# Supplements to the Statistical Bulletin Sample Surveys 

## Survey of Industrial and Service Firms

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## GENERAL INFORMATION

I - Unless indicated otherwise, figures have been computed by the Bank of Italy.
II - Symbols and Conventions:

- the phenomenon in question does not occur;
.... the phenomenon occurs but its value is not known;
:: the data are not statistically significant;
.. the value is known but is nil or less than half the final digit shown.


## SUPPLEMENTS TO THE STATISTICAL BULLETIN

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This publication contains the main findings of the Bank of Italy's survey of industrial and service firms in 2006.

The data were collected in early 2007 exclusively for the purpose of economic analysis and have been handled and processed in aggregate form, in full compliance with Italy's law on the treatment of personal information.
We would like to thank all the firms that agreed to take part in the survey, providing the information requested in a long and demanding interview.

## SURVEY OF INDUSTRIAL AND SERVICE FIRMS ${ }^{(1)}$

## Introduction ${ }^{2}$

The interviews for the sample survey of industrial and service firms with 20 employees and over for the year 2006 were conducted in February and March 2007.

The sample consists of 3,109 industrial firms, excluding construction, 473 construction companies and 1,143 non-financial private service firms, representing 8.3, 6.1 and 4.1 per cent of the respective total reference populations. Because of the bigger sampling fraction ${ }^{3}$ of large firms, the three samples account for respectively $28.1,19.3$ and 17.2 per cent of payroll employment in the reference populations, which in turn represent a very substantial share of the sectoral aggregates (Table 1).

Table 1
Payroll employment, turnover and investment in firms with 20 employees and over ${ }^{(\mathrm{a})}$

| (per cent of all firms) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Payroll employment | Turnover | Investment |
| Industrial firms, excluding construction .................... | 70.1 | 80.6 | 80.3 |
| Construction firms ................................................ | 31.0 | 31.4 | 26.3 |
| Non-financial private service firms ......................... | 58.0 | 48.7 | 56.9 |

(a) Sources: Rilevazione sulle piccole e medie imprese e sull'esercizio di arti e professioni and Rilevazione sul sistema dei conti delle imprese, Istat, 2003.

Over-sampling of the largest firms produces more accurate estimates of the totals of the most important aggregates (employment, turnover and investment) and of their fluctuations over a period of time. ${ }^{4}$ In the rest of the paper the implicit reference is to firms with 20 employees and over.

The report describes the salient features and main findings of the survey. Section I presents data on the activity of service firms and of non-construction industrial firms. In Section II some individual topics are discussed in detail. ${ }^{5}$ Section III is devoted to the construction sector.

The Methodological Notes (Appendix A) describe the composition of the sample and the universe, the sampling design, the collection of data and the estimation and weighting procedures. They also provide information about response behaviour and data quality. The statistical tables and the questionnaires can be found in Appendices B and C.

[^1]
## I - Labour, capital and production in service firms and non-construction industrial firms ${ }^{6}$

## I. 1 Employment

According to the survey, in 2006 average employment rose by 0.3 per cent, the result of a decline of 0.2 per cent in industrial firms and an increase of 0.9 per cent in the service sector (Figure 1; Tables C1 and H 1 ). ${ }^{7}$ Although not large, the increase was the first positive result in five years; in 2005, a similar gain in employment in service firms was offset by a sharper decline in industry (Table H1).

Figure 1
Annual changes in average payroll employment, 1988-2006
(per cent)

(a) Data for 1988-98 refer to manufacturing firms and data from 1999 to industry excluding construction. Data for 1988-2000 refer to firms with 50 employees and over and data from 2001 to firms with 20 employees and over.
(b) National accounts; includes firms with fewer than 20 employees.

In industry, average employment increased slightly in the North-East and the Centre, but declined in the North-West and the South. Textile firms recorded a sharp downward trend (-2.8 per

[^2]cent), confirming the signals of previous years; in energy and extractive industries, where employment had risen in 2005, the gain was 2.5 per cent.

In the service sector, employment growth was concentrated in the North-East ( 2.4 per cent), in trade and tourism ${ }^{8}$ ( 1.9 per cent), and among firms with 500 employees and over ( 1.9 per cent). By contrast, employment in small firms fell by 0.5 per cent, similar to the result for the previous year. Firms predict that employment will grow in 2007, by 0.5 per cent in industry and by 1.5 per cent in services. ${ }^{9}$

Fixed-term employment contracts are more common in the service sector than in industry and accounted respectively for 10.3 and 5.8 per cent of the workforce at the end of the year (Table C3). The shares were highest in the regions of the South and the North-East and in trade and tourism. The total figure shows little change with respect to earlier years in either sector.

Hours of temporary work equalled 2.8 per cent of hours worked by payroll employees in industry and 1.2 per cent in services. Temporary employment is more frequent in the North and in chemical and engineering industries and has increased steadily among firms with 50 employees and over. ${ }^{10}$

Non-EU workers represented 4.1 per cent of the total workforce - 3.8 per cent in industry and 4.5 per cent in services - a slightly larger proportion than in 2005. They are concentrated in the northern regions and find employment mainly in business and household services, small industrial firms, and medium-to-large service firms. Their presence remains limited in the South.

Labour turnover ${ }^{11}$ in 2006 was 25.4 per cent in industry and 47 per cent in services (Table C4). More than half of turnover is due to the creation or termination of fixed-term work contracts. Overall, hirings and terminations more or less balance out, although the former tend to outnumber the latter in the service sector, especially in hotels. In industry, turnover remains highest among firms in the South and lowest in the North-West, in energy and extractive firms, and among exportoriented businesses.

In 2006, hours actually worked per capita rose by 0.8 per cent in industry to 1,653 and remained unchanged at 1,639 in the service sector (Table C2). Higher average values are recorded for firms in the South and small businesses, the lowest value ( 1,532 hours) for energy and extractive industries, where hours worked fell by 4.6 per cent with respect to the previous year. Textile firms follow with 1,575 hours; despite a 1 per cent increase during 2006, the number of hours remains lower than in other branches of industry, a phenomenon present since the 1990s. Variations in working hours between different size classes of firms are more marked in the service sector than in industry.

The number of hours of overtime per employee rose by 4.7 per cent in industry and 0.8 per cent in the service sector, with the largest increases occurring in engineering ( 8 per cent) and among small businesses and firms with 200 to 499 employees. In percentage terms, hours of overtime increased from 4 to 4.2 per cent of total hours worked in industrial firms and remained unchanged at 5.5 per cent in the service sector.

[^3]Annual gross per capita earnings averaged $€ 27,300$ in 2006, 2.6 per cent higher in nominal terms than in 2005. National minimum contract wages represented 87 per cent of the amounts effectively disbursed (Table C5). Some of the indications emerging from earlier surveys have been confirmed: pay is above average in energy and extractive and chemical industries, and lower in textiles. Wages and salaries increase with firm size and are higher in the North and the Centre than in the South and Islands, although the geographical variation is partly due to differences in the distribution of industry by size and sector.

## I. 2 Turnover and operating results

In 2006 turnover grew, at constant prices, by 4.1 per cent in industry and 4.2 per cent in services (Table E1). In industry this is the largest increase since 1999. Overall, the rate of growth was significantly faster than in 2005 (Figure 2), overtaking the forecasts of 0.2 and 2.1 per cent made at the time.

Figure 2
Annual changes in turnover, 1988-2006
(constant prices; per cent)

(a) For 1988-98, manufacturing firms; from 1999, industry excluding construction. For 1988-2000, firms with 50 employees and over; from 2001, firms with 20 employees and over.
(b) Indices of turnover at current prices for a sample of firms with 20 employees and over, deflated with the change in prices estimated in the Bank of Italy's survey.

In industry, turnover growth, which was fairly uniform throughout the country, was largest in the engineering sector ( 8 per cent); textile firms, which had performed poorly in the past, posted an increase of 3.7 per cent. For firms with 500 employees and over the increase in turnover ( 5 per cent) was above average.

In the service sector, the best results were posted by firms in the North-East ( +5.2 per cent), followed by those in the North-West ( +4.4 per cent); firms in the Centre performed slightly less well ( +2.7 per cent). Turnover growth was largest in business and household services ( 5.2 per cent) and in trade ( 4.9 per cent) and smallest in transport and communication firms ( 1.8 per cent).

Projections for 2007 are of further increases of 2.4 per cent in industry and 1.6 per cent in services (Figure 2 and Table H5).

Export revenue amounted to 29.8 per cent of turnover in industry, virtually stationary with respect to 2005 , and 11.7 per cent in services, an increase of 3 percentage points. The largest exporters were firms in the North-East ( 39.1 per cent of turnover) and textile and engineering firms (respectively 42.5 and 45.2 per cent). In the service sector, transport and communication firms obtained a substantial share of turnover from exports ( 24.7 per cent compared with 16.2 per cent in 2005), as did those providing business and household services ( 11.8 per cent). It is projected that the share of export revenue will increase slightly in industry in 2007 while remaining virtually stationary in the service sector.

In 2006, 66.8 per cent of firms posted a profit, 16.7 per cent a loss, and 16.5 per cent were in balance. The improvement with respect to 2005 reflects the more favourable economic situation, and the balance between firms showing a profit and firms showing a loss rose by 3.4 percentage points. The best performance in industry was recorded by energy and extractive firms, 77.1 per cent of which showed a profit, followed closely by engineering firms, with 71.6 per cent. Some 66 per cent of textile firms achieved slightly more than a balanced position, compared with 58 per cent in the previous survey. In the service sector 66.2 per cent of firms showed a profit in 2006, against 61.3 per cent in 2005; the best results were obtained by transport and communication firms ( 69.2 per cent in profit) and by firms in the Centre. The largest share of firms reporting a loss was recorded in the South ( 21.2 per cent).

## I. 3 Investment and capacity utilisation

According to the survey findings the overall performance of gross fixed investment ${ }^{12}$ was positive in 2006 compared with 2005 , with overall growth of 1.1 per cent in real terms ${ }^{13}$ (Table D1). The situation differs between industrial and service firms, however (Figure 3): in industry investment contracted by 2.5 per cent compared with 4.2 per cent in the previous year, while investment by firms in the service sector continued to grow ( 5.4 per cent, compared with 1.9 per cent in 2005).

In industry, an above-average decline in investment was reported by energy and extractive firms ( -6.4 per cent), firms exporting less than a third of turnover ( -4.9 per cent), those with 500 employees and over ( -4.2 per cent) and businesses located in the Centre ( -4 per cent). Firms based in the South reduced overall investment by 0.6 per cent, and investment actually located in the area by 3.3 per cent. By contrast, an increase in investment was recorded for export-oriented firms ( 3.6 per cent), firms with 50 to 199 employees ( 1.4 per cent) and engineering firms ( 1 per cent).

In the service sector investment increased sharply in the North-West: by 16.4 per cent on the basis of the location of the investing firm and by 20.9 per cent taking into account the actual site of the investment. Results are less good for other areas of the country: investment grew by 1.8 per cent in the South, was virtually stationary in the Centre, and fell by 1.7 per cent in the NorthEast. In terms of actually located investments, the difference is less than one percentage point in all three areas.

[^4]Figure 3

## Annual changes in investment, 1988-2006

(at constant prices; per cent)

(a) For 1988-98, manufacturing firms; from 1999, industry excluding construction. For 19882000 , firms with 50 employees and over; from 2001, firms with 20 employees and over.
(b) Time series of investments by ownership branch; includes firms with fewer than 20 employees. Chain-linked indices at 2000 prices.

Investment plans for 2006 reported in the 2005 survey indicated a slightly less favourable trend. The realisation rate ${ }^{14}$ in 2006 was 102.4 per cent ( 102.8 per cent for industry and 101.9 per cent for services), a marked improvement on the 93.4 per cent recorded in 2005 . On the whole, only firms with 500 employees and over invested less than planned. 57.1 per cent of firms reported that they had invested more than planned at the end of 2005, even considerably more in 42.5 per cent of cases. On the other hand, 36.2 per cent invested less, of which 19.4 per cent, substantially less (Table D2). The reasons for amending investment plans are recorded only for firms with 50 employees and over. In the majority of cases the revisions, upward and downward alike, are due to questions of internal organisation, such as new objectives and strategies (Table D3).

Industrial firms predict that investment will pick up overall in 2007 by 7.2 per cent, although this figure conceals marked sectoral variations. The energy and extractive industries forecast an increase of 35.7 per cent, while textile firms project a contraction of 5.9 per cent. New investment will be concentrated among firms in the Centre, with an increase of 22.8 per cent.

These projections by firms need to be interpreted with caution, however. Industrial firms' investment forecasts ${ }^{15}$ were recently the subject of a study by economists at the Bank of Italy, which has revealed that although projections are closely correlated to effective investment they systematically overestimate. In the last seven years of the survey that overestimation has averaged

[^5]4 per cent (Figure 4 ). There are many reasons for this: recent managerial literature suggests that firms are determinedly optimistic ${ }^{16}$ and that managers tend to plan too many investments, making it easier for them to reallocate funds from one project to another. ${ }^{17}$

Figure 4

## Actual and forecast annual change in investment by industrial firms, 2000-2006

(constant prices; per cent) ${ }^{(\mathrm{a})}$

(a) Firms report forecasts of changes with respect to the previous calendar year during interviews conducted from January to April of each year; information on actual investment in the previous year is provided at the same time. For 2000-2001, includes only firms with 50 employees and over.

Expectations for 2007 relating to the service sector are negative ( -2.3 per cent), particularly in the case of very small firms, which indicate a drop of 10.1 per cent in investment by firms with 20 to 49 employees and 11.8 per cent by firms with 50 to 199 , as well as in the case of firms in trade and tourism ( -7.4 per cent) and businesses in the South ( -6 per cent).

The capacity utilisation rate of industrial firms with 50 employees and over rose by 3.7 per cent between 2005 and 2006 (Table D4), with an increase of 4.9 per cent forecast for 2007. As in the previous survey, the largest increases are both recorded and forecast for firms in the South (6.2 and 7 per cent respectively), the lowest for firms in the Centre ( 0.4 and 3.6 per cent). The increase in capacity utilisation appears to be inversely correlated with firm size. The average capacity utilisation rate for industrial firms with 50 employees and over was unchanged from 2005 at 80.9 per cent, with a further increase of 2.7 per cent forecast for 2007.

[^6]
## II - Focus topics relating to service firms and non-construction industrial firms

## II. 1 Ownership and organisation

The survey records information on the concentration of ownership, stock exchange listing, and controlling shareholders of industrial firms with 50 employees and over. In 2006 the leading shareholder held an average of 68.3 per cent of the company (Table B1), slightly more than in 2000 ( 65 per cent); the proportion owned by the first three shareholders averaged nine-tenths.

Control of the firm was in the hands of a person in 46.5 per cent of cases (Table B2) and of a holding or sub-holding company, usually Italian, in 35.6 per cent of cases. Foreign shareholders were found more often in larger and more export-oriented firms and in the chemical industry (24.8 per cent of firms). Between 1998 and 2006 the proportion of firms with shareholders' agreements (on voting or on the sale of shareholdings) rose from 6 to 11.6 per cent (Figure 5). ${ }^{18}$ Some 8.1 per cent of the firms surveyed were involved in a transfer of control during 2006, 30 per cent more than in the previous year. Reorganisations of this type took place mainly in textile and chemical firms and in large companies.

Major events such as splits, mergers, capital contributions and transfers concerned 4.6 per cent of firms in 2006 (Table B3), the same proportion as in 2005. The share of service firms with 50 employees and over that were involved in such events rose from 5.7 to 8.8 per cent between the two years.

According to the 2006 survey, 29.9 per cent of firms were part of a group (Table B4), a share that has risen steadily from 27.9 per cent in 2003. At the sectoral level, the percentage of group firms has increased more sharply among energy and extractive firms and in trade, hotels and restaurants. Approximately 80 per cent of groups are Italian and most of the remainder are from EU countries.

Figure 5

$$
\text { Shareholders' agreements in industrial firms with } \mathbf{5 0} \text { employees and over }
$$

(per cent of firms) ${ }^{(\mathrm{a})}$

(a) For 1998, manufacturing firms only.

[^7]
## II. 2 Some aspects of corporate financing

In 2006 some 9.3 per cent of firms declared that they wished to borrow more from banks and financial institutions at existing conditions regarding cost and collateral. The figure is similar to that recorded in 2005 and lower than in the period 2002-2004. It is higher than average for firms in the South ( 14.9 per cent) and for service firms ( 10.1 per cent compared with 8.6 per cent in industry) (Table 2).

Table 6
Firms wishing to borrow more, 2004-06
(per cent of total)

|  | Total |  |  | Would borrow even at worse conditions <br> (a) |  |  | Turned down by lending institutions <br> (b) |  |  | Both <br> (a) and (b) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2005 | 2006 | 2004 | 2005 | 2006 | 2004 | 2005 | 2006 | 2004 | 2005 | 2006 |
| Geographical area ${ }^{(1)}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Centre and North ..... | 10.3 | 8.4 | 8.1 | 4.1 | 4.0 | 3.5 | 5.0 | 2.7 | 2.4 | 2.5 | 1.8 | 1.3 |
| South \& Islands ....... | 20.9 | 15.3 | 14.9 | 8.7 | 6.6 | 6.6 | 8.1 | 5.2 | 5.4 | 4.7 | 2.8 | 3.5 |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-49..................... | 11.9 | 9.1 | 8.9 | 4.9 | 4.2 | 4.2 | 5.7 | 3.1 | 3.1 | 3.0 | 2.0 | 1.9 |
| 50 and over ............. | 12.5 | 10.7 | 10.1 | 4.9 | 5.0 | 3.6 | 5.0 | 3.4 | 2.4 | 2.5 | 1.9 | 1.2 |
| Sector |  |  |  |  |  |  |  |  |  |  |  |  |
| Industry ................... | 10.6 | 9.4 | 8.6 | 4.5 | 4.2 | 3.7 | 4.6 | 3.4 | 2.9 | 2.4 | 1.9 | 1.6 |
| Services ................. | 14.1 | 9.8 | 10.1 | 5.4 | 4.9 | 4.4 | 6.7 | 2.8 | 3.0 | 3.5 | 2.1 | 1.8 |
| Total ....................... | 12.1 | 9.6 | 9.3 | 4.9 | 4.5 | 4.0 | 5.5 | 3.1 | 2.9 | 2.8 | 2.0 | 1.7 |

(1) Location of head office.

In order to assess to what extent these firms really need to borrow more funds the questionnaire asks for further information about the possible additional cost of such loans and any steps actually taken to obtain them. Only 4 per cent of the firms state that they would accept worse conditions (higher interest rate or extra collateral) in order to borrow more, a proportion that has been declining steadily since 2003. Some 2.9 per cent of firms that applied for additional funds were turned down. The percentage of firms that would agree to worse conditions in order to borrow more, but have been turned down has fallen steadily from 3.6 per cent in 2002 to just 1.7 per cent.

Firms stepped up their self-financing in 2006, particularly in manufacturing (Table F1). This is mainly due to the positive trend in operating profits. In the service sector, the largest growth in this source of funds was recorded in the transport and communication sector. More firms increased their recourse to bank borrowing (less in the service sector owing to a reverse trend among northern firms) and to venture capital, possibly as a result of the larger borrowing requirement generated by the upturn in economic activity.

Outstanding trade credit amounted to 23.9 per cent of turnover for industrial firms, against 20.6 per cent for service firms (Table F2). ${ }^{19}$ The average duration was around 87 days and was again greater in industry. ${ }^{20}$

[^8]Two-part terms ${ }^{21}$ represented 12.4 per cent of total trade credit in 2006 (Table 3), down on the previous year. Industrial firms account for a larger share than service firms, mainly owing to the energy and extractive sector. Just under 28.7 per cent of all credit was paid late. Delays are systematically longer in services than in industry.

Table 3
Trade credit: two-part terms and late payments in 2006
(per cent of total credit)

|  | Firms with 20-49 employees |  | Firms with 50 employees and over |  | Total firms with 20 employees and over |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | two-part terms | late payments | two-part terms | two-part terms | late payments | two-part terms |
| Industry.................................. | 8.6 | 25.6 | 15.2 | 24.6 | 13.5 | 24.8 |
| of which: manufacturing ............ | 8.3 | 25.5 | 9.4 | 25.7 | 9.1 | 25.6 |
| Services .................................... | 11.7 | 35.7 | 9.7 | 35.0 | 10.5 | 35.3 |
| Total .......................................... | 10.1 | 30.7 | 13.4 | 27.7 | 12.4 | 28.7 |

In 2006 trade debt amounted on average to 18.6 per cent of turnover. The percentage was slightly lower in industry ( 18.2 per cent, compared with 19.1 per cent in services). The average duration was 82.6 days overall.

## II. 3 Italy's evolving productive system

The questionnaire submitted to the firms contains not only the traditional sections, but also a series of questions regarding the main changes taking place in Italy's productive system. The results are described below.

With respect to competitors, 28.9 per cent of Italian firms believe themselves to be in a position of strength, 57.4 per cent that they are on an equal footing and 13.7 per cent that their position is weak (Table G1). The situation is more likely to be described as one of difficulty by industrial firms ( 17.7 per cent) than by service firms (8.1 per cent), which are less exposed to competition.

Among industrial firms, the situation is better in engineering and chemicals, worse in textiles, clothing and footwear, where almost 30 per cent of firms feel they are at a disadvantage with respect to their main competitors. Overall, anxiety is greatest among firms whose main competitors are China, the European countries that have not adopted the euro, and the category 'other countries', which includes Asia (Figure 6). In manufacturing, the gap is greatest among lowtech firms, which are increasingly worried by Chinese competitors.

[^9]Figure 6

## Competitive position of industrial firms by location of competitors and technical intensity of production

(per cent of firms)


More than half of the industrial firms revised their strategy between 2000 and 2006 (Table G3): 30.8 per cent made changes to their range of products, 15.3 per cent invested in trademark, and 7.2 per cent chose the route of internationalisation. More than 10 per cent of firms introduced products from branches they did not operate in before 2000, moving into adjacent sectors nine times out of ten (Table G2). Venturing into a new sector produced larger profits in 2006, except in the case of firms that made drastic changes to their production. ${ }^{22} 23$

From 2000 to 2006 the share of industrial firms' turnover from products under their own trademark rose from 72.1 to 75.2 per cent. ${ }^{24}$ Firms that increased this source of turnover posted larger profits in 2006 than others (Figure 7).

[^10]Figure 7
Role of trademark and operating results in industrial firms in 2006
(per cent of firms)


In the same period, the share of industrial firms with a direct presence abroad rose from 5.3 to 8 per cent and the share of those entering into collaboration agreements with foreign companies from 7.5 to 15.1 per cent. In total, one firm in five is operating outside the country in some form or other. Collaboration agreements with foreign companies are more popular with small firms (Table G4). Even service firms with 50 employees and over are expanding their presence abroad: their share has risen from 6.3 per cent of total firms in 2004 to 9 per cent in 2006. ${ }^{25}$ Internationalisation, which is far less common in the South, has mainly taken the form of locating production abroad, a solution adopted by 3.8 per cent of firms in 2000 and 5.5 per cent in 2006. The establishment of a selling presence abroad is a less popular choice but it has increased nonetheless, from 1.5 to 2.5 per cent of firms. Among the largest firms, the growth in production abroad has outpaced the increase in their foreign selling presence, while the opposite is observed for firms with up to 50 employees. Very little research and development activity was carried out abroad in either year.

Internationalisation is influenced by a number of factors in addition to firm size. Small firms are usually driven by a need to reduce labour costs, large ones by proximity to their selling markets. Another explanation is the average size of firms in various sectors: firms are on average smaller in traditional sectors, and the main reason for moving production abroad is the lower cost of labour (Table 4). As to the choice of location, Italian firms are expanding into both China, where they had virtually no presence at the beginning of the decade, and, to a smaller extent, into Europe.

[^11]Table 4
Industrial firms with a presence abroad: factors behind the decision to internationalise
(average) ${ }^{(\mathrm{a})}$

|  | More favourable legislation and taxation | Lower cost of labour | Proximity to selling markets | Other |
| :---: | :---: | :---: | :---: | :---: |
| Number of employees |  |  |  |  |
| 20-49 ........................................... | 1.6 | 2.6 | 1.9 | 1.4 |
| $50-199$.......................................... | 1.6 | 2.2 | 3.0 | 1.3 |
| $200-499$........................................ | 1.7 | 2.7 | 2.7 | 1.3 |
| 500 and over .................................... | 1.6 | 2.1 | 3.2 | 1.1 |
| Technological intensity |  |  |  |  |
| Low................................................. | 1.3 | 2.8 | 2.0 | 1.3 |
| Medium-low to medium ..................... | 1.8 | 2.6 | 2.7 | 1.2 |
| Medium-high to high ......................... | 1.7 | 2.0 | 2.7 | 1.4 |
| Total ................................................ | 1.6 | 2.4 | 2.5 | 1.3 |

(a) 1=not important, $2=$ slightly important, 3=important, 4=very important.

These signs of modernisation have coincided with a widespread generational change at the helm of firms between 2002 and 2006. In 2006 the managing directors of industrial firms with 50 employees and over that are owned by a natural person were younger and better educated than four years earlier. In particular, the proportion of MDs over 65 years of age has dropped from 37.3 per cent in 2002 to 22.3 per cent in 2006. At the same time, those in the 36 to 55 age group have increased from 29.1 to 44.2 per cent (Table 5).

Table 5
Industrial firms with 50 employees and over owned by a legal person: age and education of the managing director in 2002 and 2006
(per cent)

|  | Age |  |  |  | Education |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 35 and under | 36 to 55 | 56 to 65 | over 65 | middle school | senior school | university degree | postgraduate |
| 2002 ........................ | 2.2 | 29.1 | 31.4 | 37.3 | 22.3 | 51.9 | 22.9 | 2.8 |
| 2006 ..................... | 1.7 | 44.2 | 31.8 | 22.3 | 9.0 | 45.4 | 40.7 | 4.9 |

The proportion of managing directors with a university degree or post-graduate qualification has risen from 25.7 to 45.6 per cent. On the whole, in 2006 firms managed by a person under 65 years of age did best in terms of operating results. ${ }^{26}$

[^12]The majority of firms ( 82.2 per cent) are content with their present size, although more believe themselves to be small compared with their competitors than too large: 15.8 and 1.9 per cent respectively (Table G5). ${ }^{27}$ The firms that judge themselves to be undersized list lack of funds as the main impediment to growth; the next reason cited is shortage of managerial and organisational resources and the last, legal limitations and red tape. The perception of being undersized diminishes in industrial firms as their export propensity increases, but is particularly strong among firms in the North-East, which tend to place more than average blame on poor managerial and organisational resources. Legal limitations on expansion are cited most often by energy and extractive firms. ${ }^{28}$ Around 40 per cent of firms that are 'too small' have missed a real opportunity to jump size class in the past ten years by failing to purchase another firm or turning down offers of acquisition.

ERP management software ${ }^{29}$ is used by 26.8 per cent of firms and is positively correlated with size. It is less widespread in the Centre and the South and in traditional firms (Table G6). The proportion of industrial firms with 50 employees and over equipped with ERP software has risen from 20.1 per cent in 2000 to 36.4 per cent in 2006 , testifying to increased focus on organisational aspects. Among firms posting a profit in 2006, those with ERP software outnumbered those without by 71.5 to 65.8 per cent.

In 2006, in industry the share of graduates in total staff was greater in large enterprises and in chemical, engineering, and energy and extractive firms, which are more technologically intensive (Table G6). By contrast, the share was smaller in textiles, clothing and footwear (3.9 per cent) and in the South. Among industrial firms with 50 employees and over, for which a comparison with previous surveys is possible, the share of graduates has risen from 6.9 per cent in 2000 to 9.5 per cent in $2006 .^{30}$

When recruiting graduates firms assign much more importance to candidates' individual psychological profiles and work experience than to other elements such as post-graduate qualifications, provenance and reputation of the university.

Some 57.8 per cent of Italian industrial firms with 20 employees and over no longer purchase electricity from the former monopoly-holder (Table G7). The proportion drops to 37 per cent in the case of service firms, for which electricity costs are a less important factor. It is mainly firms with 200 employees and over that have moved to new suppliers. The firms that have stayed with the old monopoly-holder cite the quality of the service, as well as the price, as their main reason, while price again is by far the most popular reason given by firms that chose differently.

## II. 4 Consumer credit

One section of the questionnaire addressed to firms in the retail trade asked them for information about consumer credit. Some 43.3 per cent of firms offer the opportunity to purchase goods on instalment, financed by a bank or finance company, and this accounts for 16.6 per cent of

[^13]the retail sector's total turnover. The firms offering customers this payment option rely in 9.2 per cent of cases on banks alone, while 69 per cent use exclusively finance companies and the remaining 21.8 per cent both. One third of the firms concerned deal with a single institution and in half of these cases the decision was taken in response to a request by the bank or finance company.

## III - Main results for the construction industry

## III. 1 Employment and output

According to the results of the survey, employment in the construction industry grew between 2005 and 2006 by just 1.1 per cent (Table I1). ${ }^{31}$ The highest increase was recorded for large firms ( 3.8 per cent) and in the North-East and the Centre (respectively 2.6 and 3.7 per cent); contrasting results were obtained for firms in the North-West ( $-1,2$ per cent). It is forecast that the present levels of employment will hold steady in 2007.

Output in the construction industry rose by 1.2 per cent in real terms in the same period (Table I1). ${ }^{32}$ The increase was largest in firms in the Centre and in small enterprises. The survey showed 84 per cent of construction firms posted a profit in 2006.

## III. 2 Public works

Approximately four out of five construction companies carried out public works in 20052006 (Table I2); the proportion increases in the case of firms with 50 employees and over. In value terms, public works account for just under half of the sector's total output, rising to more than 60 per cent in the case of firms in the South and Islands. The production of public works increased by 2 per cent in nominal terms between 2005 and 2006; taking into account inflation as calculated by Istat, this is equivalent to a contraction of 0.8 per cent in volume. Expectations are that activity will pick up strongly in 2007, particularly in the North-West and for large firms.

A breakdown of public works by state of advancement shows that almost half of the production in 2006 consisted of long-term projects, i.e. work begun in earlier years and due to terminate in the future. The proportion is expected to diminish the following year (Table 6).

Table 6

## Distribution of public works by state of advancement

(per cent)

|  | Completion of projects begun in previous years | Long-term projects | Work begun during the year |
| :---: | :---: | :---: | :---: |
| 2006 .. | 25.4 | 45.6 | 29.0 |
| 2007 (forecast) ..................... | 27.2 | 41.2 | 31.6 |

[^14]In terms of location, the firms carried out more than 60 per cent of public works in the North and less than 20 per cent in the South (Table 7). Forecasts are that these shares will be unchanged in the following year.

Table 7
Distribution of public works by location
(per cent)

|  | North-West | North-East | Centre | South \& Islands |
| :---: | :---: | :---: | :---: | :---: |
| 2006 .................................. | 28.3 | 34.0 | 18.9 | 18.8 |
| 2007 (forecast) ................... | 29.9 | 30.8 | 20.4 | 18.9 |

In response to questions regarding the factors that will probably be a hurdle to activity in the public works sector in the months following the survey, the most important reason cited was the low level of prices (Table I3). This was followed by uncertainty and delays affecting payments by the public authorities and local red tape.

Appendix A:
Methodological Notes

## METHODOLOGICAL NOTES

## A1. General remarks

The Bank of Italy has conducted sample surveys of firms since $1972 .{ }^{33}$ Prior to 1998 the survey only covered industrial processing firms with 50 employees and over. In recent years the field of observation has been extended to include, since 1999 , all manufacturing firms as well as energy and extractive industries, and since 2001 firms with 20 to 49 employees. In 2002 a similar survey of non-financial private service firms ${ }^{34}$ with 20 or more employees was begun. From this year, the survey has been enlarged to include construction companies with 20 employees and over.

The sampling method was completely overhauled in 1987, with the adoption of a stratified design based on non-proportional selection probabilities. This has remained largely unchanged, although the overall number of firms sampled has gradually increased over the years. The HorvitzThompson estimator is employed, with appropriate re-weighting for the treatment of outliers. Over the years, the robustness of the estimates, particularly of variables with a large percentage of extreme data, has been improved by resorting to Winsorisation techniques.

Until 2003 firms were classified into size groups according to their workforce at the end of the year. In 2004, however, it was decided to use the average annual workforce instead for reasons of uniformity with external sources.

Below is a description of various methodological aspects of the present survey. ${ }^{35}$

## A2. Composition of the population and the sample

The reference population (Table A1) is composed of firms whose registered head office is in Italy, having 20 employees and over (Table 1a) and belonging to various branches of activity in the non-construction industry, the construction sector, and in the sector of non-financial private services (Table 2a).

The 2006 sample is composed of 3,109 non-construction industrial firms, of which 1,209 have 20 to 49 employees and 1,900 have 50 and over, of 473 construction firms, evenly distributed between those with 20 to 49 employees and those with 50 employees and over ( 236 and 237 of each), and of 1,143 non-financial private service firms, of which 428 have 20 to 49 employees and 715 have 50 and over (Table A1). The sampling fractions, which are 8.3 per cent for the nonconstruction industry, 6.1 per cent for construction firms and 4.1 per cent for services, increase considerably in the case of firms with 50 employees and over (Table 3a). As a result, the distribution of the sample is fairly biased in favour of large firms, with 60.4 per cent of the firms interviewed having 50 employees and over and the remaining 39.6 per cent between 20 and 49, compared with 30.3 and 69.7 per cent respectively of the target population.

[^15]The sub-samples of industrial and service firms are distributed by branch of activity in much the same way as the target population. In industry, engineering firms are in the majority, while in the service sector trade and tourism companies predominate.

Table 1a
Distribution of firms and employees in the reference population in $2004^{(\text {a) }}$
(number)

|  | Industry excluding construction |  | Construction |  | Non-financial private services |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | firms | employees | firms | employees | firms | employees |
| Geographical area $^{(\mathrm{b})}$ <br> North-West ........... <br> North-East ............. <br> Centre ................ <br> South \& Islands ..... | $\begin{array}{r} 14,076 \\ 11,912 \\ 6,263 \\ 5,388 \\ \hline \end{array}$ | $\begin{array}{r} 1,259,000 \\ 855,998 \\ 476,220 \\ 315,390 \\ \hline \end{array}$ | $\begin{aligned} & 2,215 \\ & 1,851 \\ & 1,431 \\ & 2,207 \\ & \hline \end{aligned}$ | $\begin{array}{r} 102,677 \\ 88,822 \\ 63,189 \\ 92,403 \\ \hline \end{array}$ | $\begin{aligned} & 9,525 \\ & 6,858 \\ & 5,705 \\ & 5,477 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1,129,643 \\ 540,184 \\ 819,368 \\ 367,759 \\ \hline \end{array}$ |
|  | $\begin{array}{r} 25,685 \\ 9,906 \\ 1,450 \\ 598 \\ \hline \end{array}$ | $\begin{aligned} & 764,091 \\ & 882,264 \\ & 429,742 \\ & 830,511 \\ & \hline \end{aligned}$ | $\begin{array}{r} 6,239 \\ 1,343 \\ 84 \\ 38 \\ \hline \end{array}$ | $\begin{array}{r} 179,547 \\ 109,024 \\ 23,392 \\ 35,128 \\ \hline \end{array}$ | $\begin{array}{r} 18,915 \\ 6,867 \\ 1,205 \\ 578 \\ \hline \end{array}$ | $\begin{array}{r} 558,838 \\ 611,627 \\ 367,852 \\ 1,318,637 \\ \hline \end{array}$ |
| Total ...................... | 37,639 | 2,906,608 | 7,704 | 347,091 | 27,565 | 2,856,954 |

(a) Source: Istat, 2004. - (b) Location of head office. - (c) Average annual workforce.

Table 2a
Branches of activity

|  | Ateco 2002 section or sub-section | Branch of activity |
| :---: | :---: | :---: |
| Industry excluding construction | DA <br> DB,DC <br> DF, DG, DH <br> DI <br> DJ, DK, DL, DM <br> DD, DE, DN <br> CA, CB, E | Food products, beverages and tobacco <br> Textiles, clothing, hides and leather <br> Chemicals, rubber and plastic <br> Non-metal minerals <br> Engineering <br> Other manufacturing <br> Energy production and mining and quarrying |
| Construction | F | construction |
| Non-financial private services | G <br> H <br> I <br> K | Wholesale and retail trade and repair services <br> Hotels and restaurants <br> Transport, storage and communication <br> Real-estate, renting and business activities |

In addition, to improve the accuracy of estimates for the South and Islands, the location ${ }^{36}$ of 17.9 per cent of firms with 20 employees and over in the sectors covered, 34.9 per cent of the sample is made up of southern firms. ${ }^{37}$

The estimates take account of differences in the composition of the sample by means of weighting coefficients, details of which can be found in Section A6. ${ }^{38}$

Table 3a
Firms observed and sampling fraction, 2001-06 (number and per cent)

|  | Number of firms |  |  |  |  |  | Sampling fraction |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|  | Industry excluding construction |  |  |  |  |  |  |  |  |  |  |  |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |
| 50 and over | $\begin{aligned} & 1,022 \\ & 1,764 \\ & \mathbf{2 , 7 8 6} \end{aligned}$ | $\begin{aligned} & 1,194 \\ & 1,852 \\ & \mathbf{3 , 0 4 6} \end{aligned}$ | $\begin{aligned} & 1,236 \\ & 1,905 \\ & \mathbf{3 , 1 4 1} \end{aligned}$ | $\begin{aligned} & 1,234 \\ & 1,916 \\ & \mathbf{3 , 1 5 0} \end{aligned}$ | $\begin{aligned} & 1,277 \\ & 1,950 \\ & \mathbf{3 , 2 2 7} \end{aligned}$ | $\begin{aligned} & 1,209 \\ & 1,900 \\ & \mathbf{3 , 1 0 9} \end{aligned}$ | $\begin{array}{r} 3.7 \\ 14.0 \\ \mathbf{6 . 9} \end{array}$ | $\begin{array}{r} 4.6 \\ 15.3 \\ \mathbf{7 . 9} \end{array}$ | $\begin{array}{r} 4.7 \\ 15.5 \\ 8.2 \end{array}$ | $\begin{array}{r} 4.8 \\ 16.0 \\ \mathbf{8 . 4} \end{array}$ | $\begin{array}{r} 5.0 \\ 16.3 \\ \mathbf{8 . 6} \end{array}$ | $\begin{array}{r} 4.7 \\ 15.9 \\ \mathbf{8 . 3} \end{array}$ |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Construction |  |  |  |  |  |  |  |  |  |  |  |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |
| 50 and over ................ | $\ldots$ | $\begin{array}{l\|} \ldots \\ \ldots \\ \ldots \\ \ldots \end{array}$ |  |  | $\ldots$ <br> $\ldots$ <br> $\ldots$ | $\begin{aligned} & 236 \\ & 237 \\ & 473 \end{aligned}$ |  |  |  |  |  | 3.816.2$\mathbf{6 . 1}$ |
| Total. | $\ldots$ |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Non-fin | ancial p | ivate | rvices |  |  |  |  |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-49 ...... | .. | 367 | 374 | 410 | 444 | 428 | .. | 2.1 | 2.0 | 2.2 | 2.3 | 2.3 |
| 50 and over ... | $\ldots$ | 556 | 620 | 666 | 715 | 715 | $\ldots$ | 7.0 | 7.4 | 7.7 | 8.3 | 8.3 |
| Total ...... | ... | 923 | 994 | 1,076 | 1,159 | 1,143 | ... | 3.6 | 3.7 | 3.9 | 4.2 | 4.1 |
| Total for industry and services | 2,786 | 3,969 | 4,135 | 4,226 | 4,386 | 4,725 | $\cdots$ | 6.2 | 6.4 | 6.5 | 6.7 | 6.7 |

## A3. Sample design

The survey adopts a one-stage stratified sample design. The strata are combinations of branch of activity (according to the classification in Table 2a), size class (in terms of number of employees $)^{39}$ and regional location ${ }^{40}$ of the firm's head office.

[^16]The sample size is determined in two stages. First, the number of size classes is identified using the method known as optimum allocation to strata, ${ }^{41}$ which minimises variance of the sample means and variations of the main variables observed (employment, turnover and investments). Second, the number of units in each size class is divided among regions and branches of activity in proportion to the number of firms in the target population belonging to that stratum. ${ }^{42}$

The firms are selected from the databases of the Company Accounts Data Service, Cerved, Kompass and other lists obtained independently by the Bank's branches in order to minimise the risk of under-coverage. The firms observed in the previous edition of the survey are always contacted again if they are still part of the target population, ${ }^{43}$ while those no longer wishing to take part are replaced with others in the same branch of activity and size class.

## A4. Data collection, questionnaire and response behaviour

The data for a survey referring to one year are collected in the course of interviews conducted by the Bank of Italy's branches between February and March of the following year.

The questionnaires (see Appendix C) are composed of a fixed part and a variable part. The fixed part contains general information on the firm and its structure, as well as annual data on investments, employment, turnover, operating result, capacity utilisation and financing. ${ }^{44}$ The variable part covers different themes each year, which are the subject of detailed cyclical or structural analysis.

Separate questionnaires are prepared for industry excluding construction and for services, for firms with 20 to 49 employees and for firms with 50 and over. The general purpose of this distinction is to avoid having to ask questions that entail a greater respondent burden for small firms and to allow space, if necessary, to focus on separate topics for industry and services and for large and small firms. A smaller separate questionnaire is submitted to construction firms.

The Economic Research Department decides the content and structure of the questionnaires shortly before they are administered. New questions are tested by the Bank's branches by means of pilot questionnaires designed to assess whether they are easy to understand and whether the information is effectively available from the firms.

In the case of employment, investments and turnover, information is requested for three periods: the year just ended (preliminary results), the previous year (final results) and the following year (forecasts). The effort involved in answering the questionnaire is monitored via a question at the end of the interview and specific information obtained from the interviewees.

The involvement of the Bank of Italy's branches (which themselves make use of the data collected) allows us to achieve a high response rate. The participation rate in the 2006 survey, i.e. the proportion of firms interviewed in relation to all those contacted, was 79.4 per cent for nonconstruction industrial firms and 77.9 per cent for service firms (Table 4a), in both cases approximately 2 percentage points higher than in the previous survey.

[^17]Table 4a
Distribution of firms contacted for the survey in 2006
(number and per cent)

|  | Industry excluding construction |  | Construction |  | Non-financial private services |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | number of firms | per cent | number of firms | per cent | number of firms | per cent |
| Firms contacted | 3,944 | 100.0 | 506 | 100.0 | 1,483 | 100.0 |
| Firms reporting... | 3,130 | 79.4 | 482 | 95.3 | 1,155 | 77.9 |
| non-homogeneous data ${ }^{(\text {a) }}$... | 21 | 0.5 | 2 | 0.4 | 12 | 0.8 |
| eligible data ..................... | 3,109 | 78.8 | 480 | 94.9 | 1,143 | 77.1 |
| Firms failing to co-operate ............ | 814 | 20.6 | 31 | 6.1 | 328 | 22.1 |

(a) For details concerning the treatment of these firms, see Section A5. - (b) Reasons for failure to co-operate include leaving the population covered by the survey.

## A5. Data quality checks and imputation of missing data

The collected data are subjected to a system of quality checks. In particular, we check for the compatibility of values with the range allowed by the question, the time consistency of panel data, the squaring of certain figures and the presence of outliers. The data are verified at different levels, with each check being run on data that have passed the previous level.

The questionnaires are first checked by the officers in charge of the interviews, who apply their technical skills and knowledge of the local market to assess the quality of the data collected. ${ }^{45}$ The data-entry procedure then rejects everything outside the defined range of the variable or incompatible with the internal consistency of the questionnaires.

Data accepted by the procedure may still be outside certain thresholds based on past statistics or external information. In this case the data are highlighted for the attention of the interviewers, who check them and, if necessary, contact the firm for clarification. Confirmation is recorded in a special field. Only at this point is the checked data entered in the database.

The second set of checks uses editing techniques founded on statistical assumptions that can detect extreme observations with respect to the frequencies based on (natural or logarithmic scale) cross-section distributions. The outliers are detected by comparing the value of each variable with the median of its distribution and setting as threshold a value proportional to the inter-quartile deviation.

Since the 2000 edition a further quality check has been put in place, called selective editing. This produces a list of priorities for checking outliers according to their importance for the final estimate. The values of each variable are compared with the predicted value of a simple regression model. On the basis of this statistic a Taylor approximation is used to build a score for each firm according to the impact each value would have on the final estimate in the model. The higher the score (i.e. the greater the impact of the observed value on the final estimate according to

[^18]the model), the more urgent it is to check the value of that variable for that firm. ${ }^{46}$ This process is applied to a set of several variables to draw up a ranking from the highest score down.

This method improves the quality of the estimates while reducing the respondent burden in the final stage of data processing, because it is necessary to re-examine and possibly re-contact only the firms with a significant impact on the final estimates. ${ }^{47}$

A treatment apart is reserved for data on firms affected by extraordinary events, such as mergers or splits. These firms are only included in the estimate if the data for final results, preliminary results and forecasts refer to a set of factories and workers that is homogeneous with the data collected in the same survey. The interviewer ensures their homogeneity either by considering the extraordinary event to have taken place at the beginning of the year of the final results, or by pretending the event never occurred and reconstructing the data accordingly; if this is not possible, the firm is excluded from further processing. Although this practice may cause distortions in the estimates (such as the total of investments), it does produce more stable estimates of changes and average values per employee, which are the main objective of the survey.

The firms taking part in the survey may have difficulty answering some of the questions. If the missing answer concerns one of the main variables, such as investment spending or turnover, the missing data are imputed.

In general, ratio estimators are used to impute data, setting the number of the firm's employees as denominator (since this information is always available, otherwise the firm is excluded from the survey) in order to capture the scale effect. ${ }^{48}$ In some cases the firm's time series data are used for the reconstruction, in the form of individual effects. This method gives an estimate of a level per employee that is obtained by combining a general cross-section mean and an average based on the firm's time series. The levels at time $t$ and $t+1$ are reconstructed in sequence, by calculating average changes in appropriate cells of homogeneous firms. ${ }^{49}$

The percentage of imputed data is usually small. A higher rate of non-response, in the order of 10 per cent, tends to occur with questions involving forecasts, particularly of investments.

[^19]
## A6. Weighting

The weighting procedure is performed in two stages.
In step one, the combinations of branch of activity and size class are used as strata. Each firm is assigned an initial weight, given by the ratio of number of firms in the stratum cell to number of firms in the sample. Let $h$ be the general stratum cell and, within it, $N_{h}$ the number of firms in the target population and $n_{h}$ the sample size. ${ }^{50}$ The first stage weight of each firm in stratum $h$ is therefore:

$$
\begin{equation*}
w_{h}{ }^{(0)}=\frac{N_{h}}{n_{h}} \tag{1}
\end{equation*}
$$

By construction, the sum of the weights of each cell therefore gives the size of the target population it contains.

In step two, post-stratification is performed using raking ${ }^{51}$ to take into account also the geographical area $k$ where the firm's head office is located. The initial weight is modified by an adjustment factor $f_{k}$ so that the final weights can be obtained:
(2) $w_{h k}{ }^{(1)}=w_{h}{ }^{(0)} f_{k}$
the sum of which coincides, in the post-stratum cells, with the number of firms in the target population they contain.

Therefore the system of final weights does not take into account the complete combinations of sector, branch of activity and geographical area, partly because some of them may contain no sample units, and partly because such a system of weights might lead to overly variable estimates for some domains. Consequently, post-stratification is limited to reconstructing the combinations of a) North-West, North-East, Centre, South and Islands, b) firms with 20 to 49 and 50 and over employees, c) manufacturing, energy and extractive, construction and service firms (the latter divided by section; see Section A2).

At every survey the weights are recalculated according to the distribution of the population on the latest available date. ${ }^{52}$

## A7. Sample estimates

For a generic variable $x$, the aggregate is estimated with a Horvitz-Thompson unbiased estimator of the total, ${ }^{53}$ given by:

$$
\begin{equation*}
X=\sum w_{i} x_{i} \tag{3}
\end{equation*}
$$

[^20]The estimate of rates of change, for instance of turnover or investments, is obtained using as estimator the ratio of the sums of the levels for each firm, weighted with the inverse sampling fraction according to a formula of the following type:

$$
\begin{equation*}
r_{t, t-1}=\frac{\sum_{i} w_{i} X_{i}^{t}}{\sum_{i} w_{i} X_{i}^{t-1}} \tag{4}
\end{equation*}
$$

The levels of the aggregate that are set as numerator and denominator of the formula are collected from the firm in the reference year, even when that firm has already taken part in the previous edition of the survey. ${ }^{54}$

In the specific case of percentage changes in investment, robust estimation techniques have been used since the 1999 survey. ${ }^{55}$ The empirical distribution of this variable is ridden with outliers, partly owing to the nature of the phenomenon of interest: measurement of the levels, the ratio of which gives the rate of change, is complicated by the simultaneous presence of factors such as the typical long-term nature of spending, uncertainty, classification errors, and other sources of measurement error.

Using the method known as 'type II Winsorisation', the rates of change above and below the cut-offs fixed on the basis of the empirical distribution are squashed against the cut-off, in proportion to the sampling fraction, according to the following formula:

$$
y_{i}^{\text {wins }}=\left\{\begin{array}{cc}
f y_{i}+(1-f) J & y_{i}<J  \tag{5}\\
f y_{i}+(1-f) K & y_{i}>K \\
y_{i} & \text { otherwise }
\end{array}\right.
$$

in which $y_{i}^{\text {wins }}$ is the Winsorised rate, $y_{i}$ the observed rate, $f$ the sampling fraction, $J$ and $K$ respectively the lower and upper cut-offs. In the case of firms labelled as outliers, the extreme values are set equal to the cut-off, without taking the sampling fraction into account. ${ }^{56}$

In a few cases the survey collects directly the rates of change in economic phenomena: this happens, for instance, with the rate of change of capacity utilisation or of percentages (such as the percentage of hours worked overtime). In this case, the estimate for the whole population is calculated as an average of the individual rates of change, weighted with the inverse sampling fraction times the amount of the phenomenon (or, if unavailable, a proxy).

[^21]The deflators for the levels of investments and turnover are calculated as sector means of the individual deflators collected directly from firms, weighted with the product of the coefficient of the ratio to the population and the amount of turnover. ${ }^{57} 58$

## A8. Estimating standard errors

Finding the analytical expressions of the variance of the estimators obtained from a nonproportional stratified sampling design, with weights adjusted to take account of post-stratified variables, can be a complex task ${ }^{59}$ that suggests resorting to simulation methods able to take account of the original sample design. ${ }^{60}$

The values are estimated using the jack-knife method, which is particularly well- suited to take account of the imposed structure of the data due to the nature of the sampling design, while ensuring that appropriate asymptotic properties are maintained. ${ }^{61}$

If $T_{n}$ is the value of the estimator for a sample containing $n$ units and $T_{n-1 ; i}$ is the value of the same estimator calculated for the sample in which the $i$ th unit has been left out (leave-one-out method), we first calculate the 'pseudo-values' $\tilde{T}_{n ; i}$ defined as:

$$
\begin{equation*}
\tilde{T}_{n ; i}=n T_{n}-(n-1) T_{n-1 ; i} \quad 1 \leq i \leq n \tag{6}
\end{equation*}
$$

the jack-knife estimator of the variance of $T_{n}$ is (Tukey, 1958):

$$
\begin{equation*}
\operatorname{Var}_{J A C K}\left(T_{n}\right)=\frac{1}{n(n-1)} \sum_{i=1}^{n}\left(\tilde{T}_{n ; i}-\frac{1}{n} \sum_{j=1}^{n} \tilde{T}_{n ; j}\right)^{2} \tag{7}
\end{equation*}
$$

The highest standard errors are found for the estimate of the variance of investments owing to their intrinsic variability (Table 5a). The lowest standard errors occur in the estimate of changes in turnover and employment. In the domain analyses, for example by firm size class or geographical area, the estimates are less accurate than the estimates for the total sample, a circumstance that should be taken into account when analysing the results.

The standard errors are also estimated for the forecasts of the main variables surveyed. These calculations take into account the fact that a fair portion of the data is affected by partial nonresponses, which are imputed using the method described in Section A5. ${ }^{62}$ Multiple imputation is

[^22]used, which entails replicating independently a given number of datasets containing the complete observations so as to take account of the intrinsic variability of imputation. Twenty-five bootstrap samples are extracted from the original sample, only for observations based on complete original data, maintaining the sampling design. The imputation of the forecasting variables is replicated after the design weights have been realigned with the post-stratified variables. If $\hat{t}$ is used to denote the estimator and $m$ the number of replicated samples, the variance of $\hat{t}$ can be estimated by the following expression: ${ }^{63}$
\[

$$
\begin{equation*}
\hat{v}(\hat{t})=\frac{1}{m} \sum_{j=1}^{m} \hat{1}_{p(s)}\left(\hat{t}_{j}^{*}\right)+\left(1+\frac{1}{m}\right) \sum_{j=1}^{m} \frac{\left(\hat{t}_{j}^{*}-\hat{t}_{m i}\right)^{2}}{m-1} \text {, dove } \hat{t}_{m i}=\frac{1}{m} \sum_{i=1}^{m} \hat{t}_{j}^{*} \tag{8}
\end{equation*}
$$

\]

The term $\left.\hat{v}_{p(s)} \hat{t}_{j}^{*}\right)$ indicates the variance estimated on the $j$ th sample replicated for the estimator $\hat{t}$, using the information from the sample plan $p(s)$. The first sum is the average within imputation variance, while the second sum, known as the between imputation variance, is interpreted as the variability produced by the imputation. Table 6a gives the results. Clearly, the forecasting data show a greater degree of variability than the final results.

[^23]Standard errors of percentage changes, 2006 on 2005
(per cent)

|  | Change in total investments ${ }^{(\mathrm{a})}{ }^{(\mathrm{b})}$ |  | Change in turnover ${ }^{(b)}$ |  | Change in end-year workforce |  | Change in average workforce in year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | estimate | standard error | estimate | standard error | estimate | standard error | estimate | standard error |
|  | Industry excluding construction |  |  |  |  |  |  |  |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49................. | -2.9 | 2.8 | 4.3 | 0.6 | 0.4 | 0.5 | -0.2 | 0.4 |
| 50-199............... | 1.4 | 2.6 | 4.7 | 0.6 | 0.2 | 0.3 | -0.5 | 0.3 |
| 200-499 ............. | -2.8 | 3.0 | 2.1 | 0.7 | 1.1 | 0.4 | 0.6 | 0.4 |
| 500 and over ........ | -4.2 | 1.5 | 5.0 | 0.5 | -0.9 | 0.3 | -0.3 | 0.3 |
| Geographical area ${ }^{(c)}$ |  |  |  |  |  |  |  |  |
| North-West .......... | -2.4 | 1.8 | 4.0 | 0.6 | -0.1 | 0.3 | -0.7 | 0.3 |
| North-East | -2.0 | 2.6 | 4.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.3 |
| Centre ................ | -4.0 | 2.0 | 3.6 | 0.3 | -0.5 | 0.4 | 0.4 | 0.4 |
| South \& Islands | -0.6 | 2.7 | 4.4 | 0.6 | 0.5 | 0.5 | -0.3 | 0.4 |
| Total ...................... | -2.5 | 1.1 | 4.1 | 0.3 | 0.0 | 0.2 | -0.2 | 0.2 |
|  |  |  | No | financial pr | vate servi |  |  |  |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49................. | 4.6 | 3.3 | 3.8 | 0.7 | -0.4 | 1.2 | -0.5 | 1.2 |
| 50-199............... | 5.3 | 4.5 | 5.5 | 0.6 | 2.3 | 0.7 | 1.3 | 0.6 |
| 200-499 ............. | 1.0 | 4.9 | 5.7 | 1.7 | 1.1 | 1.1 | 0.3 | 1.0 |
| 500 and over ........ | 7.0 | 3.8 | 2.5 | 1.0 | 1.6 | 0.8 | 1.9 | 0.6 |
| Geographical area ${ }^{(\mathrm{c})}$ |  |  |  |  |  |  |  |  |
| North-West .......... | 16.4 | 5.9 | 4.4 | 0.9 | 0.1 | 0.7 | 0.1 | 0.6 |
| North-East | -1.7 | 3.8 | 5.2 | 0.7 | 3.4 | 0.9 | 2.4 | 0.8 |
| Centre ................ | 0.7 | 1.8 | 2.7 | 0.7 | 2.4 | 0.6 | 1.7 | 0.5 |
| South \& Islands.... | 1.8 | 3.0 | 4.2 | 1.1 | -1.9 | 2.0 | -0.7 | 2.0 |
| Total ...................... | 5.4 | 2.2 | 4.2 | 0.4 | 1.2 | 0.5 | 0.9 | 0.4 |
| Total ...................... | 1.1 | 1.2 | 4.1 | 0.3 | 0.5 | 0.2 | 0.3 | 0.2 |

a) Estimated at constant 2006 prices using type II Winsorisation at the 5 th and 95 th percentile distribution of changes. - (b) Location of head office.

Table 6a
Standard errors of forecast changes, 2007 on 2006
(per cent)

(a) Estimated at constant 2006 prices using type II Winsorisation at the 5th and 95th percentile distribution of changes. - (b) Location of head office.

## Appendix B

Statistical Tables

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Composition of the samples and reference populations
(units)

|  | Firms with 20-49 employees |  | Firms with 50 employees and over |  | Total firms with 20 employees and over |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | sample size 2006 | population size ${ }^{(1)}$ | sample size 2006 | $\begin{gathered} \hline \text { population } \\ \text { size }^{(1)} \end{gathered}$ | sample size 2006 | $\begin{gathered} \text { population } \\ \text { size }^{(1)} \end{gathered}$ |
|  | Industry, excluding construction |  |  |  |  |  |
| Geographical area ${ }^{(2)}$ |  |  |  |  |  |  |
| North-West ................................ | 182 | 9,077 | 525 | 4,999 | 707 | 14,076 |
| North-East................................ | 202 | 8,064 | 435 | 3,848 | 637 | 11,912 |
| Centre .................................... | 245 | 4,511 | 413 | 1,752 | 658 | 6,263 |
| South \& Islands .......................... | 580 | 4,033 | 527 | 1,355 | 1,107 | 5,388 |
| Number of employees |  |  |  |  |  |  |
| 20 - 49 ................................. | 1,209 | 25,685 | - | - | 1,209 | 25,685 |
| $50-199$................................. |  |  | 1,224 | 9,906 | 1,224 | 9,906 |
| $200-499$................................. |  |  | 389 | 1,450 | 389 | 1,450 |
| 500 and over ............................. |  |  | 287 | 598 | 287 | 598 |
| Branch of activity |  |  |  |  |  |  |
| Total manufacturing ..................... | 1,172 | 25,230 | 1,838 | 11,677 | 3,010 | 36,907 |
| Textile, clothing, leather, shoes | 153 | 4,660 | 239 | 1,759 | 392 | 6,419 |
| Chemicals, rubber and plastics | 122 | 2,138 | 213 | 1,418 | 335 | 3,556 |
| Engineering ............................ | 423 | 11,089 | 802 | 5,375 | 1,225 | 16,464 |
| Other manufacturing ................ | 474 | 7,343 | 584 | 3,125 | 1,058 | 10,468 |
| Energy and extraction.................. | 37 | 455 | 62 | 277 | 99 | 732 |
| Total industry, excl. construction .. | 1,209 | 25,685 | 1,900 | 11,954 | 3,109 | 37,639 |
|  |  |  | Cons | ction |  |  |
| Geographical area ${ }^{(2)}$ |  |  |  |  |  |  |
| North-West ................................. | 42 | 1,796 | 44 | 419 | 86 | 2,215 |
| North-East................................ | 36 | 1,356 | 67 | 495 | 103 | 1,851 |
| Centre ... | 66 | 1,225 | 51 | 206 | 117 | 1,431 |
| South \& Islands .......................... | 92 | 1,862 | 75 | 345 | 167 | 2,207 |
| Number of employees |  |  |  |  |  |  |
| 20-49 ................. | 236 | 6,239 | - | - | 236 | 6,239 |
| $50-199$................................. | - | - | 186 | 1,343 | 186 | 1,343 |
| 200-499 ................................. |  |  | 31 | 84 | 31 | 84 |
| 500 and over ............................. | - | - | 20 | 38 | 20 | 38 |
| Total construction ......................... | 236 | 6,239 | 237 | 1,465 | 473 | 7,704 |
|  |  |  | Ser | (3) |  |  |
| Geographical area ${ }^{(2)}$ |  |  |  |  |  |  |
| North-West ............................... | 89 | 6,195 | 159 | 3,330 | 248 | 9,525 |
| North-East................................. | 72 | 4,846 | 173 | 2,012 | 245 | 6,858 |
| Centre ......... | 108 | 3,915 | 166 | 1,790 | 274 | 5,705 |
| South \& Islands .......................... | 159 | 3,959 | 217 | 1,518 | 376 | 5,477 |
| Number of employees |  |  |  |  |  |  |
| 20-49 ................ | 428 | 18,915 | - | - | 428 | 18,915 |
| $50-199$................................. | - | - | 401 | 6,867 | 401 | 6,867 |
| 200-499 ................................. | - | - | 160 | 1,205 | 160 | 1,205 |
| 500 and over ............................. | - | - | 154 | 578 | 154 | 578 |
| Branch of activity |  |  |  |  |  |  |
| Trade, hotels, restaurants ............. | 268 | 10,594 | 301 | 3,546 | 569 | 14,140 |
| Transport and communication........ | 88 | 3,281 | 199 | 1,868 | 287 | 5,149 |
| Other h.hold \& business services ... | 72 | 5,040 | 215 | 3,236 | 287 | 8,276 |
| Total services............................... | 428 | 18,915 | 715 | 8,650 | 1,143 | 27,565 |
| Total .......................................... | 1,873 | 50,839 | 2,852 | 22,069 | 4,725 | 72,908 |

[^24]
## Concentration of ownership, listed firms and transfers of control, 2006

(per cent)

|  | Quota of first shareholder | Quota of first three shareholders | Listed firms | Transfers of control |
| :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms with 50 employees and over |  |  |  |
| Geographical area |  |  |  |  |
| North-West ............................... | 69.0 | 90.2 | 1.8 | 9.7 |
| North-East ................................ | 71.5 | 92.0 | 1.7 | 7.6 |
| Centre ..................................... | 64.3 | 89.2 | 0.9 | 8.4 |
| South and Islands ........................ | 61.8 | 90.7 | 0.5 | 2.9 |
| Number of employees |  |  |  |  |
| 20-49 ................................... | - | - | - | - |
| 50-199 ................................. | 66.4 | 90.5 | 0.6 | 7.8 |
| $200-499$................................. | 76.5 | 91.7 | 3.3 | 8.3 |
| 500 and over | 79.5 | 91.2 | 12.4 | 12.3 |
| Branch of activity |  |  |  |  |
| Total manufacturing ................... | 68.5 | 90.9 | 1.3 | 8.1 |
| Textiles, clothing, leather, shoes | 64.5 | 91.4 | 2.1 | 11.5 |
| Chemicals, rubber and plastics .. | 77.6 | 94.1 | 0.8 | 12.5 |
| Engineering ........................... | 68.8 | 90.7 | 1.3 | 6.7 |
| Other manufacturing ............... | 65.8 | 89.5 | 1.2 | 6.4 |
| Energy and extraction.................... | 61.7 | 79.5 | 6.3 | 8.9 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 65.4 | 89.0 | 1.3 | 5.6 |
| From one- to two-thirds .............. | 70.3 | 91.6 | 1.8 | 10.5 |
| More than two-thirds ................... | 72.0 | 93.1 | 1.3 | 10.1 |
| Total industrial firms................... | 68.3 | 90.7 | 1.5 | 8.1 |

Type and nationality of leading shareholder, 2006
(per cent)

|  | Leading shareholder |  |  |  |  | Nationality |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Legal person | Holding or sub-holding company | Bank ${ }^{(1)}$ | Nonfinancial company | Total | Italian | Foreign | Total |
|  | Industrial firms with 50 employees and over |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West ................................. | 45.0 | 37.0 | 4.3 | 13.7 | 100.0 | 86.7 | 13.3 | 100.0 |
| North-East | 42.6 | 39.4 | 6.0 | 11.9 | 100.0 | 84.7 | 15.3 | 100.0 |
| Centre | 46.1 | 34.5 | 5.9 | 13.4 | 100.0 | 85.2 | 14.8 | 100.0 |
| South and Islands ....................... | 64.9 | 20.1 | 3.8 | 11.2 | 100.0 | 91.9 | 8.1 | 100.0 |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49 ................................... | 52.1 | 30.6 | 5.0 | 123 | 1000 | 88.4 | 11.6 | 100.0 |
| 50-199 ................................... | 52.1 | 30.6 57.5 | 5.0 | 12.3 | 100.0 | 88.4 | 11.6 | 100.0 |
| 200-499 ................................. | 23.0 | 57.5 | 4.9 | 14.6 | 100.0 | 78.6 | 21.4 | 100.0 |
| 500 and over .............................. | 13.5 | 63.4 | 6.7 | 16.4 | 100.0 | 72.5 | 27.5 | 100.0 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Total manufacturing | 46.9 | 35.8 | 5.2 | 12.2 | 100.0 | 86.3 | 13.7 | 100.0 |
| Textiles, clothing, leather, shoes | 57.6 | 25.2 | 6.0 | 11.2 | 100.0 | 92.4 | 7.6 | 100.0 |
| Chemicals, rubber and plastics .. | 30.7 | 52.2 | 4.7 | 12.4 | 100.0 | 75.2 | 24.8 | 100.0 |
| Engineering ............................ | 45.6 | 37.2 | 5.5 | 11.7 | 100.0 | 83.8 | 16.2 | 100.0 |
| Other manufacturing ................ | 50.7 | 31.6 | 4.3 | 13.3 | 100.0 | 92.6 | 7.4 | 100.0 |
| Energy and extraction.................... | 29.6 | 26.1 | 2.2 | 42.1 | 100.0 | 87.8 | 12.2 | 100.0 |
| Share of exports |  |  |  |  |  |  |  |  |
| Less than one-third ..................... | 52.0 | 32.7 | 3.2 | 12.1 | 100.0 | 89.9 | 10.1 | 100.0 |
| From one- to two-thirds .............. | 41.5 | 39.1 | 7.0 | 12.4 | 100.0 | 86.4 | 13.6 | 100.0 |
| More than two-thirds .................. | 41.7 | 37.0 | 6.4 | 14.9 | 100.0 | 78.5 | 21.5 | 100.0 |
| Total industrial firms .................... | 46.5 | 35.6 | 5.1 | 12.8 | 100.0 | 86.3 | 13.7 | 100.0 |

(1) Including independent financial companies and insurance companies.

Firms involved in mergers, acquisitions, contributions, transfers and splits, 2006
(per cent)

|  | Firms with 20-49 employees | Firms with 50 employees and over | Total firms with 20 employees and over |
| :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |
| Geographical area |  |  |  |
| North-West ............................... | 3.4 | 5.8 | 4.2 |
| North-East ................................ | 2.1 | 7.3 | 3.8 |
| Centre ...................................... | 3.4 | 5.7 | 4.0 |
| South and Islands ....................... | 2.5 | 4.6 | 3.0 |
| Number of employees |  |  |  |
| 20-49 .................................... | 2.8 | - | 2.8 |
| $50-199$................................. | - | 5.1 | 5.1 |
| 200-499 ................................ | - | 9.7 | 9.7 |
| 500 and over ............................. | - | 14.1 | 14.1 |
| Branch of activity |  |  |  |
| Total manufacturing ...... | 2.7 | 6.0 | 3.8 |
| Textiles, clothing, leather, shoes | 2.1 | 6.2 | 3.2 |
| Chemicals, rubber and plastics .. | 4.6 | 7.1 | 5.6 |
| Engineering ........................... | 3.5 | 6.4 | 4.4 |
| Other manufacturing ................ | 1.4 | 4.6 | 2.4 |
| Energy and extraction................ | 8.2 | 12.1 | 9.7 |
| Share of exports |  |  |  |
| Less than one-third ..................... | 1.9 | 6.2 | 2.9 |
| From one- to two-thirds .............. | 6.0 | 6.3 | 6.1 |
| More than two-thirds ................... | 3.8 | 5.7 | 4.6 |
| Total industrial firms.................... | 2.8 | 6.1 | 3.9 |
|  | Service firms |  |  |
| Geographical area |  |  |  |
| North-West ............................... | 4.8 | 8.5 | 6.1 |
| North-East ................................ | 4.0 | 12.1 | 6.4 |
| Centre ...................................... | 3.6 | 9.1 | 5.3 |
| South and Islands ........................ | 3.4 | 4.6 | 3.7 |
| Number of employees |  |  |  |
| 20-49 ................................... | 4.1 | - | 4.1 |
| 50-199 ................................... | - | 8.6 | 8.6 |
| 200-499 ................................ | - | 8.5 | 8.5 |
| 500 and over ............................. | - | 11.6 | 11.6 |
| Branch of activity |  |  |  |
| Trade, hotels, restaurants .............. | 3.5 | 6.9 | 4.3 |
| Transport and communication........ | 2.5 | 8.8 | 4.8 |
| Other h.hold \& business services ... | 6.3 | 10.8 | 8.1 |
| Total service firms........................ | 4.1 | 8.8 | 5.5 |
| Total .......................................... | 3.4 | 7.2 | 4.6 |

Firms belonging to a group, 2006
(per cent)

|  | Firms belonging to a group | Nationality of the group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Italian | EU country ${ }^{(1)}$ | Rest of the world | Total |
|  |  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West ................................ | 31.9 | 69.5 | 22.5 | 8.0 | 100.0 |
| North-East ................................ | 31.8 | 80.0 | 12.5 | 7.5 | 100.0 |
| Centre ...................................... | 23.2 | 87.1 | 8.9 | 4.0 | 100.0 |
| South and Islands ...................... | 19.0 | 88.9 | 8.6 | 2.6 | 100.0 |
|  |  |  |  |  |  |
| 20-49 ................................. | 19.7 | 79.6 | 13.8 | 6.6 | 100.0 |
| $50-199$................................. | 40.3 | 76.9 | 17.6 | 5.5 | 100.0 |
| 200-499 ................................. | 78.4 | 74.4 | 17.0 | 8.6 | 100.0 |
| 500 and over ............................. | 94.6 | 67.6 | 19.1 | 13.4 | 100.0 |
| Branch of activity |  |  |  |  |  |
| Total manufacturing.............. | 28.1 | 77.1 | 16.1 | 6.8 | 100.0 |
| Textiles, clothing, leather, shoes | 19.9 | 87.8 | 10.3 | 1.8 | 100.0 |
| Chemicals, rubber and plastics .. | 39.2 | 58.9 | 32.0 | 9.1 | 100.0 |
| Engineering ............................ | 30.3 | 74.2 | 18.1 | 7.7 | 100.0 |
| Other manufacturing ................. | 25.7 | 86.8 | 7.0 | 6.2 | 100.0 |
| Energy and extraction .................... | 52.4 | 86.7 | 6.5 | 6.9 | 100.0 |
| Share of exports |  |  |  |  |  |
| Less than one-third ..................... | 25.4 | 82.1 | 12.2 | 5.7 | 100.0 |
| From one- to two-thirds ............... | 35.6 | 74.6 | 21.3 | 4.1 | 100.0 |
| More than two-thirds .................. | 31.8 | 66.9 | 19.3 | 13.8 | 100.0 |
| Total industrial firms .................... | 28.6 | 77.4 | 15.8 | 6.8 | 100.0 |
|  |  | Service firms |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West .............................. | 39.2 | 81.9 | 9.8 | 8.3 | 100.0 |
| North-East ................................ | 31.3 | 87.1 | 8.5 | 4.4 | 100.0 |
| Centre ...................................... | 31.3 | 87.9 | 9.0 | 3.1 | 100.0 |
| South and Islands ....................... | 19.8 | 94.2 | 1.7 | 4.1 | 100.0 |
| Number of employees |  |  |  |  |  |
| 20-49 ................................... | 26.1 | 88.5 | 7.0 | 4.5 | 100.0 |
| $50-199$.................................. | 40.6 | 81.5 | 11.0 | 7.5 | 100.0 |
| 200-499 ................................. | 48.5 | 89.2 | 3.2 | 7.6 | 100.0 |
| 500 and over ............................. | 72.2 | 81.9 | 11.8 | 6.3 | 100.0 |
| Branch of activity |  |  |  |  |  |
| Trade, hotels, restaurants ............. | 28.3 | 79.0 | 12.6 | 8.4 | 100.0 |
| Transport and communication ....... | 30.0 | 90.4 | 4.4 | 5.2 | 100.0 |
| Other h.hold \& business services... | 38.3 | 92.6 | 4.8 | 2.6 | 100.0 |
| Total service firms ......................... | 31.7 | 86.0 | 8.3 | 5.7 | 100.0 |
| Total .......................................... | 29.9 | 81.3 | 12.4 | 6.3 | 100.0 |

(1) European Union on 31-12-2003.

Workforce, 2006
(per cent)

|  | Percentage change on previous year |  |  |
| :---: | :---: | :---: | :---: |
|  | End-year workforce | average workforce |  |
|  | 2006 | 2006 | $2007{ }^{(1)}$ |
|  | Industrial firms |  |  |
| Geographical area <br> North-West $\qquad$ <br> North-East $\qquad$ <br> Centre $\qquad$ <br> South and Islands $\qquad$ | $\begin{array}{r} -0.1 \\ 0.4 \\ -0.5 \\ 0.5 \end{array}$ | $\begin{array}{r} -0.7 \\ 0.3 \\ 0.4 \\ -0.3 \end{array}$ | $\begin{array}{r} 0.5 \\ 0.7 \\ 0.7 \\ -0.2 \end{array}$ |
| Area of employment <br> North-West $\qquad$ <br> North-East $\qquad$ <br> Centre $\qquad$ <br> South and Islands $\qquad$ | $\begin{array}{r} -0.1 \\ 0.3 \\ 0.1 \\ -0.3 \end{array}$ | $\begin{array}{r} -0.7 \\ 0.4 \\ 0.2 \\ -0.3 \end{array}$ | $\begin{aligned} & 0.5 \\ & 0.9 \\ & 0.1 \\ & 0.4 \end{aligned}$ |
| Number of employees | $\begin{array}{r} 0.4 \\ 0.2 \\ 1.1 \\ -0.9 \end{array}$ | $\begin{array}{r} -0.2 \\ -0.5 \\ 0.6 \\ -0.3 \end{array}$ | $\begin{aligned} & 1.1 \\ & 0.1 \\ & 0.9 \\ & 0.3 \end{aligned}$ |
| Branch of activity <br> Total manufacturing. $\qquad$ <br> Textiles, clothing, leather, shoes Chemicals, rubber and plastics <br> Engineering $\qquad$ <br> Other manufacturing $\qquad$ <br> Energy and extraction $\qquad$ | $\begin{array}{r} 0.1 \\ -2.1 \\ -0.7 \\ 1.3 \\ -0.6 \\ -0.9 \end{array}$ | $\begin{array}{r} -0.3 \\ -2.8 \\ -0.6 \\ 0.6 \\ -0.5 \\ 2.5 \end{array}$ | $\begin{array}{r} 0.5 \\ -2.1 \\ 1.7 \\ 1.3 \\ -0.4 \\ 1.9 \end{array}$ |
| Share of exports <br> Less than one-third $\qquad$ <br> From one- to two-thirds $\qquad$ <br> More than two-thirds $\qquad$ <br> Total industrial firms $\qquad$ | $\begin{array}{r} -0.2 \\ -0.1 \\ 0.9 \\ \mathbf{0 . 0} \end{array}$ | $\begin{array}{r} 0.1 \\ -0.9 \\ 0.3 \\ \mathbf{- 0 . 2} \end{array}$ | $\begin{aligned} & 0.5 \\ & 0.3 \\ & 0.9 \\ & \mathbf{0 . 5} \end{aligned}$ |
| Geographical area <br> North-West $\qquad$ <br> North-East $\qquad$ <br> Centre $\qquad$ <br> South and Islands $\qquad$ | $\begin{array}{r} 0.1 \\ 3.4 \\ 2.4 \\ -1.9 \end{array}$ | vice fir $\begin{array}{r} 0.1 \\ 2.4 \\ 1.7 \\ -0.7 \end{array}$ | $\begin{aligned} & 1.5 \\ & 1.7 \\ & 1.7 \\ & 0.9 \end{aligned}$ |
| Area of employment <br> North-West $\qquad$ <br> North-East $\qquad$ <br> Centre $\qquad$ <br> South and Islands $\qquad$ | $\begin{array}{r} 0.3 \\ 2.4 \\ 3.0 \\ -0.8 \end{array}$ | $\begin{aligned} & 0.3 \\ & 1.8 \\ & 1.6 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 1.4 \\ & 1.8 \\ & 1.2 \end{aligned}$ |
| Number of employees | $\begin{array}{r} -0.4 \\ 2.3 \\ 1.1 \\ 1.6 \end{array}$ | $\begin{array}{r} -0.5 \\ 1.3 \\ 0.3 \\ 1.9 \end{array}$ | $\begin{aligned} & 0.7 \\ & 0.6 \\ & 1.7 \\ & 2.7 \end{aligned}$ |
| Branch of activity <br> Trade, hotels, restaurants $\qquad$ <br> Transport and communication ....... <br> Other h.hold \& business services .. <br> Total service firms $\qquad$ | $\begin{array}{r} 2.3 \\ -1.0 \\ 1.6 \\ \mathbf{1 . 2} \end{array}$ | $\begin{array}{r} 1.9 \\ -0.8 \\ 1.0 \\ \mathbf{0 . 9} \end{array}$ | $\begin{aligned} & 1.4 \\ & 0.9 \\ & 2.2 \\ & \mathbf{1 . 5} \end{aligned}$ |
| Total ......................................... | 0.5 | 0.3 | 1.0 |

(1) Forecast.

Hours worked and hours overtime per capita, 2006
(number; percentage change)

|  | 2006 |  | Percentage change on previous year |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Hours worked per capita during the year | Annual hours overtime over hours worked | Hours worked per capita during the year | Annual hours overtime |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ............................... | 1,646 | 4.3 | 1.7 | 5.6 |
| North-East ................................ | 1,650 | 4.3 | 0.9 | 6.5 |
| Centre ..................................... | 1,641 | 3.8 | -0.7 | -1.5 |
| South and Islands ....................... | 1,717 | 3.5 | 0.8 | 3.6 |
| Number of employees |  |  |  |  |
| $20-49$................................... | 1,702 | 3.6 | 1.4 | 6.2 |
| $50-199$.................................. | 1,664 | 4.1 | 0.8 | 4.1 |
| $200-499$................................ | 1,646 | 4.1 | 1.7 | 7.0 |
| 500 and over ............................. | 1,595 | 4.8 | 0.5 | 3.1 |
| Branch of activity |  |  |  |  |
| Total manufacturing... | 1,659 | 4.1 | 1.3 | 5.4 |
| Textiles, clothing, leather, shoes | 1,575 | 3.0 | 1.0 | 3.5 |
| Chemicals, rubber and plastics .. | 1,661 | 3.5 | 0.6 | 3.4 |
| Engineering ............................ | 1,677 | 4.6 | 1.9 | 8.0 |
| Other manufacturing ................ | 1,669 | 3.9 | 0.7 | 1.1 |
| Energy and extraction ...................... | 1,532 | 5.6 | -4.6 | -5.6 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 1,652 | 4.0 | 0.4 | 3.3 |
| From one- to two-thirds ............... | 1,654 | 4.3 | 2.1 | 7.3 |
| More than two-thirds .................. | 1,652 | 4.2 | 1.0 | 4.3 |
| Total industrial firms.................... | 1,653 | 4.2 | 1.0 | 4.7 |
|  |  | Service | firms |  |
| Geographical area |  |  |  |  |
| North-West ............................... | 1,622 | 5.7 | -0.6 | -2.0 |
| North-East ................................ | 1,577 | 5.4 | -0.5 | 0.4 |
| Centre ..................................... | 1,662 | 6.0 | -0.3 | 4.3 |
| South and Islands ....................... | 1,756 | 4.2 | 0.7 | 3.7 |
| Number of employees |  |  |  |  |
| $20-49$................................... | 1,767 | 3.8 | -0.1 | 3.6 |
| $50-199$................................. | 1,694 | 5.0 | -1.0 | -1.5 |
| 200-499 ................................. | 1,637 | 5.6 | 0.5 | 1.5 |
| 500 and over ............................. | 1,506 | 7.3 | -0.2 | 0.3 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants .............. | 1,617 | 4.3 | -0.6 | 0.2 |
| Transport and communication ....... | 1,662 | 7.1 | -0.8 | 0.9 |
| Other h.hold \& business services... | 1,647 | 5.6 | 0.4 | 2.1 |
| Total service firms ........................ | 1,639 | 5.5 | -0.3 | 0.8 |
| Total .......................................... | 1,647 | 4.7 | 0.3 | 1.7 |

Fixed-term work, temporary work and immigrant workers, 2006
(per cent; units; average points)

|  | Fixed-term work | Temporary work ${ }^{(1)}$ |  | Non-EU workers |
| :---: | :---: | :---: | :---: | :---: |
|  | \% of end-year workforce | number of assignments | \% hours temporary work over total | \% of end-year workforce |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................. | 4.8 | 15.0 | 2.9 | 3.5 |
| North-East .................................. | 6.4 | 15.4 | 3.4 | 5.3 |
| Centre ........................................ | 5.9 | 10.5 | 1.9 | 3.2 |
| South and Islands ........................ | 8.4 | 4.9 | 1.4 | 0.7 |
| Number of employees |  |  |  |  |
| 20-49 .................................... | 6.6 | - | - | 4.8 |
| 50-199 ................................... | 6.0 | 7.7 | 2.4 | 3.8 |
| 200-499 ................................. | 5.4 | 25.1 | 3.1 | 3.5 |
| 500 and over .............................. | 4.8 | 86.4 | 3.2 | 2.2 |
| Branch of activity |  |  |  |  |
| Total manufacturing ................... | 5.9 | 13.4 | 2.9 | 3.9 |
| Textiles, clothing, leather, shoes | 5.9 | 5.1 | 1.2 | 3.7 |
| Chemicals, rubber and plastics... | 4.9 | 22.9 | 3.4 | 3.7 |
| Engineering ............................ | 5.7 | 14.3 | 3.3 | 3.8 |
| Other manufacturing ............... | 6.9 | 12.8 | 2.6 | 4.1 |
| Energy and extraction..................... | 2.4 | 6.3 | 0.7 | 0.6 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 6.2 | 12.1 | 2.4 | 4.2 |
| From one- to two-thirds .............. | 5.3 | 12.5 | 3.1 | 3.5 |
| More than two-thirds .................. | 5.4 | 16.8 | 3.1 | 3.1 |
| Total industrial firms .................... | 5.8 | 13.2 | 2.8 | 3.8 |
|  | Service firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................. | 10.0 | 18.9 | 1.9 | 6.0 |
| North-East ................................. | 11.8 | 18.7 | 0.7 | 5.5 |
| Centre ....................................... | 8.9 | 5.4 | 0.6 | 3.2 |
| South and Islands ........................ | 10.6 | 8.9 | 1.1 | 0.6 |
| Number of employees |  |  |  |  |
| 20-49 .................................... | 10.9 | - | - | 3.1 |
| 50-199 .................................. | 12.4 | 8.3 | 1.2 | 3.2 |
| 200-499 .................................. | 10.1 | 10.9 | 0.7 | 6.5 |
| 500 and over .............................. | 8.4 | 106.4 | 1.5 | 5.9 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants .............. | 13.3 | 22.4 | 1.1 | 3.8 |
| Transport and communication....... | 8.0 | 11.1 | 1.6 | 3.1 |
| Other h.hold \& business services ... | 8.4 | 6.2 | 1.0 | 6.5 |
| Total service firms......................... | 10.3 | 14.0 | 1.2 | 4.5 |
| Total ........................................... | 7.8 | 13.5 | 2.2 | 4.1 |

(1) Only firms with 50 employees and over.

Labour turnover, hirings and terminations, 2006
(per cent)

(1) Sum of flows of hirings and terminations during the year as a percentage of the mean of the workforce at the beginning and end of the year.

Total gross earnings and minimum wages per national agreements, 2006
( $€$ thousands; per cent)

|  | Total gross earnings | Guaranteed collective agreement wage, over total gross earnings |
| :---: | :---: | :---: |
|  | Industrial firms |  |
| Geographical area |  |  |
| North-West ................................. | 28.3 | 82.4 |
| North-East .................................. | 27.6 | 83.6 |
| Centre . | 28.0 | 91.5 |
| South and Islands ........................ | 22.8 | 93.4 |
| Number of employees |  |  |
| 20-49 ................................. | 24.7 | 89.0 |
| 50-199 ................................... | 26.3 | 87.4 |
| 200-499 ................................. | 29.4 | 82.8 |
| 500 and over .............................. | 30.9 | 82.2 |
| Branch of activity |  |  |
| Total manufacturing ................... | 27.0 | 84.7 |
| Textiles, clothing, leather, shoes | 22.4 | 88.2 |
| Chemicals, rubber and plastics .. | 30.1 | 83.6 |
| Engineering ............................ | 27.8 | 82.8 |
| Other manufacturing ............... | 26.6 | 87.2 |
| Energy and extraction..................... | 34.7 | 93.2 |
| Share of exports |  |  |
| Less than one-third ..................... | 27.3 | 88.0 |
| From one- to two-thirds .............. | 27.8 | 83.4 |
| More than two-thirds .................. | 27.7 | 82.2 |
| Total industrial firms .................... | 27.5 | 85.5 |
|  |  | firms |
| Geographical area |  |  |
| North-West ................................. | 27.7 | 84.3 |
| North-East ................................. | 25.6 | 87.3 |
| Centre ........................................ | 29.7 | 92.9 |
| South and Islands ........................ | 23.9 | 94.3 |
| Number of employees |  |  |
| 20-49 .................................... | 26.5 | 89.9 |
| 50-199 .................................. | 25.9 | 90.3 |
| 200-499 ................................. | 27.8 | 87.1 |
| 500 and over .............................. | 28.4 | 88.5 |
| Branch of activity |  |  |
| Trade, hotels, restaurants .............. | 23.8 | 91.3 |
| Transport and communication....... | 32.2 | 88.9 |
| Other h.hold \& business services ... | 26.6 | 87.0 |
| Total service firms......................... | 27.1 | 89.1 |
| Total ........................................... | 27.3 | 87.0 |

Investment, 2006
$(€ \text { thousands; per cent })^{(1)}$

|  | Gross fixed investment per capita | Percentage cha fix | ous year in gross $\text { ht }{ }^{(2)}$ | Realisation rate ${ }^{(4)}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2006 | $2007{ }^{(3)}$ |  |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ....................................... | 11.4 | -2.4 | 3.5 | 101.0 |
| North-East......................................... | 9.5 | -2.0 | 2.9 | 103.8 |
| Centre ............................................... | 19.2 | -4.0 | 22.8 | 104.2 |
| South \& Islands .................................. | 10.0 | -0.6 | -1.5 | 106.0 |
| Area of investment |  |  |  |  |
| North-West ....................................... | 10.1 | -2.8 | 8.9 | - |
| North-East ......................................... | 10.2 | -2.9 | 9.3 | - |
| Centre .............................................. | 12.6 | -1.2 | 13.8 | - |
| South \& Islands .................................. | 15.4 | -3.3 | 1.0 | - |
| Number of employees |  |  |  |  |
| $20-49$........................................... | 8.2 | -2.9 | -1.8 | 109.6 |
| $50-199$.......................................... | 8.7 | 1.4 | -1.9 | 104.9 |
| 200-499 ........................................ | 11.8 | -2.8 | 3.2 | 99.9 |
| 500 and over ...................................... | 19.0 | -4.2 | 18.4 | 99.4 |
| Branch of activity |  |  |  |  |
| Total manufacturing............................. | 9.6 | -1.4 | -0.5 | 103.9 |
| Textile, clothing, leather, shoes .......... | 5.5 | -3.8 | -5.9 | 112.0 |
| Chemicals, rubber and plastics ............ | 13.6 | 0.1 | 2.8 | 101.1 |
| Engineering .................................... | 9.0 | 1.0 | 3.5 | 105.2 |
| Other manufacturing ......................... | 11.1 | -4.6 | -6.2 | 101.5 |
| Energy and extraction........................... | 52.1 | -6.4 | 35.7 | 98.9 |
| Share of exports |  |  |  |  |
| Less than one-third .............................. | 13.8 | -4.9 | 10.2 | 102.9 |
| From one- to two-thirds ....................... | 10.2 | -0.1 | 3.2 | 102.2 |
| Over two-thirds ................................... | 9.3 | 3.6 | 3.1 | 103.3 |
| Total industrial firms ............................ | 11.9 | -2.5 | 7.2 | 102.8 |
|  |  |  |  |  |
| Geographical area |  |  |  |  |
| North-West ....................................... | 13.2 | 16.4 | -2.9 | 105.4 |
| North-East......................................... | 8.9 | -1.7 | -3.9 | 98.0 |
| Centre ............................................. | 14.8 | 0.7 | 0.9 | 99.2 |
| South \& Islands ................................. | 9.5 | 1.8 | -6.0 | 104.0 |
| Area of investment |  |  |  |  |
| North-West ....................................... | 13.0 | 20.9 | -6.9 | - |
| North-East......................................... | 9.9 | -0.8 | -1.3 | - |
| Centre .............................................. | 11.5 | 0.9 | 2.4 | - |
| South \& Islands ..................... | 11.4 | 0.6 | -4.8 | - |
| Number of employees |  |  |  |  |
| $20-49$........................................... | 8.5 | 4.6 | -10.1 | 110.7 |
| $50-199$.......................................... | 9.3 | 5.3 | -11.8 | 107.9 |
| $200-499$......................................... | 9.1 | 1.0 | -2.0 | 102.0 |
| 500 and over ...................................... | 17.7 | 7.0 | 4.6 | 96.3 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants ...................... | 9.8 | 4.1 | -7.4 | 107.3 |
| Transport and communication................ | 23.1 | 6.8 | 0.9 | 96.2 |
| Other h.hold \& business services ............ | 6.2 | 3.8 | -3.5 | 114.2 |
| Total service firms................................ | 12.0 | 5.4 | -2.3 | 101.9 |
| Total .................................................. | 11.9 | 1.1 | 2.5 | 102.4 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) At constant 2006 prices. The deflator is calculated as the average, at Ateco 2002 sub-section level, of the price indices for their investment spending estimated by the firms interviewed. - (3) Forecast. - (4) Ratio between investment made and investment planned at the end of the previous year.

## Review of investment plans, 2006

(per cent) ${ }^{(1)}$

|  | Expenditure on gross fixed investment in 2006 compared with plans at end-2005 ${ }^{(2)}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | much less | less | a little less | same | a little more | more | much more | Total |
|  | Industrial firms |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West ................................. | 20.7 | 12.9 | 3.6 | 4.0 | 2.8 | 12.9 | 43.1 | 100.0 |
| North-East | 20.7 | 12.4 | 3.8 | 3.2 | 3.8 | 13.9 | 42.3 | 100.0 |
| Centre ....................................... | 24.4 | 9.5 | 2.2 | 8.5 | 2.8 | 12.1 | 40.5 | 100.0 |
| South and Islands ........................ | 21.2 | 6.7 | 3.5 | 16.0 | 2.1 | 9.7 | 40.8 | 100.0 |
| Number of employees |  |  |  |  |  |  |  |  |
| $20-49$ | 20.4 | 10.4 | 2.8 | 7.8 | 2.1 | 7.4 | 49.0 | 100.0 |
| $50-199$ | 23.4 | 12.8 | 4.2 | 3.0 | 4.5 | 24.3 | 27.8 | 100.0 |
| 200-499 ................................. | 24.5 | 13.2 | 7.0 | 2.4 | 6.7 | 21.1 | 25.1 | 100.0 |
| 500 and over............................... | 22.3 | 20.8 | 8.6 | 0.3 | 5.2 | 21.6 | 21.1 | 100.0 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Total manufacturing | 21.6 | 10.7 | 3.2 | 6.3 | 2.9 | 12.8 | 42.6 | 100.0 |
| Textiles, clothing, leather, shoes | 22.6 | 9.4 | 0.7 | 7.4 | 2.1 | 12.5 | 45.2 | 100.0 |
| Chemicals, rubber and plastics .. | 23.2 | 13.7 | 2.4 | 2.2 | 10.3 | 19.4 | 28.8 | 100.0 |
| Engineering ............................ | 20.3 | 10.6 | 1.5 | 5.7 | 1.2 | 13.9 | 46.9 | 100.0 |
| Other manufacturing ................ | 22.5 | 10.7 | 7.6 | 8.0 | 3.4 | 8.9 | 38.8 | 100.0 |
| Energy and extraction.................... | 10.1 | 40.3 | 13.5 | 2.4 | 9.7 | 5.9 | 18.1 | 100.0 |
| Share of exports |  |  |  |  |  |  |  |  |
| Less than one-third ...................... | 21.8 | 10.9 | 4.1 | 6.9 | 2.3 | 11.4 | 42.7 | 100.0 |
| From one- to two-thirds .............. | 19.6 | 11.1 | 2.8 | 5.4 | 3.6 | 14.3 | 43.2 | 100.0 |
| More than two-thirds .................. | 22.2 | 13.0 | 1.5 | 4.8 | 5.0 | 15.1 | 38.3 | 100.0 |
| Total industrial firms .................... | 21.4 | 11.3 | 3.4 | 6.2 | 3.0 | 12.6 | 42.1 | 100.0 |
|  |  |  |  | Ser | firms |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West ................................ | 15.0 | 9.3 | 10.5 | 5.2 | 1.6 | 12.7 | 45.7 | 100.0 |
| North-East ................................. | 18.9 | 14.4 | 11.5 | 7.4 | 0.7 | 8.3 | 38.7 | 100.0 |
| Centre ....................................... | 13.8 | 8.1 | 7.3 | 7.0 | 1.9 | 13.5 | 48.4 | 100.0 |
| South and Islands ....................... | 20.2 | 9.0 | 7.6 | 10.6 | 3.0 | 11.0 | 38.6 | 100.0 |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49 .................................... | 15.8 | 10.7 | 10.1 | 8.3 | 1.0 | 9.7 | 44.3 | 100.0 |
| $50-199$................................... | 17.9 | 8.9 | 7.9 | 4.6 | 3.6 | 14.7 | 42.4 | 100.0 |
| 200-499 .................................. | 21.8 | 11.5 | 11.2 | 7.7 | 1.9 | 17.9 | 28.0 | 100.0 |
| 500 and over............................... | 22.6 | 11.1 | 4.3 | 0.7 | 2.5 | 14.7 | 44.2 | 100.0 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Trade, hotels, restaurants .............. | 17.0 | 11.7 | 3.3 | 6.4 | 2.0 | 15.4 | 44.3 | 100.0 |
| Transport and communication....... | 15.2 | 9.4 | 11.7 | 8.1 | 2.7 | 7.7 | 45.2 | 100.0 |
| Other h.hold \& business services ... | 17.3 | 8.4 | 18.8 | 8.0 | 0.7 | 7.1 | 39.8 | 100.0 |
| Total service firms......................... | 16.8 | 10.3 | 9.5 | 7.2 | 1.7 | 11.4 | 43.1 | 100.0 |
| Total ........................................... | 19.4 | 10.8 | 6.0 | 6.6 | 2.5 | 12.1 | 42.5 | 100.0 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) 'much less' = less than 75 per cent of planned; 'less' = 75 to 95 per cent of planned; 'a little less' 95 to 100 per cent of planned; 'same' = 100 per cent of planned; 'a little more' 100 to 105 per cent of planned; 'more' = 105 to 125 per cent of planned; 'much more' $=$ over 125 per cent of planned.

Reasons for reviewing investment plans, 2006

| (per cent) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms with 50 employees and over |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Demand | Cost |  | Rules | Delivery times | Purchase price | Selffinancing | Interest rates | Availability of finance |  | Unfinished planned investment | $\begin{gathered} \text { Anticip- } \\ \text { ated } \\ \text { investment } \end{gathered}$ | Internal organisation | Other reasons |
|  |  | Level | Uncertainty |  |  |  |  |  | Shares | Loans |  |  |  |  |
|  |  |  |  |  |  | ut-back | in plan | ed inv | stment |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North-West ....... | 23.1 | 12.1 | 10.5 | 4.9 | 15.3 | 6.3 | 7.3 | 6.0 | 4.1 | 7.3 | 34.0 | 7.4 | 60.5 | 15.9 |
| North-East | 13.9 | 6.1 | 4.0 | 6.0 | 16.7 | 13.1 | 12.0 | 9.8 | 3.0 | 7.6 | 35.1 | 11.9 | 73.3 | 9.3 |
| Centre | 17.9 | 7.3 | 6.5 | 2.5 | 11.0 | 5.4 | 9.1 | 5.4 | 3.3 | 3.0 | 28.8 | 2.7 | 64.4 | 11.6 |
| South and Islands | 20.2 | 1.8 | 6.6 | 5.1 | 3.3 | 0.9 | 7.8 | 1.6 | 2.0 | 7.4 | 26.9 | 3.8 | 69.4 | 5.9 |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-49 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 50-199 | 20.1 | 8.6 | 7.8 | 5.5 | 13.9 | 7.8 | 10.0 | 8.2 | 3.7 | 7.6 | 31.5 | 7.0 | 65.8 | 11.6 |
| 200-499 | 15.2 | 9.7 | 5.4 | 1.4 | 11.6 | 8.3 | 3.8 | 0.2 | 1.7 | 2.0 | 36.3 | 11.3 | 65.5 | 12.8 |
| 500 and over | 15.1 | 2.5 | 7.4 | 3.8 | 18.3 | 4.6 | 9.4 | 0.0 | 3.2 | 4.3 | 43.9 | 7.2 | 68.3 | 19.7 |
| Branch of activity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total manufacturing ............ | 19.4 | 8.7 | 7.3 | 5.0 | 14.2 | 7.9 | 8.4 | 6.8 | 3.5 | 6.5 | 32.6 | 7.8 | 65.7 | 12.0 |
| Text., cloth., leather, shoes | 27.6 | 5.1 | 1.3 | 0.5 | 12.2 | 3.5 | 9.5 | 2.1 | 6.8 | 8.5 | 39.8 | 6.8 | 59.3 | 7.3 |
| Chemicals, rubber, plastic | 14.8 | 3.2 | 5.0 | 0.0 | 14.5 | 0.0 | 5.9 | 5.0 | 0.4 | 11.6 | 57.9 | 5.0 | 65.4 | 8.7 |
| Engineering | 19.1 | 11.4 | 6.6 | 7.9 | 15.7 | 13.1 | 5.7 | 8.9 | 2.1 | 3.0 | 28.0 | 9.1 | 66.8 | 15.2 |
| Other manufacturing | 18.5 | 7.8 | 11.8 | 3.9 | 12.2 | 4.1 | 13.7 | 6.0 | 5.8 | 9.5 | 27.2 | 7.3 | 66.5 | 9.7 |
| Energy and extraction.......... | 9.5 | 0.0 | 15.3 | 0.0 | 0.0 | 0.0 | 35.8 | 0.0 | 0.0 | 15.3 | 41.4 | 0.0 | 75.1 | 19.2 |
| Share of exports |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Less than one-third ............. | 15.4 | 8.0 | 8.9 | 4.5 | 18.5 | 8.0 | 13.7 | 5.8 | 3.0 | 12.0 | 37.7 | 8.8 | 64.1 | 12.9 |
| From one- to two-thirds | 19.5 | 6.6 | 4.2 | 3.2 | 12.6 | 3.9 | 3.0 | 5.2 | 5.1 | 0.9 | 29.0 | 3.7 | 69.6 | 9.7 |
| More than two-thirds | 24.8 | 11.7 | 9.4 | 7.6 | 7.8 | 12.2 | 9.4 | 9.9 | 2.0 | 5.4 | 29.8 | 10.8 | 64.2 | 14.1 |
| Total industrial firms.. | 19.1 | 8.4 | 7.5 | 4.9 | 13.8 | 7.7 | 9.1 | 6.7 | 3.4 | 6.7 | 32.8 | 7.6 | 65.9 | 12.2 |
|  |  |  |  |  |  | crease | n plan | ed inv | stment ${ }^{(3)}$ |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North-West .... | 28.1 | 5.2 | 5.0 | 0.7 | 3.8 | 5.2 | 8.2 | 0.0 | 0.7 | 2.8 | 18.9 | 15.2 | 65.5 | 13.6 |
| North-East | 25.3 | 5.6 | 6.4 | 6.0 | 4.3 | 6.5 | 9.4 | 6.1 | 0.0 | 9.2 | 17.7 | 27.1 | 74.3 | 8.7 |
| Centre | 17.7 | 2.0 | 2.2 | 1.7 | 1.9 | 5.2 | 5.5 | 0.0 | 1.0 | 1.4 | 18.5 | 23.1 | 70.2 | 12.1 |
| South and Islands | 26.3 | 4.0 | 3.0 | 3.4 | 1.3 | 10.6 | 6.4 | 1.3 | 2.2 | 5.0 | 13.6 | 18.4 | 64.7 | 8.1 |
| Number of employees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-49 | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 50-199 | 25.1 | 4.4 | 5.0 | 3.2 | 3.2 | 6.2 | 8.6 | 2.4 | 0.9 | 5.3 | 15.6 | 19.4 | 69.5 | 10.9 |
| 200-499 | 26.5 | 5.9 | 3.0 | 1.1 | 2.6 | 6.3 | 2.0 | 0.0 | 0.0 | 2.8 | 30.1 | 22.8 | 67.8 | 11.1 |
| 500 and over . | 23.0 | 4.6 | 1.3 | 0.7 | 6.1 | 8.6 | 6.4 | 0.0 | 0.0 | 0.7 | 29.1 | 43.9 | 61.4 | 14.4 |
| Branch of activity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total manufacturing ............ | 25.1 | 4.4 | 4.3 | 2.5 | 3.3 | 6.0 | 7.6 | 2.1 | 0.2 | 4.5 | 17.2 | 20.7 | 69.4 | 11.2 |
| Text., cloth., leather, shoes | 22.0 | 1.8 | 3.6 | 0.0 | 0.0 | 0.2 | 11.6 | 0.0 | 0.0 | 5.6 | 7.6 | 14.0 | 77.0 | 9.7 |
| Chemicals, rubber, plastic | 29.5 | 9.3 | 5.6 | 1.4 | 6.6 | 11.9 | 4.9 | 0.5 | 1.8 | 2.3 | 31.0 | 35.6 | 61.9 | 10.9 |
| Engineering .................... | 28.4 | 5.3 | 4.2 | 3.7 | 2.7 | 6.7 | 7.6 | 1.6 | 0.0 | 5.2 | 18.9 | 16.9 | 71.6 | 13.4 |
| Other manufacturing ........ | 19.3 | 2.6 | 4.5 | 2.5 | 5.5 | 6.4 | 6.0 | 5.0 | 0.0 | 3.4 | 15.2 | 26.3 | 63.3 | 8.2 |
| Energy and extraction.......... | 28.7 | 18.7 | 34.6 | 32.2 | 0.0 | 34.6 | 23.9 | 0.0 | 47.0 | 34.6 | 58.9 | 25.2 | 33.9 | 0.0 |
| Share of exports |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Less than one-third ............. | 20.0 | 4.1 | 3.6 | 3.0 | 4.3 | 6.2 | 7.1 | 3.4 | 0.8 | 5.0 | 17.6 | 19.9 | 69.9 | 9.0 |
| From one- to two-thirds ...... | 32.6 | 4.4 | 7.2 | 2.3 | 3.1 | 7.6 | 7.9 | 1.0 | 0.0 | 4.8 | 16.8 | 24.5 | 66.0 | 10.9 |
| More than two-thirds ......... | 27.0 | 6.3 | 3.6 | 3.5 | 0.9 | 4.9 | 9.5 | 0.3 | 1.7 | 4.7 | 19.5 | 17.4 | 71.2 | 16.3 |
| Total industrial firms............ | 25.1 | 4.6 | 4.7 | 2.9 | 3.3 | 6.3 | 7.8 | 2.1 | 0.7 | 4.9 | 17.7 | 20.8 | 69.0 | 11.0 |

[^25]
## Change in plant capacity and utilisation rate, 2006

(per cent)

|  | Change in plant capacity from previous year |  | Capacity utilisation rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | level | change from previous year |  |
|  | 2006 | $2007{ }^{(1)}$ | 2006 | 2006 | $2007{ }^{(1)}$ |
|  | Industrial firms with 50 employees and over |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West ................................. | 4.2 | 4.9 | 81.4 | 1.0 | 1.4 |
| North-East .................................. | 5.6 | 5.8 | 82.6 | 0.2 | 2.5 |
| Centre ........................................ | 0.4 | 3.6 | 78.0 | 0.3 | 6.2 |
| South and Islands ........................ | 6.2 | 7.0 | 82.0 | -1.3 | 1.4 |
| Number of employees |  |  |  |  |  |
| $50-199$.................................. | 5.9 | 8.1 | 81.9 | 0.7 | 1.8 |
| 200-499 ................................. | 5.3 | 4.6 | 84.7 | 1.3 | -0.2 |
| 500 and over............................... | 1.3 | 3.0 | 77.8 | -0.2 | 5.2 |
| Branch of activity |  |  |  |  |  |
| Total manufacturing..................... | 4.7 | 5.3 | 82.1 | 0.8 | 1.6 |
| Textiles, clothing, leather, shoes | 3.0 | 4.0 | 82.0 | 2.1 | 0.3 |
| Chemicals, rubber and plastics .. | 3.7 | 5.6 | 85.0 | 0.7 | -0.4 |
| Engineering ............................ | 5.9 | 5.7 | 80.7 | 0.9 | 3.1 |
| Other manufacturing ................ | 4.5 | 4.5 | 80.4 | 0.1 | 1.9 |
| Energy and extraction................... | -1.1 | 2.8 | 75.1 | 0.2 | 8.3 |
| Share of exports |  |  |  |  |  |
| Less than one-third ..................... | 4.2 | 5.8 | 78.4 | 0.1 | 3.1 |
| From one- to two-thirds .............. | 2.2 | 2.8 | 84.3 | 1.2 | 2.6 |
| More than two-thirds .................. | 5.5 | 6.0 | 83.2 | 1.1 | 1.5 |
| Total industrial firms .................... | 3.7 | 4.9 | 80.9 | 0.6 | 2.7 |

[^26]Turnover, 2006
( $€$ thousands; per cent)

|  | Turnover per employee ${ }^{(1)}$ | Percentage change in turnover on previous year ${ }^{(1)(2)}$ |  | Share of turnover from exports |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2006 | $2007{ }^{(3)}$ | 2006 | $2007{ }^{(3)}$ |
|  | Industrial firms |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West ................................. | 317.8 | 4.0 | 2.5 | 28.6 | 29.6 |
| North-East | 259.9 | 4.6 | 3.8 | 39.1 | 39.6 |
| Centre ................................... | 437.1 | 3.6 | 0.7 | 24.1 | 24.8 |
| South and Islands ....................... | 211.3 | 4.4 | 2.1 | 25.1 | 25.8 |
| Number of employees |  |  |  |  |  |
| 20-49 .................................. | 231.2 | 4.3 | 2.3 | 25.6 | 26.3 |
| 50-199 ............................. | 242.3 | 4.7 | 2.9 | 34.1 | 35.7 |
| 200-499 ................................. | 362.7 | 2.1 | 1.3 | 21.0 | 22.0 |
| 500 and over............................... | 427.4 | 5.0 | 2.8 | 35.5 | 35.8 |
| Branch of activity |  |  |  |  |  |
| Total manufacturing. | 282.1 | 4.4 | 3.0 | 33.0 | 33.7 |
| Textiles, clothing, leather, shoes | 197.0 | 3.7 | 1.0 | 42.5 | 42.5 |
| Chemicals, rubber and plastics .. | 423.7 | 1.4 | 1.9 | 20.3 | 21.1 |
| Engineering ............................ | 270.0 | 8.0 | 4.5 | 45.2 | 46.0 |
| Other manufacturing ................. | 278.5 | 2.3 | 2.2 | 22.6 | 22.7 |
| Energy and extraction .................... | 790.9 | 2.2 | -1.0 | 12.4 | 12.5 |
| Share of exports |  |  |  |  |  |
| Less than one-third ..................... | 310.8 | 2.6 | 1.9 | 8.6 | 9.3 |
| From one- to two-thirds ............... | 346.3 | 5.7 | 1.8 | 46.9 | 46.8 |
| More than two-thirds .................. | 251.1 | 6.9 | 5.3 | 79.8 | 80.0 |
| Total industrial firms .................... | 309.0 | 4.1 | 2.4 | 29.8 | 30.7 |
|  |  |  | rvice firms |  |  |
| Geographical area |  |  |  |  |  |
| North-West ................................ | 283.7 | 4.4 | 1.4 | 10.9 | 11.5 |
| North-East ................................. | 257.5 | 5.2 | 1.8 | 11.9 | 11.8 |
| Centre ....................................... | 253.5 | 2.7 | 1.7 | 10.4 | 9.6 |
| South and Islands ....................... | 225.2 | 4.2 | 1.3 | 15.9 | 15.5 |
| Number of employees |  |  |  |  |  |
| 20-49 ................................... | 335.8 | 3.8 | 0.7 | 14.5 | 14.7 |
| 50-199 | 311.6 | 5.5 | 1.1 | 7.9 | 7.6 |
| 200-499 ................................. | 205.2 | 5.7 | 1.1 | 15.1 | 15.4 |
| 500 and over............................... | 196.3 | 2.5 | 3.9 | 10.2 | 10.3 |
| Branch of activity |  |  |  |  |  |
| Trade, hotels, restaurants .............. | 380.6 | 4.9 | 1.5 | 6.9 | 6.7 |
| Transport and communication....... | 240.4 | 1.8 | 1.5 | 24.7 | 24.6 |
| Other h.hold \& business services ... | 132.5 | 5.2 | 2.0 | 11.8 | 12.7 |
| Total service firms......................... | 261.9 | 4.2 | 1.6 | 11.7 | 11.7 |
| Total ........................................... | 288.2 | 4.1 | 2.1 | 22.7 | 23.3 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) At constant 2006 prices. The deflator is calculated as the average, at Ateco 2002 sub-section level, of the price indices for their investment spending estimated by the firms interviewed. - (3) Forecast.

## Operating result, 2006

(per cent)

|  | Profit | Balance | Loss | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West | 66.8 | 17.5 | 15.8 | 100.0 |
| North-East ..................... | 66.6 | 19.4 | 14.1 | 100.0 |
| Centre ..................................... | 71.1 | 15.0 | 14.0 | 100.0 |
| South and Islands .................... | 65.8 | 19.0 | 15.1 | 100.0 |
| Number of employees |  |  |  |  |
| $20-49$.................................. | 67.5 | 18.1 | 14.4 | 100.0 |
| $50-199$.............................. | 65.7 | 18.4 | 15.9 | 100.0 |
| 200-499 .............. | 72.7 | 14.1 | 13.1 | 100.0 |
| 500 and over.............................. | 71.5 | 5.4 | 23.1 | 100.0 |
| Branch of activity |  |  |  |  |
| Total manufacturing ....... | 67.1 | 18.0 | 14.9 | 100.0 |
| Textiles, clothing, leather, shoes | 66.0 | 19.5 | 14.5 | 100.0 |
| Chemicals, rubber and plastics .. | 66.6 | 15.7 | 17.8 | 100.0 |
| Engineering ............................ | 71.6 | 15.9 | 12.5 | 100.0 |
| Other manufacturing ................ | 60.9 | 21.3 | 17.8 | 100.0 |
| Energy and extraction................... | 77.1 | 11.0 | 11.9 | 100.0 |
| Share of exports |  |  |  |  |
| Less than one-third .................... | 66.2 | 18.4 | 15.4 | 100.0 |
| From one- to two-thirds .............. | 69.4 | 15.9 | 14.7 | 100.0 |
| More than two-thirds ................... | 69.0 | 18.2 | 12.8 | 100.0 |
| Total industrial firms................... | 67.3 | 17.9 | 14.8 | 100.0 |
|  | Service firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West .................................. | 66.9 | 13.9 | 19.2 | 100.0 |
| North-East ............................. | 66.3 | 15.4 | 18.3 | 100.0 |
| Centre ............. | 68.6 | 13.2 | 18.1 | 100.0 |
| South and Islands ....................... | 62.7 | 16.2 | 21.2 | 100.0 |
| Number of employees |  |  |  |  |
| 20-49 .................................... | 64.2 | 15.4 | 20.4 | 100.0 |
| 50-199 ................................... | 70.6 | 13.4 | 16.1 | 100.0 |
| 200-499 ................................. | 73.8 | 10.6 | 15.5 | 100.0 |
| 500 and over................................ | 68.7 | 10.3 | 21.0 | 100.0 |
| Branch of activity |  |  |  | 100.0 |
| Trade, hotels, restaurants .............. | 65.4 | 15.7 | 19.0 | 100.0 |
| Transport and communication........ | 69.2 | 13.5 | 17.3 | 100.0 |
| Other h.hold \& business services ... | 65.9 | 13.4 | 20.7 | 100.0 |
| Total service firms........................ | 66.2 | 14.6 | 19.2 | 100.0 |
| Total ........................................... | 66.8 | 16.5 | 16.7 | 100.0 |

Change in sources of finance, 2006
$(\text { per cent })^{(1)}$

|  | Cash flow |  | Equity capital |  | Bonds and other long-term securities |  | Bank loans |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | negative | positive | negative | positive | negative | positive | negative | positive |
|  | Industrial firms with 50 employees and over |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West .... | 29.7 | 54.8 | 2.4 | 6.1 | 2.2 | 2.8 | 20.5 | 34.4 |
| North-East | 37.3 | 51.5 | 4.2 | 12.8 | 2.9 | 1.1 | 18.6 | 34.8 |
| Centre | 38.2 | 48.7 | 4.2 | 9.9 | 0.8 | 1.0 | 22.9 | 31.9 |
| South and Islands | 22.1 | 39.7 | 2.5 | 11.3 | 0.1 | 1.6 | 14.1 | 26.9 |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49 ... | - | - | - | - | - | - | - | - |
| 50-199 | 31.4 | 51.2 | 3.3 | 9.2 | 1.6 | 1.3 | 17.9 | 33.8 |
| 200-499 | 39.4 | 48.2 | 2.6 | 10.0 | 5.2 | 1.5 | 23.4 | 30.8 |
| 500 and over...... | 43.1 | 51.9 | 6.3 | 16.8 | 1.7 | 9.8 | 35.0 | 32.4 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Total manufacturing... | 32.9 | 50.9 | 3.3 | 9.7 | 2.0 | 1.7 | 19.5 | 33.3 |
| Textiles, clothing, leather, shoes | 34.1 | 48.0 | 1.3 | 12.0 | 1.3 | 1.3 | 19.8 | 34.2 |
| Chemicals, rubber and plastics . | 35.9 | 52.7 | 6.1 | 7.6 | 1.8 | 1.3 | 17.4 | 28.2 |
| Engineering ........................... | 29.4 | 54.9 | 3.1 | 9.5 | 3.2 | 1.9 | 18.2 | 35.4 |
| Other manufacturing ................ | 36.1 | 46.3 | 3.4 | 9.0 | 0.9 | 1.1 | 21.6 | 30.5 |
| Energy and extraction .................. | 41.6 | 35.7 | 4.9 | 14.9 | 0.0 | 8.2 | 25.8 | 41.6 |
| Share of exports |  |  |  |  |  |  |  |  |
| Less than one-third | 34.0 | 50.0 | 3.9 | 10.4 | 1.5 | 1.9 | 17.9 | 35.3 |
| From one- to two-thirds ............... | 28.3 | 55.5 | 3.6 | 7.7 | 3.3 | 0.9 | 21.0 | 31.6 |
| More than two-thirds .................. | 38.1 | 45.0 | 1.5 | 11.0 | 0.9 | 3.2 | 20.3 | 31.8 |
| Total industrial firms . | 32.9 | 50.9 | 3.3 | 9.7 | 2.0 | 1.7 | 19.5 | 33.3 |
|  | Service firms with 50 employees and over |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West ....... | 34.8 | 48.7 | 2.0 | 7.4 | 0.5 | 1.3 | 25.3 | 25.3 |
| North-East | 37.0 | 49.8 | 7.4 | 23.2 | 0.2 | 4.7 | 23.8 | 29.2 |
| Centre ...... | 42.1 | 50.1 | 3.4 | 17.0 | 0.0 | 0.4 | 21.5 | 34.8 |
| South and Islands | 29.7 | 49.2 | 3.3 | 20.9 | 0.7 | 0.2 | 13.4 | 33.1 |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49.... | - | - | - | - | - | - | - | - |
| 50-199.. | 35.4 | 49.0 | 4.1 | 14.5 | 0.2 | 1.1 | 22.5 | 29.5 |
| 200-499. | 35.0 | 55.2 | 1.2 | 21.2 | 0.0 | 4.6 | 20.9 | 27.9 |
| 500 and over. | 47.9 | 41.0 | 6.3 | 22.6 | 3.6 | 4.2 | 17.5 | 37.8 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Trade, hotels, restaurants ............. | 33.8 | 51.0 | 3.2 | 18.6 | 0.3 | 2.6 | 23.2 | 32.5 |
| Transport and communication ....... | 31.9 | 54.1 | 7.8 | 15.2 | 0.6 | 0.3 | 21.0 | 31.9 |
| Other h.hold \& business services... | 41.7 | 44.3 | 2.3 | 13.5 | 0.5 | 1.5 | 21.2 | 25.7 |
| Total service firms ..................... | 36.1 | 49.4 | 3.9 | 15.9 | 0.4 | 1.7 | 21.9 | 29.8 |
| Total ......................................... | 34.2 | 50.3 | 3.6 | 12.2 | 1.3 | 1.8 | 20.5 | 31.8 |

(1) Percentage of firms reporting a change in sources of finance with respect to amounts outstanding at the end of the previous year. Answers were grouped into the categories 'negative', 'positive' and 'no change'. The percentage of firms reporting no change under each source is equal to the difference between the sum of the two percentages appearing in the table and 100 .

Trade credit and trade debt, 2006
(per cent; days)

|  | Trade credit |  | Trade debt |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Per cent of turnover | Average duration | Per cent of turnover | Average duration |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................ | 23.1 | 86.2 | 17.4 | 85.3 |
| North-East ..... | 29.1 | 94.5 | 21.2 | 89.3 |
| Centre ...................................... | 18.7 | 76.6 | 16.0 | 71.7 |
| South and Islands ........................ | 29.9 | 97.7 | 20.9 | 91.0 |
| Number of employees |  |  |  |  |
| $20-49$ | 28.7 | 92.5 | 19.8 | 83.0 |
| $50-199$.................................. | 28.0 | 94.1 | 19.1 | 87.7 |
| 200-499 .................................. | 19.2 | 92.6 | 15.5 | 80.7 |
| 500 and over .............................. | 20.9 | 74.7 | 18.3 | 85.9 |
| Branch of activity |  |  |  |  |
| Total manufacturing.................... | 25.6 | 93.0 | 18.7 | 87.4 |
| Textiles, clothing, leather, shoes | 29.5 | 101.6 | 20.5 | 89.8 |
| Chemicals, rubber and plastics .. | 16.9 | 80.1 | 11.4 | 72.2 |
| Engineering ............................ | 28.4 | 95.7 | 22.7 | 92.2 |
| Other manufacturing ................. | 27.5 | 92.6 | 18.5 | 85.6 |
| Energy and extraction ................... | 15.8 | 34.9 | 15.8 | 60.5 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 23.5 | 88.5 | 16.8 | 80.3 |
| From one- to two-thirds ............... | 24.0 | 85.7 | 19.0 | 88.2 |
| More than two-thirds .................. | 25.1 | 91.0 | 22.0 | 90.6 |
| Total industrial firms .................... | 23.9 | 88.0 | 18.2 | 84.8 |
|  |  | Serv |  |  |
| Geographical area |  |  |  |  |
| North-West ................................ | 18.5 | 79.0 | 15.3 | 75.2 |
| North-East ................................ | 23.4 | 78.4 | 18.7 | 73.0 |
| Centre | 20.7 | 103.2 | 16.8 | 98.6 |
| South and Islands ........................ | 20.4 | 84.5 | 35.4 | 71.6 |
| Number of employees |  |  |  |  |
| 20-49 .................................... | 20.8 | 85.0 | 22.0 | 72.5 |
| $50-199$................................... | 23.8 | 79.0 | 17.8 | 73.5 |
| 200-499 ................................. | 22.1 | 77.8 | 19.4 | 80.8 |
| 500 and over .............................. | 15.0 | 106.7 | 14.9 | 105.6 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants ............. | 19.4 | 81.6 | 17.3 | 71.4 |
| Transport and communication ....... | 17.9 | 93.2 | 14.9 | 100.0 |
| Other h.hold \& business services... | 30.1 | 86.9 | 33.2 | 86.5 |
| Total service firms ........................ | 20.6 | 84.9 | 19.1 | 79.0 |
| Total ............................................ | 22.6 | 86.9 | 18.6 | 82.6 |

## Position in relation to competitors, 2006

(per cent)

|  | Very weak to weak | Equal | Strong to very strong | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West .............................. | 17.3 | 54.5 | 28.2 | 100.0 |
| North-East ................................ | 18.2 | 54.0 | 27.8 | 100.0 |
| Centre ...................................... | 17.5 | 55.7 | 26.8 | 100.0 |
| South and Islands ....................... | 17.7 | 54.9 | 27.4 | 100.0 |
| Number of employees |  |  |  |  |
| $20-49$................................... | 20.0 | 55.2 | 24.8 | 100.0 |
| $50-199$.................................. | 13.2 | 54.5 | 32.3 | 100.0 |
| $200-499$................................ | 10.5 | 49.0 | 40.5 | 100.0 |
| 500 and over ............................. | 8.3 | 44.5 | 47.2 | 100.0 |
| Branch of activity |  |  |  |  |
| Total manufacturing.. | 17.7 | 54.5 | 27.8 | 100.0 |
| Textiles, clothing, leather, shoes | 28.7 | 54.0 | 17.2 | 100.0 |
| Chemicals, rubber and plastics .. | 16.7 | 53.4 | 29.9 | 100.0 |
| Engineering ............................. | 13.4 | 54.1 | 32.5 | 100.0 |
| Other manufacturing ................ | 18.1 | 55.8 | 26.1 | 100.0 |
| Energy and extraction......... | 16.9 | 61.1 | 22.0 | 100.0 |
| Share of exports |  |  |  |  |
| Less than one-third .................... | 17.7 | 56.9 | 25.4 | 100.0 |
| From one- to two-thirds .............. | 16.8 | 52.4 | 30.8 | 100.0 |
| More than two-thirds .................. | 18.8 | 48.6 | 32.6 | 100.0 |
| Total industrial firms..................... | 17.7 | 54.6 | 27.7 | 100.0 |
|  | Service firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................ | 7.2 | 61.4 | 31.4 | 100.0 |
| North-East ................................ | 10.4 | 55.0 | 34.5 | 100.0 |
| Centre ....................................... | 7.2 | 66.0 | 26.8 | 100.0 |
| South and Islands ....................... | 7.7 | 63.8 | 28.4 | 100.0 |
| Number of employees |  |  |  |  |
| $20-49$...................................... | 7.6 | 64.6 | 27.8 | 100.0 |
| $50-199$................................. | 7.9 | 54.3 | 37.8 | 100.0 |
| 200-499 ................................. | 18.8 | 52.9 | 28.3 | 100.0 |
| 500 and over ................................ | 7.9 | 47.2 | 44.9 | 100.0 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants .............. | 4.8 | 61.9 | 33.3 | 100.0 |
| Transport and communication ....... | 14.8 | 60.6 | 24.6 | 100.0 |
| Other h.hold \& business services ... | 10.1 | 60.6 | 29.3 | 100.0 |
| Total service firms ........................ | 8.1 | 61.3 | 30.6 | 100.0 |
| Total .......................................... | 13.7 | 57.4 | 28.9 | 100.0 |

Change in product range from 2000 to 2006
(per cent)

|  | Similar products (same sector) | Different products in neighbouring sectors | Very different products (other sectors) | Total |
| :---: | :---: | :---: | :---: | :---: |
| Geographical area |  |  |  |  |
| North-West ............................... | 86.6 | 11.9 | 1.4 | 100.0 |
| North-East ................................ | 88.2 | 10.5 | 1.3 | 100.0 |
| Centre ...................................... | 88.2 | 11.0 | 0.8 | 100.0 |
| South and Islands ....................... | 90.5 | 8.9 | 0.6 | 100.0 |
| Number of employees |  |  |  |  |
| $20-49$................................. | 87.6 | 11.2 | 1.2 | 100.0 |
| $50-199$................................. | 88.1 | 10.8 | 1.1 | 100.0 |
| 200-499 ................................. | 91.8 | 8.0 | 0.2 | 100.0 |
| 500 and over .............................. | 95.7 | 4.1 | 0.2 | 100.0 |
| Branch of activity |  |  |  |  |
| Total manufacturing ................... | 87.8 | 11.0 | 1.2 | 100.0 |
| Textiles, clothing, leather, shoes | 87.1 | 12.6 | 0.3 | 100.0 |
| Chemicals, rubber and plastics .. | 86.9 | 11.7 | 1.4 | 100.0 |
| Engineering ............................ | 87.4 | 10.5 | 2.2 | 100.0 |
| Other manufacturing ................ | 89.2 | 10.8 | 0.1 | 100.0 |
| Energy and extraction.................... | 98.5 | 1.5 | 0.0 | 100.0 |
| Share of exports |  |  |  |  |
| Less than one-third .................... | 87.5 | 11.0 | 1.5 | 100.0 |
| From one- to two-thirds .............. | 88.9 | 10.7 | 0.4 | 100.0 |
| More than two-thirds ................. | 88.7 | 10.6 | 0.8 | 100.0 |
| Total industrial firms................... | 88.0 | 10.9 | 1.1 | 100.0 |

Table G3

## Change in corporate strategy from 2000 to 2006

(per cent)


Direct and indirect internationalisation, 2006
(per cent)

|  | Interna-tionalisation <br> (1) | A - Direct internationalisation |  |  |  | B - Indirect internationalisation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | main activity: |  |  |  | collaboration agreements ${ }^{(2)}$ : |  |  |
|  |  |  | production | design \& research | selling |  | commercial | technical/ production | R\&D |
|  | Industrial firms - 2000 |  |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |  |
| North-West . | 15.1 | 7.1 | 5.3 | 0.0 | 1.8 | 8.6 | 6.5 | 3.4 | 1.6 |
| North-East | 12.4 | 5.7 | 4.1 | 0.1 | 1.6 | 7.3 | 6.4 | 2.6 | 1.0 |
| Centre | 10.7 | 4.2 | 2.3 | 0.0 | 1.9 | 8.5 | 6.0 | 3.7 | 0.8 |
| South and Islands .................... | 5.4 | 1.4 | 0.9 | 0.2 | 0.3 | 4.0 | 2.9 | 1.9 | 0.2 |
| Number of employees |  |  |  |  |  |  |  |  |  |
| 20-49 | 8.0 | 3.3 | 2.6 | 0.0 | 0.7 | 5.0 | 4.0 | 1.8 | 0.4 |
| 50-199 | 18.2 | 7.5 | 5.2 | 0.0 | 2.3 | 11.8 | 9.1 | 5.0 | 2.1 |
| 200-499 | 30.5 | 16.6 | 8.9 | 0.5 | 7.2 | 17.9 | 15.2 | 7.2 | 3.9 |
| 500 and over . | 43.5 | 31.2 | 20.6 | 0.0 | 10.6 | 18.8 | 12.5 | 11.0 | 4.8 |
| Branch of activity |  |  |  |  |  |  |  |  |  |
| Total manufacturing................. | 12.2 | 5.4 | 3.9 | 0.0 | 1.5 | 7.5 | 5.9 | 3.0 | 1.0 |
| Textiles, cloth., leather, shoes | 17.8 | 9.0 | 8.1 | 0.0 | 0.9 | 11.2 | 6.5 | 6.9 | 1.6 |
| Chemicals, rubber, plastics .... | 15.6 | 10.1 | 7.0 | 0.0 | 3.1 | 7.0 | 4.7 | 3.1 | 2.2 |
| Engineering ......................... | 12.6 | 5.0 | 2.9 | 0.1 | 2.1 | 8.0 | 7.1 | 2.4 | 1.0 |
| Other manufacturing ............. | 7.0 | 2.1 | 1.5 | 0.0 | 0.6 | 4.8 | 4.0 | 1.6 | 0.4 |
| Energy and extraction ............... | 3.4 | 0.4 | 0.4 | 0.0 | 0.0 | 3.4 | 2.2 | 1.6 | 2.0 |
| Share of exports |  |  |  |  |  |  |  |  |  |
| Less than one-third .................. | 7.8 | 2.9 | 2.6 | 0.0 | 0.3 | 5.4 | 4.4 | 2.2 | 1.0 |
| From one- to two-thirds ........... | 20.6 | 10.9 | 7.4 | 0.1 | 3.4 | 11.4 | 8.7 | 3.9 | 1.3 |
| More than two-thirds ............... | 16.8 | 6.9 | 2.9 | 0.1 | 3.9 | 9.9 | 7.5 | 4.8 | 1.0 |
| Total industrial firms ................. | 12.1 | 5.3 | 3.8 | 0.0 | 1.5 | 7.5 | 5.9 | 3.0 | 1.1 |
|  |  |  |  | Indus | al firms | 2006 |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |  |
| North-West | 22.6 | 8.0 | 5.5 | 0.1 | 2.4 | 15.9 | 13.5 | 6.9 | 2.0 |
| North-East | 24.4 | 10.9 | 7.3 | 0.1 | 3.5 | 18.5 | 13.0 | 8.9 | 2.1 |
| Centre | 16.5 | 7.3 | 4.8 | 0.0 | 2.5 | 13.2 | 9.6 | 6.5 | 0.8 |
| South and Islands .................... | 9.4 | 2.3 | 1.7 | 0.2 | 0.4 | 7.5 | 5.8 | 3.5 | 0.9 |
| Number of employees |  |  |  |  |  |  |  |  |  |
| 20-49 ................................ | 15.6 | 4.9 | 3.5 | 0.0 | 1.4 | 12.3 | 9.6 | 5.2 | 0.7 |
| $50-199$............................... | 26.6 | 11.2 | 7.1 | 0.0 | 4.1 | 19.9 | 14.7 | 10.0 | 3.2 |
| 200-499 .............................. | 44.3 | 29.0 | 20.2 | 1.0 | 7.8 | 25.9 | 20.9 | 13.8 | 6.2 |
| 500 and over ........................... | 58.1 | 43.3 | 31.3 | 0.3 | 11.7 | 31.7 | 21.6 | 20.0 | 8.9 |
| Branch of activity |  |  |  |  |  |  |  |  |  |
| Total manufacturing................. | 20.5 | 8.2 | 5.6 | 0.1 | 2.5 | 15.2 | 11.7 | 7.1 | 1.6 |
| Textiles, cloth., leather, shoes | 28.7 | 11.7 | 9.5 | 0.0 | 2.2 | 22.5 | 14.5 | 15.3 | 1.5 |
| Chemicals, rubber, plastics .... | 26.6 | 11.8 | 8.7 | 0.0 | 3.1 | 18.0 | 13.8 | 6.0 | 4.2 |
| Engineering ......................... | 21.2 | 9.2 | 5.6 | 0.2 | 3.4 | 15.2 | 12.4 | 6.5 | 1.8 |
| Other manufacturing ............. | 12.1 | 3.1 | 2.0 | 0.0 | 1.1 | 9.8 | 7.9 | 3.4 | 0.5 |
| Energy and extraction ............... | 6.5 | 0.6 | 0.6 | 0.0 | 0.0 | 6.5 | 5.2 | 2.4 | 5.5 |
| Share of exports |  |  |  |  |  |  |  |  |  |
| Less than one-third ................. | 13.5 | 4.4 | 3.8 | 0.0 | 0.6 | 10.6 | 8.5 | 4.7 | 1.3 |
| From one- to two-thirds ........... | 33.5 | 15.4 | 9.5 | 0.1 | 5.8 | 23.1 | 17.1 | 9.7 | 1.9 |
| More than two-thirds ............... | 27.6 | 11.8 | 6.6 | 0.1 | 5.1 | 21.2 | 15.7 | 12.2 | 2.6 |
| Total industrial firms ................. | 20.2 | 8.0 | 5.5 | 0.1 | 2.5 | 15.1 | 11.6 | 7.0 | 1.7 |

(1) A firm may maintain a direct and an indirect presence abroad at the same time. - (2) A firm may enter into more than one type of collaboration agreement.

Table G5
Scale of production and possible impediments to growth, 2006
(per cent)

|  | Scale of production |  |  |  | If scale too small: impediments to growth |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | too small | too large | adequate | total | lack of funds | legal limits or red tape | $\begin{array}{\|c\|} \hline \text { management } \\ \text { and } \\ \text { organisation } \end{array}$ | other |
|  | Industrial firms |  |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |  |
| North-West .............................. | 15.3 | 0.9 | 83.8 | 100.0 | 5.2 | 2.6 | 3.5 | 4.1 |
| North-East ................................ | 22.9 | 0.8 | 76.3 | 100.0 | 8.9 | 1.8 | 8.5 | 3.8 |
| Centre ..................................... | 17.1 | 2.7 | 80.2 | 100.0 | 6.6 | 3.8 | 4.1 | 2.5 |
| South and Islands ....................... | 14.4 | 1.8 | 83.8 | 100.0 | 6.6 | 3.3 | 1.9 | 2.6 |
| Number of employees |  |  |  |  |  |  |  |  |
| 20-49 ................................... | 19.6 | 1.0 | 79.4 | 100.0 | 8.1 | 3.0 | 5.4 | 3.0 |
| $50-199$................................. | 14.9 | 1.9 | 83.2 | 100.0 | 4.0 | 2.1 | 4.3 | 4.5 |
| 200 - 499 ................................ | 9.7 | 2.4 | 87.9 | 100.0 | 3.6 | 0.1 | 2.1 | 3.9 |
| 500 and over .............................. | 13.0 | 1.2 | 85.8 | 100.0 | 3.8 | 1.4 | 1.8 | 6.1 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Total manufacturing.. | 17.9 | 1.3 | 80.8 | 100.0 | 6.9 | 2.5 | 5.0 | 3.5 |
| Textiles, clothing, leather, shoes | 15.2 | 2.5 | 82.3 | 100.0 | 5.5 | 3.8 | 2.6 | 3.3 |
| Chemicals, rubber and plastics .. | 20.6 | 0.9 | 78.6 | 100.0 | 6.2 | 3.0 | 6.7 | 4.6 |
| Engineering ............................ | 18.0 | 1.2 | 80.8 | 100.0 | 5.8 | 2.3 | 6.7 | 3.2 |
| Other manufacturing ................ | 18.5 | 1.0 | 80.5 | 100.0 | 9.6 | 2.0 | 3.2 | 3.7 |
| Energy and extraction .................... | 18.6 | 0.0 | 81.4 | 100.0 | 4.1 | 10.5 | 0.8 | 3.1 |
| Share of exports |  |  |  |  |  |  |  |  |
| Less than one-third ..................... | 19.3 | 1.4 | 79.3 | 100.0 | 7.3 | 3.3 | 4.6 | 4.0 |
| From one- to two-thirds ............... | 16.2 | 1.3 | 82.5 | 100.0 | 6.2 | 1.7 | 5.5 | 2.8 |
| More than two-thirds .................. | 14.9 | 0.9 | 84.2 | 100.0 | 5.6 | 1.2 | 5.5 | 2.6 |
| Total industrial firms.................... | 17.9 | 1.3 | 80.8 | 100.0 | 6.8 | 2.7 | 5.0 | 3.5 |


| Geographical area | Service firms |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| North-West .............................. | 10.1 | 1.3 | 88.6 | 100.0 | 3.5 | 0.9 | 3.2 | 2.5 |
| North-East ................................ | 17.9 | 1.2 | 80.9 | 100.0 | 1.2 | 5.3 | 7.5 | 3.9 |
| Centre ..................................... | 16.2 | 3.5 | 80.3 | 100.0 | 7.1 | 2.5 | 3.1 | 3.4 |
| South and Islands ....................... | 8.4 | 6.5 | 85.2 | 100.0 | 2.5 | 3.5 | 1.1 | 1.3 |
| Number of employees |  |  |  |  |  |  |  |  |
| $20-49$................................... | 12.9 | 3.3 | 83.8 | 100.0 | 3.8 | 2.9 | 4.2 | 2.0 |
| $50-199$.................................. | 13.4 | 1.9 | 84.7 | 100.0 | 3.1 | 2.5 | 2.6 | 5.1 |
| 200-499 ................................ | 11.0 | 2.3 | 86.7 | 100.0 | 2.5 | 1.2 | 4.1 | 3.3 |
| 500 and over ............................. | 15.1 | 0.0 | 84.9 | 100.0 | 2.1 | 8.9 | 2.1 | 2.0 |
| Branch of activity |  |  |  |  |  |  |  |  |
| Trade, hotels, restaurants ............. | 11.9 | 3.5 | 84.6 | 100.0 | 2.7 | 2.9 | 3.5 | 2.8 |
| Transport and communication ....... | 15.0 | 2.2 | 82.9 | 100.0 | 4.5 | 3.6 | 3.1 | 3.7 |
| Other h.hold \& business services... | 13.7 | 2.2 | 84.1 | 100.0 | 4.4 | 2.3 | 4.7 | 2.3 |
| Total service firms ........................ | 13.0 | 2.8 | 84.2 | 100.0 | 3.5 | 2.9 | 3.8 | 2.8 |
| Total ........................................... | 15.8 | 1.9 | 82.2 | 100.0 | 5.4 | 2.7 | 4.5 | 3.2 |

## Organisation and human resources, 2006

(per cent; average points)

|  | ERP management software available | Percentage of graduates in staff | Criteria used in graduate recruitment: ${ }^{(1)}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | location | psychoattitudinal profile | work experience | postgraduate study | reputation of university |
|  | Industrial firms |  |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |  |
| North-West .. | 33.4 | 8.3 | 1.9 | 3.3 | 3.0 | 2.0 | 1.9 |
| North-East ............................... | 34.2 | 7.8 | 1.9 | 3.2 | 3.0 | 2.1 | 1.8 |
| Centre ..................................... | 20.5 | 10.4 | 1.9 | 3.3 | 3.1 | 2.3 | 1.9 |
| South and Islands ...................... | 21.8 | 6.5 | 1.9 | 3.2 | 3.1 | 2.3 | 1.8 |
| Number of employees |  |  |  |  |  |  |  |
| $20-49$................................... | 23.0 | 5.6 | 1.9 | 3.2 | 3.0 | 2.1 | 1.8 |
| $50-199$................................. | 40.8 | 7.5 | 1.9 | 3.3 | 3.0 | 2.2 | 1.9 |
| 200-499 ................................ | 65.0 | 9.7 | 2.0 | 3.4 | 3.1 | 2.3 | 2.0 |
| 500 and over .............................. | 79.6 | 12.1 | 1.9 | 3.4 | 3.1 | 2.7 | 2.2 |
| Branch of activity |  |  |  |  |  |  |  |
| Total manufacturing..... | 29.9 | 8.0 | 1.9 | 3.2 | 3.0 | 2.1 | 1.8 |
| Textiles, clothing, leather, shoes | 20.5 | 3.9 | 1.7 | 3.1 | 2.9 | 1.8 | 1.6 |
| Chemicals, rubber and plastics .. | 32.7 | 11.6 | 2.1 | 3.2 | 2.9 | 2.3 | 1.9 |
| Engineering ............................ | 35.2 | 9.4 | 1.9 | 3.3 | 3.1 | 2.2 | 1.9 |
| Other manufacturing ................ | 25.9 | 6.2 | 1.8 | 3.2 | 3.0 | 2.1 | 1.8 |
| Energy and extraction .................... | 18.3 | 13.0 | 1.9 | 3.3 | 3.0 | 2.3 | 2.0 |
| Share of exports |  |  |  |  |  |  |  |
| Less than one-third .................... | 25.5 | 7.5 | 1.9 | 3.2 | 3.0 | 2.2 | 1.9 |
| From one- to two-thirds ............... | 38.3 | 8.4 | 2.0 | 3.2 | 3.1 | 2.1 | 1.8 |
| More than two-thirds .................. | 35.0 | 10.2 | 1.9 | 3.3 | 2.9 | 1.9 | 1.7 |
| Total industrial firms.................... | 29.6 | 8.3 | 1.9 | 3.2 | 3.0 | 2.1 | 1.8 |
|  |  |  |  | Service firm |  |  |  |
| Geographical area |  |  |  |  |  |  |  |
| North-West .............................. | 30.1 | 13.4 | 1.8 | 3.3 | 3.1 | 2.2 | 1.8 |
| North-East ................................ | 21.4 | 9.5 | 1.9 | 3.3 | 3.1 | 2.0 | 1.7 |
| Centre ...................................... | 21.1 | 10.6 | 1.7 | 3.3 | 2.9 | 2.3 | 1.9 |
| South and Islands ........................ | 15.2 | 9.0 | 1.8 | 3.2 | 3.2 | 2.4 | 1.9 |
| Number of employees |  |  |  |  |  |  |  |
| $20-49$................................... | 20.0 | 10.1 | 1.8 | 3.3 | 3.1 | 2.2 | 1.8 |
| $50-199$................................. | 29.0 | 10.4 | 1.8 | 3.2 | 3.1 | 2.2 | 1.8 |
| 200-499 ................................ | 32.1 | 10.6 | 1.8 | 3.4 | 3.2 | 2.0 | 1.8 |
| 500 and over .............................. | 46.5 | 12.8 | 1.8 | 3.4 | 3.0 | 2.4 | 1.9 |
| Branch of activity |  |  |  |  |  |  |  |
| Trade, hotels, restaurants ............. | 22.9 | 5.5 | 1.8 | 3.3 | 3.2 | 2.1 | 1.8 |
| Transport and communication ....... | 14.3 | 5.7 | 1.7 | 3.2 | 3.2 | 2.1 | 1.8 |
| Other h.hold \& business services... | 28.3 | 21.1 | 1.9 | 3.4 | 2.9 | 2.3 | 1.9 |
| Total service firms ........................ | 22.9 | 11.0 | 1.8 | 3.3 | 3.1 | 2.2 | 1.8 |
| Total .......................................... | 26.8 | 9.5 | 1.9 | 3.3 | 3.0 | 2.2 | 1.8 |

[^27]Electricity supply, 2006
(per cent; average points)

(1) Average points: $1=$ not important; $2=$ not very important; $3=$ important; $4=$ very important.

Change in average workforce, 2003-07
(per cent)

|  | 2003 | 2004 | 2005 | 2006 | $2007{ }^{(1)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West .... | -1.8 | -2.0 | -1.3 | -0.7 | 0.5 |
| North-East.... | -1.0 | -0.9 | -0.7 | 0.3 | 0.7 |
| Centre | -1.8 | -1.5 | -0.3 | 0.4 | 0.7 |
| South \& Islands ........................... | -0.2 | -0.2 | -0.4 | -0.3 | -0.2 |
| Area of employment |  |  |  |  |  |
| North-West ........ | -1.7 | -2.1 | -1.0 | -0.7 | 0.5 |
| North-East.................................... | -1.3 | -1.0 | -0.8 | 0.4 | 0.9 |
| Centre | -1.5 | -0.9 | -1.1 | 0.2 | 0.1 |
| South \& Islands .. | -0.9 | -1.0 | -0.5 | -0.3 | 0.4 |
| Number of employees |  |  |  |  |  |
| 20-49.. | -1.2 | -1.2 | -0.7 | -0.2 | 1.1 |
| 50-199 ...... | -1.2 | -0.7 | -1.5 | -0.5 | 0.1 |
| 200-499 .................................. | -1.0 | -0.3 | -0.2 | 0.6 | 0.9 |
| 500 and over | -2.1 | -2.9 | -0.8 | -0.3 | 0.3 |
| Branch of activity |  |  |  |  |  |
| Total manufacturing ......................... | -1.4 | -1.3 | -1.0 | -0.3 | 0.5 |
| Textile, clothing, leather, shoes ...... | -3.2 | -2.7 | -2.8 | -2.8 | -2.1 |
| Chemicals, rubber and plastics ........ | 0.3 | -0.3 | -0.8 | -0.6 | 1.7 |
| Engineering ................................ | -1.7 | -1.4 | -0.4 | 0.6 | 1.3 |
| Other manufacturing ..... | -0.4 | -0.9 | -1.1 | -0.5 | -0.4 |
| Energy and extraction........ | -2.6 | -3.4 | 0.7 | 2.5 | 1.9 |
| Share of exports |  |  |  |  |  |
| Less than one-third. | -1.6 | -1.6 | -0.8 | 0.1 | 0.5 |
| From one- to two-thirds ... | -1.5 | -1.6 | -1.2 | -0.9 | 0.3 |
| Over two-thirds ............. | -0.8 | -0.8 | -0.8 | 0.3 | 0.9 |
| Total industrial firms.. | -1.4 | -1.4 | -0.9 | -0.2 | 0.5 |
|  | Service firms |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West .... | 1.6 | 1.4 | 1.0 | 0.1 | 1.5 |
| North-East... | 3.1 | 2.1 | 1.5 | 2.4 | 1.7 |
| Centre .. | -0.4 | 1.2 | -0.3 | 1.7 | 1.7 |
| South \& Islands .... | 1.2 | 3.5 | 1.0 | -0.7 | 0.9 |
| Area of employment |  |  |  |  |  |
| North-West ........ | 1.8 | 2.0 | 1.5 | 0.3 | 1.6 |
| North-East...... | 2.9 | 1.0 | 1.1 | 1.8 | 1.4 |
| Centre | 0.3 | 1.5 | -0.4 | 1.6 | 1.8 |
| South \& Islands | -0.2 | 3.2 | 0.5 | 0.0 | 1.2 |
| Number of employees |  |  |  |  |  |
| 20-49 | 0.0 | 1.3 | -0.7 | -0.5 | 0.7 |
| 50-199 | 2.1 | 3.0 | 1.8 | 1.3 | 0.6 |
| 200-499 | 2.4 | 1.7 | 1.4 | 0.3 | 1.7 |
| 500 and over | 1.7 | 1.4 | 1.0 | 1.9 | 2.7 |
| Branch of activity |  |  |  |  |  |
| Trade, hotels, restaurants ............... | 3.8 | 3.1 | 1.0 | 1.9 | 1.4 |
| Transport and communication.... | -0.8 | 0.9 | 0.7 | -0.8 | 0.9 |
| Other h.hold \& business services ........ | 0.2 | 1.0 | 0.7 | 1.0 | 2.2 |
| Total service firms.. | 1.4 | 1.8 | 0.8 | 0.9 | 1.5 |
| Total | -0.2 | 0.0 | -0.1 | 0.3 | 1.0 |

(1) Forecast.

Hours worked per capita, 2003-06
(units)

|  | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ............................... | 1,628 | 1,651 | 1,631 | 1,646 |
| North-East ................................ | 1,633 | 1,647 | 1,634 | 1,650 |
| Centre ..................................... | 1,614 | 1,638 | 1,648 | 1,641 |
| South and Islands ....................... | 1,687 | 1,704 | 1,696 | 1,717 |
| Number of employees |  |  |  |  |
| 20-49 ................................... | 1,698 | 1,709 | 1,683 | 1,702 |
| $50-199$.................................. | 1,657 | 1,674 | 1,663 | 1,664 |
| 200-499 .................................. | 1,617 | 1,634 | 1,619 | 1,646 |
| 500 and over ............................. | 1,553 | 1,586 | 1,584 | 1,595 |
| Branch of activity |  |  |  |  |
| Total manufacturing.. | 1,641 | 1,657 | 1,642 | 1,659 |
| Textiles, clothing, leather, shoes | 1,565 | 1,552 | 1,572 | 1,575 |
| Chemicals, rubber and plastics .. | 1,686 | 1,684 | 1,670 | 1,661 |
| Engineering ............................ | 1,637 | 1,661 | 1,646 | 1,677 |
| Other manufacturing ................ | 1,669 | 1,693 | 1,660 | 1,669 |
| Energy and extraction ........... | 1,494 | 1,571 | 1,604 | 1,532 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 1,642 | 1,659 | 1,652 | 1,652 |
| From one- to two-thirds ................ | 1,623 | 1,650 | 1,626 | 1,654 |
| More than two-thirds .................. | 1,623 | 1,640 | 1,630 | 1,652 |
| Total industrial firms ................... | 1,633 | 1,653 | 1,640 | 1,653 |
|  | Service firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ............................... | 1,618 | 1,599 | 1,626 | 1,622 |
| North-East ............................... | 1,632 | 1,636 | 1,597 | 1,577 |
| Centre ...................................... | 1,678 | 1,700 | 1,654 | 1,662 |
| South and Islands ......................... | 1,749 | 1,780 | 1,739 | 1,756 |
| Number of employees |  |  |  |  |
| $20-49$...................................... | 1,736 | 1,748 | 1,743 | 1,767 |
| $50-199$................................... | 1,748 | 1,737 | 1,736 | 1,694 |
| 200-499 ................................. | 1,659 | 1,677 | 1,630 | 1,637 |
| 500 and over .............................. | 1,524 | 1,520 | 1,500 | 1,506 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants ............. | 1,618 | 1,620 | 1,625 | 1,617 |
| Transport and communication ....... | 1,725 | 1,745 | 1,687 | 1,662 |
| Other h.hold \& business services... | 1,639 | 1,627 | 1,622 | 1,647 |
| Total service firms .......................... | 1,652 | 1,654 | 1,640 | 1,639 |
| Total ................................................ | 1,641 | 1,654 | 1,640 | 1,647 |

Annual change in investment, 2003-07
(per cent; constant 2006 prices) ${ }^{(1)(2)}$

|  | 2003 | 2004 | 2005 | 2006 | $2007{ }^{(3)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West ...................................... | -13.5 | -3.1 | -4.1 | -2.4 | 3.5 |
| North-East ....................................... | -18.9 | 1.5 | -3.4 | -2.0 | 2.9 |
| Centre ........................................... | -21.7 | -5.1 | -5.1 | -4.0 | 22.8 |
| South \& Islands ................................. | -11.4 | -1.5 | -4.7 | -0.6 | -1.5 |
| Actual location of investment |  |  |  |  |  |
| North-West ....................................... | -14.9 | -5.8 | -7.7 | -2.8 | 8.9 |
| North-East ........................................ | -18.7 | 0.2 | -4.1 | -2.9 | 9.3 |
| Centre | -24.1 | -2.4 | -0.7 | -1.2 | 13.8 |
| South \& Islands ............................... | -11.6 | 1.4 | -0.5 | -3.3 | 1.0 |
| Number of employees |  |  |  |  |  |
| 20 - 49 .......................................... | -18.9 | -0.7 | -3.6 | -2.9 | -1.8 |
| $50-199$........................................ | -14.0 | -7.3 | -4.3 | 1.4 | -1.9 |
| 200 - 499 ......................................... | -10.9 | 1.9 | -4.0 | -2.8 | 3.2 |
| 500 and over ................................... | -19.0 | -1.8 | -4.5 | -4.2 | 18.4 |
| Branch of activity |  |  |  |  |  |
| Total manufacturing............................ | -16.7 | -0.8 | -3.6 | -1.4 | -0.5 |
| Textile, clothing, leather, shoes ........... | -25.3 | -12.9 | -11.3 | -3.8 | -5.9 |
| Chemicals, rubber and plastics ........... | -12.4 | -3.8 | -5.2 | 0.1 | 2.8 |
| Engineering .................................. | -15.6 | 1.2 | -2.2 | 1.0 | 3.5 |
| Other manufacturing .......................... | -18.3 | 1.3 | -2.7 | -4.6 | -6.2 |
| Energy and extraction .......................... | -16.5 | -6.7 | -6.5 | -6.4 | 35.7 |
| Share of exports |  |  |  |  |  |
| Less than one-third ................................ | -16.7 | -2.4 | -4.5 | -4.9 | 10.2 |
| From one- to two-thirds ....................... | -15.8 | -3.7 | -2.8 | -0.1 | 3.2 |
| Over two-thirds................................... | -17.3 | -0.3 | -5.5 | 3.6 | 3.1 |
| Total industrial firms | -16.6 | -2.4 | -4.2 | -2.5 | 7.2 |
|  | Service firms |  |  |  |  |
| Geographical area |  |  |  |  |  |
| North-West ....... | 23.5 | -8.1 | 3.1 | 16.4 | -2.9 |
| North-East ......................................... | -9.4 | -2.9 | -1.1 | -1.7 | -3.9 |
| Centre ..... | -8.7 | -1.4 | 3.7 | 0.7 | 0.9 |
| South \& Islands .......... | -5.3 | 0.5 | -1.0 | 1.8 | -6.0 |
| Area of investment |  |  |  |  |  |
| North-West ..................................... | 1.7 | -6.2 | 5.0 | 20.9 | -6.9 |
| North-East ....................................... | 0.1 | -4.4 | -3.8 | -0.8 | -1.3 |
| Centre ........... | 1.9 | -5.1 | 6.7 | 0.9 | 2.4 |
| South \& Islands | 5.1 | -0.8 | 6.0 | 0.6 | -4.8 |
| Number of employees |  |  |  |  |  |
| 20-49 ............................................. | -9.1 | -5.6 | 4.6 | 4.6 | -10.1 |
| 50-199 | -9.6 | -6.0 | 0.8 | 5.3 | -11.8 |
| 200-499 ........................................ | -6.7 | -5.1 | -1.4 | 1.0 | -2.0 |
| 500 and over ..................................... | 21.4 | -3.6 | 2.1 | 7.0 | 4.6 |
| Branch of activity |  |  |  |  |  |
| Trade, hotels, restaurants ..................... | -10.9 | -6.1 | 0.3 | 4.1 | -7.4 |
| Transport and communication ................ | 30.6 | -4.4 | 4.8 | 6.8 | 0.9 |
| Other h.hold \& business services............ | -11.0 | -3.0 | -1.7 | 3.8 | -3.5 |
| Total service firms ................................ | 2.6 | -4.7 | 1.9 | 5.4 | -2.3 |
| Total ................................................... | -7.9 | -3.5 | -1.5 | 1.1 | 2.5 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) of the distribution of annual changes in investments according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) The deflator is calculated as the average, at Ateco 2002 sub-section level, of the price indices for their investment spending estimated by the firms interviewed. - (3) Forecast.

Investment realisation rate, 2003-06

| $(\text { per cent })^{(1)(2)}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 |
|  | Industrial firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................ | 95.4 | 96.3 | 96.3 | 101.0 |
| North-East ................................. | 93.4 | 98.8 | 105.3 | 103.8 |
| Centre ....................................... | 88.6 | 90.2 | 77.1 | 104.2 |
| South and Islands ....................... | 90.0 | 100.7 | 103.5 | 106.0 |
| Number of employees |  |  |  |  |
| 20-49 ..................................... | 100.4 | 109.5 | 117.6 | 109.6 |
| $50-199$................................... | 95.2 | 98.5 | 102.6 | 104.9 |
| 200-499 .................................. | 97.0 | 102.2 | 99.7 | 99.9 |
| 500 and over .............................. | 87.0 | 88.8 | 81.4 | 99.4 |
| Branch of activity |  |  |  |  |
| Total manufacturing. | 93.7 | 100.0 | 102.9 | 103.9 |
| Textiles, clothing, leather, shoes | 96.3 | 96.9 | 113.3 | 112.0 |
| Chemicals, rubber and plastics .. | 94.9 | 98.1 | 101.7 | 101.1 |
| Engineering ............................ | 92.3 | 98.9 | 100.8 | 105.2 |
| Other manufacturing ................. | 94.3 | 103.3 | 104.4 | 101.5 |
| Energy and extraction ................... | 90.5 | 85.8 | 73.5 | 98.9 |
| Share of exports |  |  |  |  |
| Less than one-third ..................... | 93.8 | 94.8 | 92.4 | 102.9 |
| From one- to two-thirds ............... | 89.0 | 96.1 | 94.3 | 102.2 |
| More than two-thirds .................. | 94.9 | 101.0 | 101.6 | 103.3 |
| Total industrial firms .................... | 92.8 | 95.9 | 94.1 | 102.8 |
|  | Service firms |  |  |  |
| Geographical area |  |  |  |  |
| North-West ................................ | 142.4 | 101.4 | 72.9 | 105.4 |
| North-East ................................. | 104.2 | 96.9 | 111.8 | 98.0 |
| Centre .......... | 115.5 | 101.9 | 104.5 | 99.2 |
| South and Islands ....................... | 100.9 | 106.0 | 117.3 | 104.0 |
| Number of employees |  |  |  |  |
| 20-49 ................ | 107.6 | 114.2 | 111.2 | 110.7 |
| $50-199$.................................. | 101.3 | 103.0 | 110.8 | 107.9 |
| 200-499 .................................. | 113.4 | 93.3 | 97.6 | 102.0 |
| 500 and over .............................. | 141.1 | 98.0 | 80.0 | 96.3 |
| Branch of activity |  |  |  |  |
| Trade, hotels, restaurants ............. | 95.3 | 97.8 | 116.2 | 107.3 |
| Transport and communication ....... | 152.5 | 101.9 | 79.7 | 96.2 |
| Other h.hold \& business services... | 106.4 | 101.1 | 98.3 | 114.2 |
| Total service firms ......................... | 119.6 | 100.6 | 92.7 | 101.9 |
| Total ............................................ | 105.0 | 98.3 | 93.4 | 102.4 |

[^28]
## Annual change in turnover, 2003-07

(per cent; constant 2006 prices) ${ }^{(1)}$

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

[^29]Table H6
Capacity utilisation rate, 2002-07
(per cent)

|  | 2002 | 2003 | 2004 | 2005 | 2006 | $2007{ }^{(1)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrial firms with 50 employees and over |  |  |  |  |  |
| Geographical area |  |  |  |  |  |  |
| North-West ............................... | 80.8 | 79.1 | 79.9 | 80.4 | 81.4 | 82.8 |
| North-East ................................ | 82.2 | 81.3 | 81.4 | 82.4 | 82.6 | 85.1 |
| Centre ...................................... | 77.7 | 80.0 | 68.9 | 77.6 | 78.0 | 84.2 |
| South and Islands ....................... | 80.1 | 82.0 | 80.4 | 83.4 | 82.0 | 83.4 |
| Number of employees |  |  |  |  |  |  |
| 20 - 49 .................................. |  |  |  |  |  |  |
| $50-199$................................. | 81.1 | 80.0 | 79.6 | 81.1 | 81.9 | 83.7 |
| $200-499$................................. | 82.5 | 79.5 | 82.5 | 83.4 | 84.7 | 84.4 |
| 500 and over .............................. | 79.3 | 80.1 | 74.9 | 77.9 | 77.8 | 83.0 |
| Branch of activity |  |  |  |  |  |  |
| Total manufacturing .. | 81.3 | 80.0 | 80.5 | 81.3 | 82.1 | 83.7 |
| Textiles, clothing, leather, shoes | 82.4 | 79.7 | 80.5 | 79.9 | 82.0 | 82.3 |
| Chemicals, rubber and plastics .. | 82.4 | 80.2 | 82.3 | 84.2 | 85.0 | 84.6 |
| Engineering ........................... | 80.6 | 79.8 | 79.6 | 79.8 | 80.7 | 83.8 |
| Other manufacturing ............... | 81.1 | 80.3 | 80.0 | 80.4 | 80.4 | 82.3 |
| Energy and extraction................. | 75.1 | 79.4 | 62.6 | 74.9 | 75.1 | 83.4 |
| Share of exports |  |  |  |  |  |  |
| Less than one-third .................... | 80.2 | 77.9 | 76.7 | 78.2 | 78.4 | 81.4 |
| From one- to two-thirds .............. | 79.9 | 83.0 | 80.3 | 83.1 | 84.3 | 86.9 |
| More than two-thirds ................. | 82.8 | 81.1 | 81.3 | 82.0 | 83.2 | 84.7 |
| Total industrial firms................... | 80.5 | 79.9 | 78.4 | 80.4 | 80.9 | 83.6 |

(1) Forecast.

## Construction firms: workforce and output, 2006

(per cent)

|  | Percentage change on previous year |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | average workforce |  | output ${ }^{(1)(2)}$ |  |
|  | 2006 | $2007{ }^{(3)}$ | 2006 | $2007{ }^{(3)}$ |
| Geographical area <br> North-West $\qquad$ <br> North-East $\qquad$ <br> Centre $\qquad$ <br> South and Islands $\qquad$ | -1.2 2.6 3.7 0.7 | -1.9 1.0 0.9 -0.7 | 0,0 0,4 5,0 1,0 | $\begin{array}{r} -1,3 \\ 1,5 \\ 2,0 \\ 2,5 \end{array}$ |
| Number of employees $\begin{aligned} & 20-49 \ldots . . . . . \\ & 50-199 . . . . \\ & 200-499 \ldots . \\ & 500 \text { and over. } \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 1.3 \\ & 2.7 \\ & 3.8 \end{aligned}$ | $\begin{array}{r} 0.1 \\ 0.0 \\ 0.0 \\ -2.8 \end{array}$ | 2,3 1,2 1,3 $-2,9$ | $\begin{array}{r} -1,3 \\ 1,1 \\ 8,9 \\ 3,6 \end{array}$ |
| Total construction firms ................ | 1.1 | -0.3 | 1,2 | 0,8 |
| Change in output at current prices ${ }^{(1)}$. |  |  | 4.3 | 3.9 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) of the distribution of annual changes in investments according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) Constant 2006 prices. The deflator is calculated by Istat. For 2007 the last available rate of growth is assumed constant. - (3) Forecast.

Table I2

## Construction firms: public works contracts, 2006

(per cent)

|  | Firms engaged in public works in | Share of pu | in output | Percentage on pr | public works <br> (1) (2) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005-2006 | 2006 | $2007{ }^{(3)}$ | 2006 | $2007{ }^{(3)}$ |
| Geographical area |  |  |  |  |  |
| North-West .... | 83.1 | 39.6 | 46,5 | -7,6 | 14,6 |
| North-East ........................... | 78.7 | 44.8 | 46,0 | 2,8 | 2,2 |
| Centre ...................................... | 83.8 | 45.8 | 45,5 | 5,5 | 1,2 |
| South and Islands ........................ | 81.6 | 62.5 | 63,2 | -1,4 | 4,5 |
| Number of employees $20-49$ | 80.4 | 42.0 | 8 | 1 | 2 |
| 50-199 | 87.0 | 46.2 | 50,7 | -2,9 | 7,3 |
| 200-499 .................................. | 96.0 | 57.6 | 56,0 | 14,1 | 7,4 |
| 500 and over ............................... | 93.7 | 51.1 | 58,6 | -6,5 | 20,0 |
| Total construction firms ... | 81.8 | 45.7 | 48,4 | -0,8 | 6,0 |
| Change in output at current prices ${ }^{(1)}$ |  |  |  | 2.0 | 9.2 |

(1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) of the distribution of annual changes in investments according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) Constant 2006 prices. The deflator is calculated by Istat. For 2007 the last available rate of growth is assumed constant. - (3) Forecast.

## Construction firms: perceived difficulties in the public

works sector, 2006
(average points) ${ }^{(1)}$

|  | Uncertainty of national laws | Local red tape | Uncertain and delayed payment | Difficulty recruiting workforce | Difficulty obtaining bank loans | Unprofitable prices | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geographical area |  |  |  |  |  |  |  |
| North-West ... | 1.6 | 1.8 | 2.2 | 1.5 | 1.4 | 2.7 | 1.3 |
| North-East | 1.6 | 1.7 | 2.0 | 1.6 | 1.2 | 2.7 | 1.4 |
| Centre | 1.6 | 1.9 | 2.3 | 1.5 | 1.4 | 2.6 | 1.2 |
| South and Islands ....... | 1.6 | 2.1 | 2.3 | 1.5 | 1.4 | 2.6 | 1.1 |
| Number of employees |  |  |  |  |  |  |  |
| 20-49. | 1.6 | 1.9 | 2.2 | 1.5 | 1.4 | 2.7 | 1.3 |
| 50-199 | 1.7 | 1.8 | 2.1 | 1.5 | 1.3 | 2.7 | 1.1 |
| 200-499... | 1.7 | 1.8 | 2.2 | 1.4 | 1.2 | 2.6 | 1.1 |
| 500 and over ............ | 1.7 | 1.5 | 2.2 | 1.2 | 1.1 | 2.4 | 1.0 |
| Total construction firms | 1.6 | 1.9 | 2.2 | 1.5 | 1.3 | 2.7 | 1.3 |

(1) Average points: $1=$ not an impediment; $2=$ small impediment; $3=$ major impediment.

## Appendix C

Questionnaires

## Survey of industrial firms - 2006




#### Abstract

Confidentiality notice (Legislative Decree 196/2003). - The purpose of this survey is to collect information on the main economic and financial variables in the industrial sector. Your co-operation is important but not compulsory and any refusal to take part will bear no consequence. The information provided will only be used for research purposes and will not be published outside the Bank except in aggregate form. The firms taking part will be sent an extract of the main results of the survey. The data will be processed entirely inside the Bank and appropriate devices will be put in place to ensure their safety and confidentiality. The only people with access to individual data are those in charge of handling them and the staff engaged in processing and analysis. Firms enjoy the rights granted under the terms of Article 7 of the Decree, including the right to correct and integrate information concerning them. In charge of data handling: Head of the Economic Research Department of the Bank of Italy, Via Nazionale 91, 00184 ROME, Italy. Responsible for data handling: Bank of Italy (Organisation Department), Via Nazionale 91, 00184 ROME , Italy.


## PART A - General information


for SPA (public limited company) only: Did the firm adopt a governance model other than the traditional one?

(1) See Central Credit Register. Nuova classificazione della clientela bancaria, 1991. (2) See ISTAT, Classificazione delle attività economiche. Metodi e norme, 2002.

## Does the firm belong to a group?

## yes no

If the firm belongs to a group (i.e. a set of firms directly or indirectly controlled - through one or more chains of control - by the same legal persons or the same public entity):
Is the firm the parent company ?


Total holding of first three shareholders and relative information

|  | Share | Type ${ }^{(1)}$ | Nationality <br> (2) |  | Nature <br> (3) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1^{\circ}$ | \% |  | 1 | 2 | 1 | 2 |
| $2^{\circ}$ | \% |  | 1 | 2 | 1 | 2 |
| $3^{\circ}$ | \\| |  | 1 | 2 | 1 | 2 |

[^30]Do the by-laws place conditions on the transfer of holdings (e.g. directors' acceptance, pre-emptive rights)

Did a transfer of direct control over the firm (or the majority of it) take place in 2006?

## If yes

Did the transfer take place:

- within the same group?
- between relatives?


Are you able to provide homogeneous data for 2005 and 2006? (see instructions)

PART B - Workforce and wages


## Wages and salaries in 2006

Total gross annual wages per capita $(€)^{(1)}$
Minimum national contract wage ${ }^{(2)}$
(approximate per cent of total)

(1) Includes social security and tax withheld on behalf of workers; does not include firms' payments on behalf of INPS (National Social Security Institute) and others. - (2) The part covered by national contract includes: minimum rates of pay, cost of living allowance, 13th month's pay (tredicesima ) and other additional months' pay, meal allowance, overtime, and shift allowance.

Please indicate share of labour costs in total costs in 2006 (see instructions)
PART C - Gross fixed investment in Italy (please enter amounts in $€$ thousands; enter 0 for no investments)
Expenditure on tangible assets

- property
- plant, machinery \& equipment
- of which: for tangible assets used
- transport equipment

Total expenditure on tangible assets
Total expenditure on software, databases and mineral exploration ${ }^{(1)}$

Expenditure on research and development and market analysis; design and test production

| 2005 | 2006 | 2007 projection |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(1) Including expenditure on original copyright of entertainment and works of literature and art.

(1) Including expenditure on original copyright of entertainment, and works of literature and art.

Did you switch over to the new accounting criteria for investment in 2006 (the new IFRS/IAS standards)? (answer 'no' if you adopted the new criteria before 2006; see the instructions)

Only to be completed by firms that took part in the previous survey.
If investment expenditure in 2006 diverged significantly (over $5 \%$ above or below) from the estimate given in the previous survey (see annex), to what was this due? (tick one box only)

- also to differences between actual and estimated quantities purchased ........................................... yes

If you ticked the second answer, please say whether the difference in quantities purchased (plus or minus) was due to (more than one answer possible; tick 'no' otherwise)

| - change in expectations regarding demand | no | yes |
| :---: | :---: | :---: |
| - change in expected production costs: level | no | yes |
| uncertainty | no | yes |
| - change in regulations (taxes and tax deductions for investments, financial contributions, etc.) | no | yes |
| - change in delivery times of purchased capital goods imputable to the supplier | no | yes |
| - change in the purchase price of capital goods | no | yes |
| - change in self-financing | no | yes |
| - change in interest rates | no | yes |
| - change in availability of financing: shares | no | yes |
| credit (subsidised or otherwise) | no | yes |
| - factors relating to the firm's internal organisation (for given external conditions) | no | yes |
| - investment originally planned for previous year and not yet completed ............. |  |  |
| - long-term investment planned for subsequent years brought forward.. | no | yes |
| - other (please specify) | no | yes |

Geographical distribution of workforce and total fixed investment in 2005 and 2006 and projection for 2007:

|  | Average workforce |  |  |  | Total gross fixed investment |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2006 |  | 2007 (proj.) | 2005 |  | 2006 |  | 2007 (proj.) |
| North-West ${ }^{(1)}$.............. | \% | \% |  | \% | \\| \% |  | \\| \% |  | \% |
| North-East ${ }^{(2)}$............... | \% | \\| \% |  | \\| |  | \% |  | \\| | - \% |
| Centre ${ }^{(3)}$ | \% | \% |  | \% |  | \% |  | - \% | \\| |
| South and Islands ${ }^{(4)}$...... | \% | \% |  | \% | \% |  | \% |  | - \% |
| Total.. | 100 | 100 |  | 100 \% | 100 | \% | 100 |  | 100 \% |
| Same region ${ }^{(5)}$.......... |  |  | - \% |  |  | \\| |  | - \% | - \% |

(1) North-West = Piedmont, Valle d'Aosta, Lombardy and Liguria. - (2) North-East = Veneto, Trentino-Alto Adige, Friuli Venezia Giulia and Emilia Romagna. - (3) Centre = Tuscany, Umbria, Le Marche and Lazio. - (4) South and Islands = Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia. - (5) Same region as the location of the registered office.

## PART D - Production capacity

2006/2005 $\quad$ 2007/2006 projection
 (production capacity is the maximum output obtainable with plant operating at full capacity, without altering the organisation of work shifts)

| 2006 | 2007 projection |
| :--- | :--- |

Capacity utilisation .................................................................. $\square$ | $\%$ |
(actual output as a percentage of maximum obtainable output)

## Turnover ( $€$ thousand)

Turnover from sales of goods \& services in year

- of which: exports $\qquad$

| 2005 | 2006 | 2007 (proj.) | 2007/2006 (proj.) |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |

(turnover 2007/2006-1)*100

Average annual percentage change in prices of goods

| $2006 / 2005$ | 2007/2006(proj.) |
| :--- | :--- |


(b)
and services sold (Italy and abroad) $\square$ \| $\square$
$\square$
The projected percentage change in $\mathbf{2 0 0 7}$ on $\mathbf{2 0 0 6}$ in turnover, adjusted for the percentage change in prices, is approximately (sign and percentage change)
$\square$
$\square$
\%
(a) - (b)

Please indicate a range around this figure, i.e. provide a forecast of minimum and maximum turnover, adjusted for the change in prices.

Regarding turnover from sales of goods and services, please indicate for 2006 the change in average prices and the level of prices on foreign markets compared with Italy.


## Exporting firms only

Assuming your export turnover in 2006 to be 100, how much did you export to the following countries or areas?

| Euro area |  | \% USA - Canada |  | \% China |  | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P Please describe the firm's operating result for 2006.......... |  |  |  | large profit moderate loss | 2 | moderate profit large loss |
|  | 3 | broad balance | 4 |  | 5 |  |
| PART F - Financing |  |  |  |  |  |  |

Please state whether, at the terms and conditions (cost and collateral) currently applied, the firm would like to borrow more from banks or other lenders. $\qquad$

## If yes, please say:

- whether the firm would be willing, at present, to pay a higher rate of interest or even to accept worse terms and conditions in order to borrow more. $\qquad$
- why do you think the firm has not been able so far to borrow as much as it would like? (only one answer possible)
- no banks or other lenders have been contacted for that purpose because it is assumed they will answer no to any request for more financing
- no banks or other lenders have been contacted yet for other reasons

| no | yes |
| :---: | :---: |
| no | yes |
|  |  |

- the lenders that have been contacted are not willing to increase the volume of lending to the firm


## Source of finance

Cash flow ${ }^{(1)}(+/-)$ ( $€$ thousands)


[^31]For each of the following items, please say if there is any change with respect to the amounts outstanding at end of the preceding year and indicate how much.
(for a negative change please write: $1=$ over $-20 \%$, $2=$ from $-20 \%$ to $-1.1 \%, 3=$ from $-10 \%$ to $-5.1 \%, 4=$ from $-5 \%$ to -0 . $\%$; for a positive change please write: $5=$ from $0.1 \%$ to $5 \%, 6=$ from $5.1 \%$ to $10 \%, 7=$ from $10.1 \%$ to $20 \%, 8=0$ ver $20 \%$ )

$$
\text { Equity capital }{ }^{(1)}
$$

of which: private equity funds ${ }^{(2)}$
Bonds and other medium/long-term securities ${ }^{(3)}$
Other ${ }^{(3)}$ $\qquad$
Bank borrowing

| 2006 |  |  |
| :---: | :---: | :---: |
| no | yes |  |
| no | yes |  |
| no | yes |  |
| no | yes |  |
| no | yes |  |


| 2007 projection |  |
| :---: | :---: |
| no | yes |
| no | yes |
| no | yes |
| no | yes |
| no | yes |

(1) Please consider only changes due to issues and redemptions of capital equities. Changes are negative in the case of redemptions. - (2) Minority stakeholders in unlisted firms that generally participate actively in the firm's management. - (3) Changes are negative for firms that overall reimburse bonds and/or securities.

## PART G - Competitiveness and productivity

Where are your main competitors located? $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
(1 =same region of Italy; 2=other regions; 3=Euro-area countries; 4=other European countries; 5=USA - Canada; 6=China; 7=other)
How would you describe your present overall position in relation to your main competitors? $\qquad$
$\qquad$
(1 =very weak; 2=weak; 3=equal; 4=strong; 5=very strong)
Do you have internal indicators of productivity? $\qquad$ ... yes
If you answered yes to the previous question
please indicate the percentage change in average labour productivity from 2005 to 2006


## PART H - Corporate strategy (firms set up before 2000)

Regarding your product range, please indicate the main goods produced now compared with 2000 $\qquad$
(1=similar products, from the same sector; $2=$ different products, but from a related sector; 3=very different products, from a completely different sector)
Did the firm purchase patents from other firms in 2000-2006?


Please indicate the percentage of turnover from the following:
products under own trademark
products with no trademark
manufacture under licence of other trademarks.
Total.


| 2006 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | \% |
|  |  |  | $\%$ |
|  |  |  | $\%$ |
| $\mathbf{1}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\%$ |

In 2000-2006 did you produce goods and services abroad? (through ownership/control of foreign firms, ownership of local production units without separate legal status)


Please state the activity, number of employees and turnover of owned/controlled firms or foreign production units

(1) 1 =not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable.

Please name the 3 countries in which you have the greatest presence (in terms of number of employees in the year)


In 2000-2006 have you entered into major collaboration agreements with foreign firms?

(1) Please indicate the location of the firms. - (2) $3=$ Euro-area countries; $4=$ other European countries; $5=$ USA-Canada; $6=$ China; $7=0$ ther.

Which of the following statements best describes your firm's behaviour in 2000-2006?
( $1=$ no change of strategy; $2=$ change of strategy, mainly involving substantial changes in the range of products; 3= change of strategy, mainly by increasing investment in own trademark; 4= change of strategy, mainly by acquiring a presence abroad)

Finally, do you think turnover in 2006 has been influenced more by your strategy than by the trend of demand?

```
yes
```


## PART I - Governance and size

Is your firm owned by a natural person or by a controlling family? $\qquad$
If yes, is the Managing Director (the person running the firm)
1 =the person or a member of the family that owns or controls the firm; 2=a manager recruited from outside the firm; 3=a manager chosen from within the firm?

Please give the following information about the MD ${ }^{(1)}$ :
Nationality Sex:


Age $\quad$ Qualification ${ }^{(4)}$ :

(1) In the case of firms not run by a person or family, enter the details of the CEO . - (2) $1=$ Italian, $2=$ Euro area, $3=$ Rest of the world. - (3) $1=$ Male; 2=Female. - (4) 1=primary and middle school; 2=senior school; 3=university degree (BA or over); 4= post-graduate management course of 3 months or more at Italian or foreign university; $5=0$ ther post-graduate qualification.

Do you think the firm's present size is adequate compared with that of competitors?
( $1=$ no, the firm is too small; $2=n o$, the firm is too large; $3=y e s$, the firm's size is adequate)
a) If the answer is 'too small', indicate the main impediment to growth (one answer only)
lack of funds
legal limitations or red tape

| 1 |
| :---: |
| 2 |
| 3 |
| 4 |

insufficient managerial or organisational resources $\qquad$
other (please specify) $\qquad$
b) If the answer is 'too small' and you have ticked 'lack of funds' as the reason, please explain by distributing 100 points among the following options
difficulty or unwillingness to resort to banks or the bond market
difficulty introducing new shareholders or resorting to a private equity fund or the share market

unwillingness to introduce new shareholders or resort to a private equity fund or the share market for fear of loss of control or interference. $\qquad$


If the answer is 'too small', have you in the past 10 years passed up a real opportunity to expand (e.g. by buying up another firm)? no

In the past 10 years, have you ever rejected an offer to buy the firm?
(regardless of your opinion regarding the firm's size) no

## PART J - Real assets, human resources and software

Compared with competitors, does your existing stock of machinery and equipment use sufficiently
adequate technology?
If not, what is the reason?

- difficulty adapting existing production processes and organisation to new techniques | no |
| :---: |
- impossible to exploit new machinery fully because of the scale of production. | no |
| :---: |
| no |

| yes |
| :---: |
| yes |
| yes |

Please indicate the percentage of graduate staff in your total average workforce in 2006
 \%

When recruiting university graduates on their first or second job, how much importance do you assign to the following criteria ${ }^{(1)}$ :

| - place of origin. | - psycho-attitudinal profile........................ |
| :---: | :---: |
| - work experience, if any .............................. | - post-graduate qualification ${ }^{(2)}$................... |
| - reputation of university attended |  |

(1) $1=$ not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable. - (2) Including 5 -year university degree,
old-style university degree, Italian MA or PhD, foreign MA or PhD. old-style university degree, Italian MA or PhD, foreign MA or PhD.
Does your firm have ERP management software? (see instructions)

## PART K - Electricity supply (except electricity producers and suppliers) and professional services

Please indicate the cost of electricity as a proportion of total costs in 2006 (see instructions) .. $\square$ , $\quad$ \% How important were the following considerations when choosing your present supplier ? ${ }^{(1)}$ - economical price - good terms of payment - quality of service

- other (please specify) $\qquad$
(1) 1 =not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable..

Is your principal electricity supplier still the former monopoly holder?
Please provide the following information for each of the following professional services in 2006

| Legal services ......................... | Were the services provided mainly by employees of the firm? |  |  | If the answer to the previous question is no, please indicate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | the cost as a percentage of total costs in 2006 (see instructions) |  | whether a fixed fee was charged |  |
|  | yes | no | (t) | , | \% | yes | no |
| Bookkeeping ........................... | yes | no | (t) | , | \% | yes | no |
| Engineers \& architects.............. | yes | no | (\%) | , | \% | yes | no |
| Other professional services ....... | yes | no | (\%) | , | \% | yes | no |
| Total .................................... | yes | no | (s) | , | \% | yes | no |

## PART L - Trade credit and trade debt

Trade credit (Please indicate average for 2006)
| Amount of trade credit ${ }^{(1)}$ (C thousands) $\qquad$
$\qquad$ Average duration of contract in days $\qquad$
| Composition of trade credit by type of contract/effective terms of payment


Trade debt (Please indicate average for year)
| Amount of trade debt ${ }^{(4)}$ ( $\boldsymbol{C}$ thousands) $\qquad$ Actual average duration in days $\qquad$

[^32]| How would you rate the effort involved in completing the questionnaire? | modest | average | large | excessive |
| :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |

## BANCA D'ITALA

Survey of industrial firms - 2006


Confidentiality notice (Legislative Decree 196/2003). - The purpose of this survey is to collect information on the main economic and financial variables in the industrial sector. Your co-operation is important but not compulsory and any refusal to take part will bear no consequence. The information provided will only be used for research purposes and will not be published outside the Bank except in aggregate form. The firms taking part will be sent an extract of the main results of the survey. The data will be processed entirely inside the Bank and appropriate devices will be put in place to ensure their safety and confidentiality. The only people with access to individual data are those in charge of handling them and the staff engaged in processing and analysis. Firms enjoy the rights granted under the terms of Article 7 of the Decree, including the right to correct and integrate information concerning them. In charge of data handling: Head of the Economic Research Department of the Bank of Italy, Via Nazionale 91, 00184 ROME, Italy. Responsible for data handling: Bank of Italy (Organisation Department), Via Nazionale 91, 00184 ROME, Italy..

## PART A - General information

| Bank of Italy codes: <br> (to be entered by BI branch) | Branch code..... <br> Registered office |  |  | Firm code $\qquad$ <br> Type (sub-group) ${ }^{(1)}$ $\qquad$ |  |  | $\square$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| Tax identification number |  |  |  |  |  |  |  |  |
| Name of firm ... | .... |  |  |  |  |  |  |  |
| Legal status.................. | $\begin{array}{\|c\|} \hline 1 \\ \hline \mathrm{SRL} \\ \hline \end{array}$ | $\begin{gathered} 2 \\ \hline \text { SPA } \end{gathered}$ | $\begin{gathered} 3 \\ \hline \text { SAPA } \end{gathered}$ | 4 | ( 5 | 6 | SNC | $\begin{array}{\|c\|} \hline 8 \\ \hline \text { Other } \\ \hline \end{array}$ |

for SPA (public limited company) only: Did the firm adopt a governance model other than the traditional one?


## Does the firm belong to a group

If the firm belongs to a group (i.e. a set of firms directly or indirectly controlled - through one or more chains of control - by the same legal persons or the same public entity)

## Is the firm the parent

company? $\qquad$

$\qquad$
Name of group
Nationality of group


Was the firm involved in extraordinary operations in $2006 \boldsymbol{?}$
If yes, are you able to provide homogenous data for 2005 and 2006? (see instructions)
(1) See Centrale dei Rischi. Nuova classificazione della clientela bancaria, 1991. - (2) See ISTAT. Classificazione delle attività economiche. Metodi e norme, 2002.

## PART B - Workforce and wages

| (number) | Total workforce | Total workers \& apprentices | Total fixedterm contracts | Total non-EU workforce |
| :---: | :---: | :---: | :---: | :---: |
| 2005 Average workforce........................ |  |  |  |  |
| Workforce at end of year ............... |  |  |  |  |
| Hirings |  |  |  |  |
| Terminations ................................ |  |  |  |  |
| Average workforce $\qquad$ <br> Workforce at end of year $\qquad$ <br> Hirings $\qquad$ <br> Terminations $\qquad$ |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| $\underline{2007}$ Average workforce (projection) ....... |  |  |  |  |
| Total actual hours worked by payroll employees - of which: per cent overtime $\qquad$ |  | 2005 |  | 2006 |
|  |  |  | \\| | $\square . \mid$ \% |

Wages and salaries in 2006
Total gross annual wages per capita $(€)^{(1)}$
Minimum national contract wage $(€)^{(2)}$
(approximate per cent of total)

| Workers \& apprentices | Clerks \& managers | General average |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| L | l | F | l |

(1) Includes social security and tax withheld on behalf of employees; does not include company payments on behalf of INPS and other social security institutes. - (2) The part covered by national contract includes minimum rates of pay, cost-of-living allowance, 13 th month's pay (tredicesima) and other additional months' pay, meal allowance, overtime, and shift allowance.

Please indicate share of labour costs in total costs in 2006 (see instructions) $\qquad$
 $\%$

## PART C - Gross fixed investment in Italy (please enter amounts in € thousands; enter 0 for no investments)

| Total expenditure on tangible assets ${ }^{(1)}$ | 2005 | 2006 | 2007 projection |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| - of which: property |  |  |  |
| Total expenditure on software, databases and mineral exploration ${ }^{(2)}$ |  |  |  |

(1) Tangible assets include property, plant, machinery and equipment and means of transport. - (2) Includes expenditure on original copyright on entertainment and works of literature and art.

## PART D - Turnover and operating result

| Turnover from sales of goods \& services in year - of which: for export $\qquad$ | 2005 | 2006 | 2007 projection |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
|  | 2006/2005 | 2007/2006 projection |  |
| Average annual percentage change in prices of goods and services sold (Italy and abroad)...... |  |  | 1. |

Regarding turnover from sales of goods and services, please indicate for 2006 the change in average prices and the level of prices on foreign markets compared with Italy.


## PART E - Trade credit and trade debt

Trade credit (Please indicate average for 2006)
Amount of trade credit ${ }^{(1)}$ (C thousands) $\qquad$
$\square$ Average duration of contract in days ... $\qquad$
Composition of trade credit by type of contract/effective terms of payment:


Trade debt (Please indicate average for 2006)
Amount of trade debt ${ }^{(4)}$ (C thousands) $\qquad$
$\square$ Average actual duration in days $\qquad$
$\qquad$

[^33]
## PART F - Financing

Please state whether, at the terms and conditions (cost and collateral) currently applied, the firm would like to borrow more from banks or other lenders.
If yes, please say:

- whether the firm would be willing, at present, to pay a higher rate of interest or even to accept worse terms and conditions in order to borrow more.
- why do you think the firm has not been able so far to borrow as much as it would like? (only one answer possible)
- no banks or other lenders have been contacted for that purpose because it is assumed they will answer no to any request for more financing
- no banks or other lenders have been contacted yet for other reasons

| no |
| :---: |
| no |

- the lenders that have been contacted are not willing to increase the volume of lending to the firm


## PART G - Competitiveness and productivity

Where are your main competitors located?
(1=same region of Italy; 2=other regions; 3=Euro-area countries; 4=other European countries; 5=USA-Canada; 6=China; $7=$ other)
How would you describe your present overall position in relation to your main competitors? $\qquad$ $\square$
(1 = very weak; 2 =weak; 3 =equal; $4=$ strong; $5=$ very strong)
Do you have internal indicators of productivity? $\qquad$


If you answered yes to the previous question,
please indicate the percentage change in average labour productivity from 2005 to 2006 ?


## PART H - Corporate strategy (firms set up before 2000)

Regarding your product range, please indicate the main goods produced now compared with 2000 $\qquad$

(1 =similar products, from the same sector; 2=different products, but from a related sector; 3=very different products, from a completely different sector)
Did the firm purchase patents from other firms in 2000-2006?


If the firm belongs to a group and the answer to the previous question is yes, please indicate what percentage of these patents was purchased from firms in the same group?
....

Please indicate the percentage of turnover from the following:
products under own trademark
products with no trademark.
manufacture under licence of other trademarks.
Total

| 2000 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | \% |  |
|  |  |  |  | \% |
|  |  |  |  | \% |
|  | $\mathbf{1}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\%$ |


| 2006 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | \% |
|  |  |  | $\%$ |
|  |  |  | $\%$ |
| $\mathbf{1}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\%$ |

In 2000-2006 did you produce goods and services abroad? (through ownership/control of foreign firms, ownership of local production units without separate legal status).


Please state the activity, number of employees and turnover of owned/controlled firms or foreign production units

| Year | Main activity ${ }^{(1)}$ | Employees abroad | Turnover abroad ( $€$ thousand) |
| :---: | :---: | :---: | :---: |
| 2000......................... |  |  |  |
| 2006.......................... |  |  |  |

(1) 1 =production; 2=design, research or similar; 3=selling, technical assistance or similar.

What role did the following factors play in your decision to internationalise your activity? ${ }^{(1)}$

- favourable legislation and taxation ...... $\quad$ - lower cost of labour $\quad$ - proximity of sales markets $\square$
- other (please specify) $\qquad$
(1) 1 = not important; $2=$ not very important; 3 $=$ important; 4=very important; 8=not applicable.

Please name the $\mathbf{3}$ countries in which you have the greatest presence (in terms of number of employees in the year)




Which of the following statements best describes your firm's behaviour 2000-2006? $\square$
$\square$
(1=change of strategy; 2= change of strategy, mainly involving substantial changes in the range of products; $3=$ change of strategy, mainly by increasing investment in own trademark; 4= change of strategy, mainly by acquiring a presence abroad)

Finally, do you think turnover in 2006 has been influenced more by your strategy than by the trend of demand?

## PART I - Governance and size

Is your firm owned by a legal person or owned or controlled by a family?


If yes, is the Managing Director (the person running the firm)
$1=$ the person or a member of the family that owns or controls the firm; 2=a manager recruited from outside the firm; 3=a manager chosen from within the firm?

Please give the following information about the MD ${ }^{(1)}$


Qualification ${ }^{(4)}$

(1) In the case of firms not run by a person or family, enter the details of the CEO . - (2) $1=$ Italian, $2=$ Euro area, $3=$ Rest of the world. - (3) $1=$ Male; 2=Female. - (4) 1=primary and middle school; 2=senior school; 3=university degree (BA or over); 4= post-graduate management course of 3 months or more at Italian or foreign university; $5=0$ other post-graduate qualification.

Do you think the firm's present size is adequate compared with that of competitors?
( $1=$ no, the firm is too small; $2=n o$, the firm is too large; $3=y e s$, the firm's size is adequate)
a) If the answer is 'too small', indicate the main impediment to growth (one answer only)
lack of funds
legal limitations or red tape

b) If the answer is 'too small' and you have ticked 'lack of funds' as the reason, please explain by distributing 100 points among the following options
difficulty or unwillingness to resort to banks or the bond market
difficulty introducing new shareholders or resorting to a private equity fund or the share market

unwillingness to introduce new shareholders or resort to a private equity fund or the share market for fear of loss of control or interference $\qquad$


If the answer is 'too small', have you in the past 10 years passed up a real opportunity to expand (e.g. by buying up another firm)? no

In the past 10 years, have you ever rejected an offer to buy the firm?
(regardless of your opinion regarding the firm's size) no

## PART J - Real assets, human resources and software



Please indicate the percentage of graduate staff in your total average workforce in 2006
When recruiting university graduates on their first or second job, how much importance do you assign to the following criteria? ${ }^{(1)}$

| - place of origin. | - psycho-attitudinal profile......................... |
| :---: | :---: |
| - work experience, if any .. | - post-graduate qualification ${ }^{(2)}$................... |
| reputation of uni |  |

(1) $1=$ not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable. - (2) Including 5-year university degree, old-style university degree, Italian MA or PhD, foreign MA or PhD.

Does your firm have ERP management software? (see instructions)

## PART K - Electricity supply (except electricity producers and suppliers)

Please indicate the cost of electricity as a proportion of total costs in 2006 (see instructions) .. $\square$ \%

| How important were th <br> - economical price | siderations when choosing your present supplier? <br> - good terms of payment $\square$ - quality of service |  |
| :---: | :---: | :---: |
| - other (please specify) |  |  |

[^34]Is your principal electricity supplier still the former monopoly holder? yes

| How would you rate the effort involved in completing the questionnaire? | modest | average | large | excessive |
| :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |

Survey of service firms - 2006
Confidentiality notice (Legislative Decree 196/2003). - The purpose of this survey is to collect information on the main economic and financial variables in the services sector. Your co-operation is important but not compulsory and any refusal to take part will bear no consequence. The information provided will only be used for research purposes and will not be published outside the Bank except in aggregate form. The firms taking part will be sent an extract of the main results of the survey. The data will be processed entirely inside the Bank and appropriate devices will be put in place to ensure their safety and confidentiality. The only people with access to individual data are those in charge of handling them and the staff engaged in processing and analysis. Firms enjoy the rights granted under the terms of Article 7 of the Decree, including the right to correct and integrate information concerning them. In charge of data handling: Head of the Economic Research Department of the Bank of Italy, Via Nazionale 91, 00184 ROME, Italy. Responsible for data handling: Bank of Italy (Organisation Department), Via Nazionale 91, 00184 ROME, Italy.

## PART A - General information


for SPA (public limited company) only: Did the firm adopt a governance model other than the traditional one?


Does the firm belong to a group?
If the firm belongs to a group (i.e. a set of firms directly or indirectly controlled - through one or more chains of control - by the same legal persons or the same public entity)
Is the firm the parent company? .. yes no
Name of group........................................................... | Name of parent company
Nationality of group.

| 1 |
| :---: |
| Italian |

Other EU on 31-12-03 New | $\frac{2}{2}$ |
| :---: |
| 2 |



Was the firm involved in extraordinary operations in 2006? $\qquad$
If yes, are you able to provide homogenous data for 2005 and 2006? (see instructions)
(1) See Centrale dei Rischi. Nuova classificazione della clientela bancaria, 1991. - (2) See ISTAT. Classificazione delle attività economiche.
Metodi e norme, 2002 .

## PART B - Workforce and wages



[^35]Wages and salaries in 2006
Total gross annual wages per capita $(€)^{(1)}$
Minimum national contract wage $(€)^{(2)}$
(approximate per cent of total)

| Workers \& apprentices | Clerks \& managers | General average |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | $\%$ |  |

(1) Includes social security and tax withheld on behalf of employees; does not include company payments on behalf of INPS and other social security institutes. - (2) The part covered by national contract includes minimum rates of pay, cost-of-living allowance, 13th month's pay (tredicesima) and other additional months' pay, meal allowance, overtime, and shift allowance.

Please indicate share of labour costs in total costs in 2006 (see instructions) $\qquad$
$\square$

## PART C - Gross fixed investment in Italy (please enter amounts in $€$ thousands; enter 0 for no investments)



Average annual percentage change in prices of
tangible assets purchased $\qquad$
$\square$
 \%
Average annual percentage change in prices of software,
databases and mineral exploration purchased ${ }^{(2)}$ -
(1) Tangible assets include property, plant, machinery and equipment and means of transport. - (2) Includes expenditure on original copyright on entertainment and works of literature and art.

Did you switch over to the new accounting criteria for investment in 2006 (the new IFRS/IAS standards)? (answer 'no' if you adopted the new criteria before 2006; see the instructions).

Geographical distribution of workforce and total fixed investment in 2005 and 2006 and projection for 2007

(1) North-West = Piedmont, Wale d'Aosta, Lombardy and Liguria. - (2) North-East = Veneto, Trentino-Alto Adige, Friuli Venezia Giulia and Emilia Romagna. - (3) Centre = Tuscany, Umbria, Le Marche and Lazio. - (4) South and Islands = Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia. - (5) Same region as the location of the registered office.

## PART D - Turnover, prices and operating result

## Turnover ( $€$ thousand)

Turnover from sales of goods \& services in year - of which: exports ${ }^{(1)}$
 (1) Sales to non-residents within the country.

Average annual percentage change in prices of goods and services sold (Italy and abroad).......|. $\square$ $\square \quad \mid \quad$. $\quad$ \%

Please describe the firm's operating result for 2006

$\qquad$
$\qquad$
$\square$ broad balancemoderate profit 3 broad balance 4 moderate loss large loss

## PART E - Financing

Please state whether, at the terms and conditions (cost and collateral) currently applied, the firm would like to borrow more from banks or other lenders
If yes, please say:

- whether the firm would be willing, at present, to pay a higher rate of interest or even to accept worse terms and conditions in order to borrow more.
- why do you think the firm has not been able so far to borrow as much as it would like? (only one answer possible)
- no banks or other lenders have been contacted for that purpose because it is assumed they will answer no to any request for more financing
- no banks or other lenders have been contacted yet for other reasons

| no |  |
| :--- | :--- |
| no | yes |
|  | yes |

- the lenders that have been contacted are not willing to increase the volume of lending to the firm


## Source of finance

Self-financing ${ }^{(1)}(+/-)(€$ thousands)

(1) Please use the minus sign ( ${ }^{\prime}-{ }^{\prime}$ ) in case of negative self-financing. For the definition of self-financing see the instructions.

For each of the following items, please say if there is any change with respect to the amounts outstanding at end of the preceding year and indicate how much.
(for a negative change please write $1=$ over $-20 \%$, $2=$ from $-20 \%$ to $-1.1 \%, 3=$ from $-10 \%$ to $-5.1 \%, 4=$ from $-5 \%$ to -0 . $\%$; for a positive change please write $5=$ from $0.1 \%$ to $5 \%, 6=$ from $5.1 \%$ to $10 \%, 7=$ from $10.1 \%$ to $20 \%$, $8=0$ ver $20 \%$ )

Equity capital ${ }^{(1)}$ of which: private equity funds ${ }^{(2)}$
Bonds and other medium/long-term securities ${ }^{(3)}$ $\qquad$
Other ${ }^{(3)}$
Bank borrowing $\qquad$

| 2006 |  |
| :---: | :---: |
| no | yes |
| no | yes |
| no | yes |
|  | $\square$ |
| no | yes |
| no | yes |
|  | no |
|  | yes |
| no | yes |

(1) Please consider only changes due to issues and redemptions of capital equities. Changes are negative in the case of redemptions. - (2) Minority stakeholders in unlisted firms that generally participate actively in the firm's management. - (3) Changes are negative for firms that overall reimburse bonds and/or securities.

## PART F - Competitiveness and productivity

Where are your main competitors located? $\qquad$
$\square$

(1=same region of Italy; 2=other regions; 3=Euro-area countries; 4=other European countries; 5=USA-Canada; 6=China; 7=other)
How would you describe your present overall position in relation to your main competitors? $\qquad$ $\square$ (1 =very weak; 2 =weak; 3=equal; $4=$ strong; $5=$ very strong)

Do you have internal indicators of productivity?
If you answered yes to the previous question,
please indicate the percentage change in average labour productivity from 2005 to 2006


## PART G - Corporate strategy (firms set up before 2000)

In 2000-2006 did you produce goods and services abroad? (through ownership/control of foreign firms, ownership of local production units without separate legal status).

Did you enter into major collaboration agreements with foreign firms in 2000-2006?


> ( $1=$ no change of strategy; $2=$ change of strategy, mainly involving substantial changes in the range of products; $3=$ change of strategy, mainly by increasing investment in own trademark; $4=$ change of strategy, mainly by acquiring a presence abroad)

Finally, do you think turnover in 2006 has been influenced more by your strategy than by the trend of demand?

## PART H - Governance and size

Is your firm owned by a legal person or owned or controlled by a family? $\qquad$

If yes, is the Managing Director (the person running the firm)
$1=$ the person or a member of the family that owns or controls the firm; 2=a manager recruited from outside the firm; 3=a manager chosen from within the firm?

Please give the following information about the MD ${ }^{(1)}$
Nationality ${ }^{(2)}$
Sex ${ }^{(3)}$ $\square$ Age $\qquad$ Qualification ${ }^{(4)}$
(1) In the case of firms not run by a person or family, enter the details of the CEO . - (2) 1=Italian, 2=Euro area, $3=$ Rest of the world. - (3) 1=Male; 2=Female. - (4) 1=primary and middle school; 2=senior school; 3=university degree (BA or over); 4= post-graduate management course of 3 months or more at Italian or foreign university; $5=0$ ther post-graduate qualification.

Do you think the firm's present size is adequate compared with that of competitors?
( $1=n o$, the firm is too small; $2=n o$, the firm is too large; $3=y e s$, the firm's size is adequate)
a) If the answer is 'too small', indicate the main impediment to growth (one answer only)

| lack of funds | 1 |
| :---: | :---: |
| legal limitations or red tape | 2 |
| insufficient managerial or organisational resources | 3 |
| other (please specify) | 4 |

b) If the answer is 'too small' and you have ticked 'lack of funds' as the reason, please explain by distributing 100 points among the following options
difficulty or unwillingness to resort to banks or the bond market
difficulty introducing new shareholders or resorting to a private equity fund or the share market

unwillingness to introduce new shareholders or resort to a private equity fund or the share market for fear of loss of control or interference $\qquad$


If the answer is 'too small', have you in the past 10 years passed up a real opportunity to expand (e.g. by buying up another firm)? no

In the past 10 years, have you ever rejected an offer to buy the firm?
(regardless of your opinion regarding the firm's size)

## PART I - Human resources and organisation

Please indicate the percentage of graduate staff in your total average workforce in 2006


When recruiting university graduates on their first or second job, how much importance do you assign to the following criteria? ${ }^{(1)}$

| - place of origin.. | - psycho-attitudinal profile.......................... |
| :---: | :---: |
| - work experience, if any. | - post-graduate qualification ${ }^{(2)}$................... |



## PART J- Electricity supply and professional services

Please indicate the cost of electricity as a proportion of total costs in 2006 (see instructions) $\square$\%

| How important were the following considerations when choosing your present supplier? ${ }^{(1)}$- economical price <br> - other (please specify)$\quad$- good terms of payment |
| :--- |

[^36]Please provide the following information for each of the following professional services in 2006

| Legal services ......................... | Were the services provided mainly by employees of the firm? |  |  | If the answer to the previous question is no, please indicate: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | the cost as a percentage of total costs in 2006 (see instructions) |  | whether a fixed fee was charged |  |
|  | yes | no | ${ }^{\circ}$ |  | \% | yes | no |
| Bookkeeping ........................... | yes | no | 5 | , | \% | yes | no |
| Engineers \& architects............. | yes | no | 5 | , | \% | yes | no |
| Other professional services ....... | yes | no | 4 | , | \% | yes | no |
| Total .................................... | yes | no | [ ${ }^{\circ}$ | , | \% | yes | no |

## PART K - Trade credit and trade debt

Trade credit (Please indicate average for 2006)
| Amount of trade credit ${ }^{(1)}$ (C thousands) $\qquad$
$\qquad$ Average duration of contract in days $\qquad$ Composition of trade credit by type of contract/effective terms of payment


Trade debt (Please indicate average for year)
Amount of trade debt ${ }^{(4)}$ ( $\boldsymbol{C}$ thousands) $\qquad$
$\qquad$
(1) Average yearly amounts outstanding. Includes any provision for diminution in value of trade credit. - (2) The purchaser was given an extension of payment at no additional cost and was not offered any discount for early payment (for example, 10 days instead of 40 days after delivery). - (3) The extension of payment entailed a cost for the purchaser, in the sense of forgoing a discount or a complimentary offer and/or of having to pay a higher price or a rate of interest. - (4) Average yearly amount outstanding.

## PART L - Consumer credit

Does your firm also operate in the retail trade sector?

## If yes,

1) assuming that sales in 2006 total 100, very approximately, how are customers' payments distributed among the following?
$\qquad$

b) credit card
c) payment by instalment arranged through a finance company

## Total



If sales are paid in instalments through a finance company (answer c to question 1)
2) apart from the advantages in terms of sales volumes, what is the main economic effect for your firm of offering payment by instalment? $\qquad$
(If more than one finance company is used, refer to the main one)
(1=negative, the retailer bears all or part of the credit given to the customer; 2=none; $3=$ positive, part of the revenues of the finance company are passed back to the firm).
3) please indicate the type of financial intermediary used to arrange the payment by instalment? (if more than one finance company is used, refer to the main one - for a list see the instructions)


How would you rate the effort involved in completing the questionnaire?

| modest | average | large | excessive |
| :--- | :--- | :--- | :--- | Comments:

# BANCA D'ITALIA <br> Survey of service firms - 2006 



Confidentiality notice (Legislative Decree 196/2003). - The purpose of this survey is to collect information on the main economic and financial variables in the services sector. Your co-operation is important but not compulsory and any refusal to take part will bear no consequence. The information provided will only be used for research purposes and will not be published outside the Bank except in aggregate form. The firms taking part will be sent an extract of the main results of the survey. The data will be processed entirely inside the Bank and appropriate devices will be put in place to ensure their safety and confidentiality. The only people with access to individual data are those in charge of handling them and the staff engaged in processing and analysis. Firms enjoy the rights granted under the terms of Article 7 of the Decree, including the right to correct and integrate information concerning them. In charge of data handling: Head of the Economic Research Department of the Bank of Italy, Via Nazionale 91, 00184 ROME, Italy. Responsible for data handling: Bank of Italy (Organisation Department), Via Nazionale 91, 00184 ROME, Italy.

PART A - General information

for SPA (public limited company) only: Did the firm adopt a governance model other than the traditional one?


If the firm belongs to a group (i.e. a set of firms directly or indirectly controlled - through one or more chains of control - by the same legal persons or the same public entity)
Is the firm the parent company? .. yes no $\qquad$
Name of group........................................................................ Name of parent company


Was the firm involved in extraordinary operations in 2006? ....................................................... yes y no
If yes, are you able to provide homogenous data for 2005 and 2006? (see instructions) yes
no

## PART B - Workforce and wages



[^37]Wages and salaries in 2006
Total gross annual wages per capita $(€)^{(1)}$
Minimum national contract wage ( $€)^{(2)}$
(approximate per cent of total)

| Workers \& apprentices | Clerks \& managers |  | General average |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |

(1) Includes social security and tax withheld on behalf of employees; does not include company payments on behalf of INPS and other social security institutes. - (2) The part covered by national contract includes minimum rates of pay, cost-of-living allowance, 13 th month's pay (tredicesima) and other additional months' pay, meal allowance, overtime, and shift allowance.

Please indicate share of labour costs in total costs in 2006 (see instructions) $\square$

## PART C - Gross fixed investment in Italy (please enter amounts in $€$ thousands; enter 0 for no

 investments)Total expenditure on tangible assets ${ }^{(1)}$<br>- of which: property<br>Total expenditure on software, databases and mineral exploration ${ }^{(2)}$

| 2005 | 2006 | 2007 projection |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |

[^38] copyright on entertainment and works of literature and art.

## PART D - Turnover, prices and operating result

## Turnover ( $€$ thousand)

Turnover from sales of goods \& services in year - of which: exports ${ }^{(1)}$

| 2005 | 2006 | 2007 projection |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  | $\%$ |  |  |

## (1) Sales to non-residents within the country.

Please describe the firm's operating result for 2006? $\qquad$
1 large profit

| 2 | moderate profit |
| :---: | :---: |
| 5 | large loss |

## PART E - Financing

Please state whether, at the terms and conditions (cost and collateral) currently applied, the firm would like to borrow more from banks or other lenders

## If yes, please say

- whether the firm would be willing, at present, to pay a higher rate of interest or even to accept worse terms and conditions in order to borrow more.
- why do you think the firm has not been able so far to borrow as much as it would like? (only one answer possible)
- no banks or other lenders have been contacted for that purpose because it is assumed they will answer no to any request for more financing
- no banks or other lenders have been contacted yet for other reasons

| no |
| :---: |
| no |

- the lenders that have been contacted are not willing to increase the volume of lending to the firms no


## PART F - Competitiveness and productivity


(1=same region of Italy; 2=other regions; 3=Euro-area countries; 4=other European countries; 5=USA-Canada; 6=China; 7=other)
How would you describe your present overall position in relation to your main competitors? . $\qquad$
(1 =very weak; $2=$ weak; 3=equal; $4=$ strong; $5=$ very strong)
Do you have internal indicators of productivity?
If you answered yes to the previous question,
please indicate the percentage change in average labour productivity from 2005 to 2006


## PART G - Corporate strategy (firms set up before 2000)

# In 2000-2006 did you produce goods and services abroad? (through ownership/control of foreign firms, ownership of local production units without separate legal status) <br> Did you enter into major collaboration agreements with foreign firms in 2000-2006? <br> Which of the following statements best describes your firm's behaviour in 2000-2006? <br> $\square$ <br> (1= no change of strategy; $2=$ change of strategy, mainly involving substantial changes in the range of products; $3=$ change of strategy, mainly by increasing investment in own trademark; 4= change of strategy, mainly by acquiring a presence abroad) 

Finally, do you think turnover in 2006 has been influenced more by your strategy than by the trend of demand?

## PART H - Governance and size

Is your firm owned by a legal person or owned or controlled by a family? .
If yes, is the Managing Director (the person running the firm)
$1=$ the person or a member of the family that owns or controls the firm; 2=a manager recruited from outside the firm; 3=a manager chosen from within the firm?

Please give the following information about the MD ${ }^{(1)}$
Nationality ${ }^{(2)}$
Age


Qualification ${ }^{(4)}$
(1) In the case of firms not run by a person or family, enter the details of the CEO . - (2) $1=$ Italian, $2=$ Euro area, $3=$ Rest of the world. - (3) $1=$ Male; $2=$ Female. - (4) 1 = primary and middle school; $2=$ senior school; $3=$ university degree (BA or over); 4= post-graduate management course of 3 months or more at Italian or foreign university; $5=$ other post-graduate qualification.

Do you think the present size of the firm is adequate compared with that of competitors?
( $1=$ no, the firm is too small; $2=n o$, the firm is too large; 3=yes, the firm's size is adequate)
a) If the answer is 'too small', indicate the main impediment to growth: (one answer only)
lack of funds

b) If the answer is 'too small' and you have ticked 'lack of funds' as the reason, please explain by distributing

100 points among the following options
difficulty or unwillingness to resort to banks or the bond market
difficulty introducing new shareholders or resorting to a private equity fund or the share market
 unwillingness to introduce new shareholders or resort to a private equity fund or the share market for fear of loss of control or interference.
other (please specify)
Total


If the answer is 'too small', have you in the past 10 years passed up a real opportunity to expand (e.g. by buying up another firm)?

In the past 10 years, have you ever rejected an offer to buy the firm? (regardless of your opinion regarding the firm's size).

## PART I - Human resources and organisation

Please indicate the percentage of graduate staff in your total average workforce in 2006


When recruiting university graduates on their first or second job, how much importance do you assign to the following criteria? ${ }^{(1)}$ :

| - place of origin ........................................... | - psycho-attitudinal profile........................... |
| :---: | :---: |
| - work experience, if any ................................ | - post-graduate qualification ${ }^{(2)}$.................... |
| - reputation of university attended ... |  |

[^39]
## PART J - Electricity supply

Please indicate the cost of electricity as a proportion of total costs in 2006 (see instructions) $\square$ , $\%$

How important were the following considerations when choosing your present supplier? ${ }^{(1)}$ - economical price || - good terms of payment - quality of service


- other (please specify) $\qquad$
(1) 1=not important; 2=not very important; 3=important; 4=very important; 8=not applicable.

Is your principal electricity supplier still the former monopoly holder? yes

## PART K - Trade credit and trade debt

## Trade credit (Please indicate average for 2006)

| Amount of trade credit ${ }^{(1)}$ (C thousands). $\qquad$ Average duration of contract in days $\qquad$
Composition of trade credit by type of contract/effective terms of payment


Trade debt (Please indicate average for year)
Amount of trade debt ${ }^{(4)}$ (C thousands) $\qquad$ Actual average duration in days $\qquad$
(1) Average yearly amounts outstanding. Includes any provision for diminution in value of trade credit. - (2) The purchaser was given an extension of payment at no additional cost and was not offered any discount for early payment (for example, 10 days instead of 40 days after delivery). - (3) The extension of payment entailed a cost for the purchaser, in the sense of forgoing a discount or a complimentary offer and/or of having to pay a higher price or a rate of interest. - (4) Average yearly amount outstanding.

## PART L - Consumer credit

Does your firms also operate in the retail trade sector?

## If yes:

1) assuming that sales in 2006 total 100, very approximately how are customers' payments distributed among the following
a) cash and debit card
b) credit card
c) payment by instalment arranged through a finance company

Total
If sales are paid in instalments through a finance company (answer $\mathbf{c}$ to question 1)
2) apart from the advantages in terms of sales volumes, what is the main economic effect for your firm of offering payment by instalment?

(If more than one finance company is used, refer to the main one)
(1=negative, the retailer bears all or part of the credit given to the customer; 2=none; $3=$ positive, part of the revenues of the finance company are passed back to the firm).
3) please indicate the type of financial intermediary used to arrange the payment by instalment? (if more than one finance company is used, refer to the main one - for a list see the instructions)

4) Does only one company finance payments by instalment? If yes,
is this because the intermediary concerned requested it?
 Comments: $\qquad$
$\qquad$

## BANCA D'ITALA



## Survey of construction and public works - 2006

Confidentiality notice (Legislative Decree 196/2003). - The purpose of this survey is to collect information on the main economic and financial variables in the construction sector. Your co-operation is important but not compulsory and any refusal to take part will bear no consequence. The information provided will only be used for research purposes and will not be published outside the Bank except in aggregate form. The firms taking part will be sent an extract of the main results of the survey. The data will be processed entirely inside the Bank and appropriate devices will be put in place to ensure their safety and confidentiality. The only people with access to individual data are those in charge of handling them and the staff engaged in processing and analysis. Firms enjoy the rights granted under the terms of Article 7 of the Decree, including the right to correct and integrate information concerning them. In charge of data handling: Head of the Economic Research Department of the Bank of Italy, Via Nazionale 91, 00184 ROME, Italy. Responsible for data handling: Bank of Italy (Organisation Department), Via Nazionale 91, 00184 ROME, Italy.

## PART A - General information


(1) See. ISTAT. Classificazione delle attività economiche. Metodi e norme, 2002.
(2) Splits, incorporations, mergers, capital contributions or transfers of assets.

## Does the firm belong to a group?

If the firm belongs to a group (i.e. a set of firms directly or indirectly controlled - through one or more chains of control - by the same legal persons or the same public entity)
Is the firm the parent company? ... yes no


| Was the firm a member of one or more consortiums in $\mathbf{2}$ | yes | no |
| :---: | :---: | :---: |
| Name of the main consortium ... |  |  |

## PART B - Workforce and output

| Average workforce (number)........................................ | 2005 | 2006 | 2007 (projection) |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| of which: from new EU member countries |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## PART C - Financing and turnover

Please state whether, at the terms and conditions (cost and collateral) currently applied, the firm would like to borrow more from banks or other lenders

## If yes, please say

- whether the firm would be willing, at present, to pay a higher rate of interest or even to accept worse terms and conditions in order to borrow more.
- why do you think the firm has not been able so far to borrow as much as it would like? (only one answer possible)
- no banks or other lenders have been contacted for that purpose because it is assumed they will answer no to any request for more financing
- no banks or other lenders have been contacted yet for other reasons no
- the lenders that have been contacted are not willing to increase the volume of lending to the firm

Please describe the firm's operating result for 2006
Legend: 1 = large loss; 2 = moderate loss; 3 = balance; $4=$ moderate profit; 5 = large profit.

## PART D - Value of public works constructed in Italy

Value of public works constructed (C thousand)
Share of public works sub-contracted from other firms Share of projects assigned to firm and sub-contracted to other firms


## PART E - Public works projects in Italy

## Construction of public works

- completion of projects begun in previous years
- continuation of projects begun in previous years for completion in later years
- projects begun during the current year

Total


## Distribution of public works projects over the following areas

- North-West ${ }^{(1)}$
- North-East ${ }^{(2)}$
- Centre ${ }^{(3)}$
- South and Islands ${ }^{(4)}$

Total

- same region ${ }^{(5)}$

(1) North-West = Piedmont, Valle d'Aosta, Lombardy and Liguria. - (2) North-East = Veneto, Trentino-Alto Adige, Friuli Venezia Giulia and Emilia Romagna. - (3) Centre = Tuscany, Umbria, Le Marche and Lazio. - (4) South and Islands = Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia. - (5) Same region as the location of the registered office.


## PART F - Impediments to construction of public works and prevalence of public-private sector partnerships

Please indicate whether and to what extent the following factors constitute in the immediate future (i.e. within the next 6 months) impediments to your firm operating in the public works sector? Tick no more than 3 answers as very important factors ( $1=$ not an impediment; 2=small impediment; 3=major impediment).

- uncertainty regarding national legislation (or regional legislation in the case of regions with a special statute) $\qquad$
$\qquad$
- local administration/red tape $\square$
- uncertainty and/or delays in the allocation/disbursement of funds.
$\qquad$
- difficulty recruitment workforce $\qquad$
$\square$
- difficulty obtaining bank loans
$\square$
- prices too low (e.g. excessive discounts offered in an auction). $\qquad$
- other (please specify)



## Forms of 'public-private sector partnership(1) and proportion in public works contracts in Italy

| pulic-private sector partnersip(1) and propor |  |  | 2006 |  |  | O07 | roje |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project financing ${ }^{(2)}$. | no | yes | (1) | \% | no | yes | - | \% |
| Concession ${ }^{(3)}$ | no | yes | \% | \% | no | yes | (6) | \% |
| Leasing ${ }^{(4)}$. | no | yes | ${ }^{4}$ | \% | no | yes | ${ }^{\circ}$ | \% |
| Other forms ${ }^{(5)}$ (please specify) | no | yes | \% | \% | no | yes | ${ }^{\circ}$ | \% |

[^40]We thank you for your co-operation. Please enter below the contact details of the person to be contacted for clarifications


[^0]:    Monetary Financial Institutions: Banks and Money Market Funds (monthly)
    The Financial Market (monthly)
    The Public Finances (monthly)
    Balance of Payments (monthly)
    Monetary and Credit Aggregates of the Euro Area: the Italian Components (monthly)
    Financial Accounts (quarterly)
    Payment System (half yearly)
    Public Finance Statistics in the European Union (annual)
    Local Government Debt (annual)
    Sample Surveys (irregular)
    Methodological Notes (irregular)
    All the supplements are available on the Bank of Italy's site (www.bancaditalia.it).
    Requests for clarifications concerning data contained in this publication can be sent by e-mail to statistiche@bancaditalia.it

[^1]:    ${ }^{1}$ By Claudia Biancotti, Leandro D'Aurizio and Caterina Di Benedetto. The branches of the Bank of Italy contributed greatly to the survey, being directly responsible for the collection of data.
    ${ }^{2}$ There may be discrepancies between some of the calculations based on data from previous surveys and the data published in earlier editions of the Supplement as a result of progressive revisions of the database.
    ${ }^{3}$ This is the ratio of number of firms sampled to the respective reference population.
    ${ }^{4}$ See the Methodological Notes for the properties of the estimators (Appendix A).
    ${ }^{5}$ The topics covered include competitiveness and productivity, corporate strategies from 2000 to 2006, problems of governance and dimension, fixed, human and organisational capital, aspects associated with the purchase of electricity supply and professional services, and consumer credit.

[^2]:    ${ }^{6}$ For the sake of simplicity, the sector of industry excluding construction is abbreviated to 'industry'.
    ${ }^{7}$ According to the national accounts, in the same period employment rose by 1.7 per cent in the economy as a whole - and payroll employment by 2.1 per cent; in industry excluding construction payroll employment increased by 1.2 per cent and in nonfinancial private services by 3.4 per cent. The difference with respect to the survey may be due to a particularly large growth in employment in small firms, which are not included in the sample; in fact, for employment in large firms, notably those with 500 or more employees, the difference between the survey results and Istat's findings is minimal (see the press release Lavoro e retribuzioni nelle grandi imprese - Dicembre 2006, issued in February 2007). The national accounts, unlike the survey, incorporate an estimate of unregulated employment.

[^3]:    ${ }^{8}$ The tourism sector includes hotels, bars and restaurants.
    ${ }^{9}$ According to the quarterly survey Indagine sulle aspettative di inflazione e crescita, which the Bank of Italy conducts jointly with the financial newspaper Il Sole-24 Ore on a sample of 500 firms with 50 employees and over, in March 2007 some 30.7 per cent of industrial firms forecast a rise in employment by the end of June, while 20.2 per cent predicted a decrease; for service firms the respective proportions were 40.4 and 16.3 per cent.
    ${ }^{10}$ See Table a8.21 in the appendix of the Italian version of the Bank of Italy's annual report, Relazione Annuale sul 2006.
    ${ }^{11}$ Labour turnover, which is a notable indicator of the speed of staff renewal, is the ratio between the sum of hirings and terminations in the year and average employment.

[^4]:    ${ }^{12}$ In accordance with ESA95, gross fixed investment is defined as the addition of capital assets to the firm's existing stock in the reference period. Capital assets consist of tangible goods, software, databases and mineral exploration. They are the result of a production process and are used repeatedly or continuously in the production of goods and services for more than a year. Gross fixed investment includes depreciation and purchases of the tangible goods used, the latter being excluded from the national accounts aggregate. According to the survey they represented an estimated 2 per cent of the total in 2006.
    ${ }^{13}$ See Appendix A for details of the method of deflation.

[^5]:    ${ }^{14}$ The realisation rate is the ratio between actual spending during the year and planned expenditure at the end of the previous year.
    ${ }^{15}$ L. D'Aurizio, S. Iezzi and R. Tartaglia-Polcini (2007), Investment plans in business surveys: an empirical analysis for the Italian manufacturing sector, mimeo, Bank of Italy.

[^6]:    ${ }^{16}$ D. Lovallo and D. Kahneman (2003), Delusions of Success: How Optimism Undermines Executives' Decisions, Harvard Business Review, July, 56-63.
    ${ }^{17}$ T.F. Rötheli (1998), Forecasting among alternative strategies in the management of uncertainty, Managerial and Decision Economics, 19/3, 179-187.

[^7]:    ${ }^{18}$ Usually, the purpose of shareholders' agreements is to stabilise the ownership structure. In this respect they may lead to more efficient management, but they can also help to perpetuate inefficient arrangements (see M. Bianchi et al., Proprietà e controllo delle imprese in Italia, Bologna, Il Mulino, 2005). An increase in their number could indicate a growing perception that informal methods of exercising and stabilising control (family ties or personal friendship) have become less effective.

[^8]:    ${ }^{19}$ The volume of trade credit is particularly large in Italy. See, for instance, L. Cannari, S. Chiri, M. Omiccioli (eds), Imprese o intermediari? Aspetti finanziari e commerciali del credito tra imprese in Italia, Bologna, Il Mulino, 2005.

[^9]:    ${ }^{20}$ The ratio of trade credit to total turnover, multiplied by 360 , gives an underestimate of the average actual duration. This is longer than the average duration of the contract, partly owing to late payment and partly to the fact that part of turnover is in cash.
    ${ }^{21}$ Trade credit has two-part terms if the extension of payment entails a cost for the purchaser, such as forgoing a discount, allowance or gift and/or paying a supplement or an interest rate.

[^10]:    ${ }^{22}$ It appears that a profit was posted in 2006 by 66.2 per cent of firms operating in the same sector as in 2000 and by 70.9 per cent of those that moved into an adjacent branch; the proportion drops to 54.8 per cent for firms that moved into a completely different field from before. However, the last result could be due to several factors: major changes could have been prompted by difficulties; they could entail greater risk as the firm moves in a new competitive environment; and, finally, profits naturally tend to be lower during the launch of a new activity.
    ${ }^{23}$ For an examination of the strategies adopted by industrial firms in recent years see S. Rossi, La Regina e il Cavallo. Quattro mosse contro il declino, Rome-Bari, Editori Laterza, 2006.
    ${ }^{24}$ According to a field survey conducted at the same time as the sample survey by means of detailed interviews of a small number of entrepreneurs, the most important elements are research and design during product development, investment in trademark, marketing, and the creation of commercial networks to penetrate markets. Services specifically targeted to satisfy customers' requirements are often crucial as well.

[^11]:    ${ }^{25}$ Internationalisation is positively correlated with operating results: 75.9 per cent of firms with a direct presence abroad between 2000 and 2006 showed a profit, compared with 66.3 per cent of firms with no foreign ties.

[^12]:    ${ }^{26}$ It emerges that 67.1 per cent of firms run by someone over 65 years of age posted a profit, compared with 69.6 per cent of those run by someone younger. These results bear out the calculations based on data from CERVED for the universe of joint-stock companies that filed a balance sheet in 2003 and 2004: the results show that turnover growth tends to slow as the age of the managing director increases.

[^13]:    ${ }^{27}$ Satisfaction with company size is correlated with the percentage of firms posting a profit in 2006, showing that entrepreneurs' assessment of the firm's size depends on its actual performance.
    ${ }^{28}$ The sector includes utilities, which are regulated in various ways.
    ${ }^{29}$ ERP (Enterprise Resource Planning) is the most complete and fully integrated version of the MRP system (Material Requirements Planning), used for optimal automated inventory management; it can notify when to issue new orders (for purchase or production) and for how much on the basis of inventory management criteria. It is useful when a product requires the assembly of several components with specific production times; it also serves to optimise timing (and quantities to be ordered) so that everything is ready as required. ERP has the following additional features with respect to MRP: quality control; automatic link to supplier's stocks; client access to production and sales plans and optional automatic despatch of purchase order to supplier.
    ${ }^{30}$ The increase can be ascribed to the growing importance of research, marketing and sales network, which require better qualified human resources than in the past.

[^14]:    ${ }^{31}$ The national accounts, which also take account of firms with fewer than 20 employees (representing 80 per cent of the workforce in the construction industry), record employment growth of 0.4 per cent.
    ${ }^{32}$ According to the survey, production increased by 4.3 per cent at current prices between 2005 and 2006. In the same period, according to the national accounts production in the whole sector grew by 5.2 per cent at current prices and by 2.1 per cent at constant prices. The quarterly index of production in the construction sector, another source of official statistics, has calculated an unadjusted annualised increase of 3.4 per cent.

[^15]:    ${ }^{33}$ This is the reference year of the survey, which is actually conducted in the early months of the following year.
    ${ }^{34}$ The survey does not include financial intermediation (on which the Bank of Italy has a vast dataset collected for institutional purposes of banking supervision and monetary policy) and insurance, general government, the school and health sectors, and other social and personal public services
    ${ }^{35}$ For further details the reader is referred to the first periodical publication of the survey, Banca d'Italia, 'Survey of Industrial and Service Firms - Year 2003', Supplements to the Statistical Bulletin - Sample Surveys, 55, 20 October 2005.

[^16]:    ${ }^{36}$ Istat, Archivio statistico delle imprese attive [Statistical Archives of Active Firms], updated to 2004.
    ${ }^{37}$ In terms of workforce, the geographical distribution is more balanced, with firms in the South representing 12.7 per cent of the population and 12.5 per cent of sample; this is due to the fact that they tend, on average, to be smaller.
    ${ }^{38}$ Because the sampling fraction of large firms is larger, the three sub-samples represent respectively 2801, 19.3 and 17.2 per cent of the workforce in the reference populations.
    ${ }^{39}$ The size classes, which are based on the end-of-year workforce until 2003 and on the average annual workforce thereafter, are: $20-49,50-99,100-199,200-499,500-999,1,000-4,999$, and 5,000 and over employees. Firms in the last class form a selfrepresentative (census) stratum. They are always included in the sample, except in rare cases of failure to answer.
    ${ }^{40}$ Piedmont and Valle d'Aosta are regarded as a single region.

[^17]:    ${ }^{41}$ See for example W. G. Cochran, Sampling Techniques, New York, John Wiley \& Sons, 1977.
    ${ }^{42}$ The number of firms assigned for each region is then divided among the Bank's branches, which collect the data. In some areas of the country over-sampling may be performed where necessary for use in studies of the local economy.
    ${ }^{43}$ Typical reasons for leaving the target population are change of activity and staff cutbacks to below the entry threshold. See Section A4.
    ${ }^{44}$ Investment and turnover are not recorded for construction firms; they are replaced by the value of production (total and relating to public works).

[^18]:    ${ }^{45}$ At this stage, the interviewers use a form containing the main variables provided by the firms taking part in the previous survey to run a preliminary check on data consistency.

[^19]:    ${ }^{46}$ For a detailed description of the process see P. Battipaglia, 'Selective Editing to Increase Efficiency in Survey Data Processing. An Application to the Bank of Italy's Business Survey on Industrial Firms', Irving Fisher Committee Bulletin, 13, December 2002, 149-154.
    ${ }^{47}$ Another method of data quality check, based on neural networks, is currently under study as a future complement of the existing editing processes. These focus on identifying the answers with the greatest impact on the most important variables and ignoring the others, which speeds up normal processing times so that the main results of the survey can be published as early as possible. Using neural networks would allow us to organise sample data according to reliability, regardless of their importance for the purpose of producing the estimates usually released. Research is based on an algorithm obtained by using neural networks to construct nonparametric and non-linear classifiers that can identify adaptively any outlier variables, thus improving the quality checks on micro-data. See C. Biancotti and R. Tartaglia-Polcini, 'Artificial Neural Networks for Data Editing', Irving Fisher Committee Bulleting, 21, July 2005, 99-07 and C. Biancotti, L. D'Aurizio and R. Tartaglia-Polcini, 'A Neural Network Architecture for Data Editing in the Bank of Italy's Business Surveys', paper presented at the 25th International Symposium on Forecasting, San Antonio, USA, 12-15 June 2005.
    ${ }^{48}$ For an analysis of the situations in which a ratio estimator is preferable to the mean see F. Cicchitelli, A. Herzel and G. Montanari, Il campionamento statistico, Bologna, Il Mulino Editore, 1994.
    ${ }^{49}$ Other devices are also used when imputing data. For example, if a cell in which an average is to be calculated contains a very small number of firms, it is merged with neighbouring cells according to size class or geographical area. Moreover, robust averages are calculated in the cells, limiting the influence of outliers in the reconstruction. In some cases specific solutions are used that exploit data collected in the questionnaire, as when there are arithmetic constraints between the variables or weaker links that nonetheless allow a reliable reconstruction of the missing datum. For instance, if a firm does not report the number of hirings during the year, this is calculated by adding the number of terminations to the difference between the workforce at the beginning and end of the year; the same method is used for the number of terminations.

[^20]:    ${ }^{50}$ The symbol $n h$ indicates the actual sample size. This allows the weights to be implicitly corrected to take account of the total of missing responses.
    ${ }^{51}$ Iterative proportional fitting (or raking) simultaneously aligns the sample weights to the distribution of certain characteristics known from outside sources. See for instance V. Verma, Advanced Sampling Method: Manual for Statistical Trainers, Statistical Institute for Asia and the Pacific, Tokyo, 2000, 6.13-6.21.
    ${ }^{52}$ The population of firms is that obtained from Istat, Archivio statistico delle imprese attive, 2004. Updates are published periodically for the population of about two years earlier. The estimates are revised periodically to take account of updates in the survey reference population.
    ${ }^{53}$ See F. Cicchitelli, A. Herzel and G. Montanari, Il campionamento statistico, Bologna, Il Mulino Editore, 1994.

[^21]:    ${ }^{54}$ The estimate of the trend of phenomena based on the data of a single survey has proved much more stable than the estimate obtained from a comparison of the values recorded in adjacent surveys, which sometimes reflect structural changes in the firms that are difficult to take into account, as well as problems of classification and measurement. These aspects are monitored more closely within a same questionnaire, leading to more accurate estimates of changes. However, this method does not take full account of the entry and exit of firms in the target population.
    ${ }^{55}$ On robust estimation techniques in general see for example D.F. Andrews, P.J. Bickel, F.R. Hampel, P.J. Huber, W.H. Rogers and J.W.Tukey, Robust estimates of location, Princeton, Princeton University Press, 1972 or D.C. Hoaglin, F. Mosteller and J.W. Tukey (eds.), Understanding robust and exploratory data, New York, John Wiley \& Sons, 1983. A classic reference for the theory is P. J. Huber, Robust statistics, New York, John Wiley \& Sons, 1981.
    ${ }^{56}$ In the literature, changing the values based on (5) is called 'type II Winsorisation'; when the sampling fraction is not taken into account it is called 'type I Winsorisation': in the latter case, the values beyond the cut-off are completely squashed against it. For a detailed description of the method used to estimate the changes in investments see P. Battipaglia, 'Robust Estimates of Investments from the Bank of Italy's Business Survey', Statistics Research Report, London, London School of Economics, 2000.

[^22]:    ${ }^{57}$ Research is under way to assess whether individual deflators can be used in place of average deflators to estimate variations at constant prices. Estimates based on individual deflators have a smaller standard error if there is a positive correlation between the deflators and the nominal variations at the individual level, which would reduce their variance. Empirical analysis has found that variations in turnover display this property even in the presence of measurement errors. The positive correlation was not found in the case of variations in investments. See L. D'Aurizio and R. Tartaglia-Polcini, 'Use of Deflators in the Bank of Italy's Business Surveys', Working Paper, CESifo, Munich, 14-15 October 2005, http://www.cesifo-group.de
    ${ }^{58}$ For construction firms, total production at constant prices is calculated on the basis Istat's latest deflator for construction, while the production of public works is calculated using Istat's updated deflator for 'other construction', which does not include housing.
    ${ }^{59}$ See Chapter 7 in C. Särndal, B. Swensson and J. Wretman, Model Assisted Survey Sampling, New York, Springer-Verlag, 1992.
    ${ }^{60}$ A classic reference is K. M. Wolter, Introduction to Variance Estimation, New York, Springer Verlag, 1985.
    ${ }^{61}$ This method is well suited to the purpose, as comparisons of its theoretical and empirical properties with those of other replication methods show. See, for example, J. Shao and D. Tu, The Jackknife and Bootstrap, New York, Springer, 1995, which contains a thorough comparative analysis of the two methods of estimating variance.

    62 The partial non-response rates of firms in industry, excluding construction, and services regarding forecasts for 2007 are 10.1 per cent for average workforce, 8.6 per cent for turnover, and 18.6 per cent for investment.

[^23]:    63 See, for example, Chapter 4 in H. Lehtonen and E. Pahkinen, Practical Methods for Design and Analysis of Complex Surveys, New York, Wiley, 2004.

[^24]:    (1) Population data are from Istat and refer to 2004. - (2) The geographical area is defined by the location of the registered head office (North-West = Piedmont, Valle d'Aosta, Lombardy and Liguria; North-East = Veneto, Trentino-Alto Adige, Friuli-Venezia Giulia and Emilia-Romagna; Centre = Tuscany, Umbria, Le Marche and Lazio; South and Islands = Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia). - (3) Does not include firms in credit and insurance, public services and other social and personal services.

[^25]:    (1) As every firm can give more than one reason for reviewing plans, each row may not sum to 100 . - (2) Less than planned expenditure. - (3) More than planned expenditure.

[^26]:    (1) Forecast.

[^27]:    (1) Average points: $1=$ not important; $2=$ not very important; $3=$ important; $4=$ very important.

[^28]:    (1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) of the distribution of annual changes in investments according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). - (2) Ratio between investments effectively made and investments planned at the end of the previous year.

[^29]:    (1) Robust (Winsorised) means obtained by adjusting extreme values (with positive or negative sign) of the distribution of annual changes in investments according to the 5th and 95th percentile. The method takes account of the sampling fractions in each stratum of the sample (Winsorised Type II estimator). The deflator is calculated as the average, at Ateco 2002 sub-section level, of the price indices for their investment spending estimated by the firms interviewed. - (2) Forecast.

[^30]:    (1) $1=$ legal person; $2=$ holding or sub-holding company; group financial company; 3= bank; 4= independent financial company (non-group); insurance company; $5=$ non-financial company; - (2) $1=$ Italian; $2=$ foreign. $-(3) 1=$ public; $2=$ private.

    Are there voting agreements between the shareholders or agreements on the sale of holdings?

[^31]:    (1) Please use the minus sign ('-') in case of negative cash flow. For the definition of cash flow, see the instructions.

[^32]:    (1) Average yearly amounts outstanding. Includes any provision for diminution in value of trade credit. - (2) The purchaser was given an extension of payment at no additional cost and was not offered any discount for early payment (for example, 10 days instead of 40 days after delivery). - (3) The extension of payment entailed a cost for the purchaser, in the sense of forgoing a discount or a complimentary offer and/or of having to pay a higher price or a rate of interest. - (4) Average yearly amount outstanding.

[^33]:    (1) Average yearly amounts outstanding. Includes any provision for diminution in value of trade credit. - (2) The purchaser was given an extension of payment at no additional cost and was not offered any discount for early payment (for example, 10 days instead of 40 days after delivery). - (3) The extension of payment entailed a cost for the purchaser, in the sense of forgoing a discount or a complimentary offer and/or of having to pay a higher price or a rate of interest. - (4) Average yearly amount outstanding.

[^34]:    (1) $1=$ not important; $2=$ not very important; 3=important; 4=very important; $8=$ not applicable.

[^35]:    (1) The item includes collaboration contracts, occasional freelance contracts (with VAT) and project contracts.

[^36]:    (1) 1 =not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable.

    Is your principal electricity supplier still the former monopoly holder? yes

[^37]:    (1) The item includes collaboration contracts, occasional freelance contracts (with VAT) and project contracts..

[^38]:    (1) Tangible assets include property, plant, machinery and equipment and means of transport. - (2) Includes expenditure on original

[^39]:    (1) $1=$ not important; $2=$ not very important; $3=$ important; $4=$ very important; $8=$ not applicable. - (2) Including 5-year university degree, old-style university degree, Italian MA or PhD, foreign MA or PhD.

    Does your firm have ERP management software? (see instructions)

[^40]:    (1) Contribution of private capital in the design, construction and management of public works or services. - (2) Per Art. 37.bis ff. of Law 109/94, as amended. - (3) Per Art. 19 of Law 109/94, as amended. Through the medium of a private sector 'promoter'. - (4) Contract whereby a finance company leases to a public authority a good purchased or produced at the request of that authority, which, when the lease period expires, can either return the good or acquire ownership of it by paying an additional sum. - (5) Such as mixed public and private companies and other specifically regulated arrangements.
    Average time in 2006 between the publication of a call for tenders and the start of construction work (months)........

