite high (see Table 1). In European business demography statistics, data on sole proprietors, explicitly broken down by size class, are not collected. To compare data for the EU and its Member States with Korea, the '0 employees' size class data can be used as a proxy, as it includes enterprises that have no employees. In most cases these are sole proprietors, but they could also be firms with another legal form that do not have employees.

The main implication of the shorter time limits for concluding that an enterprise is a birth or a death is the following. An enterprise that has been inactive for a full calendar year but is then reactivated will be counted as both a death and a birth. Therefore, there will be a somewhat higher number of enterprise births and deaths than those statistics which follow the two-year time limit defined in the Eurostat-OECD Manual on Business Demography Statistics. However, the effect of this difference is expected to be limited. A secondary implication of this shorter period for concluding on births and deaths of enterprises is that Statistics Korea is able to present final data earlier than Eurostat.

Employment is defined as the number of people engaged in productive activities in an economy. The two main measures used for employment are the number of [persons employed](#) and the [number of employees](#); in this article, 'persons employed' is used as measure of employment.

In the Korean methodology, only permanent employees and owners are counted; this will lead to a certain underestimation of the number of persons employed concerned by the enterprise births, surviving enterprises and enterprise deaths, compared to EU statistics.

The **enterprise** is 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. An enterprise may be a sole legal unit.

The classifications of enterprises in Korea (KSIC) and in the European Statistical System ([NACE Revision 2](#)) are both consistent with the UN economic activity classification ISIC Revision 4.

NACE breakdowns for the Business Economy

Industry

B (Divisions 5-9) – Mining and quarrying; C (Divisions 10-33) – Manufacturing; D (Division 35) – Electricity, gas, steam and air conditioning supply; E (Divisions 36-39) – Water supply; Sewerage, waste management and remediation activities.

Construction

F (Divisions 41-43) – Construction

Services

G (Divisions 45-47) – Wholesale and retail trade; repair of motor vehicles and motorcycles; H (Divisions 49-53) – Transport and storage; I (Divisions 55-56) – Accommodation and food services activities; J (Divisions 58-63) – Information and communication; K (Divisions 64-66) – Financial and insurance activities (excluding activities of holding companies - K64.2); L (Division 68) – Real estate activities; M (Divisions 69-75) – Professional, scientific and technical activities; N (Divisions 77-82) Administrative and support services activities

The following difference in the definitions of '*Industry*' and '*Services*' between Eurostat-OECD and Korea should be noted:

- In the data for the EU and its Member States, NACE Rev. 2 Section E ('*Water supply; Sewerage, waste management and remediation activities* .') is allocated in full to the category '*Industry*';
- In the data for the Republic of Korea, '*Water supply*' (NACE Rev. 2 Division 36) is also allocated to the category '*Industry*'; however, '*Sewerage, waste management and remediation activities*' (NACE Rev. 2 Divisions 37-39) are allocated to the category '*Services*'.

Context

Business demography statistics are a key input to the discussion on economic growth and increased employment which are two of the main targets for economic policy in the EU, as in Korea. Business demography statistics offer information on the [creation \(births\) of enterprises](#), their [survival over time](#) and their [closure \(deaths\)](#). These data serve as entrepreneurship indicators. They look at in which economic sectors new enterprises are established, how they survive the first 5 years of activity, which enterprises are growing particularly fast and in which sectors is the risk greatest that enterprises will close down ('enterprise death').

The developments in the enterprise population mirror the changes in economic structures and markets, through businesses' adaptation to the development of new markets, changes in existing markets as well as economic and societal structures. Changes in legislation, particularly tax legislation, may also have an impact on the way businesses organise their activities and the effort required to set up a new enterprise. The enterprise population is thus closely related to the dynamics of the economy, in the EU, in Korea and worldwide.

Of special interest to policy makers is the importance new enterprises have to the creation of new and sustainable jobs. Thus, much attention is paid to the new jobs created by these newly established enterprises. Thus, enterprise creation can be seen as an indicator of [competitiveness](#), as a factor of economic growth and as central to the creation of new jobs.

Business demography statistics provide information on the [active population of enterprises](#), the births, deaths and survival rates of enterprises, as well as information on employment in the enterprises concerned.

Particular attention is paid to the impact that these demographic events have on employment levels. Business demography data can be used to analyse the dynamics and innovation of different markets, such as:

- entrepreneurship in terms of the propensity to start a new business;
- the influence of newly-born enterprises on job creation.

Further Eurostat information

Database

- [Structural business statistics \(sbs\)](#) (New activity classification (NACE Rev 2))

Dedicated section

- [International statistical cooperation](#)
- [Structural business statistics](#)
- [Business demography](#)

Methodology / Metadata

- [Eurostat-OECD Manual on Business Demography Statistics](#) (2007)
- [Business demography statistics - all activities](#) (ESMS metadata file)
- [Business registers - Recommendations Manual](#) (2010)

Notes

This article is available on Statistics Explained at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Korea-EU_-_business_demography

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