# Analysis of the population of non-financial corporations with negative economic profitability

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## Introduction

Every year, in its Economic Review of December, the National Bank presents the developments evident from the annual accounts of non-financial corporations. The article on the financial structure and results of firms in 2008 [1] contains an analysis on the trend in corporate profitability. Profitability relates to firms' ability to generate profits. It can be estimated on the basis of the net return on equity, but to place the analysis in a broader perspective the study in question also presented a detailed statistical breakdown of the net return ratio on total assets before tax and debt servicing (hereinafter referred to as "economic profitability" or just "profitability"). In order to cover all strata of the research population, the article extended its focus to include the full statistical breakdown: apart from the median data, the first and second quartiles were also studied, as were the tenth and ninetieth percentiles. It is preferable to use the concept of economic profitability for analysing the extremes of the distribution because it is available for all firms, in contrast to the return on equity which can only be calculated on the basis of firms with positive equity. The figures for the tenth percentiles and the first quartiles of the distribution of economic profitability show that many firms suffer losses year after year, a finding that requires further investigation.

This article describes and analyses the firms concerned. It starts by defining the concept of net return on total assets before tax and debt servicing and explaining the relationships that can be derived from that ratio. For completeness, the figures are taken from the said article. Next, the article gives an analysis based on the figures from the annual accounts of firms recording negative economic profitability. In this way it investigates whether the firms within the group recording negative economic profitability in the 1999-2008 period are always the same ones. If that is not the case, the average number of loss-making years is calculated. The analysis considers whether a link can be established between negative economic profitability and the sector in which the firm operates, the size and age of the firm and the region where it has its registered office. The intention is to find out whether non-financial corporations with negative economic profitability display specific characteristics which distinguish them from non-financial corporations in general. After that, the various annual accounts items composing the ratio are examined individually to gain an insight into the composition of the loss. Since the accounting laws do not permit losses to be simply accumulated year after year, the article finally examines which firms are obliged by sections 332, 431 and 633 of the Corporate Code to comply with the so-called "alarm bell procedure".

(1) Vivet D., *Trends in the financial structure and results of firms in 2008*, NBB, Economic Review, December 2009, 59-81.

## 1. Net return on total assets before tax and debt servicing

### 1.1 Definition of the ratio

A profitability ratio gives an indication of the result obtained from the operation of a firm by comparing revenue and expenses. The results which a firm achieves are thus assessed in relative terms, in relation to the total assets or equity capital.

The net return on total assets before tax and debt servicing (see Annex 1) links the operating results to the total assets. The ratio measures the operating result (after non-cash expenses but before tax) per € 100 invested in assets. In that respect this ratio differs from the return on equity which is greatly influenced by the financial structure.

### 1.2 Trend in the net return on total assets before tax and debt servicing

Table 1 shows the pattern of economic profitability for Belgian non-financial corporations between 1999 and 2008. It is apparent that for both large firms and SMEs[1] the tenth percentile is always decidedly negative, with a low point in each case during the years of weak economic activity (2001-2002 and 2008). In the case of SMEs, even the first quartile remains negative in most years. For 2008 this means in practice that 10 p.c. of large firms recorded a negative net operating result of at least € 6.8 per € 100 invested in assets, and 25 p.c. of SMEs generated no income at all per € 100 invested in assets.

## 2. Analysis

### 2.1 Average number of years

The above figures immediately raise the question concerning the structure of the population of firms with negative economic profitability. Is it always the same firms that record a negative profitability year after year, or does the population change annually, and how long do the losses persist for most firms?

Table 2 shows the sectoral breakdown[2] of the number of firms which repeatedly recorded negative economic profitability every year between 1999 and 2008. This shows that a small group of 907 firms never recorded a profit in all those years. This group of firms belongs mainly to non-manufacturing industry.

(1) Firms which file their annual accounts in the full format are regarded as large firms and those using the abridged format are regarded as SMEs.
(2) The sectoral classifications used and the corresponding NACE-BEL 2008 divisions may be found in Annex 2.

**TABLE 1** DISTRIBUTION OF THE NET RETURN ON TOTAL ASSETS BEFORE TAX AND DEBT SERVICING
(percentages)

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 e |
|---|---|---|---|---|---|---|---|---|---|---|
| **Large firms** | | | | | | | | | | |
| P90 | 20.0 | 19.7 | 19.7 | 19.1 | 21.0 | 22.6 | 23.2 | 23.9 | 24.3 | 23.2 |
| Q3 | 9.9 | 10.0 | 9.8 | 9.3 | 10.3 | 11.5 | 11.9 | 12.6 | 13.0 | 12.2 |
| Q2 | 4.0 | 4.3 | 4.1 | 3.7 | 3.9 | 4.5 | 4.7 | 5.1 | 5.5 | 4.9 |
| Q1 | 0.7 | 0.8 | 0.5 | 0.2 | 0.4 | 0.8 | 1.0 | 1.3 | 1.5 | 1.2 |
| P10 | –6.1 | –6.4 | –7.9 | –9.2 | –8.1 | –6.6 | –5.6 | –4.6 | –4.4 | –6.8 |
| **SMEs** | | | | | | | | | | |
| P90 | 24.0 | 24.6 | 24.1 | 23.9 | 24.8 | 25.5 | 25.8 | 26.4 | 27.8 | 27.0 |
| Q3 | 12.2 | 12.6 | 12.2 | 12.0 | 12.4 | 12.9 | 12.9 | 13.3 | 14.1 | 13.3 |
| Q2 | 5.2 | 5.3 | 5.1 | 4.9 | 5.0 | 5.1 | 5.1 | 5.3 | 5.7 | 5.3 |
| Q1 | 0.0 | 0.1 | –0.1 | –0.5 | –0.5 | –0.4 | –0.4 | –0.2 | 0.0 | –0.3 |
| P10 | –10.3 | –10.1 | –11.2 | –12.5 | –13.0 | –12.9 | –13.0 | –12.5 | –11.6 | –13.8 |

Source: NBB.

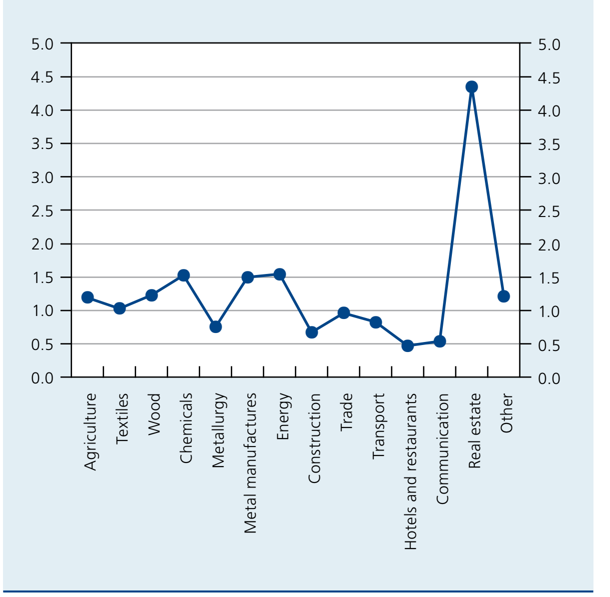
**TABLE 2** NUMBER OF FIRMS WITH NEGATIVE ECONOMIC PROFITABILITY EACH YEAR IN THE PERIOD 1999-2008

| | Number of firms |
|---|---|
| Manufacturing industry | **48** |
| of which: | |
| Agricultural and food industries | 11 |
| Textiles, clothing and footwear | 6 |
| Wood, paper products and printing | 13 |
| Chemicals and pharmaceuticals | 3 |
| Metallurgy and metalworking | 6 |
| Metal manufactures | 9 |
| **Non-manufacturing branches** | **859** |
| of which: | |
| Wholesale and retail trade | 205 |
| Transportation and storage | 19 |
| Accommodation and food service activities | 29 |
| Information and communication | 19 |
| Real estate activities | 346 |
| Other service activities | 194 |
| Energy, water supply and waste | 3 |
| Construction | 44 |

Source: NBB.

**CHART 1** FIRMS WITH NEGATIVE ECONOMIC PROFITABILITY EACH YEAR IN THE PERIOD 1999-2008

(in percentages of all firms with negative profitability)




Source: NBB.

To obtain an accurate picture, the number of firms with negative economic profitability each year is expressed in relation to the total number of firms with negative profitability per sector for the period from 1999 to 2008. Chart 1 shows that in most sectors, on average, only 1.3 p.c. of firms with negative profitability fail to reverse that trend year after year. However, it is noticeable that this percentage is considerably higher (4.35 p.c.) in the "Real estate activities" sector.

Almost half of the companies in this sector come under subsector 68.1 "Letting of own property". These are property companies set up to cover one or more properties. In some situations, forming a property company makes it possible to expand the ownership of real estate in a fiscally advantageous manner. If a property is owned by a property company, expenses are tax deductible and depreciation can be recorded on the buildings. A property company's profit is often insignificant because the expenses incurred – in which depreciation may be the main item – are deductible. These expenses depress the taxable profit to such an extent that a relatively higher percentage of firms in this sector constantly record negative economic profitability.

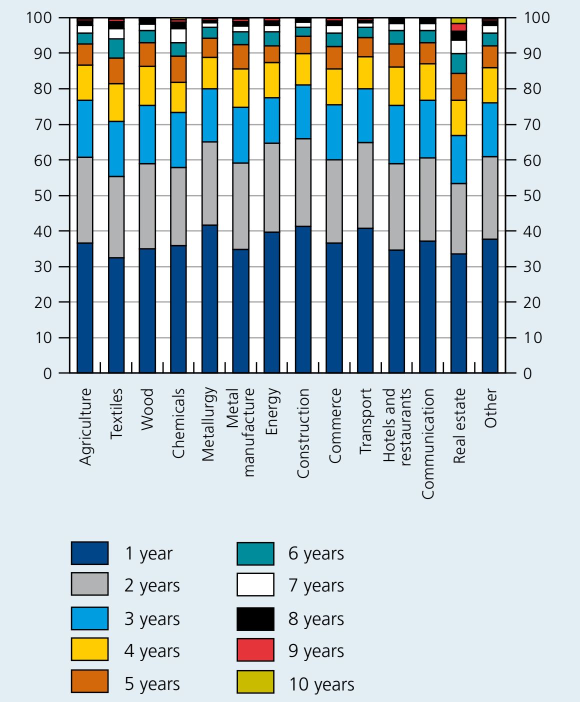
The above figures clearly show that only a minority of firms recorded negative profitability throughout the 1999-2008 period. Chart 2 illustrates how long the period without the ability to make a profit persisted for most firms. For all firms, the number of years with a negative ratio were added together from 1999 to 2008. For most sectors the breakdown is broadly similar. For 37.2 p.c. of firms, the negative result is an unusual event which is adjusted straightaway in the following year. Just under a quarter of firms (23.3 p.c.) need at least two years to achieve that. For the majority of firms (85.6 p.c.) the period of negative economic profitability does not last longer than 4 years.

## 2.2 Sectors of activity

Chart 3 illustrates the breakdown of the number of non-financial corporations between manufacturing and non-manufacturing industry. The "Total" columns represent this breakdown for non-financial corporations as a whole, while the columns headed "Neg. profit." represent the breakdown of firms with negative profitability.

**CHART 2** AVERAGE NUMBER OF YEARS OF NEGATIVE ECONOMIC PROFITABILITY

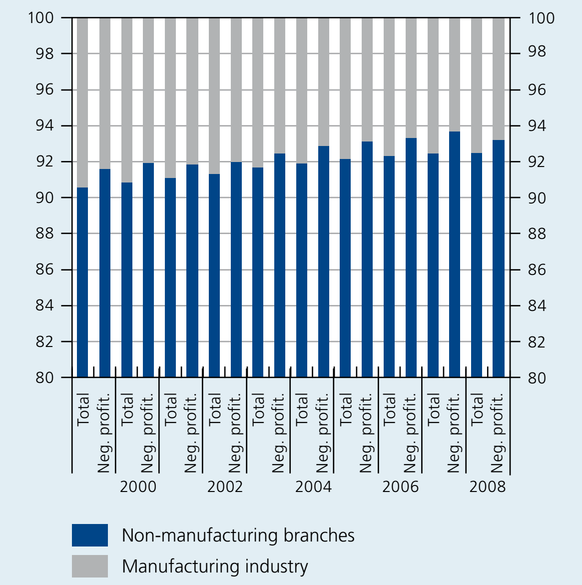
(in percentages of all firms with negative profitability)




Source : NBB.

**CHART 3** SECTORAL BREAKDOWN OF THE NUMBER OF FIRMS

(in percentages)




Source : NBB.

In the two populations of firms, non-manufacturing industry (in blue) is very much in the majority. It is also apparent that non-manufacturing industry is slightly over-represented among firms with negative profitability, and that this over-representation increases somewhat between 2004 and 2007. That therefore means that negative profitability affects proportionately more non-manufacturing than manufacturing firms, particularly in 2006 and 2007.

This difference in the breakdown between the two populations of firms is minimal if the analysis is confined to this not very detailed level of classification. However, analysis of the number of firms according to the detailed sectoral classifications in Annex 2 reveals more significant differences and permits identification of the sectors which contain proportionately more firms with negative profitability.

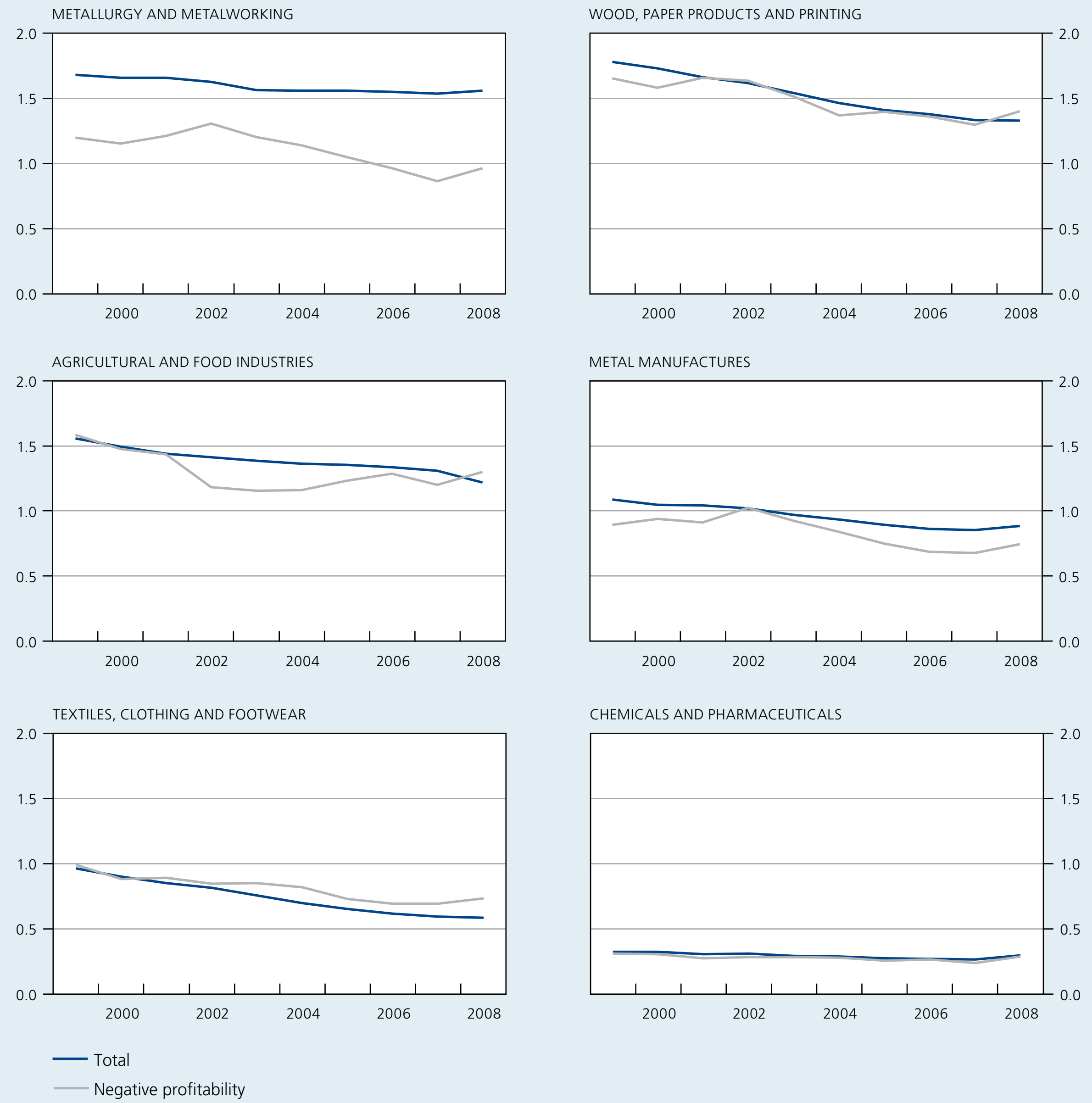
Charts 4 and 5 indicate in terms of the number of firms the share which each sector represents in non-financial corporations as a whole (in blue) and in non-financial corporations with negative profitability (in grey).[(1)] There are three possible cases: over-representation, under-representation or identical representation of a sector in the population of firms with negative profitability in relation to its size in the total population of firms. In the first case, that indicates that the sector is more affected than others by the problem of negative profitability. Conversely, in the second case the sector has relatively few firms with negative profitability. Finally, in the last case the size of the sector among firms with negative profitability is similar to that among firms as a whole, so that no particular conclusion can be drawn.

As shown by Chart 3, manufacturing industry has proportionately fewer firms with negative profitability than non-manufacturing industry. It is therefore not surprising that most of the manufacturing industry sectors analysed are under-represented in the population of firms with negative profitability (Chart 4). That situation is particularly true for the metallurgy and metalworking sector which, in 2008, represented 1.6 p.c. of the total number of non-financial corporations, but only 1 p.c. of companies with negative profitability. That situation could be attributable to the many restructuring operations in this sector, which gradually eliminated the less profitable firms.

(1) Since manufacturing industry is very much in the minority in terms of the number of firms, a different scale is used for manufacturing and non-manufacturing industry sectors.

**CHART 4** MANUFACTURING INDUSTRY: SECTORAL BREAKDOWN OF THE NUMBER OF FIRMS

(in percentages of all firms and of all firms with negative profitability)




Source: BNB.

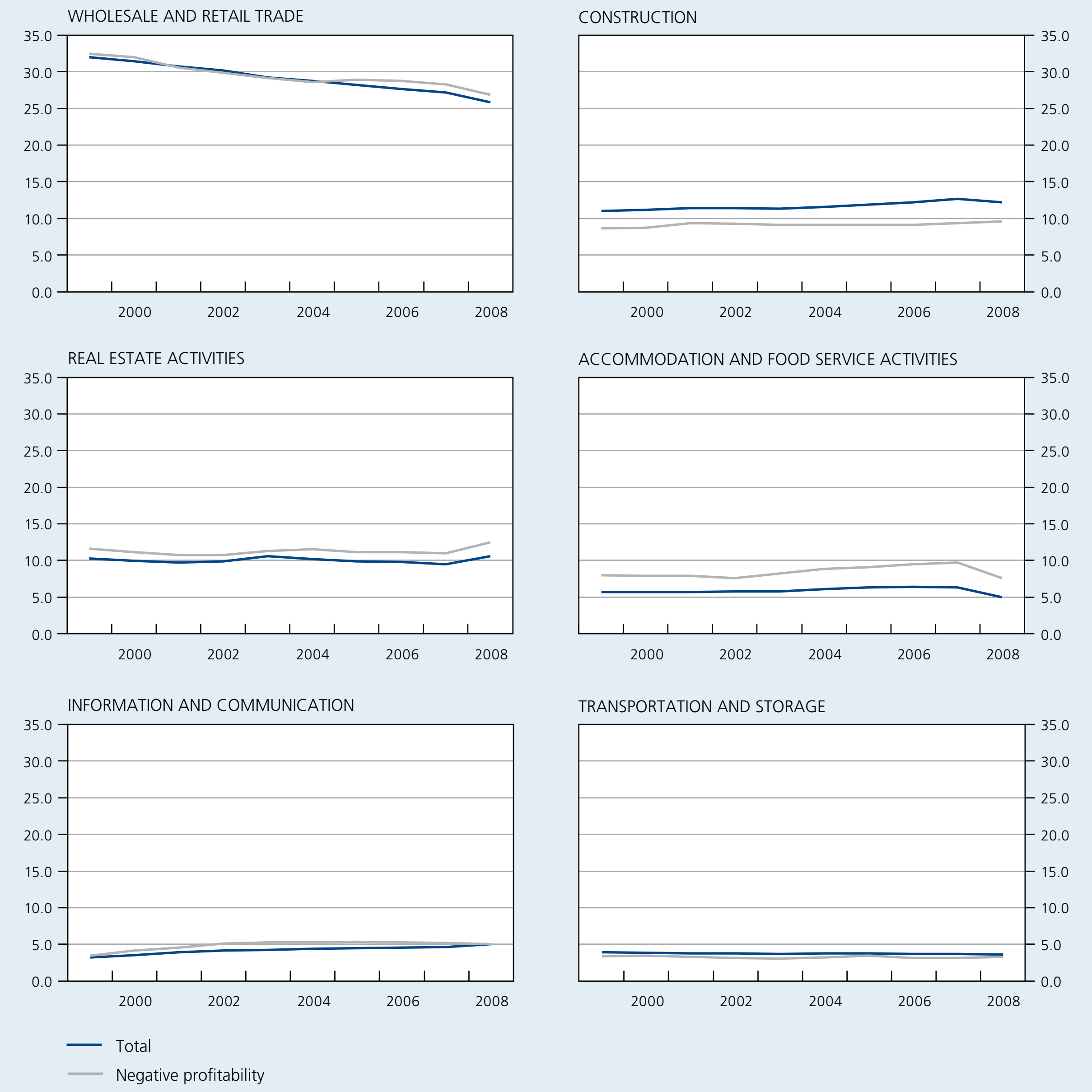
The only manufacturing industry sector in which the share in the population of firms with negative profitability exceeds that in the total population is textiles, clothing and footwear. Although that difference has increased over the years, it is still fairly small.

It should also be noted that in 2008 two manufacturing industry sectors became over-represented in the population of firms with negative profitability, owing to a fall in their share in firms as a whole and an increase in their size in the population of firms with negative profitability. Those sectors – "Agricultural and food industries", on the one hand, and the wood, paper products and printing sector on the other – therefore contained a relatively large number of firms with negative profitability in 2008.

In contrast, in non-manufacturing industry (Chart 5) most of the sectors are over-represented in the population of firms with negative profitability. This over-representation is the largest in "Real estate activities"

CHART 5 NON-MANUFACTURING BRANCHES: SECTORAL BREAKDOWN OF THE NUMBER OF FIRMS

(in percentages of all firms and of all firms with negative profitability)



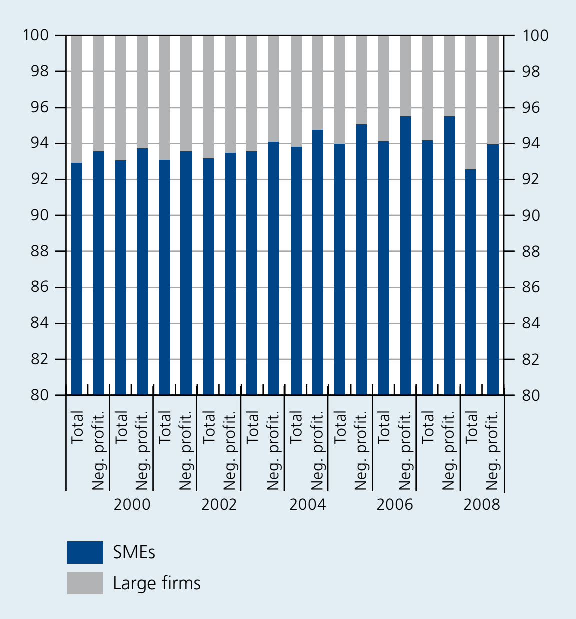

Source: NBB.

and "Accommodation and food service activities". It is also evident that, since 2005, the trade sector has had proportionately more firms with negative profitability than previously. Construction is the only non-manufacturing industry sector to be under-represented in the population of firms with negative profitability. In 2008 that sector represented 12.2 p.c. of the total population of non-financial corporations, whereas its share of all firms with negative profitability was 9.6 p.c. That figure has been particularly stable over the years, fluctuating between 9 and 10 p.c. This sector therefore seems to be relatively less affected by the problem of negative profitability.

## 2.3 Size

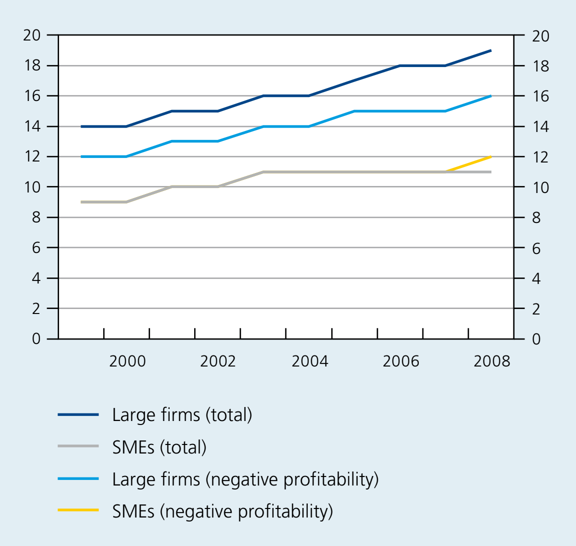
Chart 6 illustrates the breakdown of the number of firms according to their size (large firm or SME). As in Chart 3, this breakdown is effected for all non-financial corporations on the one hand and for all non-financial

**CHART 6** BREAKDOWN OF THE NUMBER OF FIRMS BY SIZE
(in percentages)




Source: NBB.

**CHART 7** MEDIAN AGE OF FIRMS BY SIZE
(years)




Source: NBB.

corporations with negative profitability on the other hand.

In both populations, SMEs are by far the most numerous. They are over-represented in the population of firms with negative profitability, which means that the negative profitability problem affects proportionately more SMEs than large firms.

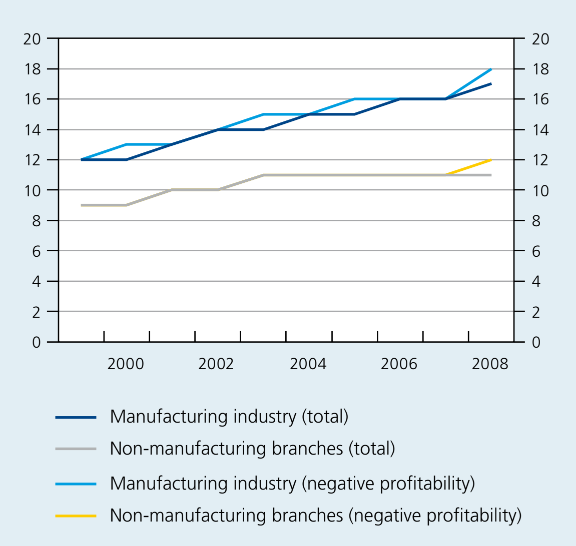
## 2.4 Age

Chart 7 shows the median age (1) of firms according to their size for the entire population of non-financial corporations and for the population of non-financial corporations with negative profitability. (2)

This shows that the median age of firms increases for both SMEs and large firms, both in the total population and in the population of firms with negative profitability. The median age of SMEs with negative profitability is no different from the age of SMEs as a whole, except for 2008 when the median age of SMEs with negative profitability is one year more. That suggests that the negative profitability problem affected older SMEs in that year.

Conversely, for large firms there is a difference of several years between the median ages of the two groups, and that difference increases over time. Thus, in 2008, 50 p.c.

**CHART 8** MEDIAN AGE OF FIRMS BY SECTOR
(years)




Source: NBB.

(1) The median age was preferred to the average age in order to limit the influence of extreme values, in this case very old firms.
(2) The age is calculated in relation to the year of establishment of the firm, namely the year of publication of its articles of association in the Moniteur belge.

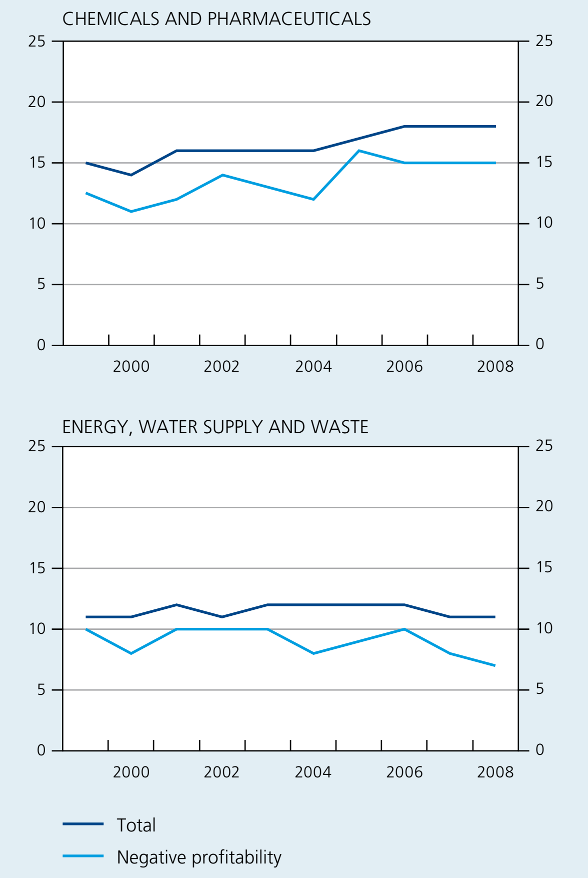
of large firms with negative profitability were under 16 years old, whereas in the population as a whole 50 p.c. of large firms were under 19 years old. This therefore means that large firms in a negative profitability situation are younger overall than large firms with positive or zero profitability.

A distinction between firms in non-manufacturing industry and those in manufacturing industry shows (Chart 8) that the age of firms with negative profitability corresponds roughly to the age of firms as a whole in each of the two branches.

Analysis according to a more detailed sectoral classification confirms these findings, except for two sectors (Chart 9): "Chemicals and pharmaceuticals" (manufacturing industry) and "Energy, water supply and waste" (non-manufacturing industry).

**CHART 9** MEDIAN AGE OF FIRMS BY SECTOR: "CHEMICALS AND PHARMACEUTICALS" AND "ENERGY, WATER SUPPLY AND WASTE"

(years)




Source : NBB.

The median age of firms with negative profitability in these two sectors was in 2008 three to four years younger than the median age of all companies in these sectors, therefore indicating that young businesses are more affected by the negative profitability problem.

It should be noted that these two sectors are also the smallest in terms of the number of firms, since they represent respectively 0.3 and 0.4 p.c. of the total population of non-financial corporations.

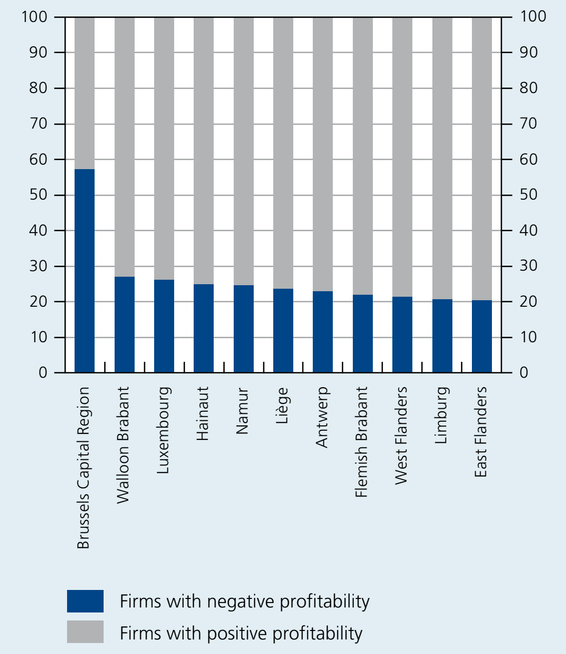
## 2.5 Regional breakdown

For 2008, the number of non-financial corporations with negative or positive economic profitability was examined per province. A firm is allocated to a particular province on the basis of the postcode of the address of its registered office.[1] Annex 3 gives the breakdown of postcodes among the different provinces.

(1) This analysis was based on the address of the registered office, which is public information available via the Central Enterprise Databank. Since the place of business need not be the same as the registered office of a firm, that could influence the findings.

**CHART 10** ECONOMIC PROFITABILITY PER PROVINCE AND IN THE BRUSSELS CAPITAL REGION IN 2008

(in percentages)




Source : NBB.

The Brussels Capital Region has the highest ratio of firms with negative profitability (57.4 p.c.). That is also the only region where the number of loss-making firms represents more than half the total number of firms. In all provinces, roughly a quarter of firms (23.4 p.c.) fail to generate profits.

These results are totally consistent with the findings of a survey[(1)] by the Entrepreneurship Research Centre into the causes of bankruptcies. An inter-regional analysis of the rate of business bankruptcies and closures shows that firms in the Brussels Capital Region are more vulnerable than those in Flanders or Wallonia. The Brussels Capital Region has an average bankruptcy rate of 1.4 p.c. and an average closure rate of 10 p.c. In contrast, the average bankruptcy rate in Flanders is 0.7 p.c. and the average closure rate is 5 p.c. In Wallonia, the bankruptcy rate averages 0.9 p.c., and the closure rate 8 p.c.

## 2.6 Composition of the ratio

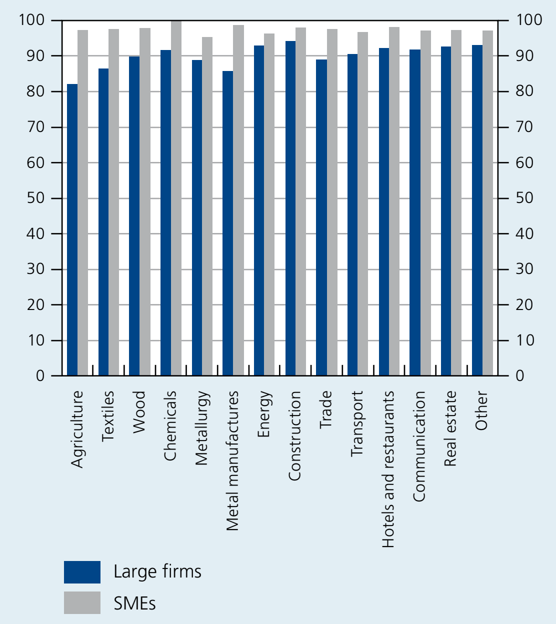
This section takes a closer look at the various items composing the economic profitability ratio (see Annex 1), focusing mainly on the items responsible for the ratio's negative sign. This analysis uses the statistical data for all firms with negative economic profitability for the 2008 financial year. The calculations are performed for both large firms and SMEs, and are presented per sectoral group.

Analysis of the annual accounts data shows that in the case of all large firms and 99.7 p.c. of the SMEs the negative economic profitability ratio is due to a negative item 9904 ("Profit (Loss) for the financial year"). The SMEs for which this is not the case have only a negative item 67/77 ("Tax on the result"). This may indicate that those firms had reckoned on a higher profit than they actually achieved, so that they had made excessive advance payments to FPS Finance.

Chart 11 shows that, on average, for 90 p.c. of large firms and 97.4 p.c. of SMEs, the negative sign for item 9904 is attributable to a negative item 9901 ("Operating profit/loss"). On average, one in ten large firms starts by recording an operating profit, but financial or exceptional

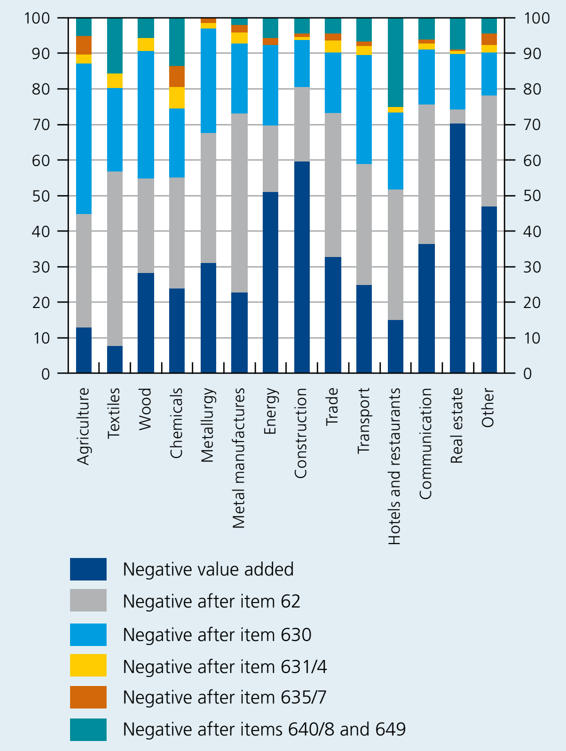
(1) Lambrecht, J. and W. Ting To (2009), Reasons for the failure of self-employed persons and SMEs. A quantitative and qualitative analysis, Liberaal Verbond voor Zelfstandigen.

**CHART 11** FIRMS WITH AN OPERATING LOSS IN 2008
(in percentages of firms with a loss for the financial year)




Source: NBB.

**CHART 12** LARGE FIRMS – EXPENSES LEADING TO A NEGATIVE GROSS OPERATING RESULT IN 2008
(in percentages of firms with negative profitability)



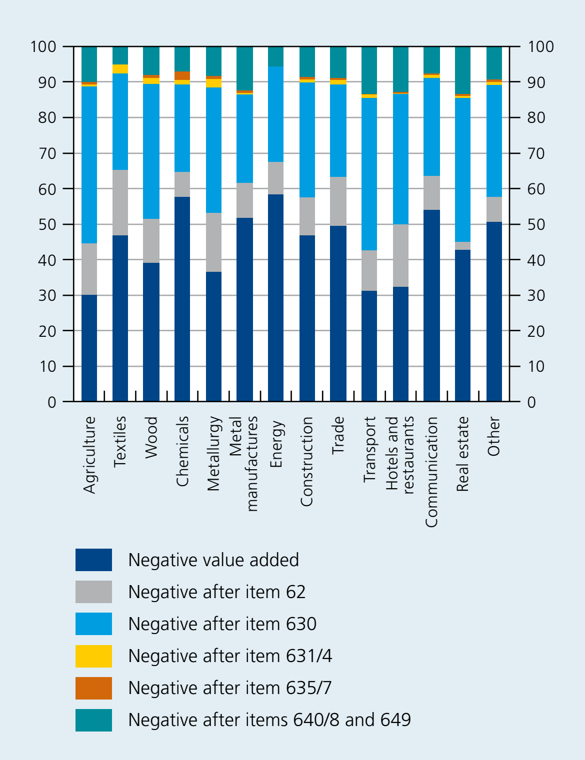

Source: NBB.

expenses then negate the profit. The amounts included in the exceptional expenses item concern value reductions on financial fixed assets (item 661). That may be due to the financial crisis.

Charts 12 and 13 start with value added[1] and attribute the various expenses (staff costs and other operating expenses) leading to a negative gross operating result for large firms and for SMEs. Value added represents the value which, by using its production factors, a firm adds to the value of the goods and services consumed. It forms the basis on which a firm can remunerate its production factors and creditors. Yet 33.1 p.c. of large firms and 44.9 p.c. of SMEs with negative economic profitability do not generate sufficient sales to pay for the merchandise and services which they use. In the case of large firms, there are considerable sectoral variations. The ratio of firms with negative value added is above average in construction (60 p.c.), the energy sector (51 p.c.) and in the "Real estate activities" sector (70 p.c.). That indicates that in those sectors the large firms apply a small profit margin which is insufficient to pay for the merchandise, raw materials, auxiliary materials and services bought in.

**CHART 13** SMES – EXPENSES LEADING TO A NEGATIVE GROSS OPERATING RESULT IN 2008

(in percentages of firms with negative profitability)




Source: NBB.

Of the firms which do generate sufficient sales to pay for the goods and services consumed, the value added is insufficient to cover all the staff costs (item 62) in the case of 32.2 p.c. of large firms, on average, and 11.4 p.c. of SMEs. The ratio of firms with negative economic profitability after deduction of staff costs actually seems to be higher for large firms (65.3 p.c.) than for SMEs (56.3 p.c.). Staff costs are clearly a key determinant for the profit margin of large firms. Finally, for the majority of both large firms (88.1 p.c.) and SMEs (89.1 p.c.), the turnover achieved is ultimately insufficient to cover all writedowns.

## 2.7 Alarm bell procedure

If a firm makes a loss, the management board has to examine the extent of the loss. It does so by comparing the net assets with the authorised capital. A firm's capital acts as a safeguard and offers both its shareholders and its creditors a degree of security that a minimum level of assets will still be present. In view of this important function, the legislature has introduced a measure to ensure that the authorised capital is maintained. This capital protection measure is defined by what is known as the "alarm bell procedure". This procedure applies equally to limited liability companies (section 332 of the Corporate Code), limited partnerships (section 431 of the Corporate Code) and public limited companies (section 633 of the Corporate Code).

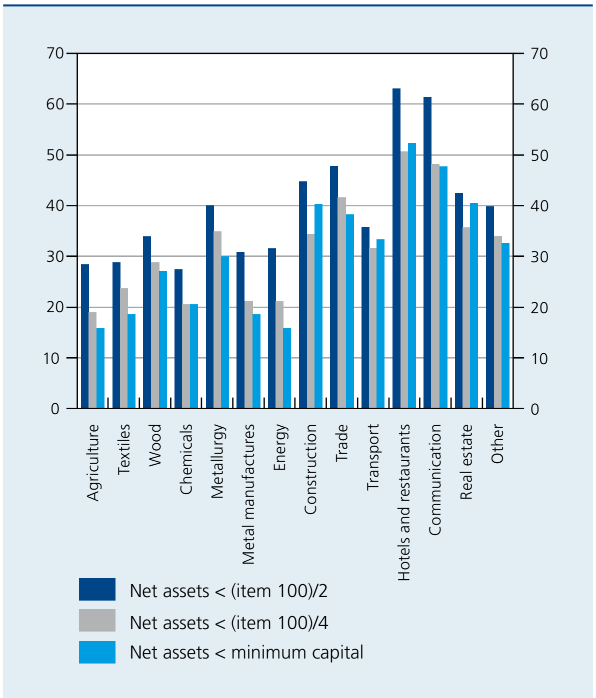
The alarm bell procedure distinguishes between two situations in which, owing to the loss, the net assets are reduced to either less than half or less than a quarter of the authorised capital. The net assets of a firm are equal to the total of the assets as shown on the balance sheet less the provisions and debts (item 10/15 "Equity capital"). A firm's authorised capital is equal to the subscribed capital shown in item 100.

If the net assets fall to less than half of the authorised capital, the management board has to prepare a special report containing a proposal for the continuation of the business. If the management board considers that the business can survive, it has to draw up a recovery plan. The management board has to convene the general meeting within a maximum of two months following establishment of the loss. That gives the general meeting the opportunity to decide on the prompt dissolution of the company or on any recovery measures which have been announced. The company can be dissolved by a three-quarters majority.

(1) See Annex 1 for the definition of value added.

**CHART 14** LARGE FIRMS WITH ALARM BELL PROCEDURES IN 2008

(in percentages of firms with negative profitability)




Source : NBB.

If the shareholders decide not to dissolve the company, and if – despite the recovery plan – the net assets continue to decline to less than a quarter of the authorised capital, the management board must convene another general meeting. Dissolution can be approved by a quarter of the votes cast.

If the net assets have fallen to less than € 61,500 in the case of a public limited company, and less than € 6,200 for a limited partnership or a private limited company, any interested party can apply to the court for dissolution. In practice, this means that shareholders, consumers and suppliers can demand the company's dissolution by applying to the court.

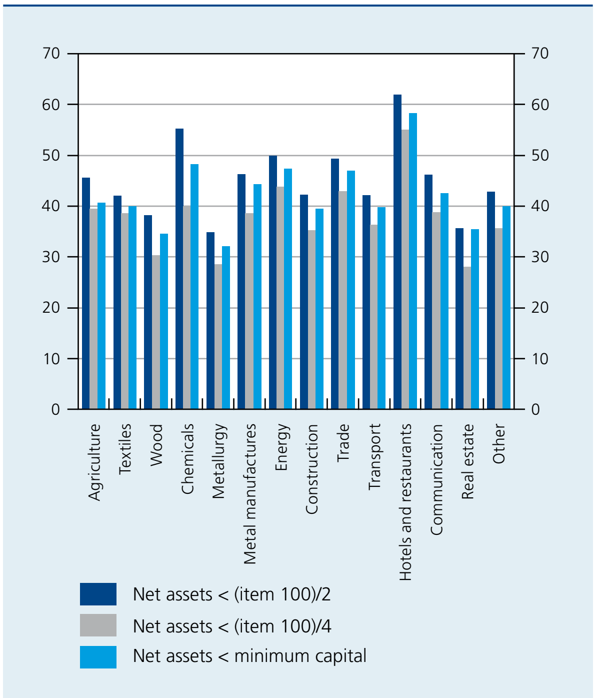
Failure to comply with this procedure may have serious consequences for the management. If the managers or directors fail to inform the general meeting in accordance with the alarm bell procedure, they may be held jointly and severally liable. The alarm bell procedure provides for a legal assumption that if the general meeting is not convened in due time, the loss incurred by third parties is deemed to result from that failure. In bankruptcy cases it is quite common for managers or directors to be held personally accountable purely because they failed to comply with the alarm bell procedure.

Since compliance with the alarm bell procedure is important not only for the firm but also for the potential liability of the managers and directors, a number of calculations were performed in regard to the ratio between the net assets and the authorised capital for the population of firms with negative economic profitability in 2008. The charts 14 and 15 show the results per sector for both large firms and SMEs. In the case of 39.8 p.c. of large firms and 45.2 p.c. of SMEs with negative economic profitability, the net assets had fallen to less than half of the authorised capital, so that the general meeting must be convened within two months of establishment of the loss. For 31.9 p.c. of the large firms and 37.9 p.c. of the SMEs, the net assets had actually dropped to less than a quarter of the authorised capital, so that the company could be dissolved by a quarter of the votes cast at the meeting. Finally, 30.8 p.c. of the large firms and 42.1 p.c. of the SMEs with negative economic profitability could be confronted with an application to the court for dissolution of the company.

There are some sectors where the ratio of firms with net assets below a particular percentage of the authorised capital is noticeably higher than average. In the "Accommodation and food service activities" sector, 63.1 p.c. of large firms and 62 p.c. of SMEs need to

**CHART 15** SMES WITH ALARM BELL PROCEDURES IN 2008

(in percentages of firms with negative profitability)




Source : BNB.

initiate the alarm bell procedure. That picture is borne out by the findings in the said study by the Entrepreneurship Research Centre into the reasons for bankruptcies. The highest bankruptcy rate was found in the hotel and restaurant sector, at almost 2 p.c. This sector also had the highest rate of business closures, at almost 10 p.c.

## Conclusion

An analysis of the pattern of the net return on total assets before tax and debt servicing on the basis of the annual accounts of non-financial corporations shows that, each year, many firms suffer losses. In regard to economic profitability in the period 1999-2008, in the case of both large firms and SMEs the tenth percentile was constantly decidedly negative, and for SMEs it is actually the first quartile that was negative in most years. The present analysis permits identification of a number of characteristics specific to firms with negative profitability.

For most firms, negative economic profitability was not recorded in more than 4 years. The ratio of firms which did not succeed in recording positive rentability in a single year during the period studied is highest in the "Real estate activities" sector.

The number of firms with negative profitability is proportionately higher in non-manufacturing than in manufacturing industry, particularly in the real estate and hotel and restaurant sectors, but also in trade since 2005. One sector in manufacturing industry, namely textiles, clothing and footwear, seems to contain a relatively large number of firms with negative profitability. The sectors with relatively few firms recording negative profitability are principally metallurgy and metalworking in manufacturing industry and construction in non-manufacturing industry.

Analysis by firm size (SMEs or large firms) reveals that it is SMEs that are proportionately more affected by negative profitability.

Examination of firms' ages shows that this does not appear to be a factor for SMEs, but in the case of large firms, those with negative profitability have a median age which is 2 to 3 years younger than the figure for large firms as a whole. "Energy, water supply and waste" (non-manufacturing industry) and the chemical and pharmaceutical industries (manufacturing industry) are the sectors with the largest difference in the median age between firms as a whole and those with negative profitability, the latter group being 3 to 4 years younger than the former.

Examination of the regional location of all firms in 2008 shows that the highest ratio of firms with negative profitability was found in the Brussels Capital Region. Furthermore, that is the only geographical entity where the number of loss-making firms exceeded half of the total number of firms. However, it should be noted that firms with multiple operating locations often have their registered office in the Brussels Capital Region, so that the regional analysis should be treated with due caution.

Analysis of the various items in the annual accounts composing the economic profitability ratio reveals that, among the enterprises with negative economic profitability, one in three large firms and just under half of SMEs generate no value added at all. That mortgages the future of those businesses, because the lack of value added means that they cannot sufficiently pay for their production factors. It is particularly the "Construction", "Energy, water supply and waste" and "Real estate activities" sectors that have a larger proportion of firms with negative value added. This may indicate application of a low profit margin in these sectors.

Finally, the ratio between the net assets and the authorised capital was calculated for all firms with negative profitability in 2008. This shows that, under the alarm bell procedure, 30.8 p.c. of the large firms concerned and 42.1 p.c. of SMEs with negative economic profitability could be confronted with an application to the court for dissolution of the company.

# Annex 1

DEFINITION OF THE RATIOS

| | Item numbers allocated | |
|---|---|---|
| | in the full format | in the abbreviated format |
| **1. Net return on total assets before tax and debt servicing** | | |
| **Numerator** (N) | 9904 + 650 + 653 – 9126 + 9134 | 9904 + 65 – 9126 + 67/77 |
| **Denominator** (D) | 20/58 | 20/58 |
| **Ratio** = N/D × 100 | | |
| **Conditions for calculation of the ratio:** | | |
| 12-month financial year | | |
| **2. Value added** | | |
| Operating revenues | 70/74 – 740 | 70 |
| of which income | | |
| Consumption of goods and services | –(60 + 61) | –60/61 |
| of which merchandise and raw materials | | |
| **Value added** | **70/74 – 60 – 61 – 740** | **9900** |

# Annex 2

SECTORAL GROUPINGS

| | NACE-BEL 2008 divisions |
|---|---|
| **Manufacturing industry** | **10-33** |
| of which: | |
| Agricultural and food industries | 10-12 |
| Textiles, clothing and footwear | 13-15 |
| Wood, paper products and printing | 16-18 |
| Chemicals and pharmaceuticals | 20-21 |
| Metallurgy and metalworking | 24-25 |
| Metal manufactures | 26-30 |
| **Non-manufacturing branches** | **01-09, 35-82, 85.5 and 9** (1) |
| of which: | |
| Wholesale and retail trade | 45-47 |
| Transportation and storage | 49-53 |
| Accommodation and food service activities | 55-56 |
| Information and communication | 58-63 |
| Real estate activities | 68 |
| Other service activities | 69-82 |
| Energy, water supply and waste | 35-39 |
| Construction | 41-43 |

(1) Except 64, 65, 75, 94, 98 and 99.

# Annex 3

POSTCODES PER PROVINCE

| Province | Postcode |
|---|---|
| Brussels Capital Region | 1000-1299 |
| Walloon Brabant province | 1300-1499 |
| Flemish Brabant province | 1500-1999 and 3000-3499 |
| Antwerp province | 2000-2999 |
| Limburg province | 3500-3999 |
| Liège province | 4000-4999 |
| Namur province | 5000-5999 |
| Hainaut province | 6000-6599 and 7000-7999 |
| Luxemburg province | 6600-6999 |
| West Flanders province | 8000-8999 |
| East Flanders province | 9000-9999 |

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