Trend in the financial structure and results of firms in 2003

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Introduction

Every year, in the fourth quarter's Economic Review, the National Bank describes the developments taking place in the annual accounts of non-financial corporations. By the autumn, the Central Balance Sheet Office in fact already has a representative sample of the annual accounts relating to the previous year. The conclusions drawn on the basis of that sample can therefore be extrapolated relatively reliably to the population as a whole.

Historically, this article consisted essentially of a study of developments taking place in the profit and loss accounts of firms. In recent years, that study has been gradually supplemented by a financial and microeconomic analysis, not only of the profit and loss accounts but also of the balance sheets and annexes to the annual accounts. This year, a further addition is being made: for the first time, the results of an internal business failure prediction model are presented. By detecting the financial risks at an early stage, this model sheds new light on the true financial position of Belgian firms.

This article is in three sections. Section 1 describes the methodology and sample used. Section 2 presents an extrapolation of the trend in the main profit and loss account items. Finally, section 3 contains a financial analysis of Belgian corporations; that analysis is supplemented by the interpretation of the results of the failure model.

1. Methodology and constant sample

1.1 Characteristics of the data used and construction of the constant sample

Since the end of the 1970s, the Central Balance Sheet Office has collected data on the accounts of non-financial corporations each year. For that purpose, the firms are required to submit their annual accounts using a standard form, by no later than seven months after the end of the financial year. The data are then adjusted as necessary to meet the required quality standards; after that, an initial analysis can be conducted from September. However, each year the nature of the data available for the last financial year examined, in the present case 2003, raises two methodological questions.

First, the population of annual accounts relating to 2003 is incomplete. The reason for this situation is that many sets of annual accounts are filed late or do not pass the arithmetical and logical checks carried out by the Central Balance Sheet Office. For example, as regards the year 2002, the proportion of accounts not filed or not capable of inclusion in the analysis by 31 August 2003 totalled 28 p.c.,[1] or almost 75,000 sets of accounts. Since these problems mainly concern small firms, these missing accounts represented 12 p.c. of the value added of all non-financial corporations: a small proportion, but nonetheless significant.[2]

(1) P.m.: by 31 December 2003, this figure had fallen to 5 p.c.

(2) It is also necessary to note that, each year, a number of firms fail to file annual accounts despite the statutory obligation. The percentages given inevitably disregard those firms.

TABLE 1 FINANCIAL PROFILE OF FIRMS ACCORDING TO THE TIME TAKEN TO FILE THEIR ANNUAL ACCOUNTS [1]

(2002, medians)

	Annual accounts filed before 31 August 2003	Annual accounts filed after 31 August 2003
Liquidity in the broad sense	1.22	1.11
Degree of financial independence	30.62	23.23
Return on equity	5.37	4.44

Source : NBB.

(1) The financial ratios are defined in Annex 2. Their implications are also explained in section 3 of the article.

Second, the firms whose annual accounts are available late are in a structurally less favourable situation than the others. For the 2002 financial year, table 1 demonstrates the significant differences between firms according to the time of filing their annual accounts : firms which filed their accounts after 31 August 2003 are significantly less liquid, less solvent and less profitable. [1] In all probability, the data currently available for 2003 therefore present an over-optimistic view of reality.

Being subject to this double bias, the 2003 data are not directly comparable with those for previous years. In order to ensure comparability, the constant sample method is used. The constant sample for 2002-2003 consists of firms which filed annual accounts for both 2002 and 2003, and which meet the following conditions :

- both sets of annual accounts relate to a financial year lasting 12 months ;
- both sets of annual accounts met the quality requirements of the Central Balance Sheet Office ;
- the annual accounts relating to the 2002 financial year were filed before 31 August 2003 ;
- the annual accounts relating to the 2003 financial year were filed before 31 August 2004.

The method consists in extrapolating the 2003 results on the basis of the trends found in the constant sample : the 2003 figures are obtained by taking the final figures for 2002 and applying the rates of change recorded in the sample. It is therefore assumed that the trends seen in the constant sample are representative of the trends occurring in the population as a whole. As verified in previous editions of the article, the estimates may be called satisfactory in that, in the vast majority of cases, they provide an accurate representation of the direction and scale of the real movements.

1.2 Classification of the firms by size and branch of activity

Non-financial corporations form a heterogeneous population within which widely divergent trends may be recorded. The tendencies detected by the analysis of the overall results therefore have to be refined by analysis according to the size and branch of activity of the firms. For one thing, the corporate financing method and, more generally, the corporate financial position usually varies according to whether the firm is large or small. Also, firms are subject to cyclical movements specific to each branch of activity, and these are generally reflected in the movement in the annual accounts.

The distinction in terms of size is based on the criteria set out by the Companies Code. According to the Companies Code, the following are classed as large :

- firms employing over 100 people, as an annual average ; or
- firms exceeding more than one of the following limits :
  - annual average number of employees : 50 ;
  - annual turnover excluding VAT : € 6,250,000 ;
  - balance sheet total : € 3,125,000. [2]

Firms which do not exceed these criteria, i.e. SMEs, can draw up their annual accounts in an abbreviated format, unlike large firms which are obliged to use the full format. However, not all SMEs make use of the option available to them. As a result, the population of sets of annual accounts filed in accordance with the full format contains the accounts not only of large firms but also of a significant number of SMEs. For example, in 2002, of the 16,000 sets of full-format accounts filed, there were thus almost 7,500 sets of accounts relating to SMEs, i.e. 47 p.c. The firms therefore cannot be classified strictly by size according to the type of format used. For that reason, since 2001 the distinction has no longer been based on the type of format filed but on strict compliance with the Companies Code criteria. SMEs filing full-format accounts are thus no longer included in the population of large firms, but are placed in the SME category. [3]

The distinction according to the branch of activity is based on the NACE-BEL nomenclature of activities, used in most of the statistics comprising a branch breakdown in Belgium. The composition of the branches of activity considered is shown in Annex 1.

(1) The time taken to file the annual accounts is also one of the explanatory variables used in the failure prediction model presented below : the greater a firm's delay in filing its annual accounts, the higher the risk of failure estimated by the model.

(2) Details of these criteria may be found in Article 15 of the Companies Code.

(3) For more details on this reclassification, see the article published in the Economic Review, 4th quarter 2003.

1.3 Representativeness of the constant sample

The constant sample for 2002-2003 is shown in table 2. It contains 134,493 firms, or 57 p.c. of the total number of sets of annual accounts filed in 2002. As in previous years, the level of representativeness measured in relation to the balance sheet total was considerably higher, being close to 81 p.c. The reason is that the representativeness is traditionally greater for large firms than for SMEs. In the sample for 2002-2003, the cover rate for large firms is thus over 17.5 points in terms of the number of firms and 22.3 points in terms of balance sheet total. Large firms in fact have a natural tendency to submit their annual accounts more promptly; in addition, they are the focus of special attention on the part of the Central Balance Sheet Office, which makes sure that it obtains a high level of representativeness as quickly as possible in terms of value added. Moreover, essentially owing to the predominance of large firms, manufacturing industry has a higher cover rate than non-manufacturing branches. Finally, the representativeness of the constant sample has increased noticeably in the past two years. This improvement is due to the provisions of the programme law of 8 April 2003, which introduced administrative fines for firms which were late in filing their annual accounts. Those fines came into force with effect from annual accounts for the year ending 31 December 2002, and have had a clear impact on the promptness with which accounts are filed.

TABLE 2 COMPOSITION AND REPRESENTATIVENESS OF THE CONSTANT SAMPLE 2002-2003

	Firms in the 2002-2003 sample	All non-financial corporations in 2002	Representativeness of the sample, in p.c.
Number of firms	**134,493**	**235,880**	**57.0**
Large firms	6,378	8,627	73.9
SMEs	128,115	227,253	56.4
Manufacturing industry	13,596	21,828	62.3
Non-manufacturing branches	120,897	214,052	56.5
Balance sheet total (millions of euro) (1)	**676,713**	**838,213**	**80.7**
Large firms	578,941	682,117	84.9
SMEs	97,772	156,096	62.6
Manufacturing industry	162,337	184,024	88.2
Non-manufacturing branches	514,376	654,189	78.6

Source : NBB.

(1) For firms in the constant sample, the balance sheet total taken into account is the 2002 figure.

2. Movement in the main components of the profit and loss account

2.1 Cyclical context and movement in the main components of the profit and loss account

In 2003, activity in Belgium once again made hesitant progress, up to the beginning of the second half year. Overall, GDP grew by 1.3 p.c. in real terms, after rises of 0.7 and 0.9 p.c. respectively in 2001 and 2002. This was the longest period of weak growth since the early 1980s. In contrast to the previous year, household spending was a major factor bolstering growth, while the gross fixed capital formation of firms contracted once again. At the same time, the contribution to growth made by net exports of goods and services became negative, owing to the marked acceleration of imports. Compared to the euro area as a whole, Belgium proved relatively resilient; however, both areas recorded similar cyclical profiles, namely virtual stagnation of activity in the first half year and a clear recovery from the third quarter.

In this context, the total value added created by non-financial firms, i.e. the difference between sales revenues and the cost of goods and services supplied by third parties, totalled almost € 130 billion (at current prices) in 2003. Between 2002 and 2003, total value added thus increased by 3.4 p.c., the best result for three years.

The value added created by a firm enables it to cover its operating expenses, with any surplus recorded as a net operating profit. That represents the income generated by the firm's commercial and industrial activity. Staff costs make up the bulk of the operating expenses : in 2003, they represented almost 60 p.c. of value added. Compared to 2002, they have increased at the very modest rate of 1.5 p.c., the smallest rise since 1996. After staff costs, by far the most important operating expenses consist of depreciation, which represented 17.5 p.c. of value added in 2003. Depreciation contracted for the second consecutive year in 2003, reflecting the lower level of investment by firms. Largely owing to the trend in staff costs and depreciation, total operating expenses were therefore practically static, with growth of just 0.4 p.c.

In contrast to previous years, the growth of value added therefore far outpaced the rise in operating costs. Following these contrasting movements, the net operating result of non-financial corporations as a whole grew by almost 23 p.c. to total € 21.2 billion. A rise on that scale had not been seen since 1997. The movements in value added and net operating results can also be compared with the movement in the business survey indicator

TABLE 3 MAIN COMPONENTS OF THE PROFIT AND LOSS ACCOUNT

	Percentage changes compared to the previous year					Millions of euro	Percentages of value added
	1999	2000	2001	2002	2003 e	2003 e	2003 e
Value added	**3.9**	**7.6**	**2.1**	**1.5**	**3.4**	**129,716**	**100.0**
Staff costs (–)	5.0	6.0	3.9	3.2	1.5	77,277	59.6
Depreciation, downward value adjustments and provisions (–)	3.6	10.2	5.2	–2.0	–4.3	24,102	18.6
Other operating expenses (–)	–2.7	11.4	7.8	–2.2	5.0	7,175	5.5
Total operating expenses	*4.2*	*7.3*	*4.4*	*1.6*	*0.4*	*108,554*	*83.7*
Net operating result	**2.7**	**8.7**	**–10.6**	**0.7**	**22.6**	**21,162**	**16.3**
Financial income (+)	10.8	38.6	5.4	24.5	6.8	50,041	38.6
Financial charges (–)	6.9	33.1	4.6	38.8	3.1	44,346	34.2
Financial result	*44.2*	*73.7*	*9.4*	*–42.2*	*47.6*	*5,695*	*4.4*
Ordinary result	**7.9**	**19.5**	**–5.8**	**–11.3**	**27.2**	**26,857**	**20.7**
Exceptional result [1] (+)	–	–	–	–	–	3,814	2.9
Net result before tax	**19.7**	**4.3**	**–10.1**	**–26.9**	**66.3**	**30,671**	**23.6**
Taxes on profits (–)	10.4	11.5	–0.2	–4.9	7.3	6,606	5.1
Net result after tax	**22.5**	**2.3**	**–13.1**	**–34.5**	**95.8**	**24,065**	**18.6**

Source : NBB.
(1) There is very little sense in calculating a percentage change for this aggregate, which does not lend itself to reliable estimation.

(chart 1). These three variables traditionally follow parallel trends. This proved to be the case once again in 2003 : the strong and widespread recovery in business confidence, manifest from the third quarter of 2003 (and sustained in 2004), is linked to the stronger growth of value added and net operating results.

In line with the overall trend during the past decade, financial income grew faster than financial expenses. [1] The financial result therefore increased again to reach almost € 5.7 billion. The exceptional result came to € 3.8 billion, and was generated mainly by substantial gains on fixed assets in the telecommunications sector. Finally, owing to their increased profitability, firms paid more taxes on their profits in 2003, after two years of decline. After aggregation of all the components of the profit and loss account, non-financial corporations made a net profit after tax of € 24 billion, 96 p.c. more than in 2002. If confirmed by the final figures, this almost doubling of profits – though admittedly achieved after two years of steep decline – will represent a historical record.

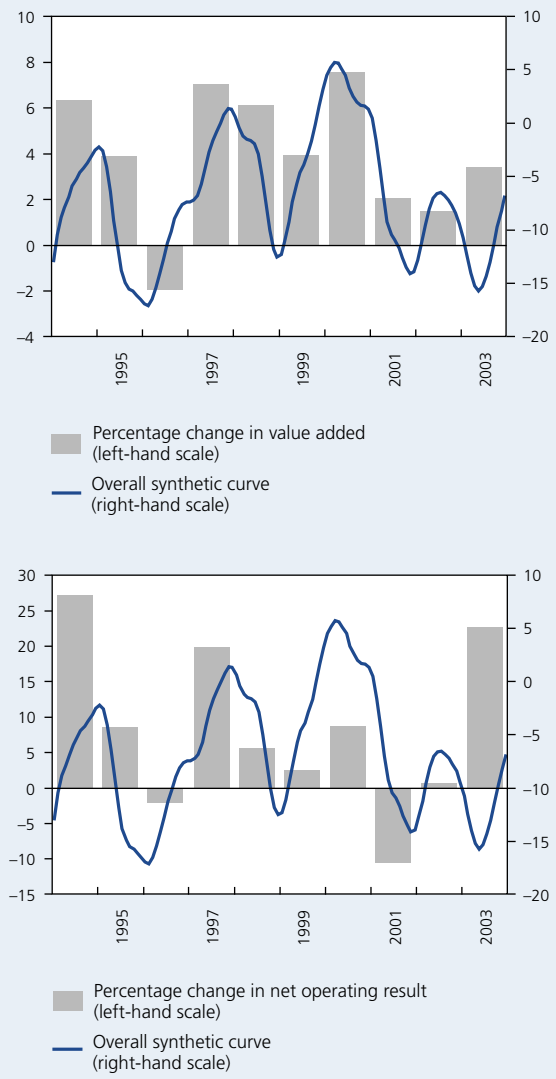
(1) The faster growth of financial income is due mainly to the ever greater proportion of firms' balance sheets represented by financial assets. Financial assets cover financial fixed assets and interest-bearing current assets (including cash investments and liquid resources).

2.2 Results by branch of activity

In manufacturing industry, the growth of value added came to 2.5 p.c. in 2003 (table 4). For the second consecutive year, it fell short of the growth seen in the non-manufacturing branches. This modest growth is due mainly to the euro's appreciation against the dollar, which penalised the export industries, and to the fierce international competition, particularly that from the low-cost countries. The branches hardest hit by this trend were chemicals, where growth was weak, and metal manufactures, where activity contracted once again. The agri-food industry is one of the few branches to have enjoyed significant growth, owing to the buoyancy of retail food sales.

In contrast to value added, the net operating result of manufacturing industry increased strongly, as in 2001, recording 15 p.c. growth. This performance was due mainly to more or less static staff costs, brought about by the job losses and restructuring which affected the majority of branches. To a lesser extent, the weak growth (1.4 p.c.) of depreciation also contributed to the rise in the operating result. Finally, mention should be made of the worrying situation facing the textile industry and the timber industry, two medium-sized manufacturing

CHART 1 VALUE ADDED, NET OPERATING RESULT AND BUSINESS SURVEY INDICATOR



Source : NBB.

branches. Following a further, marked contraction in activity, the year 2003 brought a sharp deterioration in operating results in both these branches. In particular, the textile industry has undergone multiple restructurings in the past two years.

In the non-manufacturing branches, the increase in value added, showing a marked acceleration compared to 2001 and 2002, came to almost 4 p.c. This stronger growth is attributable in part to trade and telecommunications, which benefited from more buoyant household consumption, among other things. Construction also made a contribution here : after stagnating in 2002, the activity of the branch recovered in 2003 following the revival of investment in housing, particularly in the refurbishment sector.

Having contracted in 2002, the operating result of the non-manufacturing branches expanded by over 26 p.c. This was the largest increase for more than ten years. Apart from the growth of value added, the main reason for this rise was the sharp fall in depreciation in a number of branches, including business services, transport, and posts and telecommunications. Overall, the decline in depreciation costs came to over 7 p.c. ; this situation reflects the low level of investment in both 2002 and 2003 (cf. below). The movement in staff costs, where the increase was 2.1 p.c., which was outstripped by the growth of value added, also contributed to the rise in the net operating result. Finally, in a number of branches, namely the wholesale trade, transport, real estate activities and construction, 2003 was synonymous with the restoration of net operating profit growth. Only the hotel and restaurant branch, where the operating result was down for the third consecutive year, failed to recover, owing mainly to the lack of dynamism in its activity.

3. Movement in the financial situation of firms

The financial analysis which follows is based on the theory of interpretation of the annual accounts, from which a number of ratios, in particular, are borrowed. (1)

The financial ratios are presented both in global form and as a median. The globalised ratios are obtained by dividing the sum of the numerators by the sum of the denominators for all firms. The median is the central value in an ordered distribution : for a given ratio, 50 p.c. of firms have a ratio above the median and – hence – 50 p.c. of firms have a lower ratio. The two measures are complementary as they are used for different purposes. Since it takes account of each firm according to its real weight in the numerator and the denominator, the globalised ratio primarily reflects the situation of the largest firms. In contrast, by indicating the situation of the central firm, the median reflects the movement in the population in general, as the median is influenced equally by each of the firms examined, regardless of size. (2)

(1) Since the concepts addressed cannot be explained in detail in this article, the reader is requested, if necessary, to consult the reference works on the subject. For the analysis of the annual accounts in Belgium, see in particular : Institute of Auditors (1994), Lurkin P., Descendre N. and Lievens D. (1990) and Ooghe H. and Van Wymeersch C. (2003).

(2) As a microeconomic measure, the median was preferred to the simple mean. In the analysis of non-financial corporations, the median in fact has the advantage of being more robust than the mean, as it is practically unaffected by incidental fluctuations in a small number of observations.

TABLE 4 VALUE ADDED AND NET OPERATING RESULT BY BRANCH OF ACTIVITY

(Percentage changes compared to the previous year)

	Value added		Net operating result		p.m. Percentage share of the branches in total value added in 2003
	2002	2003 e	2002	2003 e	
Manufacturing industry	**1.1**	**2.5**	**15.2**	**15.0**	**33.9**
of which :					
Agricultural and food industries	4.9	5.1	33.8	31.2	4.5
Textiles, clothing and footwear	–0.8	–11.4	1.1	–41.3	1.6
Timber	–20.3	–4.8	–61.6	–77.1	0.4
Paper, publishing and printing	1.1	–0.4	8.5	17.8	2.6
Chemicals	4.3	0.8	33.5	11.5	9.0
Metallurgy and metalworking	2.8	0.2	51.3	51.7	4.5
Metal manufactures	–4.4	–1.3	–2.3	11.4	6.8
Non-manufacturing branches	**1.7**	**3.9**	**–5.2**	**26.5**	**66.1**
of which :					
Retail trade	9.2	8.7	4.2	34.3	8.5
Wholesale trade	–3.1	9.0	–24.9	19.8	12.8
Horeca	5.3	0.9	–3.1	–18.5	1.7
Transport	0.6	3.9	–76.0	3.1	7.4
Posts and telecommunications	4.5	4.7	85.9	59.2	5.3
Real estate activities	4.1	2.9	–3.8	5.9	3.0
Business services	2.7	2.7	11.8	14.5	12.0
Energy and water (1)	–0.6	–17.3	0.9	31.3	3.8
Construction	–0.1	3.2	–10.0	9.8	6.3

Source : NBB.

(1) The large reduction in value added in the energy and water branch in 2003 is due to the electricity sector : under the law of 11 April 2003, the Electrabel and SPE companies in fact transferred to the Synatom company the management of the provisions formed for dismantling nuclear power stations. Since Synatom is part of manufacturing industry and therefore does not belong to the energy and water branch, the reduction in value added associated with that transfer was not directly offset in the branch.

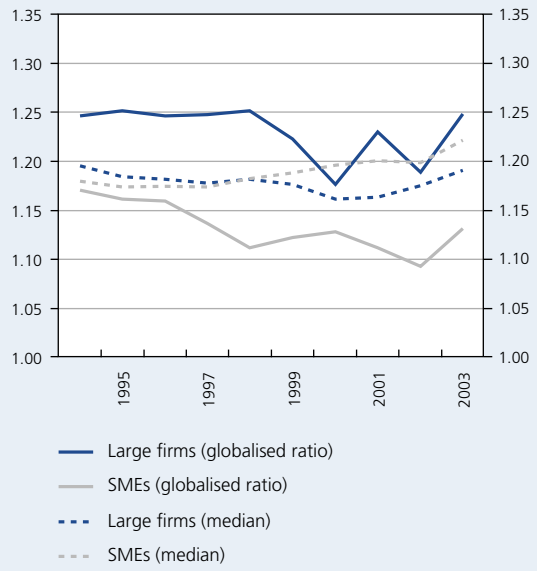
3.1 Liquidity

The liquidity indicates the capacity of firms to mobilise the cash resources needed to meet their short-term commitments. It is traditionally assessed by means of the liquidity ratio in the broad sense. This ratio, derived from the concept of net working capital, compares the total assets realisable and available (stocks, claims at up to 1 year, cash investments, liquid resources and accruals and deferrals) with the short-term liabilities (debts at up to 1 year and accruals and deferrals). The higher the liquidity in the broad sense, the more capable the firm of meeting its short-term commitments. In particular, when the ratio is higher than 1, the net working capital is positive.

In 2003, the globalised ratio was 1.25 for large firms and 1.13 for SMEs (chart 2). In both categories of firms, after contracting in 2002 liquidity improved in 2003, indicating that the balance sheet maturities were more evenly balanced. The median ratio proved very stable for both categories of firms ; at the very most, it has shown a slight tendency to improve in the past few years. Although the liquidity of Belgian firms is fairly steady according to chart 2, it must be said that 39 p.c. of firms have liquidity which, in the broad sense, is less than 1, i.e. negative net working capital.

The situation of firms with precarious liquidity can be ascertained from an examination of overdue debts to the tax authority and the NSSO, mentioned in the annex to the annual accounts. Delayed payments to these two preferential creditors are in fact frequently synonymous with an acute cash flow crisis for a firm ; they also serve as

CHART 2 LIQUIDITY IN THE BROAD SENSE



Source : NBB.

"warning lights" for the commercial court investigators in their work of detecting firms in difficulty.[1] Overdue debts to the tax authority and the NSSO are also one of the central elements in the model for predicting the failure of firms, presented later on in the article.

In 2003, over 16,500 firms (of which 95 p.c. were SMEs) reported overdue debts to the tax authority and the NSSO, amounting to a total of € 1.1 billion (chart 3). There were varying trends in the debt pattern. On the one hand, the number of firms affected has been falling steadily since 1999. This must be seen as the impact of the prevention measures implemented by the commercial courts in the past few years. On the other hand, the total volume of overdue debts grew substantially in SMEs in 2001 and 2002, as a result of the adverse economic situation. However, that increase gave way to a fall in 2003, as some of the firms concerned managed to recover or – conversely – went out of business. In the case of large firms, the recovery in 2003 was due to just one company, active in passenger transport.

(1) For an exhaustive list of the business failure "warning lights", see De Boitselier J. (2003).

Table 5 shows details of the overdue debts to the tax authority and the NSSO by branch of activity. While the manufacturing branches contain a proportion of firms concerned which is comparable to that in the non-manufacturing branches, the debt level in relation to the balance sheet total is greater in the latter, where SMEs represent a greater percentage of activity. If both criteria are taken into account, the branches most affected in 2003 are construction, the timber industry, hotels and restaurants, trade and transport, while chemicals, energy, real estate and business services were relatively unscathed.

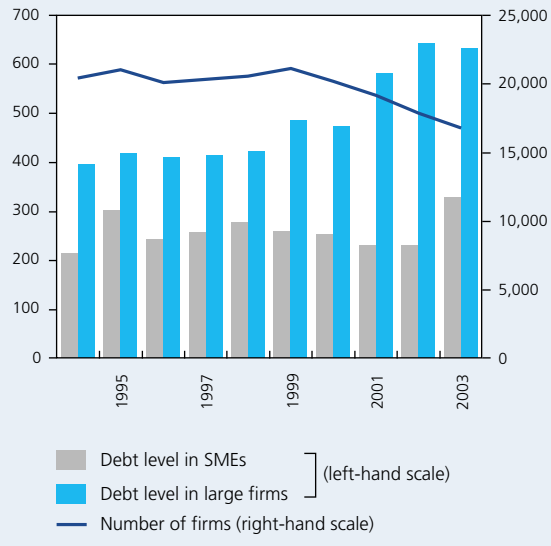
3.2 Solvency

Solvency concerns the ability of firms to honour all their short-term and long-term commitments. This article examines it via the degree of financial independence, the degree to which borrowings are covered by the cash flow, and the interest charges on financial liabilities.

The degree of financial independence is equal to the ratio between equity capital and total liabilities. If the ratio is high, the firm is independent of borrowings. This has two beneficial effects: first, financial expenses are low, and therefore do little to depress profits; also, if necessary, new debts can be easily contracted on favourable terms. The degree of financial independence can also be

CHART 3 OVERDUE DEBTS TO THE TAX AUTHORITY AND THE NSSO

(Euro millions, unless otherwise stated)



Source : NBB.

TABLE 5 OVERDUE DEBTS TO THE TAX AUTHORITY AND THE NSSO, BY BRANCH OF ACTIVITY

	Percentage of firms concerned		Debt level as p.c. of the balance sheet total	
	2002	2003	2002	2003
Manufacturing industry	**7.3**	**7.1**	**0.06**	**0.07**
of which :				
Agricultural and food industries	7.0	6.2	0.06	0.08
Textiles, clothing and footwear	6.6	6.0	0.09	0.13
Timber	8.3	8.2	0.23	0.28
Paper, publishing and printing	7.3	7.1	0.12	0.16
Chemicals	5.4	5.4	0.01	0.01
Metallurgy and metalworking	8.1	8.7	0.13	0.17
Metal manufactures	7.6	7.7	0.09	0.09
Non-manufacturing branches	**7.0**	**6.5**	**0.12**	**0.13**
of which :				
Retail trade	8.2	7.9	0.25	0.27
Wholesale trade	6.4	5.8	0.29	0.29
Horeca	11.7	11.3	0.46	0.49
Transport	7.1	7.0	0.18	0.44
Posts and telecommunications	10.7	9.7	0.01	0.00
Real estate activities	3.6	3.0	0.15	0.10
Business services	6.3	5.8	0.03	0.04
Energy and water	8.1	9.0	0.01	0.02
Construction	7.9	7.8	0.38	0.40

Source : NBB.

interpreted as a measure of the firm's financial risk, since the remuneration of third parties is fixed, unlike the firm's results which fluctuate over time.

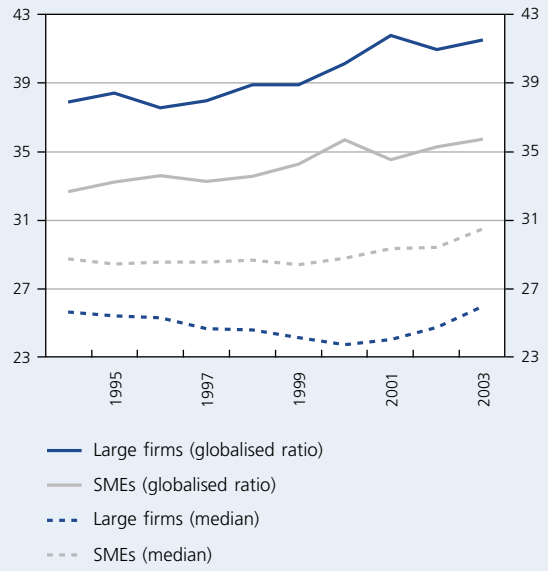
In 2003, globalised financial independence came to 41.5 p.c. for large firms and 35.7 p.c. for SMEs, for which it is traditionally lower (chart 4). In both categories of firms, the ratio followed an upward trend during the last decade, leading to an improvement of around three points. The median ratio also recorded a modest increase in recent years, and this was confirmed in 2003. As in the case of liquidity, the healthy and stable image offered by the globalised ratio and the median ignores the disparities between firms. For example, over 15 p.c. of Belgian companies have negative financial independence, which means that the losses carried forward exceed the capital invested by the shareholders.

The degree of financial independence and its converse, the degree of indebtedness, provide a picture of the general balance sheet equilibrium. Although this picture is necessary in order to diagnose solvency, it is not sufficient in itself since it does not permit assessment of the firm's ability to repay its debts, nor of the level of charges which the debts entail. These two concepts are addressed below.

By measuring the percentage of the debts that the firm could repay by allocating the whole of the year's cash flow to that purpose, the degree to which borrowings are covered by cash flow indicates the firm's repayment capability. [1] The converse of the ratio indicates the number of years which it would take to repay all the debts at a constant cash flow. The information supplied by that ratio supplements that offered by the financial independence ratio, as a high level of indebtedness can be mitigated by a substantial repayment ability, and vice versa.

(1) The English term "cash flow" is commonly used nowadays to mean the net flow of cash generated by the firm, i.e. the difference between incoming revenue and outgoing expenditure. The cash flow, which thus represents the firm's self-financing capability, is of fundamental importance for the firm's development : in particular, the firm can use its cash flow to distribute dividends, repay its debts or finance new investments.

CHART 4 DEGREE OF FINANCIAL INDEPENDENCE
(Percentages)



Source : NBB.

After several years of decline, the globalised cover ratio improved in both large firms and SMEs, reaching 10.7 in the former and 10.3 in the latter in 2003. These levels are still relatively low compared to those recorded at the end of the 1990s : while firms steadily gained more financial independence, the same was not true of their repayment capacity. Table 6 reveals the differences between the branches of activity. While manufacturing industry has heavier debts than the non-manufacturing branches, it is also better able to repay its debts. Taking both criteria into account, the most solvent branches in 2003 were energy & water and chemicals. Some branches also present a contrasting picture, such as posts and telecommunications (low financial independence, high repayment capacity) and business services (high financial independence, low repayment capacity).

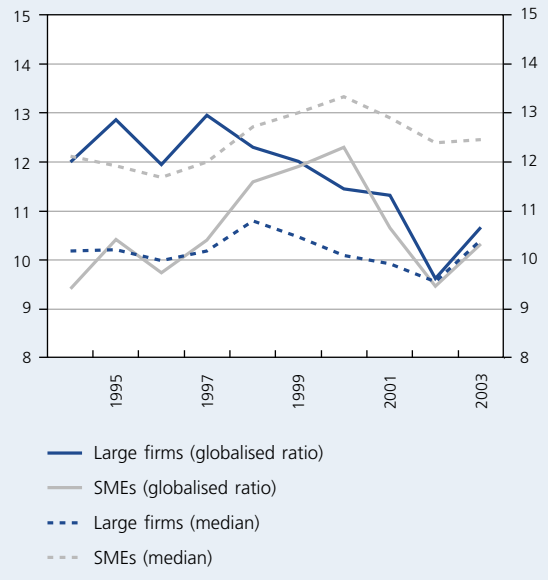
The average interest charges on the financial debts can also be used to assess the cost of recourse to borrowing. In 2003, those charges came to 4.7 p.c. for large firms and 7.5 p.c. for SMEs, in globalised terms (chart 6). For both categories of firms, the downward trend which began in 2002 continued in 2003, following a further fall in market interest rates. Taking a long-term view, debts have become significantly less expensive : between 1994 and 2003, average interest charges fell by 3.1 points for large firms and 2.2 points for SMEs. Furthermore, the interest charges paid by large firms are structurally lower than those for SMEs. In fact, for the same method of financing, SMEs generally have to pay a risk premium because the lenders consider their financial profile to be less sound. In addition, SMEs make more use of cash advances, which are a more expensive form of credit. The difference between the two categories of firms varies little over time, and stood at 2.7 points in 2003.

3.3 Profitability

Profitability concerns the firms' ability to generate profits. It can be assessed, in particular, on the basis of the average net return on a firm's own capital. Also known as the return on equity (ROE), this figure expresses the net profit after tax as a percentage of the equity capital. The ratio therefore indicates the return received by the shareholders after deduction of all expenses and taxes. Over a sufficiently long period, the return on equity has to exceed the return on a risk-free investment in order to provide shareholders with a premium to compensate for the higher risk incurred (risk premium).

In 2003, the globalised return on equity came to 8.1 p.c. for large firms and 3.7 p.c. for SMEs (chart 7). As is evident from the chart, this ratio is somewhat sensitive to the economic situation. Thus, the 1993 recession was followed by

CHART 5 DEGREE TO WHICH BORROWINGS ARE COVERED BY CASH FLOW
(Percentages)



Source : NBB.

TABLE 6 DEGREE OF FINANCIAL INDEPENDENCE AND DEGREE TO WHICH BORROWINGS ARE COVERED BY CASH FLOW, BY BRANCH OF ACTIVITY

(Percentages)

	Degree of financial independence (1)			Cover ratio (1)		
	2001	2002	2003	2001	2002	2003
Manufacturing industry	**34.7**	**33.1**	**34.9**	**12.9**	**12.2**	**12.9**
of which :						
Agricultural and food industries	31.5	25.4	25.8	7.6	11.0	10.0
Textiles, clothing and footwear	36.1	39.3	39.9	13.1	16.3	8.7
Timber	36.0	33.3	32.7	15.7	11.5	9.1
Paper, publishing and printing	33.4	32.4	31.4	25.6	10.2	17.6
Chemicals	40.8	39.7	47.2	16.2	16.3	18.4
Metallurgy and metalworking	36.8	36.5	35.0	11.5	7.4	9.7
Metal manufactures	28.7	27.2	28.3	11.3	13.0	10.9
Non-manufacturing branches	**42.0**	**41.8**	**42.1**	**10.6**	**8.7**	**9.9**
of which :						
Retail trade	28.9	31.0	29.7	7.8	8.1	7.8
Wholesale trade	31.1	31.4	31.7	7.6	6.8	8.7
Horeca	22.8	22.4	24.6	11.3	8.5	10.1
Transport	31.0	28.5	27.2	7.5	8.2	6.8
Posts and telecommunications	23.9	21.9	32.2	19.3	20.2	33.2
Real estate activities	35.8	35.3	37.2	5.9	5.8	6.7
Business services	53.4	53.5	53.4	10.6	6.1	6.6
Energy and water	56.9	53.3	51.4	31.6	27.4	20.9
Construction	24.7	25.2	26.8	9.7	9.2	10.4

Source : NBB.
(1) Globalisation.

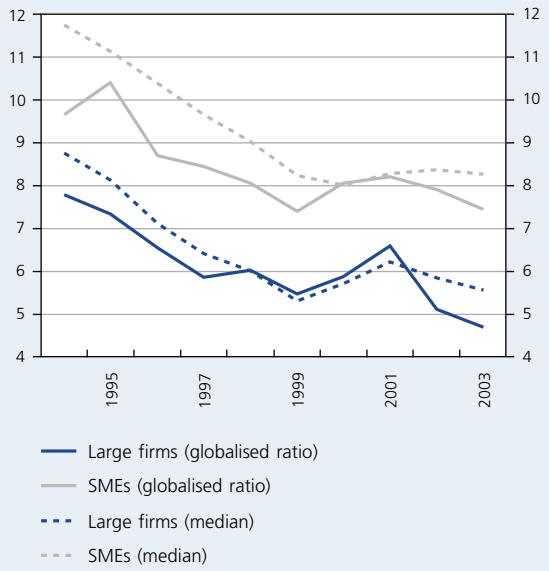
a phase in which profitability improved steadily up to the end of the 1990s. From 2000 to 2002, following the economic slowdown, the ratio was seriously eroded in large firms, and actually collapsed in SMEs where profitability was zero in 2002. In a context of still hesitant economic activity but with a marked recovery from the third quarter, profitability bounced back in 2003. This restored profitability was due mainly to control over operating costs (staff costs and depreciation) and financial expenses.

The globalised profitability of large firms can be compared with the yield available on government bonds. In 2002, for the first time since 1994, the profitability of large firms had fallen below the benchmark bond yield, which has itself been declining throughout the past decade. In 2003, the profits recovery combined with a further fall in the yield on government bonds once again provided shareholders with a substantial risk premium. From the investor's pint of view, an investment in equities therefore became attractive once again. This comparison must, of course, be treated with caution as, for one thing, equities and government bonds are different financial instruments; also many large firms are not listed on the stock market.

Overall, during the past three years the profitability of manufacturing industry exceeded that of the non-manufacturing branches, for both large firms and SMEs (table 7). In 2003, in the case of large firms, the most profitable branches in the Belgian economy were telecommunications, electricity, paper and the agri-food industry. Furthermore, the profitability of the first two branches was sustained at high levels throughout the period of sluggish activity experienced by the Belgian economy. Conversely, in five branches, large firms had negative profitability in 2003, namely in textiles, timber, metallurgy, hotels & restaurants and transport. As regards SMEs, the very poor performance recorded by non-manufacturing branches as a whole in 2002 was due to very heavy losses in telecommunications and business services (especially IT activities and technical consultancy).

CHART 6 AVERAGE INTEREST CHARGES ON FINANCIAL DEBTS

(Percentages)



Source : NBB.

have both undergone a sharp correction since then, and in 2003 they reached their lowest level since the mid 1990s.

Firms invest in intangible fixed assets, as well as tangible assets. In this regard, the annex to the annual accounts permits appraisal of the firms' involvement in research and development.[1] Such an appraisal is quite important : it is commonly acknowledged that research and development activities boost the growth potential of firms and hence of the economy as a whole.[2]

In 2003, around 630 non-financial corporations spent money on research and development representing a total of over € 2.2 billion (chart 10). The ten companies investing most heavily in R&D account for three-quarters of that figure. Driven by the pharmaceuticals industry (with an additional contribution from the technology industries), that expenditure grew at a very sustained rate until 2001. After stabilising in 2002, it increased again in 2003. At the same time, the number of firms involved declined once again, as many firms were no longer willing or able to invest in innovation, in view of the economic context of recent years.

3.4 Investment

The amount which firms devote to investment can be assessed by the rate of investment, which is the ratio between acquisitions of tangible fixed assets and the value added for the year. In 2003, the globalised investment rate stood at 19.7 p.c. for large firms and 28.6 p.c. for SMEs (chart 8); these figures are in line with the downward trend of recent years, apparent in most branches of the Belgian economy. After reaching a peak in 2000, the investment rate fell to its lowest level since the mid 1990s. The median ratios also continued to fall : Belgian firms in general experienced a fundamental trend towards lower investment.

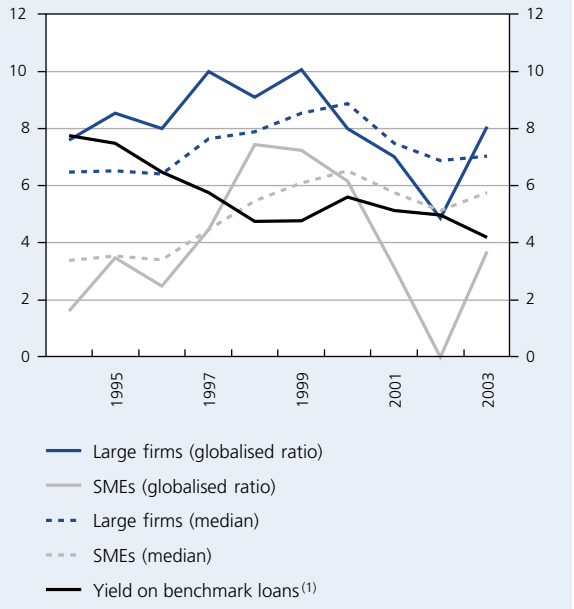
In manufacturing industry, the investment rate can be compared to the capacity utilisation rate, which is in fact one of the fundamental determinants of investment. Chart 9, which shows how the two variables have moved in parallel since 1994, demonstrates the positive link between them. After reaching a peak in 2000, they

(1) The information is available only for firms filing full-format accounts. Research and development costs should be understood as the cost of research, manufacture and development of prototypes, products, inventions and know-how useful in the firm's future activities (Royal Decree of 30 January 2001 implementing the Companies Code, Article 15).

(2) As regards the link between innovation and growth potential, cf. Van Cayseele P., Peeters C., Webers H. and Van Herck J. (2001), who offer an empirical analysis based on the annual accounts of Belgian firms.

CHART 7 RETURN ON EQUITY AND YIELD ON BENCHMARK LOANS

(Percentages)



Source : NBB.

(1) Average yield on 10-year bonds.

TABLE 7 RETURN ON EQUITY AFTER TAX BY BRANCH OF ACTIVITY

(Percentages)

	Large firms (1)			SMEs (1)		
	2001	2002	2003	2001	2002	2003
Manufacturing industry	**6.2**	**6.5**	**9.3**	**3.8**	**2.4**	**4.8**
of which :						
Agricultural and food industries	–0.2	12.6	12.0	3.5	4.3	5.1
Textiles, clothing and footwear	10.2	12.0	–0.7	3.3	0.0	0.0
Timber	11.6	2.4	–14.8	3.2	1.9	3.3
Paper, publishing and printing	38.2	5.4	21.4	2.0	–0.5	2.6
Chemicals	6.5	8.4	9.9	3.2	1.8	8.3
Metallurgy and metalworking	2.9	–7.6	–2.2	6.6	5.6	5.7
Metal manufactures	–1.8	–6.4	6.6	2.7	–1.5	3.1
Non-manufacturing branches	**7.2**	**4.5**	**7.8**	**3.1**	**–0.3**	**3.5**
of which :						
Retail trade	1.6	5.0	4.7	2.9	5.2	6.0
Wholesale trade	5.9	0.4	4.2	5.9	6.9	7.3
Horeca	10.9	–4.2	–2.7	–3.8	–3.5	5.0
Transport	–3.2	–10.7	–1.9	10.7	3.6	2.6
Posts and telecommunications	13.4	12.8	41.7	–944.3	–73.3	6.2
Real estate activities	5.8	6.5	6.6	2.5	1.6	3.1
Business services	6.3	3.7	4.0	1.0	–2.6	–0.9
Energy and water	16.7	15.2	17.4	10.1	7.7	7.0
Construction	10.0	6.0	8.5	7.4	5.7	7.1

Source : NBB.
(1) Globalisation.

3.5 Financial risks

3.5.1 Development of a business failure prediction model

In order to assess the financial risks incurred by firms, the National Bank has developed an internal business failure prediction model. A summary of the methodology was published in the Economic Review for the 1st quarter of 2004. (1) The model developed by the Bank uses information available from the annual accounts filed with the Central Balance Sheet Office. On the basis of the annual accounts for a given year, this model analyses the differences in the financial profile between two types of firm : non-failing firms and firms failing in the course of the subsequent three years. The chosen definition of failure is based on a legal criterion : any firm in a situation of bankruptcy or judicial composition is regarded as failing ; other firms are regarded as non-failing.

The model was developed for the population of firms filing full-format accounts and was applied for the purposes of this article to firms employing more than five workers. The econometric technique used is logistical regression. The main attraction of the model is that it summarises all aspects of a firm's financial situation in a single figure : the risk score L. Most of the explanatory variables were constructed in the form of financial ratios ; non-financial variables, such as age, size, or time taken to file the annual accounts, were also tested. A number of competing models were estimated on a sample of firms, then validated on all the annual accounts filed between 1991 and 1998.

The model ultimately adopted, which contains eight explanatory variables, is presented in table 8. The coefficients measure the variation in the risk score L when the variable to which they are attached changes by one unit, all other things being equal. For example, if the cash flow/borrowings ratio increases by 0.1, the score L falls by 0.29. The higher the score L, the more the model considers the

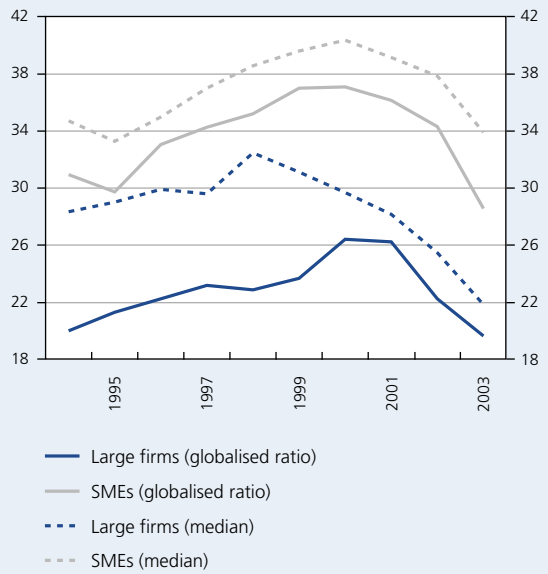
(1) Cf. Coppens F., Hermesse A. and Vivet D. (2004).

firm to be at risk. The table shows that the signs of the coefficients are as one would expect: when liquidity, solvency or profitability increase, the risk declines, and vice versa. Apart from the traditional coefficients, the table also mentions standardised coefficients which indicate the explanatory power of each variable: the higher a standardised coefficient in absolute terms, the greater the contribution made by its associated variable in explaining the risk. (1) The variables in the model are also presented in order of that contribution.

The majority of the model variables concern liquidity and solvency issues. This is closely connected with the laws on bankruptcy and judicial composition, where the central question concerns the cessation of payments. As regards liquidity, it should be noted that overdue debts to the tax authority and the NSSO are the dominant variable in the model. The importance of this variable in the diagnosis of liquidity has already been highlighted. As regards solvency, the degree to which borrowings are covered by cash flow (variable 2) has significantly greater explanatory capability than the degree of financial independence (variable 8); as one would expect, the model therefore incorporates the logic whereby being in debt is less serious than being unable to repay one's debts. The model also contains a profitability variable (variable 3), a dimension which naturally plays a role in corporate financial health. Finally, a non-financial variable, the time taken to file the annual accounts, is included.

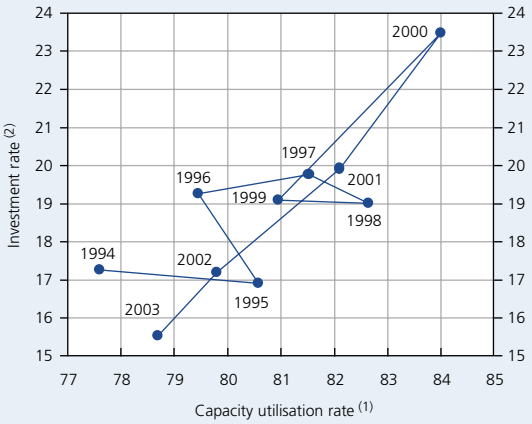
CHART 8 INVESTMENT RATE

(Percentages)



Source: NBB.

CHART 9 INVESTMENT RATE AND CAPACITY UTILISATION RATE IN MANUFACTURING INDUSTRY



Source: NBB.
(1) Annual average.
(2) Globalised for manufacturing firms in general.

The longer a firm takes to file its accounts, the more it is considered to be at risk. The model therefore penalises firms which lack transparency and punctuality.

3.5.2 Risk classes

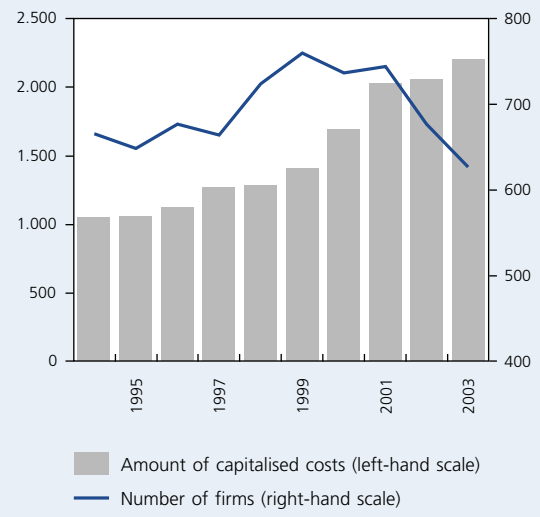
Risk classes were defined on the basis of the risk score estimated for each firm and known instances of failure. These classes divide firms into homogenous risk zones on the basis of the percentage of firms actually failing. This resulted in four classes corresponding to intervals in the risk score L:

- class 1: $L < -0.84$: healthy firms, with practically zero risk of failure within three years;
- class 2: $-0.84 \leq L < 0.21$: neutral firms, where the probability of failure within three years is comparable to the average;
- class 3: $0.21 \leq L < 1.10$: firms in difficulty, where the probability of failure within three years is 3 to 4 times higher than average;
- class 4: $1.10 \leq L$: firms in great difficulty, where the probability of failure within three years is more than 10 times higher than average.

(1) The standardised coefficients are obtained by means of a regression containing the same explanatory variables, but standardised. For a given variable X_i, the standardised variable X_i^* is equal to $\frac{X_i - \overline{X}}{S_X}$, where $\overline{X}$ is the mean of the variable and S_X its standard deviation. The standardised variables have two interesting properties: their mean is always equal to zero and their standard deviation is always 1. The coefficients attached to them thus measure the effects of changes in terms of a standard deviation, and therefore have the advantage of being independent of the unit used to measure the variables. As a result, the respective impacts of the variables are directly comparable.

CHART 10 CAPITALISED RESEARCH AND DEVELOPMENT COSTS (1)

(Euro millions, unless otherwise stated)



Source : NBB.
(1) Acquisitions for the year, including capitalised production costs.

This classification of the firms must be used with caution. For one thing, only a tiny proportion (between 1.5 and 2 p.c. depending on the year) of the firms examined will actually go bankrupt or apply for judicial composition. The classification should therefore be viewed as an indication of financial health rather than a true prediction of failure : firms in classes 3 and 4 are not necessarily destined for bankruptcy, but they are prone to serious financial problems. Bankruptcy aside, those problems are liable to lead to delay in repaying debts or paying suppliers, redundancies, restructuring or cessation of activity. Another important point is that a number of Belgian firms in difficulty are part of multinational groups which are prepared to provide financial support, at least temporarily. Moreover, the classification is an incomplete assessment of the firms' economic situation, as it is based only on analysis of the annual accounts. Other important aspects, such as management quality, the competitive environment, the economic situation and development prospects are therefore disregarded. (1) Thus, the classification must be viewed as a strictly financial assessment of the firms at a particular moment.

3.5.3 Trend in financial risks

As pointed out in the first section of the article, the annual accounts filed late come from firms whose financial profile is less favourable overall. These filing delays are particularly significant in the case of firms in classes 3 and 4, which are therefore decidedly under-represented in the annual accounts currently available for the 2003 financial year. Tests conducted on previous years show that the trend in risks observed in the constant sample is not systematically representative of the real trends, particularly in the case of SMEs. That is why there will be no comments here on the level of risk until 2002. In order to provide an initial impression of the latest tendencies, the trends apparent in the constant sample are also presented, but separately. These estimation difficulties should be viewed in perspective : as the model estimates the risks of failure in the next three years, the 2002 situation covers the period 2003-2005.

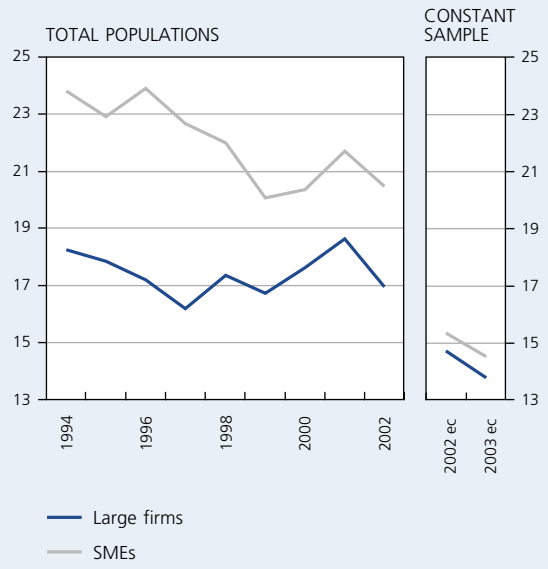
(1) It is hard to see how such qualitative variables could be taken into account in a statistical study covering several thousand firms.

TABLE 8 BUSINESS FAILURE PREDICTION MODEL

	Coefficients	Variables	Standardised coefficients
L =	–1.3		
	+27.1	Overdue debts to the tax authority and the NSSO / Total assets	(+1.24)
	–2.9	Cash flow / Borrowings	(–0.66)
	–3.4	Gross profit before tax and debt servicing / Total assets	(–0.60)
	+2.3	Debts to credit institutions / Debts at up to one year	(+0.47)
	+17.1	Debt servicing / Total assets	(+0.34)
	+0.5	Time taken to file annual accounts (number of days)	(+0.20)
	–0.2	Current liquid assets / Short-term borrowed capital	(–0.19)
	–0.4	Equity capital / Total assets	(–0.17)

Source : NBB.

CHART 11 PERCENTAGE OF FIRMS IN CLASSES 3 AND 4



Source : NBB.

In 2002, the proportion of firms in classes 3 and 4 came to just under 17 p.c. for large firms and 20.5 p.c. for SMEs (chart 11). One in five Belgian firms therefore faces serious financial problems. Those firms employ a total of 217,000 workers, including 85,000 in class 4. After rising significantly in 2000 and 2001, the risks subsided in 2002 in both large firms and SMEs. This trend continued in 2003 for companies in the constant sample. In the long term, the two categories of firms followed slightly divergent trends : while the vulnerability of SMEs has shown a marked fall since 1994, that of large firms has remained fairly stable.

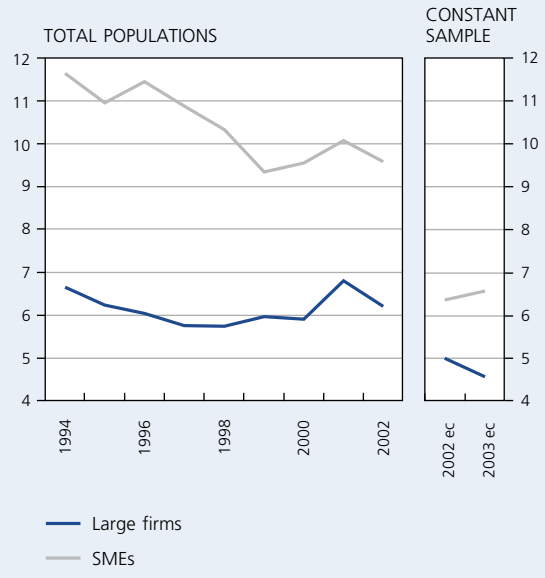
In line with the bankruptcy statistics, the proportion of vulnerable firms is structurally higher for SMEs than for large firms. Moreover, as may be seen from chart 12, this difference is due almost exclusively to the proportion of firms in great difficulty (class 4). In 2002, while 6.2 p.c. of large firms were in great difficulty, the figure was as high as 9.6 p.c. for SMEs. Moreover, in the constant sample the percentage of SMEs in class 4 increased slightly in 2003, in contrast to that for large firms which continued the downward trend that had begun in 2002.

Overall, the financial risk of the non-manufacturing branches is structurally higher than that of manufacturing industry, in terms of both the percentage of firms in classes 3 and 4 and the percentage of jobs concerned (table 9). Although their risk level is different, the two groups of firms have nevertheless followed similar trends in recent years, namely a gradual increase in the risks until 2001, followed by a decline in 2002.

In the light of the data gathered in the other sections of this article, it is not surprising to find that textiles and timber are by far the most vulnerable two manufacturing branches. In 2001, almost a quarter of firms and jobs in these branches were at risk of failure. While this proportion did fall slightly in 2002, it still remained very high compared to the other branches. In contrast to the other branches of the Belgian economy, metallurgy in the broad sense suffered a further increase in the risk in 2002, especially in the case of SMEs. Finally, chemicals and paper, publishing and printing are the most robust manufacturing branches in terms of financial health.

In the non-manufacturing branches, while energy & water and transport are healthy branches, the risks of failure are particularly high in trade, hotels and restaurants, real estate and business services. In business services, the large firms found in classes 3 and 4 include in particular staff selection and supply agencies, which have been especially hard hit by the economic uncertainty of recent years, and firms providing IT services, which have suffered from the general decline in enthusiasm for information and communication technologies. The table also reveals the specific features of telecommunications : in this highly concentrated branch, alongside dominant, healthy large

CHART 12 PERCENTAGE OF FIRMS IN CLASS 4



Source : NBB.

TABLE 9 FINANCIAL RISKS BY BRANCH OF ACTIVITY

	Percentage of firms in classes 3 and 4			Percentage of jobs concerned		
	2000	2001	2002	2000	2001	2002
Manufacturing industry	**18.1**	**19.5**	**18.9**	**12.7**	**13.7**	**13.0**
of which :						
Agricultural and food industries	21.1	20.6	18.4	16.1	20.9	12.2
Textiles, clothing and footwear	23.9	27.3	26.9	18.0	23.3	18.7
Timber	24.2	24.5	22.1	21.1	25.5	22.0
Paper, publishing and printing	14.0	18.6	15.9	12.6	14.5	9.9
Chemicals	15.5	18.4	15.7	13.2	8.9	7.6
Metallurgy and metalworking	13.9	14.2	16.4	10.7	10.8	14.2
Metal manufactures	18.6	18.5	19.3	8.4	10.1	13.2
Non-manufacturing branches	**20.3**	**21.6**	**20.0**	**14.9**	**17.4**	**14.8**
of which :						
Retail trade	23.5	24.6	22.8	15.1	23.4	15.1
Wholesale trade	24.4	25.8	22.8	20.0	21.1	17.6
Horeca	27.9	29.1	28.1	15.3	19.1	19.3
Transport	12.5	12.7	11.4	12.2	9.1	6.7
Posts and telecommunications	29.5	30.0	27.6	3.4	4.2	2.3
Real estate activities	22.0	23.1	24.0	22.0	22.0	23.5
Business services	19.4	21.0	20.0	20.3	23.2	22.7
Energy and water	4.7	11.6	2.2	0.1	2.4	0.2
Construction	16.3	17.8	16.9	13.8	13.8	13.0

Source : NBB.

firms there are many relatively small firms in (serious) difficulty; this generally concerns relatively recent newcomers on the market whose profitability has so far been meagre and which have a high debt ratio, mainly because of the substantial investment entailed in setting them up.

Conclusion

In 2003, the trend in activity in Belgium was once again hesitant up to the start of the second half year. Overall, GDP grew by 1.3 p.c. in real terms, following a rise of 0.7 p.c. in 2001 and 0.9 p.c. in 2002. This was the longest period of weak growth since the beginning of the 1980s. In that context, the total value added created by non-financial corporations increased by 3.4 p.c. in nominal terms, the best result for three years. At the same time, operating costs were more or less static, owing to the very restrained rise in staff costs (due in particular to the job losses in industry) and the further fall in depreciation (reflecting the low level of business investment in both 2002 and 2003). In contrast to what happened in previous years, the growth of value added therefore far outpaced the rise in operating costs. As a result of these contrasting trends, the net operating profit for firms as a whole increased by almost 23 p.c., to total € 21.2 billion. Such a large increase had not been seen since 1997. Once again, the financial and exceptional results were decidedly positive. After aggregation of all the profit and loss account items, non-financial corporations made a net profit after tax of € 24 billion, 96 p.c. higher than in 2002. If this is borne out by the final figures, this virtual doubling of profits – though admittedly following two years of sharp decline – would represent a historical record.

Overall, firms saw an improvement in their financial situation in 2003, after clearly suffering from the economic malaise which had prevailed in 2001 and 2002. As regards solvency, apart from the further small increase in financial independence, the ability of firms to repay their debts improved, after several years of decline. The cost of the debt level in terms of interest charges on financial debts also continued the decline which had begun in 2002, following a further fall in market interest rates. Profitability,

which had been severely eroded in large firms from 2002 to 2002, and had actually collapsed in SMEs, bounced back in 2003. The main reason for this recovery lies in control over operating costs (staff costs and depreciation) and financial expenses.

Finally, the results of a failure prediction model were presented for the first time. By making it possible to place firms in risk classes, the model sheds new light on the true financial position of Belgian firms. The proportion of firms in difficulty came to 17 p.c. for large firms and 20.5 p.c. for SMEs. These firms employ 217,000 workers, including 85,000 in the most vulnerable risk class. Following a marked rise in 2000 and 2001, the risks of failure subsided in 2002, in both large firms and SMEs. This trend towards better health continued in 2003 for the companies in the constant sample, especially the large firms. Overall, the financial risk of the non-manufacturing branches is structurally higher than that of manufacturing industry, in terms of both the percentage of firms in difficulty and the percentage of jobs concerned. The healthiest branches are chemicals, transport, and energy & water, while the most vulnerable branches are textiles, timber, trade, hotels and restaurants, real estate and business services.

References

Coppens F., Hermesse A. and Vivet D. (2004), "The ICT Sector in Belgium", Economic Review 1 – 2004, National Bank of Belgium, Brussels.

De Boitselier J. (2003), "De economische knipperlichten", Standaard Uitgeverij, Antwerp.

Institute des Réviseurs d'Entreprise (1994), "Interpréter les comptes annuels: analyse par la méthode des ratios", IRE, Brussels.

Lurkin P., Descendre N. and Lievens D. (1990), "États financiers – analyse et interprétation", De Boeck-Wesmael, Brussels.

Ooghe H. and Van Wymeersch C. (2003), "Handboek financiële analyse van de onderneming", Intersentia, Antwerp.

Van Cayseele P., Peeters C., Webers H. and Van Herck J. (2001), "De groeikracht van de economie", Universitaire Pers Leuven.

Annex 1

SECTORAL CLASSIFICATION

	NACE-BEL code
Manufacturing industry	**15-37**
of which :	
Agricultural and food industries	15-16
Textiles, clothing and footwear	17-19
Timber	20
Paper, publishing and printing	21-22
Chemicals	24-25
Metallurgy and metalworking	27-28
Metal manufactures	29-35
Non-manufacturing branches	**01-14 and 40-95**
of which :	
Retail trade	50-52
Wholesale trade	51
Horeca	55
Transport	60-63
Posts and telecommunications	64
Real estate activities	70
Business services	72-74 (1)
Energy and water	40-41
Construction	45

(1) Except 74151 (management of holding companies).

Annex 2

DEFINITION OF THE RATIOS

	Item numbers allocated	
	full format [1]	abbreviated format
1. LIQUIDITY IN THE BROAD SENSE		
Numerator (N)	3 + 40/41 + 50/53 + 54/58 + 490/1	3 + 40/41 + 50/53 + 54/58 + 490/1
Denominator (D)	42/48 + 492/3	42/48 + 492/3
Ratio = N/D		
2. DEGREE OF FINANCIAL INDEPENDENCE		
Numerator (N)	10/15	10/15
Denominator (D)	10/49	10/49
Ratio = N/D*100		
3. DEGREE TO WHICH BORROWINGS ARE COVERED BY CASH FLOW		
Numerator (N)	70/67 + 67/70 + 630 + 631/4 + 6501 + 635/7 + 651 + 6560 + 6561 + 660 + 661 + 662 – 760 – 761 – 762 + 663 – 9125 – 780 – 680	70/67 + 67/70 + 8079 + 8279 + 631/4 + 635/7 + 656 + 8475 + 8089 + 8289 + 8485 – 9125 – 780 – 680
Denominator (D)	16 + 17/49	16 + 17/49
Ratio = N/D*100		
Condition for calculating the ratio:		
12-month financial year		
4. AVERAGE INTEREST CHARGES ON FINANCIAL DEBTS		
Numerator (N)	650	– 65 – 9125 – 9126
Denominator (D)	170/4 + 42 + 43	170/4 + 42 + 43
Ratio = N/D*100		
Condition for calculating the ratio:		
12-month financial year		
5. RETURN ON EQUITY		
Numerator (N)	70/67 + 67/70	70/67 + 67/70
Denominator (D)	10/15	10/15
Ratio = N/D*100		
Condition for calculating the ratio:		
12-month financial year		
10/15 > 0 [2]		
6. INVESTMENT RATE		
Numerator (N)	8169 + 8229 – 8299	8169 + 8229 – 8299
Denominator (D)	70/74 – 740 – 60 – 61	70/61 + 61/70
Ratio = N/D*100		
Condition for calculating the ratio:		
70/74 – 740 – 60 – 61 > 0 (full format) [2]		
70/61 + 61/70 > 0 (abbreviated format) [2]		

(1) In which the profit and loss account is presented in list form.
(2) Condition valid for the calculation of the median but not for the globalised ratio.