

# Statistics in focus

## INDUSTRY, TRADE AND SERVICES

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### Contents

An overview of business demography in Europe.....	2
Enterprise births .....	3
Enterprise survival.....	5
Enterprise deaths.....	6

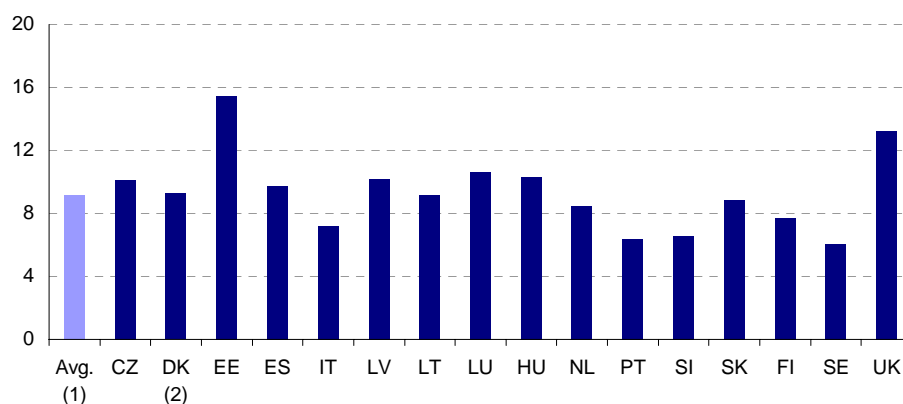
# Business demography: growth in the population of enterprises

Fostering new enterprises and developing innovation are key elements in the so-called Lisbon process, which was relaunched in 2005 as the Growth and Jobs Strategy. Its main objectives are to ensure sustainable growth, more and better jobs in the EU. To monitor progress towards this goal, indicators on the birth, survival and death of enterprises are included in a list of structural indicators, providing information on changes in the population of enterprises, hereafter referred to as 'business demography'. This information is of particular relevance for studying aspects such as access to markets, competition policy and employment creation.

This is one of two Statistics in Focus on the subject of business demography planned for the spring of 2007: its focus is the change in the number of enterprises as a result of enterprise births and deaths in relation to the population of active enterprises (the enterprise stock); the other publication (N° 49/2007) focuses on the employment impact of business demography.

- **There were 1.2 million newly born enterprises in the business economy of the 17 countries<sup>1</sup> for which information was available in 2003.**
- **Newly born enterprises accounted for 9.2 % on average of the stock of active enterprises in 2003 (see Figure 1).**
- **The two-year survival rate for the enterprises born in 2001 in the business economy was 78.3 %; the five-year survival rate of enterprises born in 1998 was 47.5 %.**
- **The average enterprise death rate for the business economy in 2003 was 7.8 % (1.3 percentage points lower than the birth rate); therefore, the stock of active enterprises increased overall (see methodology notes for more details regarding other changes that may affect the stock of active enterprises). Note that enterprise death statistics for 2003 are preliminary and may be subject to change after this publication.**

Figure 1: Enterprise birth rates, business economy, 2003 (%)



(1) Based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom.  
(2) 2001.



<sup>1</sup> The Czech Republic, Estonia, Spain, Italy, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Portugal, Slovenia, Slovakia, Finland, Sweden, the United Kingdom, Romania and Switzerland.

## An overview of business demography in Europe

There were about 1.2 million newly born enterprises in the business economy (NACE Rev. 1.1 Sections C to K) of the 17 countries for which there was information available for 2003. The service sector (defined hereafter as NACE Rev. 1.1 Sections G to K, excluding Class 74.15) contributed three quarters (75.6 %) of these enterprise births. The proportion of enterprise births within the construction sector (NACE Rev. 1.1 Section F) was 15.9 %, which was about twice the 8.4 % share recorded for industry (NACE Rev. 1.1 Sections C to E).

When expressed as a proportion of the total number of active enterprises in each of these sectors, the highest birth rates in 2003 were registered for the construction sector (11.1 %). In turn, the birth rate for the services sector (9.4 %) was higher than that for industry (5.8 %).

Among the 17 countries for which there was information in 2003, just over two thirds (66.8 %) of the total number of enterprise births in the business economy came from Italy (23.1 %), Spain (23.0 %) and the United Kingdom (20.9 %) combined.

However, relative to the size of the active enterprise population, some of the highest enterprise birth rates in 2003 were recorded for the Member States that joined the EU in 2004, as well as in Romania. Indeed, the highest enterprise birth rate in 2003 was in Romania (18.7 %). There were also double-digit birth rates in Estonia, Hungary, Latvia and the Czech Republic, as well as in the United Kingdom and Luxembourg (see Table 1).

**Table 1: Birth and death rates, 2003, and two-year survival rates for new enterprises born in 2001 (%)**

	Avg. (1)	CZ	DK	EE	ES	IT	LV	LT	LU	HU	NL	PT	RO	SI	SK	FI	SE	UK	NO	CH
<b>Business economy (NACE Sections C to K, excluding Class 74.15)</b>																				
Birth rate	9.2	10.1	9.3	15.5	9.8	7.2	10.2	9.2	10.6	10.3	8.5	6.4	18.7	6.6	8.8	7.7	6.1	13.2	10.1	3.5
Two-year survival rate (2)	78.3	65.9	61.9	71.1	73.8	77.5	74.6	81.4	79.9	68.7	74.1	93.7	69.6	84.7	83.5	60.1	87.2	82.5	70.2	:
Death rate (3)	7.8	10.6	:	7.8	6.1	7.4	16.9	8.9	9.8	11.1	9.0	4.3	9.9	7.8	11.8	7.1	5.2	11.3	:	3.7
<b>Industry (NACE Sections C to E)</b>																				
Birth rate	5.8	8.3	5.1	10.1	6.0	4.6	8.2	8.8	8.7	6.1	5.5	6.2	15.3	3.8	7.4	4.7	4.6	8.6	5.3	1.9
Two-year survival rate (2)	81.3	71.2	66.8	79.0	78.5	80.6	72.1	87.1	82.9	74.1	78.2	92.1	73.0	87.4	86.6	70.0	89.5	82.7	80.0	:
Death rate (3)	6.8	8.3	:	5.5	5.1	6.4	15.8	9.4	6.2	9.1	6.9	5.5	9.1	6.9	11.1	6.1	4.5	9.9	:	3.4
<b>Construction (NACE Section F)</b>																				
Birth rate	11.1	10.7	9.0	21.5	12.9	9.5	11.1	11.1	8.0	11.1	7.7	8.7	22.1	6.7	10.7	8.4	5.9	12.9	9.5	2.7
Two-year survival rate (2)	77.6	68.5	69.4	82.2	71.2	79.0	77.4	81.8	81.9	70.4	80.0	94.1	74.0	89.5	85.8	72.4	88.3	82.9	72.3	:
Death rate (3)	8.0	9.4	:	6.1	6.6	8.3	8.4	8.4	6.3	10.6	6.8	2.8	9.2	6.9	12.8	7.2	4.7	9.7	:	3.0
<b>Services (NACE Sections G to K, excluding Class 74.15)</b>																				
Birth rate	9.4	10.5	10.0	15.7	9.6	7.2	10.5	9.2	11.0	10.8	8.9	6.0	19.2	7.4	8.9	8.2	6.3	13.9	10.9	4.0
Two-year survival rate (2)	78.1	64.2	60.6	69.7	74.0	76.7	74.8	80.3	79.7	67.8	72.6	93.9	68.6	83.1	82.5	55.6	86.8	82.4	68.9	:
Death rate (3)	8.0	11.4	:	8.5	6.2	7.5	17.7	8.8	10.4	11.5	9.7	4.3	10.1	8.3	11.7	7.4	5.4	11.7	:	3.9

(1) Averages based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom.

(2) Denmark and Norway, 2001 with survival rates for enterprises born in 1999.

(3) Death rates for 2003 are preliminary. The Czech Republic, Lithuania, Luxembourg, Hungary, the Netherlands, Portugal, Slovenia and Finland, 2002.

A little over three quarters (78.3 %) of all newly born enterprises in 2001 on average (based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom) survived at least two years (into their third year of operation).

There were considerable differences however in the two-year survival rates of enterprises born in 2001 between countries. The highest survival rate was in Portugal (93.7 %). In contrast, the lowest two-year survival rate for enterprises born in 2001 was recorded in Finland (60.1 %).

In general, the average two-year survival rate for newly born industrial enterprises (81.3 %) was slightly higher than the survival rates for either construction (77.6 %) or services (78.1 %).

Death rates (in 2002 or 2003) were higher for services than for industry or construction in 12 of the 17

countries for which data are available. The exceptions were limited to Lithuania and Portugal, where death rates for industry were highest, and Spain, Italy and Slovakia where death rates for construction were highest.

With an average enterprise birth rate higher than the corresponding death rate, there was a net increase in the stock of active enterprises in 2003. Note, however, that not only births and deaths but also other events such as mergers, take-overs, split-offs and break-ups have an effect on the stock of active enterprises. The net stock of construction and service enterprises both rose in 2003, while there was a net decline in the stock of industrial enterprises.

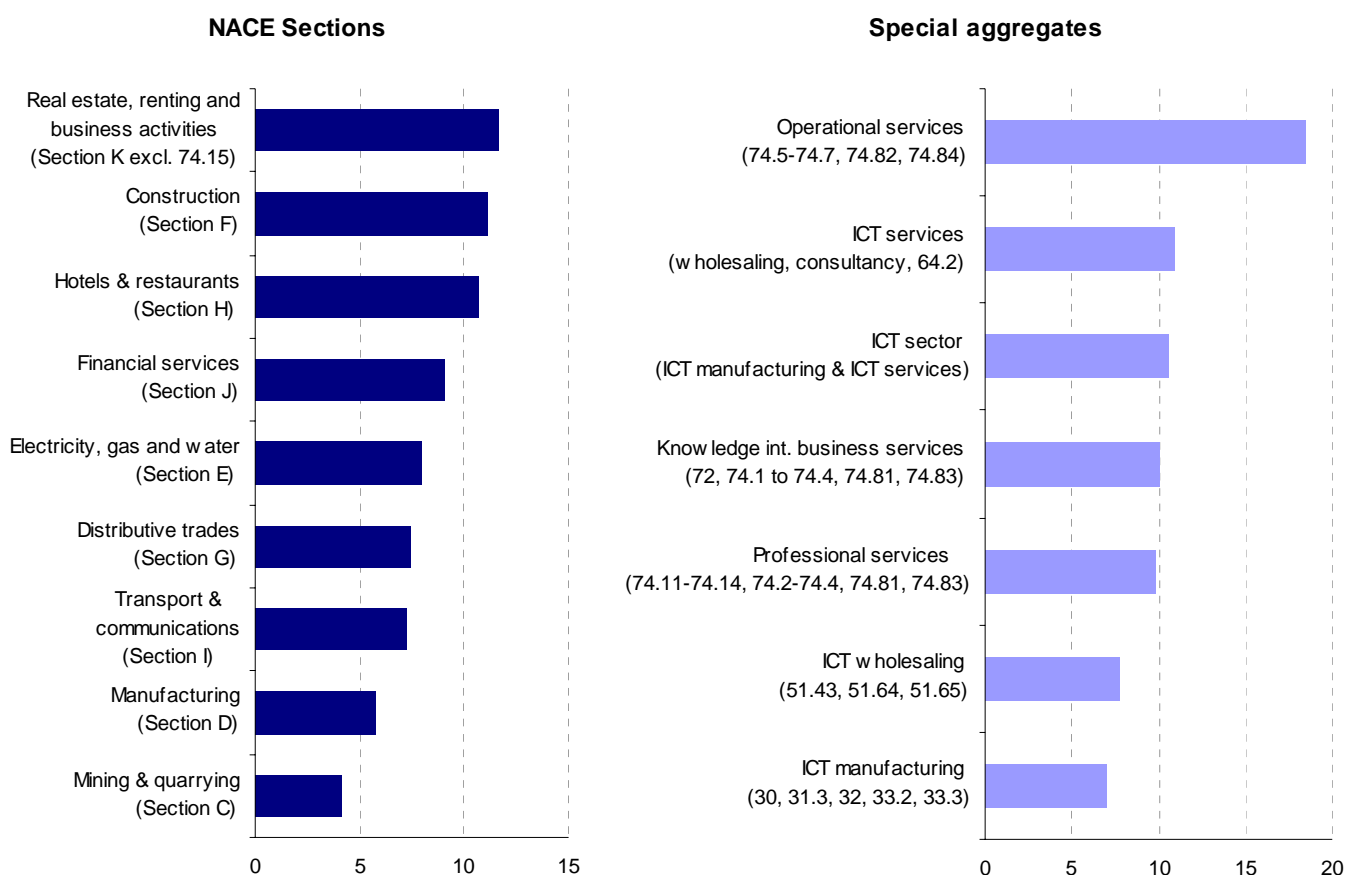
Among the Member States, the highest rate of net increase in the number of enterprises (as derived from the birth rate minus the death rate) was in Estonia, while the sharpest reduction was in Latvia.

## Enterprise births

There were stark differences in enterprise birth rates between activities (based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom). Birth rates tended to be highest in service activities, with the birth rate for real estate, renting and business activities (NACE Section K, excluding Class 74.15) being 11.7 % in 2003 (see Figure 2). In contrast, birth rates tended to be low in industrial activities, such as manufacturing (5.7 %) and mining and quarrying (4.1 %); note these activities generally face higher start-up costs than many service activities.

Looking in more detail, enterprise births in operational services (such as labour recruitment and industrial cleaning) were particularly high in 2003 (18.5 %). There were also relatively high birth rates for enterprises in information and communications technology services (11.0 %) and knowledge intensive business services such as legal work, computer activities and accounting (10.1 %).

Figure 2: Enterprise birth rates, 2003 (%) (1)



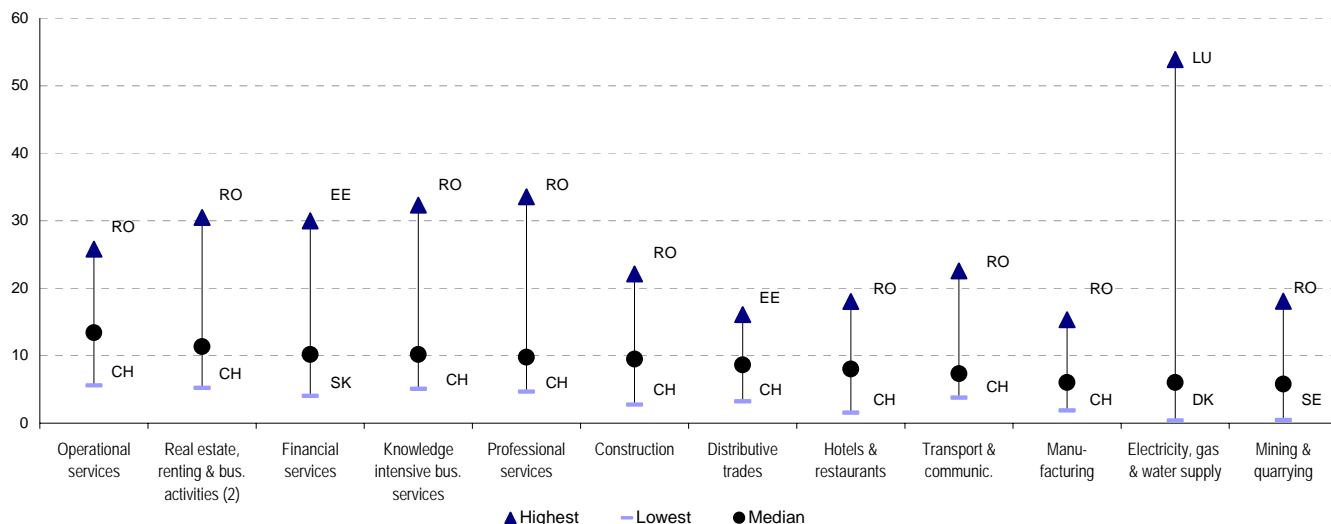
(1) Averages based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom.

There were considerable differences in enterprise birth rates between the 19 countries for whom data are available (as presented in Table 1) and between activities. These differences were relatively wide in the services sector (see Figure 3), particularly for real estate, renting and business activities, financial services and the specific activity groupings such as knowledge intensive business services. There was a less distinct pattern of variation in industry, with relatively uniform birth rates for manufacturing between the countries, although the most significant variations in birth rates were recorded for electricity, gas and water. However, the variation for electricity, gas and water reflected a

high birth rate recorded in Luxembourg (54 %), where there was strong growth (albeit from low levels). In the majority of the 19 countries, however, enterprise birth rates in the electricity, gas and water sector were low, with a median of only 6 %.

In general, the highest enterprise birth rates in the activities studied tended to be in Romania, which acceded at the start of 2007 to the EU and has been delayed in its transition to a market economy. In contrast, the lowest birth rates tended to be in Switzerland.

**Figure 3: Highest, lowest and median enterprise birth rates, 2003 (%) (1)**



- (1) Based on data for the Czech Republic, Denmark (2001), Estonia, Spain, Italy, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, the United Kingdom, Norway (2001) and Switzerland.  
 (2) Excluding NACE Class 74.15.

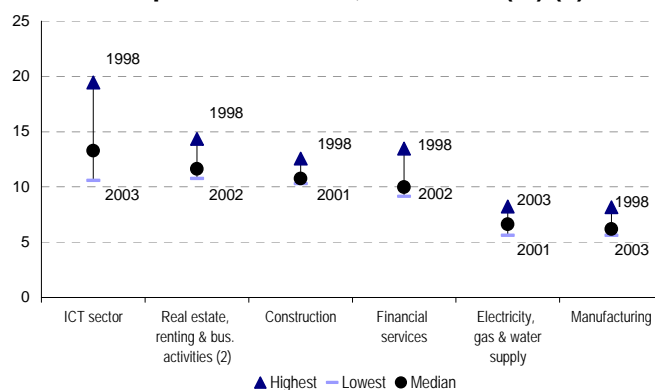
Looking at the enterprise birth rates for the business economy over the six years for which data are available, the highest rates were generally recorded at the start of the period considered, before declining at varying rates to lows in 2001 or 2002. This decline was followed by a slight upturn in 2003.

Based on available data (Spain, Finland, Italy, Luxembourg, Portugal, Finland, Sweden and the United Kingdom) the average decline in birth rates was relatively small for a majority of activities until 2001 or 2002. The most notable exception was the birth rate of the ICT sector which declined from 19.4 % in 1998 to 10.6 % by 2003 (see Figure 4).

In a majority of Member States for which information is available, the most common legal form of new enterprises was that of the sole proprietor (self-employed). The clearest exceptions were Luxembourg, the United Kingdom and Switzerland where a majority of new enterprises were limited liability companies; this legal form was also the most common in the Baltic Member States (see Figure 5).

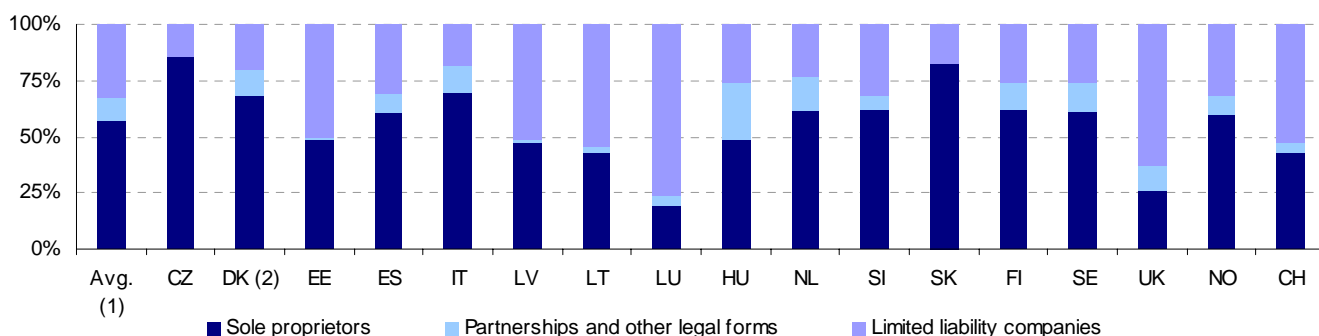
New enterprises taking the form of a partnership or another legal form were the least favoured form in each of the countries, with the exception of Hungary, where this category accounted for one quarter of all enterprise births in 2003.

**Figure 4: Highest, lowest and median enterprise birth rates, 1998-2003 (%) (1)**



- (1) Averages based on data for Spain, Italy, Luxembourg, Portugal, Finland, Sweden and the United Kingdom.  
 (2) Excluding NACE Class 74.15.

**Figure 5: Enterprise births in the business economy, by legal form, 2003**

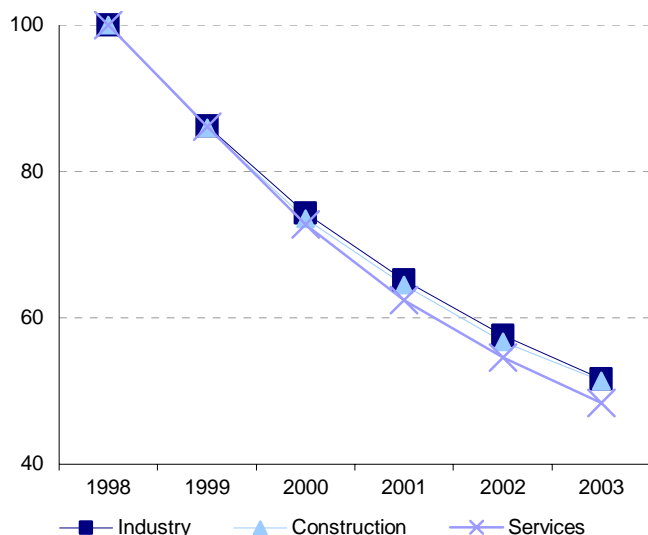


- (1) Average based on data for the Member States in the figure, excluding Denmark.  
 (2) 2001.

## Enterprise survival

A little less than three quarters (73.0 %) of the 931 435 enterprises that were born in 1998 within the business economies of Spain, Finland, Italy, Luxembourg, Sweden and the United Kingdom survived two years (see Figure 6). Extending this analysis, slightly less than half (49.1 %) of the same cohort of enterprises survived five years through until 2003.

**Figure 6: Proportion of enterprises born in 1998 surviving 1, 2, 3, 4 and 5 years, business economy (%) (1)**



(1) Averages based on data for Spain, Italy, Luxembourg, Finland, Sweden and the United Kingdom.

The annual death rate for this cohort of enterprises was fairly similar from one year to the next during the first three years before slowing in the fourth year (2002, 12.3 %) and the fifth year (2003, 11.0 %). These data support the notion that once an enterprise has overcome its first few years, it has a higher chance of survival.

Within the business economy, there appeared to be very little difference in survival rates between the three main activity aggregates for the cohort of enterprises that were born in 1998, as 51.6 % of industrial enterprises survived through until 2003, which was only slightly more than the corresponding proportions for construction (51.4 %) or services (48.4 %). Furthermore, the death rates in each of these three sectors slowed for those enterprises surviving beyond 2001.

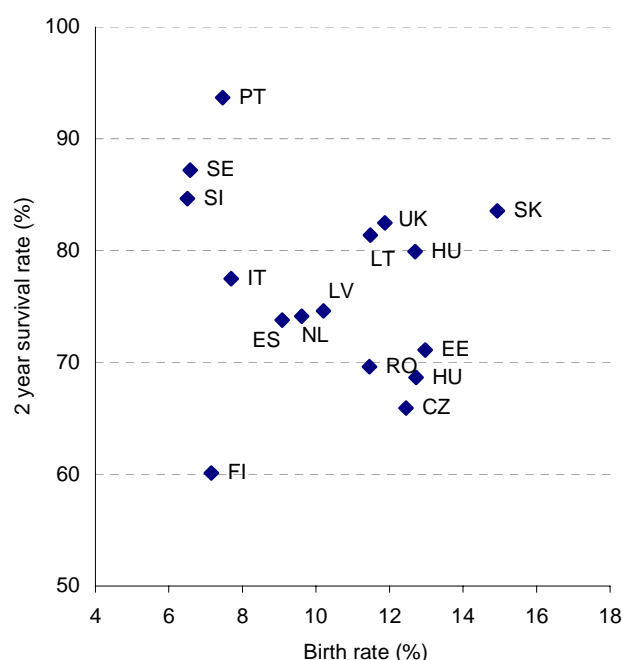
Among the seven Member States for which data are available for the 1998 cohort of newly born enterprises there were significant differences in survival rates. Five-year survival rates for the business economy ranged from 61.5 % in Sweden to as low as 39.7 % in Finland.

These differences in survival rates were also noticeable when studying a different cohort of newly born enterprises (namely those born in 2001), as two-year survival rates ranged from over 90 % in Portugal, to between 80 % and 90 % in Lithuania, the United Kingdom, Slovakia, Slovenia and Sweden, while falling as low as 60.1 % in Finland.

Figure 7 suggests that for a number of Member States, the lower the birth rate, the higher the two-year survival rate and vice versa; Finland and Slovakia appear to be the most obvious exceptions. Finland had one of the lowest birth rates in 2001 and the lowest two-year survival rate, while Slovakia had the highest birth rate among the countries for which information is available but also one of the highest survival rates.

Among the NACE sections, the highest two-year survival rates for enterprises born in 1999, 2000 or 2001 were recorded for electricity, gas and water enterprises (a mean of 84.6 % for 1999, 2000 and 2001), followed by manufacturing enterprises (79.7 %). This contrasted with lower survival rates for a number of service enterprises, in particular financial services (70.6 %).

**Figure 7: Enterprise birth rates in 2001 and two-year survival rates, business economy**



## Enterprise deaths

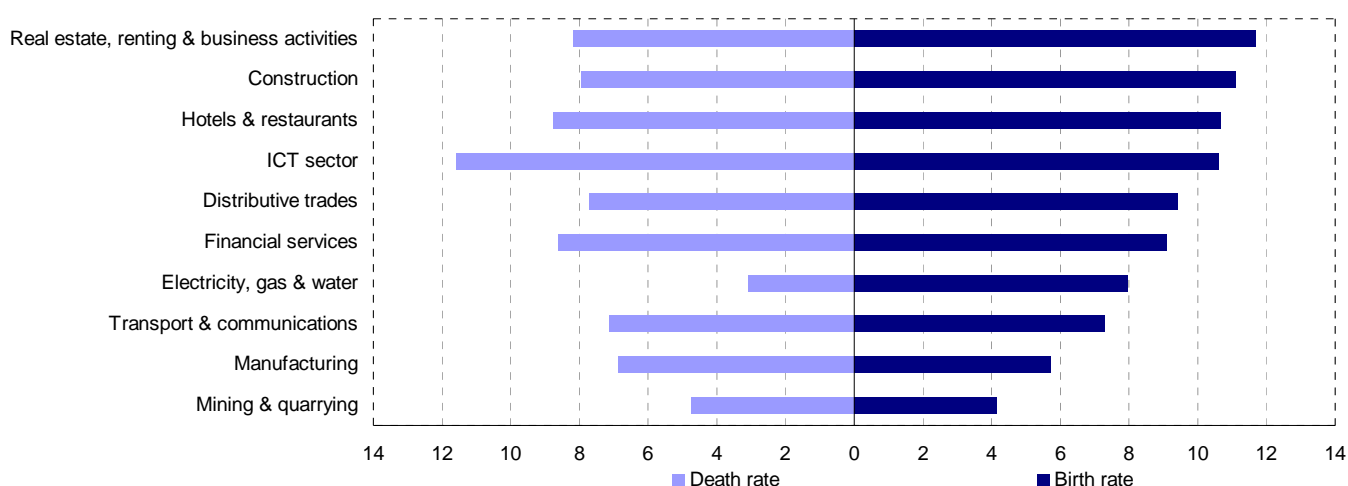
There are a large number of reasons why an enterprise may fail. Enterprise deaths may result from factors such as a lack of demand for products or services, poor product placement and pricing, insufficient start-up investment, poor management, a lack of a business plan, counter reactions from competitors, or a lack of qualified and trained staff. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. Equally, they do not include exits from a sub-population resulting only from a change of activity.

In relative terms, 7.8 % of all active enterprises died in 2003 (based on seven countries for which data are

available). The lowest enterprise death rate among the three main activity aggregates was for industrial enterprises (6.8 %). Note that enterprise death statistics for 2003 are preliminary and may be subject to change after this publication.

There appears to be some correlation between enterprise birth and death rates (see Figure 8) – as those activities with the highest birth rates (particularly service sector activities) generally tended to report the highest death rates, perhaps reflecting relatively low barriers to entry and exit, with the reverse also appearing to hold true (in particular for industrial activities).

**Figure 8: Enterprise birth rates and preliminary death rates, 2003 (%) (1)**

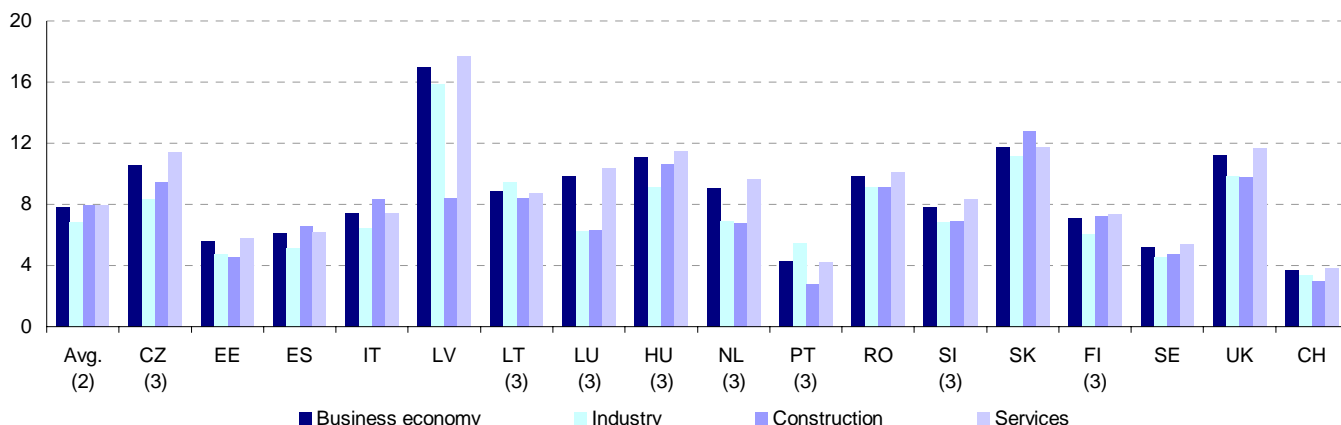


(1) Averages based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom.

In contrast, there was not such a clear relationship between high (or low) birth rates and high (or low) death rates for the individual countries (although there were relatively high rates for the United Kingdom and relatively low rates for Sweden). Estonia had one of the highest birth rates but one of the lowest death rates.

The highest enterprise death rates were recorded for Latvia. The lowest enterprise death rates were recorded for Portugal and Switzerland.

**Figure 9: Enterprise death rates, 2003 (%) (1)**



(1) Death rates for 2003 are preliminary.

(2) Averages based on data for Estonia, Spain, Italy, Latvia, Slovakia, Sweden and the United Kingdom.

(3) 2002.

## ➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

### Legal basis

Currently, data on business demography are provided to Eurostat on a voluntary basis. A recast Regulation on Structural Business Statistics amending and consolidating the existing legislation based on Council Regulation (EC, EURATOM) No 58/97 of 20 December 1996 has been proposed by the European Commission. It comprises a new Annex providing a complete legal basis for business demography statistics.

The development of a harmonised methodology, the testing, and the data collection exercises are all part of a process that is aimed at providing more comprehensive and comparable statistics on business demography on an annual basis.

### Data source

The main source of data for this development action is the statistical business registers that the National Statistical Institutes maintain. The use of the statistical business registers makes it possible to identify demographic events at the level of each individual unit.

### Coverage of countries

Tables and graphs in this publication show a varying coverage of countries. The availability of data by country depends on the year in which they joined the harmonised data collection, the availability of survival data from earlier years and the continuity of participation in the data collection.

### Definitions

Within the business demography context, an **active** unit is defined as one with any turnover and/or employment in the period from 1st January to 31st December in a given year. This definition complements the concept in the Business Registers glossary.

A **birth** amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. Births do not include entries into a sub-population resulting only from a change of activity. A birth occurs when an enterprise starts from scratch and actually starts activity. An enterprise creation can be considered as an enterprise birth if new production factors, in particular new jobs, are created. If a dormant unit is reactivated within two years, this event is not considered a birth.

The enterprise **birth rate** corresponds to the number of enterprise births in the reference period ( $t$ ) divided by the number of enterprises active in  $t$ .

A **death** amounts to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. Deaths do not include exits from a sub-population resulting only from a change of activity. An enterprise is included in the count of deaths only if it is not reactivated within two years.

The enterprise **death rate** corresponds to the number of enterprise deaths in the reference period ( $t$ ) divided by the number of enterprises active in  $t$ .

In the business demography context, **survival** occurs if an enterprise is active in terms of employment and/or turnover in the year of birth and the following year(s). Two types of survival can be distinguished:

- 1) an enterprise born in year  $t$  is considered to have survived in year  $t+1$  if it is active in any part of year  $t+1$  (= survival without changes);
- 2) an enterprise is also considered to have survived if the linked legal unit(s) 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 take-over).

The enterprise **two-year survival rate** corresponds to the number of enterprises in the reference period ( $t$ ) newly born in  $t-2$  having survived to year  $t$  divided by the number of enterprise births in  $t-2$ .

The enterprise **five-year survival rate** corresponds to the number of enterprises in the reference period ( $t$ ) newly born in  $t-5$  having survived to year  $t$  divided by the number of enterprise births in  $t-5$ .

### Statistical unit

The type of statistical unit used for this project on business demography is the enterprise. This unit is defined in the statistical units Regulation (Council Regulation (EEC) No 696/93 of 15 March 1993 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.

### Economic activities - NACE

NACE is a hierarchical classification of economic activities. Business demography indicators have been produced in this project for activities within NACE Rev. 1 Sections C to K and M to O, excluding Class 74.15. Sections C to K are referred to as the business economy, Sections C to E are referred to as industry, Section F is referred to as construction and Sections G to K are referred to as services. No data are collected for management activities of holding companies (Class 74.15) which are excluded from all higher aggregates (Group 74.1, Division 74, Section K, services and the business economy total). From reference year 2003 onwards, NACE Rev. 1.1 has been used.

### Coverage of units

No threshold in terms of the size of units has been set for this project. The coverage in general is very good, though differences in national administrative sources affect coverage of the smallest units (those with no paid employees). In many countries VAT registers are one of the principal sources for maintaining the statistical business register, and the thresholds for VAT registration may have an impact on the coverage of the business demography data. The VAT threshold in Estonia is about EUR 16 000. Up to 2002, coverage of sole proprietorships is limited to those with 20 or more persons employed. In Latvia, natural persons performing economic activity on the basis of licenses and patents and peasant farms were included only from 2002 onwards for populations of active enterprises and of enterprise births. The exceptionally high birth rate of 2002 in Latvia is due to the first inclusion of these natural persons. In Lithuania, VAT data were used for 2002, only when there was no information on turnover from other statistical sources. However, only those enterprises having more than about EUR 28 985 have to pay VAT. In Portugal the VAT threshold, for all reference years, is EUR 9 976. Sole proprietorships have not been covered in Portugal since 2001. The relatively high threshold for value added tax (VAT) in the United Kingdom may explain some of the differences, though, as in other countries, the impact of the VAT threshold is reduced by voluntary registrations and the use of additional sources.

### Non-availability




The colon (:) is used to represent data that is not available or confidential.

'Avg.' is used to represent an average based on available country data.

## Further information:

Data: [EUROSTAT Website/Home page/Industry, trade and services/Data](#)

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