

Recent developments in the financial situation and the social data of non-financial corporations

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Introduction

Each year, in the December issue of the Economic Review, the Bank describes the developments reflected in the annual accounts of non-financial corporations. By the autumn, the Central Balance Sheet Office already has a representative sample of annual accounts for the previous year. The conclusions based on that sample can therefore be extrapolated to the population as a whole.

In financial 2016, Directive 2013/34/EU on financial statements as transposed into Belgian law came into force. These new provisions had a major bearing on the concepts of large and small undertakings within the meaning of the Company Code, while also introducing the concept of a micro-company. They have also changed the content of the annual financial accounts and the accounting treatment of certain items. In financial 2017, the new rules applied to all accounts filed, whereas in 2016 they had only applied to the financial year starting on or after 1 January 2016. In this article on the financial results of non-financial corporations, based on a sample of firms that filed annual accounts for 2016 and 2017, a distinction is made between large corporations and SMEs, using the following criteria: companies that have filed full-format accounts for both 2016 and 2017 are considered as large companies, while all others are included under SMEs. As a result, this latter category is more heterogeneous than the former, as it contains micro-companies, SMEs and a small number of companies classed as large under the size criteria in one of these two financial years.

The first section of this article briefly outlines the economic situation for non-financial corporations in 2017. As every year, the second section presents aggregate trends in the operating account. The third section assesses the financial situation of these firms on the basis of a range of relevant ratios. The fourth and last section highlights a few features of the workforce of non-financial corporations based on the social balance sheets that form part of the annual accounts.

The methodological aspects are dealt with in the annexes. Annex 1 describes the principles underpinning the selection of firms and the identification of populations for analysis, which are slightly different for financial results and social data. It also goes into the composition of the constant sample, needed to estimate the development of the key variables between 2016 and 2017. Annex 2 breaks down companies by branch of activity, while Annex 3 sets out the formulas for the financial ratios used in the third section of this article. Annex 4 has additional information about credit risk.

1. Economic situation in 2017

Economic activity picked up...

In 2017, GDP rose by 1.7%, a minor acceleration in the pace of growth relative to 2016, which had come in at 1.5%.

Higher expenditure was largely due to the 1.8% uptick in investment in 2017, supported by continued historically low interest rates and a high rate of capacity utilisation in manufacturing. Impending local and provincial council elections also fed into local authority spending. Household investment in housing was stable, however, whereas private consumption growth slowed in 2017, to 1.1% from 1.7% in the previous year. Government consumption, by contrast, edged up by 0.6% in 2017, compared with a decline of 0.2% in 2016. Like the year before, international trade staged robust growth in 2017, with exports rising by 5% and imports by 4.3%.

Higher business volumes in the sectors were primarily underpinned by services, which saw growth accelerate to 2.2% from the year-earlier 1.6%. The expansion of activity was much less strong for industry in 2017; at 0.5%, its pace was comparable to 2016. In construction, however, economic activity declined by 0.8%.

... against a backdrop of rising production costs

Robust global demand and limitations on the supply of energy products conspired to push up energy commodity prices, which started their ascent in the second half of 2017 after over two years of stagnation. The price of Brent per barrel shot up by over 24% on average compared with 2016. The industrial commodities index, which had been moving clearly upwards since the start of 2016, stabilised at a high level in the second half of 2017, working out at an average upturn of over 21% between 2016 and 2017. As a result, the prices of consumables feeding into manufacturing processes also rose.

Unit labour costs in the private sector also went up (by 1.5% in 2017). This compares with falls in the two previous years (of 1.5% in 2015 and 0.1% in 2016), themselves the result of the implementation of a series of wage moderation measures, such as the index jump of 2015 and several reductions in employers' social security contributions. The 2017 rise reflects a 1.4% increase in hourly labour costs – itself largely the result of automatic index-linking (+1.6%) – coupled with a 0.2% drop in per-hour productivity.

Developments in the global commodities markets and the domestic labour market percolated through into production costs in Belgium, as shown by the change in industrial producer prices. These shot up by 8.5% in 2017, with clearly steeper rises in sectors that most depend on imported oil products.

Bankruptcies up 8% in 2017

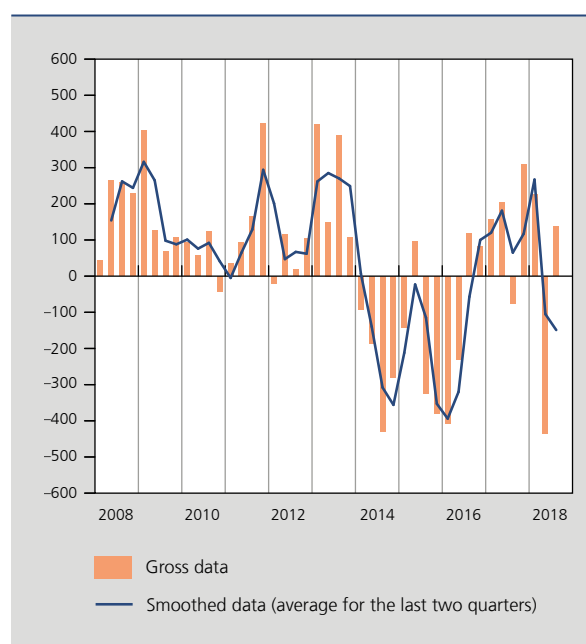
Despite quite favourable economic conditions, the number of bankruptcies – as reported to the Crossroads Bank for Enterprises by the commercial courts – (see chart 1), which had fallen for three years in a row since peaking in 2013, went back up in 2017 (+594 bankruptcies, 8% more than in 2016). This has had a particularly hard impact on very small firms, i.e. those employing fewer than five people, which are typically the most vulnerable (+697 bankruptcies). By contrast, most other size categories recorded a decline.

Bankruptcies were up across all sectors, excluding agriculture and the production and distribution of energy, which recorded falls, and industry, where the number of bankruptcies was virtually unchanged. Hardest hit in 2017 were construction (+143 bankruptcies in twelve months, up 12%), trade (+136 bankruptcies, up 7%), real estate activities and business services (+125 bankruptcies, up 10%), accommodation and food service activities (+117 bankruptcies, up 8%) and transportation, storage and communications (+91 bankruptcies, up 15%).

Remarkably, it is mostly companies in Wallonia and Brussels that account for the increase in business failures, with the impact particularly marked in the Brussels Region, which saw 687 businesses go under, an increase of 37%. The March 2016 terrorist attacks and various urban development issues are often cited as being behind these business failures in Brussels. The rise in bankruptcies was a lot more subdued in Wallonia (+88, up +5%). In Flanders, the number of bankruptcies, which had edged up by 40 in 2016, went down by 181 in 2017.

CHART 1 BUSINESS BANKRUPTCIES⁽¹⁾ IN BELGIUM

(numbers, changes compared with the corresponding quarter of the previous year)



Source: FPS Economy, SMEs, Self-employed and Energy.

(1) Bankruptcies of self-employed workers are typically ignored.

2. Aggregate trends in the operating account

The trends for the 2017 financial year as set out in this section reflect the change in data of non-financial corporations that – both for the 2016 and 2017 financial years – filed annual accounts that met the quality checks introduced by NBB's Central Balance Sheet Office in mid-September⁽¹⁾. This data, then, refers to a constant population and does not include information about firms that filed annual accounts only for 2016 or for 2017. The first group includes companies that went bankrupt, for instance, or that ceased to exist due to takeovers or demergers. The second group comprises newly established companies, including those resulting from mergers or demergers of existing companies. This implies that 2017 developments as seen for the total population of companies – when these become available at the beginning of 2019 – may diverge from the provisional outcomes described below. That said, the representativeness of the constant population, whose 2016 value added accounted for 80 % of that for the total population, is more than adequate to assume that the differences will remain limited.

Value added at current prices rose by 3 % in 2017...

In the non-financial corporations of the constant population, value added at current prices – i.e. the difference between sales revenues and the cost of goods and services provided by third parties – increased by 3 % between 2016 and 2017, a rate of growth below that of the previous two years for the total population (see table 1).

At 3.2 %, SMEs recorded a slightly higher figure than large companies (3 %), with the latter group generating nearly three-fourths of total value added. Judging by the rather more detailed profit and loss accounts filed by large firms, sales revenues added 5.8 %. However, the costs of goods in trade, raw materials and consumables – which account for two-thirds of the sales amount – grew by 6.8 % in the same period, fuelled by rising commodity prices. This eroded value added, even if spending for the purchase of services and various goods rose less rapidly than sales revenues.

(1) For more information about the methodology used to select companies, see Annex 1.

TABLE 1 DEVELOPMENTS IN THE MAIN AGGREGATES OF THE OPERATING ACCOUNT

(in %, unless otherwise stated)

	Percentage changes compared with the previous year						€ million	Percentages of value added
	2012	2013	2014	2015	2016	2017 e	2017 e	2017 e
Value added (current prices)	1.3	1.0	1.8	3.8	5.7	3.0	190 280	100.0
Staff costs (–)	3.0	1.5	1.2	1.4	1.7	3.9	103 194	54.2
Depreciation and write-downs ⁽¹⁾ (–)	3.9	1.7	2.2	1.5	16.7	2.4	38 371	20.2
Other operating expenses ⁽²⁾ (–)	3.7	0.0	–4.2	8.0	16.9	0.0	12 059	6.3
Net operating result	–6.8	–1.2	5.4	12.3	3.5	2.4	36 656	19.3

Source: NBB.

(1) On tangible and intangible fixed assets and on start-up costs (item 630).

(2) Mainly operating taxes and charges.

... but sectors differ widely

As table 2 shows, industry's value added, which generally accounts for nearly 30 % of total value added, only grew by 2 % in 2017, a figure that largely reflects negative value added trends in pharmaceuticals (–8.2 %). In turn, developments in this highly consolidated sector are determined by the dominant player. Sales revenues reported by this company, which primarily sells to other firms in the same group, rose by 45 % between 2016 and 2017, while the costs of goods in trade, raw materials and consumables and those for services and various goods doubled, pushing down value added by nearly 25 %. Other players in the pharmaceuticals sector, by contrast, reported an upturn of 8.7 %. Ignoring pharmaceuticals, industry notched up value added growth of 4 % in 2017 – roughly the same as services – and a sizeable improvement on the subdued (below 1 %) growth recorded in 2016. Available data for large industrial firms reveal a 9.8 % jump in sales revenues between 2016 and 2017. At the same time, the costs of goods in trade, raw materials and consumables and those for services and various goods shot up by a total 11.9 %. Even ignoring pharmaceuticals, higher costs (9.7 %) continued to outstrip the increase in sales revenues (8.6 %). Numerous companies were hit hard by rising prices of energy and industrial commodities.

Consolidation level is also extraordinarily high (at 61 %) in the energy, water supply and waste sector (simplified to “energy” for the purposes of this article). The sector's drop in value added of over 9 % chiefly relates to lower activity at the country's key company in the energy sector, which at the same time suffered from the reduced available capacity of Belgium's nuclear power plants – pushing down volumes sold – and from declining sales prices. In addition, one of its subsidiaries, which specialises in optimising assets, also reported lower value added.

Construction shows the lowest consolidation level of all sectors, with the ten largest building companies representing a mere 7 % of the sector's total value added, and SMEs generating over half. In fact, SMEs were the biggest contributors to the value added growth – of 1.6 % – in 2017: large firms saw their value added inch up by as little as 0.9 %, while the figure worked out at 2.2 % for SMEs. Sales at the large firms were up by 6.3 %, but costs rose even more.

Services contributed most to the increase in the overall value added, coming in at 4.2 % – lower than the 6 % recorded in 2016 but still well ahead of the four previous years. At over 5 % growth, business services and wholesale trade further bolstered their leadership position in value added creation. That said, the determinants of growth looked to be different for these two groups of companies, as evidenced by the full-format data collected. In wholesale trade, sales barely moved but value added still improved on the back of lower costs, which account for 90 % of sales. By contrast, business services saw both sales and costs grow significantly and virtually simultaneously, but the lower cost weighting of 53 % helped value added grow by over 6 %.

TABLE 2 CHANGE IN VALUE ADDED
(in %)

	Change between 2016 and 2017				p.m. Share of the corresponding value added, in 2016		Consolidation level ⁽¹⁾ in 2016
	Constant population companies	Of which: Large companies			Total population companies	Of which: Large companies	
	Value added	Value added	Sales	Costs ⁽²⁾			
Industry	2.0	1.9	9.8	11.9	29.6	36.3	25
of which:							
Food industry	0.3	0.0	4.8	5.8	4.5	5.4	24
Chemicals	6.6	6.6	8.2	8.8	4.3	5.7	38
Pharmaceuticals	-8.2	-8.3	20.6	39.8	4.8	6.5	96
Metallurgy	8.9	10.2	15.5	16.9	3.6	3.9	40
Metal manufactures	5.2	5.2	2.2	1.3	4.7	5.9	34
Energy, water and waste	-9.2	-11.4	1.9	4.0	2.2	2.6	61
Construction	1.6	0.9	6.3	7.9	7.7	4.8	7
Services	4.2	4.5	3.8	3.7	60.6	56.2	11
of which:							
Trade in motor vehicles	6.9	8.6	11.3	11.5	3.1	3.0	29
Wholesale trade ⁽³⁾	5.1	5.6	0.4	-0.2	13.7	15.0	20
Retail trade ⁽³⁾	-0.3	0.2	2.0	2.3	6.7	5.6	26
Transportation and storage	1.6	1.2	12.1	16.5	6.4	6.6	25
Accommodation and food service activities ..	3.1	0.0	0.4	0.6	2.2	0.9	13
Information and communication	3.7	3.2	1.1	-0.3	6.9	7.7	42
Real estate activities	3.9	3.8	2.2	0.1	2.9	1.4	10
Business services ⁽⁴⁾	5.6	6.2	6.5	6.7	17.0	15.0	17

Source: NBB.

(1) Ten largest companies' share of the value added recorded by the corresponding branch of activity.

(2) Costs for goods in trade, raw materials and consumables and those for the purchase of services and various goods.

(3) Excluding trade in motor vehicles.

(4) Excluding head office activities (NACE-BEL 70 100).

As operating expenses rose faster than value added, net operating result grew by only 2.4 %

The value added that a business generates enables it to cover its operating expenses and make an operating profit on the excess.

Staff costs – which represent the major part of operating expenses – 53.8 % of value added in 2016 – increased by 3.9 % in 2017 relative to 2016 (see table 1), i.e. more than value added. The relative share of these costs in the total was consequently a bit higher, at 54.2 %. Higher staff costs were due both to the expansion of employment, up by 1.8 % in full-time equivalents (as it had been in 2016), and to higher hourly labour costs in the private sector which had virtually stabilised in 2015 and in 2016 even slightly declined as a result of the wage moderation policy in place at the time. These measures' moderating effect gradually wore off and hourly labour costs grew by 1.4 % in 2017.

After staff costs, the main operating expenses are depreciation and write-downs on tangible and intangible fixed assets and on start-up costs. Both in 2016 and in 2017, these costs accounted for a little over 20 % of the value added. Having peaked at 16.7 % in 2016, the pace of growth returned to levels typical of the preceding years as 2017 progressed. The 2016 development was barely relevant, as it primarily reflected the way research costs were recognised. Since 2016, these costs are no longer capitalised and must be taken in full to the financial year in which they are occurred, whereas companies used to be able to write them down over a period of three years. The change's one-off impact was only limited in 2017 and the "depreciation and write-down" item fell to a more subdued level in 2017, at 2.4 %.

Remaining operating expenses (mainly operating taxes and charges), the outstanding amount for which represents around 6 % of value added, were unchanged from 2016 to 2017.

Total operating expenses were up by 3.2 % and grew more rapidly than value added, impacting the net operating result, where the increase was limited to 2.4 %. The growth in services was more pronounced at an average 5.2 %. Key contributors here were wholesale trade – which saw the net operating result rise by 14 % – and business services, which notched up an increase of nearly 11 %.

Net operating result reflects recurring results deriving from a company's normal business operations and does not include non-recurring (or exceptional) results, as these items and the amounts they involve are difficult to extrapolate due to unpredictability. Since 2016, companies have to break down their exceptional revenues and costs between operational and financial activities. Based on the data derived from the constant population, the balance of exceptional revenues and costs generated by operational activities in 2017 turned out to be so small as to be negligible, as was the case in 2016. The exceptional component of operational activities had only a limited effect on the change in aggregate net operating result.

3. Trends in the financial situation of companies

The financial analysis which follows is based on a theoretical interpretation of the annual accounts that uses a number of ratios derived from these. The latter are defined in detail in Annex 3. The ratios are presented mainly in the form of globalisations and medians. The aim of using these two distinct concepts is to arrive at a complementary analysis. With globalised ratios influenced by outliers, median values are important to counter them. However, globalised averages tend to paint a picture from macroeconomic and mesoeconomic perspectives, whereas medians reflect microeconomic conditions.

3.1 Profitability

In this sub-section, profitability is studied in relation to sales, to equity and total assets, and to operating assets.

3.1.1 Sales and investment margins

The return on sales is traditionally measured by the net margin on sales. This provides an indication of a firm's ability to make a profit on its sales proceeds after deducting all operating costs, excluding financial and exceptional items and taxes.

With the change in the accounting rules⁽¹⁾ for the amortisation of research expenditure, any growth in the net operating result may be distorted for 2016 and to a lesser degree for 2017, and so it may be useful to also plot the gross indicator as well, which shows the operating profit before non-cash expenses.

Margins on sales down in 2017...

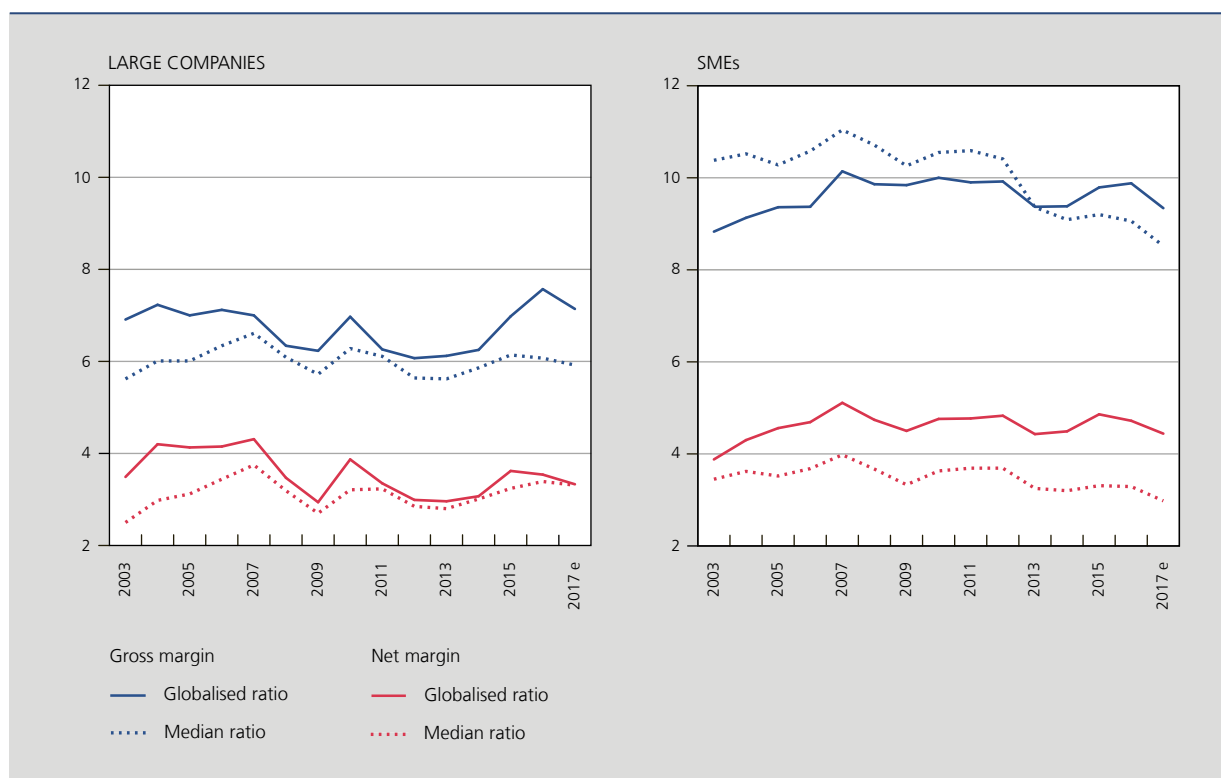
Small and medium-sized enterprises' gross and net sales margins were wider across the review period than they were for large companies. That said, chart 2 only features SMEs whose data allow for sales margins to be calculated, and that is only possible if they report their turnover in their annual accounts. The micro and abbreviated formats do not actually

(1) New research costs – i.e. those incurred after 31 December 2015 – can no longer be capitalised but must be amortised in full. This impacts the operational costs of an entity in the financial year of first application of the new rules, depending on when financial 2016 started. Development costs can still be capitalised and written off over the life of the intangible fixed asset created, up to a maximum of ten years.

have turnover as a compulsory field to complete and ever fewer SMEs report their revenues from sales, which might well distort the sales margin levels for SMEs. Whereas 30 % of SMEs voluntarily reported their sales turnover in their annual accounts for 2003-2004, this proportion has dipped to 8 % in recent financial years.

Irrespective of company size, gross and net sales margins are showing identical trends, with the exception of the 2016 financial year, as the change in the accounting treatment of research expenditure after 31 December 2015 turned out to have had a significant impact on 2016 annual accounts in particular.

CHART 2 NET AND GROSS SALES MARGINS BY COMPANY SIZE
(in %)



Source: NBB.

... as a result of rising raw materials and consumables prices and steeper hourly labour costs

Estimates for 2017 are suggesting declines in both gross and net sales margins, irrespective of company size. An important explanation already put forward is that the purchase costs of commodities, raw materials and consumables have been growing more rapidly than revenues, and particularly oil and gas products. The second explanation is the 1.4 % rise in hourly labour costs in the private sector in 2017 (compared with a 0.2 % drop in 2016).

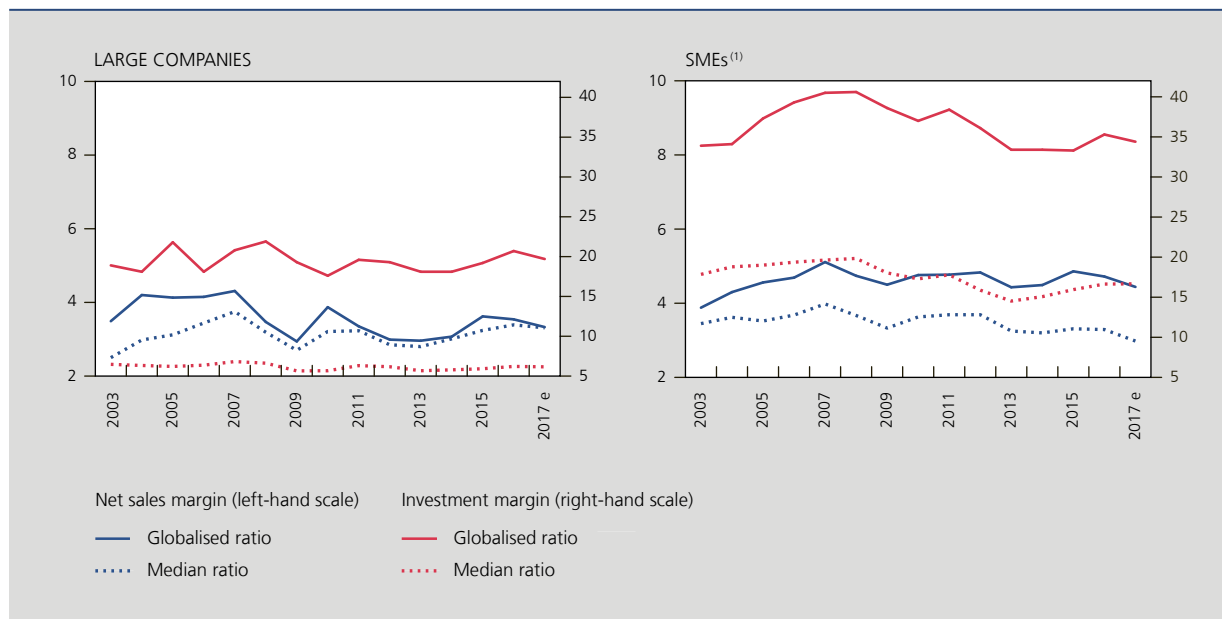
Sales margin fluctuations also affect the way investment margins move – albeit after some delay

Higher profitability makes it easier for companies to build their own resources or to gain easier access to external funding towards their new investment plans from banks among other players. Chart 3 shows how the trend in globalised investment margins is influenced by movements in the globalised net sales margin, after a one-year delay. The investment margin⁽¹⁾ is defined as the relationship between tangible fixed asset purchases and gross value added.

(1) The investment margin can be calculated for all SMEs but net sales margins cannot, as only 8 % of the SMEs have reported their turnover figures in their annual accounts in the past few financial years.

CHART 3 NET SALES AND INVESTMENT MARGINS BY COMPANY SIZE

(in %)



Source : NBB.

(1) Some caution should be observed when interpreting the figures for SMEs: the calculations of investment margins relate to every SME, but the calculations of net sales margins relate only to those reporting their turnover figures in their annual accounts. That said, a graphic representation remains relevant as these are ratios and not absolute values.

Since 2013, both median values and globalised values have shown a slow recovery in the investment rate, at levels still below those recorded before the financial crisis, particularly for SMEs. Estimated globalised investment margins point to a decline in 2017, irrespective of company size and despite still low interest rates charged by Belgian banks on new business loans. This may be due to less confidence in the economy, as shown up in 2017 economic indicators.

In 2017, median value levels remained stable at both large companies and SMEs. This suggests that, in every company size category, firms with a larger value added invest relatively less in tangible fixed assets than do firms with a smaller value added.

3.1.2 Economic and financial profitability

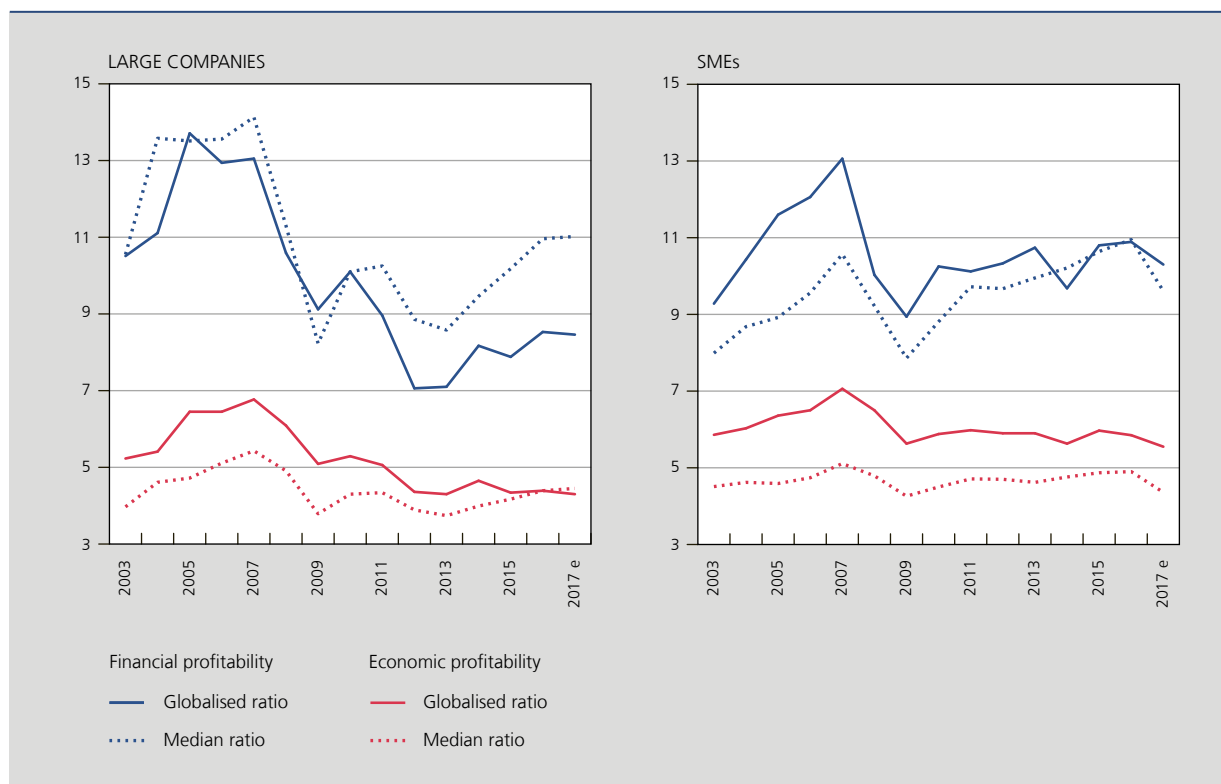
The economic profitability, which measures the net result before tax and financing costs in relation to total assets, serves as an indicator of the economic health of a company, regardless of the way its operations are financed. The financial profitability, by contrast, does factor in the funding method and reflects net profit before tax relative to total equity. In other words, this ratio captures the return that shareholders stand to earn from a company's ongoing activities. Both ratios are calculated before tax and exclude exceptional results to allow for comparison⁽¹⁾.

The globalised and median values of the economic profitability show significant falls at the time of the 2008-2009 financial crisis at both SMEs and large firms. In the post-crisis years, SMEs saw their economic returns hold fairly steady and recorded an estimated globalised ratio of 5.5 % in 2017. SMEs in Belgium are strongly represented in business services, i.e. in activities that are less sensitive to economic downturns. The globalised economic profitability of large companies, by contrast, tends to move more up and down with movements in domestic and global economies and with commodity price swings. Estimated globalised ratios for this group fell to the same level as in 2013 (4.3 %). That said, the median scores for large companies have been recording a steady recovery in the economic profitability since 2013.

(1) Exceptional results are purposely left out, as these are one-off items and this analysis focuses on net results for ordinary business activities.

CHART 4 ECONOMIC AND FINANCIAL PROFITABILITY BY COMPANY SIZE

(in %)



Source: NBB.

In 2017, financial profitability for SMEs shrank, while remaining stable for large companies

Chart 4 shows financial profitability exceeding economic profitability in the period under review, indicating that companies, regardless of their size, are able to contract debt at interest rates⁽¹⁾ below their economic profitability.

SMEs' globalised financial profitability slowly recovered after 2009 on the back of their relatively constant economic profitability coupled with the lower cost for fresh bank loans they were able to take out after 2009 (right-hand panel of chart 9). Projections for both the globalised and the median values in 2017 see financial returns weakening to 10.3% and 9.6% respectively. This downward movement was visible in virtually all SME activity.

In contrast, globalised financial profitability recorded by large companies kept falling year on year post-financial crisis until touching a nadir in 2013. By then their globalised ratio was well below that of the median entity, implying that large companies with a sizeable equity position were recording relatively lower financial returns than large companies with less weight in equity. After that, globalised ratios gradually improved before stabilising in 2017.

Although large companies have seen their globalised financial profitability dip below that for SMEs in the past few years, their stocks still lock in higher returns than Belgian government bonds

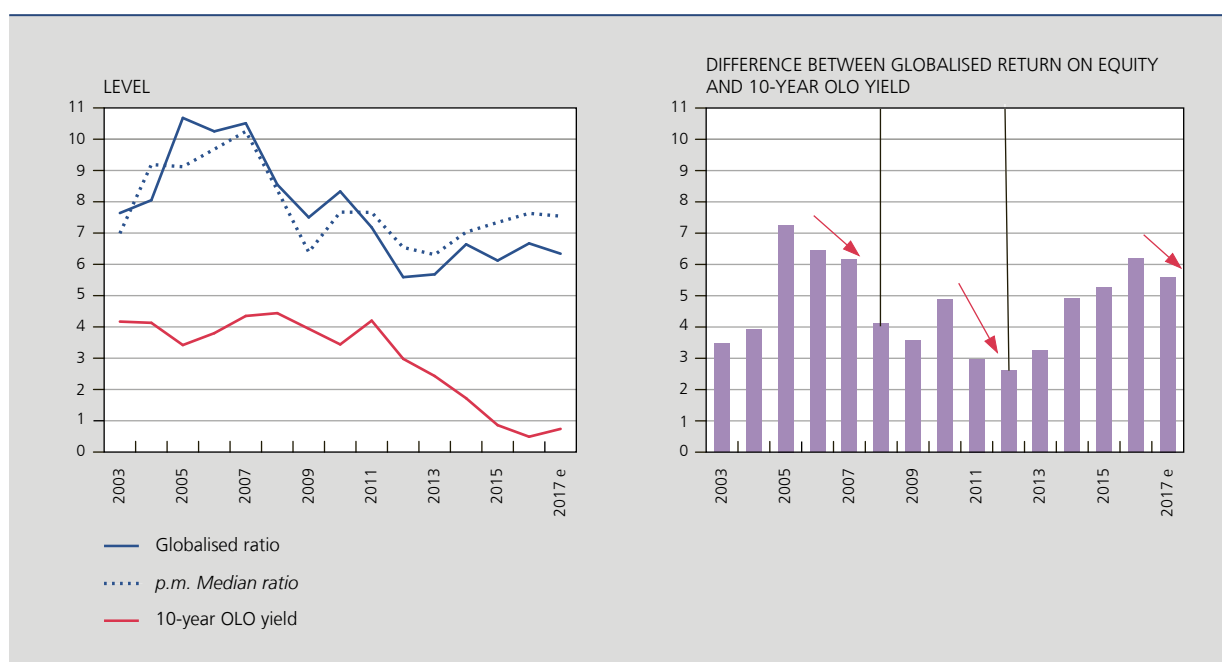
Investors typically want to know whether equities will generate higher returns than risk-free investment such as government bonds. Chart 5 compares large companies' globalised return on equity after tax⁽²⁾ (a version of financial

(1) This does not just involve the interest charges on bank loans and bonds, but also the cost of any intra-group debt and discount rates paid by the company when trading receivables as in factoring.

(2) In other words, earnings after interest and tax on equity, excluding exceptional items.

profitability) with ten-year yields on Belgian government bonds. The difference between these two ratios gives a first indication of the size of the risk premiums large firms' shareholders can expect to receive. Investors need to tread carefully when interpreting the outcomes, as quite a few large companies have no listings. That said, Belgian bond yields have been declining more steeply than the net return on equity of large companies over the past few years, making investing in stocks more attractive. However, in 2017, ten-year linear bonds (OLOs) recorded their first yield rise in six years and, coupled with a fall in the 2017 estimated globalised net return on equity after tax, this saw risk premiums narrow. Financial analysts are keeping a beady eye on these latest developments, as similar movements occurred in both 2008 and 2012.

CHART 5 NET RETURN ON EQUITY AFTER TAX COMPARED TO THE YIELD ON BELGIAN GOVERNMENT BONDS
(in %, large companies)



Source: NBB.

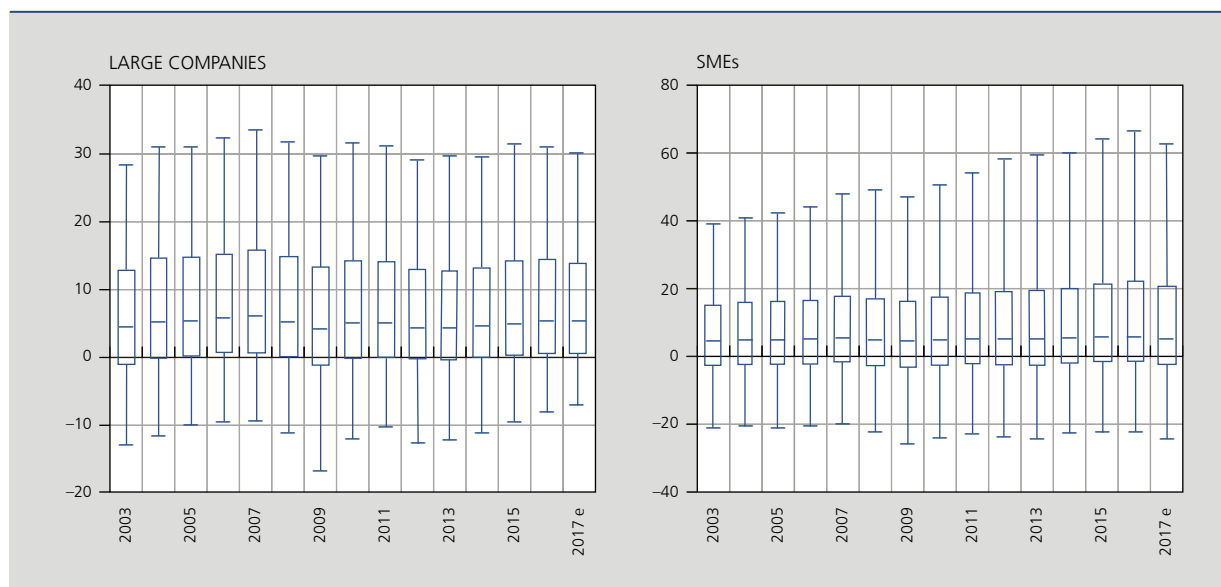
3.1.3 Net return on operating assets

In addition to the return on total assets (defined as economic profitability above) another interesting measure is the return on operating assets, which reflects the relationship between net operating result and operating assets⁽¹⁾. This ratio expresses a company's commercial performance in relation to the balance sheet items directly allocated to operating activities and is an indicator of the efficiency of the production processes of firms active in various sectors, whose sizes and asset structures may differ significantly.

Chart 6 shows the breakdown of net returns on operating assets. Over the past 15 years, both the most profitable (9th decile) and the least profitable (1st decile) of large companies were largely influenced by the economic cycle. The favourable economic environment between 2003 and 2007 coincided with an upward movement across the entire distribution, particularly at large companies. The financial crisis of 2008-2009 saw a reversal in fortunes, followed by a tentative recovery across the full spectrum after 2013, particularly at the least profitable of large firms, narrowing the spread between them.

(1) Operating assets are the sum of the non-financial fixed assets, inventories, receivables within one year and deferrals and accruals. Unlisted items on the assets side of the balance sheet (financial fixed assets, receivables after one year, term deposits and cash & cash equivalents) do not feature in the ratio's denominator, as these are considered as types of financial asset.

CHART 6 NET RETURN ON OPERATING ASSETS: DISTRIBUTION OF OBSERVATIONS, BY COMPANY SIZE⁽¹⁾
(in %)



Source: NBB.

(1) The box plot should be read as follows: the lower and upper edges of the box correspond respectively to the 1st and 3rd quartiles. The line inside the box represents the median. The ends of the lower and upper whiskers correspond respectively to the 1st and 9th deciles.

The widening distribution for SMEs implies that movements in the median and the first quartile have limited visibility. That said, the most profitable SMEs are tracking a clear course, with the net return on their operating assets moving mostly upward in the past 15 years, with a slight downward turn in the projections for 2017. The most profitable SMEs mainly operate in business services, as these involve fewer operating assets. The least profitable SMEs, particularly in the real estate sector, fluctuate more with times of economic down cycles (2008-2009 and 2012-2013), as reflected in the net return ratio.

3.2 Solvency

The key purpose of solvency ratios is to measure the ability of firms to meet their financial commitments, i.e. to pay their interest charges and debt.

3.2.1 Degree of financial independence

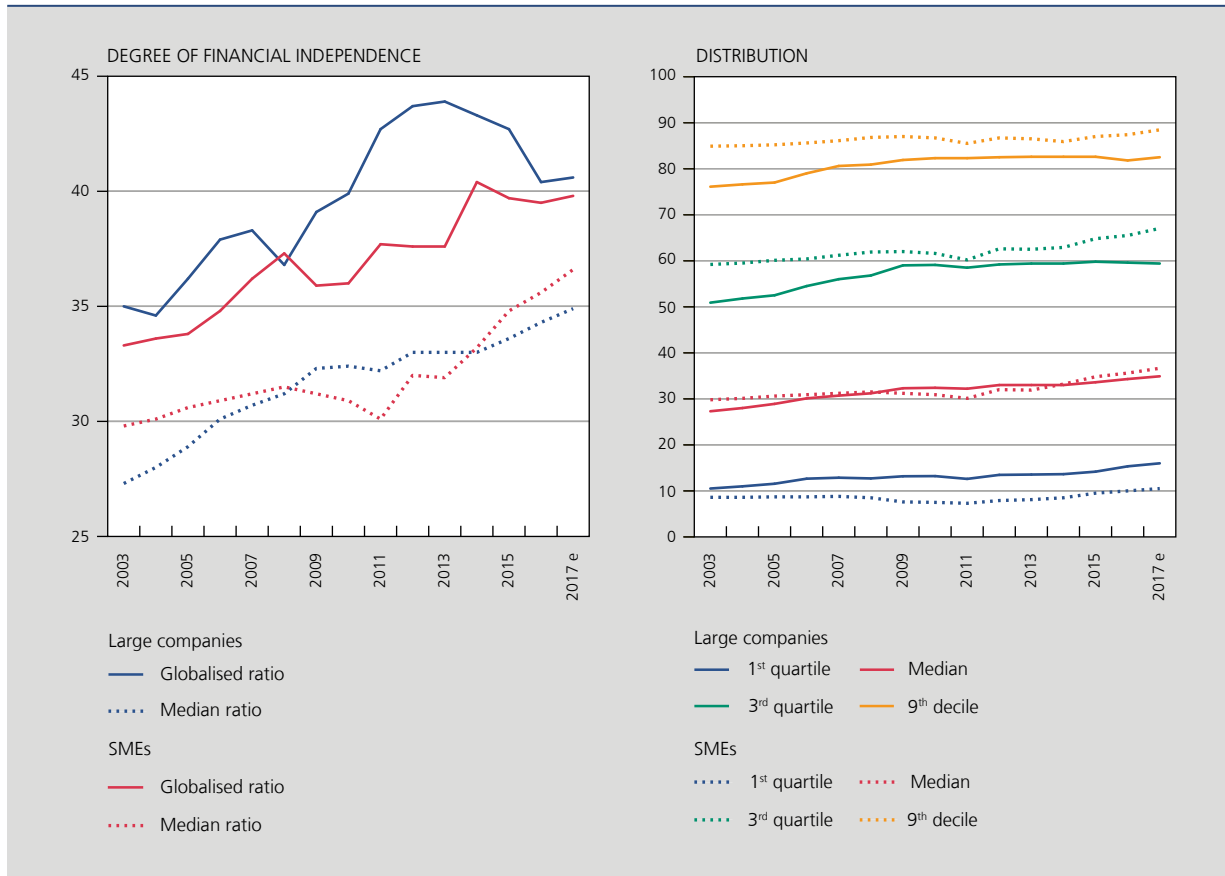
The best-known measurement of solvency is the degree of financial independence, i.e. the ratio between equity and total liabilities. The greater the financial independence, the smaller the company's debt position and the bigger its equity-based buffer to repay its creditors. In other words, the degree of financial independence measures the robustness of a company's capital structure.

An alternative way of measuring solvency is via the degree of self-financing. This ratio differs from the degree of financial independence as its numerator comprises the reserves and results carried forward. It reveals more about cumulative profitability for the past and current financial year, while it is also an indicator of a company's dividend and reserves policies.

The median values for SMEs solvency ratios point to a significant improvement in recent years...

Chart 7 reveals a steep improvement in the degree of financial independence in the past 15 years, for both SMEs and large companies. A key factor was the introduction of the tax allowance for risk capital in 2006 ("notional interest")

CHART 7 DEGREE OF FINANCIAL INDEPENDENCE BY COMPANY SIZE
(in %)



Source : NBB.

that saw particularly larger corporations attract a major inflow of foreign capital to Belgium. In recent years, however, this impact was dulled by an annually declining rate of notional interest (see table 3), in the wake of lower ten-year OLO yields and additional restrictions imposed to make the interest deduction less attractive⁽¹⁾. Large companies' globalised degree of financial independence has been coming down since 2014, triggered by significant reductions in capital. Recent years have seen SMEs' globalised ratio match the level for large companies, with their median ratio even exceeding that for large companies. The right-hand part of chart 7 shows how the top half of the distribution is higher for SMEs than for large companies even if the median values of the degree of financial independence are virtually similar. This implies that very many SMEs finance a significant proportion of their total balance sheet from their own resources. In 2017, the estimated globalised average of the degree of financial independence was virtually stable for both small and large firms, at 40.6% and 39.8% respectively.

(1) It has been impossible since 2013 to carry forward tax deductions from one assessment year to the next. In addition, the basis for national interest calculation changed with effect from the 2019 assessment year (Article 537 of the Income Tax Code). The deduction no longer applies to the total amount of adjusted equity but to the accrual of adjusted equity.

TABLE 3 NOTIONAL INTEREST DEDUCTION: RATES
(in %)

Tax year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Basic rate	4.473	3.800	3.425	3.000	2.742	2.630	1.630	1.131	0.237
Increased rate for SMEs	4.973	4.300	3.925	3.500	3.242	3.130	2.130	1.631	0.737

Source: FPS Economy, SMEs, Self-employed and Energy.

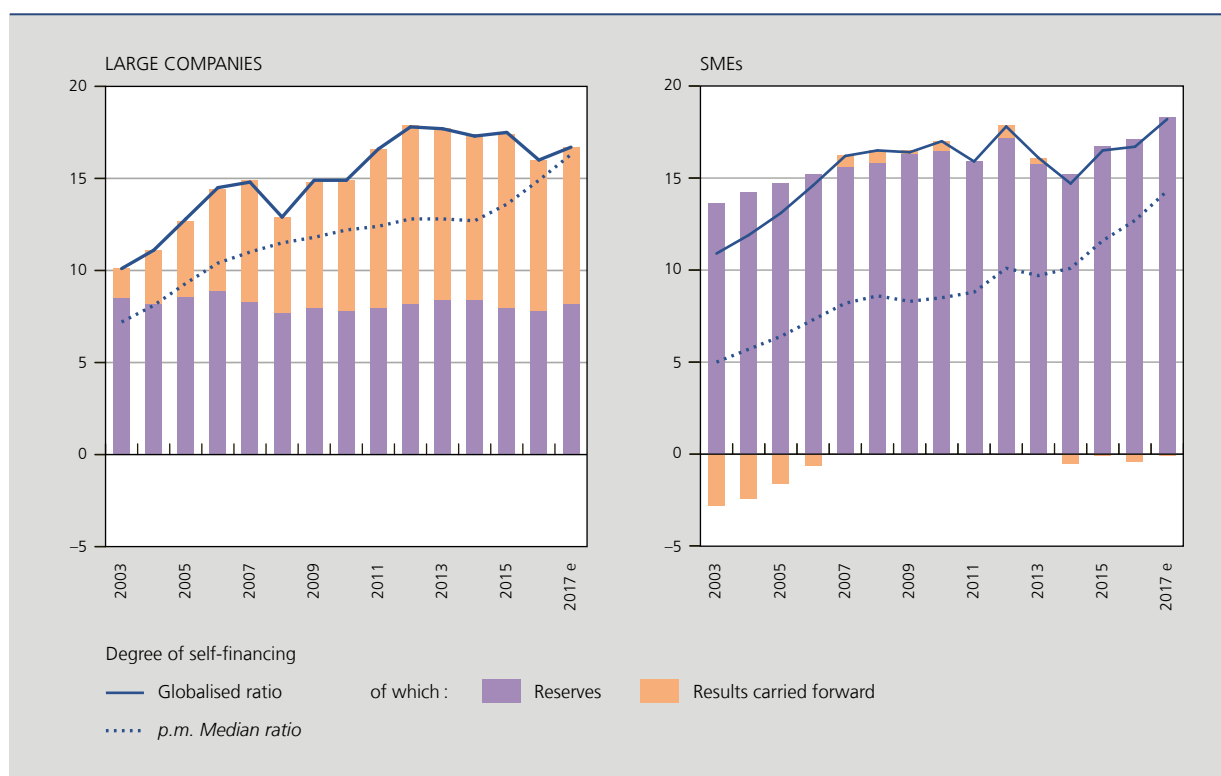
... partly reflecting the change in tax treatment of liquidation surpluses and the new system of liquidation reserves

The impact of the changes in the tax treatment of liquidation surpluses is primarily visible for SMEs (chart 8). These surpluses⁽¹⁾ are regarded as dividends and are therefore subject to withholding tax. The tax rate applicable here used to be 10 %, but was raised to 25 % in October 2014, then to 27 % in January 2016 and 30 % in January 2017.

To head off a wave of liquidations of active companies, in November 2013, the then Finance Minister Koen Geens implemented a transitional arrangement in Article 537 of the 1992 Income Tax Code, allowing a company to pay out a

(1) It should be recalled that the liquidation surplus corresponds to the capital a disbanded company allocates to its shareholders on top of the repaid tax-free paid-up capital.

CHART 8 DEGREE OF SELF-FINANCING, BY COMPANY SIZE: LEVEL AND COMPOSITION OF THE GLOBALISED RATIO
(in % of the balance sheet total)



Source: NBB.

proportion of its taxed reserves, as approved by its annual general meeting by 31 March 2013, at the still reduced rate of 10 %, on condition that the amount so paid was immediately incorporated into the company's capital and was kept there for a specific period of time⁽¹⁾. The dividend payment and the simultaneous capital increase under this measure had to be recognised in the last taxable year that ended before 1 October 2014. Quite a few SMEs opted for this treatment and the 2013-2014 period saw an accounting shift at SMEs from reserves to capital. As a result, their globalised degree of self-financing declined in the same period (chart 8).

The proportion of reserves in the degree of self-financing at SMEs has been back on the up since 2015, as numerous SMEs apply the new system of liquidation reserve⁽²⁾.

From the end of 2017 – i.e. four years after allocating the reserves to their capital – SMEs will be able to reduce their capital by the amount of any dividend paid under the transitional arrangement in Article 537 of the 1992 Income Tax Code. The effect this will have on the globalised degree of SMEs' financial independence are not reflected in the projected figures for 2017 in chart 7. The box below describes the capital reductions in greater detail.

(1) The minimum period the incorporated capital should be held to be paid out free of tax is four years for SMEs and eight for large companies, counting from the date it was contributed.

(2) It should also be recalled that SMEs, instead of paying out earnings to shareholders, can opt to transfer to a special reserve any accounting profits generated in financial 2014 or beyond. This liquidation reserve is subject to an immediate tax levy of 10 %, but no withholding tax will be due at a later liquidation, provided that these reserved earnings are retained in the company until the time of such liquidation. If the reserve is paid out before liquidation, as dividends for instance, a withholding tax of 5 % will be due if the liquidation reserve is retained in the business for five years, or of 17 % otherwise.

Box – Reductions in capital by SMEs due to tax treatment changes

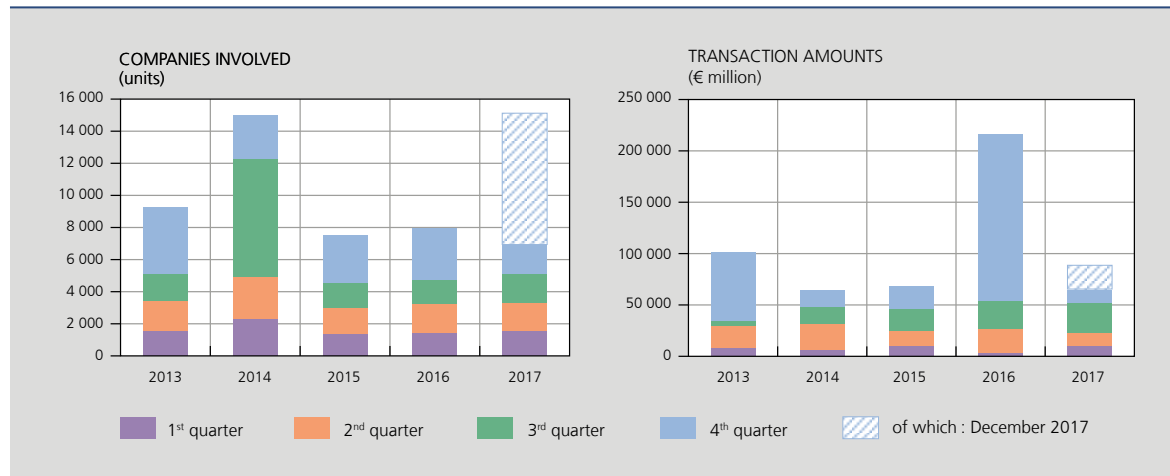
At the end of 2017, several tax considerations prompted companies to reduce their capital. Firstly, at the end of 2017, SMEs that had taken advantage in 2013 of the transitional measure governing the taxation of liquidation surpluses (Article 537 of the 1992 Income Tax Code, see above) to transfer amounts from reserves to authorised capital benefited from the end of the compulsory four-year holding period. Meanwhile, reductions in capital, which had been completely free of tax until the end of 2017, have been treated on a par with dividend payments since 1 January 2018 and so taxed at 30 %. This change, which was announced in the summer of 2017, has encouraged some companies to stay ahead of future reductions in capital in order to avoid this new tax. Lastly, some SMEs' business leaders coming to the end of their careers simply decided to liquidate their business early and so side-step later taxation on reductions in capital.

Capital change statistics recorded by the Bank on the basis of information published in the Belgian Official Gazette (*Moniteur belge/Belgisch Staatsblad*) confirm that quite a few entities reduced their capital in 2017. A total of over 15 000 reductions were recorded, i.e. twice as much as in the previous two years. Two-thirds of these reductions were concentrated in the fourth quarter of 2017 and over half in the month of December alone. Still, the amounts involved do not contrast with those previously recorded. Granted, the latter were sometimes influenced by a limited number of large transactions – often reflecting liquidations of corporations following mergers, demergers or the winding-up of activities – compared with which the many smaller transactions that may have been recorded in the same period pale in comparison. Total reductions in capital for full 2017 worked out at € 89 billion, of which € 36 billion was taken in the last quarter. However, in 2017 repayments to shareholders turned out to account for 57 % of the reductions in capital, a percentage clearly up on previous years.

The above-mentioned statistics reflect all equity reductions and not just those by non-financial corporations, which are the subject of this article. The latter group has recorded fewer reductions in capital, totalling € 34 billion in 2017, € 18.5 billion of which was in repayments to shareholders and € 10.6 billion the outcome of liquidation operations.



REDUCTIONS IN CAPITAL



Source: NBB.

In the month of December 2017, around 5 900 non-financial corporations carried out one or more reductions in capital by way of payments to their shareholders, for a total amount of € 5.5 billion. Three-quarters of these cases involved private limited liability companies. The average amount per transaction, i.e. € 928 000, is largely determined by capital reductions at Delhaize. If this company is stripped out of the calculations, the average works out at less than € 670 000. A study of the distribution of the operations revealed that half of these reductions involved small amounts of € 200 000 or less, and even lower than € 91 000 in a quarter of cases.

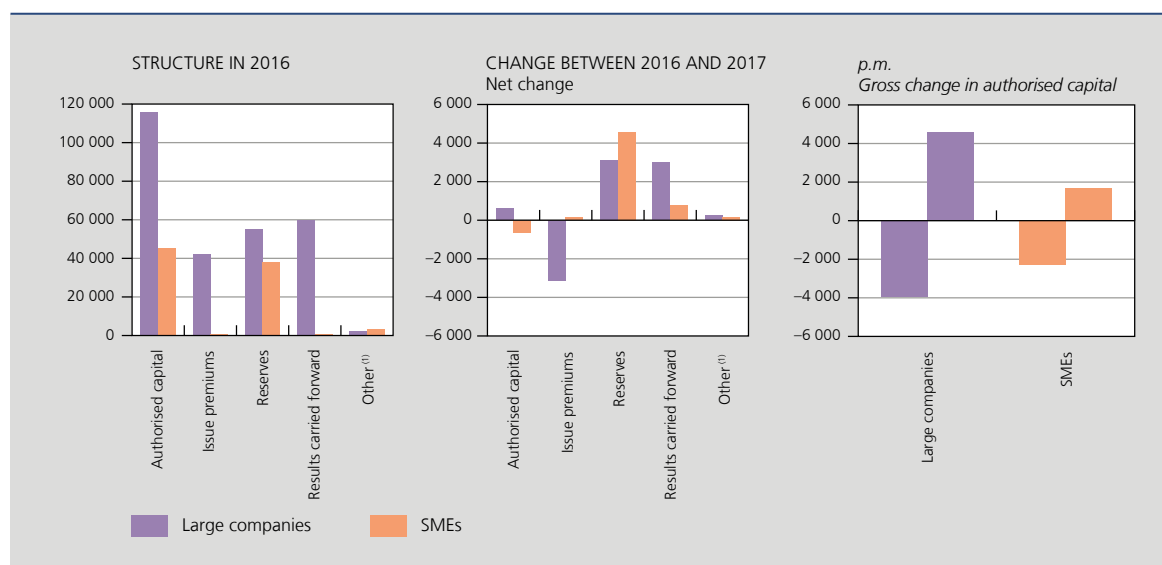
That same December month saw around 1 750 non-financial corporations reduce their capital because of liquidation, involving a total amount of € 1.2 billion. Here, too, private limited liability companies represented nearly two-thirds of reductions. Amounts involved in liquidation transactions are typically lower than repayments to shareholders: 25 % of transactions involved capital reductions of over € 128 000 and nearly 40 % was used to settle authorised capital of around € 18 600, roughly equalling the minimum capital requirement for private limited liability companies.

The information from the Belgian Official Gazette (*Moniteur belge/Belgisch Staatsblad*) is supplemented with data from the annual accounts filed by non-financial corporations in our constant population. The latter help demonstrate that equity breaks down very differently at SMEs than it does at large companies. Equity at SMEs is typically made up of authorised capital (51 % of the total) and reserves (43 %). Admittedly, authorised capital and reserves account for the bulk of equity at large companies as well (42 % and 20 % of the total respectively) but results carried forward and issue premiums also make up a sizeable proportion of equity (22 % and 15 % of the total respectively). Although the total outstanding amount in authorised capital was unchanged across all companies between 2016 and 2017, SMEs and large companies are reporting diverging trends, with the former experiencing a fall of 1.4 % while the latter edged up by 0.5 %. In gross terms, these developments were even more pronounced: 5 486 corporations reduced their capital by a total € 6.3 billion, while 6 254 firms increased their authorised capital by the same amount. Among the companies that cut their authorised capital, over 5 000 were SMEs. The capital erosion related to over 60 % of the initial amount. For large companies, the decline was limited to a little over one-third of authorised capital in 2016.



STRUCTURE AND DEVELOPMENTS IN EQUITY OF COMPANIES AVAILABLE IN THE CONSTANT POPULATION

(€ million)



Source: NBB.

(1) Revaluation surplus and capital subsidies, less advances to associates upon division of net assets.

These observations are based on a constant population and are incomplete by definition: not all annual accounts were available at the time of analysis and capital movements at companies that started or ended their operations (and particularly companies liquidated in 2017) were stripped out. Although the information derived from the constant population is only partial, it is nonetheless valuable, as it confirms that amounts in individual capital reductions were relatively low – less than € 175 000 in half of them. It also shows that quite a few companies have reduced their authorised capital to the legal minimum requirement in Belgium (€ 18 550 – € 6 200 of which paid up – for a private limited liability company and € 61 500 for a public limited liability company). Of the companies that ran down their authorised capital, 3 129 were registered as private limited liability companies in 2017, with 59 % of these having authorised capital of less than € 20 000; in 8 % of these cases, the authorised capital had even dipped below € 6 200. It should also be noted that, in the 2017 financial year, nearly 280 public limited liability companies switched to the legal status of a private limited liability company and now enjoy lower minimum requirements on authorised capital. In fact, nearly two-thirds of them have lowered their authorised capital to below the € 20 000 threshold. Of the public limited liability companies that have retained their original legal status, 33 % have lowered their authorised capital to the threshold of € 62 000 or below. This behaviour is not without consequences: all other things being equal, corporations that reduce their authorised capital to a level close to the legal minimum are jeopardising their financial resilience and are exposing themselves to trouble in financing their activities further down the line.

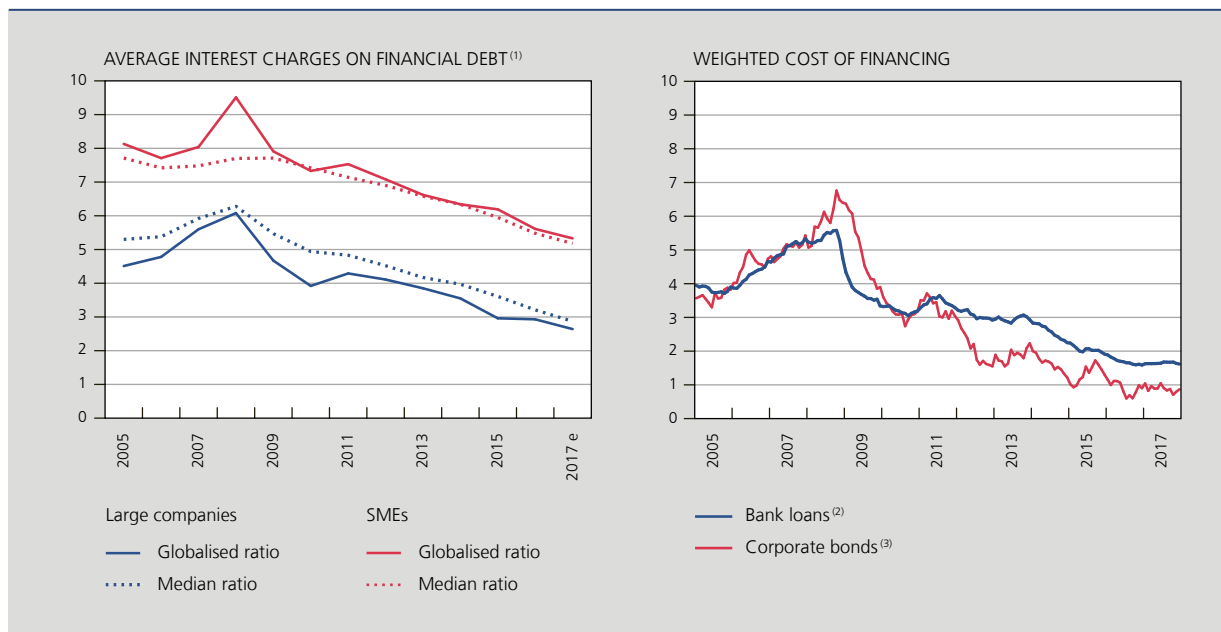
3.2.2 Interest charges and net short-term debt ratio

The degree of financial independence constitutes only a partial take on solvency, as it provides no insight into the extent of the charges related to financial debt nor of the ability of firms to repay debt in the short term.

The interest charge measures the interest costs a company pays on its financial debt as a proportion of the sum of short-term and long-term financial debt.

CHART 9 FINANCING COSTS

(in %)



Sources: Thomson Reuters Datastream, NBB.

(1) As SMEs do not report interest charges on financial debt separately, their numerator is wider and includes all financial costs. This figure may also include exchange rate costs and any discounts they grant to customers for cash payments.

(2) Weighted average interest rates imposed by Belgian banks on new business loans. Interest rates are weighted by outstanding amounts of the different types of loans.

(3) Return on the index of bonds issued by Belgian non-financial corporations, denominated in euros, with maturities in excess of one year and a rating upwards of Baa. The index is weighted by outstanding amounts.

Average financing costs have narrowed virtually continuously since 2008

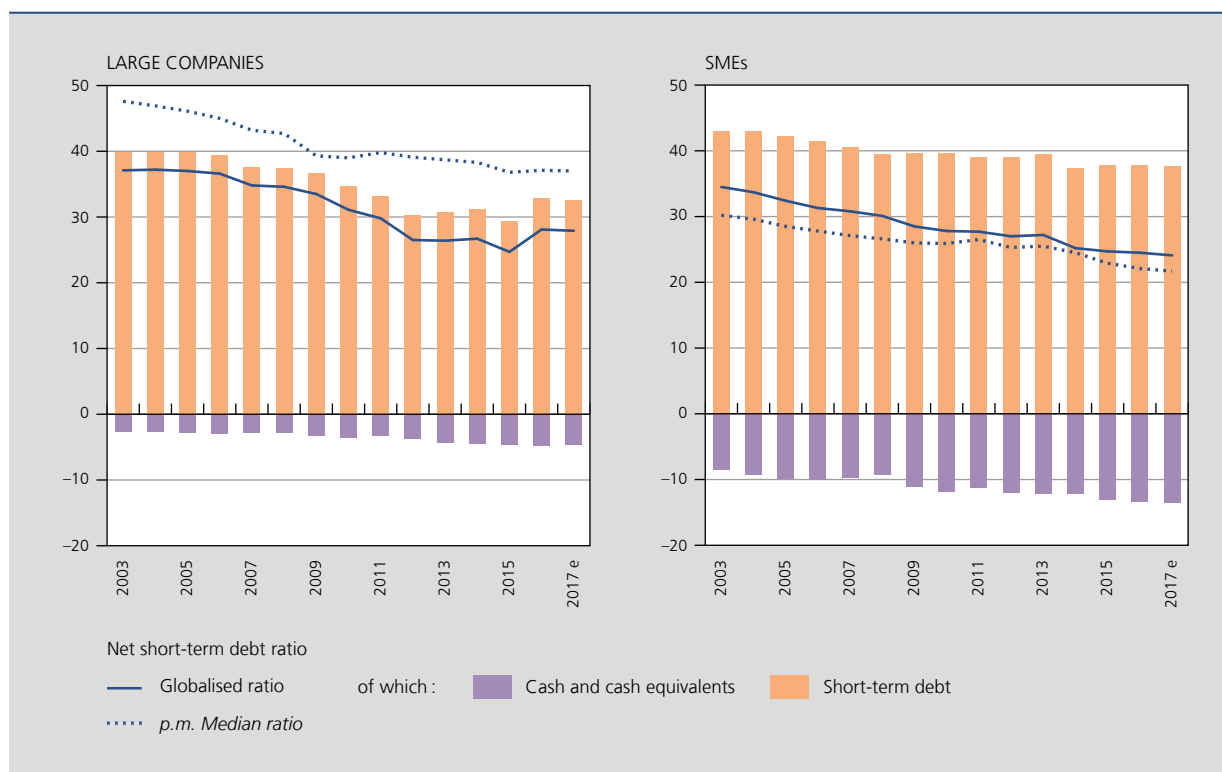
In 2008, average financing costs touched their highest levels for both large companies and SMEs, only to fall to their lowest point in 2017 – at a projected 2.6 % and 5.3 % respectively for their globalised averages. The virtually continuous decline in interest charges shows the same trend as the weighted average costs Belgian banks charge on new business loans and as the return on corporate bonds (right-hand panel in chart 9). In 2017, the cost of bank loans remained low due to the ongoing accommodating monetary policy pursued by the ECB, while competitive pressures prompted banks to cut their margins on loans ever more. Both in globalised and in median terms, average interest charges are higher for SMEs than for large companies. Much of this phenomenon is explained by the way the interest charge is calculated: the numerator of the ratio for SMEs measures a broader concept than for large companies. In addition, SMEs are likely to have less access to group funding at lower interest costs, a frequent phenomenon at large companies. Note, however, that this is hard (or even impossible) to prove statistically.

The composition of the net short-term debt ratio differs depending on company size

The net short-term debt ratio calculates the proportion of the balance sheet total that needs to be repaid with debt contracted for less than one year, and for which no cash or cash equivalents are available. Short-term debt does not just comprise financial debt, but also includes trade payables, advances received on orders, debt related to taxation, remuneration and social security, other debt and accruals. This final item includes “costs as yet unpaid” that are recognised in the current financial year (such as telephone costs) and “deferred income” which has been collected in the course of a financial year but that relates to a later financial year (such as rent received in advance). Other debt includes such items as dividends and bonuses, guarantees received in cash, debt to affiliated corporations and current account liabilities, i.e. private money taken from the company by managers or managing partners.

The higher the net short-term debt ratio, the bigger the risk that short-term debt will not be repaid in time, in which case it will need to be refinanced and rolled over into a long-term liability.

CHART 10 NET SHORT-TERM DEBT RATIO, BY COMPANY SIZE: LEVEL AND COMPOSITION OF THE GLOBALISED RATIO
(in % of the balance sheet total)



Source: NBB.

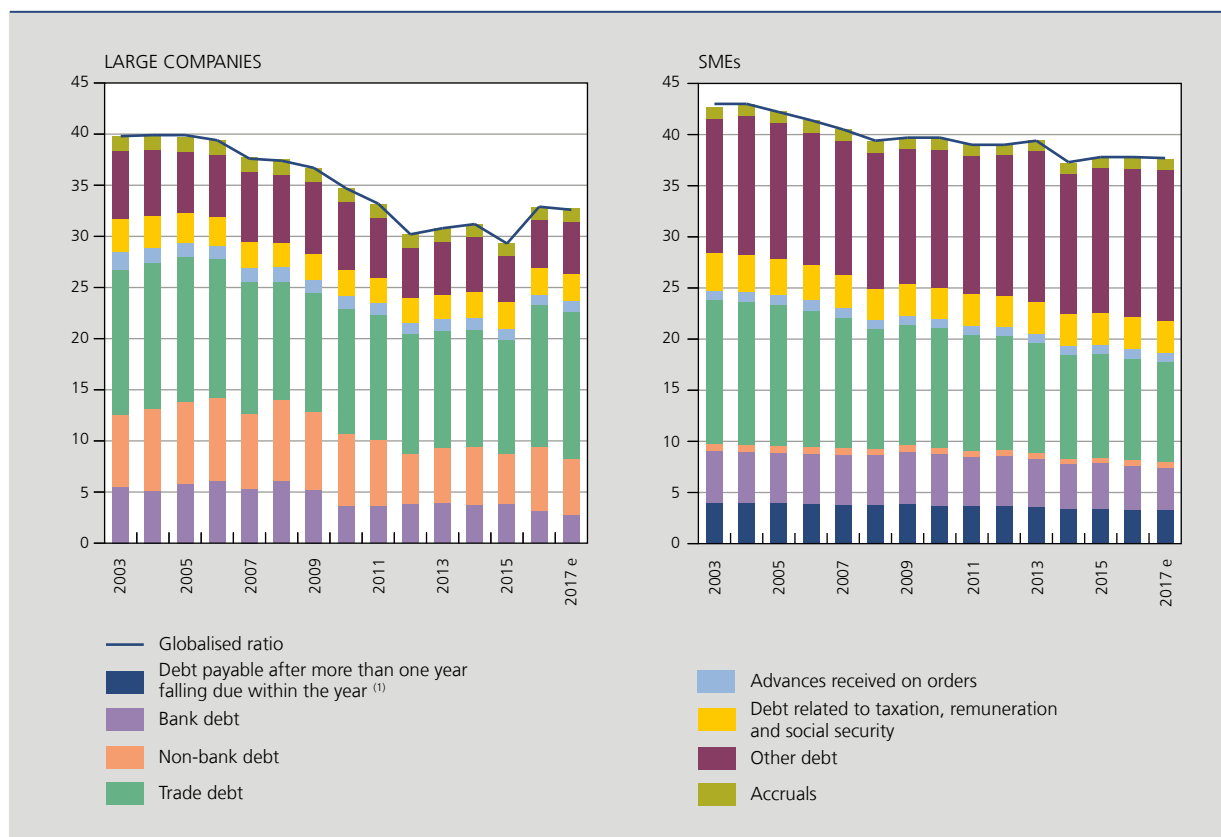
SMEs have relatively more cash and cash equivalents, as well as other short-term debt...

In the period under review (2003-2017), the net short-term debt ratio recorded a declining trend and stable levels for 2017. Large companies' higher median value relative to the globalised ratio demonstrates that firms with a higher balance sheet total tend to attract relatively less net short-term debt. Although the globalised ratio is similar for large companies (averaging 31 % in 2003-2017) and for SMEs (averaging 29 % in 2003-2017), there is a clear difference in the way the ratio breaks down. Relatively speaking, SMEs typically have more cash and cash equivalents. This build-up of cash resources may be a sign that SMEs have less swift access to new loans to meet unexpectedly growing corporate capital requirements, cover current expenditure or finance future capital spending. What is more, SMEs take on relatively more short-term debt than do large companies, with the relative proportion of "other debt" particularly notable. Quite possibly, the owner/manager of an SME will put more private money into their business.

... whereas large companies use proportionally more bond loans, leasing debt or loans through group companies

Chart 11 also captures the different weights for "non-bank financial debt". Whereas large companies can tap credit institutions for short-term funding, they also find it easier to attract "other financial loans", i.e. bond loans, leasing debt or loans via group companies. This is often less easy for SMEs.

CHART 11 SHORT-TERM DEBT RATIO, BY COMPANY SIZE: LEVEL AND COMPOSITION OF THE GLOBALISED RATIO
(in % of balance sheet total)



Source: NBB.

(1) "Debt payable after more than one year falling due within the year" appears only on the right-hand panel of the chart. SMEs do not have to break down this (aggregate) item. By contrast, large companies do report precisely what type of short-term debt is involved.

Net short-term debt ratio for large companies unchanged in 2017, with diverging developments by branch of activity

Table 4 shows that the globalised net short-term debt ratio is lowest in the real estate activities sector. The forecast for 2017 works out at 15.7 %, while the weighted average large company comes in at 27.9 %. This is unsurprising, as the real estate sector chiefly uses long-term debt.

The globalised ratio remains continuously high in trade in motor vehicles, as companies in this branch of activity have relatively high trade debt (averaging 28 % in 2017) compared with 13 % for an average weighted large company. Possibly, this reflects the specific relationship between manufacturers and distributors.

Chemicals and food are the industry sectors that account for the largest proportion of the balance sheet total. The globalised net short-term debt ratio for chemicals fluctuates as a result of swings in the aggregate level of "other financial loans falling due within the year". In 2016, one of Belgium's biggest production centres received a € 1 billion intra-group loan, which it repaid in 2017. As a result, the short-term debt ratio fell back to 2015 levels. In the food sector, the projected rise for 2017 is attributable to an increase in the amount of outstanding trade debt.

In 2017, the energy sector recorded a rise in its net short-term debt ratio as one of the big energy stakeholders borrowed additional short-term funds from companies in the same group.

TABLE 4 NET SHORT-TERM DEBT RATIO BY BRANCH OF ACTIVITY
(in % of balance sheet total, unless otherwise stated; globalised data; large companies)

	Net short-term debt ratio				Share of balance sheet total
	2014	2015	2016	2017 e	2017 e
Industry	23.0	19.6	22.9	21.5	38.0
of which:					
Food industry	19.2	21.0	21.8	22.4	5.2
Chemicals	27.5	19.1	29.3	19.2	6.9
Pharmaceuticals	17.5	22.7	26.9	30.9	4.8
Metallurgy	34.8	31.8	34.5	35.8	3.4
Metal manufactures	23.5	20.9	25.2	23.5	4.0
Energy, water and waste	19.8	15.8	18.6	20.1	9.2
Construction	37.4	37.1	36.2	36.1	4.1
Services	30.9	30.4	33.5	33.1	48.0
of which:					
Trade in motor vehicles	40.5	43.1	43.0	44.8	4.2
Wholesale trade ⁽¹⁾	38.0	35.4	42.7	40.4	16.7
Retail trade ⁽¹⁾	31.1	29.4	30.6	41.1	3.6
Transportation and storage	27.4	23.5	22.2	26.0	4.2
Accommodation and food service activities	18.7	18.1	14.7	19.2	0.7
Information and communication	30.0	41.1	26.3	22.5	5.9
Real estate activities	21.0	16.4	13.3	15.7	3.6
Business services ⁽²⁾	23.2	22.2	32.8	29.4	9.0
Total	26.7	24.7	28.1	27.9	100.0

Source: NBB.

(1) Excluding trade in motor vehicles.

(2) Excluding head-office activities (NACE-BEL 70 100).

The key sectors in terms of balance sheet total in the services sector recorded a decline in in 2017, causing the projected globalised ratio for services activities as a whole to shrink to 33.1%. Wholesale trade saw its 2017 globalised net short-term debt ratio narrow to more normal levels after this had grown significantly in 2016 as a result of a key wholesale player adding the inventory management for its entire group. For business services, the projected net short-term debt ratio fell after a major rise in 2016. Some big multinationals received large short-term intra-group loans from their parent companies or affiliated corporations, which they were able to partly repay in 2017 by selling off major participating interests. In the information and communication branch, the ratio was also down, as one of Belgium's largest telecoms firms rolled over its large short-term bank debt into a long-term liability.

3.3 Credit risk

In 2015, the ECB approved the Bank's In-house Credit Assessment System (ICAS)⁽¹⁾, which has since been used to assess the credit quality of Belgian non-financial corporations under the Eurosystem's monetary policy. The credit quality is a measure of the risk of default within the next 12 months. A company can default not only if it goes bankrupt or is subject to legal restructuring, but also if it is unable to repay its debts or if payment incidents are recorded for a material loan liability and it is past due on such commitments for over 90 days.

The probability of default within the next 12 months is measured using statistical modelling techniques drawing on financial ratios and inputting data from individual annual accounts and from Belgium's Central Corporate Credit Register. These model ratios provide information on a range of company aspects, including profitability, solvency and cash flows. Seven different models – each one of which focuses on a set of related company activities – hone in on the specific features of associated activities in order to arrive at a credit risk score by company. The left-hand panel of chart 12 shows the breakdown of these scores for all corporations together, segregated by company size. Annex 4.1 captures an identical exercise aggregated on the level of branches of activity, likewise broken down by company size.

The credit risk score can be translated into a credit risk class, which our study numbers from 1 through 14⁽²⁾, with the first category featuring corporations at the lowest risk of default and category 14 comprising those at the highest risk. It is useful to break down companies into credit risk classes, as the intervals defining the various credit risk risk classes are not all the same size.

The “companies with a low credit risk” group is largely made up of SMEs...

The left-hand panel of chart 12 shows the breakdown of the credit risk scores to be rather different for the two company size categories. Although average scores of both large companies and SMEs are close together, actual scores recorded for SMEs are significantly more widely distributed, even though the median value is lower for SMEs than for large companies. This finding is the same across the 2012-17 period. One explanatory factor for this observation that a significant number of SMEs have lower credit risk scores than do large companies is that one-third of them operate in business services, a sector in which SMEs run a relatively small risk of defaulting (see Annex 4.1). At the same time, SMEs' scores in the 9th decile are much higher than those for large companies. SMEs at a higher risk of default typically operate in sectors such as food, chemicals, wholesale and retail, transportation, accommodation and food service activities, real estate and construction.

In 2017, SMEs' scores in the 9th decile and 3rd quartile came down, suggesting some reduction in SME credit risks relative to the previous year, whereas those for large companies remained fairly stable. Clear exceptions to this general rule are large companies that are active in information and communication and SMEs operating in food. In addition, both SMEs and large companies operating in the “trade in motor vehicles” sector displayed relatively high default risks, which in fact even went up a little in 2017.

... as well as the group of “companies at very high credit risk”

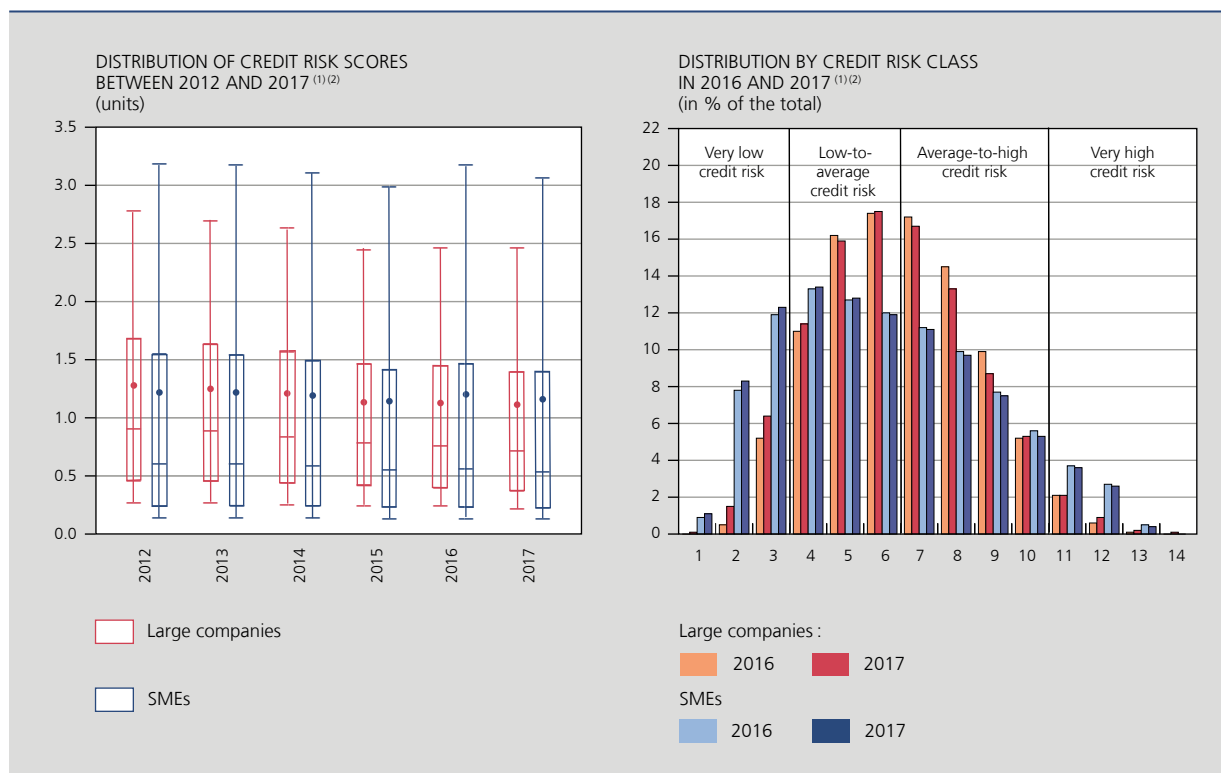
The right-hand panel of chart 12 confirms that SMEs are more highly represented in both the group of companies at very low and in the group at very high credit risk. In other words, the distribution of the credit risk categories is wider for SMEs, with large companies more frequently showing up in the middle categories.

The above observations on credit risk broadly confirm the outcomes of the ratio analysis of the preceding sections. Previously, the quartile distribution demonstrated that SMEs' financial independence is often higher than that of large companies, i.e. for SMEs whose degree of financial independence exceeds the median value (chart 7). This suggests that quite a few SMEs run less credit risk, which is confirmed in chart 12. A particularly interesting finding is the significantly wider distribution of credit risk for SMEs. In addition, the fact that companies in trade in motor vehicles branch have relatively high trade debt and so have higher short-term debt ratios also suggests that these players are running higher credit risks – which is indeed confirmed.

(1) See <https://www.ecb.europa.eu/paym/coll/risk/ecaf/html/index.en.html>

(2) For more information about the 14 credit risk classes, see Annex 4.2.

CHART 12 CREDIT RISK BY COMPANY SIZE



Source : NBB.

(1) The box plots on the left-hand panel should be read as follows: the lower and upper edges of the box plots correspond respectively to the 1st and 3rd quartiles. The line inside the box represents the median. The ends of the lower and upper whiskers correspond respectively to the 1st and 9th deciles.

(2) Annex 4.2 presents a conversion table showing which credit risk scores (based on the ICAS system) correspond to a specific credit risk class.

4. Characteristics of the workforce

The social balance sheets as an instrument to measure the consequences of the 2008 crisis on the composition of the workforce

As mentioned in section 2, employment volumes in FTEs, as reported in annual accounts⁽¹⁾, have grown strongly in the past two years, rising by 3.6 % between 2015 and 2017. This growth, supported by the wage moderation measures of 2015 and 2016, followed a long stretch of virtually stagnating labour volumes. Employment volumes as expressed in FTEs had shrunk in the aftermath of the 2008 crisis; the figure returned to pre-crisis levels in 2011 but the following four years saw it barely move above that level, recording a negligible increase of 0.2 %. It was not until 2016 that 2008 levels were well and truly exceeded.

This ongoing employment crisis could have led to changes in the shape of the workforce. Although annual accounts give little information about companies' workforces, their social balance sheets – as included in keeping with the provisions of the Belgian Company Code – provide some insight into the characteristics and turnover of workers, provided these are completed accurately. Social balance sheets come in full and abbreviated versions⁽²⁾, the latter applying to all small firms including micro-companies⁽³⁾. The information so collected is plentiful and varied, even in the abbreviated version, with this part of the analysis based on a set of data that are common to all filers.

(1) Item 9087.

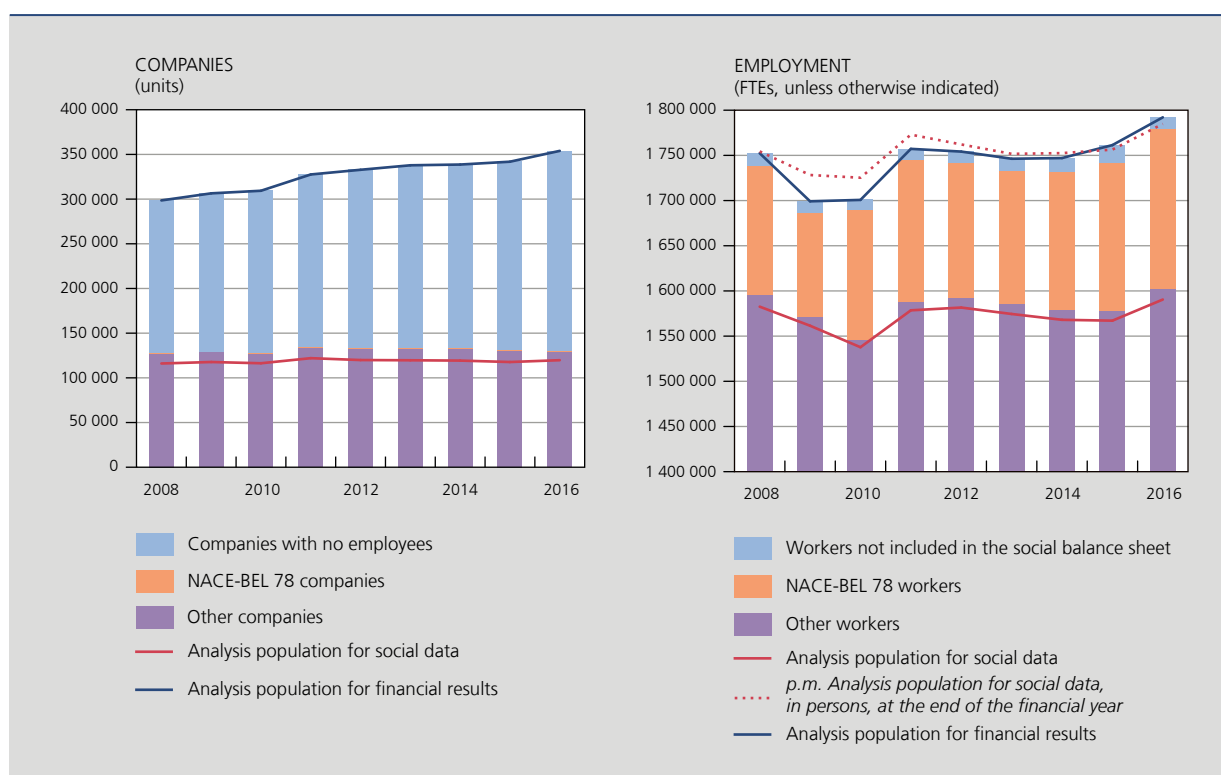
(2) For more details about what is in the social balance sheets, see <https://www.nbb.be/en/central-balance-sheet-office/models-annual-accounts/models-social-balance-sheet>.

(3) With the transposition into Belgian law of Directive 2013/34/EU on annual financial statements, the content of these forms did not change, but size criteria modifications have brought changes to the scope of the full models: some information that used to be disclosed by companies considered large according to the previous criteria has not been available since 2016, as these companies now rank in the small companies category and are able to complete the abbreviated, less detailed model.

The population for the analysis of social data is made up of around 120 000 companies...

The analysis of social data related to a smaller company population than the analysis of financial results, as a little under 120 000 corporations qualified for the former for the financial year 2016 (see chart 13) – a mere 34 % of the 354 000 firms selected for analysis of financial results. First to be stripped out of the social data analysis scope are all companies with no employees. In the population of companies for the analysis of financial results, just over 223 000 had no employees in 2016 and thus did not complete a social balance sheet. Also excluded are firms that specialise in employment-related activities⁽¹⁾ (NACE-BEL 78, primarily temporary employment agencies), as well as those that have filed incomplete or inconsistent data. This ensures that the analysis is only carried out on social balance sheets data guaranteeing internal consistency.

CHART 13 ANALYSIS POPULATION



Source: NBB.

... which together account for 89% of the employment volume in the analysis population of the financial results

Employment (in FTEs) of the analysis population for the social data accounts for 89 % of that of the analysis population for the financial results, the main reason being that temporary employment agencies are left out. Though not many in number, these agencies account for nearly 10 % of full-time equivalents in the analysis population for the financial results. The second difference between annual accounts and social balance sheets is that the latter only relate to employees working on Belgian soil. Employees seconded abroad are not included in the social balance sheets, even if their employers have their official head offices in Belgium⁽²⁾. The remainder concerns employment in firms not eligible because of incomplete or inconsistent data.

(1) High levels of employee turnover in these companies make it difficult to calculate full-time equivalents and annual averages, as well as to interpret the development of these variables.

(2) This explains why, for some companies, there may be a difference – which can be major at individual level – between workforce and staff costs as recognised in the annual accounts and in the social balance sheet.

The characteristics of the workforce may be derived from the table for workers listed in the staff register at the end of the financial year under review or for whom a Dimona declaration was made⁽¹⁾. This table breaks down workers on a range of characteristics: employment scheme, gender, education level, type of employment agreement and occupational category. Some of these characteristics undergo little change from one year to the next, but others may vary starkly, even at short notice, especially if there has been a specific event that upsets the appcartic (particularly a crisis) or as the result of political measures aimed at promoting employment of certain population groups or guaranteeing the development of certain activities.

Change in economic structure...

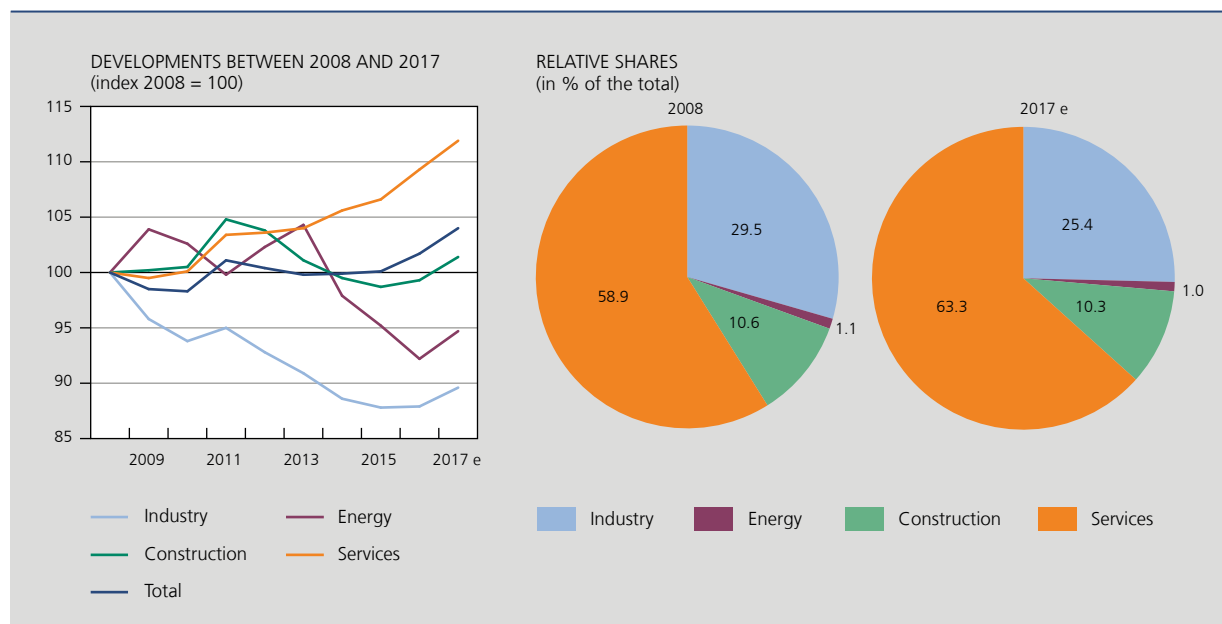
The 2008 financial crisis sparked a major change in the country's economic structure, which has continued into the last decade and which has caused a lasting reduction in the number of people working in industry (see chart 14). Particularly affected were textiles, pulp and paper, metallurgy, and metal manufacturing. The downtrend reversed in 2015 and constant population data even point to an increase in industrial employment in 2017. In services, by contrast, the economic downturn had only a subdued effect: after the number of employees edged down in 2009, the figure was back to where it started in 2010 and has been continuously on the rise ever since – propelled mainly by business services, retail trade, and accommodation and food service activities.

As a result, the services sector's share of employment has risen by 4.4 percentage points since 2008 and worked out at 63.3 % by 2017. This increase came at the expense of industry, whose relative weight fell back to 25.4 % in 2017 from 29.5 % in 2008. Construction also declined, albeit by a marginal 0.3 percentage points, and ended up at 10.3 %. The energy sector accounted for barely 1 % of the workforce in the analysis population in 2017, the same as in 2008⁽²⁾.

(1) This concerns employees with employment or internship agreements, including those on a student contract. Not included are temp agency workers and the self-employed (particularly directors) who perform duties for a company. Data is available in people and in FTEs. The remainder of this section discusses the change in people numbers.

(2) Note that Belgium's utility companies, although amply involved in these kinds of activities, are not included in the population, either for the analysis of financial results or for that of the social data, owing to the specific way they work. The employment developments discussed do not therefore apply to all companies in the energy sector.

CHART 14 NUMBER OF WORKERS, BY BRANCH OF ACTIVITY



Source: NBB.

... coupled with greater flexibility of labour via an increase in the number of part-time workers...

Although by the end of 2015 employment levels had inched barely higher than those in 2008, the solid increases of 2016 and 2017 took them 4 % above their base levels. The recent recovery is also visible in the full-time workforce, where numbers in 2017 came close to those in 2008, while they had still been 5 % lower only two years previously (see chart 15). The number of part-time workers, by contrast, continued to grow throughout the period and added a total 21 % between 2008 and 2017, taking the proportion of part-timers in the workforce from 22.9 % in 2008 to 27 % in 2014. The increase in part-time work then stalled until 2016, after which it even started to come down: constant population data suggest this proportion shrank by 0.3 of a percentage point in 2017.

In services, the number of full-time workers has regained its 2008 levels since 2011, but it was not until 2014 that annual growth took a real upward turn and was sufficient to offset the advance of part-time work. The proportion of part-time workers, which since 2008 had grown by four percentage points to 35.5 % by 2014, gradually narrowed to 34.5 % in 2017.

In industry, part-time workers constitute a smaller percentage of the overall workforce: only 15 % in 2017, three percentage points up on 2008. In the aftermath of the crisis, full-time and part-time workforce numbers went completely opposite ways: the cyclical downturn saw a proportion of companies choose to cut working hours instead of the workforce, with a number of workers switching from full to reduced working hours. Afterwards, the number of part-time workers remained fairly stable – if with relatively major annual fluctuations – while the number of full-time employees continued to fall until 2014. This figure did not start to pick up again until 2017.

... and a rise in temporary employment agreements

Working hours were only one way to adjust work volumes to the sudden drop in activity after the 2008 crisis. In 2009, companies also cushioned the effects of the economic downturn for their permanent workers⁽¹⁾ by not extending the employment agreements of a proportion of their temporary workforce⁽²⁾: that year saw the number of temporary workers cut by over 7 % (see chart 15).

The demand for temporary workers underwent the most sweeping change in industry in the aftermath of the crisis: the number of temporary workers plummeted by nearly one-third in 2009 and did not return to its former level until 2017. That said, the percentage of temporary workers did show a slight upward movement between 2008 and 2017, as the number of permanent workers continued to fall.

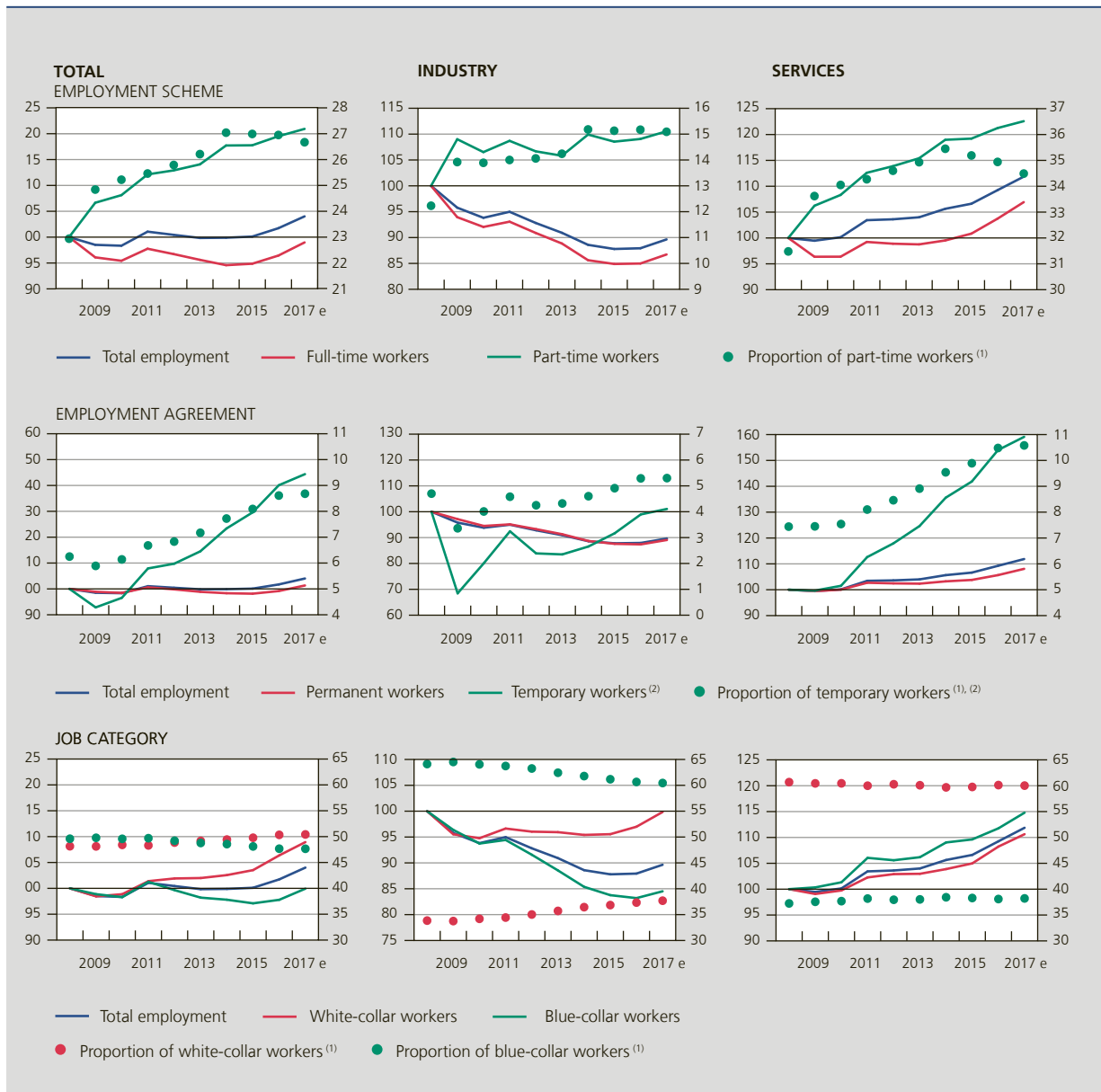
In the services sector, by contrast, temporary employment remained fairly stable after the crisis. However, the jump in the number of temporary workers from 2011 was quite distinct from the way permanent worker numbers were moving, i.e. barely. In fact, in 2017, services employed 60 % more temporary workers than it had in 2008, taking their relative share to 10.6 % of the total, compared with 7.4 % in 2008. These employment agreements, which enable employers to swiftly align the volume of employment with economic activity, are primarily used in specific branches, such as retail trade or accommodation and food service activities, two sectors accounting for nearly half of temporary workers. A proportion of this temporary workforce may be made up of students and/or seasonal workers, but unfortunately this cannot be formally established from social balance sheets. Successive legal changes since 2012 extending the number of hours students are allowed to work, have actually encouraged student labour.

By 2017, temporary workers accounted for 8.7 % of the workforce across all sectors, which was over 2.4 percentage points up on 2008.

(1) Permanent workers are employees tied to their employers through open-ended contracts.

(2) Temporary workers have time-limited contracts, replacement contracts or agreements to perform certain clearly delineated tasks which are time-limited by definition. Temp agency workers are not included in this group of temporary workers.

CHART 15 NUMBER OF WORKERS, BY EMPLOYMENT SCHEME, EMPLOYMENT AGREEMENT AND JOB CATEGORY
(index 2008 = 100, left-hand scale unless otherwise stated)



Source : NBB.

(1) In % of the total (right-hand scale).

(2) Temporary employment agreements are fixed-term contracts, replacement contracts or agreements to perform certain clearly delineated tasks which are fixed-term by definition.

Steeply higher in- and outflows of employees and turnover rates

The developments discussed above reflect the net movements in the workforce, that is to say, employment fluctuations between two given moments in time. Social balance sheets also provide a glimpse of gross movements in the scale of the inflows and outflows of employees in any given financial year. These figures capture any type of job gains and losses: they reflect changes in the economic fabric, as well as the inflows and outflows of employees related to job mobility between employers or renewals of temporary employment agreements.

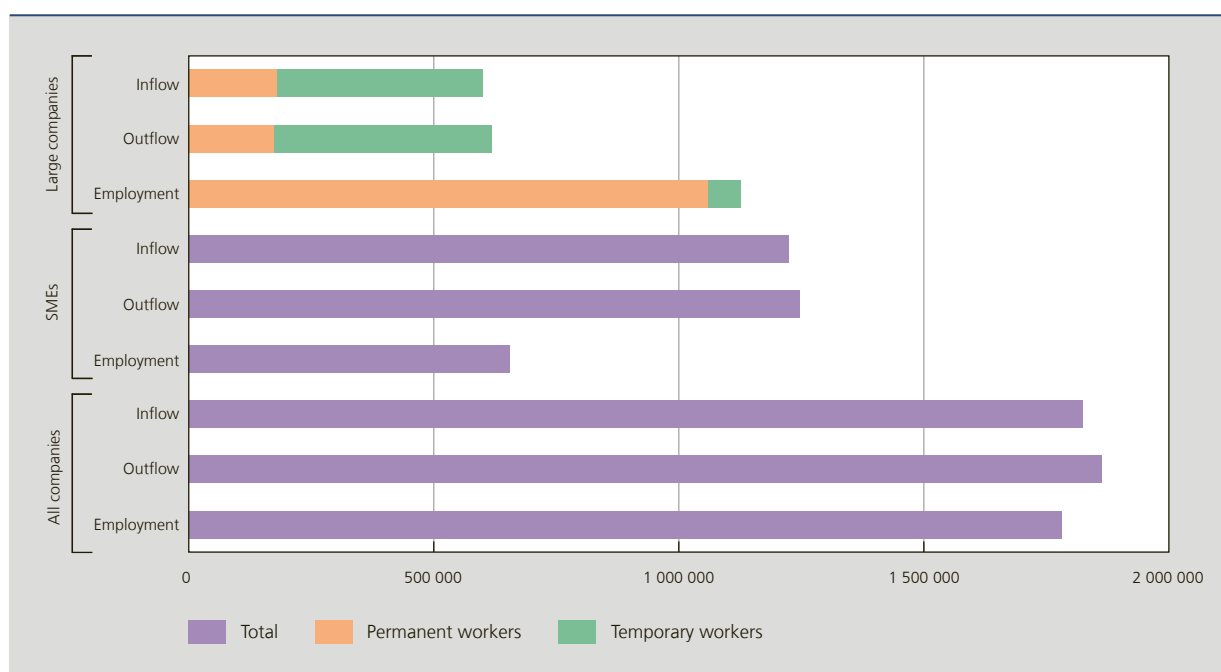
Study of this data reveals that employee turnover – i.e. inflows of employees or, conversely, outflows of employees, as expressed in percentages of employment – has shot up since 2008. Whereas in 2008 the number of newcomers

represented a little under three-quarters of the workforce, in 2017, there were more newcomers than those already in work.

Higher inflow rates come with equally higher outflow rates, suggesting that some employees change jobs often. That is particularly the case for employees in services, where the turnover rate in 2017 was around 150 %. Accommodation and food service activities, retail trade and business services (which includes cleaning of buildings) especially, record extremely high turnover rates. These three sectors account for nearly two-thirds of the annual in- and outflows of employees, whereas they employ only a little over a third of the total number of workers. Turnover is evidently less high in industry, energy and construction: a little over 20 % in the former two sectors – with turnover rates even dropping to around 10 % in chemicals and pharmaceuticals – and 30 % in the latter.

Chart 16 shows that in 2017 employee turnover is significantly higher at SMEs (nearly 200%) than it is at large companies (55%). The social balance sheets of corporations that filed full-format accounts reveal that 70 % of the in- and outflows of employees in large firms in 2017 related to temporary workers, whereas their share in the total workforce was only 5.9 %. A dichotomy appears to have occurred in large firms between staff on permanent contracts, whose turnover is low and falling (inflow rates of around 20 % in 2008 and around 16 % in 2017), and the temporary workforce, which is renewed nearly seven times over in the course of the financial year (inflow rates of 668 % in 2017).

CHART 16 GROSS MOVEMENTS IN THE NUMBER OF WORKERS IN 2017⁽¹⁾
(units)



Source: NBB.

(1) Projected data on the basis of the outcome for the constant population, for companies whose financial year was a 12-month period.

(2) Temporary employment agreements are fixed-term contracts, replacement contracts or agreements to perform certain clearly delineated tasks which are fixed-term by definition.

Fall in the number of blue-collar workers in industry

The first steps towards a harmonisation of the occupational status of blue- and white-collar workers date back to 2014 (initially with a standardisation of provisions for notice periods and unpaid first days of sick leave, followed later by those for supplementary pension entitlements), but a lot of areas still show plenty of differences, more specifically in terms of remuneration, access to temporary unemployment or joint committee representation. To this day, distinctions between employees based on their occupational category are still being made in Belgium.

These two categories of workers accounted for 98 % of the employee population 2017, with directors and staff with undetermined occupational status each making up less than 1 %. There have been no notable changes in the proportion of blue-collar workers and white-collar workers in the total employee population since 2008 (see chart 15), although there has been a slight shift in their share of the workforce: in 2008, blue-collar workers were the largest group with 49.6 % of the total, while this majority position had shifted to white-collar workers by 2017 (50.4 % of the total).

This shift harks back to the gradual expansion of the tertiary sector, a process that started long before the 2008 crisis and accelerated as a result of that same crisis. Between 2008 and 2015, industry lost 16 % of its original blue-collar workforce, while white-collar workers managed to contain the damage to 4 % compared with their position in 2008. As a result, the proportion of blue-collar workers in the total workforce contracted from 64 % to 61 %. The general recovery in employment, which started for white-collar workers in 2016 and for blue-collar workers in 2017, would appear to have slowed the decline in the share of blue-collar workers in the total workforce.

The share of blue-collar workers is even more important in construction than it is in industry: three-quarters of employees have blue-collar workers status. Here, too, blue-collar work has declined (–4 % of the original workforce), but the decrease was smaller than in industry. The number of white-collar workers, by contrast, has gone up by 30 %, admittedly from a very low base.

The fact that the total number of blue-collar workers stayed at its 2008 levels is due to increases in services, where blue-collar worker numbers (+15 % between 2008 and 2017) rose faster than those for white-collar workers (+11 %). It is worth noting that this expansion of blue-collar work occurred almost exclusively in two branches: accommodation and food service activities – a sector in which the increase amounted to 20 % across the period and where over three out of four workers were blue-collar by 2017 – and especially business services, which has seen an upsurge of 75 % in employment of blue-collar workers thanks to the rise in firms offering activities paid in service vouchers. Despite this robust growth, the overall share of blue-collar workers in services inched up by a single percentage point between 2008 and 2017, to 38.2 %.

Increased proportion of working women...

The development in business services as described above is mainly attributable to larger numbers of women having joined the workforce: their relative share has risen to 58 % from 50 %, while there has also been an increase in the number of men in work. Over 61 000 additional female employees and 20 000 additional male employees joined the workforce in business services since 2008 (see chart 17). The overall services sector created new jobs for a total of 122 000 new employees in the period, two-thirds of whom are women.

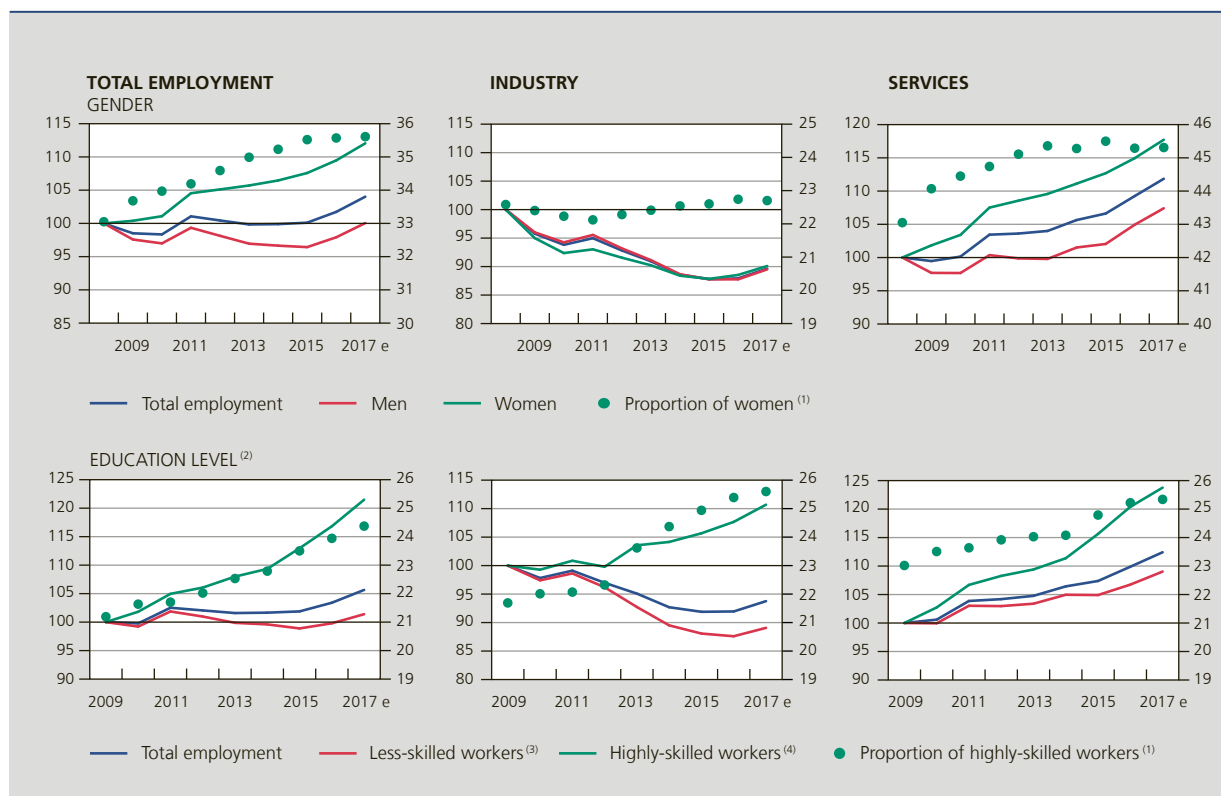
Meanwhile, more women now also work in construction, whereas the male workforce has remained virtually stable. The sector retains its reputation for being traditionally male, though, as nine out of ten employees were men in 2017.

In industry, the fall in employment hit women and men equally hard, and their relative share has not changed: just as in 2008, men accounted for over 77 % of the total workforce in the sector in 2017.

Overall, women saw their share of the workforce rise by three percentage points in the period, from 33 % to 36 %. Male employment, which suffered as a result of falling economic activity in 2008-2009 and in 2011, was back at pre-crisis levels in 2017 on the back of renewed growth in employment in industry and accelerated recruitment in services.

CHART 17 NUMBER OF WORKERS, BY GENDER AND EDUCATION LEVEL

(index 2008 = 100 (left-hand scale), unless otherwise stated)



Source: NBB.

(1) In % of the total (right-hand scale).

(2) Index 2009 = 100.

(3) The category of "less-skilled workers" comprises all employees with no more than secondary education.

(4) The category of "highly-skilled workers" includes all employees with higher education qualifications.

... and higher average education levels of employees

Levels of education for employees are among the least well completed variables of the social balance sheet. This breakdown, which was introduced in 2008, only applied to companies whose financial years ended on 31 December of that year, and 2008 cannot therefore be taken as the base year as in the other breakdowns. What is more, regular checks suggest that companies are not very consistent when completing this part of the table: some put their entire workforce in one and the same educational level, which may vary from one year to the next; others make corrections, leading to category changes between two successive financial years. This kind of behaviour can significantly distort identified trends as far as a large firm is implied. To lessen the impact of such changes, the number of education levels was cut to two: "less-skilled" – referring to employees who at most attained a secondary education qualification (and which includes those with a certificate of primary school attendance as their highest qualification) – and "highly-skilled", comprising employees who have attained higher education qualifications (postgraduate degrees, obtained in high school or at university).

In 2009, less-skilled workers still accounted for 78.8% of the total workforce (see chart 17). Their numbers remained virtually stable in subsequent years, whereas the number of highly-skilled rose by over 20%. As a result, the relative proportion of the first group fell to 75.6% in 2017.

The stability of the less-skilled workers is an illusion, though, as shown by the steep drop (of 11%) in the number of less-skilled working in industry between 2009 and 2017. At the same time, the highly-skilled in industry saw their

numbers grow by over 11 %, causing their relative share to rise to a little over a quarter of the workforce in 2017 from over one-fifth in 2009.

In services, highly-skilled staff also represented 25 % of the total workforce in 2017. Less-skilled work grew by 9 % in the period under review, but the number of highly-skilled workers went up a lot faster, by 24 %. As a result, the relative share of the less-skilled came down.

The construction sector has a large number of employees who have built their skills after secondary or lower-education studies or on the job: in 2017, nine out of ten employees were less-skilled. The increase in highly-skilled employees is the most notable feature in this sector, as it surged by over 40 % between 2009 and 2017. This helped to keep employment close to its base level, by the way, as the number of less-skilled employees fell.

These generally unfavourable developments for the less-skilled in this eight-year period under review should not cloud the past two years' reversals in fortune: a more favourable economic situation and the country's wage moderation policy have boosted trends in employment in 2016 and 2017, even for the less-skilled. A detailed breakdown shows that in the constant population the number of less-skilled rose across the board in 2017 in every branch, even in those that had recorded each year a contraction in the previous five years, such as textiles, pulp and paper, metal manufacturing and construction. Only retail trade reported a fall in the number of less-skilled, which can be fully explained by a major player that reclassified its employees between the various education categories.

Conclusions

Against a background marked by a slight acceleration in GDP and higher production costs, non-financial corporations saw value added growth slow down, from 5.7 % in 2016 to 3 % in 2017. However, information collected from large companies shows that sales in 2017 have steadily grown. The recovery in commodity prices caused an even bigger rise in supply costs, which in their turn caused the value added to shrink. Services made the biggest contribution to the actual rise in the value added, particularly business services and wholesale trade. Operating costs were up a total 3.2 % in 2017, slowing the increase in net operating result from 3.5 % to 2.4 %. Higher staff costs (+3.9 %) greatly impacted costs: steeply increased employment (as in 2016) was accompanied by higher hourly labour costs in 2017, as the effects of the wage moderation measures introduced in 2015 and 2016 gradually faded away.

Most profitability ratios edged down in 2017 at both large companies and SMEs. Although the financial profitability of the former has undershot that of the latter in the past few years, large companies' shares still generate higher returns than do Belgian government bonds.

The last few years have seen a significant improvement in the median values of SME solvency ratios. In part, this relates to the changes in the fiscal treatment of liquidation surpluses, which initially (i.e. in 2013-2014) encouraged SMEs to shift their taxed earnings from reserves to authorised capital and then in a second step (from 2015) to report these under liquidation reserves. A reversal may have got under way since the end of 2017 but is not yet visible in globalised or median ratios: however, statistics on capital changes reveal that nearly 6 000 non-financial corporations cut their capital by returning it to their shareholders in the month of December 2017 alone, while nearly 2 000 other reductions were the result of liquidations. These trends reflect successive changes in the tax treatment of income and the distribution of capital in the past couple of years, which caused a drop in outstanding authorised capital at SMEs between 2016 and 2017. Various actions at individual firm level have typically scaled back authorised capital to minimum required levels, which might well impinge on the financial resilience of the companies involved.

Ever since 2008, average financial debt-related costs have been falling for both large companies and SMEs. This change corresponds with the development in weighted average costs charged by Belgian banks on new business loans as well as with the trend in the average yields on corporate bonds.

The net short-term debt ratio remained virtually stable in 2017. Although the level of the globalised ratios is similar for both large companies (averaging 31 % in 2003-2017) and SMEs (averaging 29 % in 2003-2017), their composition differs: SMEs tend to have relatively more cash and cash equivalents, possibly because it is less easy for them to attract

new loans. In addition, SMEs take on relatively more short-term debt than do large companies, and the weight of “other debt” in particular is more significant at SMEs.

The outcomes of the ratio analysis are largely corroborated by credit risk scores derived from the Bank’s In-House Credit Assessment System (ICAS). The ICAS models show that SMEs are more highly represented in both the group of companies with very low credit risks and in the group in which credit risks are very high.

The analysis of data in the social balance sheets showcases a change in the economic structure at the expense of industry – which was hit hard by the 2008 crisis – and to the benefit of services. By accelerating the process of tertiary sector expansion that had been going on for years, the crisis led to a significant fall in the employment of blue-collar workers in industry, which could not be fully offset by the upturn in the services branches, particularly business services whose development was amply supported by the service voucher system. Services have grown largely on the back of more women in employment, whereas downward employment trends in industry affected men and women equally. However, the feminisation of the workforce in the analysis population has slowed in the past few years, thanks to a recent recovery in male employment both in industry and in services.

The changes in the economic structure have been accompanied by greater flexibility in the workforce, with the proportion of part-time workers having risen until 2014 and stabilised thereafter. The recent recovery in full-time employment may have pushed down part-time work share, to be confirmed in the years ahead. After the number of employees in temporary employment agreements declined in the aftermath of the crisis – excluding temp agency workers for the purpose of this analysis – the figure bounced back in recent years, with a key contributor being services branch dynamics, which saw temporary employment shoot up by 60 % in the period under review.

Although the number of less-skilled employees remained generally stable – with these types of job losses in industry offset by job gains in services – the overall education level of workers increased, as the number of highly-skilled employees rose significantly.

Annexes

Annex 1 – Definition of analysis populations

1. Analysis population for financial results

1.1 Selection criteria for the analysis population

Most Belgian corporations where shareholders' or managing directors' liability is limited to their contributions are obliged to publish their annual accounts by filing these with the Bank's Central Balance Sheet Office. The same applies to foreign companies and foundations that are active in Belgium.

The population studied in this article corresponds to companies in the non-financial sector (S11) as defined by the National Accounts Institute, i.e. institutional units which are independent legal entities and market producers and whose main activity is the production of non-financial goods and services. Filers of annual accounts from other institutional sectors – financial sector (S12), general government sector (S13) or non-profit institutions (S15) – are not considered.

Certain categories of firms are excluded from the analysis population :

- corporations whose annual accounts do not meet the quality requirements imposed by the Central Balance Sheet Office ;
- non-financial corporations that are monitored by the government and that feature on the list of public entities drawn up by the National Accounts Institute⁽¹⁾, excluding those that are active in sufficiently competitive markets (mainly the Proximus group companies);
- companies that take the form of a holding company or a treasury centre and that are identified on the basis of the share of their balance sheet represented by financial fixed assets and intra-group claims;
- some companies with a specific legal form ;
- corporations in the process of judicial winding-up.

The population thus defined comprised just under 354 000 firms for the 2016 financial year, the last complete financial year. For a breakdown of these companies by sector, see Annex 2.

The number of filers keeps increasing: in 2016, the analysis population had grown by around 101 000 companies compared with 2003.

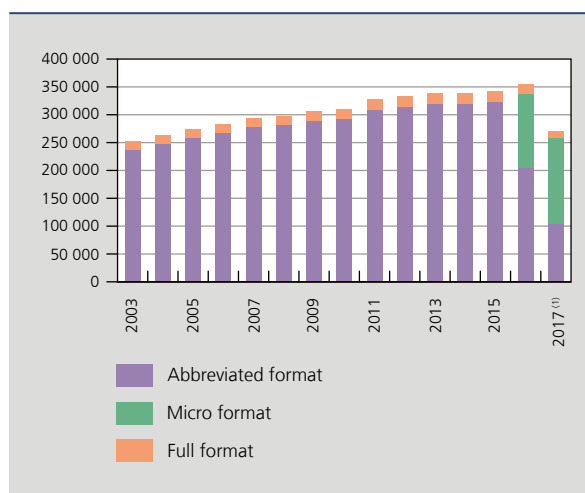
The structure of formats used by companies changed radically from the 2016 financial year, which was the first year to apply new size criteria aiming to distinguish large companies from small ones, with the smallest among them permitted to apply an even more simplified format called the micro format, under the transposition into Belgian law of Directive 2013/34/EU on financial statements.

The new legislation applied to any financial years that started on or after 1 January 2016. As the analysis population for a financial year includes all annual accounts closed in that financial year, regardless of when the financial year actually started, the 2016 financial year comprised both annual accounts filed in keeping with the old models and size criteria, and annual accounts that met the new requirements. By 2016, 37 % of all firms had already switched to the new micro format, while the relative share of companies filing the full format had declined, from 5.7 % of the total in 2015 to 4.8 % in 2016. The figures evolved even further in 2017, as 2017 was the first year that every firm applied the new models and size criteria. Once again, there was a shift in the number of abbreviated formats towards micro formats.

(1) These companies stand out for a series of particular features related to regulation, price-setting, funding (subsidies) or their social purpose. Such corporations include public transport companies, electricity, gas and water companies, public network and infrastructure operators (airports, ports, etc.), social housing companies, care and rest homes, economic development companies, environmental management companies, etc. The principles for financial analysis typically applied to private companies cannot be immediately transposed to them.

CHART 1 FORMAT USED BY COMPANIES IN THE ANALYSIS POPULATION

(units)



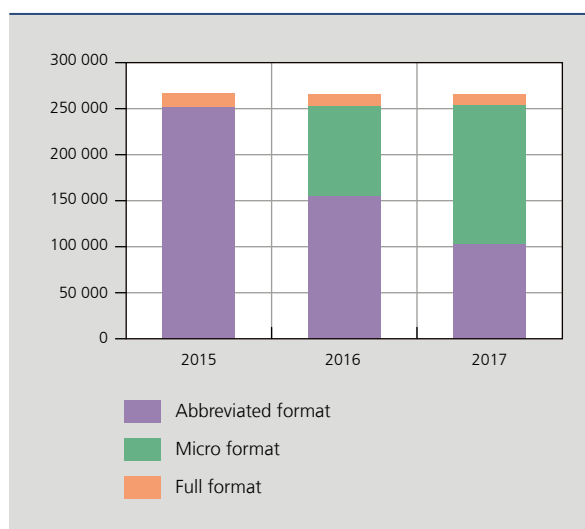
Source: NBB.

(1) Companies in the constant population.

With the 2017 population incomplete when this article went to press, it is not yet possible to gauge the extent to which the changeover influenced the relative shares of the various groups. Still, we note a gradual shift in the formats for corporations that have filed annual accounts in three successive years, a total of over 266 000 companies. In 2015, the full formats accounted for 5.4% of total filings, with this share having come down to 4.3% in 2017. This means that one in five companies that filed full-format accounts in 2015, i.e. a total of 3 000 firms, used the abbreviated or micro format in 2017. This shift is even more pronounced for the abbreviated formats, where the relative share fell from 95% in 2015 to 58% a year later and less than 40% in 2017. The entire shift went to the micro format, which accounted for 57% of the involved population in 2017.

CHART 2 FORMAT SHIFT IN COMPANIES FILING ANNUAL ACCOUNTS IN 2015, 2016 AND 2017

(in %)



Source: NBB.

1.2 Constant sample

As every year, the annual accounts relating to the last financial year studied – in this case 2017 – were not all available at the time of the analysis. That is because a considerable number of annual accounts are filed late or fail the arithmetical and logical checks conducted by the Central Balance Sheet Office. The data relating to 2017 are therefore estimated on the basis of a constant sample. The sample comprises firms which filed 12-month annual accounts that meet the quality checks of the Central Balance Sheet Office for both 2016 and 2017.

The method involves extrapolating the 2017 results according to the changes seen within the constant sample, which are presumed to be representative of the changes affecting the population as a whole. Firms from the constant sample are broken down into homogenous sub-groups by company size (corresponding to the filling format used), sector and region. We subsequently measure developments in key variables for each of these sub-groups, weight the recorded growth percentages based on the sub-group shares in the total and then arrive at an aggregate result for the total population. Our basic assumptions are largely borne out: in the majority of cases, these extrapolations give a good indication of the direction and scale of the real movements.

This year's constant sample was drawn on 20 September 2017. It comprises nearly 270 000 annual accounts, or 76.2 % of the total number of accounts filed for the 2017 financial year. Measured in terms of value added, the rate of representativeness comes to 80.2 %. This rate was a little higher in industry (83.3 %) than in services (79.2 %), energy (77.5 %) and construction (76.5 %). Note that this rate was pushed down by the absence of a very large retail trade company, whose annual accounts were not available when the constant sample was drawn.

2. Analysis population for the social data

2.1 Selection criteria for the analysis population

The non-financial corporations selected in keeping with the methodology as set out above do not all complete a social balance sheet; only those employing people on Belgian soil are obliged to do so.

Aside from having to meet the applicable selection criteria for the analysis of the financial results, companies eligible for the analysis of their social data should meet the following conditions:

- the number of FTEs should be positive, both in terms of their annual average and at the end of the year;
- the internal consistency of the data in social balance sheet tables should be assured⁽¹⁾;
- companies may not be active in the NACE-BEL 78 category for "employment activities", including employment placement and temporary employment agencies, due to their specific nature, making it hard to count their workforce, given the many that join and leave.

The number of eligible social balance sheets was around 120 000 for 2016, the last full financial year observed (see Annex 2), corresponding to 34 % of the companies in the selected population for the analysis of the financial results. However, their representativeness as measured in employment volumes (number of FTEs) is clearly higher and amounts to nearly 89 %.

2.2 Constant sample

Just as in the analysis of the financial results, developments relating to the 2017 financial year are extrapolated on the basis of those that are identified in the constant population of companies that have filed a 12-month social balance sheet that meet the quality checks of the Central Balance Sheet Office for each of the 2016 and 2017 financial years. The methodology is the same as the one described under 1.2.

(1) Social balance sheets lacking certain data – even if the law permits not including certain information for reasons of privacy protection of the employees – are also left out, as the internal consistency is not then assured.

This year's constant sample was drawn on 20 September 2017. It comprises nearly 83 000 corporations, or 69.2 % of the total number of companies selected for the analysis of the social data of the 2017 financial year. Measured in terms of employment in FTEs, the rate of representativeness comes to 78 %. This rate was a little higher in industry (79.7 %) and in energy (80.9 %), and lower in construction (73.1 %), as the annual accounts of small firms, which are strongly represented in the latter sector, are not given priority by the Central Balance Sheet Office, in view of their lower relative weight. For services, the rate of representativeness is close to the average (78.2 %) but was pushed down by the absence of a very large retail trade company, whose annual accounts were not available when the constant sample was drawn.

Annex 2 – Breakdown of analysis population by branch of activity

	NACE-BEL 2008 divisions	Analysis population of financial results in 2016		Analysis population of social data in 2016	
		Companies	Value added	Companies	Employment
		(units)	(in % of total)	(units)	(in % of total)
Industry	05-33	22 137	29.6	12 350	25.5
of which:					
Food industry	10-12	4 083	4.5	2 673	4.6
Chemicals	20	609	4.3	409	2.3
Pharmaceuticals	21	139	4.8	78	1.4
Metallurgy	24-25	4 334	3.6	2 556	4.0
Metal manufacturing	26-30	2 401	4.7	1 338	4.8
Energy, water and waste	35-39	1 471	2.2	620	1.0
Construction	41-43	51 948	7.7	19 832	10.3
Services	45-82; 90-96	278 404	55.6	86 946	63.2
of which:					
Trade in motor vehicles	45	11 452	3.1	5 334	3.1
Wholesale trade ⁽¹⁾	46	32 787	13.7	13 392	9.8
Retail trade ⁽¹⁾	47	38 107	6.7	18 322	13.9
Transportation and storage	49-53	11 577	6.4	5 589	8.0
Accommodation and food service activities ..	55-56	22 612	2.2	11 136	5.8
Information and communication	58-63	20 536	6.9	4 368	5.0
Real estate activities	68	32 849	2.9	3 520	0.7
Business services ⁽²⁾	69-82	90 537	17.0	19 205	14.6
Total		353 960	184 675⁽³⁾	119 748	1 784 806⁽⁴⁾

Source: NBB.

(1) Excluding trade in motor vehicles.

(2) Excluding head office activities (NACE-BEL 70 100).

(3) In € million.

(4) Number of workers at the end of the financial year.

Annex 3 – Definition of the financial ratios

The globalised average is calculated as the sum of the numerators of all companies divided by the sum of their denominators. Hence, the globalised ratio is the weighted average of all ratios at individual company level, while the weight is the proportion of each company in the total value of the ratios denominator. As a result, the globalised average reflects the situation of companies with the largest denominator value.

The median equals the central value of an ordered distribution, with 50 % of companies having a ratio below the median.

Formulas for the ratios analysed are as follows:

	Item numbers allocated	
	Full format	Abbreviated format ⁽¹⁾
1. Gross margin on sales		
Numerator ⁽²⁾ (N)	9901 + 630 + 631/4 + 635/7	9901 + 630 + 631/4 + 635/7
Numerator ⁽³⁾ (N)	9901 – 76A + 66A + 630 + 631/4 + 635/8	9901 – 76A + 66A + 630 + 631/4 + 635/8
Denominator (D)	70 + 74 – 740	70
Condition for calculation of the ratio: Abbreviated format: D > 0		
2. Net margin on sales		
Numerator ⁽²⁾ (N)	9901 + 9125	9901 + 9125
Numerator ⁽³⁾ (N)	9901 – 76A + 66A + 9125	9901 – 76A + 66A
Denominator (D)	70 + 74 – 740	70
Condition for calculation of the ratio: Abbreviated format: D > 0		
3. Investment margin		
Numerator (N)	8169 + 8229 – 8299	8169 + 8229 – 8299
Denominator ⁽²⁾ (D)	70/74 – 740 – 60 – 61	9900
Denominator ⁽³⁾ (D)	70/76A – 76A – 740 – 60 – 61	9900 – 76A
Condition for calculation of the ratio: D > 0 ⁽⁴⁾		
4. Net return on total assets before tax and financial charges, excluding exceptional results (= economic profitability)		
Numerator ⁽²⁾ (N)	9904 + 650 + 653 – 9126 + 9134 – 76 + 66	9904 + 65 – 9126 + 67/77 – 76 + 66
Numerator ⁽³⁾ (N)	9904 + 650 + 653 – 9126 + 9134 – 76A – 76B + 66A + 66B	9904 + 65 + 67/77 – 76A – 76B + 66A + 66B
Denominator (D)	20/58	20/58
Condition for calculation of the ratio: 12-month financial year		

(1) Formulas for financial years commencing after 31 December 2015 are also valid for the micro format.

(2) Financial years commencing before 1 January 2016.

(3) Financial years commencing after 31 December 2015.

(4) Condition valid for calculating the median ratio but not the globalised ratio.

	Item numbers allocated	
	Full format	Abbreviated format ⁽¹⁾
5. Net return on total assets before tax (after financial charges), excluding exceptional results (= financial profitability)		
Numerator ⁽²⁾ (N)	9904 + 9134 – 76 + 66	9904 + 67/77 – 76 + 66
Numerator ⁽³⁾ (N)	9904 + 9134 – 76A – 76B + 66A + 66B	9904 + 67/77 – 76A – 76B + 66A + 66B
Denominator (D)	10/15	10/15
Conditions for calculation of the ratio:		
12-month financial year		
D > 0 ⁽⁴⁾		
6. Net return on equity, excluding exceptional results		
Numerator ⁽²⁾ (N)	9904 – 76 + 66	9904 – 76 + 66
Numerator ⁽³⁾ (N)	9904 – 76A – 76B + 66A + 66B	9904 – 76A – 76B + 66A + 66B
Denominator (D)	10/15	10/15
Conditions for calculation of the ratio:		
12-month financial year		
D > 0 ⁽⁴⁾		
7. Net return on operating assets		
Numerator ⁽²⁾ (N)	9901	9901
Numerator ⁽³⁾ (N)	9901 – 76A + 66A	9901 – 76A + 66A
Denominator (D)	20 + 21 + 22/27 + 3 + 40/41 + 490/1	20 + 21 + 22/27 + 3 + 40/41 + 490/1
Conditions for calculation of the ratio:		
12-month financial year		
D > 0 ⁽⁴⁾		
8. Degree of financial independence		
Numerator (N)	10/15	10/15
Denominator (D)	10/49	10/49
9. Degree of self-financing		
Numerator (N)	13 + 14	13 + 14
Denominator (D)	10/49	10/49
10. Average interest charges on financial debt		
Numerator ⁽²⁾ (N)	650	65 – 9125 – 9126
Numerator ⁽³⁾ (N)	650	65
Denominator (D)	170/4 + 8801 + 43	170/4 + 42 + 43
Condition for calculation of the ratio:		
12-month financial year		
11. Net short-term debt ratio		
Numerator (N)	42/48 + 492/3 – 54/58	42/48 + 492/3 – 54/58
Denominator (D)	20/58	20/58

(1) Formulas for financial years commencing after 31 December 2015 are also valid for the micro format.

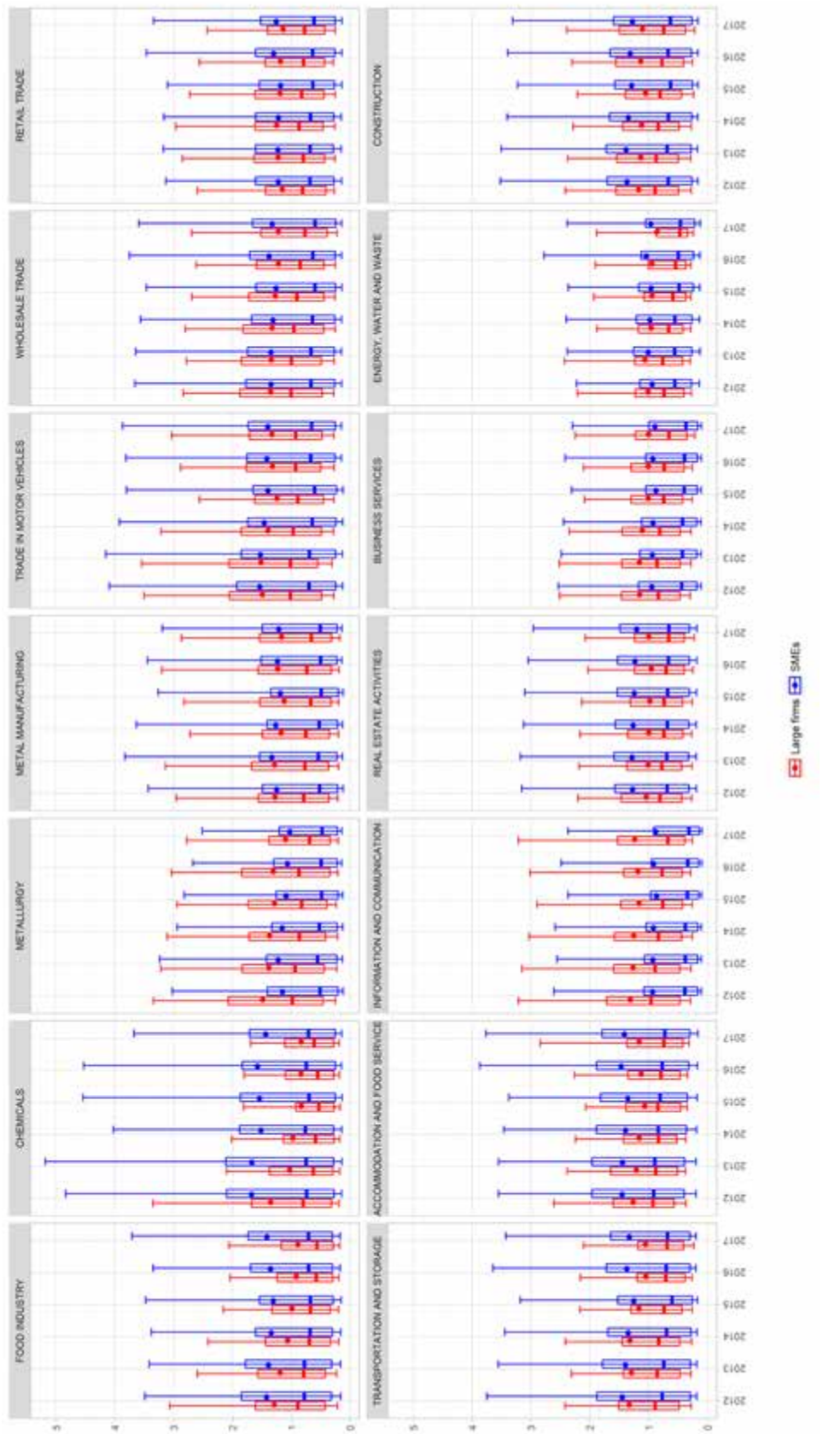
(2) Financial years commencing before 1 January 2016.

(3) Financial years commencing after 31 December 2015.

(4) Condition valid for calculating the median ratio but not the globalised ratio.

Annex 4 – Additional information about credit risk analysis

4.1 Breaking down of ICAS credit risk scores by branch of activity⁽¹⁾ and company size



Source: NBB.

(1) Table 4.3 captures population size per branch of activity in 2017. The pharmaceutical branch's population is fairly small and is therefore not included in the chart above.

4.2 Conversion table

Credit risk classes	Corresponding ICAS credit risk scores	ECAI rating categories
1	[0 – 0.079]	AAA to A
2	[0.079 – 0.126]	A–
3	[0.126 – 0.199]	BBB+
4	[0.199 – 0.314]	BBB
5	[0.314 – 0.492]	BBB–
6	[0.492 – 0.765]	BB+
7	[0.765 – 1.179]	BB
8	[1.179 – 1.795]	BB–
9	[1.795 – 2.695]	BB– / B+
10	[2.695 – 3.985]	B+
11	[3.985 – 5.787]	B+ / B
12	[5.787 – 8.238]	B
13	[8.238 – 11.473]	B–
14	[11.473 – 100]	CCC/C

Source: NBB.

4.3 Number of companies used in estimating ICAS credit risk scores

	Large companies	SMEs
Food industry	416	3 198
Chemicals	152	331
Pharmaceuticals	30	84
Metallurgy	281	3 675
Metal manufacturing	270	1 827
Trade in motor vehicles	607	9 678
Wholesale trade	2 071	26 497
Retail trade	593	33 572
Transportation and storage	788	9 216
Accommodation and food service activities ..	163	19 501
Information and communication	439	18 132
Real estate activities	700	29 294
Business services	1 230	81 486
Energy, water and waste	193	1 080
Construction	951	46 191

Source: NBB.