# BANCA D'ITALIA
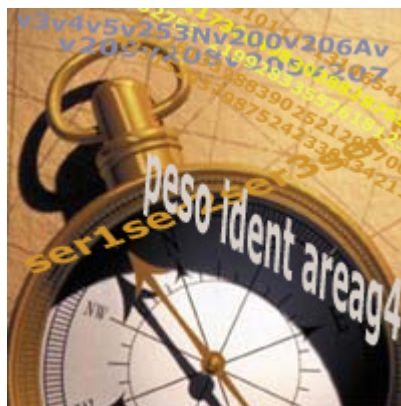
## EUROSISTEMA

*Survey of Industrial and Service Firms*

**BIRD
Bank of Italy Remote
access to micro Data**

# Description of the archives
Version 3.2

November 2014

# Contents

# Description of the archives[1]

## 1.  The yearly survey on industry and services

### 1.1.  General information

Data are available on firms for the period 1984-2012. The information for the various surveys are queued in a single archive and can be separated by the variable **annoril**, which indicates the year to which the survey refers. The data are collected in the early month of the following year. The number of firms in the sample, by sector and size class, is shown in Table 1.

**Table 1**

**SAMPLE SIZE, 1984-2013**

| Sample year | Total industry excluding construction | | of which: manufacturing[1] | | Services | | Total industry and services | |
|---|---|---|---|---|---|---|---|---|
| | 20-49 | ≥ 50 | 20-49 | ≥ 50 | 20-49 | ≥ 50 | 20-49 | ≥ 50 |
| 1984 | - | - | - | 865 | - | - | - | - |
| 1985 | - | - | - | 877 | - | - | - | - |
| 1986 | - | - | - | 874 | - | - | - | - |
| 1987 | - | - | - | 1,069 | - | - | - | - |
| 1988 | - | - | - | 1,039 | - | - | - | - |
| 1989 | - | - | - | 1,053 | - | - | - | - |
| 1990 | - | - | - | 1,071 | - | - | - | - |
| 1991 | - | - | - | 1,027 | - | - | - | - |
| 1992 | - | - | - | 994 | - | - | - | - |
| 1993 | - | - | - | 995 | - | - | - | - |
| 1994 | - | - | - | 953 | - | - | - | - |
| 1995 | - | - | - | 996 | - | - | - | - |
| 1996 | - | - | - | 1,060 | - | - | - | - |
| 1997 | - | - | - | 1,002 | - | - | - | - |
| 1998 | - | - | - | 998 | - | - | - | - |
| 1999 | - | 1,135 | - | 1,107 | - | - | - | - |
| 2000 | - | 1,474 | - | 1,428 | - | - | - | - |
| 2001 | 1,022 | 1,764 | 1,000 | 1,713 | - | - | - | - |
| 2002 | 1,194 | 1,852 | 1,162 | 1,797 | 367 | 556 | 1,561 | 2,408 |
| 2003 | 1,236 | 1,905 | 1,200 | 1,848 | 374 | 620 | 1,610 | 2,525 |
| 2004 | 1,234 | 1,916 | 1,204 | 1,861 | 410 | 666 | 1,644 | 2,582 |
| 2005 | 1,277 | 1,950 | 1,243 | 1,890 | 444 | 715 | 1,721 | 2,665 |
| 2006 | 1,209 | 1,900 | 1,172 | 1,838 | 428 | 715 | 1,637 | 2,615 |
| 2007 | 1,128 | 1,852 | 1,093 | 1,785 | 397 | 686 | 1,525 | 2,538 |
| 2008 | 1,083 | 1,818 | 1,046 | 1,752 | 391 | 660 | 1,474 | 2,478 |
| 2009 | 1,038 | 1,783 | 999 | 1,706 | 403 | 697 | 1,441 | 2,480 |
| 2010 | 1,054 | 1,755 | 1,013 | 1,667 | 396 | 732 | 1,450 | 2,487 |
| 2011 | 1,078 | 1,858 | 1,030 | 1,749 | 425 | 759 | 1,503 | 2,617 |
| 2012 | 1,128 | 1,868 | 1,073 | 1,750 | 428 | 789 | 1,556 | 2,657 |
| 2013 | 1,141 | 1,911 | 1,083 | 1,782 | 387 | 777 | 1,528 | 2,688 |

(1) Until 1998 only industrial transformation firms were observed, comprising all manufacturing firms except for those engaged in coke manufacturing, the treatment of nuclear fuels and oil refineries (Subsection DF of the ATECO 2002 classification).

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[1]  Prepared by Stefania Coscarella, Leandro D'Aurizio, Caterina Di Benedetto and Raffaele Tartaglia Polcini.

Every firm has an ID code (the variable **ident**) that links information regarding the same firm throughout time  This ID is automatically and randomly generated only to allow panel analysis. The pair (**annoril,ident**) identifies the information concerning a given firm in a given year.

<div align="right">**Table 2**</div>

<div align="center">**STRUCTURE OF THE DATA ARCHIVE**</div>

| ANNORIL | IDENT | V24 | V200 | V209 | ... | ... | ... | ... | ... | ... |
|---------|-------|-----|------|------|-----|-----|-----|-----|-----|-----|
| 1984 | 1 | 40 | 10 | 140 | ... | ... | ... | ... | ... | ... |
| 1985 | 2 | 190 | 100 | 2000 | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2006 | 1 | 35 | 20 | 500 | ... | ... | ... | ... | ... | ... |
| 2007 | 2 | 240 | 100 | 7000 | ... | ... | ... | ... | ... | ... |

Table 2 shows the logical structure of the archives, purely for exemplary purposes. In no way can users access individual data or generate similar tables.

The archives contain some variables apt to expand sample estimates to the universe of firms.. In general their use is recommended. Adoption of the sample weights makes it possible to align the structure of the sample with that of the universe in accordance with the stratification variables.[2] It is recommended that they be used in analyses to obtain unbiased estimates reporting to the reference population.

For variables provided by firms in the form of ratios or at any rate without a scale factor, in general weights should be adopted that also take account of the size of the phenomenon. The archives also contain some variables bearing on the classifications used for the stratification in accordance with the sample design. It should be noted that the geographical area is considered in the survey as a post-stratification variable. For the list of the stratification and post-stratification weighting variables, see section 4.5.

The monetary information obtained from the questionnaire are expressed **at current prices and in thousands of euros** (except for the variables concerning **earning**, which are expressed in **euros**), including that for years before the entry into force of the euro.

For some phenomena, such as employment, investment and turnover, the survey collects data for more than one year. In the survey on 2006, for example, it is possible to find information on average employment in 2006 and 2005 and that forecast in 2007 (the year during which the interviews are carried out). This allows annual variations to be calculated without having to make combined use of more than one year of surveys. This choice, which is useful for the purpose of stabilizing the estimate of rates of change, implies, at the micro data level, that it is possible to see the revisions of the values referring to different years in the successive observations, as in the following example concerning average employment (the variables **v15**, **v24** and **v611m**) with reference to a single firm.

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[2]　Since the size of the population is known with a lag, sometimes of one or two years, the weights are calculated provisionally using the size of the population in the strata of the most recent years. They are then recalculated when the data on the population become available. The small divergences between the actual size of the reference population and the sum of the weights are due to the process of post-stratification.

| Reference year | Year for which the level declared refers | | | | |
|---|---|---|---|---|---|
| | 2003 | 2004 | 2005 | 2006 | 2007 |
| 2004 | 115 | 120 | 125 | | |
| 2005 | | 120 | 125 | 80 | |
| 2006 | | | 121 | 100 | 79 |

corresponds to the following content of the database:

| Reference year | Firm | Average employment year t-1 | Average employment year t | Average employment year t+1 (forecast) |
|---|---|---|---|---|
| **annoril** | **ident** | **v15** | **v24** | **v611m** |
| 2004 | 999 | 115 | 120 | 125 |
| 2005 | 999 | 120 | 125 | 80 |
| 2006 | 999 | 121 | 100 | 79 |

During the survey interview, the respondent firm is shown the values submitted the previous year as a memorandum item. However, it is free to revise these values; no imputed values are derived on the basis of this comparison.

Exclusively for the levels of investment and turnover, the archives contain variables expressed in terms of both current and constant prices. The constant prices always refer to the most recent reference year available. For the list of variables involved, see Section 1.4.7.

For some variables the missing data are imputed using a special procedure; to allow researchers to keep trace of such interventions, the archive also contains flag variables (indicators). For the list of variables involved, see Section 1.4.8.

Two archives are available to users. In the first, for all the variables expressed in terms of levels, the data have been winsorized (see Section 1.5 for further details), which in general allows more stable estimates to be obtained because they are less influenced by outliers. The consistency of the accounting constraints between linked variables is nonetheless maintained. The second archive does not have this device. Normally access is permitted only to the archive containing the winsorized data; if researchers wish to carry out calculations using the second archive, they must send an e-mail with a request to **bird_assist@bancaditalia.it**, bearing in mind that calculations carried out using this archive are subject to additional checks. The interval between the calculation and the issuance of the results may therefore be longer.

The questionnaires contain the names of the variables and the related response codes for the qualitative variables. For the yes/no type variables the codes are always 0=no and 1=yes.

The database of the variables in the form of a compressed Excel directory is contained in a [section](#) of the website of the BIRD system.

Since 2010, some variables (clearly flagged on the database) are collected over half the sample. The sections of the questionnaires with some of these

variables are marked with "A" or "B" (the letters indicate respectively the variables collected over the first or the second half of the sample).

A random mechanism divides the sample into two halves and preserves the capability of each half of representing the reference population.

## 1.2.    Periodic updating of the archives

The archives are created year after year on the basis of the responses provided by the firms during the interviews. The responses are subjected to a process of quality control that precedes the creation of the complete dataset.

The estimates published in the Supplements to the Statistical Bulletin refer to the archive available at the time of the calculations and to the most recent universe of firms available.

Small divergences between the archive used for the estimates of the Supplement and that made available for remote calculations may be due both to successive revisions of the responses provided by firms and to revisions to the system of weights owing to the updating of the reference population.

Year after year the dataset with data updated to the new reference year is made available to users of the system during the summer.

Users are notified by e-mail of the availability of a new dataset. While the revision of the weighting system proceeds on a systematic basis, adjustments to the responses of previous years are to be considered entirely episodic.

## 1.3.    Variables in the questionnaires but not in the archives

For confidentiality reasons the questionnaire variables linked to the identification of the respondent firm, such as: tax code, corporate purpose, branch observed, group, municipality, province and region are not available. These variables correspond to the fields at the beginning of each questionnaire.

Also responses to questions of the type "Other, specify" are not made available either.

## 1.4.    Variables in the archives but not in the questionnaires

In addition to the variables present in the questionnaire, the archive contains some derived variables that are useful for calculations and estimates.

### 1.4.1  Classification variables with respect to the year of observation

**annoril**:    indicates the reference year of the survey (e.g. 2007 for the last survey, carried out between January and April 2008).

### 1.4.2. Classification variables with respect to the sector of economic activity

Until 2009 the following variables were obtained by aggregating two-letter groups (sub-sections) of the ISTAT ATECO 2002 classification, according to the following scheme.

| variable | possible values |
|---|---|
| **settor11** | SS1 = Food industries, beverages and tobacco products (DA)<br>SS2 = Textiles, clothing, and hide, leather and footwear products (DB, DC)<br>SS3 = Coke manufacturing, chemical industry, rubber and plastics (DF, DG, DH)<br>SS4 = Processing of non-metallic minerals (DI)<br>SS5 = Metal engineering industry (DJ, DK, DL, DM)<br>SS6 = Other manufacturing industries (DD, DE, DN)<br>SS7 = Other industries excluding construction (CA, CB, E)<br>SS8 = Wholesale and retail commerce (G)<br>SS9 = Hotels and restaurants (H)<br>SS10= Transport and communications (I)<br>SS11= Real estate activities, IT, etc. (K) |
| **indag3** | 1= MANUFACTURING INDUSTRY - Istat ATECO 2002 classification, Section D<br>2= EXTRACTIVE INDUSTRIES – ENERGY - Istat ATECO 2002 classification, Sections C and E<br>3= SERVICES -  Istat ATECO 2002 classification, Sections G+H+I+K |
| **indagine** | 1= INDUSTRY EXCLUDING CONSTRUCTION - ATECO 2002 ISTAT C+D+E<br>2= SERVICES - ATECO 2002 ISTAT G+H+I+K |

Starting from 2010, the classification variables by sector of economic activity are derived by aggregating two-digit groups (divisions) of the ISTAT ATECO 2007 classification, according to the following scheme.

| variable | possible values |
|---|---|
| **settor11** | SS1 =  Food industries, beverages and tobacco products (10,11,12)<br>SS2 = Textiles, clothing, and hide, leather and footwear products (13,14,15)<br>SS3 =  Coke manufacturing, chemical industry, rubber and plastics 19,20,21,22)<br>SS4 =  Processing of non-metallic minerals  (23)<br>SS5 =  Metal engineering industry  (24,25,26,27,28,29,30,33)<br>SS6 =  Other manufacturing industries  (16,17,18,31,32)<br>SS7 =  Other industries excluding construction (05,06,07,08,09,35,36,37,38,39)<br>SS8 =  Wholesale and retail commerce  (45,46,47)<br>SS9 =  Hotels and restaurants  (55,56)<br>SS10= Transport and communications (49,50,51,52,53,58,59,60,61,62,63)<br>SS11= Real estate activities, IT, etc. (68,69,70,71,72,73,74,75,77,78,79,80,81,82) |
| **indag3** | 1 =  MANUFACTURING INDUSTRY  - ISTAT ATECO 2007 section C<br>2 =  EXTRACTIVE INDUSTRIES – ENERGY    - ISTAT ATECO 2007 sections B, D, E<br>3 = SERVICES  - ISTAT ATECO 2007 sections G+I+H+J+L+M+N |
| **indagine** | 1 =  INDUSTRY EXCLUDING CONSTRUCTION  - ISTAT ATECO 2007 sections  B+C+D+E<br>2 =   SERVICES  - -  ISTAT ATECO 2007 sections G+I+H+J+L+M+N |

### 1.4.3 Classification variables with respect to the size class

Up to the 2003 reference year, the size class refers to the number of workers at the end of the year; from 2004 onwards to the average number of workers during the year.[3]

| Name of the variable | Possible values |
|---|---|
| **cldimet** | 0 =    20 - 49 employees<br>1 =    50 - 99<br>2 =   100 - 199<br>3 =   200 - 499<br>4 =   500 - 999<br>5 = ≥ 1,000 employees |

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[3]   The discontinuity is due to the fact that one of the criteria for the inclusion of firms in the sample is their size, in terms of number of workers (Table 1). This criterion was altered from year-end to year-average starting from the 2004 reference year.

| CC2 | 1 =     20 -    49 employees<br>2 =     ≥ 50 employees |
|---|---|

### 1.4.4 Classification variables with respect to the geographical area

For confidentiality reasons the classifications by region and province are not available, only those by macro-region.

| Name of<br>the variable | Possible values |
|---|---|
| **areag4** | 1 = North-West<br>2 = North-East<br>3 = Centre<br>4 = South and Islands |
| **areag2** | 1 = North, Centre<br>2 = South and Islands |

### 1.4.5 Variables concerning the sample design and the weighting system

**strato**: Consisting of 66 combinations of **settor11** and **cldimet**. It should be noted that firms with at least 5,000 workers have a weight of one and can be considered, individually for industry and services, as being part of two separate strata.

**poststrato:** Consisting of 48 combinations of **areag4, cc2** and a re-aggregation of the sectors of economic activity into 6 groups: 1) indag3=1; 2) indag3=2; 3) settor11=ss8; 4) settor11=ss9; 5) settor11=ss10; 6) settor11=ss11.

**peso**: Sample expansion weight: at the strato and poststrato level, the sum of the weights is equal to the number of the reference population, separately for each year and does not take account of the panel dimension of the sample.

**pesoadd**: Sample expansion weight: at the strato and poststrato level, the sum of the weights is equal to the number of the reference population of employees, separately for each year and does not take account of the length of the sample (available from 2007).

**pesoa**: Equivalent to **peso** for firms belonging to rotation "A". It should be used for the variables collected over half the sample (subsample A) (available from 2010).

**pesoadda**: Equivalent to **pesoadd** for firms belonging to rotation "A". It should be used for the variables collected over half the sample (subsample A) (available from 2010).

**pesob**: Equivalent to **peso** for firms belonging to rotation "B". It should be used for the variables collected over half the sample (subsample B) (available from 2010).

**pesoaddb**: Equivalent to **pesoadd** for firms belonging to rotation "B". It should be used for the variables collected over half the sample (subsample B) (available from 2010).

**pesorisc**:　　　The **pesorisc** variable is obtained as the product of **peso** and a suitable scale factor in such a way that, year by year, it sums to the sample number.

**popstr**:　　　Size of the population at the stratum level.

**poppostr:**　　Size of the population at the post-stratum level.

### 1.4.6 Classification variables of the share of turnover exported

| Name of the variable | Possible values |
|---|---|
| **a6**: | 0 = non-exporting firm<br>1 =  less than 1/3 of turnover exported<br>2 =  between 1/3 and 2/3 of turnover exported<br>3 =  more than 2/3 of turnover exported |
| **qexp**: | 1 =  less than 1/3 of turnover exported or non-exporting firm<br>2 =  between 1/3 and 2/3 of turnover exported<br>3 =  more than 2/3 of turnover exported |

### 1.4.7 Variables available at constant prices

The archives contain the values of investment and turnover at both current and constant prices: <u>the latter ones refer both to the most recent survey year and to the specific reference year of every survey edition</u>. Values at constant prices are not present in the questionnaire: they are derived by using the deflators provided by the sample firms in the questionnaire. The individual deflators are aggregated and suitably weighted according to a procedure that is explained in the Methodological Section of the Supplements to the Statistical Bulletin – Sample survey – reporting the survey results and available on the Bank of Italy's web site.

| At current prices | At constant prices referred to the most recent year | At constant prices referred to the survey reference year | Description |
|---|---|---|---|
| **v200** | **v200cos**[a] | **v200k**[a] | Fixed investment t-1 |
| **v202** | **v202cos** | **v202k** | Fixed investment t |
| **v203** | **v203cos** | **v203k** | Fixed investment t+1 |
| **v209** | **v209cos** | **v209k** | Turnover t-1 |
| **v210** | **v210cos** | **v210k** | Turnover t |
| **v437** | **v437cos** | **v437k** | Turnover t+1 |
| **v211** | **v211cos** | **v211k** | Turnover exported t-1 |
| **v212** | **v212cos** | **v212k** | Turnover exported t |
| **v438** | **v438cos** | **v438k** | Turnover exported t+1 |
| **v810** | **v810cos** | **v810k** | Intangible investment t-1 |
| **v811** | **v811cos** | **v811k** | Intangible investment t |
| **v812** | **v812cos** | **v812k** | Intangible investment t+1 |
| (a) Available since 1985. | | | |

It should be noted that according to ESA95 the term "intangible investment" indicates expenditure for software, databases and mineral prospecting; it does not include patents and trademarks, which are included in intermediate consumption.

### 1.4.8 Imputed variables and related indicators

For some fundamental variables the missing data are imputed using a special procedure; to allow researchers to keep track of this intervention, the archive also contains flag variables (indicators). These variables are named with the letter "**f**" followed by the name of the variable, the value of which is 1 in the event of imputation (e.g. the content of the variable **fv200** indicates whether the variable **v200** has been imputed).

The flag variables have a value of 1 or are empty. The value 1 marks imputed data, which can therefore be recognized and, if required, excluded from the calculations. The following table contains the list of the flags of the variables subject to imputation.

**Table 3**

**LIST OF IMPUTATION FLAGS**

| Name of the variable | Section of the questionnaire | Name of the variable | Section of the questionnaire |
|---|---|---|---|
| **fser1** | 1-employment | **fv805** | 1-employment |
| **fser2** | 1-employment | **fv200** | 2-investment |
| **fv15** | 1-employment | **fv201** | 2-investment |
| **fv16** | 1-employment | **fv202** | 2-investment |
| **fv17**[1] | 1-employment | **fv203** | 2-investment |
| **fv18**[1] | 1-employment | **fv633** | 2-investment |
| **fv18a** | 1-employment | **fv634** | 2-investment |
| **fv19**[1] | 1-employment | **fv635** | 2-investment |
| **fv20** | 1-employment | **fv636** | 2-investment |
| **fv21**[1] | 1-employment | **fv637** | 2-investment |
| **fv207** | 1-employment | **fv638** | 2-investment |
| **fv207new** | 1-employment | **fv639** | 2-investment |
| **fv22** | 1-employment | **fv640** | 2-investment |
| **fv23** | 1-employment | **fv641** | 2-investment |
| **fv24** | 1-employment | **fv642** | 2-investment |
| **fv25** | 1-employment | **fv643** | 2-investment |
| **fv27**[1] | 1-employment | **fv644** | 2-investment |
| **fv27a** | 1-employment | **fv645** | 2-investment |
| **fv28**[1] | 1-employment | **fv646** | 2-investment |
| **fv29**[1] | 1-employment | **fv647** | 2-investment |
| **fv30**[1] | 1-employment | **fv648** | 2-investment |
| **fv31** | 1-employment | **fv810** | 2-investment |
| **fv32** | 1-employment | **fv811** | 2-investment |
| **fv611** | 1-employment | **fv812** | 2-investment |
| **fv611m** | 1-employment | **fv816** | 2-investment |
| **fv800** | 1-employment | **fv817** | 2-investment |
| **fv801** | 1-employment | **fv818** | 2-investment |
| **fv802** | 1-employment | **fv819** | 2-investment |
| **fv803** | 1-employment | **fv820** | 2-investment |
| **fv804** | 1-employment | **fv821** | 2-investment |

| Name of the variable | Section of the questionnaire | Name of the variable | Section of the questionnaire |
|---|---|---|---|
| **fv822** | 2-investment | **fser6** | 4-turnover |
| **fv823** | 2-investment | **fser7** | 4-turnover |
| **fv824** | 2-investment | **fv209** | 4-turnover |
| **fv825** | 2-investment | **fv210** | 4-turnover |
| **fv826** | 2-investment | **fv211** | 4-turnover |
| **fv827** | 2-investment | **fv212** | 4-turnover |
| **fv828** | 2-investment | **fv437** | 4-turnover |
| **fv829** | 2-investment | **fv438** | 4-turnover |
| **fv830** | 2-investment | **ffi12** | 5 - finance |
| **fv831** | 2-investment | **ffi14** | 5 - finance |
| **fv217** | 3-production capacity | **ffi16** | 5 - finance |
| **fv219** | 3-production capacity | (1) Flags for variables collected until 1995. | |
| **fv220** | 3-production capacity | | |
| **fv441** | 3-production capacity | | |
| **fser5** | 4-turnover | | |

## 1.5. The winsorized variables

Winsorizing variables[4] offers protection against the instability of estimates caused by outliers. The procedure involved a very small number of firms (0.25 per cent of the sample firms with the highest figures for average employment) and impacted all the variables expressed in terms of (monetary or unit) levels. When the **outlier** variable is put equal to one, it indicates the records subjected to this treatment, while the value 0 indicates all the other records. The consistency of the accounting constraints between linked variables is nonetheless maintained.

## 2. The Business Outlook Survey of Industrial and Service Firms

Data covering all the survey editions since 1993 are available. The survey mainly contains coded variables[5]. Table 4 shows the sample size during the years, broken down by all the sectors and class sizes covered by the survey.

**Table 4**

**SAMPLE SIZE, 1993-2014**

| Sample year | Total industry excluding construction | | of which: manufacturing (1) | | Service Firms | | Total industry and services | |
|---|---|---|---|---|---|---|---|---|
| | 20-49 | ≥50 | 20-49 | ≥50 | 20-49 | ≥50 | 20-49 | ≥50 |
| 1993 | - | - | - | 690 | - | - | - | - |
| 1994 | - | - | - | 722 | - | - | - | - |
| 1995 | - | - | - | 711 | - | - | - | - |

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[4]The process, known as *Type I Winsorization*, consists in ordering the values of a variable and establishing a threshold beyond which the values are all put equal to the value of the threshold.

[5] The questions about the variation of the average employment level between the current and the previous year is coded as: 1="much smaller (more than 5%); 2="z little smaller (between 1,1 and 5%); 3="practically the same (between -1 and 1 %); 4=a little larger (between 1,1 and 5%); 5=much larger (more than 5%).

| Sample year | Total industry excluding construction | | of which: manufacturing [1] | | Service Firms | | Total industry and services | |
|---|---|---|---|---|---|---|---|---|
| | 20-49 | ≥50 | 20-49 | ≥50 | 20-49 | ≥50 | 20-49 | ≥50 |
| 1996 | - | - | - | 716 | - | - | - | - |
| 1997 | - | - | - | 722 | - | - | - | - |
| 1998 | - | - | - | 729 | - | - | - | - |
| 1999 | - | - | - | 730 | - | - | - | - |
| 2000 | - | 835 | - | 810 | - | - | - | - |
| 2001 | - | 1,599 | - | 1,549 | - | - | - | - |
| 2002 | 923 | 1,974 | 899 | 1,922 | 215 | 429 | 1,138 | 2,403 |
| 2003 | 1,209 | 1,913 | 1,182 | 1,852 | 399 | 603 | 1,608 | 2,516 |
| 2004 | 1,173 | 1,921 | 1,140 | 1,860 | 395 | 668 | 1,568 | 2,589 |
| 2005 | 1,206 | 1,949 | 1,172 | 1,882 | 402 | 681 | 1,608 | 2,630 |
| 2006 | 1,264 | 1,997 | 1,231 | 1,928 | 454 | 737 | 1,718 | 2,734 |
| 2007 | 1,147 | 1,911 | 1,111 | 1,846 | 417 | 721 | 1,564 | 2,632 |
| 2008 | 1,117 | 1,949 | 1,081 | 1,881 | 396 | 708 | 1,513 | 2,657 |
| 2009 | 1,059 | 1,736 | 1,023 | 1,670 | 406 | 673 | 1,465 | 2,409 |
| 2010 | 1,088 | 1,874 | 1,054 | 1,797 | 426 | 757 | 1,514 | 2,631 |
| 2011 | 1,061 | 1,855 | 1,021 | 1,761 | 406 | 756 | 1,467 | 2,611 |
| 2012 | 1,080 | 1,838 | 1,033 | 1,732 | 457 | 776 | 1,537 | 2,614 |
| 2013 | 1,090 | 1,900 | 1,031 | 1,777 | 437 | 808 | 1,527 | 2,708 |
| 2014 | 1,136 | 1,982 | 1,074 | 1,857 | 409 | 799 | 1,545 | 2,781 |

(1) Until 1998 only industrial transformation firms were observed, comprising all manufacturing firms except for those engaged in coke manufacturing, the treatment of nuclear fuels and oil refineries (Subsection DF of the ATECO 2002 classification).

Each survey edition is contained in a separate archive; the variables are available in the original coding used in the questionnaire.

A historical archive contains the subset of the variables that have been continuously collected throughout the years. The single editions are distinguished by the variable ANNORIL (year when the interviews have been carried out in the months of September and October). The variables with the same meaning have a unique identifier not found in the separate yearly archives[6]. Table 5 reports the list of the main variables contained in the historical archive.

Since 2010, the variables with the same meaning keep the same code in the yearly datasets.

**Table 5**

### MAIN VARIABLES IN THE HISTORICAL ARCHIVE

| Code | Description |
|---|---|
| stg1 | Fixed investment in the current year compared with the level planned at the end of last year |
| stg2 | Gap compared with planned expenditure |
| stg3 | Planned investment for next year |
| stg4a | Financing of planned investment for next year: current cash flow |
| stg4b | Financing of planned investment for next year: increase of current cash flow |
| stg4c | Financing of planned investment for next year: increase in borrowing |
| stg4d | Financing of planned investment for next year: increase in borrowing |

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[6] For example, the planned investment variation for the following year is identified as s3 in the 1993 survey, as x3 in the 1994 survey, etc.. Response categories also changed during the years. The same identifier stg3 and the same response categories are used in the historical archive instead.

| Code | Description |
|------|-------------|
| stg4e | Financing of planned investment for next year: sale of assets |
| stg4f | Other sources to finance planned investment for next year (public resources, leasing, ecc.) |
| stg4g | Financing of planned investment for next year: not applicable |
| stg4h | Financing of planned investment for next year: do not know, no answer, not applicable |
| stg5 | Bank loans: forecast 6 months ahead |
| stg6 | Average size of the workforce compared with last year |
| stg7 | Wage increases not provided by collective national agreements |
| stg8 | Amount of wage increases |
| stg9a | Sales revenue(domestic and foreign markets): change expected in Q1-Q3 of current year compared with Q1-Q3 of last year |
| stg9b | Sales revenue(foreign market): change expected in Q1-Q3 of current year compared with Q1-Q3 of last year |
| stg10a | Orders/sales of the firm's products/services - current trend compared with the end of June; domestic and foreign markets |
| stg10b | Orders/sales of the firm's products/services - current trend compared with the end of June; foreign markets |
| stg11a | Orders/sales of the firm's products/services - forecast 6 months ahead: domestic and foreign markets |
| stg11b | Orders/sales of the firm's products/services - forecast 6 months ahead: foreign markets |
| stg12 | Production - adjusted trend in Q4 compared with Q3 (only for industrial firms) |
| stg14 | After-tax result expected for the current year |
| stg15 | Economic conditions in the last 6 months |
| stg16 | Economic conditions in the next 6 months |
| stp31a | 2nd factor that could lead to an upward revision of planned investment for the following year |
| stp31b | 1st factor that could lead to a downward revision of planned investment for the following year |
| stp32a | 2nd factor that could lead to a downward revision of planned investment for the following year |
| stp32b | Excluding seasonal fluctuations and considering all your funding needs (for fixed investment, working capital, etc.), indicate the change in the firm's external funding needs (bank loans, leasing, factoring, intra-group loans, contributions of capital, etc.) between H2 of previous year and H1 of current year |
| stp33aa | Excluding seasonal fluctuations and considering all your funding needs (for fixed investment, working capital, etc.), indicate the change in the firm's external funding needs (bank loans, leasing, factoring, intra-group loans, contributions of capital, etc.) between H1 and H2 of current year |
| stp33ab | Excluding seasonal fluctuations, indicate the change in the firm's demand for bank loans between H2 of previous year and H1 of current year |
| stp33ba | Excluding seasonal fluctuations, indicate the change in the firm's demand for bank loans between H1 and H2 of current year |
| stp33bb | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in funding needs for fixed investment (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33ca | Main factors in the change in the firm's demand for bank loans in H2 of current year: – change in funding needs for fixed investment (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33cb | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in funding needs for stocks and working capital (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33da | Main factors in the change in the firm's demand for bank loans in H2 of current year (forecast): – change in funding needs for stocks and working capital (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33db | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in funding needs for debt restructuring (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33ea | Main factors in the change in the firm's demand for bank loans in H2 of current year (forecast): – change in funding needs for debt restructuring (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33eb | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in self-financing capacity (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33fa | Main factors in the change in the firm's demand for bank loans in H2 of current year: – change in self-financing capacity (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp33fb | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in recourse to other forms of funding (non-bank loans, bonds) (answer only if the response to |

| Code | Description |
|------|-------------|
| | question 6 variable P32 was 1, 2, 4 or 5) |
| stp34aa | Main factors in the change in the firm's demand for bank loans in H2 of current year (forecast): – change in recourse to other forms of funding (non-bank loans, bonds)(answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp34ab | Main factors in the change in the firm's demand for bank loans in H1 of current year: – change in other factors (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp34b1a | Main factors in the change in the firm's demand for bank loans in H2 of current year (forecast): – change in other factors (answer only if the response to question 6 variable P32 was 1, 2, 4 or 5) |
| stp34b1b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: overall |
| stp34b2a | Change in the firm's borrowing conditions between H1 of current year and H2 of current year: total |
| stp34b2b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: level of interest rates |
| stp34b3a | Change in the firm's borrowing conditions between H1 and H2 of  current year:  level of interest rates |
| stp34b3b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: level of other costs   (banking fees, etc....) |
| stp34b4a | Change in the firm's borrowing conditions between H1 and H2 of  current year:  level of other costs (banking fees, etc....) |
| stp34b4b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: amount of collateral  required |
| stp34b5a | Change in the firm's borrowing conditions between H1 and H2 of  current year:  amount of collateral  required |
| stp34b5b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: access to new financing |
| stp34b6a | Change in the firm's borrowing conditions between H1 and H2 of  current year:  access to new financing |
| stp34b6b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: time necessary to obtain new funds |
| stp34b7a | Change in the firm's borrowing conditions between H1 and H2 of  current year:  time necessary to obtain new funds |
| stp34b7b | Change in the firm's borrowing conditions between H2 of previous year and H1 of current year: complexity of information needed to obtain new funds |

In all the archives every firm is uniquely identified by the variable **ident**, the same used for the yearly survey on industry and service. the variable enables to match data referring to more than one year. the couple (annoril, ident) uniquely identifies the data provided by the firm in a given year.

All the archives contain variables not originally present in the questionnaire; these variables are useful for calculations and estimates and are the same present in the archives containing the surveys of industrial and service firms (see sections 1.4.1-1.4.6), with the following differences:

**annoril**:        indicates the sample year (e.g. 2007 for the surveys carried out between September and October 2007); for annual survey, carried out in the first months of next year, indicates the reference year.

The weighting system only considers two types of sample expansion weight:

**pesorisc**:        reproduces the distribution of the reference population at strato and poststrato levels, sums to size of sample.

**pesoadd**:        reproduces the distribution of workers of the reference population at strato and poststrato levels, sums to size of sample.

The variable **pesoadd** is recommended to calculate a frequency distribution of a variable that takes into account the size of firms and therefore assigns greater importance to the answer given by the largest companies (in terms of employees).

In all the archives with the business outlook survey data the variable a6 has the same categories used for the yearly survey. We show them below again:

Please note that both in the historical archive and in the annual archives the variable A6 has the same coding that is used in the Survey of industrial and Service firms. This is reproduced below for convenience:

| | |
|---|---|
| **a6**: | 0 = non-exporting firm<br>1 = less than 1/3 of turnover exported<br>2 = between 1/3 and 2/3 of turnover exported<br>3 = more than 2/3 of turnover exported |

The previous coding is different from that originally used in the questionnaire:

| | |
|---|---|
| **a6**: | 1= non-exporting firm<br>2 = less than 1/3 of turnover exported<br>3 = between 1/3 and 2/3 of turnover exported<br>4 = more than 2/3 of turnover exported |

The database with the available variables (zipped MS excel document) is in a specific section of the Bank of Italy's internet website. Highly confidential variables are not available.

For confidentiality reasons, the variables linked to the identification of the respondent firm, such as: tax code, corporate purpose, branch observed, group, municipality, province and region are not available. These variables correspond to the fields at the beginning of each questionnaire. Also responses to questions of the type "Other, specify" are not made available either.