BANCA D'ITALIA
EUROSISTEMA

Statistics

Survey of Industrial and Service Firms

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For information: statistiche@bancaditalia.it
www.bancaditalia.it/statistiche/index.html

Main results

According to the Bank of Italy survey conducted last spring, in 2017 the increase in sales of industrial and private non-financial services firms with at least 20 employees gained strength on both domestic and foreign markets. The acceleration stimulated labour demand, which rose at a pace similar to that of the previous year. Sales prices returned to growth at a more sustained rate; firms attributed this mainly to the trend in the prices of raw materials and to stronger demand.

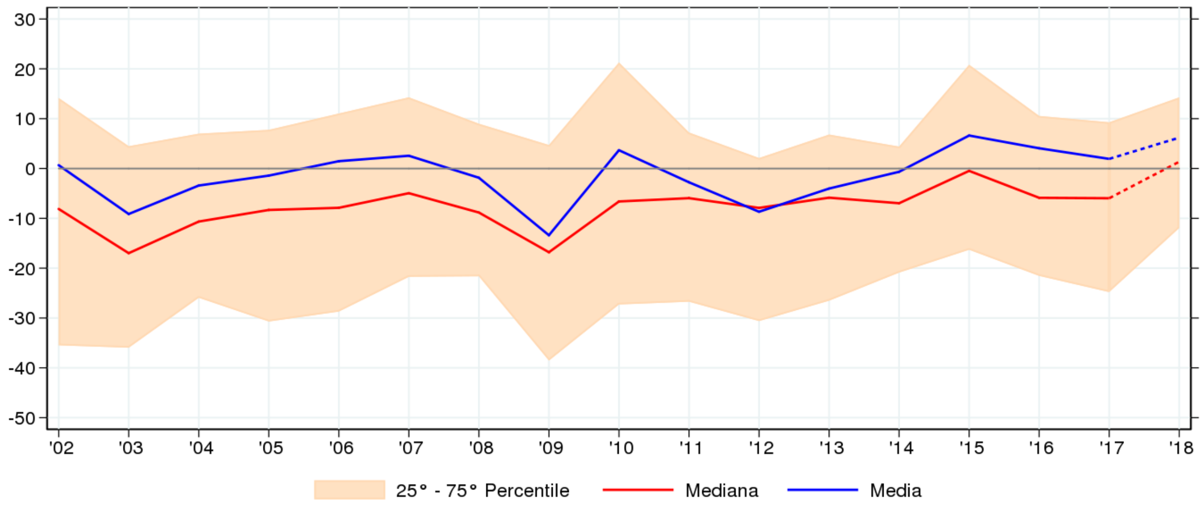
Firms expect sales to keep growing robustly in 2018, although at a slower pace compared to last year; price growth is also expected to stabilize.

Investment expenditure increased further, due especially to the growth in capital accumulation by small and medium-sized firms. Planned investment is expected to pick up in 2018, driven mostly by greater investment by firms with at least 500 employees, which as a group contributed little to total investment growth over the last two years.

The output of construction firms with at least 10 employees fell again in 2017, although by less than in the previous year. The contraction reflected a decline in public works, which was only partially offset by the recovery in housing.

The balance between the share of firms expecting an improvement and those that foresee a worsening in credit conditions remains positive and essentially unchanged in the industrial and services sectors; in construction, it is positive for the second consecutive year and is increasing.

Investment (1)
(percentage changes)



Note: (1) Does not include the construction sector. Total expenditure on tangible assets and on software and databases and mineral exploration; calculated at constant prices using deflators found in the survey. Statistics weighted by firm distribution and investment spending. Dotted lines indicate firms' expectations for 2018.

Reference period: 2017

SURVEY OF INDUSTRIAL AND SERVICE FIRMS[1]

Non-construction industry and non-financial private services

The growth in sales ...

In 2017 the total sales volume of non-construction industrial firms with at least 20 employees returned to strong growth following the marked slowdown recorded in the previous year (2.3 per cent, from 0.3 per cent in 2016; Table 1). Two thirds of firms recorded growth in sales (compared with about half last year). The acceleration, which was more intense than that expected by firms in the previous survey, concerned both the internal and external components (Figure 1) and took place across all the main sectors and size groups; it was more marked for firms with at least 500 employees. The performance of sales was especially strong in the metalworking sector (4.1 per cent), also thanks to the incentives on the purchase of capital goods.

Table 1

Main developments in 2016-2017 and expectations for 2018 (1)

(percentage changes)

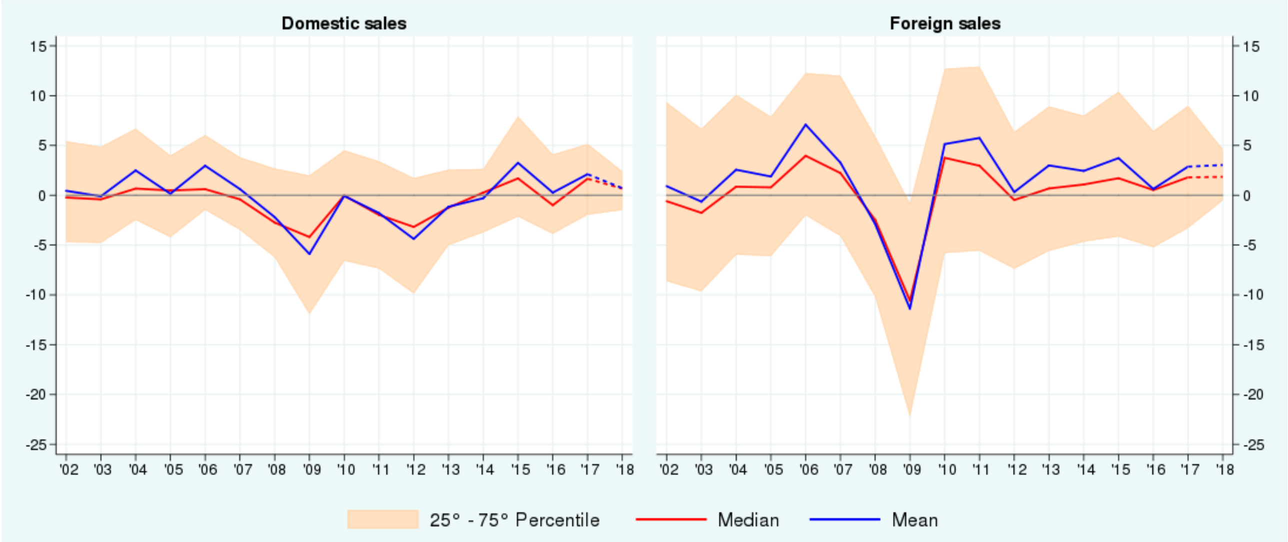
	Turnover (2)			Investment (2)			Employment		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Sector									
Manufacturing	0.6	2.7	2.4	6.9	3.1	2.7	0.6	0.6	0.5
Energy and mining	-3.1	0.2	-2.7	-3.4	2.9	18.7	-0.7	-0.8	-1.2
Non-financial services	1.1	2.6	1.5	3.1	2.3	4.6	1.1	0.9	0.4
Geographical area									
North-West	0.6	2.3	1.6	4.4	3.2	4.2	0.4	0.7	0.4
North-East	0.9	3.2	1.8	6.9	2.7	4.9	1.4	1.4	0.7
Centre	-1.1	1.8	0.1	-0.5	0.9	6.3	0.5	-0.1	0.2
South and Islands	0.9	1.5	1.9	9.6	8.3	9.1	1.3	0.9	-0.4
Number of workers									
20 – 49	1.0	2.4	1.6	14.4	6.9	-4.4	0	-0.2	0.5
50 – 199	0.8	2.0	1.6	6.1	3.1	5.4	0.8	1.2	0.2
200 – 499	-0.7	1.3	0.4	-1.8	4.7	10.6	1.3	0.7	0.1
500 and more	0	3.2	1.4	0.1	0.4	8.5	1.2	1.0	0.5
Share of turnover from exports									
Less than one third	-0.2	2.0	0.9	2.3	3.0	6.1	0.8	0.9	0.3
Between one third and two thirds	1.6	3.4	2.2	5.3	-1.9	2.2	0.4	0.5	0.8
More than two thirds	1.5	2.9	3.0	9.1	6.6	5.1	1.1	0.3	0.5
Total	**0.3**	**2.3**	**1.3**	**3.6**	**2.7**	**5.3**	**0.8**	**0.7**	**0.4**

Notes: (1) Data weighted by population weights. (2) Based on winsorized elementary data; values at constant prices calculated on the basis of the average deflators found in the survey. In keeping with the SEC 2010 national accounting standard, changes in investments refer to the aggregate which, besides expenditure for material investments and for software, databases and mineral prospecting, includes expenditure for research and development, design, and prototyping.

[1] This report and the statistical appendix were prepared by Laura Bartiloro, Marco Bottone, Elena Mattevi and Matteo Mongardini. The survey was carried out directly by the Bank's branches.
The data are used exclusively for the purpose of economic analysis and have been handled and processed in aggregate form. We would like to thank all the firms that agreed to take part in the survey, providing the necessary information in the course of long and complex interviews.
The statistical appendix and the methodological note are available at the following webpages:
https://www.bancaditalia.it/pubblicazioni/indagine-imprese/2017-indagine-imprese/dati_2017_eng.zip?language_id=1
https://www.bancaditalia.it/pubblicazioni/metodi-e-fonti-note/metodi-note-2017/en_survey_methodology_invind.pdf?language_id=1

Figure 1

Turnover (1)
(percentage changes)



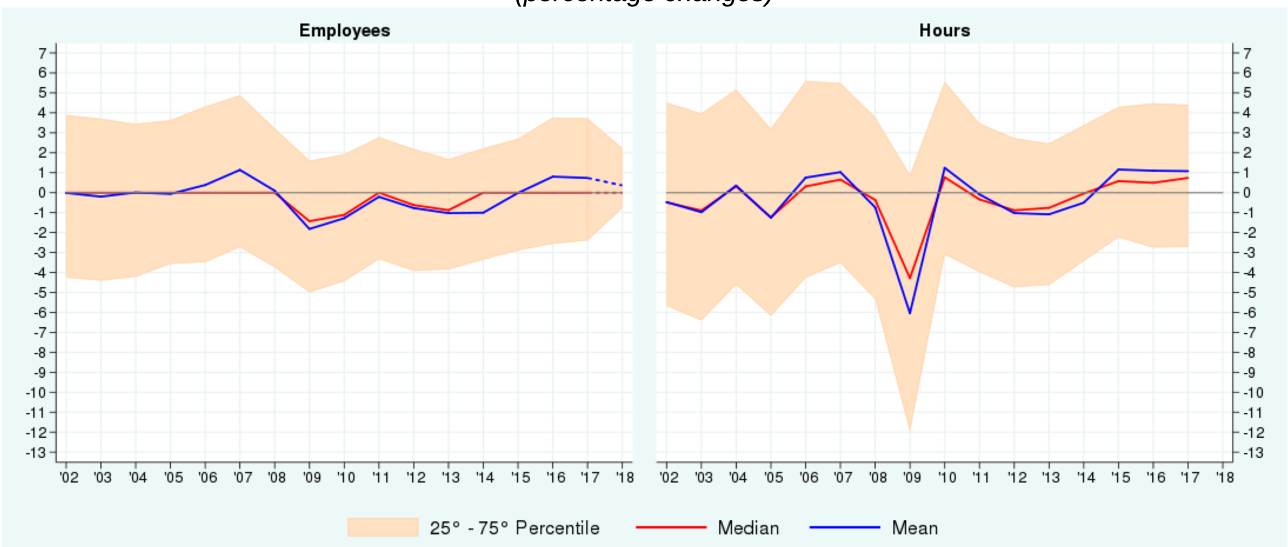
Note: (1) Values at constant prices calculated on the basis of the average deflators found in the survey; based on winsorized elementary data. The dotted lines indicate firms' expectations for 2018. Data weighted by population weights and turnover.

… favoured the demand for labour

In the main sectors, the number of those in employment and the total number of hours worked grew at a pace in keeping with that of the previous year (Figure 2). Hours worked per capita, which provide a metric of the intensity by which labour is employed in the production process, rose in a widespread manner; the increase was recorded for half of service firms and more than 60 per cent of manufacturing firms. For the whole sample, they grew by about 0.3 per cent on average.

Figure 2

Labour inputs (1)
(percentage changes)



Note: (1) The dotted line indicates firms' expectations for 2018. Data weighted by population weights and by the value of the variable being examined.

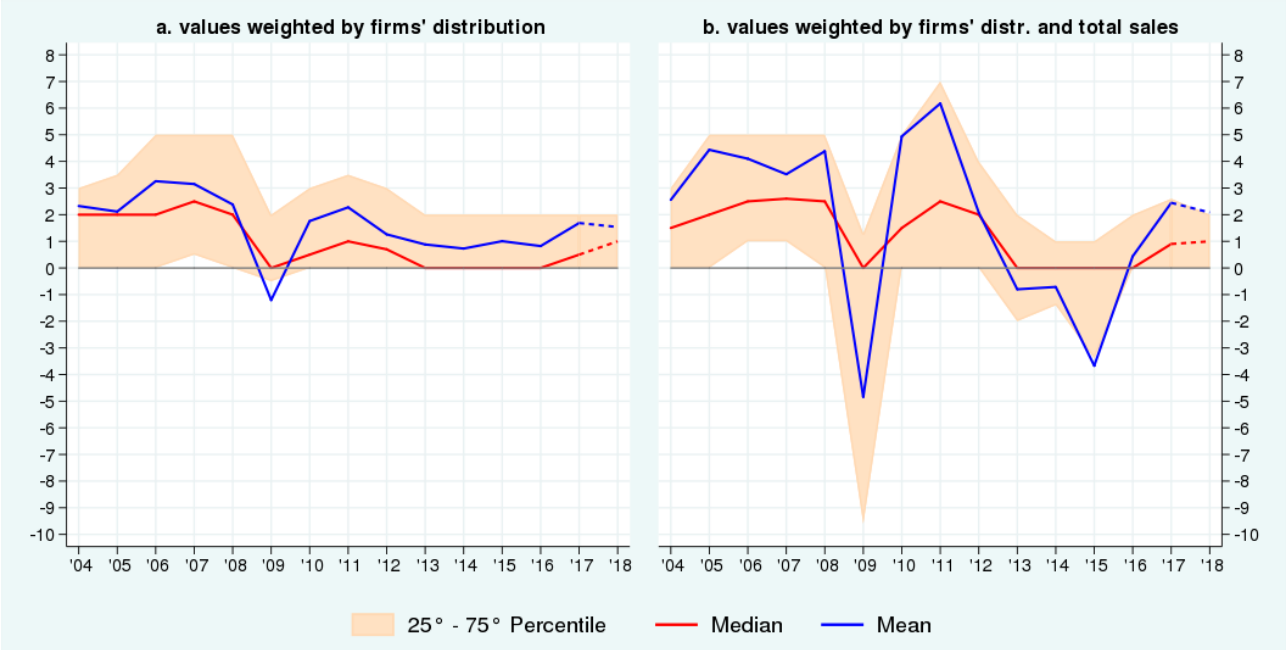
Sales prices returned to vigorous growth

In 2017, the average change in firms' sales prices nearly doubled, to 1.7 per cent, after remaining below 1 per cent for four years (Figure 3). The acceleration in prices was widespread: for the first time in five years, more than 50 per cent of firms reported a positive change. The share of firms, in terms of turnover, that reduced their own prices decreased further (from 22 to 15 per cent), while the share of firms that increased them by at least 2 per cent continued to rise, from 25 to 35 per cent. The performance of commodity prices and that of demand were the main contributors to price growth (Table 2); conversely, the firms that reduced their own sales prices in 2017 attributed this most frequently to the pricing policies of their main competitors. Firms' sales prices accelerated in all the main sectors, more markedly in the energy and mining sector (4.8 per cent from 0.5), which was especially affected by the rise in commodity prices.

The share of firms that posted a profit in 2017 rose further, to 75 per cent (73 per cent in 2016), a historically high level. The difference between the share of firms posting a profit and those reporting a loss was strongly positive in all the main groupings; it widened in an especially intense manner in services, while it narrowed for the larger firms and in the chemical products and the rubber and plastics sectors.

Figure 3

Changes in own sales prices (1)
(percentage changes)



Note: (1) The dotted lines indicate firms' expectations for 2018.

The recovery is expected to continue this year, albeit at a slightly slower pace

For the current year, manufacturing and non-financial service firms continue to expect dynamics that are still driven by sales abroad, while sales on the domestic market are expected to slow; the overall turnover is expected to continue to grow, albeit at a more moderate pace. The uncertainty about expected sales would appear to have returned to slight growth, especially among small service firms.

Prices are expected to continue to rise at a pace similar to that of 2017 in manufacturing and services (1.8 and 1.2 per cent respectively) and more moderately in energy and mining (2.2 per cent). About 50 per cent of firms plan to increase their prices by at least 1 per cent; one quarter of them attribute this decision to the overall performance of demand, and almost half of them to commodity prices.

Table 2

Reasons for changes in prices (1)
(percentage changes and per cent)

	2016/2017			2017/2018		
	Average change (2)	Median change (2)	Share of firms	Average change (2)	Median change (2)	Share of firms
Changes in overall demand ……………..	3.0	1.0	24.5	1.1	1.1	32.5
Changes in commodity prices ……………	2.9	1.5	43.7	3.8	2.0	35.8
Changes in labour costs ………………………	1.1	0.0	4.4	1.1	0.5	4.5
Pricing policies of main competitors ….	1.1	0.6	17.8	0.8	0.5	16.4
Inflation expectations ………………………………	1.0	0.9	4.0	1.4	1.0	3.8
Changes in the exchange rate …………………	1.7	1.0	1.9	0.9	0.0	2.2
Interest expense and sources of external financing …	3.6	1.0	0.1	3.0	1.5	0.9
No answer ……………………………………………	5.5	0.0	3.5	4.8	0.0	3.9

Notes: (1) Data weighted by population weights and turnover. – (2) Price changes of firms indicating this as the most significant reason.

In 2017 investment continued to grow more markedly for small and medium-sized firms

In 2017 investment spending increased further, by 2.7 per cent (3.6 per cent in 2016). It rose more intensely for firms with less than 500 employees while remaining generally stable and below the level initially planned for the largest firms (Table 1). Spending exceeded expectations for firms employing between 20 and 199 workers, for those more exposed to foreign demand, and in the sectors more dependant on tourist flows. Investment was, as in every year, highly uneven across firms: in 2017 some 75 per cent of total spending was carried out by the top 23 per cent of firms with the highest ratio of investments to turnover, which is a measure of the intensity of capital accumation that is indipendent of firm size (see the box '*The distribution over time of firms' investment decisions*').

Just over half of firms, accounting for about 70 per cent of overall investment, benefited from at least one of the incentive measures in force in 2017 (Nuova Sabatini incentives, tax credit, super-amortization, hyper-amortization or other). As in 2016, the most used incentive was super-amortization, whose goal was to support the purchase of new capital goods. Almost one third of firms that took advantage of the incentives, whose investments account for just over one tenth of total investment, reported that at least part of their spending was carried out thanks to these schemes.

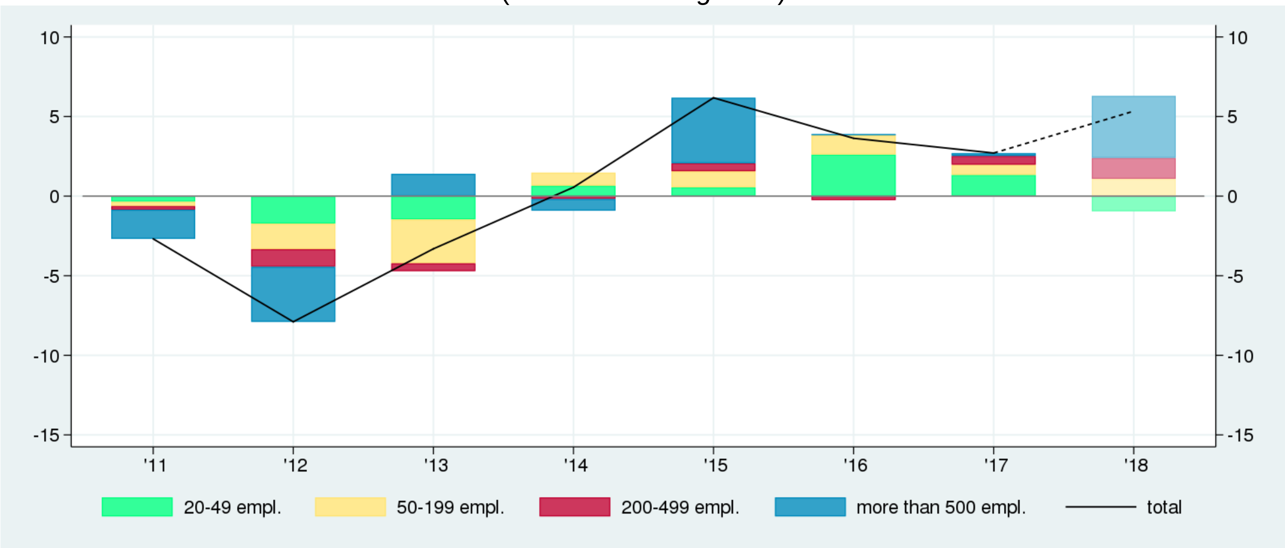
One out of three firms uses advanced technologies

It can be estimated that at least one tenth of the aggregate investment spending reflects the adoption, by just over one third of the respondent firms, of advanced technologies, the most widespread being cloud computing and e-commerce. Larger firms and those operating in the metalworking, chemical and pharmaceutical, and rubber and plastics sectors were the most frequent beneficiaries of the investment incentives envisaged by the national 'Firm 4.0' initiative (which absorbed the measures launched as early as 2016).

About three quarters of firms using advanced technologies consider their effect on the prices of their products or on employment in their firm in the next three years to be negligible or unknown; just under one fifth expect a moderate reduction in prices while a comparable share expects an increase in employment.

Figure 4

Investment (1)
(*contributions to growth*)



Notes: (1) Values at constant prices calculated on the basis of the deflators found in the survey. Expenditure for material investments, for software, databases and mineral prospecting, and for research and development, design and prototyping. Data weighted by population weights and by investment spending. The dotted line and the lighter-coloured area indicate firms' expectations for 2018.

The plans for 2018 point to an increase in investment spending

Firms' plans for 2018 point to an acceleration of investment to 5.3 per cent. The acceleration is ascribable to the intensification of capital accumulation by large firms, whose contribution was practically nil in the last two years (Figure 4), and in the sectors for which spending in 2017 was reduced the most compared with the initial plans (energy and mining, chemical and pharmaceutical, rubber and plastics). The difference compared with the plans formulated last years was due, in most cases, to factors relating to firms' internal organization and, for one third of firms, to changes in expected demand; those that invested more than planned cited also changes in the legislation connected to the tax incentives as playing a significant role.

Credit access conditions are viewed as mainly stable

The demand for new loans remains quite subdued; when comparing the second half of 2017 with the first half, the difference between the share of firms that increased their demand for loans and those that reduced it stood at 7 percentage points, a figure in line with the previous two years but low compared with the past. For firms with at least 500 employees, the difference, which was negative in the last two surveys, returned to levels consistent with the overall average. Among the firms that increased their demand for credit, two thirds indicated as a key determinant of this decision the fact of needing funds to carry out fixed investment.

The difference between the share of firms reporting an improvement in credit access conditions and those reporting a worsening remained stable at around 11 percentage points. Some 85 per cent of the firms that applied for a loan received the entire amount; the share of firms whose loan applications were denied, in part or in full, stabilized at 14 per cent (36 per cent in 2012, i.e. in the midst of the latest recession).

Construction

The contraction in the construction sector continues but at a slower pace

In 2017 production in the construction sector decreased by 1.1 per cent, i.e. one third of the fall recorded in 2016. The reduction mainly reflected developments in the public works sector, for which activity decreased further, albeit less than in 2016. Conversely, private construction appears to have benefited from more favourable developments in the housing market: the stock of unsold units dropped further to levels below or just above those considered normal according to 85 per cent of firms. Employment continued to decrease. For 2018, construction firms expect production to increase, including in public works, but employment to decrease further, albeit more moderately.

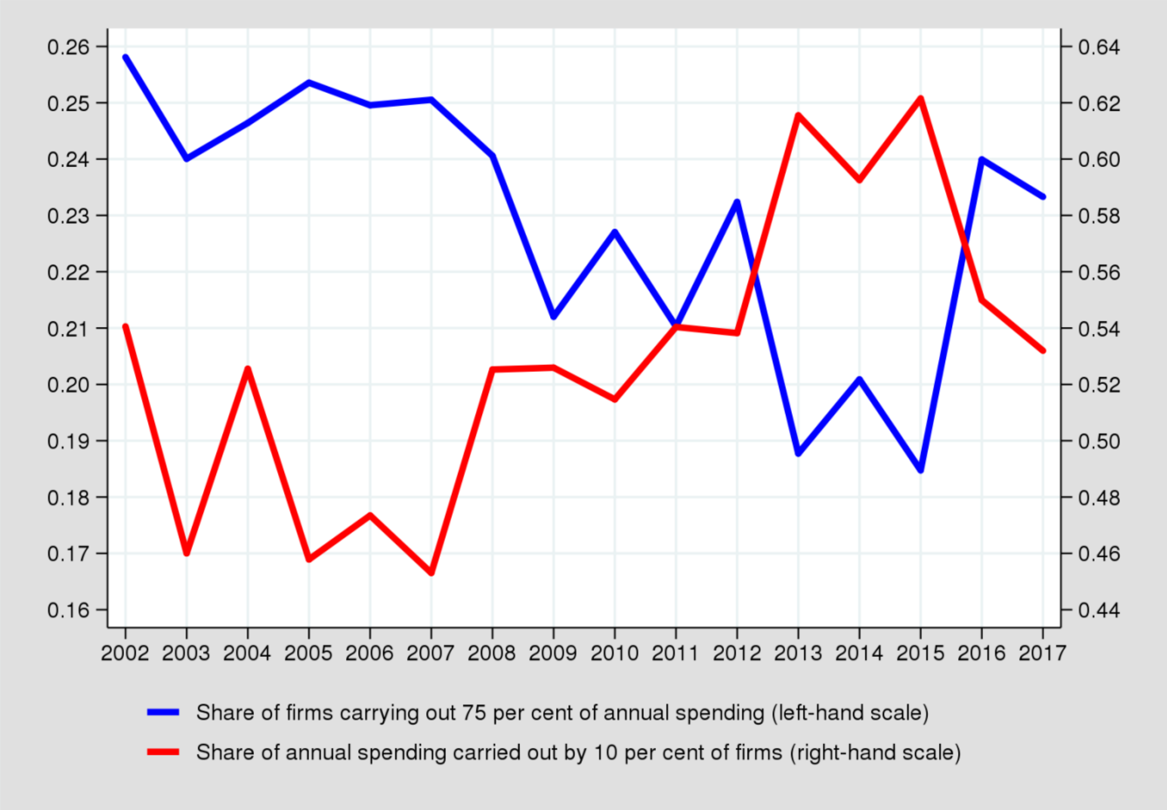
Credit access conditions improved further

The difference between the share of firms reporting an improvement in credit access conditions and those reporting a worsening in the second half of 2017 (compared with the first half, 7.4 percentage points) doubled compared with the previous survey: 62 per cent of firms kept their demand for loans unchanged between the first and second half, while 22 per cent of firms increased it. The difference between the share of firms that increased their demand for credit and those that reduced it fell especially for the larger firms. For those same firms, the difference between the share reporting an improvement in credit access conditions and those reporting a worsening widened by 11 percentage points, compared with the overall stability indicated by three quarters of firms when considering the whole construction sector. The share of firms interested in increasing their borrowing from the credit sector in 2017 fell from 40 to 31 per cent, especially among firms with fewer than 50 employees.

THE DISTRIBUTION OVER TIME OF FIRMS' INVESTMENT DECISIONS

The aggregate investment expenditure recorded in a given year is mostly attributable to a small number of firms displaying very intense capital accumulation. Between 2002, when the survey was extended to smaller firms (from 20 to 49 employees) and to the non-financial services sector, and 2017, some 75 per cent of the annual aggregate investment expenditure was attributable on average to one quarter of firms, i.e. those with the highest ratio of spending to turnover (which is a measure of the intensity of capital accumulation that is independent of spending volume and of firm size); on average, more than half of the annual spending was carried out by the top 10 per cent of firms displaying the highest intensity of capital accumulation (see the figure). The size breakdown of the group of firms recording these investment peaks does not differ appreciably from that of the rest of the firms.

Distribution of investments by intensity of spending (1)



(1) Firms are ranked in ascending order based on the intensity of their investment activity, measured by the ratio of investments to turnover.

However, the firms to which most of the aggregate spending can be traced back are not always the same ones. This reflects the fact that individual firms tend to concentrate their investment spending in a limited number of instances, reflecting the indivisibility or other structural characteristics of the projects undertaken as well as institutional aspects that lead to the carrying out of spending in specific periods of time. Again with respect to the period 2002-17, only half of the firms that in a given year invested intensely enough to be included in the top 10 per cent of firms with the highest investment-to-turnover ratio remained in the same category in the following years. Conversely, only about 5 per cent of those not included in that category in a given year entered it in the following year. This evidence suggests that, on average, an individual firm records two contiguous investment peaks and, after a period of intense capital accumulation, another such period does not occur for another 20 years on average.

These hypotheses are confirmed by the behaviour of industrial firms with at least 50 employees. Longer time series are available for these firms: this makes it possible to evaluate how the overall spending carried out in a given time period was distributed across the different years and whether firms' decisions were influenced by the cyclical situation. In the ten years 1998-2007, which preceded the onset of the global financial crisis, half of the firms concentrated in only two years at least 40 per cent of the overall spending they carried out over the ten-year period; this is twice the share that would be expected if spending were evenly distributed over time. A similar behaviour can be observed over the following ten-year period, which was marked by a noticeable slowdown in capital accumulation at aggregate level.