Business Demography

F. Verduyn

Introduction

This article analyses the demographic evolution of Belgian companies in the period from 2001 to 2012. In the same way as, when considering the demography of a population, changes to the size and composition of a population are examined using the figures for births and deaths and migration processes, this article focuses on changes in the population of companies as a result of start-ups, bankruptcies, dissolutions and liquidations. The article deals exclusively with the dynamics of the company population and, therefore, does not address the relationship between changes in the company population and the employment situation and/or added value.

The analysis only deals with those companies which, due to their legal form, are obliged to file annual accounts with the Central Balance Sheet Office. These are Belgian companies in which the liability of shareholders or partners is limited to their investment. This gives a clear picture of the development of both SMEs and large companies without the impact of the self-employed. The results of this study thus differ from the figures published monthly by Graydon and the Federal Public Service (FPS) Economy, SMEs, Self-Employed and Energy. The Graydon figures are based on a population in which every company performs a commercial activity and thus includes both legal entities and single-person businesses. The FPS Economy, for its part, considers companies that are liable for VAT, which include both one-man businesses and legal entities that perform an activity that is subject to VAT legislation.

Any comparison of the results therefore calls for a degree of caution, not only due to the use of a different population, but also because of the difference in sources. The bankruptcy figures in this study originate from the Belgian Crossroads Bank for Enterprises (CBE) and are based on the number of bankruptcies published in the Belgian Official Gazette. The bankruptcy figures published by the FPS Economy or by Graydon relate to the opening of bankruptcy proceedings pronounced by the commercial courts.

The above bodies receive their information directly from the courts and do not wait for publication of the figures in the Official Gazette. The fact that a bankruptcy is not always pronounced and published in the same month can lead to variations.

This article firstly considers the trends in the total number of start-ups, bankruptcies, dissolutions and liquidations between 2001 and 2012. For the purpose of recording the actual trend, these data are compared with the total number of active companies. This makes it possible to gain an impression of the business dynamics and the phase of development of the economy in a particular period. It also provides an overview of the net number of start-ups and bankruptcies and the consequences of the economic cycle for demographic developments.

As a next step, the start-ups, bankruptcies, dissolutions and liquidations are analysed on a geographical basis in order to chart the process of economic development and dynamics in a certain area. This is done at regional, provincial and district levels. The primary intention here is to identify the geographical areas in which the business dynamics are concentrated and to establish whether significant shifts have occurred over the past ten years.

Lastly, the article considers whether the year of start-up has an effect on the average survival rate of companies. A geographical and sector-based analysis should make it possible to work out whether the survival rate is higher in certain geographical areas or industries than in others,

and an age-related check explores whether companies of a certain age are more likely to go bankrupt than younger or older companies.

1. Methodology

1.1 Source

The business demography for the period 2001-2012 is analysed on the basis of the Crossroads Bank for Enterprises (CBE), which is managed by the FPS Economy. All public information from this database is archived at the National Bank of Belgium (NBB) in a separate database by the Central Balance Sheet Office (CBSO). The Crossroads Bank is a unique source of basic data on natural persons and legal entities [1] carrying out an economic activity in Belgium.

Apart from these basic data, the database also contains information on the date when a company started trading and also wound up, if this is the case. The closing-down date is linked to information regarding the reason for closing-down and enables a distinction to be made between companies leaving the database because they have actually ceased trading (due to liquidation or bankruptcy, for instance) and those leaving the database because of changes to their ownership structure (due, for example, to a merger, acquisition or demerger).

The CBE also offers a summary of the company's business activities. Since there is currently no uniform application of activity codes at federal government level, these codes are classified according to the administration that created them. For the allocation of the activity code, this article uses the same sequence of administrative sources as that used for drawing up the national accounts [2].

1.2 Method

As stated above, this demographic analysis includes only companies that, by virtue of their legal form, are obliged to file annual accounts with the Central Balance Sheet Office. Some of these legal forms, however, do not concern companies in the private sector and relate instead to companies in the non-profit sector or government bodies. Since these legal forms are not companies in the real sense of the word and they could cause statistical anomalies, they are excluded. This concerns non-profit organisations, associations of co-owners, European Economic Interest Groupings in various forms and partnerships governed by public law.

Legal entities with financial reporting obligations are divided into branches of activity for the analysis of certain demographic developments. The activity classification is determined by the main activity of the registered office and is expressed by the NACE code. The companies are divided into a number of groups on the basis of the industry classification drawn up by the National Accounts Institute for the SUT tables [3] (2008 classification).

Some companies in the Crossroads Bank for Enterprises only have an activity code for their branches and not for the registered office. Given the large number of companies involved, a decision was made to use the activity code of the branch as the main activity of the registered office for the purpose of this analysis provided all the branches conduct the same activity. If this is not the case, the company is added to the "unknown activity" group.

For the geographical breakdown of the business demography by Region, province or district, the address of the registered office is used as it appears in the Crossroads Bank for Enterprises. However, the economic activity does not always take place at the address of the registered office. Many large companies have their registered office at one location and their production facilities may be spread across the entire country. This distortion will apply less in the case of small firms, whose production facility is usually at the same location as the registered office. This should be taken into account in the interpretation of the geographical spread of the data, and a degree of caution is needed here as well.

1.3 Start-ups

The chart for the number of new companies is based on their start dates. This raises the question of whether the actual start date or the administrative start date should be used. A company registering in the Crossroads Bank in December because it intends to commence operation the following January can be included in the statistics in either December or January. The Social and Economic Council of Flanders [4] recommends that figures on start-ups should be based on direct registration of the coming into existence of a company. For companies with a filing obligation, the date of start-up is the date of initial registration in the

(1) A legal entity is not necessarily a company; it may also be a not-for-profit organisation, an association of co-owners or a government service.

(2) For the activity code, the national accounts use the following sequence of administrative sources: National Social Security Office (NSSO), Provincial and Local Government Authorities (PLA), the Federal Public Service – Finance (VAT), the Registries *[Griffies]*, the business advice and registration centres *[Ondernemingsloketten/Guichets d'entreprise or business counters]*, the Crossroads Bank for Enterprises, and the FPS Finance for corporation tax.

(3) Abbreviation for Supply and Use Tables.

(4) The Social and Economic Council of Flanders (2009) Recommendation on sources for start-up companies (business demography). Overview and evaluation of sources for start-up companies in Flanders and Belgium, Brussels.

Crossroads Bank for Enterprises. This, in principle, is the date on which the articles of association are submitted to the commercial court registry.

1.4 Bankruptcies

The bankruptcy figures in this article originate from the Crossroads Bank for Enterprises and are based on the number of bankruptcies published in the Belgian Official Gazette. On the date of publication of the bankruptcy notice, the legal status of the company in question is changed in the Crossroads Bank for Enterprises to "opening of bankruptcy proceedings" [1]. The bankruptcy figures published by the FPS Economy [2] or Graydon [3] relate to the number of bankruptcies pronounced by the commercial courts. The fact that a bankruptcy is not always pronounced and published in the same month can lead to variations.

1.5 Departures

In order to determine the size of the "departures" population, all bankruptcies ("opening of bankruptcy proceedings") and deletions are lumped together. Deletion refers to the dissolution, liquidation or cessation of a company with a filing obligation. Exits from the population due to mergers, absorptions and demergers of companies are not counted as cessations.

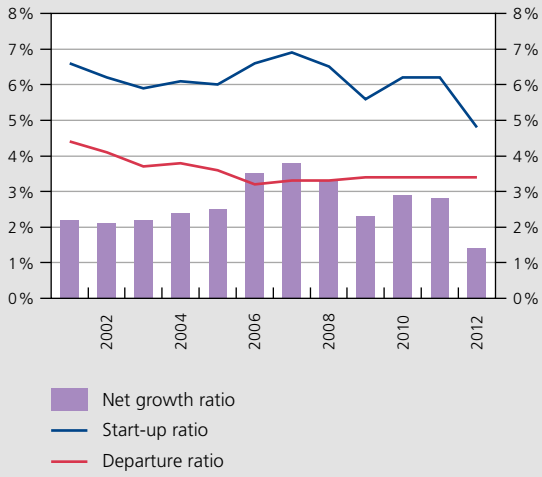
2. Effect of the economic cycle on demographic developments

2.1 Business dynamics

Chart 1 shows the trend for the start-up, departure and net growth ratios from 2001 to the end of 2012. The start-up ratio is the ratio of the number of start-ups to the number of companies operating during the previous year. The departure ratio is the ratio of the number of deletions and "opening of bankruptcy proceedings" cases to the number of companies operating during the previous year. The difference between these two indicators is the net growth ratio.

The start-up ratio of companies is seen as one of the key indicators of economic growth. The start-up of companies enhances competition, since all firms are forced to operate more efficiently as a result of the newcomers, which also thus encourage innovation and contribute to increased productivity.

CHART 1 NET GROWTH RATIO FROM 2001 TO 2012



Source: CBE.

The ratios show the actual trend for start-ups and departures, which is different from the balance of the net number of start-ups and departures. The fact that the number of companies operating between 2001 and 2012 increased each year means that the number of bankruptcies rose each year as well. In order to assess the increase in the number of bankruptcies objectively, it is therefore necessary to compare the balance of the net number of start-ups and departures with the number of active companies.

The ratios, moreover, give an impression of the business dynamics and the phase of development of the economy. A high start-up and departure ratio indicates a large number of young companies and, therefore, a young and growing economy. So, the combination of high start-up and departure ratios should not necessarily be seen as negative. This is shown in the chart for the years 2001 and 2003. In 2001, very high start-up and departure ratios were registered, at 6.6 % and 4.4 % respectively. These two values were lower in 2003, at 5.9 % and 3.7 % respectively. However, the net growth ratio in both years was 2.2 %. Continuous changes in the business population as a result of new company start-ups and the departure of older firms led to rising productivity and innovation and, thus, to economic growth.

(1) "Opening of bankruptcy proceedings" is a legal status indicated in the Crossroads Bank for Enterprises by the code 50.
(2) The Federal Public Service Economy, SMEs, Self-Employed and Energy (2009), Panorama of the Belgian Economy – 2008, Brussels.
(3) Graydon publishes a monthly press release with figures on Belgian bankruptcies.

A positive net growth ratio was registered in Belgium for the entire 2001-2012 period. The lowest value for this ratio was in 2012 (1.4 %). This was mainly due to the sharp decline in the start-up ratio from 6.2 % in 2011 to 4.8 % in 2012. There was also a significant year-on-year decline in the net growth ratio in 2009. The weaker economy in both years clearly affected the net growth ratio.

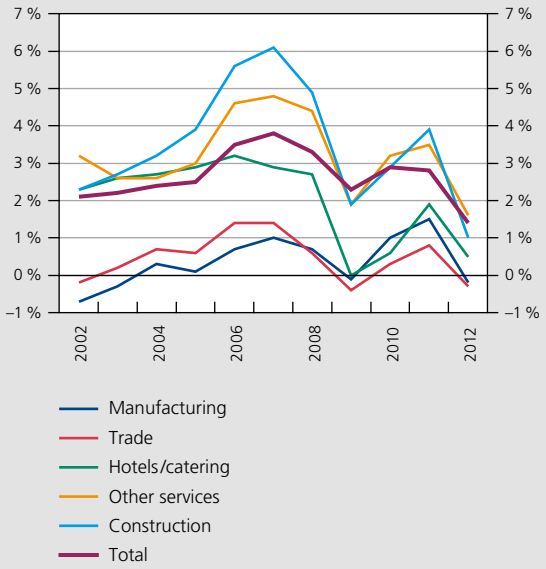
The highest level for the net growth ratio was 3.8 % in 2007. This was due to the peak in economic activity that was reflected in an increase of the start-up ratio from 6.6 % in 2006 to 6.9 % in 2007, the year in which the highest chart was therefore achieved for the period under review. Although the number of start-ups was higher in 2011 (26 960 companies) than in 2007 (26 442 companies), the start-up ratio, at 6.2 %, remained below the level seen in 2007. This can be explained by a 14.2 % rise in the number of active companies.

2.2 Net growth ratio per branch of activity

The breakdown of the net growth ratio among the five largest branches of activity shows that the ratios of the manufacturing industry and of trade fall well short of the total net growth ratio (see Chart 2). The number of departures in these branches actually exceeded the number of start-ups in 2002, 2003, 2009 and 2012, leading to a negative net growth ratio. Until the end of 2005, the ratio in accommodation and food service activities was well above the level of the branches combined ("Total" in the figure). This peaked in early 2006, and the net growth ratio in this sector then fell sharply. This was entirely due to the decline in the start-up ratio from 8.4 % in 2008 to 5.8 % in 2009. This meant that the number of start-ups was actually the same as the number of departures, thus producing a net growth ratio of zero. There has subsequently been a return to growth, though the net growth ratio of accommodation and food service activities has remained well below the collective level since then.

For most years in the period under review, the net growth ratio in construction and in the services sector exceeded the total. In 2009 and 2012, two years of economic contraction, the effect of the economic cycle on the net growth ratios in construction, services and accommodation and food service activities was much stronger than in the other branches. The ratios fell by between 2.5 and 3 percentage points, compared to a decline of less than 1 percentage point in manufacturing and trade in 2009 and less than 1.5 percentage points in 2012. The crisis clearly had a more serious effect on the net growth ratio in 2012 than it did in 2009. In both years, the decline in the net growth ratio was entirely due to the start-up ratio.

CHART 2 NET GROWTH RATIO PER SECTOR FROM 2001 TO 2012



Source : CBE.

2.3 Trend for start-ups

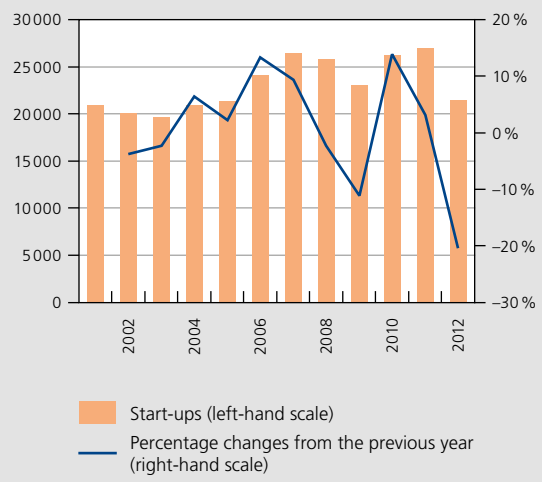
The figures for start-ups present a different (and rather more complex) picture than the start-up ratio (see Chart 3). Although start-ups fluctuated in accordance with the economic cycle and related expectations, the number of start-ups increased by an average of 2.6 % year on year between 2001 and 2011. In terms of start-ups, 2011 was the year during the period surveyed that had the highest number of start-ups (26 960). In 2012, the number of start-ups fell by 20.4 % compared to the preceding year and thus returned to the level seen in 2005. Bringing average year-on-year growth for the period from 2001 to the end of 2012 to only 0.2 %, this significant fall was stronger than that seen at the beginning of the crisis and was perhaps one of the consequences of a continuous flow of bleak reports, which negatively affected the economic outlook.

2.4 Trend for bankruptcies

From 2001 to 2004, registered bankruptcies increased each year without interruption, before peaking at 5 865 in 2004 (see Chart 4). From 2005 until the end of 2007, this trend reversed to some extent ; after that, there were again very strong rises of 10.2 % in 2008 and 10.9 %

CHART 3 TREND FOR THE TOTAL NUMBER OF START-UPS

(percentage change year on year)



Source: CBE.

in 2009. However, it turned out that the bankruptcy peak had not yet been reached for the 2001-2012 period, with an absolute high of 7 554 companies declared bankrupt by the courts being registered in 2012.

The outbreak of the financial crisis during the summer of 2008 had an immediate effect on the number of registered bankruptcies. The increase is clearly expressed in the statistics for the last three quarters of 2008, each of which is a record in comparison to the figures for the corresponding period in previous years. During the first quarter of 2008, slightly fewer companies were actually declared bankrupt by the courts (1 411) than in the same quarter of 2007 (1 417). In the second, third and fourth quarters of 2008, the number of bankruptcies shot up by 10.4 %, 22.3 % and 11.2 % respectively, compared to the same periods in the previous year. And, as the problems in the financial system developed into a crisis in the real economy, more and more companies folded during the years that followed.

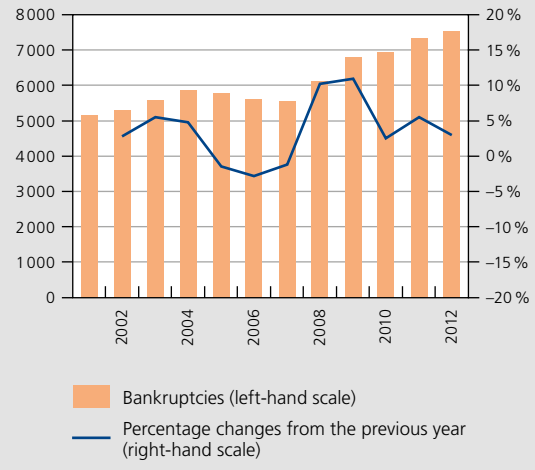
2.5 Start-ups, bankruptcies and the economy

The start-up of companies is obviously especially dependent on the state of the economy (see Chart 5). As a result of the economic downturn, the number of start-ups fell sharply in 2009 and 2012 by 11.1 % and 20.4 % respectively. Slower growth in gross domestic product was evidently immediately reflected in a decline in the number of start-ups. The number of start-ups fell by 2.3 % in 2008, even though the economy was still showing slight economic growth of 1 %, which was less than the 2.8 % posted in the year before. The economy contracted by 2.7 % in 2009, which clearly had a disproportionate effect on the number of start-ups. The sharp fall in the number of start-ups in 2012 was striking, since gross domestic product growth was less negative in that year than it was in 2009 (–0.2 %). As stated earlier, this evidently supports the proposition that the economic outlook can also have a strong impact on entrepreneurial activity.

As expected, the economic cycle also affects the trend for bankruptcies, albeit slightly less markedly than it affects the trend for start-ups. The only year that is an exception to this is 2005, since economic growth in that year slowed in comparison to the preceding year. The year-on-year percentage change in gross domestic product by volume was 3.2 % in 2004 and only 1.8 % in 2005. Nevertheless, bankruptcies were down by 1.5 % compared to 2004. In the other years, the pattern of bankruptcies reflected the trend in GDP. Growth in production slowed by 1 % in 2008, and the number of firms going into liquidation soared by 10.2 %. There was also a sharp increase in the number of bankruptcies in 2009, a year of recession (up by 10.9 %). An identical trend was registered in 2012, although the rise in the number of firms going bust was less marked than in 2009 (3 %).

CHART 4 TREND FOR THE TOTAL NUMBER OF BANKRUPTCIES

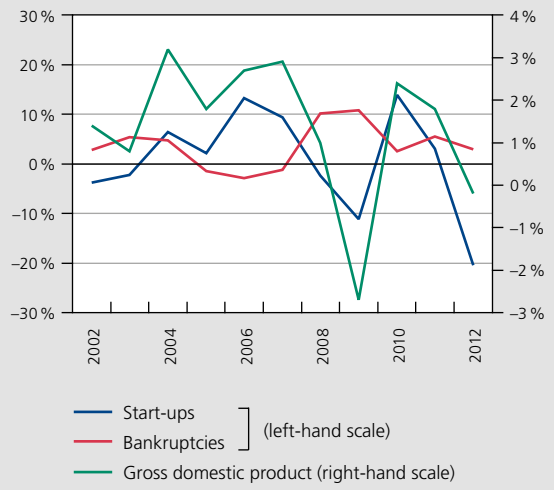
(percentage change year on year)



Source :CBE.

CHART 5 TREND FOR THE TOTAL NUMBER OF START-UPS, BANKRUPTCIES AND GROSS DOMESTIC PRODUCT

(percentage changes year on year)



Sources: CBE, NBB.

3. Geographical demography: not a black-and-white picture

3.1 Demographic developments per region

3.1.1 Start-ups, bankruptcies and departures

An analysis of the demographic developments at regional level for the years 2001, 2011 and 2012 shows a degree of mutual variation (see table 1). With regard to active companies, there were no notable movements between the three Regions. The largest number of active companies were located in Flanders, with 191 211 companies in 2001 and 267 704 companies in 2012. In relation to the Belgian total, Flanders' share was 60 % in both 2001 and 2012. In Wallonia, the number of active companies rose from 72 169 in 2001 to 105 562 in 2012. In relation to the total number of Belgian companies, this represented only a slight increase from 22.7 % to 23.7 %. In the Brussels-Capital Region, the number of companies increased from 54 623 in 2001 to 72 061 in 2012, reducing Brussels' share from 17.2 % to 16.3 %.

In the crisis year of 2012, the number of start-ups fell sharply compared to the previous year in all three Regions, but the greatest fall was in Flanders, where the number of start-ups was down by 23 %. The declines in the Brussels-Capital Region and Wallonia were 14.7 % and 19.2 % respectively. A comparison between the number of start-ups in 2001 and 2012 shows that start-ups in the Brussels-Capital Region and Wallonia increased over this period by 14.8 % and 8.8 % respectively. In Flanders, the level of the number of start-ups was 3.6 % lower than in 2001, as a result of the economic crisis.

Aside from the start-ups, the number of bankruptcies also rose sharply. A comparison of the number of bankruptcies in 2001 and 2012 shows that the increase was much more marked in the Brussels-Capital Region (73.3 %) than it was in Flanders (39.2 %) and Wallonia (37.8 %). It is, however, notable that the number of bankruptcies in both the Brussels-Capital Region and Wallonia fell in 2012 compared to the previous year, by 5.4 % and 2.2 % respectively. Only in Flanders was there an increase in the number of firms going out of business in 2012 compared to 2011, with a rise of 11.1 %. The trend for both start-ups and bankruptcies confirms that Flanders has been harder hit by the current crisis.

3.1.2 Net growth ratio

The net growth ratio – the difference between start-ups and departures in relation to the number of active companies – casts a different light on the demographic developments in each region than the analysis of the numbers (see Chart 6). In 2001, the difference between start-ups and departures was greatest in Flanders at 4 153 companies, followed by Wallonia with 1 843 companies and the Brussels-Capital Region with 708 companies. The ratio of these net figures to the number of active companies during the preceding year, shows, however, that the highest net growth ratio occurred in Wallonia (2.6 %), followed by Flanders (2.2 %) and the Brussels-Capital Region (1.3 %).

The greatest increase in the net numbers in 2012 was still found in Flanders (3 227 companies), followed by Wallonia (1 616 companies) and the Brussels-Capital Region (1 385 companies). Studying the net growth ratio, the picture was different again. Flanders had the lowest net growth ratio since 2001, at 1.2 %, which shows the serious impact of the economic crisis in this Region. While the net growth ratio in Wallonia, at 1.5 %, was slightly higher than the level seen in Flanders, this was also the lowest value over the entire 2001-2012 period. The Brussels-Capital Region recorded a net growth ratio of 2 % in 2012. This value was higher than the growth in the period 2001-2004. The lowest net growth ratio for the Brussels-Capital Region was 1.1 % in 2003. Flanders and Wallonia fared much better in that year, managing 2.3 % and 2.5 % respectively.

TABLE 1 START-UPS, BANKRUPTCIES AND DEPARTURES PER REGION IN 2001, 2011 AND 2012

Region	Active companies	Start-ups	Bankruptcies	Departures
Brussels				
Units				
2001	54 623	3 831	1 121	3 123
2011	71 213	5 145	2 053	3 129
2012	72 061	4 399	1 943	2 954
In %				
Δ2011/2001	30.4	34.3	83.1	0.2
Δ2012/2011	1.2	–14.7	–5.4	–5.5
Δ2012/2001	31.9	14.8	73.3	–5.4
Flanders				
Units				
2001	191 211	12 099	2 658	7 946
2011	262 845	15 154	3 331	8 219
2012	267 704	11 668	3 700	8 441
In %				
Δ2011/2001	37.5	25.3	25.3	3.4
Δ2012/2011	1.8	–23	11.1	2.7
Δ2012/2001	40.0	–3.6	39.2	6.2
Wallonia				
Units				
2001	72 169	4 939	1 380	3 096
2011	103 302	6 650	1 944	3 687
2012	105 562	5 373	1 902	3 757
In %				
Δ2011/2001	43.1	34.6	40.9	19.1
Δ2012/2011	2.2	–19.2	–2.2	1.9
Δ2012/2001	46.3	8.8	37.8	21.4

Source : CBE.

Over the whole 2001-2012 period, the three regions registered the highest net growth ratios in 2006, 2007 and 2008. In 2006, the net growth ratio in Flanders (3.8 %) was higher than the Belgian ratio (3.5 %). In 2007, the net growth ratio of 4.4 % in the Brussels-Capital Region was much higher than the level for Belgium as a whole (3.8 %). The financial crisis in 2009 brought an end to high net growth ratios in the three Regions. It is notable that Flanders, Wallonia and Brussels all posted the same net growth ratio in 2009 (2.2 %), while in 2012 Flanders posted a net growth ratio of 1.2 %, which was much lower than the two other Regions.

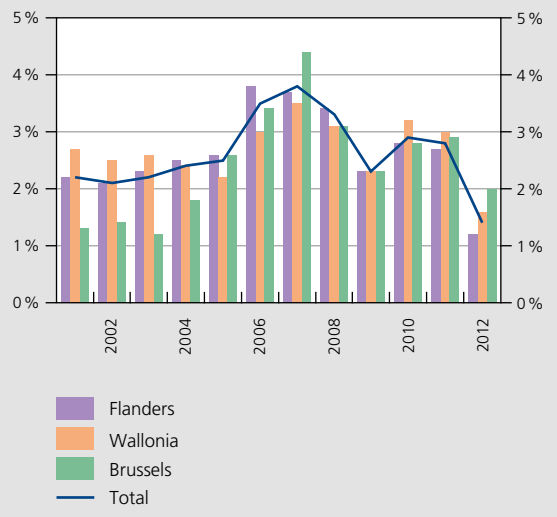
3.2 Demographic developments per province and capital region

3.2.1 Start-ups

In 2001, the province of Antwerp led the way in terms of start-ups (4 151 new companies), followed by the Brussels-Capital Region with 3 831 start-ups (see table 2). Antwerp was also the province with the highest number of start-ups in 2006, but the 13.6 % growth achieved here in comparison to 2001 was lower than in the Brussels-Capital Region (17.9 %). An analysis by branch of activity shows that this difference in the period before the crisis was mainly attributable to the largest industry in both sub-regions, namely wholesale and retail[1], in which the number of start-ups in Antwerp remained unchanged,

(1) The "wholesale and retail trade; repair of motor vehicles and motorcycles" branch is referred to in the text as "wholesale and retail"

CHART 6 NET GROWTH RATIO PER REGION FROM 2001 TO 2012



Source: CBE.

while there was an increase of 10.7 % in Brussels. Start-ups also rose faster here than in Antwerp in other sectors, such as real estate activities and the transport and storage branch, where the number of start-ups in Antwerp fell by 3.9 % and 3.5 % respectively, and increased in Brussels by 28.7 % and 62.5 % respectively. And, finally, there is the accommodation and food service activities, in which Brussels registered a much stronger increase of 58.2 % compared to Antwerp's 16.3 %.

In 2011, the number of start-ups in the province of Antwerp stagnated at the level seen in 2006, while the Brussels-Capital Region, where the number of start-ups continued to rise, posted the highest number of start-ups with 5 145 new companies being created. As with the period 2001-2006, this was once again attributable to the largest industry group in both sub-regions, namely wholesale and retail, in which start-ups in Antwerp in 2011 were down by 10.1 % compared to 2006, while Brussels managed an increase of 10.3 %. Furthermore, start-ups in transport and storage and human health care declined in Antwerp, while they increased in Brussels. The stagnation in the province of Antwerp was all the more notable as, apart from the province of Luxembourg, the number of start-ups rose in all the other provinces between 2006 and 2011.

The strongest growth in relation to new companies in the first half of the decade was achieved in the province of Limburg. This growth was mainly concentrated in construction, wholesale and retail, and legal and accountancy services. In the second half, Walloon Brabant, Liège and Namur saw strong increases in the number of start-ups. In Walloon Brabant, this was attributable to legal and accountancy services, as well as construction. In Liège, the industries responsible were construction and human

TABLE 2 START-UPS PER PROVINCE (2001-2012) AND CAPITAL REGION

Province	Units				In %		
	2001	2006	2011	2012	Δ2006/2001	Δ2011/2006	Δ2012/2011
Brussels	3 831	4 518	5 145	4 399	17.9	13.9	–14.5
Antwerp	4 151	4 714	4 744	3 759	13.6	0.6	–20.8
Limburg	1 546	1 895	2 126	1 584	22.6	12.2	–25.5
East Flanders	2 431	2 899	3 281	2 479	19.3	13.2	–24.4
Flemish Brabant	1 888	2 190	2 336	1 861	16.0	6.7	–20.3
West Flanders	2 083	2 322	2 667	1 985	11.5	14.9	–25.6
Hainaut	1 682	1 869	2 092	1 724	11.1	11.9	–17.6
Liège	1 422	1 581	1 938	1 619	11.2	22.6	–16.5
Luxembourg	303	348	343	296	14.9	–1.4	–13.7
Namur	610	731	887	723	19.8	21.3	–18.5
Walloon Brabant	922	1 103	1 390	1 011	19.6	26.0	–27.3

Source: CBE.

health care, and in Namur the rise occurred in the same industries as in Limburg.

The number of start-ups fell sharply in all provinces in 2012 compared to 2011. However, some sub-regions were clearly less affected by the current crisis than others. The Brussels-Capital Region was the most immune, with a decline of "only" 14.5 %. A sector-based analysis shows that the decline remained limited to "real estate activities" and "financial and insurance activities". The provinces of West Flanders, Limburg and East Flanders saw the largest drop in start-ups. In these three provinces, the number of start-ups was approximately 25 % below the level in 2011. In West and East Flanders, more or less all the industry groups were affected. In Limburg, the impact was felt most in financial activities and construction.

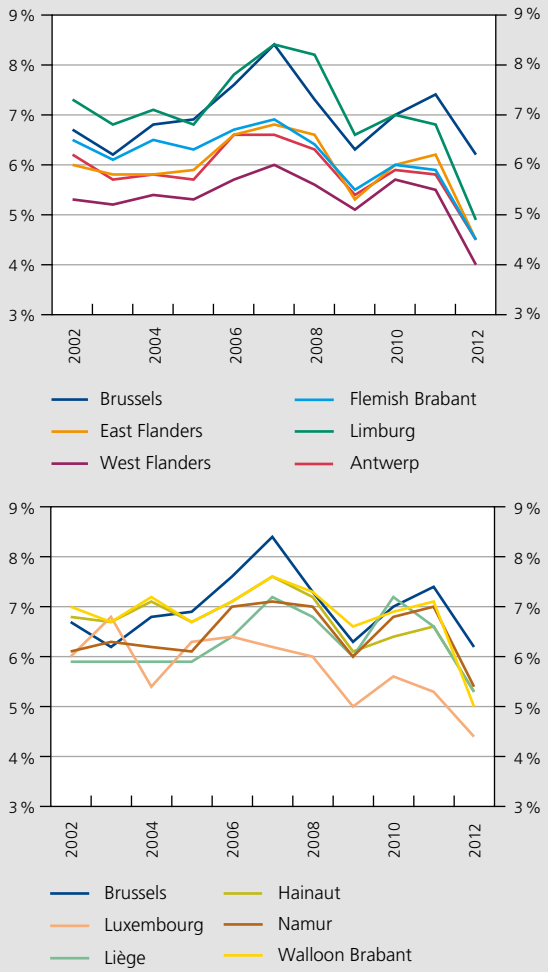
3.2.2 Start-up ratio

The start-up ratio per province shows a different trend than that of the number of start-ups (see Chart 7). For instance, the province of Antwerp certainly did not outperform the rest in terms of start-ups in the 2001-2012 period. The start-up ratio each year was lower than the average for all provinces. Over the whole period, Antwerp only managed to beat the provinces of West and East Flanders, Liège and Luxembourg.

Between 2002 and 2004, the highest start-up ratio was registered in the provinces of Limburg, Walloon Brabant and Hainaut. These three provinces were caught up by the Brussels-Capital Region in 2005, with a start-up ratio of 6.9 %. Between 2005 and 2008, the start-up ratio in the Brussels-Capital Region and the province of Limburg increased much more strongly than in the other provinces. Limburg and Brussels posted average start-up ratios of 7.8 % and 7.6 % respectively, during this period, and thus performed significantly better than the average start-up ratio of 6.8 %. After 2009, the economic crisis clearly had a heavier impact on the start-up ratio in Limburg than in the Brussels-Capital Region. From then onwards, the start-up ratio in Limburg fell away sharply and stood at only 4.5 % in 2012.

It is notable that the province of West Flanders had a low start-up ratio throughout the 2001-2012 period. Only between 2009 and 2011 did it fare slightly better than the province of Luxembourg, but its start-up ratio of 4 % in 2012 was once again the lowest level of all the provinces in 2012. Over the whole period, West Flanders had the lowest average start-up ratio (5.4 %). The provinces with the highest average start-up ratio were Limburg (7.1 %), Brussels (7 %), Namur (6.8 %) and Hainaut (6.7 %).

CHART 7 START-UP RATIO PER PROVINCE AND CAPITAL REGION



Source : CBE.

3.2.3 Bankruptcies

The province of Antwerp also takes first place in terms of bankruptcies. There were 1 156 petitions for bankruptcy in 2001 ; this was followed by the Brussels-Capital Region with 1 121 petitions (see Table 3). In fact, 44.1 % of all bankruptcies were concentrated in these two provinces. In the succeeding years, the number of bankruptcies increased far faster in Brussels than in Antwerp. While the ratio in these two sub-regions was more or less the same in 2001, in 2011 the number of bankruptcies in Brussels was 28 % of the total, while in Antwerp it was 18.3 %. The strong rise in Brussels mainly concerned construction, administrative and support services, transport and storage, and accommodation and food service activities. In addition, the number

TABLE 3 BANKRUPTCIES PER PROVINCE (2001-2012) AND CAPITAL REGION

Province	Units				In %		
	2001	2006	2011	2012	Δ2006/2001	Δ2011/2006	Δ2012/2011
Brussels	1 121	1 407	2 053	1 943	25.5	45.9	–5.4
Antwerp	1 156	1 162	1 340	1 493	0.5	15.3	11.4
Limburg	274	329	523	519	20.1	59.0	–0.8
East Flanders	460	493	617	750	7.2	25.2	21.6
Flemish Brabant	377	352	402	451	–6.6	14.2	12.2
West Flanders	391	398	449	487	1.8	12.8	8.5
Hainaut	443	466	748	674	5.2	60.5	–9.9
Liège	495	513	564	613	3.6	9.9	8.7
Luxembourg	78	70	104	86	–10.3	48.6	–17.3
Namur	161	224	247	215	39.1	10.3	–13.0
Walloon Brabant	203	199	281	314	–2.0	41.2	11.7

Source: CBE.

of bankruptcies in wholesale and retail trade increased, while in Antwerp it declined.

Despite the economic crisis, the number of bankruptcies in Brussels fell in 2012. The main sectors accounting for fewer bankruptcies in 2012 than in 2011 were construction as well as wholesale and retail trade. In Antwerp, the number of bankruptcies increased by 11.4 % compared to 2011, mainly in construction as well as wholesale and retail trade.

Between 2001 and 2006, the number of bankruptcies rose sharply, especially in the provinces of Namur (39.1 %) and Limburg (20.1 %), in both cases in construction as well as transport and storage. The increase cannot be explained directly by the fact that a large number of start-ups took place during the same period in these two provinces, since the provinces of East Flanders and Walloon Brabant also saw marked increases in start-ups but without a proportionate rise in bankruptcies.

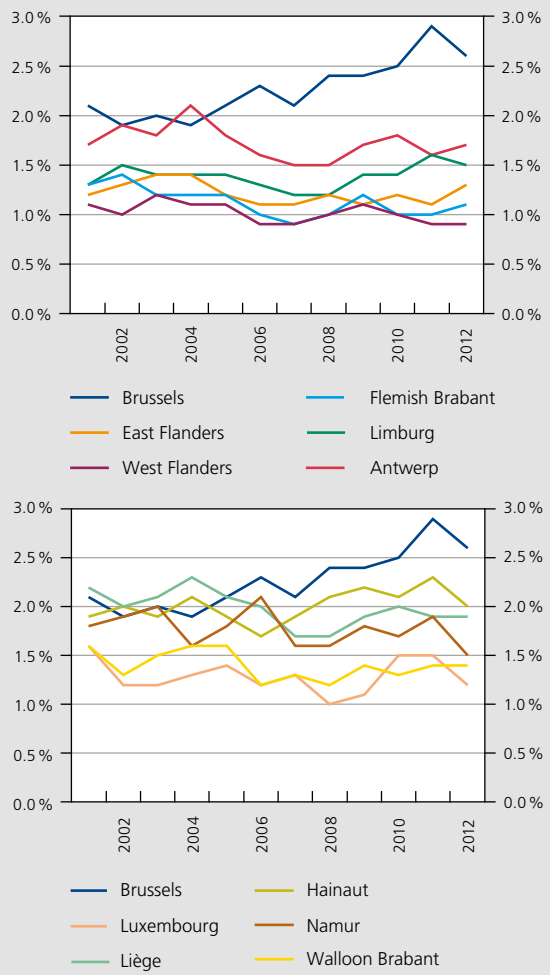
The main increases in the number of bankruptcies between 2006 and 2011 occurred in the provinces of Hainaut, Limburg and Luxembourg. In all provinces the increase occurred mainly in construction. From an economic perspective, the province of Luxembourg lagged behind because the number of start-ups declined by 1.4 % during the same period. An adjustment took place for all the above-mentioned provinces in 2012 because the number of bankruptcies fell compared to the previous year.

3.2.4 Bankruptcy ratio

The bankruptcy ratio – the ratio of the number of bankruptcies to the total number of active companies – can be used to examine whether the number of bankruptcies in a particular sub-region is actually high (see Chart 8). In the period from 2002 to 2005, the highest bankruptcy ratio was registered in the province of Liège. The province of Namur posted the same bankruptcy ratio as Liège in 2003 (2.1 %). The Brussels-Capital Region and the province of Hainaut had the highest bankruptcy ratios from 2005 and 2007 respectively. Indeed, Hainaut showed a rising trend, as a result of which the difference from the other sub-regions became ever greater. The bankruptcy ratio in the Brussels-Capital Region was 2.9 % in 2011; in the province of Hainaut it was 2.3 %. These ratios are much higher than in the province of Liège, which, at 1.9 %, takes third place. There was an adjustment in 2012, and the ratio in the two provinces fell to 2.7 % and 2 % respectively.

Over the whole review period, the lowest bankruptcy ratios were found in the provinces of West Flanders and Flemish Brabant, with an average of 1.1 %. The low bankruptcy ratio in West Flanders was definitely linked to the low start-up ratio. In Flemish Brabant, however, the high start-up ratio did not lead to a high bankruptcy ratio. The same applies to Walloon Brabant. Limburg had a high start-up ratio and a high bankruptcy ratio. Finally, there was the province of Antwerp with a high

CHART 8 BANKRUPTCY RATIO PER PROVINCE (2001-2012) AND CAPITAL REGION



Source: CBE.

bankruptcy ratio in combination with a low start-up ratio, which indicates a deterioration of the business dynamics in this province.

3.3 Business dynamics per district

Figures 1, 2 and 3 show the net growth ratio – the difference between start-ups and departures in proportion to the number of active companies in the preceding year – for each district in 2002, 2011 and 2012. Since 2012 can be regarded as an exceptional year with regard to business demography, a decision was taken to show the figures for 2011 as well in order to obtain a clear picture of the impact of the crisis.

The fact that 2012 was an exceptional year is evidenced by the fact that, apart from the district of Ath, not one district achieved a net growth ratio of more than 2.8 %. In the years 2002 and 2011, 24 and 21 districts respectively, had net growth ratios of more than 2.8 %. The highest net growth ratio in 2002 was 5.3 % (the district of Ath); in 2011, it was 4.7 % (the district of Eeklo). With the exception of the districts of Marche-en-Famenne and Neufchâteau, net growth ratios declined everywhere in 2012. The drop was more than 1 percentage point in 31 districts, and even more than 2 percentage points in 9 districts.

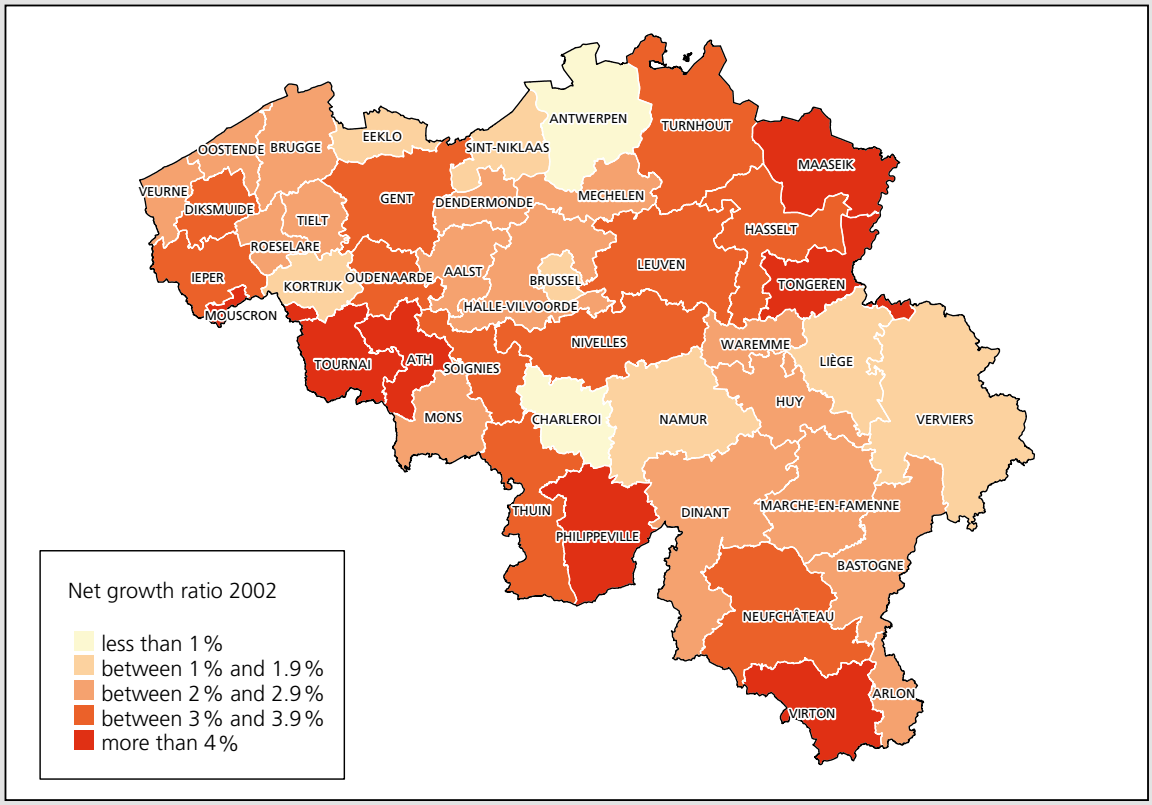
The district of Antwerp was most notable in 2002, where the number of departures exceeded the number of start-ups. Antwerp was thus the only district with a negative net growth ratio (–0.8 %). The situation improved in 2011, and the number of start-ups rose above the number of departures. Even though the district of Antwerp thereby achieved the second strongest increase in 2011 and registered a ratio of 1.7 %, this result was still on the low side. Only the district of Bastogne did worse, with a ratio of 1.6 %. Antwerp was also in second-to-last place with a net growth ratio of 0.4 % in 2012.

The district that registered the lowest net growth ratio in 2012 was Ostend. The number of start-ups was the same as the number of departures, and the net growth ratio was thus zero. The business dynamics in Ostend gradually weakened during the review period. In 2002, the net growth ratio was still 2.6 %, and 14 other districts posted lower ratios. In 2011, the net growth ratio fell to 1.7 %, and as such Ostend was only able to outperform Antwerp and Bastogne. In 2012, the business dynamics in Ostend were the weakest of all the districts.

The district of Charleroi also had a very low net growth ratio in both 2002 and 2011, at 0.7 % and 1.7 % respectively. Charleroi managed to outperform only Antwerp in 2002, and beat Bastogne, Antwerp and Ostend in 2011. The business dynamics in Charleroi were apparently less affected by the economic crisis than in the other districts in 2012. The district posted a net growth ratio of 1.1 %, ahead of 13 other districts.

One district that did very well in the three years studied in terms of business dynamics was Ath. Ath's net growth ratio of 5.3 % in 2002 was the highest of all the districts. This ratio declined slightly in 2011 to 4.2 %. Only Eeklo, Ypres and Waremme did better than this. In 2012, Ath registered 3.7 % and thus once again produced the highest net growth ratio of all the districts. The level was not only just 0.4 % lower than in the previous year, it was also nearly 1 percentage point higher

FIGURE 1 NET GROWTH RATIO PER DISTRICT IN 2002



Source : CBE.

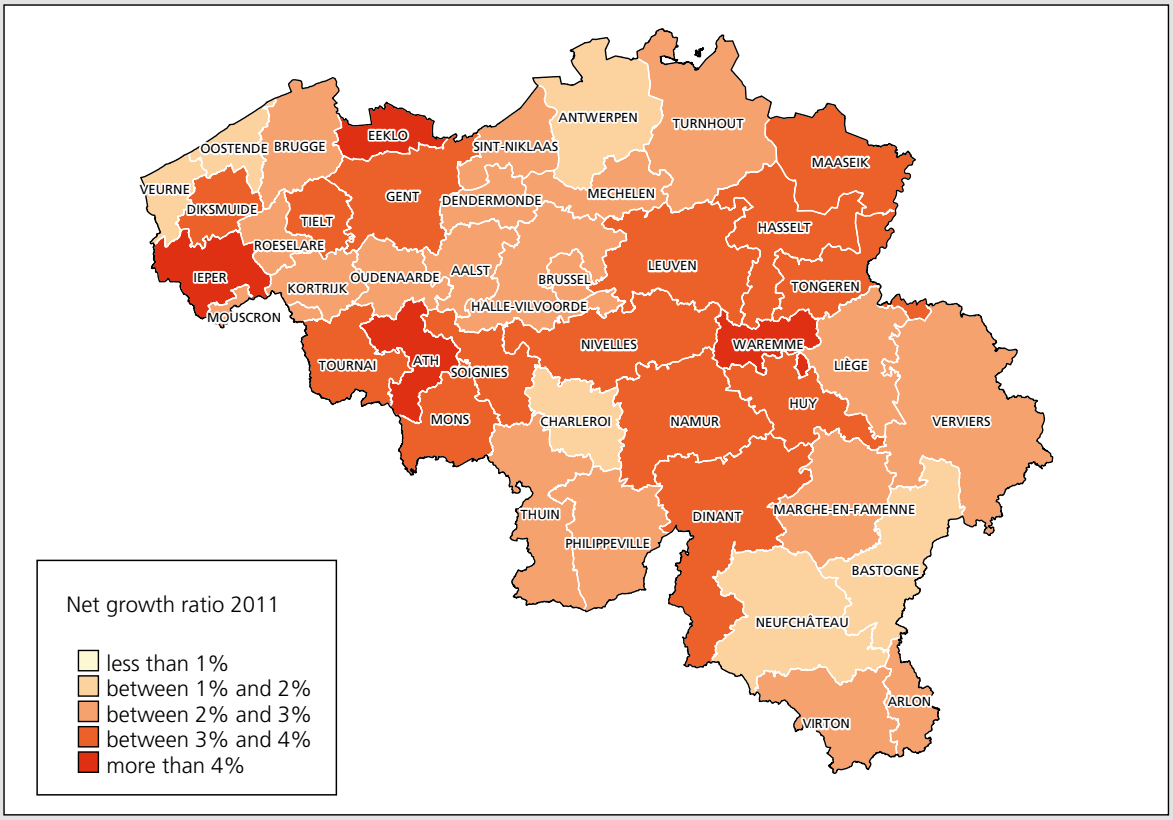
than the ratio achieved in the district of Tournai, which came second.

The greatest progress made between 2002 and 2011 took place in the district of Eeklo, where the net growth ratio was 1.2 % in 2002 and 4.7 % in 2011. Only the districts of Antwerp, Charleroi and Verviers had lower ratios in 2002, and Eeklo achieved the highest net growth ratio in 2011. In 2012, the district of Eeklo was clearly heavily affected by the economic crisis, and its net growth ratio fell by 2.4 percentage points. Districts that suffered worse than this were Mons and Ypres, both of which saw their net growth ratio decline by 2.7 percentage points, and Soignies, where the ratio fell by 2.5 percentage points.

The districts of Mouscron and Philippeville produced net growth ratios of 5.2 % and 4.2 % respectively, in 2002. Mouscron thus took second place after Ath. Both districts saw their ratios fall heavily by more than 2 percentage points in 2011, to 2.6 % and 2.1 % respectively. The deterioration continued in 2012, with Mouscron posting a ratio of only 1.3 %. The business dynamics in Philippeville were virtually non-existent, with a ratio of 0.6 %, and this district accordingly fell to third-last place. Other districts posting net growth ratios of less than 1 % in 2012 were Sint-Niklaas, Aalst, Mons, Arlon and Bruges.

This analysis confirms that the business dynamics in Brussels-Capital improved strongly in the period from 2002 to 2012. The Brussels-Capital district registered a net growth ratio of 1.4 % in 2002, and was thus only ahead of the districts of Antwerp, Charleroi, Verviers, Eeklo, Kortrijk and Sint-Niklaas. In 2011, Brussels-Capital registered a net growth ratio of 2.9 % and outperformed 23 other districts. Finally, Brussels-Capital posted a net growth ratio of 2 % in 2012, thus showing better business dynamics than 31 other districts.

FIGURE 2 NET GROWTH RATIO PER DISTRICT IN 2011



Source: CBE.

3.4 Survival rate

3.4.1 Survival rate according to year of start-up

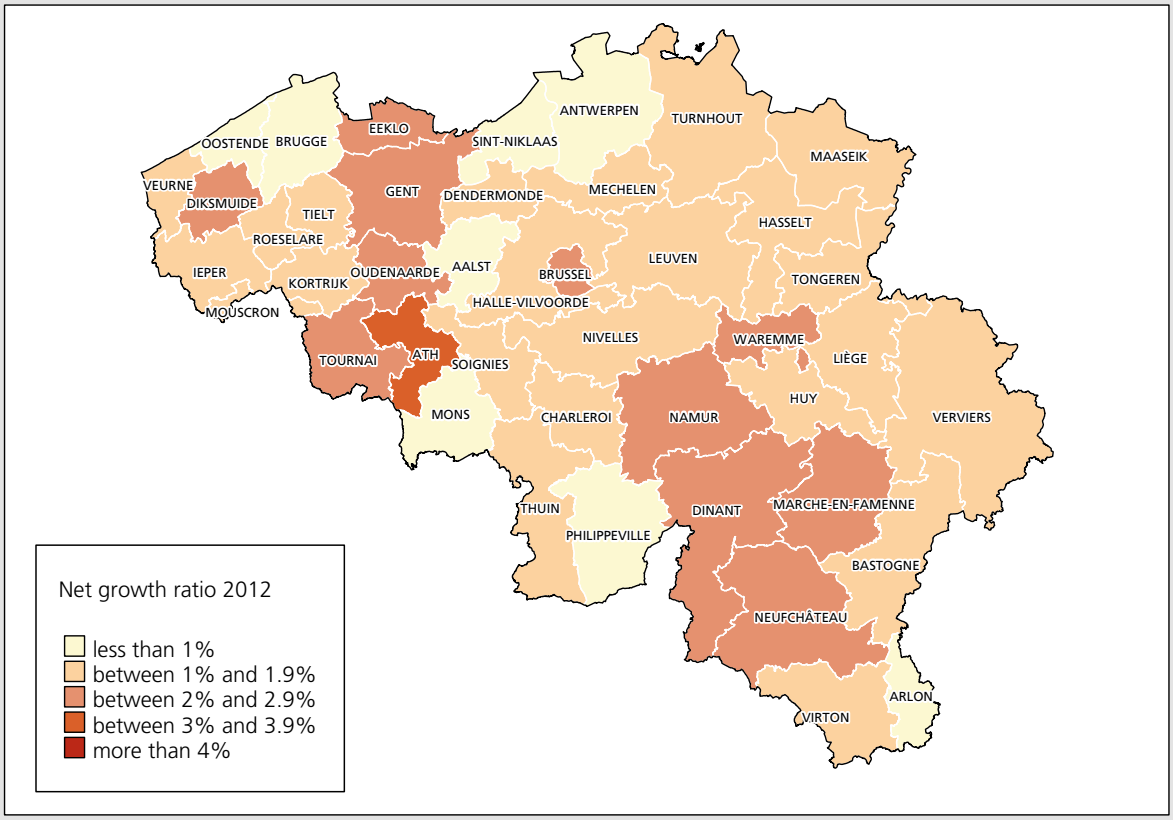
Table 4 shows the total number of departures five years after the year in which a company was incorporated and the survival rate calculated on this basis. Of the companies incorporated during the period from 2001 to the end of 2007, an average of 87.6 % were still active after five years and therefore 12.4 % had ceased trading. The lowest number of start-ups was in 2003 (19 633), and the highest number occurred in 2007 (26 411). Although 34.5 % fewer companies were incorporated in 2003 than in 2007, this had little or no effect on the number of departures five years later, when 87.2 % of companies were still trading. This suggests that the number of departures is correlated to the number of start-ups and that years in which many companies are incorporated are also years with many departures. This finding seems to support the theory that better-performing new companies drive uncompetitive companies out of the market.

TABLE 4 SURVIVAL RATE OF START-UPS AFTER FIVE YEARS

Year of start-up	Number of start-ups	Departures	Survival rate
2001	20 877	2 700	87.1
2002	20 090	2 446	87.8
2003	19 633	2 381	87.9
2004	20 886	2 488	88.1
2005	21 343	2 690	87.4
2006	24 172	2 932	87.9
2007	26 441	3 382	87.2

Source: CBE.

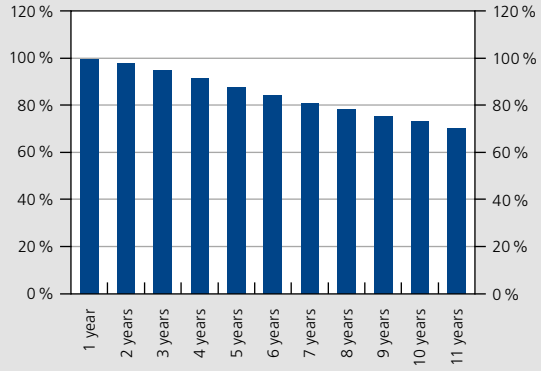
FIGURE 3 NET GROWTH RATIO PER DISTRICT IN 2012



Source: CBE.

Table 4 shows that the survival rate after five years does not vary significantly according to the year of start-up.

CHART 9 AVERAGE SURVIVAL RATE OF START-UPS ACCORDING TO YEAR OF START-UP



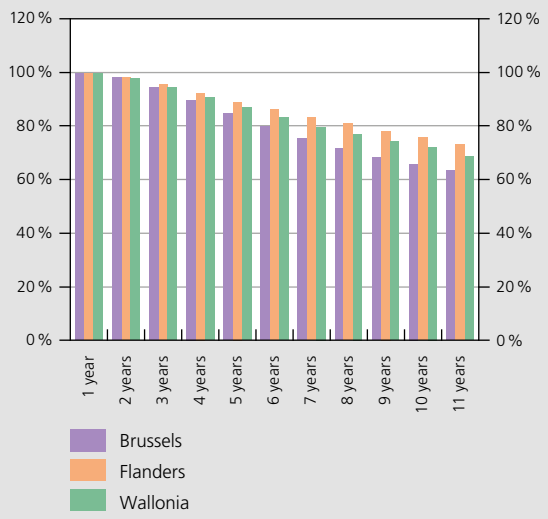
Source: CBE.

The average survival rate according to the year of start-up from 2011 to the end of 2012 is presented in Chart 9. This shows that only 5.1 % of the companies were dissolved, were liquidated or folded during the first three years after start-up. In the four years after this, the number of departures rose strongly each time, by 3.6 %, 3.7 %, 3.4 % and 3.3 % respectively. After that, the number of departures declined slightly, but did not fall below 2.4 %.

3.4.2 Survival rate per geographical area

A geographical analysis shows that the average survival rate in the Flemish Region was higher than in the other regions (see Chart 10). In the first three years after the year of start-up, the difference between the Flemish, Walloon and Brussels-Capital Regions was 0.1 %, 0.3 % and 0.9 % respectively. From the fourth year onwards, the survival rate declined faster in the Brussels-Capital Region than in the Walloon Region. This meant that eleven years after the year of start-up, the survival rate of a start-up company in the Flemish, Walloon and Brussels-Capital Regions was 73.1 %, 68.7 % and 63.4 % respectively.

CHART 10 AVERAGE SURVIVAL RATE OF START-UPS BY REGION



Source: CBE.

An analysis of the survival rate after five years of companies incorporated in 2001 at provincial level shows that the provinces of West Flanders (90.5 %), Flemish Brabant (90.1 %) and Luxembourg (90.1 %) have the highest survival rates (see table 5). More than nine out of ten start-ups survive the first five years in these provinces. The provinces of Limburg, East Flanders, Walloon Brabant and Namur also exceed the Belgian average of 87.5 %. The lowest survival rates are found in the province of Liège and the Brussels-Capital Region, at 83.4 % and 84.5 % respectively.

TABLE 5 SURVIVAL RATE OF START-UPS AFTER FIVE YEARS PER PROVINCE AND CAPITAL REGION

(base = start-up in 2001)

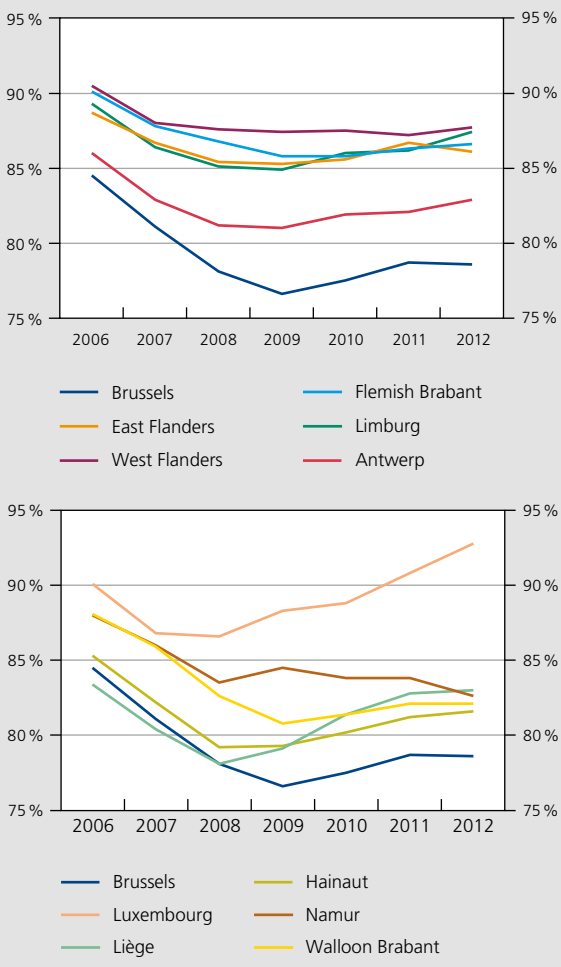
Province	Number of start-ups	Number of departures and bankruptcies	Survival rate
Brussels	3 831	592	84.5
Antwerp	4 151	580	86.0
Limburg	1 546	166	89.3
East Flanders	2 431	274	88.7
Flemish Brabant	1 888	186	90.1
West Flanders	2 083	198	90.5
Hainaut	1 682	248	85.3
Liège	1 422	236	83.4
Luxembourg	303	30	90.1
Namur	610	73	88.0
Walloon Brabant	922	110	88.1

Source: CBE.

An analysis of the survival rate after five years for companies incorporated in the period from 2001 to the end of 2007 shows a very distinct trend for this percentage for some sub-regions (see Chart 11). Until 2009, the survival rate in most provinces declined, with the exception of the provinces of Luxembourg, Namur and Liège. The province of Luxembourg, which achieved one of the best results for companies incorporated in 2001 (90.1 %), did even better for companies incorporated six years later (92.8 %).

CHART 11 SURVIVAL RATE OF START-UPS AFTER FIVE YEARS PER PROVINCE AND CAPITAL REGION

(2006 to the end of 2012)



Source: CBE.

Luxembourg thus outperformed the province of West Flanders, where the survival rate declined from 90.5 % in 2006 to 87.7 % in 2012. The province of Liège, which in 2006 fared worse than the Brussels-Capital Region, saw its survival rate improve from 2009, reaching a percentage of 83 % in 2012. This province therefore outperformed the Brussels-Capital Region (78.6 %), Hainaut (81.6 %), Walloon Brabant (82.1 %), Namur (82.6 %) and Antwerp (82.9 %).

3.4.3 Survival rate per industry group

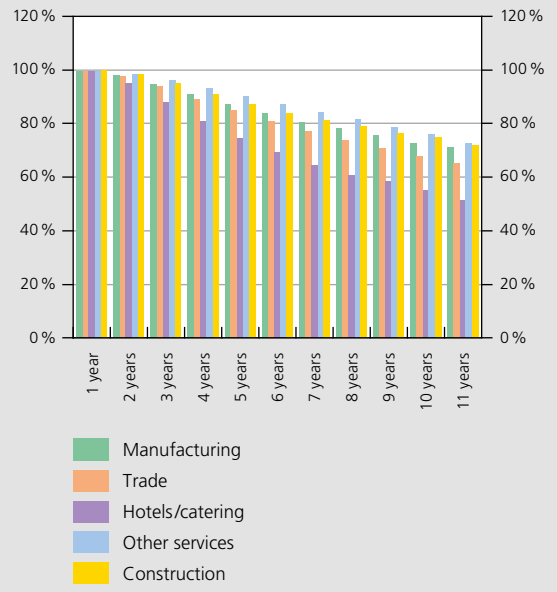
The average survival rate also varied between the industry groups in the period from 2001 to the end of 2012 (see Chart 12). In the hospitality industry, in particular, the survival rate declined much faster each year than in the other industries. Of all the companies incorporated in the hospitality industry, only around half were still trading after 11 years. The survival rate in this industry fell on average by 4.4 % each year.

The survival rates in the other branches were more or less the same. 11 years after start-up, 72.7 % of the companies in the other services sector were still trading, as were 71.7 % in construction and 70.9 % in the manufacturing industry. Only the "trade" branch (wholesale and retail; repair of motor vehicles and motorcycles) posted a slightly lower rate of 65.3 %.

3.4.4 Age at time of bankruptcy

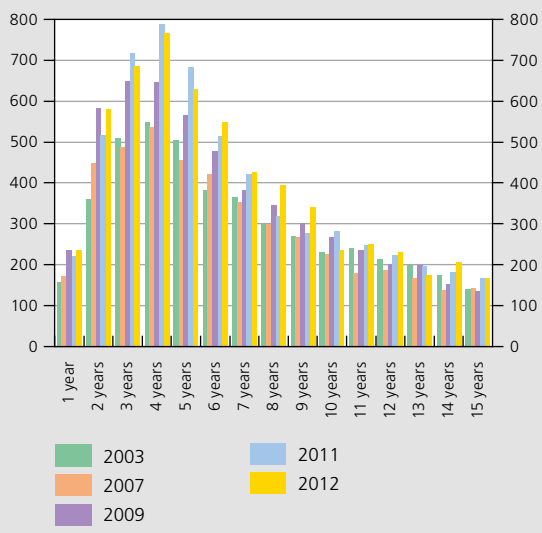
The survival rate according to age has already revealed that companies of a certain age are more likely to go bankrupt than younger or older companies. In order to check this, Chart 13 – for the years 2003, 2007, 2009, 2011 and 2012 – shows the number of companies according to age (from 1 to 15 years) that file for bankruptcy in a particular year. It is mainly young companies that have been around for between three and five years that file for bankruptcy. This is even more the case during years of economic crisis. Compared to 2007, the number of companies going bankrupt that had been trading for three to five years was approximately 50 % higher in 2011 and 40 % higher in 2012. The impact of an economic downturn is also felt by older companies, albeit to a lesser extent. The number of firms going bankrupt after eight and nine years of trading in 2011 was 6.7 % and 4.5 % higher, respectively, than in 2007. There was a sharply contrasting development in 2012, as the number of companies going bankrupt after eight or nine years' trading was approximately 30 % higher than in 2007. These findings suggest that the continuing economic crisis is affecting the survival chances of older businesses.

CHART 12 AVERAGE SURVIVAL RATE OF START-UPS BY INDUSTRY GROUP



Source: CBE.

CHART 13 NUMBER OF COMPANIES PETITIONING FOR BANKRUPTCY IN 2003, 2007, 2009, 2011 AND 2012 ACCORDING TO AGE



Source: CBE.

Conclusion

This article started with a detailed description of certain aspects of methodology. It was noted that caution needed to be exercised in comparing published figures, since these can vary significantly depending on the statistical sources used. The explanation for this lies mainly in the date of registration and the fact that the activity codes used are not consistent.

Contrary to normal practice in the regular media publications and the analyses conducted by the European Commission and others, this analysis focused exclusively on the demographic trend for companies. The reason for this is that the structural impact of these developments, in other words the innovation and productivity of an economy, is largely determined by company developments. Moreover, it appears that the demographic trend that companies undergo is not necessarily the same as that of the self-employed. The focus of the research is therefore slightly different; it is assumed that company dynamics are mainly determined by earnings potential and competitive strength, while other factors may also play an important part in the analysis of the self-employed, such as unemployment and changes in the labour force, etc.

It was also noted, from a methodological perspective, that the developments have to be interpreted in both relative and net terms in order to gain an understanding of the business dynamics. A large number of bankruptcies offset by a relatively large number of start-ups is actually more often a sign of innovation and strengthening of competitiveness than it is of crisis.

As one might expect, the demography of companies is determined by the state of the economy. It is clearly the case that this effect is most apparent in the area of start-ups, with slower growth in gross domestic product immediately reflected in a more than proportionate decline in the number of start-ups. In this respect, the considerable drop in the number of start-ups in 2012 was significant. This correlation is less obvious with regard to bankruptcies, since these may be delayed for various reasons. The effect of the economic cycle is more noticeable in some sectors than in others. The construction industry and the other services sector show the greatest business dynamics, as they are highly cyclical sectors. The accommodation and food services sector is a special case, because it is often cited in connection with its high risk of bankruptcy. Until the end of 2005, this sector had a net growth ratio that was clearly higher than that of the other branches of activity. The situation has changed since 2006 as a result of a decline in the start-up ratio, and the net growth ratio in this branch has fallen sharply. The trend for the net growth ratio in the manufacturing industry and trade was less clear-cut than in the other sectors, but it is notable that here, too, the negative development in 2012 was more pronounced than in 2009.

The analysis considered geographical aspects. The demographic developments at geographical level show that a cautious approach should be adopted when drawing generalised conclusions. There may be very diverse developments within a geographical area or region that mean that an average score gives an incomplete and misleading impression.

At regional level, Flanders had the lowest net growth ratio of Belgium's three Regions in 2012, as it did in the period 2001-2012. This was purely due to the sharp decline in the number of start-ups, which was 23 % lower than in 2011 and shows that Flanders was particularly badly affected by the economic crisis. Although the net growth ratio in Wallonia was slightly higher than in Flanders, this was the lowest value during the analysis period for this Region as well. Only the Brussels-Capital Region managed to achieve a net growth ratio that was higher in the crisis year of 2012 than in the period 2001-2004.

At provincial level in Flanders, the start-up ratio in the provinces of West Flanders and Antwerp, in particular, was very low. Since in the province of Antwerp, contrary to West Flanders, this was accompanied by a high bankruptcy ratio, the conclusion can be drawn that the present crisis is significantly affecting the business dynamics in Antwerp. In terms of the start-up ratio, the province of Limburg is performing somewhat better than the other Flemish provinces. Until 2008, it was either Limburg or the Brussels-Capital Region that boasted the highest start-up ratio. For Limburg, this came to an end with the economic crisis, although Limburg continued to be the province with the highest net growth ratio in Flanders between 2001 and 2012. The less favourable position of Antwerp is confirmed at district level. In 2001, this was actually the only district with a negative net growth ratio. Despite a slight improvement in 2011 and 2012, the district of Antwerp did not manage to rise above second-to-last place in terms of net growth ratio, while Ostend was the district that experienced the sharpest fall in its net growth ratio in 2012.

The business dynamics in the Brussels-Capital Region have been rising strongly since 2001. The notable feature here is that the net growth ratio was due to a very high start-up ratio combined with a very high bankruptcy ratio. The analysis at district level also shows the strong position of Brussels and the greater ability of this Region to withstand the economic crisis.

The highest start-up ratios over the whole period between 2001 and 2012 in Wallonia were in the provinces of Walloon Brabant and Hainaut. In Wallonia, the province of Walloon Brabant had the highest net growth ratio as a result of a high start-up ratio and a low bankruptcy ratio. The province of Hainaut had a high bankruptcy ratio and therefore a lower net growth ratio, while the province of Luxembourg showed very low start-up, bankruptcy and net growth ratios and thus posted the lowest score in the Walloon Region. At district level, the district of Ath is notable in that it had a consistently high net growth ratio in all the years reviewed. Even in the crisis year of 2012, Ath had the highest net growth ratio of all the districts.

The analysis of the survival rate shows that the year of start-up has little or no effect on the risk of bankruptcy. In years featuring a high number of start-ups, many departures were also registered. This would appear to be consistent with theoretical assumptions. From a regional perspective, companies have a greater chance of survival in Flanders than in Wallonia, and certainly in the Brussels-Capital Region. An analysis at provincial level, however, shows that the chances of survival can vary dramatically within the three Regions. The industry in which a company operates is more important than the geographical area in which it is situated. As expected, accommodation and food service activities have the lowest chance of survival. A company's age is also significant; young businesses aged between three and five years are the most vulnerable to bankruptcy.

Both the geographical and the general analysis of the demographic developments show that caution and qualification are needed when drawing conclusions. The business dynamics and thus the future of an economy are largely determined by start-ups, which in turn depend on earnings potential and other expectations. An excessive and unqualified focus on the trend for bankruptcies not only gives a false picture of the real state of health of an economy, it also negatively affects sentiment. This can cause the number of start-ups to decline and prolong the crisis.