

# **The Role and the Main Developments of SMEs in the European Economy**

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## 1. Introduction

In this paper, we will examine the role that small and medium-sized enterprises (SMEs) play in the European economy as a whole and, more specifically, in some of the main European countries and how this role has changed over the last years.

In the second chapter, the research will analyse the number of enterprises and of persons employed, the contribution of enterprises to value added and the labour productivity in order to present and to understand the productive structure of SMEs in the European scenario. Other indicators are analysed (average size of enterprises and of firm entries and the density of SMEs) and they will indicate further specificities among the examined countries.

In the third chapter, we will analyse some business demography indicators. After having presented the birth and death of enterprises, the research will go further by, firstly, trying to quantify the percentage share of micro and zero-employee enterprises to the process of firm birth and death. Secondly, we will examine the five-years survival rates of enterprises and we will try to understand if there are relevant differences among enterprises with 10 or more employees, micro and zero-employee enterprises.

Finally, we will discuss the main conclusions of our analysis in the last chapter. All the collected data will be presented in a statistical annex.

## 2. The business structure of SMEs in the European economy

SMEs play a fundamental role in the European economy in terms of the number of enterprises, contribution to employment and value added produced. Analysing the latest available data, we have tried to show how this role has changed over the last years both in the European Union and in some selected European countries. As countries, on one hand, we have decided to choose, when possible, the five most important countries in terms of GDP and of the number of enterprises (France, Germany, Italy, Spain and the United Kingdom represent more than 70% of the total European GDP<sup>1</sup> and they represent about 60% of the total enterprise population). On the other hand, the Czech Republic has been chosen as a representative of Eastern Europe<sup>2</sup>.

### 2.1 Number of enterprises

In the European Union, in 2008, there were about 21 million enterprises in the non-financial business economy (Table 1). Only about 43000 were large scale enterprises (LSEs). The vast majority (99,8%) of enterprises were SMEs. Since 91,8% of the total enterprise population were micro enterprises, the micro firm can be considered the typical European firm.

**Table 1: Number of enterprises, by enterprise size class, 2008**

	Micro	Small	Medium-sized	SMEs	Large	Total
<b>EU-27</b>	19.075.952	1.425.346	226.094	20.727.392	43.178	20.770.570
%	91,8	6,9	1,1	99,8	0,2	100
<b>France</b>	2.208.562	155.000	23.534	2.387.096	5.050	2.392.146
%	92,3	6,5	1,0	99,8	0,2	100
<b>Germany</b>	1.520.873	257.525	42.777	1.821.175	8.840	1.830.015
%	83,1	14,1	2,3	99,5	0,5	100
<b>Italy</b>	3.731.348	189.294	20.151	3.940.793	3.096	3.943.889
%	94,6	4,8	0,5	99,9	0,1	100
<b>Spain</b>	2.487.681	184.117	22.048	2.693.846	3.268	2.697.114
%	92,2	6,8	0,8	99,9	0,1	100
<b>United Kingdom</b>	1.420.417	170.372	27.348	1.618.137	5.970	1.624.107
%	87,5	10,5	1,7	99,6	0,4	100
<b>Czech Republic</b>	856.261	35.285	7.212	898.758	1.513	900.271
%	95,1	3,9	0,8	99,8	0,2	100

Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

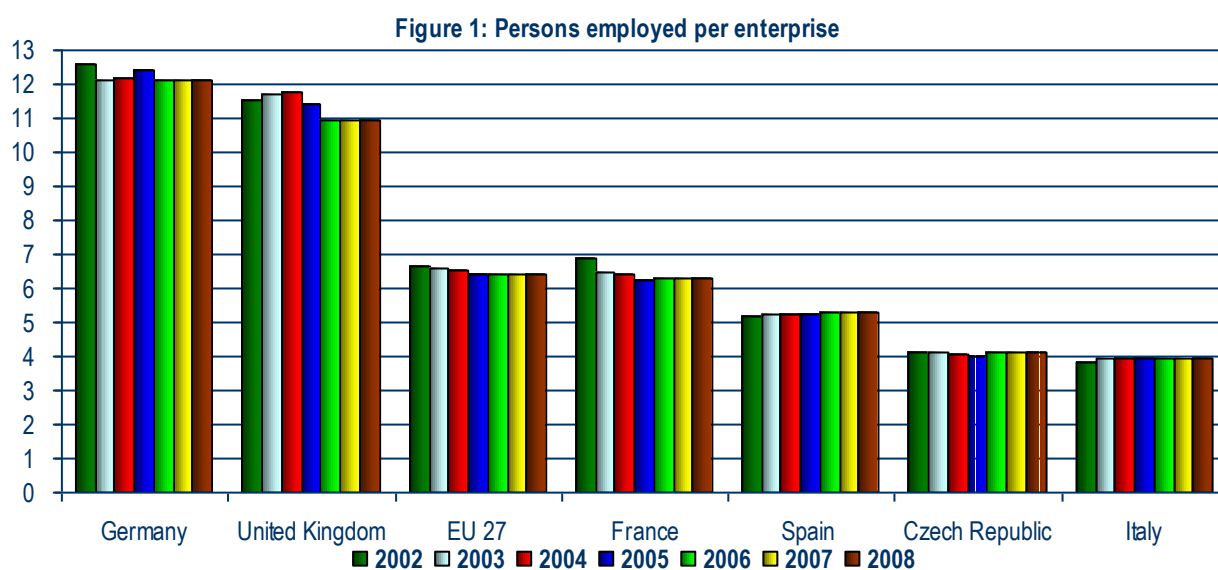
Comparing the European average with some selected European countries, we have to focus on two different aspects. On one hand, looking at the number of SMEs and LSEs, it is interesting to note that there were always the same proportions between the two sectors: SMEs were at least 99,5% of the total enterprise population (Italy and Spain recorded the highest percentage: 99,9%). On the other hand, within the SME sector, in Germany and in the United Kingdom the micro firm, with a percentage share of respectively 83,1% and 87,5% on the total enterprise population, played a less important role in terms of number than in Italy (94,6%), France (92,3%), Spain (92,2%) and the Czech Republic (95,1%). The different importance of micro enterprises is confirmed by three indicators: the average size of enterprises, the average size of firm entries and the density of SMEs.

The average size of enterprise, that is the total number of persons employed per enterprise, over the period 2002-2008, has been always higher in Germany (in 2008 about 12 persons employed per enterprise) and in the United Kingdom (in 2008 about 11 persons employed per enterprise) than the European average of about 6,5 persons employed per enterprise

<sup>1</sup> In 2010 the total European GDP is equal to more than 12 million of euro. The GDP of France, Germany, Italy, Spain, and the United Kingdom amounts to almost 9 million of euro (Source: Eurostat).

<sup>2</sup> Poland has not been chosen because there are less available data than the Czech Republic, especially about the business demography.

(Figure 1). Over the same period, in Italy, France, Spain and the Czech Republic the average size has been indeed very modest: on average, respectively 3,9; 6,4; 5,2 and 4,1 persons employed per enterprise.



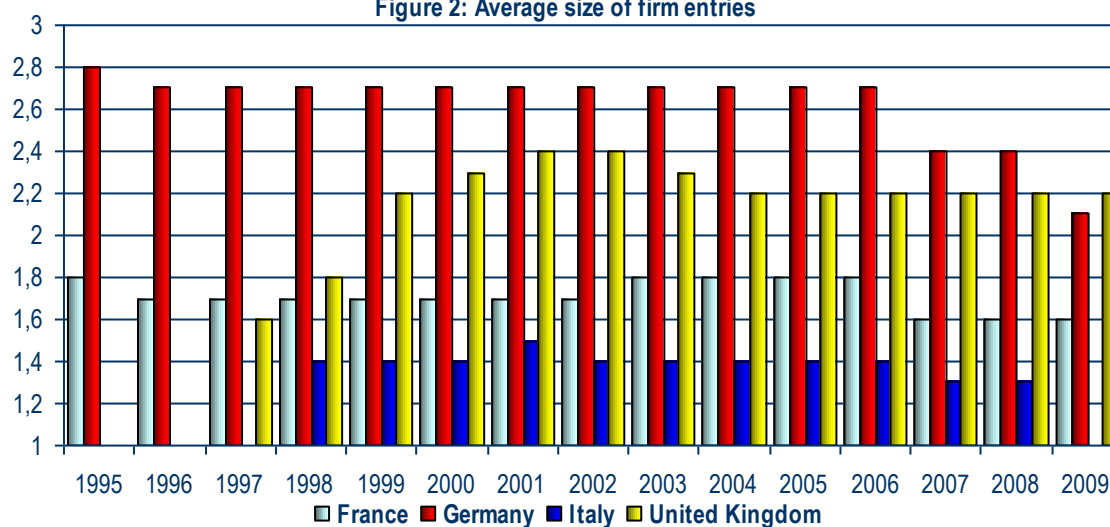
Compared with 2002, in 2008 the mean size of enterprise decreased significantly in France by 9% and in the United Kingdom by 5,2%. On the contrary, over the same period, it increased in Italy by 3% and in Spain by 1,8%.

The average size of firm entries, that is the average number of persons employed by a new firm, over the period 1995-2009<sup>3</sup>, has also been always higher in Germany and in the United Kingdom (respectively, on average, 2,6 and 2,2 persons employed by a new firm) than in France and in Italy (respectively, on average, 1,7 and 1,4 persons employed by a new firm) (Figure 2, next page).

Analysing the development of the average size of firm entries in the last fifteen years, it is interesting to note that, on one hand, this indicator decreased in Germany by 25%, France by 11,1% and Italy by 7,1%. On the other hand, it increased significantly in the United Kingdom by more than 37% to the extent that this last country overtook Germany in 2009 as the country with the largest average size of firm entries.

<sup>3</sup> Data for Italy and the United Kingdom are available respectively only for the period 1998-2008 and 1997-2009.

Figure 2: Average size of firm entries

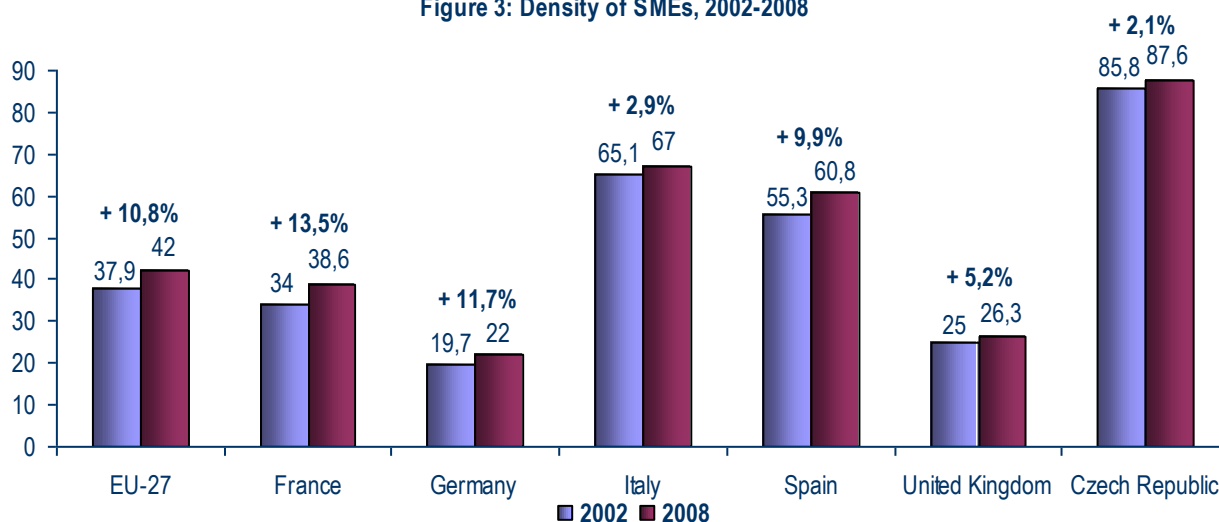


Source: International Benchmark of Entrepreneurs

The density of SMEs that is the number of SMEs per 1000 inhabitants, in 2008 was equal to 42 in the European economy as a whole. The density of French SMEs was practically the same of the European ones (about 39 SMEs per 1000 inhabitants) (Figure 3). Among the other countries we have analysed, only the Czech Republic (87,6), Italy (67) and Spain (60,8) registered a density of SMEs above the European average.

Within the SME sector, given the European average of about 39 micro enterprises per 1000 inhabitants, in the same year, Italy, Spain and the Czech Republic showed a very high density of SMEs: respectively about 63, 56 and 83 micro enterprises every 1000 inhabitants (Figure 4). On the contrary, the density of SMEs in Germany and in the United Kingdom was much lower: respectively only about 18 and 23 micro enterprises per 1000 inhabitants.

Figure 3: Density of SMEs, 2002-2008

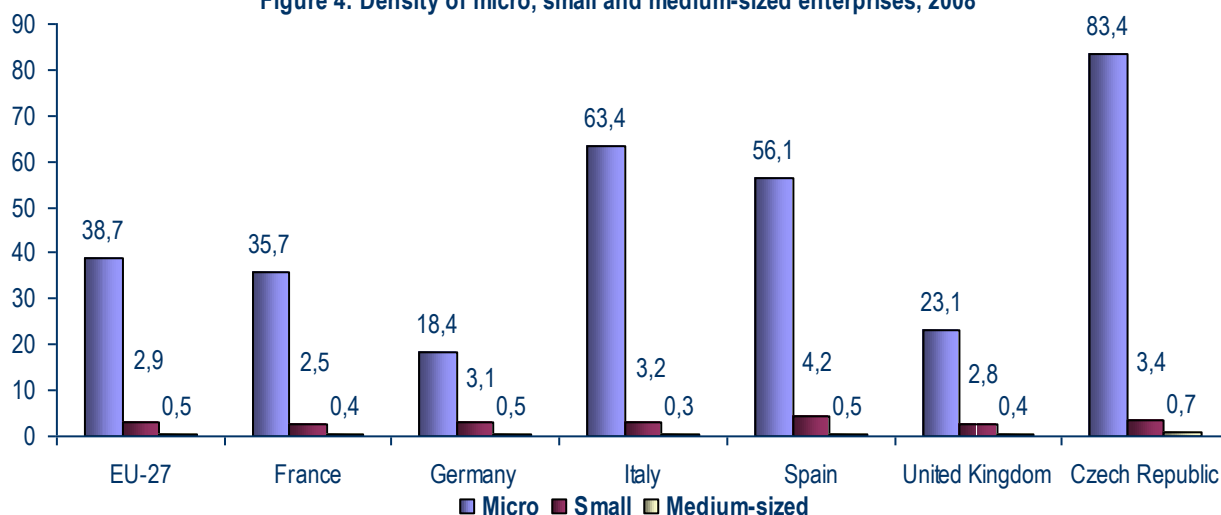


Source: EIM Business & Policy Research-OECD (Non-financial business economy : NACE c-i, k)

Analysing the development of the density of SMEs, it is interesting to stress two important aspects. First of all, over the period 2002-2008, the Czech Republic has always displayed the highest number of SMEs per 1000 inhabitants. Secondly, compared with 2002, in 2008 the density of SMEs has grown in all the countries. In particular, France, Germany and Spain have registered the highest growth rate: respectively 13,5%; 11,7% and 9,9% (Figure 3). This seems to suggest that there is not a direct correlation between the growth rate of SMEs and the level of density itself. On this point, on one hand, the Czech Republic, which has registered in 2008 the highest density of SMEs, has shown the lowest growth rate over the

period 2002-2008. On the other hand, Germany, which has displayed in 2008 the lowest density of SMEs, has registered one of the highest growth rates over the same period.

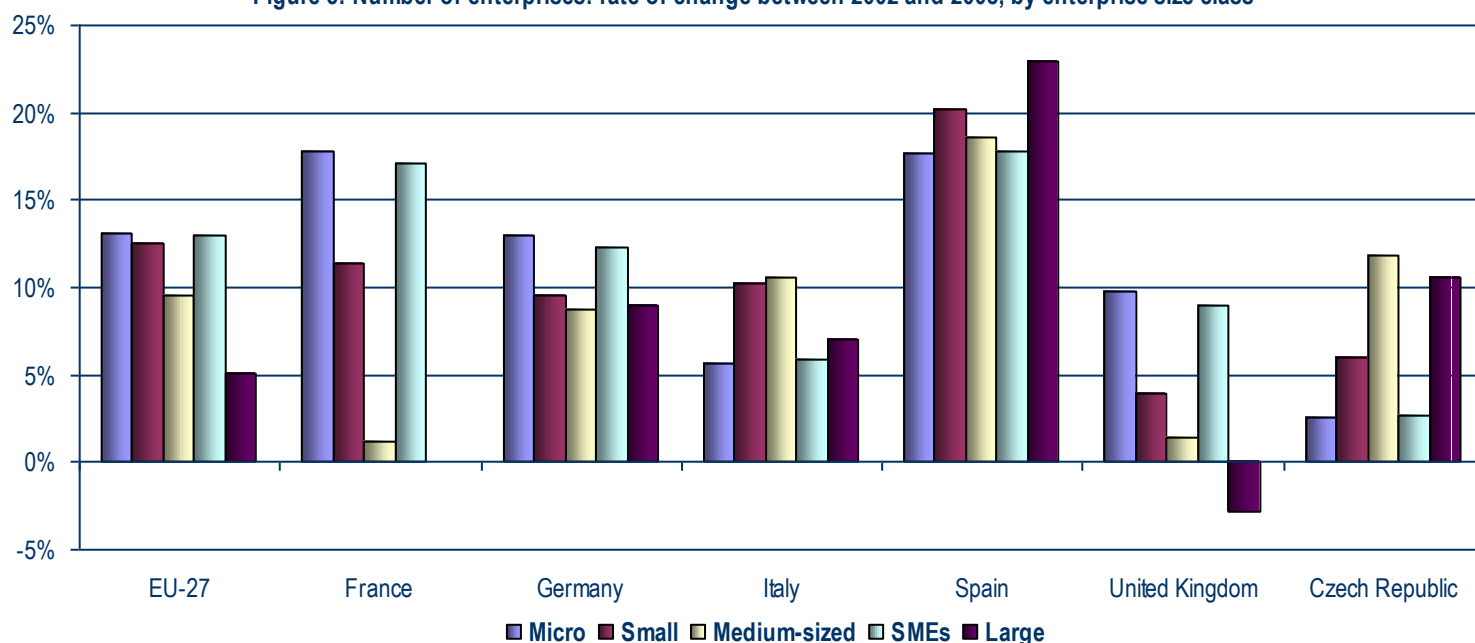
**Figure 4: Density of micro, small and medium-sized enterprises, 2008**



Source: EIM Business & Policy Research-OECD (Non-financial business economy: NACE c-i,k)

After having analysed the number of persons employed per enterprise, the average size of firm entries and the density of SMEs in order to throw light on the role played by SMEs inside the European economy, now we focus on how the number of enterprises has changed over the years. Over the period 2002-2008, the number of SMEs in the European Union economy has grown faster than the number of LSEs (SMEs increased by 13% while LSEs increased by 5,1%), with micro and small enterprises displaying the highest growth rates (respectively 13,1% and 12,5%) (Figure 5). It is interesting to note that the growth rates decreased parallel to the increase of the size class.

**Figure 5: Number of enterprises: rate of change between 2002 and 2008, by enterprise size class**



Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i,k)

Compared with the other European countries of our analysis, Spain has shown the highest growth rate in the number of enterprises in the SME sector (17,8%) and it was the only country, with France (17,1%), where the number of SMEs increased at a rate above the European average. Spain was also the country that showed the highest growth rate in the LSE sector (22,9%) in comparison both with the LSE and the SME sector of the other countries. In the United Kingdom, LSEs, unlike the general positive trend, decreased by about 3%. In line with the tendency in the European Union, in the United Kingdom and France the growth rates decreased side by side with the increasing size of enterprises. In the Czech Republic SMEs increased less than the other European countries analysed (2,7%) and it is interesting to note that, unlike the European trend, the growth rates increased in parallel with the increase of the size class (with the exception of LSEs whose growth rate was a little bit lower than that of medium-sized enterprises).

## 2.2 Number of persons employed

The relevance of SMEs has to be attributed probably to their contribution to employment in the European economy. In 2008, two thirds of the total employment (67,4%) was provided by SMEs. Of the 90 million people employed in SMEs, the micro firms employed slightly under 40 million (about 30% of the total employment) (Table 2).

**Table 2: Number of persons employed, by enterprise size class, 2008**

	Micro	Small	Medium-sized	SMEs	Large	Total
<b>EU-27</b>	39.653.450	27.671.127	22.681.920	90.006.497	43.448.150	133.454.647
%	29,7	20,7	17,0	67,4	32,6	100
<b>France</b>	3.714.919	3.130.988	2.435.146	9.281.053	5.757.419	15.038.472
%	24,7	20,8	16,2	61,7	38,3	100
<b>Germany</b>	4.288.700	4.843.235	4.288.582	13.420.517	8.762.628	22.183.145
%	19,3	21,8	19,3	60,5	39,5	100
<b>Italy</b>	7.292.281	3.351.855	1.935.295	12.579.431	2.961.028	15.540.459
%	46,9	21,6	12,5	80,9	19,1	100
<b>Spain</b>	5.377.223	3.636.271	2.109.383	11.122.877	3.130.652	14.253.529
%	37,7	25,5	14,8	78,0	22,0	100
<b>United Kingdom</b>	3.817.765	3.183.757	2.723.685	9.725.207	8.012.260	17.737.467
%	21,5	17,9	15,4	54,8	45,2	100
<b>Czech Republic</b>	1.077.519	693.604	733.587	2.504.710	1.199.348	3.704.058
%	29,1	18,7	19,8	67,6	32,4	100

Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

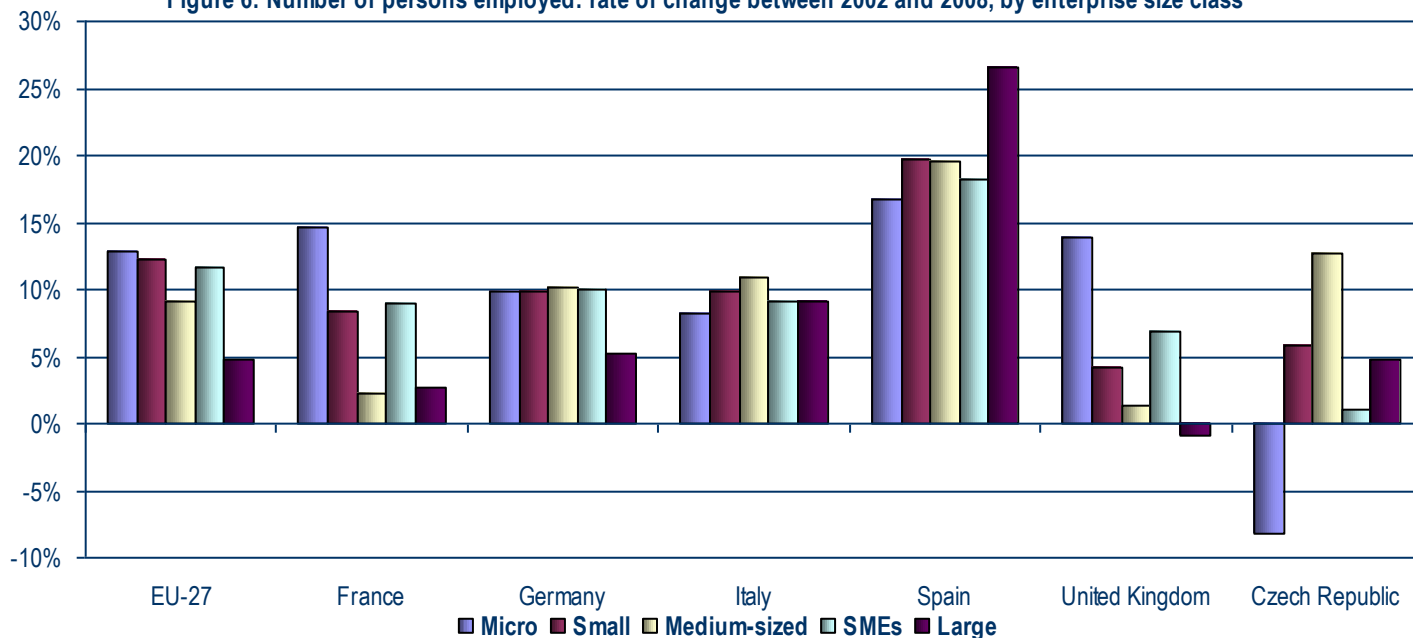
Among the European countries analysed, it is important to underline that, in 2008, in line with the data on the number of enterprises, the contribution of SMEs to employment in Italy and Spain was above the European average (approximately 80% of the total employment). On the contrary, in France, Germany and the United Kingdom SMEs contributed to employment less than the average in the European Union economy (respectively 61,7%; 60,5% and 54,8% of the total employment).

Inside the SME sector, in Italy and Spain micro enterprises played a fundamental role in terms of contribution to employment (respectively 46,9% and 37,7% of total). Conversely, in Germany and the United Kingdom the contribution to employment of micro enterprises was below the European average (respectively 19,3% and 21,5%). From 2002 to 2008 the number of persons employed by SMEs in the European Union has grown faster than the number of people employed by LSEs (SMEs increased by 11,7% while LSEs increased by 4,8%), with the micro and small enterprises displaying the highest growth rates (respectively 12,9% and 12,2%) (Figure 6). In absolute terms, in this period, the number of jobs increased by more than 11 million. SMEs accounted for an employment growth of more than 9 million jobs while employment in LSEs increased by less than 2 million. Compared with the other European countries analysed, Spain has shown the highest



growth rate in the SME sector (18,2%). It is worth noting that, in the LSE sector, it registered an even higher growth rate: 26,5%.

Figure 6: Number of persons employed: rate of change between 2002 and 2008, by enterprise size class



Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

In all other countries, the contribution of SMEs to employment increased at a rate below the European average. In particular, in the Czech Republic the number of persons employed by SMEs remained almost the same, displaying a growth rate of only 1%. However, the distribution of growth within SMEs is worth a closer look: the number of persons employed by micro enterprises decreased by more than 8% but those employed by medium-sized enterprises increased by about 13%. In the United Kingdom the contribution of SMEs to employment increased by about 7% but while micro enterprises' employment grew strongly (13,9%), the number of persons employed by medium-sized enterprises increased only by 1,4%.

## 2.3 Value added at factor costs

The direct contribution of SMEs to economic wealth can be measured by their contribution to value added<sup>4</sup>. More specifically, in 2008 their contribution to value added was 57,7% while LSEs contributed 42,3% of total value added (Table 3).

**Table 3: Value added at factor costs, by enterprise size class, 2008**

	Micro	Small	Medium-sized	SMEs	Large	Total
<b>EU-27</b>	1.316.318	1.182.663	1.127.422	3.626.403	2.656.257	6.282.660
%	21,0	18,8	17,9	57,7	42,3	100
<b>France</b>	180.538	160.849	134.289	475.676	385.655	861.331
%	21,0	18,7	15,6	55,2	44,8	100
<b>Germany</b>	191.950	222.179	238.833	652.962	584.225	1.237.187
%	15,5	18,0	19,3	52,8	47,2	100
<b>Italy</b>	219.235	154.609	108.443	482.287	189.928	672.216
%	32,6	23,0	16,1	71,7	28,3	100
<b>Spain</b>	158.726	144.034	103.660	406.419	192.065	598.485
%	26,5	24,1	17,3	67,9	32,1	100
<b>United Kingdom</b>	215.745	180.872	194.189	590.806	575.597	1.166.404
%	18,5	15,5	16,6	50,7	49,3	100
<b>Czech Republic</b>	16.702	14.129	17.760	48.591	40.112	88.702
%	18,8	15,9	20,0	54,8	45,2	100

Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

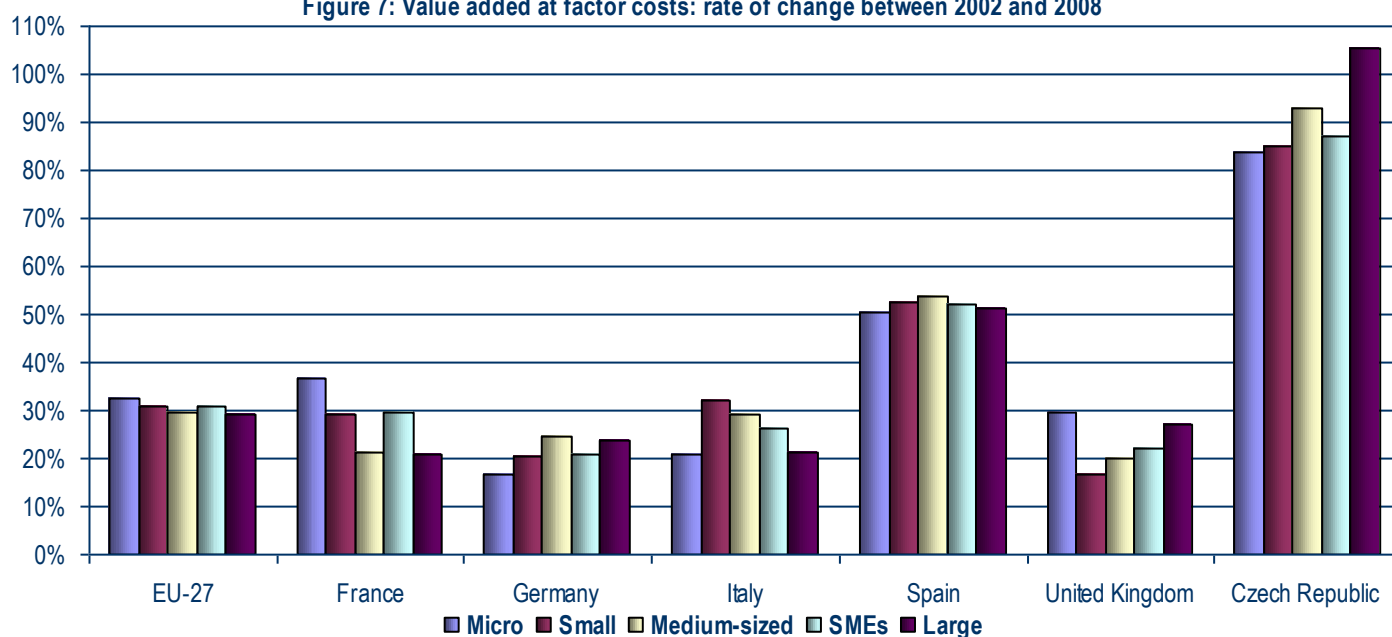
Comparing the European average with some selected European countries, it is important to underline two characteristics. First of all, in Italy and in Spain the contribution of SMEs to value added was above the European average (respectively 71,7% and 67,9%, compared with 57,7%). Secondly, in Germany and in the United Kingdom SMEs and LSEs contributed roughly equally to total value added (52,8% and 47,2%; 50,3% and 49,7%).

Yet there was not only a difference, in terms of value added produced, between SMEs and LSEs but also among micro, small and medium-sized enterprises. In particular, within the SME sector, in Italy and Spain micro enterprises played a very important role: they created respectively 32,6% and 26,5% of total value added. On the other side of the spectrum, in Germany, the United Kingdom and the Czech Republic micro enterprises played a minor role (15,5%; 18,5% and 18,8%), that was replaced by value added produced by larger enterprises.

Compared with 2002, in 2008, in the European Union economy value added increased by 31% in the SME sector and by 29,3% in the LSE sector. The only two countries where value added produced by SMEs increased above the European average were Spain and the Czech Republic (Figure 7, next page). In particular, in Spain value added produced by SMEs and LSEs increased practically in the same way, respectively by 51,9% and by 51,2%. In the Czech Republic, value added increased more in the LSE sector (105,6%) than in the SME sector (87,2%). It is worth noting that in Germany value added produced by SMEs increased less than the other European countries analysed (20,8%) and, within the SME sector, micro enterprises have displayed the lowest growth rate (16,7%).

<sup>4</sup> Value added at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.

Figure 7: Value added at factor costs: rate of change between 2002 and 2008



Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

In any case, it is important to keep in mind that the different growth rates of value added among the European countries analysed have probably to be imputable to the national economic situation: over the period 2002-2008, the Czech Republic and Spain experienced an economic boom (according to Eurostat data, their GDP increased by 84,8% and 49,2%) while France, Italy, Germany and the United Kingdom registered much lower GDP growth rates (according to Eurostat data, over the same period, 25,8%; 21%; 15,8% and 6,1%,).

## 2.4 Labour productivity

The direct contribution of value added to economic wealth is lower than the contribution of SMEs to employment suggests. It indicates a below average labour productivity of SMEs and a positive correlation between labour productivity and enterprise size class. In every European country analysed, in 2008 labour productivity increased parallel with the increasing size of enterprises (Table 4).

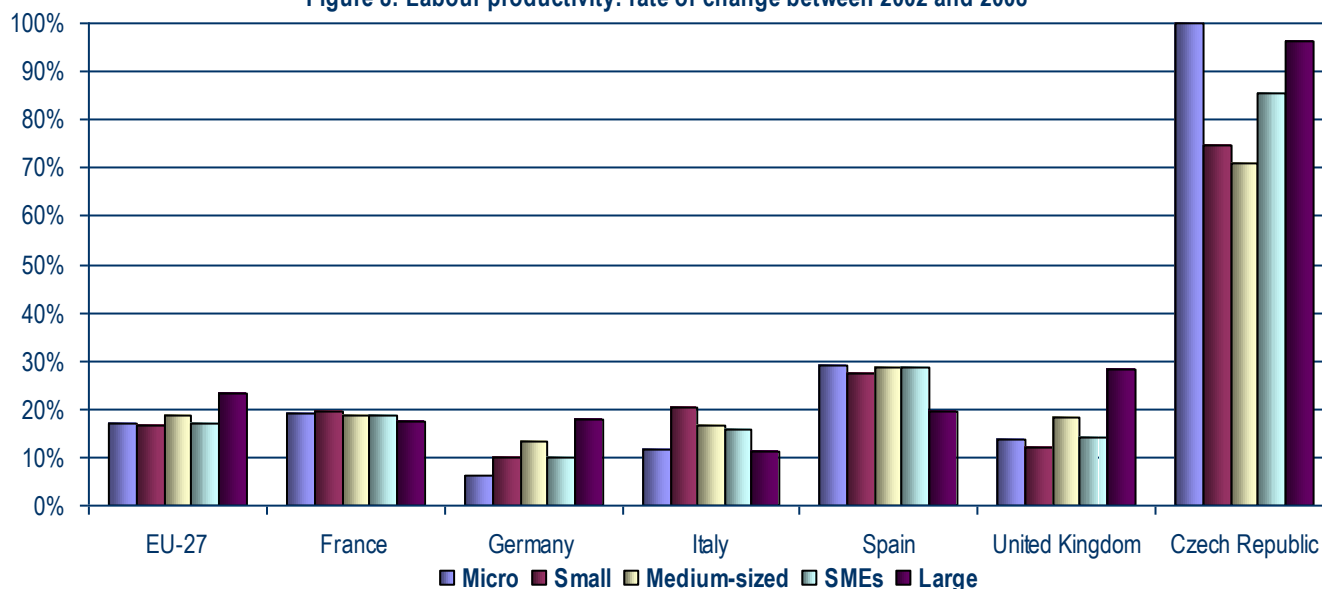
Table 4: Labour productivity, by enterprise size class, 2008 (1,000 €/occupied person)

	Micro	Small	Medium-sized	SMEs	Large	Total
EU-27	33	43	50	40	61	47
France	49	51	55	51	67	57
Germany	45	46	56	49	67	56
Italy	30	46	56	38	64	43
Spain	30	40	49	37	61	42
United Kingdom	57	57	71	61	72	66
Czech Republic	16	20	24	19	33	24

Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

Analysing the development of labour productivity, in the European Union economy, in 2008 LSEs showed the highest growth rate of labour productivity: compared with 2002, in 2008 labour productivity of LSEs increased by 23,4% while in the SME sector it increased by 17,2% (Figure 8).

**Figure 8: Labour productivity: rate of change between 2002 and 2008**



Source: EIM Business & Policy Research (Non-financial business economy: NACE c-i, k)

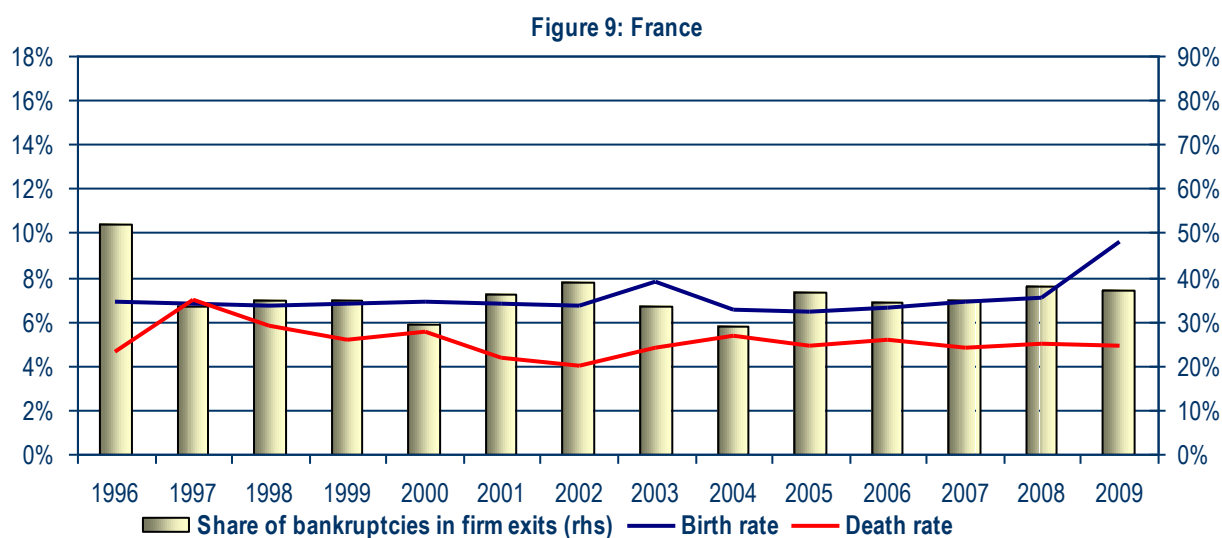
Although in the Czech Republic in both the SME and the LSE sector labour productivity was below the EU average, it grew at a very high rate: respectively, over the period 2002-2008, at a growth rate of 85,4% and 96,1%. Focusing the attention on SMEs and LSEs, with the exception of the Czech Republic, over the period 2002-2008, the only countries where labour productivity increased at a growth rate above the European average were Spain and France in the SME sector (respectively 28,6% and 18,8%) and the United Kingdom in the LSE sector (28,4%).

### 3. The business demography of SMEs in the European economy

After having showed the role and the changes of SMEs in the European scenario in terms of the number of enterprises, contribution to employment, value added and labour productivity, we will analyse two important aspects of the business demography: the birth and death rates of enterprises and the survival rates of enterprises.

#### 3.1 Birth and death rates of enterprises

The analysis of the birth and death rates of enterprises puts in evidence the high volatility in the European enterprise population. A very important aspect to be focused on is related to the net-entry development. The net-entry rate, that is entries minus exits, defines whether the number of enterprises increases or decreases. In 2009, the net-entry rate was very high only in France (4,7%) (Figure 9). The high net-entry rate of France is attributable to the rise of birth rate in recent years; especially, compared with 2008, in 2009 the birth rate increased by 35,2%.



Source: International Benchmark of Entrepreneurs

On the contrary, in Germany, Italy and the United Kingdom, the net-entry rate, which has been positive in the last 15 years, decreased in the recent period (Figure 10-11-12). In particular, in Germany, from 1995 to 2009, the birth rate decreased by about 6 percentage points (p.p.), reaching in 2009 a rate of 11,7%. In the meantime, over the same period, the death rate remained almost the same (about 12%). Hence, in 2009 the German net-entry rate was very low (0,3%) in comparison with 1995 (5,2%). The net-entry rate was also very low in the United Kingdom (1,2% in 2009) as a result of a decrease in the birth rate (compared with 2008, -13,1% in 2009) and of an increase in the death rate (compared with 2008, +23,2% in 2009). In Italy, the net-entry rate was even negative (-0,5% in 2008): compared with 2007, in 2008 the birth rate decreased more than the death rate (-10,1% and -3,8%).

Figure 10: Germany



Figure 11: Italy

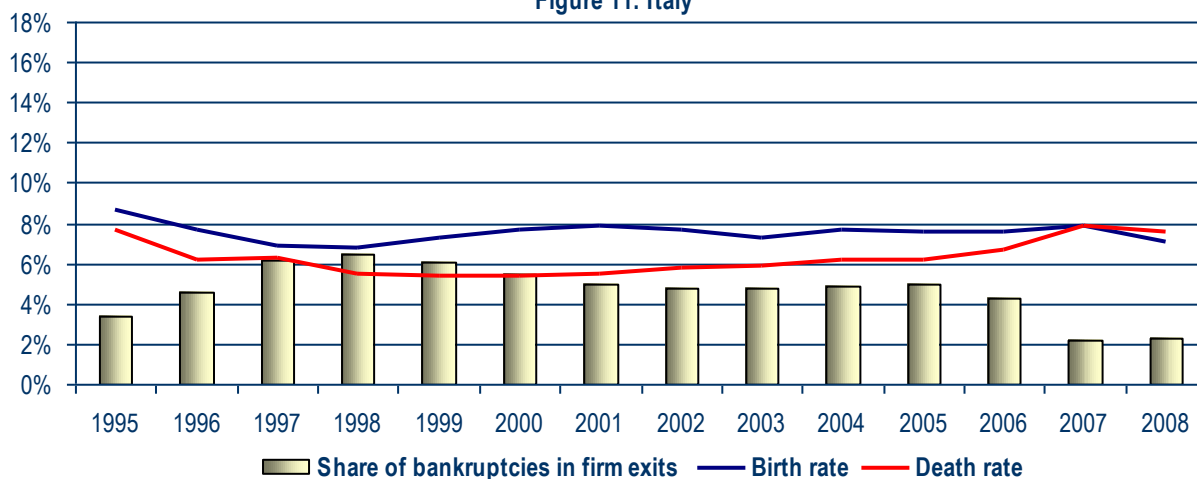
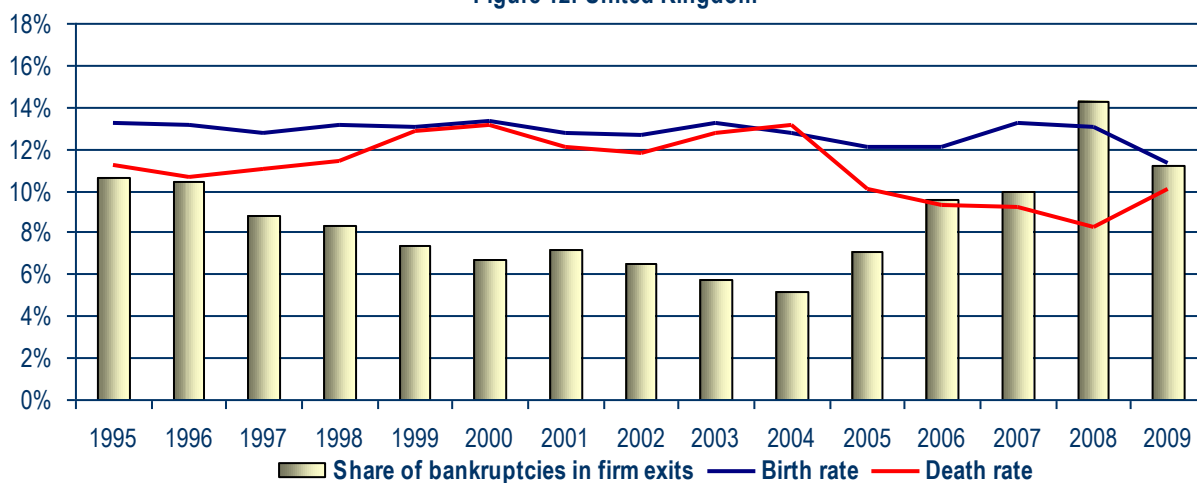


Figure 12: United Kingdom



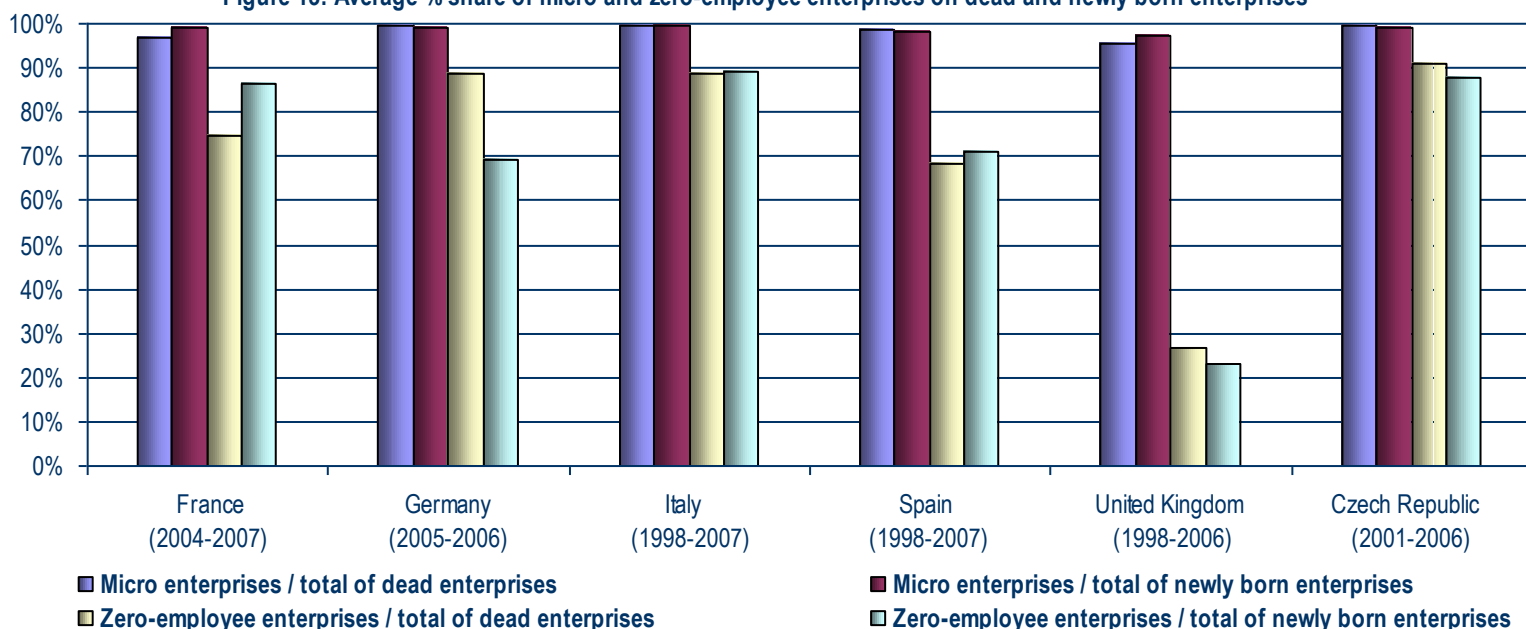
Source: International Benchmark of Entrepreneurs

Bankruptcy is one of the reasons why firms exit. The columns of the previous figures (Figure 9-10-11-12) represent how many enterprises (in percentage) died because of bankruptcy on the total of dead enterprises. The share of bankruptcies in firm exits is connected with the economic situation of a country: in a recession, it typically increases while during an economic boom it tends to decrease. A possible explanation of the different shares of bankruptcies in firm exits can be attributable to the bankruptcy legislations in force in the various European countries. It could be that a more forgiving personal bankruptcy law lowers the risks of a potential failure.

In Italy, the share of bankruptcies in firm exits has been always very low, decreasing further in the recent years. Otherwise, France has always registered the highest share of bankruptcies in firm exits (over the period 1995-2009, on average, 35,8%). In any case, in these countries the recent global financial crisis does not seem to have influenced the developments of this indicator: in Italy, only 2,3% of firm exits were due to bankruptcy in 2008; in France, over the period 2005-2009, this share has always fluctuated between 34% and 38%. The global financial crisis seems to have had a larger impact in Germany, where it was possible to note an increase in this percentage between 2008 (7,9%) and 2009 (9,3%), and, especially, in the United Kingdom, where the rate reached in 2008 14%, compared with 10% in 2007, and was still at 11,2% in 2009.

Examining the contribution of enterprises of different size class to the birth and death rates of enterprises, it is worth noting that micro enterprises contribute significantly to the phenomenon of the high volatility of the European enterprise population (Figure 13<sup>5</sup>). In Italy, over the period 1998-2007, on average, 99,5% of dead and newly born enterprises were micro enterprises. In the United Kingdom, this rate was a little bit lower: over the period 1998-2006, the share of micro enterprises on the total of dead enterprises and newly born enterprises was, on average, respectively about 95,6% and 97,3%.

**Figure 13: Average % share of micro and zero-employee enterprises on dead and newly born enterprises**



Source: Eurostat (Industry and services)

It is also important to underline that zero-employee enterprises play a different role inside each country. Firstly, in the United Kingdom, the share of zero-employee enterprises on the total of dead enterprises and newly born enterprises

<sup>5</sup> It is important to underline that data for Italy, Spain and the Czech Republic are available for the period 1998-2007, data for the United Kingdom for the period 1998-2006, data for France for the period 2004-2007 and data for Germany for the period 2005-2006. Hence, any comparison has to be done with caution.

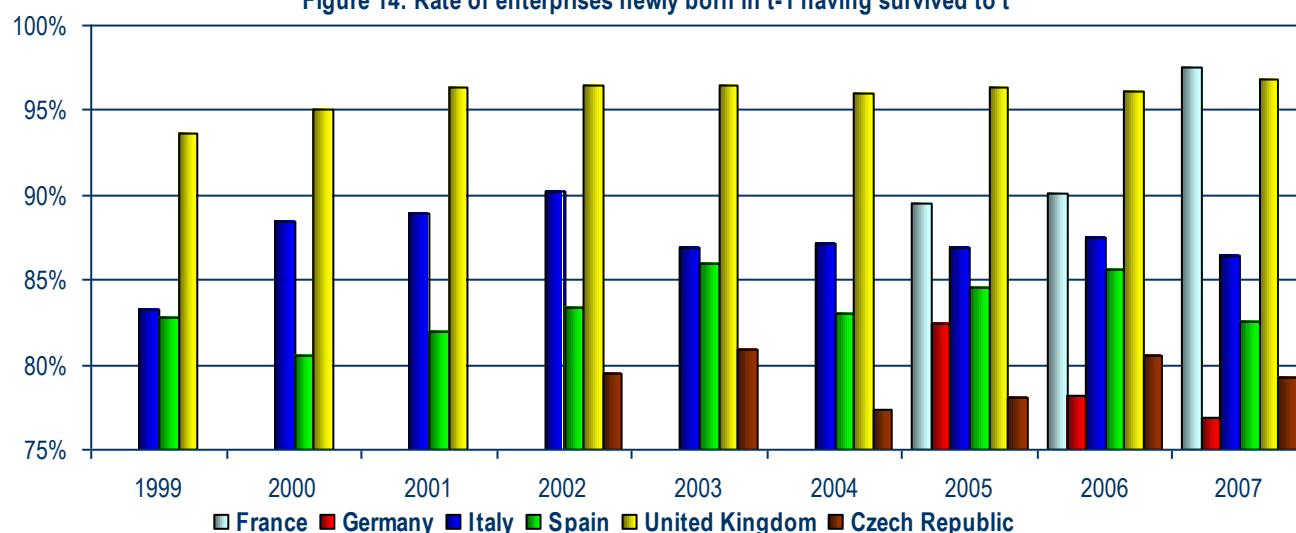
was much lower than the other European countries analysed: on average, over the period 1998-2006, respectively 26,9% and 22,9%. Secondly, in Italy and in the Czech Republic, zero-employee enterprises played a fundamental role in terms of their contribution to the birth and death rates of enterprises. Particularly, in these two countries, about 90% of both dead and newly born micro enterprises were zero-employee enterprises. In Spain this contribution was lower: over the period 1998-2007, the share of zero-employee enterprises on dead and newly born enterprises was equal respectively to 68,5% and 70,9%. Finally, in Germany and France the scenario seems to be quite different. In Germany, the share of zero-employee enterprises on the total of dead enterprises was very high (on average, over the period 2005-2006, 88,8%). However, over the same period, on average, 69,3% of newly born enterprises were zero-employee enterprises. In France the situation was the opposite: the share of zero-employee enterprises on the total of newly born enterprises was high (over the period 2004-2007, on average, 86,2%) while 74,8% of dead enterprises were zero-employee enterprises.

### 3.2 Survival rates of enterprises

This section is divided into two parts. In the first part, we will analyse how many enterprises (in percentage) survived after 1, 2, 3, 4 and 5 years from their birth. In the second part, we will further differentiate survival rates by enterprise size class in order to understand if there are relevant disparities among enterprises with 10 or more employees, micro and zero-employee enterprises.

As concerns the first part, it is difficult to analyse the development of the survival rates of enterprises in France and Germany since data are only available for the period 2005-2007. In any case, it is interesting to note that, in 2007, on one side, France had the highest survival rate at 1 year (97,5%) while, on the other side, Germany showed the lowest one (76,9%) (Figure 14). France has also registered the highest growth of this rate: 8,2% between 2006 and 2007. Looking at the developments over the years among the other countries, it is worth noting that the United Kingdom has always displayed the highest survival rates at 1 year (since 2000 over 95%).

Figure 14: Rate of enterprises newly born in t-1 having survived to t

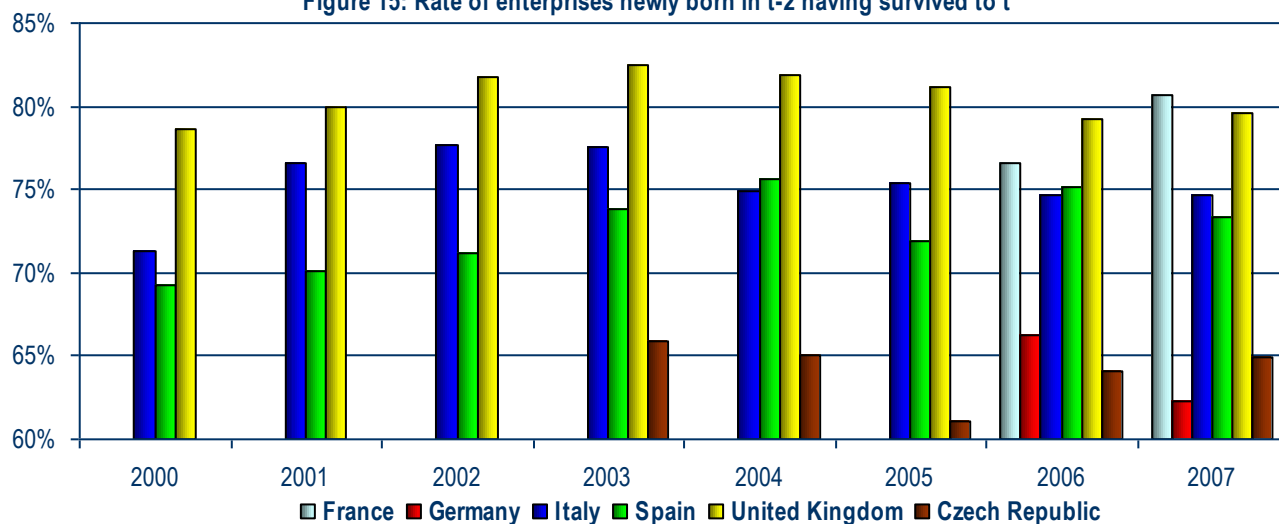


Source: Eurostat (Industry and services)



The analysis of the survival rates after 2 years seems to confirm the previous trend: in 2007 France had the highest survival rate (80,7%) while Germany registered the lowest one (62,3%) (Figure 15). Compared with Italy and Spain, over the period 2000-2007, the United Kingdom displayed the highest survival rates of enterprises after 2 years (on average 80,6%).

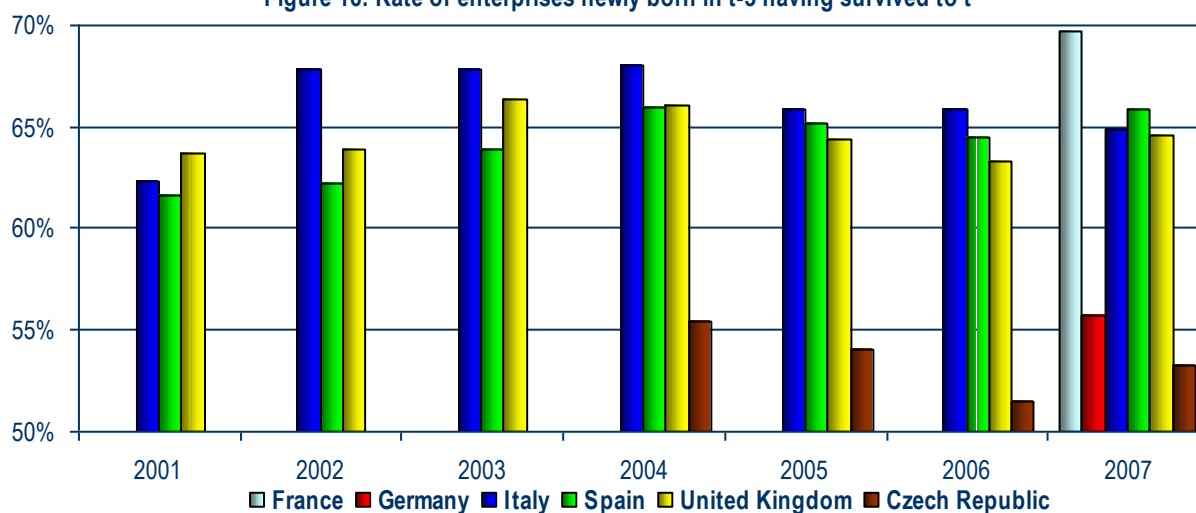
Figure 15: Rate of enterprises newly born in t-2 having survived to t



Source: Eurostat (Industry and services)

About 70% of French enterprises born in 2004 were able to survive after 3 years (Figure 16). In Italy, Spain and the United Kingdom this rate was lower (respectively 64,9%; 65,9% and 64,6%). Among these, in comparison with the survival rates after 1 and 2 years, over the period 2005-2007, the United Kingdom showed for the first time the lowest survival rate after 3 years. Throughout all countries analysed, in 2007, the Czech Republic had the lowest survival rate (53,3%). For those countries whose data are available for all years, Spain has shown the highest survival growth rate after 3 years: compared with 2001, 7% in 2007.

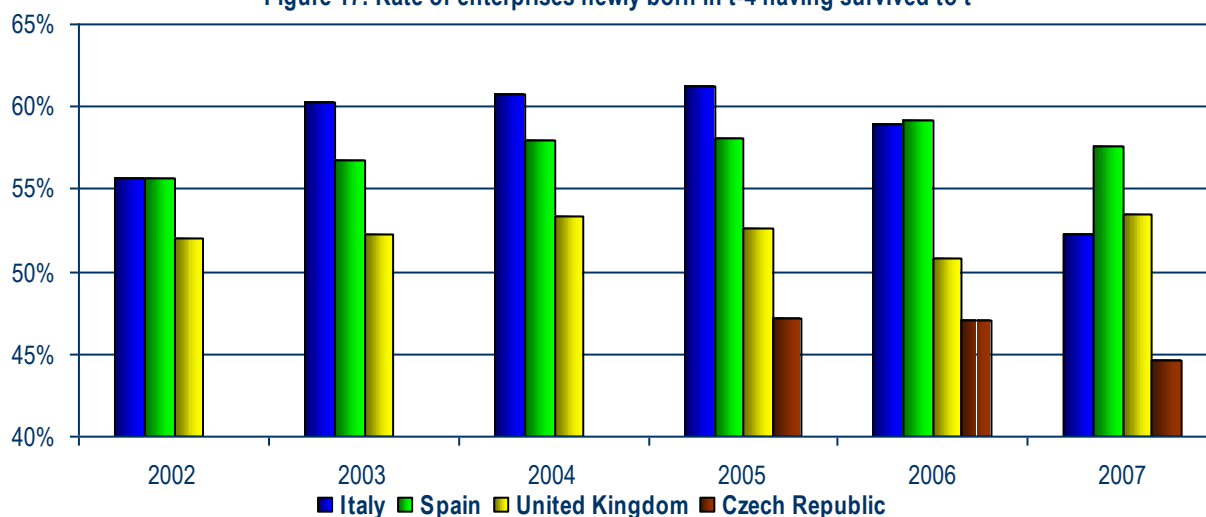
Figure 16: Rate of enterprises newly born in t-3 having survived to t



Source: Eurostat (Industry and services)

In 2007 Spain had the highest survival rate after 4 years (57,6%) while the Czech Republic displayed the lowest one (44,6%) (Figure 17). Compared with 2002, in 2007 the ability of Italian enterprises to survive 4 years after their birth decreased by 6,3%. In particular, it is interesting to look at the evolution of this survival rate over the period 2002-2007: at the beginning, it started increasing (peaking at 61,2% in 2005) and then it fell quite quickly, especially from 2006 to 2007.

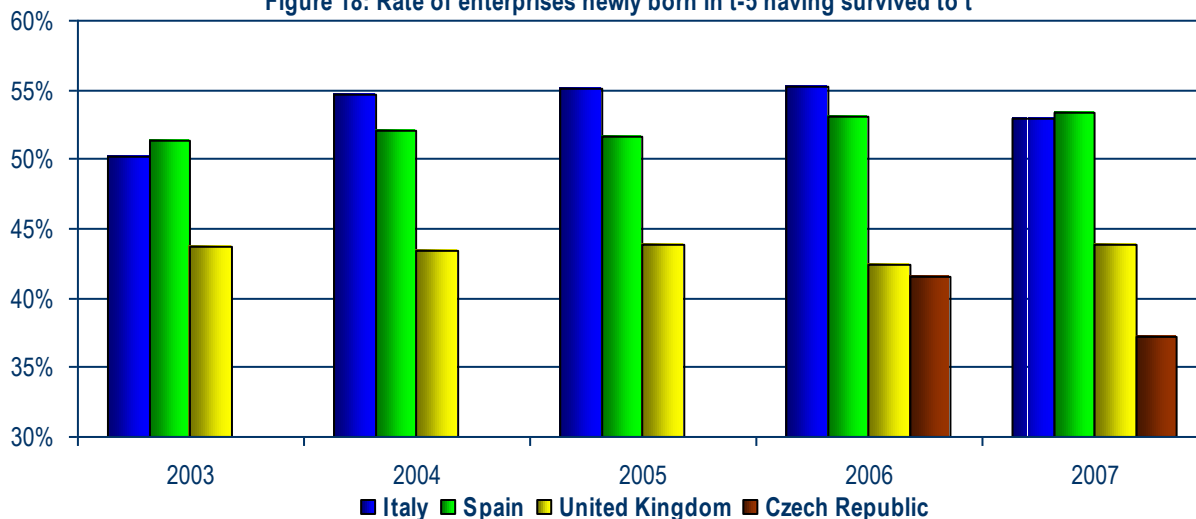
Figure 17: Rate of enterprises newly born in t-4 having survived to t



Source: Eurostat (Industry and services)

The highest survival rates after 5 years were recorded in 2007 in Spain (53,3%) and in Italy (53%) (Figure 18). In the same year, in the United Kingdom, less than 45% of enterprises were able to survive 5 years after from their birth. The Czech Republic had the lowest survival rate (37,2%).

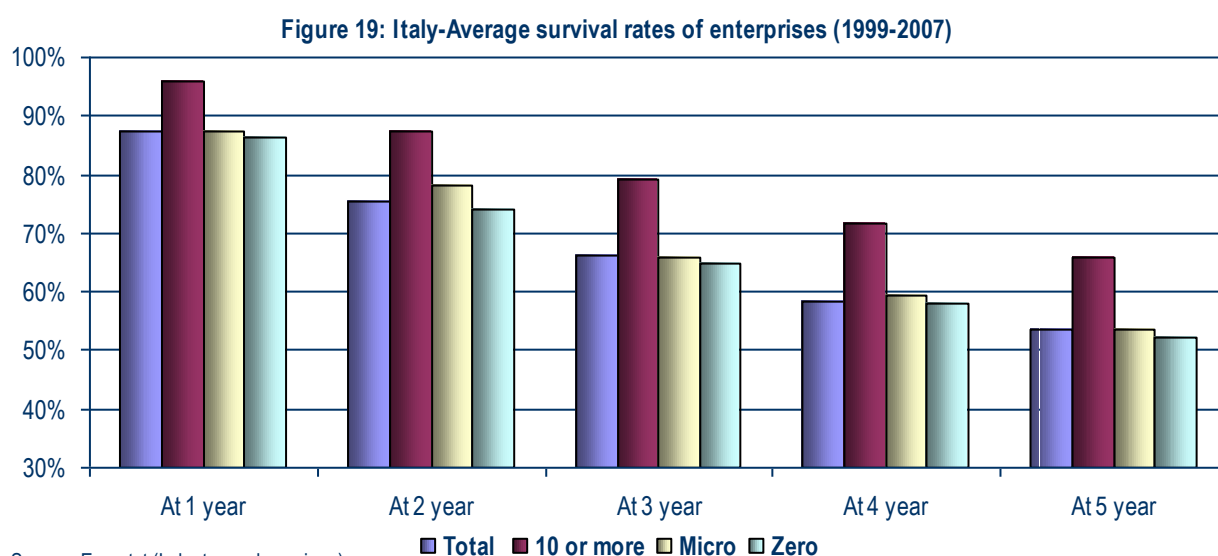
Figure 18: Rate of enterprises newly born in t-5 having survived to t



Source: Eurostat (Industry and services)

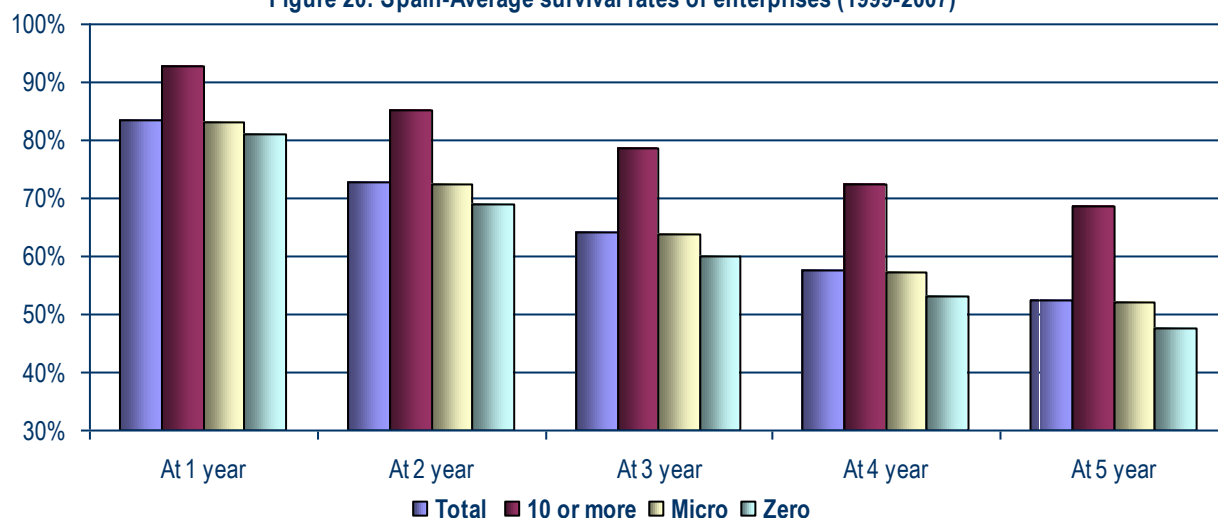
After having examined the survival rates in the first five years, we will focus on the average survival rates, dividing our analysis by enterprise size class (Figures 19-22). In Italy, Spain, the Czech Republic and the United Kingdom enterprises with 10 or more employees survived more often than micro enterprises. On this point, we will analyse the average survival rates of enterprises 1 and 5 years after their birth, in order to understand how the gap between the survival capabilities of enterprises with 10 or more employees and micro enterprises has changed over the years.

In Italy, at the first year of their life, about 96% of enterprises with 10 or more employees were able to survive while this rate was lower among micro enterprises (87,3%) (Figure 19). After 5 years from their birth, about 65% of enterprises with 10 or more employees were able to operate on the market. On the contrary, only about 53% of micro enterprises were able to survive after five years in business.



The situation is quite similar in Spain: at the first year of their life, 92,6% of enterprises with 10 or more employees were able to survive while this rate was lower among micro enterprises (83,2%) (Figure 20, next page). At the fifth year of their life, more than 68% of enterprises with 10 or more employees were able to operate on the market. On the contrary, micro enterprises that were able to continue their activity after five years of life were only about 52%.

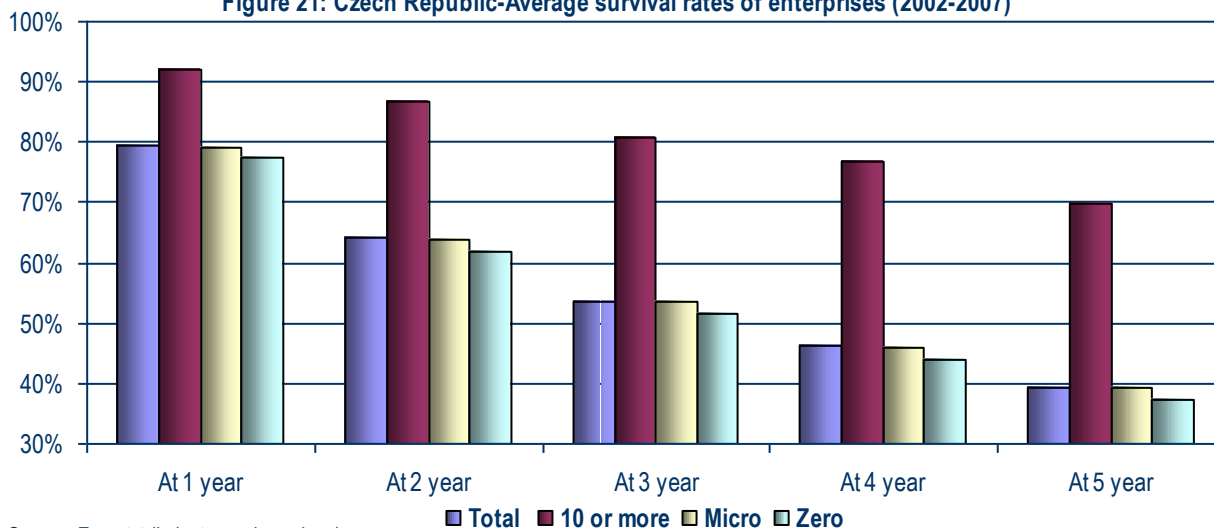
Figure 20: Spain-Average survival rates of enterprises (1999-2007)



Source: Eurostat (Industry and services)

Compared with Italy and Spain, the Czech Republic had the lowest five-years survival rates (only 79,3% of total enterprise population were able to survive after 1 year from their birth; micro enterprises had practically the same survival rate) but, looking closely, it has registered very high survival rates of enterprises with 10 or more employees (92,2% at 1 year) (Figure 21). At the fifth year of their life, 69,8% of enterprises with 10 or more employees were able to survive. On the contrary, only 39,2% of micro enterprises were able to operate on the market after five years of life.

Figure 21: Czech Republic-Average survival rates of enterprises (2002-2007)

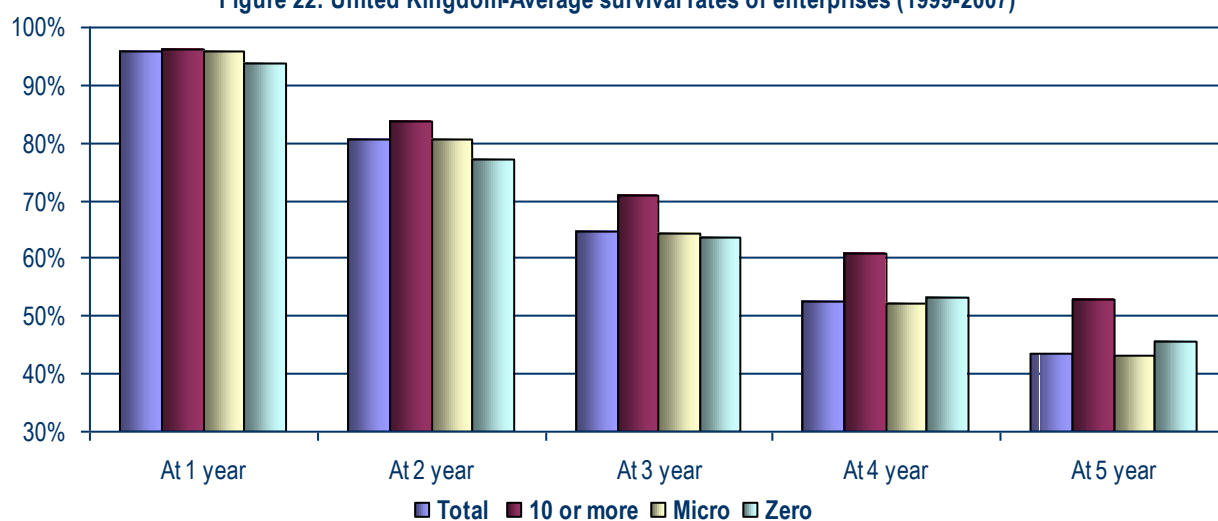


Source: Eurostat (Industry and services)

The situation is a little bit different in the United Kingdom (Figure 22). In fact, on one hand, enterprises with 10 or more employees and micro enterprises showed practically the same survival rate after 1 year (respectively 96,2% and 95,9%). On the other hand, after five years in business, enterprises with 10 or more employees had a higher survival rate (53%) than micro enterprises (43,2%). More specifically, the gap between enterprises with 10 or more employees and micro enterprises starts from the second year of their life and increases over the years but is always lower than in Italy, Spain or the Czech Republic.

Unlike these countries, where zero-employees enterprises have lower survival rate than the other enterprises, it is interesting to underline that in the United Kingdom, after four and five years of their life, zero-employee enterprises are more able to survive than micro enterprises (53,2% and 52,2% after four years; 45,5% and 43,2% after five years).

**Figure 22: United Kingdom-Average survival rates of enterprises (1999-2007)**



Source: Eurostat (Industry and services)

After having analysed the five-years survival rates in Italy, Spain, the Czech Republic and the United Kingdom, it is possible to draw an important conclusion: not only enterprises with 10 or more employees are more able to survive than micro enterprises but also the gap between them increases as years go by. In particular, after 5 years, this gap increased by more than 3100% in the United Kingdom (from 0,3% in the first year to 9,8% in the fifth year), by 133,6% in the Czech Republic (from 13,1% to 30,6%), by 77,7% in Spain (from 9,4% to 16,7%) and by 42,4% in Italy (from 8,5% to 12,1%).

## 4. Main conclusions

In the first part, this paper has attested the fundamental role that SMEs play in the European economy, by analysing their number, their contribution to employment and value added produced. In 2008, SMEs represented more than 99% of the total enterprise population, employed more than two third of the total employment and produced nearly 60% of total value added. Analysing the changes over the years, we have seen how, in the period 2002-2008, SMEs increased in terms of number, persons employed and value added. More specifically, our research has shown the relevant role that micro enterprises play in some countries such as Italy and Spain. This role, as was demonstrated, is less important in countries such as Germany and the United Kingdom, more reliant on enterprises with more than 10 employees.

Further to this aspect, the different importance of SMEs among Europe's economies has been confirmed by analysing some other indicators. In particular, the average size of enterprises, the average size of firm entries and the density of SMEs seem to reinforce the opinion that the Italian and the Spanish productive structure is mainly characterized by more enterprises of small dimensions while in the German and the British economy enterprises of bigger size class play a more important role.

In the second part, the research has analysed two important business indicators: the birth and death rates, and the survival rates of enterprises. About the first indicator, the examined countries have shown a different pattern. Only France, thanks to an increase in the birth rate, has experienced a very high net-entry rate in recent years. On the contrary, in Germany, Italy and the United Kingdom, the net-entry rate, which has been positive in the last 15 years, has decreased in the recent period.

Further, the study has also tried to understand the contribution of enterprises, distinguished by size, to the birth and death rates of enterprises, underlining that micro enterprises play a fundamental role inside this process in all the countries. If we break up the micro sector, we observe some relevant differences among the European countries: on one hand, in Italy and the Czech Republic, about 90% of newly born and dead enterprises were zero-employee enterprises; on the other hand, in the United Kingdom, the share of zero-employee enterprises on the total of dead enterprises and newly born enterprises was much lower (over the period 1998-2006, on average, respectively 26,9% and 22,9%).

About the second indicator, that is the survival rates of enterprises, it is worth noting that a lot of firms struggle to survive after a few years: for example, in the fifth year, less than 55% of them continue to operate efficiently on the market. Our analysis has gone further showing how the survival rates seem to be always lower among micro and zero-employee enterprises in comparison with those of enterprises with 10 or more employees: in the Czech Republic, e.g., over the period 2002-2007, on average, at the fifth year of their life, nearly 70% of enterprises with 10 or more employees were still alive while only about 39% of micro enterprises (37,2% of zero-employee enterprises) were able to operate on the market. It is important to remark that the gap between the survival capabilities of enterprises with 10 or more employees and micro enterprises increase over the years: in the United Kingdom, e.g., after 5 years, this gap increased by more than 3100%.

The aim of this research was to provide a quantitative analysis about the business and demography structure of SMEs in the European economy. It would be interesting and useful to develop further the results of this paper and to enrich them with a qualitative framework. On this point, examining deeply the social, economic, political and juridical systems of each European country could suggest what there is beyond the numbers and why there are so many differences among the European countries we have selected.