

BACH Working Group

**Working Paper**

## The Bank for the Accounts of Companies Harmonized (BACH) database

ECB Statistics Paper, No. 11

**Provided in Cooperation with:**

European Central Bank (ECB)

*Suggested Citation:* BACH Working Group (2015) : The Bank for the Accounts of Companies Harmonized (BACH) database, ECB Statistics Paper, No. 11, ISBN 978-92-899-1907-4, European Central Bank (ECB), Frankfurt a. M., <https://doi.org/10.2866/539767>

This Version is available at:

<https://hdl.handle.net/10419/154646>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



EUROPEAN CENTRAL BANK

EUROSYSTEM

## Statistics Paper Series

BACH Working Group The Bank for the Accounts  
of Companies Harmonized  
(BACH) database

No 11 / September 2015



**Note:** This Statistics Paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB

# Contents

<b>Abstract</b>	<b>2</b>
<b>Executive summary</b>	<b>3</b>
<b>1 Introduction</b>	<b>5</b>
<b>2 The BACH database</b>	<b>7</b>
2.1 The contents of the database	7
2.2 The main potentialities and limitations of the database	12
<b>Box 1</b> Variable samples and sliding samples	13
<b>Box 2</b> Variable samples versus sliding samples; a real example for French trade SMEs	15
2.3 Data providers, samples, sources and accounting practices	16
<b>3 Recent developments and their future impact on BACH</b>	<b>23</b>
3.1 Revision of the European Union accounting directives	23
<b>Box 3</b> Transposition of the new Accounting Directive	25
3.2 Implementation of ESA 2010 – The case of holding companies	26
<b>4 Case study: the manufacturing sector</b>	<b>28</b>
4.1 The sector and its representativity in BACH	28
4.2 The Importance and structure of the sector	29
4.3 An assessment of the economic and financial situation of the sector	31
<b>Annex 1</b> Overview of the information available in the BACH database	36
<b>Annex 2</b> National deviations	42
<b>Annex 3</b> National sampling methods and metadata on data collection	45
<b>Annex 4</b> Task force for holding companies and head offices: recommendations	50
<b>Annex 5</b> The ECCBSO	52
<b>Annex 6</b> BACH's history and the BACH WG	54
<b>References</b>	<b>56</b>

# Abstract

The Bank for the Accounts of Companies Harmonized (BACH) is a free-of-charge database containing the aggregated accounting data of non-financial incorporated enterprises for, so far, 11 European countries. While the individual accounts feeding the database were originally prepared in line with national accounting standards consistent with European Accounting Directives, they have been harmonised with a view to preserving, to the greatest extent possible, the cross-country comparability of the resulting data.

This article presents the methodology underpinning BACH, including the content of the database. It describes the characteristics of national samples and outlines the harmonisation process. BACH is a unique tool for analysing and comparing the financial structure and performance of firms across European countries. A simple case study is also presented in support.

**Keywords:** European non-financial corporations, statistics, accounting standards, annual individual accounts

**JEL-codes:** C81, M41

## Executive summary

The Bank for the Accounts of Companies Harmonized (BACH) database is a very powerful and unique tool for evaluating the economic and financial performance of European non-financial corporations. The information it provides is relevant to several groups of users and purposes, including researchers, national central banks and other institutions (for macroeconomic analysis and to support decision making), companies (as a benchmark) and also to credit and financial institutions (in credit risk analysis). The importance of the BACH database is well recognised by the European Banking Authority (EBA, 2012): “The BACH database is the most reliable source of available data containing balance sheet and profit and loss data for European companies.”

BACH is a free-of-charge database containing the aggregated accounting data of non-financial incorporated enterprises for, so far, 11 European countries (Austria, Belgium, Czech Republic, France, Germany, Italy, the Netherlands, Poland, Portugal, Slovakia and Spain). Four more European countries will join the BACH database in the coming years (Denmark, Luxembourg, Romania and Turkey).

The BACH database facilitates the evaluation of the economic and financial performance of European non-financial corporations, based on the Nomenclature of Economic Activities (NACE<sup>1</sup> Revision 2), and using detailed and harmonised aggregated data to make cross-country comparisons. The underlying data cover the period from 2000 onwards<sup>2</sup>, providing a large level of detail by business sector (17 NACE sections and about 80 NACE divisions) and size class (based on net turnover, allowing the user to select small, medium and large firms) at country level. Data are available in variable and sliding samples.

International accounting harmonisation is not an easy task – the main concern in defining BACH indicators is the minimisation of the differences in accounting practices among countries. For that purpose, an extensive stock-taking exercise covering each national database/accounting item was conducted. In this sense, the BACH database currently represents a significant data harmonisation effort both within and across countries, with a view to minimising differences in accounting practices among countries, minimising gaps/breaks in time series/limitations of national samples, providing complete accounting statements, and fulfilling user needs, while adjusting to the requirements of modern analysis.

BACH data are based on accounting figures, in accordance with national accounting standards, and include a set of indicators related to the balance sheet (22), the income statement (41), the notes on investment behaviour (3) as well as economic

---

<sup>1</sup> NACE is a common statistical classification of economic activities in the European Community. Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishes the statistical classification of economic activities NACE Revision 2, and amends Council Regulation (EEC) No 3037/90 as well as certain EC regulations on specific statistical domains.

<sup>2</sup> For some countries, data start in a different year (after 2000).

and financial ratios (29), which have previously been subjected to several tests, in each country and across countries, in order to guarantee the quality of the underlying data.

# 1 Introduction

The non-financial corporation (NFC) sector<sup>3</sup> is the backbone of the European economy. According to Eurostat, the NFC sector provides by far the biggest share of nominal gross value added in the euro area. In 2013, 58% of nominal gross value added came from the NFC sector, 22% from households, 5% from financial corporations and 15% from the general government sector<sup>4</sup>.

This article aims to describe the particularities and contents of the Bank for the Accounts of Companies Harmonized (BACH) database, noting the main advantages and potentialities of BACH. Reference is made to the national data providers, samples, sources and accounting practices (**Chapter 2**):

- The national institutions that provide BACH data collect the data for different uses (statistics, banking supervision and credit rating). This partially explains differences in coverage rates as well as variations in the level of detail of national samples;
- Some countries have administrative databases that cover the entire population of non-financial corporations (NFCs). For other countries, subsets of the total population are available, in which large companies are generally overrepresented. In either case, trends and cross-country comparability are generally reliable;
- Since one of the uses of the data available is cross-country comparison, while the BACH database was being built the harmonisation of concepts was always a concern. Although the different national accounting standards are based on a single European Accounting Directives package, there is a broad spectrum of national specificities that hamper cross-borders comparability. Substantial harmonisation efforts have been undertaken in recent years; the consistency and robustness of the indicators with regard to national accounting practices have been taken into consideration;
- The database includes a rich set of indicators for the income statement, the balance sheet, investment behaviour and economic and financial ratios. For all these variables it is possible, by country, to combine both enterprise size and the economic activity sector for a time span larger than a decade;

---

<sup>3</sup> The NFC sector represents one of the economy's institutional sectors. The institutional sectorisation of economic agents is carried out in accordance with the 2010 European System of National and Regional Accounts (ESA 2010), approved by Council Regulation (EU) No 549/2013 of 21 May 2013. ESA 2010 is a harmonised reference concerning the compilation methodology and deadline release of the national accounts of European Union countries. According to this regulation, sole proprietorships are included in the household institutional sector. See also BACH Userguide, chapter 3.2 – Database contents.

<sup>4</sup> Eurostat. Contributions of each institutional sector to macroeconomic developments. See <http://ec.europa.eu/eurostat/web/sector-accounts/data/annual-data>.

- Together with the database, complementary BACH products and services are available free of charge, allowing the user to gain detailed knowledge of European companies. These currently include “Outlook” booklets and “Yearly Get Insights”.

**Chapter 3** explores progress made in some areas that could have potential future impact on BACH aggregates, focusing on the recent revision of the European accounting framework:

- Directive 2012/6/EU of 14 March 2012 on micro-entities offers European Union Member States the option of creating a specific regulation for these enterprises. Member States are allowed to exempt their micro-undertakings from different obligations, allowing them, for example, to publish a very simplified balance sheet and income statement;
- Similarly, the new Accounting Directive 2013/34/EU of 29 June 2013 diminishes the administrative burden on small-sized enterprises, at a cost of demanding less accounting information, particularly for smaller companies.

It is worth noting that this chapter also refers to the implementation of the new European System of National and Regional Accounts (ESA 2010).

**Chapter 4** provides a summary of a simple case study in the European manufacturing sector. This is intended to serve as a “use-standard” for a BACH-based analysis and as a reference guide for the user since it highlights some important features of the database. The chapter is not intended to restrict the user’s analysis - there are several other options based on BACH data. The chapter highlights are:

- A BACH database user guide (“Userguide”) is available. This covers the methodology underpinning the data following a user-friendly approach. It supports the process of observing variables to obtain the extra information needed to compare data;
- For each indicator, the weighted mean, the median as well as dispersion measures (first and third quartile) are made available, enabling the user to better understand the underlying distribution of the indicator;
- Additionally, absolute values are also available, allowing users to construct their own indicators, such as the average of a group of countries or sectors;
- Depending on the analysis and on the coverage rate available, in some cases it is preferable to use sliding samples instead of variable samples.



## 2 The BACH database

### 2.1 The contents of the database

The BACH database is a very powerful and unique tool for evaluating the economic and financial performance of European non-financial corporations, providing sufficient detailed and harmonised aggregated data to make cross-border comparisons.

The information provided is relevant to several users and purposes, including researchers, national central banks and other institutions (for macroeconomic analysis and for supporting decision making), companies, and also to credit and financial institutions (in credit risk analysis). In the words of the European Banking Authority (EBA, 2012) in the Assessment of SME proposal for CRD IV/ CRR: “The BACH database is the most reliable source of available data containing balance sheet and profit and loss data for European companies.”

BACH is a free-of-charge database containing aggregated accounting data from non-financial incorporated enterprises, from, so far, 11 European countries (Austria, Belgium, Czech Republic, France, Germany, Italy, the Netherlands, Poland, Portugal, Slovakia and Spain). Four more European countries will soon be ready to join the BACH database in the coming years (Denmark, Luxembourg, Romania and Turkey). The BACH database is hosted by Banque de France (<http://www.bach.banque-france.fr/?lang=en>).

Under the auspices of the European Committee of Central Balance Sheet Data Offices (ECCBSO)<sup>5</sup>, the BACH Working Group (WG)<sup>6</sup> is responsible for maintaining and developing the BACH database.

The BACH database allows the economic and financial performance of European non-financial corporations to be evaluated, based on the Nomenclature of Economic Activities (NACE Revision 2), using detailed and harmonised aggregated data to make cross-country comparisons. The underlying data come from the non-consolidated accounting statements of incorporated enterprises in several European countries, aggregated in each country by business sector and enterprise size. The data cover the period from 2000 onwards<sup>7</sup>, providing a high level of detail by business sector (17 NACE sections and about 80 NACE divisions) and size class (based on net turnover, allowing the user to select small, medium and large firms) at country level, available in variable and sliding samples.

---

<sup>5</sup> The ECCBSO is an informal body whose members consist of experts either from Central Balance Sheet Data Offices (CBSOs) belonging or associated with the national central banks (NCB) or from national statistical institutes (NSI) of the European Union. More details on the ECCBSO may be found in Annex 5: The ECCBSO.

<sup>6</sup> Annex 6 presents information on history of BACH and the BACH WG, including its current composition.

<sup>7</sup> For some countries, data start in a different year (after 2000).

The coverage rates in terms of number of firms, net turnover and number of employees are disclosed for each combination (financial year/enterprise size class/business sector/sample), depending on the availability of these data in each country. All indicators are stated in terms of weighted means<sup>8</sup> and quartiles (the median as well as the first and third quartiles, which indicate the underlying data distribution). Some absolute values are also provided, which includes the “total assets”, “net turnover”, “gross value added”, “number of firms” and “employees”. Additionally, the “number of firms” used for the quartile calculation is also disclosed.

BACH data are based on accounting figures, following national accounting standards, and include a set of indicators for business analysis relating to the balance sheet (22), the income statement (41), the notes on investment behaviour (3) and economic and financial ratios (29), that have previously been subjected to several tests, in each country and across countries, in order to guarantee quality underlying the data.

The balance sheet indicators are expressed in terms of “total assets”, while the income statement and the indicators for the notes are expressed in terms of “net turnover”. The possibility of determining the values of balance sheet ratios, income statement ratios and items of the notes expressed in weighted means should be considered, once the absolute values for “total assets” and “net turnover” have been obtained.

Furthermore, these indicators are based on a common template, having been harmonised to increase plausible cross-country comparability among BACH aggregates, and also widened because the same classification is used for the size class and business sector (see Annex 1: Overview of the information available in the BACH database).

While building the BACH samples, some countries (e.g. Germany) exclude unlimited liability companies since their inclusion would weaken the comparability of their BACH data with other countries to a significant extent. However, for most countries which include companies with unlimited liability, the proportion of these companies is insignificant (in most cases below 1%).

For other countries (e.g. Portugal) the BACH samples cover the NFC institutional sector, as defined in ESA 2010. Several legal forms for companies coexist in BACH, given that this is not taken into account in the definition (for example, partnerships can exist in BACH). Nevertheless, more than 98% of the companies in the BACH database are limited liability companies. Sole proprietorships are excluded from all national samples.

The following paragraphs present a detailed summary of the database contents:

---

<sup>8</sup> The weighted mean corresponds to the ratio between the sum of the individual values underlying the concept (numerator) and the sum of the individual values (denominator), taking into account in both cases the sample values in each combination (financial year/enterprise size class/business sector/sample).

**Time span** – Data start in 2000<sup>9</sup>. Data for a new year are normally first added to the database in the fourth quarter of the following reference year.

**Countries** – Austria, Belgium, Czech Republic, France, Germany, Italy, the Netherlands, Poland, Portugal, Slovakia and Spain. Four more European countries will be ready to join the BACH database (Denmark, Luxembourg, Romania and Turkey) in the coming years.

**Size class** – Classification of enterprises by size is based on the Recommendation of the European Commission, 6 May 2003 (2003/361/EC); as concerns turnover<sup>10</sup>, two major enterprise size classes are considered:

- Large companies (BACH code 2) – turnover higher than EUR 50 million;
- Small and Medium Enterprises (SMEs) (BACH code 1) – turnover lower than EUR 50 million. SMEs are also split into two details, identified as follows:
  - BACH code 1a – Small companies (turnover lower than EUR 10 million);
  - BACH code 1b – Medium-sized companies (turnover between EUR 10 million and EUR 50 million).
- In the BACH database it is also possible to obtain information with no classification for size class, allowing the user to construct several types of total for a specific selected combination.

**Variable and sliding samples** - Two types of data selection are made available: a variable sample and a sliding sample. For a given year ("year n"), the variable sample includes all enterprises present in the database in that year (using the code "0"), while the sliding sample includes all enterprises that are present in two consecutive years. In this case the sliding sample uses the code "1" to identify the current year ("year n") and the code "-1" to identify the previous year ("year n-1"). For instance, the sliding sample for 2009 includes enterprises present in both 2009 ("year n") and 2008 ("year n-1"), the current and previous years respectively, which allows the same subset of enterprises to be compared over two consecutive years. For 2010 it includes both 2010 ("year n") and 2009 ("year n-1") and so on.

These two samples can produce different results, depending on the real business demography and the contents of the database (see Annex 3), particularly for national samples based on subsets of corporations with a bias in terms of coverage of the population.

Box 1: Variable samples and sliding samples explains these two concepts and Box 2: Variable samples versus sliding samples; a real example for the French Trade

<sup>9</sup> For some countries data start in a different year (after 2000).

<sup>10</sup> In the definition of enterprise size class, the European Commission takes three variables into account: turnover, number of employees and total assets. The different types of relationships between enterprises are also considered. However, due to limited access to the number of employees and total assets variables, as well as the lack of information about groups of corporations, the enterprise size class in BACH only considers turnover thresholds.

SMEs presents a numerical example. It is important to bear in mind that, for some countries, the variable sample corresponds to the second year of the sliding sample.

**Business sector** – business sector is based on the Nomenclature of Economic Activities (NACE Revision 2), which includes 17 NACE sections and about 80 NACE divisions.

In general, all sections and divisions of NACE Revision 2 relating to the NFC institutional sector are available in BACH, which completely excludes sections *O – Public administration and defence; compulsory social security*, *T – Activities of households as employers; undifferentiated goods and services-producing activities of households for own use* and *U – Activities of extraterritorial organisations and bodies*.

It is worth highlighting the treatment of holding companies and head offices of the NFC sector in BACH:

- (i) In the case of *NACE K – Financial and insurance activities*, data are only provided for the group *NACE K642 – Activities of holding companies* (in this case, no details for the section and division of NACE Revision 2 are provided).
- (ii) For *NACE M – Professional, scientific and technical activities*, data are also provided for the groups *NACE M701 – Activities of head offices* and *NACE M702 – Management consultancy services*.
- (iii) Data is provided for the NFC total excluding holding companies and head offices: BACH code *Z0 – Total NACE without K642*; BACH code *Zc – Total NACE without K642 and M701*.
- (iv) For holding companies and head offices (*NACE K642 – Activities of holding companies*; *NACE M701 – Activities of head offices*), a limited number of ratios is provided – in particular, those involving turnover are not made available.

**Outputs and statistical measures** – 95 indicators are provided, covering balance sheet items (41), income statement items (22), items from the notes (3) and economic and financial ratios (29). BACH data offer a variety of outputs for each combination of financial year/enterprise size class/business sector/sample (variable or sliding):

- **Coverage rate:** a measure, for a certain indicator value, of the ratio between the enterprises of the sample and the population of non-financial corporations. In other words, the coverage rate indicates the weight of the enterprises of the sample in terms of the population. Coverage rate is calculated in terms of the number of firms, net turnover and number of employees and is disclosed for each combination (financial year/enterprise size class/business sector/sample), depending on the availability of these data for each country;
- **Absolute values:** for a set of variables previously selected, these are:
  - (a) The number of firms and the number of employees: the number of enterprises and the number of employees, integrating each combination, respectively;

- (b) Total assets, net turnover and the gross value added: reported in thousands of euro.

The possibility of deriving the values of balance sheet ratios, income statement ratios and items of the notes expressed as weighted means should be considered, once the absolute values for total assets and turnover have been obtained.

- **Balance sheet items (41 indicators):** based on a harmonised template and expressed as percentage of total assets;
- **Income statement items (22 indicators) and items from the notes (three indicators):** based on a harmonised template and expressed as percentage of net turnover;
- **Economic and financial ratios (29 indicators):** separately presented as “Financial structure ratios” (6 indicators), “Financial and debt service ratios” (7 indicators), “Profitability ratios” (10 indicators), “Activity and technical ratios” (2 indicators) and “Working capital ratios” (4 indicators).
- **Statistical measures:** the following statistical measures are available:
  - (a) Weighted mean<sup>11</sup> (WM);
  - (b) Quartiles<sup>12</sup> (Q1, Q2, Q3);
  - (c) The number of firms: the number of corporations considered in the calculation of the quartiles is also given for all items.

**Uniform templates** – The BACH database is based on harmonised templates for; (i) the income statement (Annex 1, Table A1.1), (ii) the balance sheet (Annex 1, Tables A1.2 and A1.3), (iii) economic and financial ratios (six financial structure ratios, seven financial and debt service ratios, ten profitability ratios, two activity and technical ratios and four working capital ratios) (See Annex 1, Tables A1.4, A1.5, A1.6, A1.7 and A1.8) and (iv) three notes (See Annex 1, Table A1.9).

The BACH database is complemented by several documents that can be downloaded from the website.

**Calendar** - It should be stressed that BACH data are released in accordance with a predefined calendar (Chart 1, Section 2.3.2).

<sup>11</sup> Weighted mean is the ratio between the sum of the individual values underlying the concept (numerator) and the sum of the individual values (denominator), taking into account in both cases the sample values in each combination (financial year/enterprise size class/business sector/sample).

<sup>12</sup> For each individual ratio, the individual figures for a certain sample are sorted in ascending order. This sample is then divided into four quarters:

First quartile (Q1): 25% of the enterprises have a ratio below this quartile and 75% have a ratio above;

Second quartile or median (Q2): the second quartile is the middle value that cuts the individual observations in half; and,

Third quartile (Q3): 75% of the enterprises have a ratio below this quartile and 25% have a ratio above.

**Userguide** - This describes the main contents and characteristics of the BACH database, in particular (i) database contents, (ii) national samples, (iii) methodology and warnings and (iv) release calendar and contacts.

**BACH Publications** - The following additional products are also currently provided to users:

- (a) **Outlook booklets**: joint studies analysing the relative performance of the European companies making use of the information available in BACH. Three booklets have already been issued:
  - (i) **Outlook #1 (BACH, 2013)**: “SMEs in European countries”;
  - (ii) **Outlook #2 (BACH, 2014)**: “Financial structure and profitability of European companies”;
  - (iii) **Outlook #3 (BACH, 2015)**: “Deleveraging and its effects on the asset side”<sup>13</sup>.
- (b) **Yearly Get Insights**: a yearly portfolio of selected economic and financial indicators providing a quick overview of the recent situation of European companies. Additionally, “Get Insights” explores developments in the European business environment and includes specific topics concerning companies.

## 2.2 The main potentialities and limitations of the database

BACH's potentialities may be summarised as follows:

### **Potentiality #1: Increasing knowledge of non-financial corporations**

BACH is a free-of-charge database that gathers economic and financial information, allowing users to increase their knowledge of European non-financial corporations and to compare their performances across countries.

### **Potentiality #2: Harmonised database**

BACH data are based on a common template for the most important accounting items available in order to increase, as much as possible, cross-country comparability.

### **Potentiality #3: Data richness**

The BACH database gives access to a high level of detail, a wide scope and a high degree of disaggregation of all economic and financial information (See 2.1, describing the features and contents of the BACH Database).

### **Potentiality #4: BACH Userguide**

BACH's user-friendly Userguide can be downloaded from the BACH website. It was designed to provide users with access, as much as possible, to the data available.

---

<sup>13</sup> Outlook #3 is expected to be issued in October 2015.

The guide includes: (1) database contents; (2) national samples; (3) methodology and warnings; and (4) release calendar and contacts.

#### **Potentiality #5: Other BACH free services**

Joint analysis (the “Outlook series”) and yearly portfolios of selected indicators (Get Insights). These provide the vision of the BACH WG on the European NFC sector based on BACH data, as well as a portfolio of didactic tools.

Finally, when using BACH it should be remembered that data come from different CBSOs in differing environments. Countries therefore rely on diverse subsets (which, as a consequence, have differing coverage rates) and varying detail of information. In this context, some **general warnings** should be taken into account:

#### **General warning #1: Heterogeneous samples**

National data samples are not completely harmonised, in particular due to differences in the exhaustiveness and representativeness of the relevant NFC population.

Major caution should be exercised regarding national samples based on subsets of corporations. In these countries, the composition of a sample may change every year and the compilation of time series can raise problems from an analyst’s point of view. The year-on-year trend does not necessarily reflect economic phenomena, but may instead be a consequence of a change in the composition of the sample – “sample composition bias”. On the other hand, some company segments may not be that well represented in the samples, as in the case of micro-enterprises.

#### **General warning #2: State of play of data update**

BACH data providers normally release information for the same year in two stages: (i) data are usually first provided during the fourth quarter of the following year, albeit with less coverage - **provisional data** and (ii) a second release normally takes place during the first half of the year following that, when more definite data are provided - **final data**.

#### **General warning #3: National deviations from the BACH concepts**

National data are not completely aligned with the concepts in the BACH templates. In particular, differences in national accounting practices cannot be completely eliminated.

### **Box 1**

#### **Variable samples and sliding samples**

---

As already mentioned, the BACH database provides, for each country and business sector/enterprise size class, two types of dataset using either a variable sample or a sliding sample. The main difference between the two consists of the following: a sliding sample is based on data from a subgroup of enterprises from the annual database for two consecutive years, while the variable sample does not include this restriction.

The data selection for a sliding sample is always based on the enterprise classification of “year n”. This means that new corporations (formed during “year n”) are not represented or, if applicable, the

corporations that were first covered by the surveys launched in this “year n” are ignored in the statistics. Either condition could lead to an overestimation or an underestimation of the variables. It should be borne in mind that the statistics produced for the same corporations in two consecutive years (“year n” and “year n-1”) reflect, first and foremost, the structures of the samples.

The following scheme explains the difference between the two types of samples available in the BACH database:

**Chart A**

	Year		Sample	Number of companies	Turnover (M€)
2008	2008	SLIDING	-1	500	80
	2009		1	500	78
2009	2009	VARIABLE	0	750	95
2009	2009	SLIDING	-1	600	83
2009	2010		1	600	86

A sliding sample includes the same set of firms over two consecutive years (“year n” and “year n-1”). Thus, from the example above, for a given country/sector/enterprise size, three records are available just for the year 2009:

- (i) “Sample 0”: the variable sample for 2009 includes all the companies whose annual accounts are available in 2009 (750 units);
- (ii) “Sample 1”: the sliding sample for 2008-2009 contains the companies whose annual accounts are available in both 2008 and 2009 (500 units);
- (iii) “Sample -1”: the sliding sample for 2009-2010 contains the companies whose annual accounts are available in both 2009 and 2010 (600 units).

Source: BACH Userguide (2015)



## Box 2

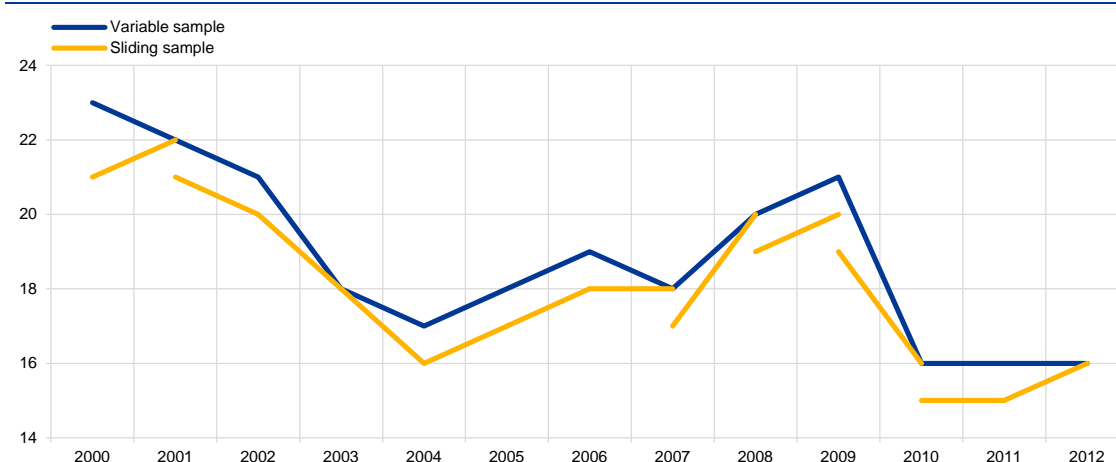
### Variable samples versus sliding samples; a real example for French trade SMEs

This box seeks to describe the importance of the two samples available in the BACH database: sliding and variable samples. For that purpose a selected analysis is used for the ratio “interest on financial debt over EBITDA” (Earnings before interest, tax, depreciation and amortisation) - French SMEs (trade sector) from 2000 to 2012.

Both datasets, variable samples and sliding samples, reflect a decreasing trend for this ratio in the period from 2000 to 2012 (Chart A).

#### Chart A

Trade sector interest on financial debt over EBITDA | French SMEs (2000-2012)



Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>

Notes: (1) Enterprise size 1 – SMEs, sample 0 – Variable samples and sample -1 and 1 – Sliding samples and 1/R22 – Interest on financial debt over EBITDA.

However, analysis focused on the specific years 2001 and 2007 may produce opposite results, with variable samples showing a decrease, sliding samples showing an increase.

The truth is that **both conclusions are complementary**; their justification relies on differing sample composition:

- (a) **Variable sample:** incorporates the demography of the sample. This means that a change in the variable under analysis may be due to firms' exits or entries into the market or into the sample. When the BACH sample coincides with the population, the demography reflected in the variable sample corresponds to the natural movement of firms in one economy. However, when the BACH sample is a subset of the population, the demography is much more that of the BACH sample than that of the population. Thus, in the case of the French SMEs shown in Chart A, the “artificial” change based on variable samples is merely because a company has entered/left the sample. In general, samples based on a subset of the NFC population are more affected by these “artificial” changes.
- (b) **Sliding sample:** considers the same set of companies in a pair of two consecutive years. Hence, when the BACH sample is a subset of the NFC population, two-year trends are represented more accurately. However, if the BACH sample coincides with the NFC population,

the demography dynamics of the NFC are not captured. For economic trend analysis for two consecutive years and cross-country comparability, sliding samples could be more appropriate.

In this sense, the two samples available – variable and sliding – should be seen as important complements for different analysis.

---

## 2.3 Data providers, samples, sources and accounting practices

The underlying data in BACH comes from different national data providers, almost all belonging to central banks. National samples and accounting practices have specific features that bear consideration. These issues are presented as follow:

2.3.1. Data providers;

2.3.2. Samples and sources;

2.3.3. Accounting practices.

### 2.3.1 National data providers

The main source of diversity in BACH comes from the institutional context of CBSOs, which is very closely related to the nature and purpose of their activities (Table 1). Although the overwhelming majority of CBSOs work for NCBs, their missions are dissimilar. In seven countries the main purpose of data collection is the production of statistics, although in one case (Slovakia) risk assessment is another aim. In Belgium, for example, the CBSO plays the role of commercial register in the collection of annual accounts. The major concern of the remaining CBSOs is the scrutiny of the business cycle, risk assessment of bank portfolios and/or supervisory obligations.

Depending on the purpose and the specific situation of each CBSO, different methods of collecting information from companies are in place. As a consequence, different coverage/scope/detail is available in BACH national samples.

**Table 1****Main features of national data providers**

Country	Institution	Department	Main objective of data collection
Austria	National Central Bank	Statistics	Risk assessment, rating
Belgium	National Central Bank	Microeconomic info.	Publication of microdata
Czech Rep.	National Central Bank	Monetary & Statistics	Statistics
France	National Central Bank	Corporate	Risk assessment, rating
Germany	National Central Bank	Statistics	Statistics
Italy <sup>14</sup>	Private company	-	Risk assessment, rating
Netherlands	National Statistical Institute	Statistics	Statistics
Poland	National Central Bank	Statistics	Statistics
Portugal	National Central Bank	Statistics	Statistics
Slovakia	National Central Bank	Statistics	Statistics, risk assessment
Spain	National Central Bank	Statistics	Statistics

Note: National Statistical Institutes for future data providers (Denmark, Luxembourg, Romania and Turkey).

CBSOs' frameworks may account for more diversity in BACH in the near future, as it is expected that national statistical institutes (NSI) will compile data for BACH (in the case of Denmark, Luxembourg, Romania and Turkey). NSIs are typically related to the statistical function, although in a different institutional context.

### 2.3.2 National samples and sources

National data samples in BACH differ in terms of: (i) representativeness of the NFC population, (ii) provisional/final data and (iii) breaks in time series.

Generally speaking there are two types of national database. Administrative databases (Belgium and Portugal, since 2006) cover the entire population of NFCs, while the remainder is based on a subset of the population. Accordingly, Belgium and Portugal (since 2006) have very high NFC coverage rates in BACH. In accordance with the law, these two countries have full access to the financial statements of the entire population of non-financial corporations.

Data providers from the other remaining countries collect NFC information from a subset of the population. In these cases large firms are often overrepresented. Furthermore, data availability in different countries depends on the state of transposition of the European Union Accounting Directive concerning the official publication of the annual accounts of limited liability companies.

Table 2 shows that countries other than Belgium and Portugal present lower coverage rates in terms of number of companies in 2012, compared with that for turnover/number of employees covered. For instance, while covering 28% of companies, the coverage rate for French samples in 2012 rises to 81% in terms of turnover.

<sup>14</sup> The private company referred to in Table 1, Cerved Group Spa, develops statistical models for Italian banks. Together with Banca d'Italia, this company offers data for Italian companies to the BACH database.

**Table 2**  
National samples

Country	Coverage rate – number of enterprises		Coverage rate – turnover (T) or number of employees (E)	
	Provisional figures (2013)	Final figures (2012)	Provisional figures (2013)	Final figures (2012)
Austria	14.1%	45.4%	-	-
Belgium*	99.6%	99.0%	99.7% (E)	99.4% (E)
Czech Rep*	9.8%	10.2%	-	-
France	26.9%	28.4%	81.5% (T)	81.3% (T)
Germany	N/A	8.6%	N/A	69.9% (T)
Italy*	6.4%	7.4%	75.4% (T)	76.5% (T)
Netherlands	69.0%	69.0%	N/A	N/A
Poland*	3.0%	3.0%	56.0% (E)	56.0% (E)
Portugal	94.1%	95.8%	96.5% (T)	97.7% (T)
Slovakia	N/A	63.7%	N/A	80% (T)
Spain	12.3%	37.1%	34.8% (E)	62.1% (E)

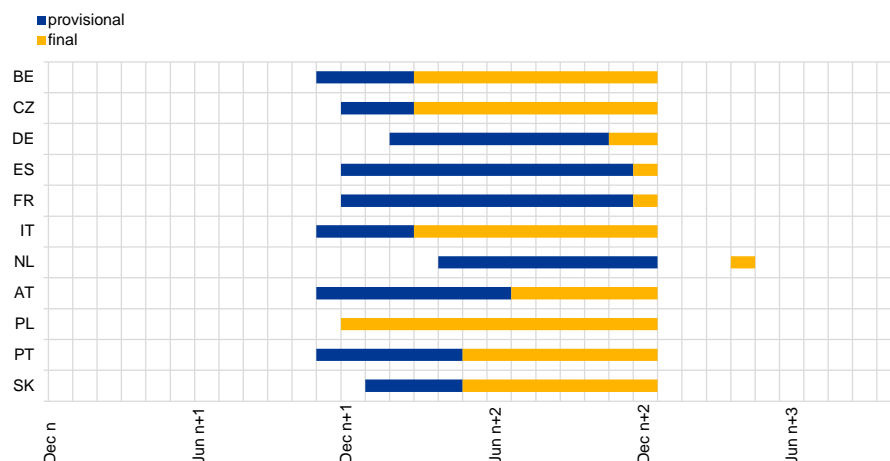
\* For these countries 2013 data are final figures.

Notes: (1) Coverage rates for Poland are approximated since this country does not have coverage rates available by business sector. Note that in Poland data is exhaustive in the case of companies with more than nine employees that deliver full balance sheet statements. (2) Coverage rate figures are not provided in a single format (turnover or number of employees) because only part of this information is available in the different countries.

Note that almost all countries provide data in two different stages. In the first phase, data are released as leading indicators, but with a **provisional** character. At a later stage, the data is updated to be **more definitive/final**. More details on the release calendar for the BACH data are available in [Chart 1](#).

**Chart 1**  
BACH data release calendar

(data of reference date December n)



Source: BACH Userguide (2015).

In general, provisional data have lower coverage when compared with final data (the difference can be substantial). For instance, in the case of Austria, according to the last update, 2012 final data have a coverage rate of 45% in terms of number of corporations, which compares with 14% for the 2013 provisional data.

**Table 3****Structure of the samples (structure of the populations in brackets)**

(% , 2012/2013)

Country	Manufacturing	Electricity, gas	Construction	Trade	Transport
Austria (C) 2013	8 (16)	1 (2)	11 (16)	23 (23)	4 (4)
Belgium (E) 2013*	24 (24)	1 (1)	10 (10)	21 (22)	10 (10)
Czech Rep. (C) 2013*	25 (N/A)	3 (N/A)	7 (N/A)	16 (N/A)	3 (N/A)
France (E) 2013	24 (21)	2 (1)	9 (9)	22 (21)	9 (9)
Germany (T) 2012	41 (38)	18 (12)	2 (3)	22 (26)	4 (4)
Italy (T) 2013*	39 (36)	9 (8)	3 (5)	30 (30)	5 (5)
Netherlands (T) 2013	7 (7)	0 (0)	9 (8)	23 (20)	3 (3)
Poland (C) 2013*	27 (N/A)	1 (N/A)	10 (13)	30 (28)	6 (8)
Portugal (T) 2013	26 (26)	6 (6)	6 (6)	37 (37)	6 (6)
Slovakia (T) 2012	33 (N/A)	4 (N/A)	6 (N/A)	30 (N/A)	5 (N/A)
Spain (E) 2012	19 (19)	1 (0)	8 (9)	23 (23)	7 (6)

\* For these countries 2013 data are final figures.

Notes: (1) C – weight of the sector in terms of the number of corporations, E – weight of the sector in terms of the number of employees, T – weight of the sector in terms of turnover, N/A – information not available. (2) Additional detail on other business sectors may be found in the BACH Userguide – National samples chapter (only in the Excel version).

Despite differing underlying samples, the sectoral composition of national samples included in BACH is, to some extent, in line with the structure of the population of NFCs in these countries (Table 3). For example, in Spain almost half the number of employees of the non-financial sector in 2012 was concentrated in the manufacturing and trade sectors, 19% and 23% respectively. For the same country, and for the same year, the composition of the BACH sample by business sector reflects the population of Spanish companies, where the manufacturing and trade sample sectors were also the most important business sectors.

**Table 4****Main features of underlying national databases**

Country	Data source	Breaks and biases in sample time span
Austria	Multiple sources	No break in time series. Overrepresentation of holding companies, head offices and real estate firms
Belgium	Administrative data	Almost full coverage of all corporate sizes and business sectors. No break or bias in time series (since 2000)
Czech Rep.	Statistical survey & Administrative data	No break or bias in time series (since 2005)
France	Administrative data & Tax returns	No break in time series. Very high coverage rate for firms with annual turnover of more than EUR 750,000
Germany	Multiple sources	No break in time series. Sample bias towards large companies
Italy	Multiple sources	No break in time series. Bias towards large companies
Netherlands	Administrative data	Statistics Netherlands will deliver only non-consolidated data for the period 2008-2011. Non-consolidated in this sense means that individual tax payers only report for themselves (1:1) or that individual tax payers report for themselves and one other company (1:2). The basis for the BACH data is the database of the tax authorities (corporation tax)
Poland	Statistical survey	Sample includes only companies with more than nine employees and that deliver full balance sheet statements. The sample covers about 70% of enterprises in this segment. Data according to NACE Rev.2 have been available since 2005
Portugal	Administrative data	A statistical survey used for collecting data before 2006. For that period, there was a bias towards large companies
Slovakia	Administrative data	No break in time series. Sample bias due to changes in class structures between years
Spain	Multiple sources	Minor breaks due to changes to the Spanish GAAP (2008)

Notes: (1) NACE is the Statistical Classification of the Economic Activities in the European Union enforced by law in all Member States. For more information on this topic, consult the Eurostat Manual available at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF). (2) GAAP is the acronym for Generally Accepted Accounting Principles, referring to the national financial accounting system.

It should be emphasised that data sources and methods of collecting data may change over time. In addition, changes to accounting nomenclature and business sector classification may be made occasionally. These factors may cause some breaks and/or biases in time series. Table 4 shows the situation in BACH concerning data source and breaks and biases over time<sup>15</sup>.

Finally, it should be stressed there are specificities in national practices regarding sampling methods used for statistical outputs. Annex 3: National Sampling Methods provides more information on the specific practices adopted for each country.

### 2.3.3 National accounting practices

The BACH database is the result of a substantial effort of data harmonisation both within and across countries with a view to:

- (a) Minimising differences in accounting practices among countries and gaps/breaks in time series/limitations of national samples;
- (b) Providing complete accounting statements;
- (c) Meeting user needs while adjusting to the requirements of modern analysis.

**Table 5**  
National accounting specificities

Country	Accounting standards	IFRS compliance
Austria	National GAAP	Legislation on GAAP has considerably restricted the implementation of IFRS in individual financial statements in recent years
Belgium	National GAAP	No IFRS compliance. Possible but limited in the future
Czech Rep.	National GAAP	No IFRS compliance. Possible but limited in the future
France	National GAAP	Progressive endorsement of IFRS through a selective approach. National rules evolved in 2005 with the partial adoption of the following rules: IAS 2, IAS 8, IAS11, IAS 16, IAS 23, IAS 34, IAS 36, IAS 37 and IAS 38
Germany	National GAAP	There are distinct differences between Germany GAAP and IFRS. The reform of the German Commercial Code in 2010 (BilMoG) only partially reduced the differences
Italy	National GAAP & IFRS	IFRS for listed companies
Netherlands	National GAAP & IFRS	At the moment not compulsory. However, listed companies need to apply IFRS
Poland	National GAAP	There are significant differences between Polish statements and IFRS items
Portugal	National GAAP	The most recent GAAP (data since 2009) are very close to IFRS
Slovakia	National GAAP & IFRS	The most recent national GAAP are very close to IFRS
Spain	National GAAP	From 2000-2007 close to IFRS. Since 2008 in line with IFRS

Note: IAS is the acronym for International Accounting Standard, created by the predecessor of the IASB.

As can be seen in Table 5, national BACH data are compiled according to the Generally Accepted Accounting Principles (GAAP) in force in each country. Although national GAAPs have the Fourth Council Directive (Directive 78/660/EEC of 25 July 1978) as common ground, differing national accounting practices represent a major

<sup>15</sup> For more information on this topic consult the ECCBSO Report on Products and Services of the European CBSOs (2013) available on <https://www.eccbsso.org/>.

concern for cross-country comparability in BACH. These non-convergent specificities are caused by differing cultural and economic backgrounds and non-aligned tax systems.

Following the globalisation of business there has been a gradual and slow process of adjustment to the International Financial Reporting Standards<sup>16</sup> (IFRS). However, convergence is not yet complete and, in some countries, might not happen in the foreseeable future.

The definition of each individual item (the variables), inspired by the IFRS, has provided a benchmark for evaluating the degree of comparability among countries reporting to BACH. It has helped BACH data providers to seek common definitions and limit deviations. Final templates obtained at the end of this exercise reflect:

- (a) a reduction in differences among country specificities, improving comparability;
- (b) a minimisation of gaps/breaks in time series and limitations at national sample level.

Despite these efforts, some national deviations remain in the BACH database and have been identified and documented. Deviations are presented by country/accounting item. For this purpose, a deviation arises when national data are not completely aligned with the “first best” definition (Annex 2: National Deviations provides additional details). At this level, four types of alert are made available for each country/variable:

1. Code “I”: national content has some important specificity/practice;
2. Code “D”: national content departs from the predefined BACH “first best” definition;
3. Code “N/A”: national content is not available;
4. Code “P\_N/A”: national content is only partially available.

When creating harmonised templates, attention was also paid to the level of detail required to ensure that major accounting items of information were not incomplete. BACH therefore provides a complete picture of the balance sheet and the income statement.

Based on the items defined for the balance sheet and for the income statement, the last stage of the process of harmonisation was the creation of a set of standard economic and financial ratios. These indicators are intended to help users improve their analysis of the performance of European companies. In this regard, BACH ratios follow, as much as possible, current trends from the viewpoint of business analysts and researchers.

---

<sup>16</sup> IFRS refers to international accounting rules developed by the International Accounting Standards Board (IASB). For additional information on this topic consult the IFRS Foundation website available at <http://www.ifrs.org/>.

Finally, it should be noted that the BACH Userguide (only the Excel version) also provides transition tables for the national templates used in the data collection process and the BACH harmonised templates.



## 3 Recent developments and their future impact on BACH

This section focuses on the revision of the European Union Accounting Directive, which will most probably impact BACH. Moreover, the European System of National and Regional Accounts (ESA2010) has been implemented in most EU countries, implying that some countries will revise their BACH data. The implementation of ESA 2010 implies a change in the classification of the institutional sector, affecting holding companies.

### 3.1 Revision of the European Union accounting directives

On 26 June 2013, the European Parliament and the Council adopted “**Directive 2013/34/EU** on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings”<sup>17</sup>. Box 3: Transposition of the new Accounting Directive sums up the national transposition of this Directive into national legislation of countries belonging to BACH.

Accordingly, Member States must transpose Directive 2013/34/EU into their national laws and regulations by 20 July 2015. Member States may act to ensure that the new provisions are first applied to financial years beginning on 1 January 2016 or during the calendar year 2016.

On the basis of Article 3 of Directive 2013/34/EU, Member States will define a new classification by size (Table 6), taking into account undertakings that on their balance sheet dates do not exceed the limits of at least two of the following three criteria (in the case of small undertakings the figures may be extended up to the maximum shown in brackets).

**Table 6**  
New size classification according to Directive 2013/34/EU

Size Classification	Balance sheet total (in thousand euro)	Net turnover (in thousand euro)	Average number of employees during the financial year
Micro-undertakings	350	700	10
Small undertakings	4 000 (6 000)	8 000 (12 000)	50
Medium-sized undertakings	20 000	40 000	250
Large undertakings	Undertakings which on their balance sheet dates exceed at least two of the three criteria defined for medium-sized undertakings		

<sup>17</sup> This new Accounting Directive amends Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts; repeals Directive 78/660/EEC, the so-called “Fourth Council Directive on the annual accounts of certain types of companies” and Directive 83/349/EEC, the so-called “Seven Council Directive on consolidated accounts”; and faithfully incorporates the provisions of Directive 2012/6/EU on accounting requirements for micro-entities.

For its current definition, classification by size is based on Recommendation 2003/361/EC, which takes three variables into account (similarly to Directive 2013/34/EU): turnover, number of employees and total assets. However, as for the previous definition, due to limited access to the number of employees and total assets variables, the enterprise size class in BACH only considers turnover thresholds. The following classification by size is applied in accordance with Recommendation 2003/361/EC:

- SMEs, if turnover is lower than EUR 50 million (which compares to EUR 40 million in the new Directive<sup>18</sup>). SMEs are also split into two categories, identified as follows:
  - Small companies, if turnover is lower than EUR 10 million (which compares to EUR 8 million (or EUR 12 million) in the new Directive);
  - Medium-size companies, if turnover is between EUR 10 million and EUR 50 million (which compares to figures between EUR 8 million (or EUR 12 million) and EUR 40 million in the new Directive).
- Large companies, if turnover is higher than EUR 50 million (which compares to companies with turnover higher than EUR 40 million in the new Directive).

It is important to note that, under this classification, the Directive only intends to propose the financial information obligation that Member States are required to meet (or are exempted from) – the information is not for statistical purposes.

The main objective of Directive 2013/34/EU is to reduce the administrative burden on small companies and to meet the needs of users and those who prepare annual accounts. The “Think Small First” approach of this Directive should “enable companies to prepare profit and loss accounts, balance sheets and notes that are more proportionate to their size and to the information needs of the users of their financial statements”.

The number of companies benefiting from these simplifications should grow since more companies will be classified in the small category for accounting purposes than is currently the case, thanks to the increase of the turnover and balance sheet thresholds used to define small companies, and to the obligation to apply the size criteria on an individual, rather than consolidated, basis, when companies are part of a group. In the case of Belgium, for instance, nearly 60% of non-financial companies currently considered large will be considered small in the framework of the new Directive.

The new Directive also aims, to a certain extent, to improve the quality and the comparability of the information disclosed. However, the new Accounting Directive offers national legislators many different options for widening the scope for differences among European countries, specifically for small companies.

---

<sup>18</sup> Note that, according to the Directive, a number of options may be considered regarding the classification previously outlined, for instance the creation or otherwise of a micro-undertaking category.

When comparing the provisions of the new Accounting Directive with those of the Fourth and Seventh Directives, the major changes concern the requirements regarding the statutory accounts of small companies.

Very limited changes are **imposed**, as such, by the Directive:

- (a) Items of exceptional size or incidence must be disclosed in the notes instead of in the profit and loss account;
- (b) Member States may not require, in the notes for the small undertakings, more than that which is compulsory or permitted.

The major changes will probably stem from the **way different Member States will transpose** the Directive into their national laws and regulations and **will use the different options** offered by the Directive, particularly:

- (a) The creation or otherwise of a micro-undertakings category;
- (b) The application or otherwise of the different possible simplifications and exemptions proposed for micro-undertakings (a drastically reduced balance sheet and profit and loss account, exemption from drawing up notes, filing only the balance sheet instead of publishing the financial statements, ...);
- (c) The application or otherwise of the different possible simplifications and exemptions for small companies: drawing up an abridged balance sheet and profit and loss account, exemption from preparing a management report, exemption from publishing the profit and loss account and management report, the requirement of additional optional information in the notes (e.g. information on the fixed assets, transactions with related parties).

The creation of specific national regulations for micro-companies could possibly give rise to:

- (a) A major loss of financial information for a huge number of companies, essential for micro and macroeconomic analysis and for statistical purposes;
- (b) A distortion of competition among micro-undertakings of different countries operating in international markets.

In conclusion, the scope for differences among European countries, including those participating in BACH, will continue to be a challenge, given the wide range of possibilities available.

### Box 3

#### Transposition of the new Accounting Directive

---

In terms of national transposition, as far as the BACH WG is aware, only Germany and France have partially or fully transposed this Directive. In Germany, nearly all the exemptions have been applied and the balance sheet and income statement have been simplified almost to the minimum required. In France, micro-companies are exempt from the obligation to complete the notes and may choose

not to publish their annual accounts, their data only being accessible by public administrations. These new provisions are to be applied for the first time to annual accounts closing on 31 December 2013 and filed from April 2014 onwards.

Portugal has, to some extent, already transposed the Directive through the implementation of specific legislation for micro-entities in 2010. This national legislation uses thresholds other than those recommended by the Directive (EUR 500,000 for the turnover and balance sheet total and five FTEs for the number of employees) and introduces a more abridged balance sheet and income statement compared with that for other NFCs. Austria has not transposed the Directive, but accounting and disclosure rules have already been simplified for small and medium-sized enterprises in a number of areas.

In Poland a project is under discussion, focusing mainly on the simplification of the balance sheet and income statement and a wide usage of the proposed exemptions.

No transposition or project to do so has been reported for the other participating countries. Some of these, in particular Belgium, Denmark and Luxembourg, have decided that they will take a position on this issue when preparing the transposition of the new Accounting Directive.

---

## 3.2 Implementation of ESA 2010 – The case of holding companies

By October 2014, ESA 2010 had been implemented in EU member countries. One of the significant changes introduced by ESA 2010 that will most probably impact the BACH database is that relating to the composition of the institutional sector of NFCs. Basically, some entities such as holding companies and special purpose entities (SPEs) will be reclassified into the financial sector (*S.127. Captive financial institutions*). As an example, ESA 2010 emphasises the distinction between holding companies, that do not undertake any management activities and should therefore be classified as financial corporations (S.12), and head offices. The latter exercise managerial control over their subsidiaries and should be allocated to the dominant NFC sector of their subsidiaries.

Up to now, only corporations belonging to the NFC institutional sector have been covered in the BACH database. The new sectorisation of holding companies in ESA 2010 may have implications and consequences for BACH because these corporations no longer belong to the NFC institutional sector. However, the main BACH aggregates affected can already be identified, namely: NACE codes *K642 – Activities of holding companies*, *M701 – Activities of head offices* and BACH aggregates *Z0 – Total NACE including M701, but excluding K642*.

Although holding companies are identified separately in the BACH database, for any possible future adjustment the degree of that impact will not be uniform among countries. However, following the agreement between countries (see Annex 4: Task Force On Holding Companies And Head Offices: Recommendations), the final impact on BACH of the reclassification of holding companies into the financial sector

will largely depend on the criteria adopted by each country. The BACH WG has been following the issue relating to the reclassification of HCs and HOs and, on the basis of questionnaires sent to BACH members, it can be concluded that, in terms of number of enterprises, according to the results for the BACH sample, the most affected countries could potentially be FR, PT and CZ. In terms of total assets, the most affected countries could be FR, PT, CZ, PL and ES. For the other countries, the impact of the reclassification is likely to be small.

## 4 Case study: the manufacturing sector

This chapter presents a simple case study of a BACH sector-based analysis. For this purpose, the manufacturing sector was chosen. The analysis does not pretend to be exhaustive; it intends, instead, to serve two simultaneous objectives:

- (i) To illustrate how rich the database is;
- (ii) To identify the main challenges arising in country comparability, while presenting appropriate solutions to mitigate these.

The European comparison is made for the year 2013, with the exception of Slovakia (final figures for 2012), and is based on data extracted, in April 2015, from the BACH database. According to the release calendar of the BACH Userguide, not all countries had reported final data for 2013. In this sense, data for some countries may be of a preliminary nature.

---

### **Note #1: BACH preliminary data**

It is important to consult the release calendar in the BACH Userguide to ascertain the degree of completion of national data. Preliminary data normally have lower coverage rates.

---

The comparison was conducted for the 11 European economies with available data in the BACH database: Austria, Belgium, Czech Republic, France, Germany, Italy, the Netherlands, Poland, Portugal, Slovakia and Spain.

### 4.1 The sector and its representativity in BACH

The BACH database provides aggregated data at the level of 17 NACE sections and about 80 NACE divisions. There are, therefore, data for 24 divisions for the manufacturing sector.

For 2012/2013, the manufacturing sector is relatively well covered by the different country samples in BACH, with coverage rates of above 50%, either in terms of turnover or number of employees (Table 7), except for Spain.<sup>19</sup> These levels of representativeness allow the global trend of the manufacturing sector to be captured, although some national samples are biased towards large companies. For instance, the provisional data indicate that in Germany 9% of manufacturing sector companies represent 62% of the corresponding turnover.

---

<sup>19</sup> Note, however, that these data are provisional for Spain (2012 final figures, for instance, present a coverage rate above 60% in terms of number of employees).

**Table 7****National samples of the manufacturing sector**

(2012/2013\*)

Country	Coverage No. NFCs (C)	Coverage Turnover (T)/No. employees (E)	Weight of the sector in the sample	Weight of the sector in the population
Austria (2013)	27%	-	8% (C)	16% (C)
Belgium (2013)*	100%	100% (E)	24% (E)	24% (E)
Czech Rep. (2013)*	18%	-	25% (C)	N/A
France (2013)	47%	87% (E)	24% (E)	21% (E)
Germany (2013)	9%	62% (T)	41% (T)	38% (T)
Italy (2013)*	14%	82% (T)	39% (T)	36% (T)
Netherlands (2013)	69%	-	9% (C)	9% (C)
Poland (2013)*	-	-	-	-
Portugal (2013)	94%	97% (T)	26% (T)	26% (T)
Slovakia (2012)	66%	-	33% (T)	N/A
Spain (2013)	18%	33% (E)	19% (E)	19% (E)

\* For these countries 2013 relates to final figures.

Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.

Notes: (1) Information for business sector section C, enterprise size 0 – All sizes and sample 0 – variable samples. (2) With the exception of Poland, in every data extraction all items are accompanied by coverage rate measurements. (3) The Excel version of the BACH Userguide (Chapter 2 – National Samples) gathers information for both the structures of the NFC population and NFC sample by country and business sector/enterprise size.

**Note #2: International comparisons**

There is a diversity of national specificities in BACH samples, the most important being the coverage of the NFC population. Although cross-country comparisons for global aggregates are appropriate, some caution is required for specific segments of corporations. Micro-enterprises, for example, are better captured in full coverage national samples than in partial coverage national samples.

As previously mentioned, the BACH database has one important distinctive feature: the structure of national samples is, to some extent, in line with the structure of the population of NFCs in each country. For instance, in France, in 2013, the manufacturing sector in BACH represents 24% of the number of employees of the total BACH sample, while in the NFC population the weight of this sector is 21%.

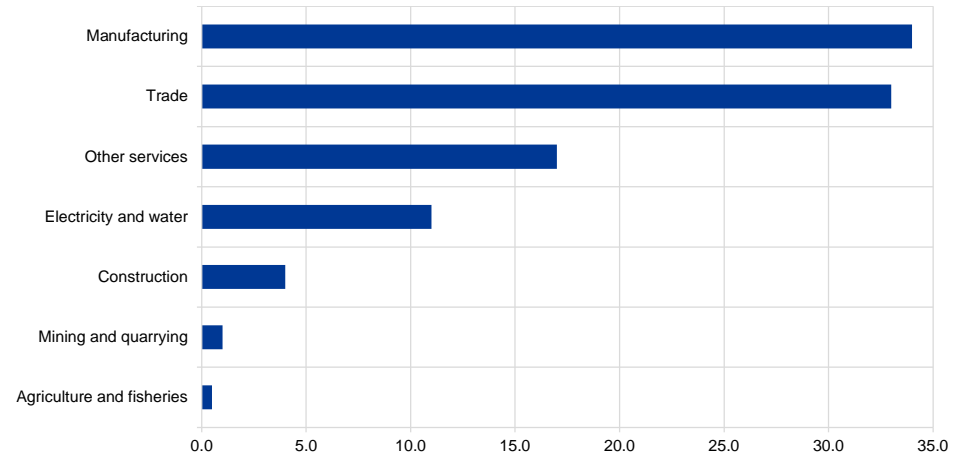
## 4.2 The Importance and structure of the sector

The manufacturing sector constitutes one of the most important sectors in the European economy. In the BACH sample (BACH average), this sector accounts for 34% of NFC turnover (**Chart 2**).

## Chart 2

### Non-financial corporations' turnover by business sector – BACH average

(2012/2013 in percentage)\*



Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.

\* For Belgium, Czech Republic, Italy and Poland, data relate to final figures for 2013. For the remaining countries, data relate to provisional figures, except for Slovakia (final figures for 2012).

Notes: (1) Enterprise size 0 – All sizes and sample 0 – Variable samples. (2) Sample structures obtained from the absolute values. (3) For the purpose of this article, NACE Revision 2 sections were aggregated as follows: Agriculture and fisheries (NACE A), Mining and quarrying (NACE B), Manufacturing (NACE C), Electricity and water (NACE D and E), Construction (NACE F), Trade (NACE G) and Other services (NACE H, I, J, L, Mc, N, P, Q, R, S). (4) The BACH average comprises the weighted mean for the European countries available in the BACH database.

The analysis above makes implicit - BACH average<sup>20</sup> - the possibility to build additional aggregates from BACH data. The aggregate above corresponds to the ratio between the net turnover (absolute values) obtained for each business sector, identified in terms of sections of NACE (numerator) and the sum of the net turnover (absolute values) for all business sectors selected (denominator), taking into account in both cases the combination chosen (financial year/enterprise size class/sample). The results were made available for all BACH countries. For the purpose of this aggregate, the absolute value of turnover was used. Nevertheless, using a similar methodology, new variables can be also built.

### Note #3: New aggregates/new variables

The provision of absolute values allows complementary standardised analysis in BACH, through building new indicators by combining made-available indicators in a different way.

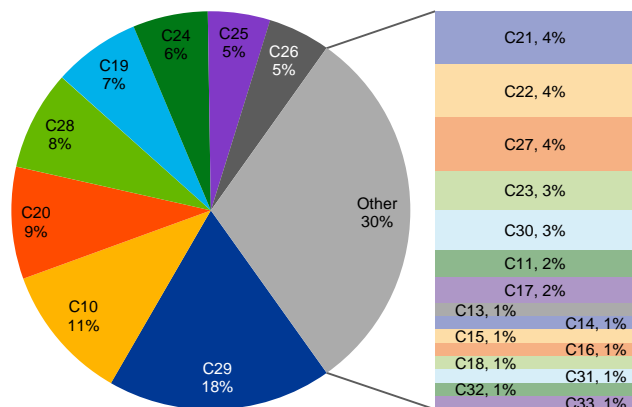
<sup>20</sup> This BACH average could not be fully adjusted for the population of European companies as a whole, given the overweighting of some national samples in this aggregate, due to the exhaustiveness of data collection in some countries.



**Chart 3**

**Manufacturing sector gross value added**

(Total countries, BACH average (2012/2013)\*)  
By business sector



\* For Belgium, Czech Republic, Italy and Poland, data relate to final figures for 2013. For the remaining countries, data relate to provisional figures, except for Slovakia (final figures for 2012).

Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.

Notes: (1) Enterprise size 0 – All sizes, 0 – Variable samples. (2) Sample structures obtained from the absolute values. (3) BACH average comprises the weighted mean for the European countries available in the BACH database. (4) NACE C10 – Manufacture of food products, NACE C20 – Manufacture of chemicals and chemical products, NACE C25 – Manufacture of fabricated metal products, except for machinery and equipment, NACE C26 – Manufacture of computer, electronic and optical products, NACE C28 – Manufacture of machinery and equipment n.e.c. and NACE C29 – Manufacture of motor vehicles, trailers and semi-trailers.

When disaggregated by business sector (**Chart 3**), NACE 29 – Manufacture of motor vehicles, trailers and semi-trailers accounts for the highest share of European manufacturing sector gross value added (18%), followed by NACE 10 – Manufacture of food products (11%).

More than half (56%) of the European manufacturing sector gross value added is concentrated in six (out of 24) sectors of economic activity.

The above analysis is similar to the previous analysis which used the net turnover for each business sector, identified in terms of sections of NACE. However, the data in Chart 3 take gross value added into consideration as well as each of the divisions specifically relating to the manufacturing sector (one section of NACE).

**Note #4: Granular data**

Information in BACH is provided with a reasonably significant level of detail in terms of business sectors and enterprise size classes. This level of detail allows several analyses to be conducted.

**4.3**

**An assessment of the economic and financial situation of the sector**

When the performance of the manufacturing sector was compared across European countries, it was revealed that Netherlands and Belgium performed best, on average, in 2012/2013\* at the level of **EBITDA (Earnings before interest, tax, depreciation and amortisation) on net turnover** (14% and 10% respectively, **Chart 4**). According to the same indicator, the French manufacturing sector generated less revenue per euro of turnover (7%).

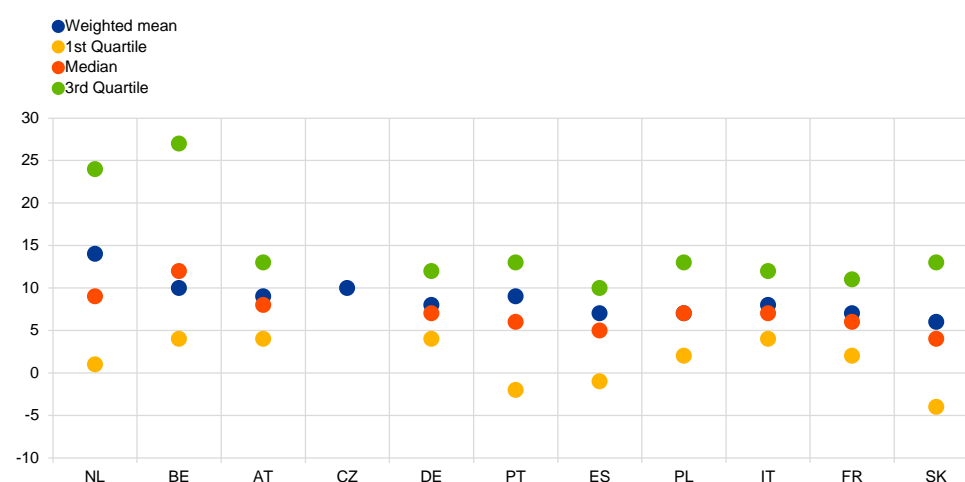
The above analysis is based on the weighted mean of EBITDA divided by net turnover. However, an analysis of the different quartiles of the underlying distribution provides a more complete picture. For example, **Chart 4** shows that the high

average performance of companies from the Netherlands and Belgium is very much influenced by extreme values. In fact, the inter-quartile range (the difference between the third and the first quartile) illustrates the heterogeneity of manufacturing companies from the Netherlands and Belgium (23% in both cases) compared to other countries. In these countries, while the weighted means are 14% and 10% respectively, the third quartiles come to 24% and 27% respectively. This means that 25% of manufacturing sector companies from the Netherlands and Belgium has ratios of EBITDA to net turnover above 24% and 27% respectively<sup>21</sup>.

#### Chart 4

##### Manufacturing sector EBITDA over net turnover

((2012/2013\*) – BACH R33 in percentages)



\* For Belgium, Czech Republic, Italy and Poland, data relate to final figures for 2013. For the remaining countries, data relate to provisional figures, except for Slovakia (final figures for 2012).

Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>

Notes: (1) Enterprise size 0 – All sizes, sample 0 – Variable samples and R33 – EBITDA on net turnover. (2) Quartiles not available for Czech Republic.

#### Note #5: Quartile measurements

These measurements are very useful for learning more about the underlying distribution. In particular, the quartile measurements allow the reader to assess the extent to which weighted means are influenced by extreme values.

Alternatively, **Chart 5** shows the **return on equity** indicator demonstrating that the Austrian manufacturing sector had the highest profitability (14%). On the other hand, southern Europe (Italy, Spain and Portugal) records the lowest profitability in the manufacturing sector. However, Belgium and the Netherlands, in contrast to results for EBITDA on net turnover, are also included in the group of countries with the lowest profitability in terms of return on equity.

<sup>21</sup> There is a diversity of national specificities in BACH samples, the most important being the coverage of the NFC population. Although cross-country comparisons for global aggregates are appropriate, some caution is required for specific segments of corporations.

The analysis shows the importance of the indicators chosen for the purpose of each analysis. In particular, both **EBITDA on net turnover** and **return on equity** allow companies' profitability to be analysed. In this category, the BACH database offers a total of ten different ratios. It should be noted that conclusions may be different according to the ratio used.

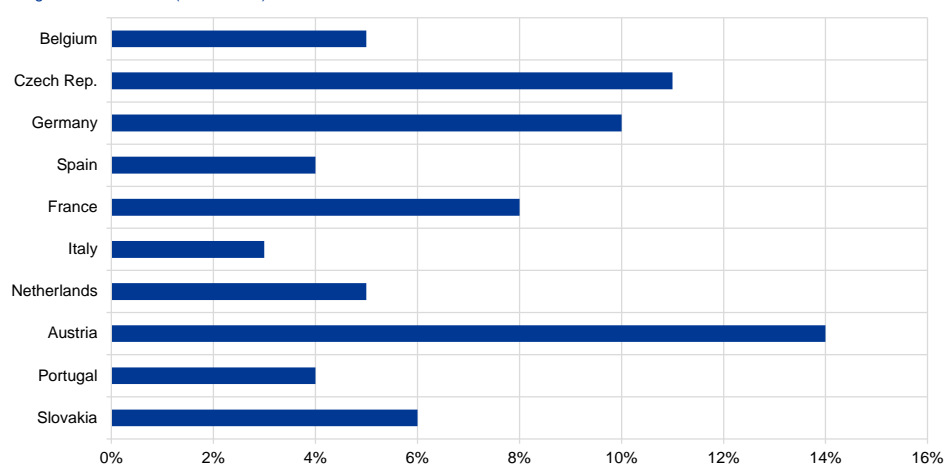
#### Note #6: Richness of indicators

BACH offers several indicators that try to cover a wide range of analysis. To this end, a battery of 29 ratios is provided, covering: financial structure, financial and debt service, profitability, activity and technical aspects and working capital features.

### Chart 5

#### Manufacturing sector return on equity

Weighted mean values (2012/2013\*) – BACH R38



\* For Belgium, Czech Republic, Italy and Poland, data are final figures for 2013. For the remaining countries, data correspond to provisional figures, except for Slovakia (final figures for 2012). For Austria this leads to an overestimation.  
Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.  
Note: Enterprise size 0 – All sizes, sample 0 – Variable samples and R38 – Return on equity.

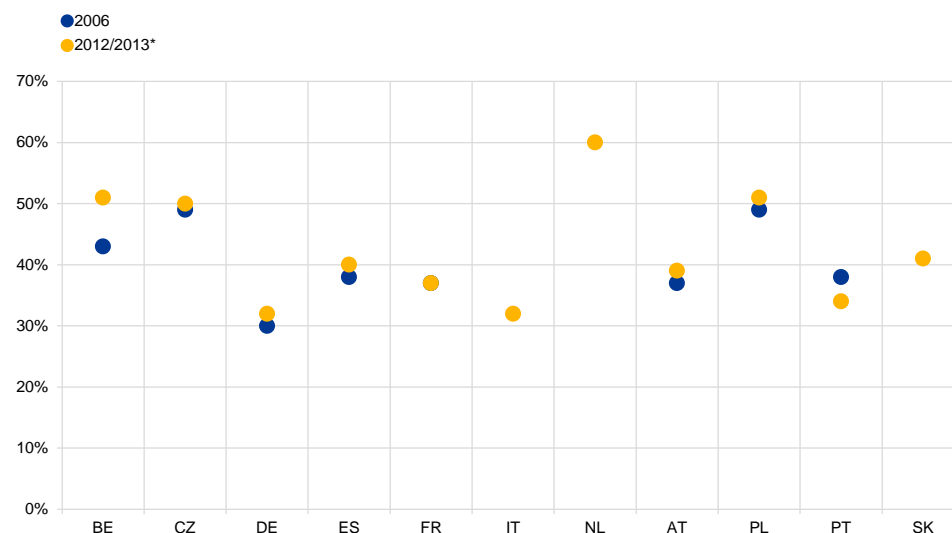
**The capital ratio** (equity over total assets) highlights, inter alia, how debt is vital for the financing of the European manufacturing sector. Indeed, the BACH database reveals that debt represents more than half of the funding of the European companies of the manufacturing sector (**Chart 6**). In particular, the German manufacturing sector had the highest share of external funding in 2012/2013\* (68% of total assets). The Netherlands, in turn, records the lowest value for this indicator (40% of total assets).

For all European countries considered<sup>22</sup>, with the exception of Slovakia and Portugal, the average capital ratio of the manufacturing sector increased, or remained at the same level, between 2006 and 2012/2013\*.

<sup>22</sup> Data for 2006 unavailable for the Netherlands.

**Chart 6****Manufacturing sector capital ratio**

Weighted mean values (2006 and 2012/2013\*)



\* For Belgium, Czech Republic, Italy and Poland, data relate to final figures for 2013. For the remaining countries, data relate to provisional figures, except for Slovakia (final figures for 2012).

Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.

Note: (1) Enterprise size 0 – All sizes, sample 0 – Variable samples and E – Total equity in terms of total assets. (2) Data for 2006 unavailable for the Netherlands.

The analysis based on sliding samples includes companies that are available for a pair of two consecutive years (see **Box 1: Variable samples and sliding samples** and **Box 2: Variable samples versus sliding samples; a real example for French trade SMEs**). To this extent, sliding samples prevent effects simply due to companies' inclusion in/exclusion from the samples<sup>23</sup>. In a two-consecutive-year analysis, sliding samples increase cross-country comparability. The cost of using sliding samples comes from losing information (companies that are not available for two consecutive years).

**Note #7: Sliding/variable samples**

Sliding samples are more suitable for cross-country comparability and the analysis of two-consecutive-year trends. In turn, variable samples are preferable for countries where all NFCs are represented (e.g. Belgium and Portugal) or for capturing longer trends.

Given the importance of debt in the funding of the European manufacturing sector it is worth analysing its underlying financial instruments. **Chart 7** illustrates the **structure of funding** of the BACH European manufacturing sector for the years 2012/2013\*, by enterprise size.

<sup>23</sup> Some countries do not provide "pure" variable samples. In these cases, the second year of the sliding sample is provided as the variable sample.

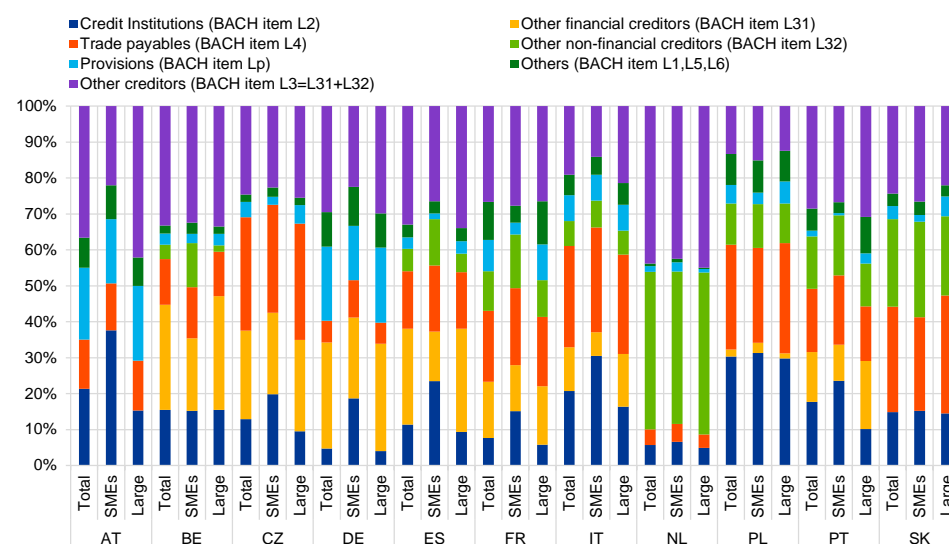
In 2013, independent of enterprise size, bank loans in the manufacturing sector were more significant in Poland. Germany registered the smallest weight for this item as regards large companies (4%). The lowest value for SMEs was recorded by the Netherlands (4%).

Provisions are a source of manufacturing sector funding mainly in Germany and Austria for both enterprise size classes under consideration. Manufacturing sector funding via trade payables assumes a higher significance in Czech Republic, Italy and Slovakia. On the other hand, the Netherlands registers the highest figures for other non-financial creditors as a source of manufacturing sector funding.

### Chart 7

#### Manufacturing sector structure of funding by enterprise size

(2012/2013\*)



\* For Belgium, Czech Republic, Italy and Poland, data relate to final figures for 2013. For the remaining countries, data relate to provisional figures, except for Slovakia (final figures for 2012).

Source: Bank for the Accounts of Companies Harmonized (April 2015), <http://www.bach.banque-france.fr/?lang=en>.

Notes: (1) Enterprise size 0 – All sizes, Enterprise size 1 – SMEs, Enterprise size 2 – Large companies, sample 0 – Variable samples. (2) For a complete analysis of the differences in the source of financing of the countries, it is imperative to consult the BACH Userguide. In particular, it is important to note that neither the other financial creditor's component nor the other non-financial creditor's component is available for Austria; the BACH item L3 "other creditors" is provided instead. All values are expressed in terms of total liabilities (BACH item L).

### Note #8: Userguide

Consultation of the BACH Userguide is imperative for an adequate analysis of the results. For instance, the document on deviations (see Annex 2: National Deviations) allows an understanding of national structural factors underlying dissimilar data results and trends among countries.

# Annex 1

## Overview of the information available in the BACH database

**Table A1.1**  
**Income Statement**

(as a % of net turnover)

Code	Income statement	General contents
I1	Net turnover	Includes sales of goods and services net of returns, deductions and rebates. Sales are net of VAT and excise taxes.
I2	Variation in stocks of finished goods and work in progress	Includes changes in production inventories recognised in the income statement.
I3	Capitalised production	Includes costs capitalised by the entity and recognised as income in the period.
I4	Other income	Includes other income not identified in previous items (I1, I2 and I3).
I41	Of which: Operating subsidies and supplementary operating income	Details of other income relating to operating subsidies and supplementary operating income.
I42	Of which: Financial income	Details of other income relating to financial income.
I43	Of which: Extraordinary income	Details of other income relating to extraordinary income.
I5	Cost of goods sold, materials and consumables	Includes cost of materials and consumables used and the cost of goods sold in the period.
I6	External supplies and services	Includes expenses relating to external supplies and services in the period.
I7	Staff costs	Includes staff expenses recognised in the period.
I8	Other expenses	Includes other expenses not identified in previous items (I5, I6 and I7).
I81	Of which: Operating taxes and other operating charges	Details of other expenses relating to operating taxes and other operating charges.
I82	Of which: Provisions (net of reversals)	Details of other expenses relating to provisions (net of reversals).
I83	Of which: Financial expenses other than interest on financial debt	Details of other expenses relating to financial expenses, apart from interest on financial debt (included in I10).
I84	Of which: Extraordinary expenses and impairments (net of reversals), apart from those on inventories and receivables	Details of other expenses such as extraordinary expenses and those relating to reductions/increases in fair value and impairment charges (net of reversals) other than those (net of reversals) included in I85.
I85	Of which: Impairments (net of reversals) on inventories and receivables	Details of other expenses relating to impairment charges (net of reversals) on inventories and receivables.
I9	Depreciation and amortisation of intangible and tangible fixed assets	Includes depreciation and amortisation of assets included in the items A11 and A12 and recognised in the period.
I10	Interest on financial debts	Includes financing costs recognised in the period.
I11	Tax on profit	Includes income taxes recognised in the period.
It1	Total income	(I1+I2+I3+I4)
It2	Total expenses	(I5+I6+I7+I8+I9+I10+I11)
It3	Net profit or loss for the period	(It1-It2)

**Table A1.2****Assets**

(as a % of total balance sheet)

Code	Assets	General contents
A1	Fixed assets	(A11+A12+A13)
A11	Intangible fixed assets	Includes brands, patents, copyrights, licenses, etc., even if such assets are held under finance lease contracts. This item also includes goodwill recognised separately.
A12	Tangible fixed assets	Includes land, buildings, machinery, administration and transport equipment, etc., even if such assets are held under finance lease contracts. This item also includes biological assets and investment properties.
A13	Financial fixed assets	Includes shareholdings in the capital of other entities on a continuous basis, as well as loans made to such entities.
A131	Of which: Shares in affiliated undertakings and participating interests	Details of financial fixed assets relating to investments in (shareholdings in the capital of) associates, subsidiaries and jointly controlled entities.
A2	Inventories	Includes raw materials and consumables, goods, work in progress and finished products, as well as consumable biological assets.
A21	Of which: Payments on account	Details of inventories relating to payments on account.
A3	Trade receivables	Includes credit granted to customers for sales or services net of advances received (except for payments received on account for orders, included in L5).
A4	Other receivables	Includes other accounts receivable (except trade receivables), as well as non-current assets held for sale (net of any associated liabilities).
A41	Current	
A42	Non-current	
A5	Deferred assets	Includes deferred tax assets and expenses to be recognised in future periods.
A51	Current	
A52	Non-current	
A6	Other financial assets, current	Includes financial assets held for trading and derivatives.
A7	Cash and bank	Includes amounts available in cash, demand deposits and other deposits in financial institutions.
A	TOTAL BALANCE SHEET	(A1+A2+A3+A4+A5+A6+A7)=E+L

Notes: (1) Assets are presented at a value net of accumulated depreciation, accumulated impairment losses and other adjustments.

**Table A1.3**  
**Equity and Liabilities**

(as a % of total balance sheet)

Code	Equity and liabilities	General contents
E1	Capital, reserves, earnings and other equity instruments	Includes paid-up capital, reserves, treasury stock and other equity instruments. Capital subscribed but not paid up is deducted from this item. This item also includes the cumulative net income for previous periods, net income for the period as well as dividends paid in advance.
E2	Revaluations, adjustments on financial investments and other comprehensive income	Includes revaluation surplus for tangible and intangible assets, adjustments on financial assets recognised in equity and other changes in equity.
E	TOTAL EQUITY	(E1+E2)
Lp	Provisions	Includes all provisions.
Lp1	Of which: Provisions for pensions and similar obligations	Details of provisions relating to liabilities for post-employment benefits.
L1	Bonds and similar obligations	Includes bonds and securities issued by the entity.
L11	Current	
L12	Non-current	
L2	Amounts owed to credit institutions	Includes the entity's debt to finance companies and credit institutions (including leasing).
L21	Current	
L22	Non-current	
L3	Other creditors	(L31+L32)
L31	Other financial creditors	Includes the entity's remaining funding (excluding funding identified in L1 and L2).
L311	Current	
L312	Non-current	
L32	Other non-financial creditors	Includes other accounts payable (except trade payables).
L321	Current	
L322	Non-current	
L4	Trade payables	Includes debts to suppliers of goods and services, net of advances (except for payments on account, included in A21).
L5	Payments received on account for orders, current	Includes payments received by the entity on account of orders.
L6	Deferred liabilities	Includes deferred tax liabilities and income to be recognised in future periods.
L61	Current	
L62	Non-current	
L	TOTAL LIABILITIES	(Lp+L1+L2+L3+L4+L5+L6)



**Table A1.4**  
Financial Structure Ratios

(as a %)

R1	Ratio	Definition	Contents	
R11	Assets to Equity ratio	Total balance sheet/Total equity	Numerator:	A
			Denominator:	E
R12	Liabilities to Equity ratio	Total liabilities/Total equity	Numerator:	L
			Denominator:	E
R13	Current assets/Total assets	Current assets/Total balance sheet	Numerator:	(A2+A3+A41+A51+A6+A7)
			Denominator:	A
R14	Other financial assets and cash and bank/ Total assets	Other financial assets and cash and bank/Total balance sheet	Numerator:	(A6+A7)
			Denominator:	A
R15	Non-current debt/ Total assets	Non-current debt/Total balance sheet	Numerator:	(L12+L22+L312+L322)
			Denominator:	A
R16	Current debt/Total assets	Current debt/Total balance sheet	Numerator:	(L11+L21+L311+L321+L4+L5)
			Denominator:	A

Notes: (1) This set of information is completed following the structures provided in the balance sheet (Tables A1.2 and A1.3) and income statement (Table A1.1). (2) Some ratios are not computed for holding companies. (3) Edition of the ratios: denominator>0.

**Table A1.5**  
Financial and Debt Service Ratios

(as a %)

R2	Ratio	Definition	Contents	
R21	Financial income net of charges other than interest/EBITDA	Financial income net of charges other than interest/EBITDA	Numerator:	(I42-I83)
			Denominator:	(I1+I2+I3+I41+I42-I5-I6-I7-I81-I83)
R22	EBITDA/Interest on financial debt	EBITDA/Interest on financial debts	Numerator:	(I1+I2+I3+I41+I42-I5-I6-I7-I81-I83)
			Denominator:	I10
R23	Interest burden	EBT/EBIT	Numerator:	(I1+I2+I3+I4-I5-I6-I7-I8-I9-I10)
			Denominator:	(I1+I2+I3+I4-I5-I6-I7-I8-I9)
R24	Interest and similar charges/Net turnover	Interest and similar charges/Net turnover	Numerator:	(I83+I10)
			Denominator:	I1
R25	Interest and similar charges/Gross operating profit	Interest and similar charges/Gross operating profit	Numerator:	(I83+I10)
			Denominator:	(I1+I2+I3+I41-I5-I6-I7-I81)
R26	Net financial income/Gross operating profit	Financial income net of charges/Gross operating profit	Numerator:	(I42-I83-I10)
			Denominator:	(I1+I2+I3+I41-I5-I6-I7-I81)
R27	Gross operating profit/Total net debt	Gross operating profit/Total net debt	Numerator:	(I1+I2+I3+I41-I5-I6-I7-I81)
			Denominator:	(L1+L2+L3+L4+L5+L6-A6-A7)

Notes: (1) EBITDA is calculated without provisions, impairments and extraordinary items; EBIT and EBT are calculated to include these items. (2) This set of information is completed following the structures provided in the balance sheet (Tables A1.2 and A1.3) and income statement (Table A1.1). (3) Some ratios are not computed for holding companies. (4) Edition of the ratios: denominator>0.

**Table A1.6**  
Profitability Ratios

(as a %)

R3	Ratio	Definition	Contents	
R31	Gross value added/Net turnover	Gross value added/Net turnover	Numerator:	(I1+I2+I3+I41-I5-I6-I81)
			Denominator:	I1
R32	Gross operating profit/Net turnover (ROS)	Gross operating profit/Net turnover	Numerator:	(I1+I2+I3+I41-I5-I6-I7-I81)
			Denominator:	I1
R33	EBITDA/Net turnover	EBITDA/Net turnover	Numerator:	(I1+I2+I3+I41+I42-I5-I6-I7-I81-I83)
			Denominator:	I1
R34	Net operating profit/Net turnover	Net operating profit/Net turnover	Numerator:	(I1+I2+I41-I5-I6-I7-I81-I82-I85-I9)
			Denominator:	I1
R35	EBIT/Net turnover	EBIT/Net turnover	Numerator:	(I1+I2+I3+I4-I5-I6-I7-I8-I9)
			Denominator:	I1
R36	EBT/Net turnover	EBT/Net turnover	Numerator:	(I1+I2+I3+I4-I5-I6-I7-I8-I9-I10)
			Denominator:	I1
R37	Net financial income/Net turnover	Net financial income/Net turnover	Numerator:	(I42-I83-I10)
			Denominator:	I1
R38	Return on equity	Net profit or loss for the period/Total equity	Numerator:	I13
			Denominator:	E
R39	Net operating profit/Total assets	Net operating profit/Total balance sheet	Numerator:	(I1+I2+I3+I41-I5-I6-I7-I81-I82-I85-I9)
			Denominator:	A
R310	Profit or loss for the year before taxes/Equity	Profit or loss for the year before taxes/Total equity	Numerator:	I13+I11
			Denominator:	E

Notes: (1) EBITDA is calculated without provisions, impairments and extraordinary items; EBIT and EBT are calculated to include these items. (2) This set of information is completed with the structures provided in the balance sheet (Tables A1.2 and A1.3) and income statement (Table A1.1). (3) Some ratios are not computed for holding companies. (4) Edition of the ratios: denominator>0.

**Table A1.7**  
Activity and Technical Ratios

(as a %)

R4	Ratio	Definition	Contents	
R41	Asset turnover ratio	Net turnover/Total balance sheet	Numerator:	I1
			Denominator:	A
R42	Employee expenses/Gross value added	Staff costs/Gross value added	Numerator:	I7
			Denominator:	(I1+I2+I3+I41-I5-I6-I81)

Notes: (1) This set of information is completed following the structures provided in the balance sheet (Tables A1.2 and A1.3) and income statement (Table A1.1). (2) Some ratios are not computed for holding companies. (3) Edition of the ratios: denominator>0.

**Table A1.8**  
Working Capital Ratios

(as a %)

R5	Ratio	Definition	Contents	
R51	Inventories/Net turnover	Inventories/Net turnover	Numerator:	A2
			Denominator:	I1
R52	Trade receivables/Net turnover	Trade receivables/Net turnover	Numerator:	A3
			Denominator:	I1
R53	Trade payables/Net turnover	Trade payables/Net turnover	Numerator:	L4
			Denominator:	I1
R54	Operating working capital/Net turnover	Operating working capital/Net turnover	Numerator:	(A2+A3-L5-L6)
			Denominator:	I1

Notes: (1) This set of information is completed following the structures provided in the balance sheet (Tables A1.2 and A1.3) and income statement (Table A1.1). (2) Some ratios are not computed for holding companies. (3) Edition of the ratios: denominator>0.

**Table A1.9**  
Notes

(as a % of turnover)

N	Note	Contents
N1	Acquisitions less sales and disposals of intangible assets	Includes acquisitions less sales and disposals in the period of assets included in item A11 of the balance sheet.
N2	Acquisitions less sales and disposals of tangible assets	Includes acquisitions less sales and disposals in the period of assets included in item A12 of the balance sheet.
N3	Acquisitions less sales and disposals of financial fixed assets	Includes acquisitions less sales and disposals in the period of assets included in item A13 of the balance sheet.

## Annex 2

### National deviations

**Table A2.1**

Income statement - Comparisons\*

	AT	BE	CZ	FR	DE	IT	NL	PL	PT	SK	ES
I1	-	I	-	-	-	-		-	-		-
I2	-	P_N/A	-	-	-	-		-	-		-
I3	-	P_N/A	-	-	I	-	I	I	I	I	I
I4	D	-	-	-	-	-		-	-		-
I41	D	I	-	-	-	-		-	-	N/A	-
I42	-	-		-	-	-		-	-	D	D
I43	-	-	-	-	-	-	D	D	N/A	N/A	D
I5	-	I	-	-	D	-		-	-	D	-
I6	-	P_N/A	-	-	N/A	-		-	-		-
I7	-	-	-	-	-	-		-	-		-
I8	D	-	-	-	-	-		I	-	D	-
I81	D	-	D	-	-	N/A	N/A	I	-	N/A	-
I82	N/A	-	-	D	N/A	-	N/A	-	-	N/A	-
I83	-	P_N/A	-	-	-	-	N/A	-	-	D	D
I84	-	-	-	-	-	-		-	D	N/A	D
I85	N/A	-	N/A	D	-	-	N/A	-	-	D	-
I9	-	-	-	-	-	-		-	-	D	-
I10	-	D	-	-	I	-		-	I	I	I
I11	-	-	-	-	-	-		-	-		-
It1	-	-	-	-	-	-		-	-		-
It2	-	-	-	-	-	-		-	-		-
It3	-	-	-	-	-	-		-	-		-

\*Detailed information for each country is available in the BACH Userguide (only in the Excel file); Legend: (1) "-" means the concept is in accordance with the general content; (2) "I" means additional information for the user (available in the Excel file of the BACH Userguide); (3) "D" means possible deviation from the defined concept; (4) N/A means unavailable; (5) "P\_N/A" means partially unavailable (e.g. unavailable for one size class).

Note: (1) Austria (AT), Belgium (BE), Czech Republic (CZ), France (FR), Germany (DE), Italy (IT), Netherlands (NL), Poland (PL), Portugal (PT), Slovakia (SK) and Spain (ES). (2) Although data are not yet available for some countries, future methodological differences from the BACH concept are already available.

**Table A2.2**
**Assets - Comparisons\***

	AT	BE	CZ	FR	DE	IT	NL	PL	PT	SK	ES
A1	-	-	-	-	-	-		-	-		-
A11	D	D	D	D	D	-	D	D	-	D	D
A12	-	-	-	D	-	-		-	-		D
A13	-	-	-	-	-	-		-	-		D
A131	-	P_N/A	N/A	-	-	-		P_N/A	-		D
A2	-	-	-	-	-	-		-	-		-
A21	-	P_N/A	-	-	-	-	N/A	-	-		-
A3	-	-	-	D	D	-		-	-	D	-
A4	-	-	D	-	D	-		-	-		-
A41	D	-	N/A	D	D	-	N/A	-	D		-
A42	N/A	-	N/A	N/A	N/A	-	N/A	-	D		N/A
A5	-	-	-	-	-	-		-	-		-
A51	N/A	N/A	N/A	D	D	-		-	D	D	-
A52	N/A	N/A	N/A	D	-	-	N/A	-	-	D	-
A6	-	-	-	-	-	-		-	-		-
A7	-	-	-	-	-	-		-	-		-
A	-	-	-	-	-	-		-	-		-

\*Detailed information for each country is available in the BACH Userguide (only in the Excel file); Legend: (1) "-" means the concept is in accordance with the general content; (2) "I" means additional information for the user (available in the Excel file of the BACH Userguide); (3) "D" means possible deviation from the defined concept; (4) N/A means unavailable; (5) "P\_N/A" means partially unavailable (e.g. unavailable for one size class).

Note: (1) Austria (AT), Belgium (BE), Czech Republic (CZ), France (FR), Germany (DE), Italy (IT), Netherlands (NL), Poland (PL), Portugal (PT), Slovakia (SK) and Spain (ES).(2) Although data are not yet available for some countries, future methodological differences from the BACH concept are already available.

**Table A2.3****Equity and Liabilities - Comparisons\***

	AT	BE	CZ	FR	DE	IT	NL	PL	PT	SK	ES
E1	-	-	D	-	D	-		-	-		-
E2	N/A	-	N/A	D	N/A	-		-	-		-
E	-	-	-	-	-	-		-	-		-
Lp	-	-	-	-	D	-		-	-		-
Lp1	-	P_N/A	N/A	N/A	-	-		-	-	N/A	-
L1	-	P_N/A	-	-	-	-		I	-		D
L11	-	N/A	-	-	-	-		I	D	N/A	-
L12	-	N/A	-	-	-	-		I	D		-
L2	-	-	-	-	-	-		I	-		D
L21	-	-	-	D	-	-		-	-		-
L22	-	-	-	D	-	-		-	D		-
L3	-	-	-	-	-	-		-	-		-
L31	N/A	D	N/A	-	D	-		I	-	N/A	D
L311	N/A	-	N/A	-	D	-		N/A	-	N/A	-
L312	N/A	D	N/A	D	-	-		I	D	N/A	-
L32	N/A	-	N/A	-	N/A	-		-	-	D	-
L321	N/A	-	N/A	-	N/A	-		-	-	D	-
L322	N/A	-	N/A	N/A	N/A	-		-	D	D	-
L4	-	-	D	-	D	-		-	-		-
L5	-	-	-	-	-	-		-	-	N/A	-
L6	-	-	-	D	D	-		-	-		-
L61	N/A	N/A	N/A	D	N/A	-		N/A	D	D	D
L62	N/A	N/A	N/A	N/A	N/A	-		N/A	-	D	D
L	-	-	-	-	-	-		-	-		-

\*Detailed information for each country is available on the BACH Userguide (only in the Excel file); Legend: (1) "-" means the concept is in accordance with the general content; (2) "I" means additional information for the user (available in the Excel file of the BACH Userguide); (3) "D" means possible deviation from the defined concept; (4) N/A means unavailable; (5) "P\_N/A" means partially unavailable (e.g. unavailable for one size class).

Note: (1) Austria (AT), Belgium (BE), Czech Republic (CZ), France (FR), Germany (DE), Italy (IT), Netherlands (NL), Poland (PL), Portugal (PT), Slovakia (SK) and Spain (ES). (2) Although data are not yet available for some countries, future methodological differences from the BACH concept are already available.

**Table A2.4****Notes - Comparisons\***

	AT	BE	CZ	FR	DE	IT	NL	PL	PT	SK	ES
N1	N/A	-	N/A	D	N/A	N/A	N/A	N/A	-	D	D
N2	N/A	-	N/A	D	N/A	-	N/A	N/A	-	D	D
N3	N/A	-	N/A	D	N/A	-	N/A	N/A	P_N/A	D	D

\*Detailed information for each country is available on the BACH Userguide (only in the Excel file); Legend: (1) "-" means the concept is in accordance with the general content; (2) "I" means additional information for the user (available in the Excel file of the BACH Userguide); (3) "D" means possible deviation from the defined concept; (4) N/A means unavailable; (5) "P\_N/A" means partially unavailable (e.g. unavailable for one size class).

Note: (1) Austria (AT), Belgium (BE), Czech Republic (CZ), France (FR), Germany (DE), Italy (IT), Netherlands (NL), Poland (PL), Portugal (PT), Slovakia (SK) and Spain (ES). (2) Although data are not yet available for some countries, future methodological differences from the BACH concept are already available.

# Annex 3

## National sampling methods and metadata on data collection

**Table A3.1**  
National sampling methods and metadata on data collection

Austria	
Sampling methods	The data collected are the product of a cooperation between the Oesterreichische Nationalbank and the Austrian Institute for SME Research. The data pool contains the individual company financial statements of legally independent firms domiciled in Austria and operating outside the banking and insurance sectors.
Survey	Not applicable.
Survey unit	All available annual accounts (no survey) of the smallest legal entity (firm) providing a balance sheet and a profit and loss account following the legislation for large limited liability companies in Austrian local GAAP.
Obligatory or voluntary survey	Not applicable.
Gross sample size	Yearly balance sheet data from about 60,000 NFCs (final data, considerably fewer provisional data).
Size of national population	Statistics Austria reports in the Structural Business Statistics 2013 314,325 ENTERPRISES (this number includes sole proprietorships and partnerships too). Please note that the Austrian BACH data DO NOT include sole proprietorships and unlimited partnerships.
Cut-off points	Not applicable.
NACE level	A-S, without O.
Timing/period of collection	Annual accounts are available from 2000 onwards.
Timeliness	Provisional data November N+1 (11 months), Final data June N+2 (18 months).
Grossing up factors	Not applicable.
Representativeness	The final annual data used for BACH statistics cover about 45% of the total number of NFCs.
Other remarks	None.
Belgium	
Sampling methods	Data cover all limited liability non-financial corporations (NFCs).
Survey	The Belgian CBSO collects and publishes the annual accounts of Belgian NFC, using standard formats.
Survey unit	Two types of standard format are used: the extended format (1,100 codified items) is used by large companies, while the abbreviated format (500 codified items) can be used by small companies. Company size is determined according to the three criteria recommended by the Accounting Directive: turnover, balance sheet total and number of employees.
Obligatory or voluntary survey	Filing annual accounts is mandatory for all limited liability NFCs.
Gross sample size	-
Size of national population	According to the most recent data, around 397,000 of NFCs, of which 25.000 are considered to be large, file their annual accounts with the CBSO.
Cut-off points	-
NACE level	All sectors of economic activity for the group of NFC are covered.
Timing/period of collection	Annual accounts are available from 2000 onwards.
Timeliness	Ten months for provisional figures, 14 months for final information.
Grossing up factors	Not applicable.
Representativeness	Around 99% for final data and between 80 and 99% for provisional data.
Other remarks	
Czech Republic	
Sampling methods	The sampling method (used since 2004) was determined to ensure the representativeness of the activities of non-financial corporations. The samples for the annual survey are defined to cover all NACE sectors and all size classes.
Survey	For all years, data have been collected from the annual statistical statement produced by the Czech Statistical Office. The structure of this statement is available at <a href="http://apl.czso.cz/pll/vykazy/pdf1">http://apl.czso.cz/pll/vykazy/pdf1</a> .
Survey unit	The statement comprises about 70 variables for balance sheet items and about 100 variables for the income statement.
Obligatory or voluntary survey	The CZSO annual statement is mandatory for predetermined entities.

Gross sample size	The CZSO annual statement covers a minimum of around 23,200 corporations each year (as regards the BACH structure of NACE, the same number relates to 2013).
Size of national population	According to recent data, approximately 237,000 non-financial corporations have been included in the NFC population in the last few years (concerning the BACH structure of NACE).
Cut-off points	None.
NACE level	The CZSO annual statement covers all NACE groups (all sectors of economic activity).
Timing/period of collection	The data which enable all BACH requirements on NACE levels etc. to be met have been fully available from the CZSO annual statement since 2007 (only the main sectoral classification in NACE, Revision 2 was available from 2004 to 2006).
Timeliness	Preliminary data in T+11, final data in T+15.
Grossing up factors	Not applicable.
Representativeness	Annual data used for BACH statistics cover about 9.8% of the total number of non-financial corporations, about 67.6 % of employees and 75.9% of turnover (in 2013).
Other remarks	None.

#### France

Sampling methods	Not applicable (administrative data).
Survey	The French data come from the FIBEN database, which is administered by the Banque de France. FIBEN is an administrative dataset based on tax statements.
Survey unit	FIBEN includes information from firms' balance sheets and income statements (ca. 620 variables)
Obligatory or voluntary survey	Not applicable (administrative data).
Gross sample size	Yearly balance sheet data from ca. 300,000 NFCs operating in France.
Size of national population	NFCs: 3,237,174 companies (2011, source: INSEE). Entire population (including financial sector): 3,303,592 (2011, source: INSEE).
Cut-off points	-
NACE level	FIBEN collects firms' industry affiliation using the six-digit industry code. All non-financial sectors are included.
Timing/period of collection	Data are available from 1999 onwards.
Timeliness	Provisional data available at T+12 months, final data available at T+24 months.
Grossing up factors	Not applicable.
Representativeness	FIBEN is comprehensive for firms that have annual sales greater than EUR 750,000.
Other remarks	-

#### Germany

Sampling methods	German BACH data are based on the balance sheets and income statements of non-financial enterprises, which have been collated in the Bundesbank's Financial Statements Data Pool. This data pool is a joint undertaking between the Bundesbank and a number of banks and other financial institutions with the aim of voluntarily integrating their financial statement databases for statistical purposes. The data pool contains the individual company financial statements of legally independent firms domiciled in Germany and operating outside the banking and insurance sectors.
Survey	Not applicable.
Survey unit	All available annual accounts (no survey) of the smallest legal entity (firm) providing a balance sheet and a profit and loss account following the legislation for large limited liability companies in German local GAAP.
Obligatory or voluntary survey	Not applicable.
Gross sample size	The Bundesbank's Financial Statements Data Pool contains about 140,000 financial statements per year.
Size of national population	The German NFC population contains about 3.7 million firms (including sole proprietors).
Cut-off points	Not applicable.
NACE level	A-S, without O.
Timing/period of collection	Continuous collection.
Timeliness	The vast majority of annual accounts are available 24 months after the end of the financial year.
Grossing up factors	Not applicable.
Representativeness	The Bundesbank's Financial Statements Data Pool covers about 3% of firms and 60-70% of turnover.
Other remarks	Due to comparability issues only the accounts of limited liability companies are provided to the BACH data base. The German Bach sliding samples cover between 50,000 and 60,000 enterprises per year.

#### Italy

Sampling methods	A non-statistical sample. There are no criteria for stratification.
Survey	Data are collected by the banking system, following an agreement. According to the agreement, every bank must collect a number of balance sheets depending on its size.
Survey unit	Although the CERVED database is based on a survey, there are two types of format for NFCs: an extended format and an abbreviated format. The first contains details regarding the nature of creditors.



Obligatory or voluntary survey	Not applicable.
Gross sample size	The CERVED database covers about 55,000 corporations each year. The statistics compiled from this annual survey, based on a sliding sample, include about 50,000 corporations over two consecutive years. The database comprises all resident enterprises with a commercial, industrial or agricultural nature as their principal activity, as well as non-resident entities that are permanently established in Italy.
Size of national population	Around 1,000,000 corporations per year are included in the NFC population.
Cut-off points	Not applicable.
NACE level	The CERVED database covers all sectors of economic activity, with the exception of divisions 84, 98 and 99.
Timing/period of collection	Balance sheet data are available from 2000.
Timeliness	11 months for provisional figures and 15 months for final information.
Grossing up factors	Not applicable.
Representativeness	The CERVED database covers, on average, around 75% of the turnover of the total NFCs. It is biased towards medium and large companies.
Other remarks	
<b>Netherlands</b>	
Sampling methods	Not applicable (administrative corporation tax data).
Survey	The BACH data is based on the database of the tax authorities (corporation tax). Statistics Netherlands has delivered only non-consolidated data for the period 2008-2013. Non-consolidated means that individual tax payers report only for themselves or that individual tax payers report for themselves and one subsidiary.
Survey unit	Balance Sheets and Income (P&L) Statements of companies.
Obligatory or voluntary survey	Filing of corporation tax is obligatory.
Gross sample size	For BACH: Yearly balance sheet data for ca. 300,000 non-financial corporation tax payers operating in the Netherlands.
Size of national population	Corporation tax: ca. 630,000 corporation tax payers of which ca. 470,000 are non-financial corporation tax payers.
Cut-off points	Statistics Netherlands only delivers the non-consolidated data for the corporation tax data. Non-consolidated means that individual tax payers report only for themselves or that individual tax payers report for themselves and one subsidiary.
Nace level	All sectors of economic activity within the group of NFCs are covered.
Timing/period of collection	Data are available from 2008 onwards.
Timeliness	Provisional data available at T+24 months, final data available at T+36 months.
Grossing up factors	Not applicable.
Representativeness	Annual data used for BACH statistics cover ca. 60% of the number of non-financial corporation tax payers operating in the Netherlands.
Other remarks	None.
<b>Poland</b>	
Sampling methods	No sampling method is applied because in Poland the survey comprises all companies with more than nine employees and that deliver full balance sheet statements.
Survey	Data are collected by the Central Statistical Office (CSO). The annual survey covers entities keeping accounting ledgers and employing ten or more persons. As regards legal form the survey covers entities organised in the form of commercial companies (personal and with share capital), partnerships, state-owned enterprises, co-operatives, branches of foreign entrepreneurs, state organisational entities, and natural persons conducting business activities. Data according to the classification NACE Revision 2 are available from 2005. (Data according to NACE Revision 1 are available from 1995).
Survey unit	Comprises more than 350 variables (from the balance sheet and the profit and loss account).
Obligatory or voluntary survey	An annual survey is obligatory for all the above-mentioned entities.
Gross sample size	The CSO annual survey covers about 55,000 non-financial enterprises each year. It covers about 3% of the national population in terms of number of entities.
Size of national population	According to data from 2013, the non-financial enterprises sector comprises about 1,771,000 entities.
Cut-off points	Imposing NACE Revision 2 in 2005.
NACE level	The data cover all sectors of activity excluding: credit institutions, brokerage and insurers, investment and pension societies, higher educational schools, individual households in the agricultural sector, independent public healthcare centres and cultural institutions that are legal units.
Timing/period of collection	Annual survey from 2005 to 2013. (Data according to NACE Revision 1 are available from 1995).
Timeliness	11/12 months after the accounting year.
Grossing up factors	-
Representativeness	The annual survey covers about 3% of entities in terms of number of enterprises and about 56% in terms of number of employees.
Other remarks	
<b>Portugal</b>	
Sampling methods	The sampling method (used from 2000 to 2005) was determined to ensure the representativeness of the activities of NFCs) and their size class, enabling a time-series analysis of a relevant number of companies to be produced and providing accurate coverage of activities. Stemming from these objectives, the

	samples for the annual survey were defined to cover two components, one random and the other non-random. From 2006 data cover all NFCs.
Survey	From 2000 to 2005 data were collected through the Central Balance Sheet Database (CBSD) annual survey. Since 2006 data have been collected through the Informação Empresarial Simplificada (Simplified Corporate Information, Portuguese acronym: IES), which comprises the information for the annual accounts of corporations.
Survey unit	Comprised more than 600 variables from 2000 to 2005 and has consisted of more than 1,800 variables since 2006.
Obligatory or voluntary survey	The CBSD annual survey (from 2000 to 2005) was voluntary. IES (since 2006) is mandatory for all NFCs.
Gross sample size	The CBSD annual survey covered about 17,500 corporations each year. The statistics compiled from this annual survey, based on a sliding sample, included about 15,000 corporations over two consecutive years. IES comprises all resident enterprises with a commercial, industrial or agricultural nature as principal activity as well as non-resident entities with a permanent establishment in Portugal.
Size of national population	According to more recent data, more than 350,000 corporations per year are included in the NFC population.
Cut-off points	From 2000 to 2005 data were based on a sample (see other remarks). Since 2006 data have covered all NFCs.
NACE level	The CBSD annual survey (used from 2000 to 2005) covered all sectors of economic activity within the group of NFCs in the annual reporting sample. Since 2006 data have covered all NFCs.
Timing/period of collection	An annual survey (through the CSBD annual survey, from 2000 to 2005) and annual accounts of corporations (through IES, since 2006).
Timeliness	10/12 months (through the CSBD annual survey, from 2000 to 2005) and six months (through IES, since 2006).
Grossing up factors	Not applicable.
Representativeness	The CBSD annual survey (used from 2000 to 2005) covered around 5% of the total number of enterprises and 40% of the total number of employees. IES (since 2006) covers more than 90% in the majority of the cases.
Other remarks	It should be noted that data from 2000 to 2005 present a range of characteristics suggesting that any analysis of the results should be undertaken with caution. This is mostly because the indicators should not be interpreted as corresponding to the overall results for Portuguese NFCs. For instance, the overall results of the corporations reflect, in terms of activities, better coverage of large corporations as well as that of corporations in the manufacturing, electricity, gas and water, and transport and communication sectors. On the other hand, there is less coverage in the trade and repairs sector. This conclusion is reached by comparing the proportion of turnover in the corporations in the sample with that of the total population of NFCs.
<b>Slovakia</b>	
Sampling methods	A non-statistical sample. There are no criteria for stratification.
Survey	Financial statement data consist of companies' annual balance sheets and income statements. Financial statements are compiled by DataCentrum and provided by the Ministry of Finance.
Survey unit	The balance sheets (145 variables) and income statements of companies (60 variables).
Obligatory or voluntary survey	Providing financial statements is mandatory for determined entities (e.g. public limited companies, joint stock companies, public companies...).
Gross sample size	The BACH database covers about 127,000 corporations (2012 figures).
Size of national population	According to our reference database around 164,000 corporations per year are included in the NFC population.
Cut-off points	None.
NACE level	All NACE groups.
Timing/period of collection	Data available since 2005.
Timeliness	Preliminary data in T+12, final data in T+16.
Grossing up factors	None.
Representativeness	Annual data used for BACH statistics cover about 77% of the number of non-financial corporations.
Other remarks	None.
<b>Spain</b>	
Sampling methods	A non-statistical sample. There are no criteria for stratification
Survey	The Spanish contribution of the Central Balance Sheet Data Office Annual Survey to the BACH sample is prepared by integrating the CBA (voluntary reporting) and CBB (accounts filed with the mercantile registers) databases.
Survey unit	In CBA there are two types of questionnaire: an extended questionnaire for companies with more than 100 employees (655 variables) and an abbreviated questionnaire for those with fewer than 100 employees (320 variables). Although CBB is not a survey, there are three types of questionnaire: extended format (556 variables), abbreviated format and SME format (304 variables in each one of them).
Obligatory or voluntary survey	The CBA annual survey is voluntary. CBB is mandatory for all NFCs.
Gross sample size	CBA covers about 10,000 corporations each year, based on a sliding sample over two consecutive years. CBB comprises around 800,000 corporations which have deposited their annual accounts in the mercantile registries; once this information has been filtered the CBB sample comprises around 600,000 corporations per year.
Size of national population	According to the Central Business Register, around 1,100,000 corporations per year are included in the NFC population.
Cut-off points	The figures from 2000 are compiled under two different Accounting Laws: PGC1990 from 2000 to 2007 and PGC2007 in force since 2008. In any case, the information is well connected in the time series without any significant breaks in the database (although the basic data may have these breaks, the data stored in the database have been treated in a way that avoids any distortion in the analysis).
NACE level	CBA and CBB cover all NACE Revision 2 divisions, with the exceptions of 64, 65, 66, 84, 94, 97, 98 and 99, all of which are activities not undertaken by NFCs. The strict application of the recommendation of the Task Force on Head Offices, Holding Companies and SPEs has meant that certain holding companies,

	without autonomy of decision, carrying out these activities (under 642 NACE), have been included in the NFC sector.
Timing/period of collection	CBA and CBB are available jointly from 2000.
Timeliness	Ten months for provisional figures of CBA and CBB, and 22 months for final information.
Grossing up factors	Not applicable. Banco de España's CBSO grosses up figures for an internal statistics used in the compilation of the Financial Accounts of the Economy, but cannot be used in the diffusion of the BACH database.
Representativeness	The merger of CBA and CBB covers, on average, around 50% of the Gross Value Added of the total non-financial corporations. CBA is biased towards medium and large companies, whereas CBB is focused on the small and micro-companies of the population.
Other remarks	

## Annex 4

### Task force for holding companies and head offices: recommendations

To develop a solution and guidelines that can clearly identify the kind of entities to be classified as financial institutions, a task force for holding companies, head offices and similar entities was set up by the ECB, Eurostat and the Organisation for Economic Cooperation and Development (OECD) in 2013, with the following goals:

- (a) To achieve comparable treatment in the national statistics of entities denominated as holding companies, head offices and special purpose entities (SPEs) and similar, in international manuals: SNA 2008, ESA 2010 and Balance of Payments and International investment Position Manual: Sixth Edition (BPM 6);
- (b) To develop a typology and a uniform classification of these entities, taking into account the recommendations of various international groups: the Eurostat WG on multinationals (TF MUNA), the United Nation expert group on the impact of globalisation on national accounts (GGNA), the OECD WG on financial statistics and national accounts, the OECD WG on international investment statistics, and Eurostat and ECB in the field of external statistics.

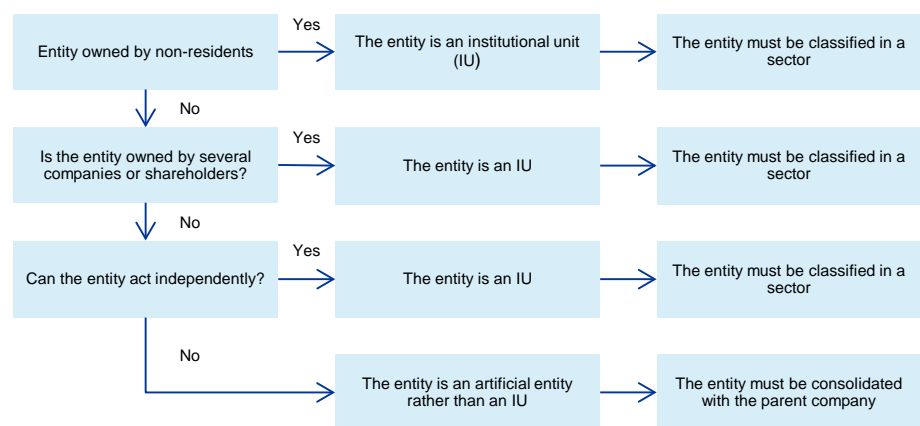
The main conclusions of the task force can be summarised as follows:

- (a) The standard criteria for an entity to become an institutional unit must also be met (autonomy of decision) in the case of holding companies, head offices and other SPEs. Entities of this type owned by non-residents will always be regarded as institutional units;
- (b) Entities owned by an individual resident unit, with “no employees or compensation for employees” can be used as an indicator of their lack of independence. However, the criterion is not sufficient to conclude that there is no institutional independence;
- (c) Having multiple parent companies/shareholders is a sufficient condition for a unit to be an institutional unit. Head offices should always be considered as separate institutional units;
- (d) In relation to the identification of holding companies and head offices:
  - The holding of at least 50% of total assets materialised in shares and other shareholdings from subsidiary entities may be considered to be an indicator that identifies this type of entity;

- The delimitation in this type of entity regarding employment should take national circumstances into account. In general, a number of employees greater than three may be considered to be an indicator that it is a head office;
- The test for the identification of institutional units (IU) such as holding companies, head offices, SPEs or similar is shown below (decision tree, Chart A4.1).

**Chart A4.1**

Test for the identification of institutional units such as holding companies, head offices, SPEs or similar



Source: Task force for holding companies and head offices.

Note: The absence of employees or compensation of employees may be an indicator of lack of independence that must be investigated, but it is not enough to determine that the entity is not an institutional unit.

## Annex 5

### The ECCBSO

The main task of the ECCBSO (<https://www.eccbsso.org/>) is to improve the analysis of non-financial corporate enterprise data through the exchange of information and by joint studies, based on the work carried out by the national Central Balance Sheet Data Offices which collect, store and disseminate descriptive and accounting data for companies and, starting from this information, develop economic and financial research.

The ECCBSO was set up in 1987 as an initiative of Banque de France, National Bank of Belgium and the Italian Centrale dei Bilanci.

Currently, the ECCBSO consists, apart from the European Central Bank (ECB), of 31 members representing 28 different countries: Austria (Oesterreichische Nationalbank), Belgium (National Bank of Belgium), Bulgaria (Българска народна банка), Czech Republic (Česká Národní Banka), Denmark (Danmarks Nationalbank and Danmark Statistik), Finland (Tilastokeskus Statistiskcentralen and Suomen Pankki), Germany (Deutsche Bundesbank), France (Banque de France), Greece (Τράπεζα της Ελλάδος), Hungary (Magyar Nemzeti Bank), Ireland (Central Bank of Ireland), Italy (Banca d'Italia and Cerved Group Spa), Luxembourg (STATEC – Luxembourg and Banque Centrale du Luxembourg), Macedonia (Народна банка на Република Македонија), Malta (Central Bank of Malta), Montenegro (Centralna banka Crne Gore), the Netherlands (Centraal Bureau voor de Statistiek and ), Poland (Narodowy Bank Polski), Portugal (Banco de Portugal), Romania (Banca Națională a României), Serbia (Народна банка Србије), Slovakia (Národná Banka Slovenska), Slovenia (Banka Slovenije), Spain (Banco de España), Sweden (Statistiska Centralbyråns), Turkey (Türkiye Cumhuriyet Merkez Bankası) and the United Kingdom (Bank of England). The European Commission is also a part of the ECCBSO as a permanent observer and of the IFRS Foundation and the Bank for International Settlements (BIS) as an observer.

The president is elected every three years from the member institutions represented on the committee. The presidency is currently held by Banco de Portugal, in the person of the Director of the Statistics Department, João Cadete de Matos, until November 2016.

The ECCBSO consists of four working groups (WGs):

**The BACH WG:** this WG is responsible for the management of the BACH database, which contains aggregated and harmonised accounting-related data for non-financial incorporated enterprises in European countries. In particular, this WG is dedicated to the maintenance, updating and promotion of BACH, as well as to the development of related products. The WG must participate actively in discussions regarding the importance and the economic and financial situation of European companies;

**WG on IFRS impact and CBSO databases:** this WG focuses primarily on the impact of the IFRS<sup>24</sup>, issued by the IASB, on the accounting procedures of non-financial corporations, and their effects on the European CBSO databases and questionnaires, trying to assess both potential opportunities and risks. To that end, the group has developed IFRS-compliant standard formats (using for that purpose the IFRS taxonomy defined by the IASB-XBRL team) and has also created the ERICA (European Records of IFRS Consolidated Accounts) database. This database includes around 1,000 non-financial groups from the participating countries (Austria, Belgium, France, Italy, Germany, Greece, Portugal and Spain);

**Risk Assessment WG:** This WG was set up in 1987 to draw up the so-called “white paper” on corporate analysis in Europe and to draft reports on the analysis of stocks and flows conducted in the various CBSOs. The group then expanded its project and, since 1999, its members have been working in cooperation with the relevant divisions of the ECB, homogenising the risk analysis carried out by NCBs. These analyses mainly concern corporations whose liabilities have been used as collateral in monetary policy operations. The group has also carried out research on default prediction models and, jointly with the European Credit Assessment Framework (ECAF) task force, has developed studies on technical details of the future ECAF;

**Financial Statement Analysis Working Group:** this WG focuses on the analysis of the asset position, capital structure and profitability of NFCs in an international setting. It has produced four studies in total. The latest research paper, “Profitability, Equity Capitalization and Net Worth at Risk – How resilient are non-financial corporations in a crisis environment?” was published in January 2013 (under its old name “Study Group of the ECCBSO”) and deals with companies’ reaction to the financial crisis in terms of key financial ratios. Net Worth at Risk (NWAR), a concept developed by the group, relates to the minimum capital needed by a company in order to absorb potential losses during a period of two years and independent of a crisis. The group is currently carrying out research on trade credits.

---

<sup>24</sup> IFRS refers to international accounting rules developed by the International Accounting Standards Board (IASB). For additional information on this topic, consult the IFRS Foundation website available at: <http://www.ifrs.org/>.

## Annex 6

### BACH's history and the BACH WG

The BACH project was launched in 1985 by the General Directorate Economic and Financial Affairs of the European Commission (DG ECFIN). BACH was created in order to analyse the financial structures and performance of European companies. The idea of the project was to take advantage of the information supplied by the CBSOs, which use companies' individual accounts and, therefore, have more detailed information than that available in national accounts. The BACH database was developed by a ECCBSO working group.

In the late nineties another database was created in the ECCBSO context – the European Sectoral References Database (ESD) – to provide NFC financial ratios. The aim here was to provide sectoral benchmarks in order to compare companies' performances. It included dispersion statistics (quartiles) and was primarily developed as an additional tool for credit and financial institutions' risk analysis.

In 2010, national providers decided to combine BACH and ESD in a single application, given their high degree of complementarity. As a second step, following a joint effort to harmonise data, the two databases were merged in a more user-friendly and comparable framework. In essence, the current BACH database reflects the merger of the previous BACH and ESD databases.

Based on the knowledge that national accounting and reporting standards do not fully converge, a synchronised stock-taking exercise to settle countries' specificities was undertaken in BACH, in order to increase data comparability. The result was an increase in cross-country comparability and a more user-friendly and integrated Userguide, which contains complementary information useful for a better understanding of the BACH database.

As a result of this joint effort, a new BACH database was released in 2013.

The Bank for the Accounts of Companies Harmonized Working Group (BACH WG) is responsible for the management of the BACH database, which contains the aggregated and harmonised accounting related data of non-financial incorporated enterprises for European countries. In particular, this WG is devoted to the maintenance, updating and promotion of BACH, as well as to the development of related products. The WG participates actively in discussions regarding the importance and the economic and financial situation of European companies.



Participants in the BACH WG currently come from 17 different institutions:

- Banca Națională a României
- Banco de Portugal
- Banca d'Italia
- Narodowy Bank Polski
- National Bank of Belgium
- Centraal Bureau voor de Statistiek
- Banque de France
- Cerved Group Spa
- Banco de España
- Deutsche Bundesbank
- Česká Národní Banka
- STATEC
- Oesterreichische Nationalbank
- European Central Bank
- Danmarks Nationalbank
- Národná Banka Slovenska
- Central Bank of the Republic of Turkey

## References

- Bank for the Accounts of Companies Harmonized, (2013), *Outlook #1 – SMEs in European countries*.
- Bank for the Accounts of Companies Harmonized, (2014), *BACH Userguide*.
- Bank for the Accounts of Companies Harmonized, (2014), *Outlook #2 - Financial structure and profitability of European companies*.
- Bank for the Accounts of Companies Harmonized, (2015), *Outlook #3 Deleveraging and its effects on the asset side*.
- Banco de Portugal, (2008), "Simplified reporting: inclusion of the Simplified Corporate Information in the Statistics on Non-Financial Corporations from the Central Balance Sheet Database", *Supplement 1/2008 to the Statistical Bulletin*.
- Cochran, William G. (1977), *Sampling techniques*, 3<sup>rd</sup> edn., Wiley, New York.
- European Banking Authority, (2012), *Assessment of SME proposals for CRD IV/CRR*.
- European Committee of the Central Balance Sheet Data Offices, (2013), *Products and Services of the European CBSOs*.
- Eurostat, (2008), "NACE Rev. 2, Statistical Classification of Economic Activities in the European Community", *Methodologies and Working Papers*.
- Eurostat (2015), "[Contributions of each institutional sector to macroeconomic developments](#)", *Retrieved March 06, 2015*.
- Levy, Paul S. and Lemeshow, S, (1999), *Sampling of populations: methods and applications*, 3<sup>rd</sup> edn., Hoboken.
- Särndal, Swensson and Wretman, (2010). "Sampling: Design and Analysis", *Model Assisted Survey Sampling, Springer Series in Statistics, 1992*, Brooks Cole.

## Relevant websites

Bank for the Accounts of Companies Harmonized database:  
<http://www.bach.banque-france.fr/>

European Committee of Central Balance Sheet Data Offices website:  
<https://www.eccbso.org/>

## Relevant legislation

Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises

Directive 2012/6/EU of the European Parliament and of the Council of 14 March 2012 amending Council Directive 78/660/EEC on the annual accounts of certain types of companies as regards micro-entities

Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EC and 83/349/EEC

Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies

Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities (NACE Revision 2) and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains

Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union

Seventh Council Directive 83/349/EEC of 13 June 1983 based on Article 54 (3) (g) of the Treaty on consolidated accounts

## Abbreviations

BACH	Bank for the Accounts of Companies Harmonized	IAS	International Accounting Standard
BPM6	Balance of Payments and International investment Position Manual: Sixth Edition	IASB	International Accounting Standards Board
CBSO	Central Balance Sheet Data Offices	IES	<i>Informação Empresarial Simplificada</i> (Simplified Corporate Information)
CBSD	Central Balance Sheet Database	IFRS	International Financial Reporting Standards
DGECFIN	General Directorate Economic and Financial Affairs of the European Commission	IU	Institutional Unit
EBA	European Banking Authority	NACE	Statistical Classification of Economic Activities in the European Community
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation	NCB	National Central Bank
ECAF	European Credit Assessment Framework	NFC	Non-financial corporations
ECB	European Central Bank	NSI	National Statistical Institute
ECCBSO	European Committee of Central Balance Sheet Data Offices	NWaR	Net Worth at Risk
ERICA	European Records of IFRS Consolidated Accounts	OECD	Organisation for Economic Cooperation and Development
ESA	European System of National and Regional Accounts	SME	Small and Medium-sized Enterprises
ESD	European Sectoral References Database	SPE	Special Purpose Entities
GAAP	Generally Accepted Accounting Principles	WG	Working Group

**Bank for the Accounts of Companies Harmonized Working Group (BACH WG) [1356-bach-ut@banque-france.fr](mailto:1356-bach-ut@banque-france.fr)**

This report was drafted by the Working Group on the Bank for the Accounts of Companies Harmonized. The project was launched during the presidency of Ms Ana Margarida de Almeida (Chairperson) and Vítor Silveira (Secretariat) counting on the valuable contribution of Ms Margarida Brites (ex-Chairperson). The project was concluded during the presidency of Ms Paula Menezes (Chairperson) and Fábio Albuquerque (Secretariat).

**Members of the BACH WG****Alina Tarta**

Banca Națională a României; e-mail: [alina.tarta@bnro.ro](mailto:alina.tarta@bnro.ro)

**Ana Margarida de Almeida**

Banco de Portugal; e-mail: [ammalmeida@bportugal.pt](mailto:ammalmeida@bportugal.pt)

**Antonio De Socio**

Banca d'Italia; e-mail: [antonio.desocio@bancaditalia.it](mailto:antonio.desocio@bancaditalia.it)

**Begoña Gutiérrez del Olmo**

Banco de España; e-mail: [bego.golmo@bde.es](mailto:bego.golmo@bde.es)

**Bożena Wtulich**

Narodowy Bank Polski; e-mail: [bożena.wtulich@nbp.pl](mailto:bożena.wtulich@nbp.pl)

**Cécile Buydens**

National Bank of Belgium; e-mail: [cecile.buydens@nbb.be](mailto:cecile.buydens@nbb.be)

**Chantal Lemmens-Dirix**

Centraal Bureau voor de Statistiek; e-mail: [c.dirix@cbs.nl](mailto:c.dirix@cbs.nl)

**Christophe Cahn**

Banque de France; e-mail: [christophe.cahn@banque-france.fr](mailto:christophe.cahn@banque-france.fr)

**Ewa Sokolowska**

Narodowy Bank Polski; e-mail: [ewa.sokolowska@nbp.pl](mailto:ewa.sokolowska@nbp.pl)

**Fábio Albuquerque**

Banco de Portugal; e-mail: [fhalbuquerque@bportugal.pt](mailto:fhalbuquerque@bportugal.pt)

**Fabrizio Balda**

Cerved Group Spa; e-mail: [fabrizio.balda@cervedgroup.com](mailto:fabrizio.balda@cervedgroup.com)

**Franck Lemaire**

Banque de France; e-mail: [franck.lemaire@banque-france.fr](mailto:franck.lemaire@banque-france.fr)

**Henri Demarteau**

Centraal Bureau voor de Statistiek; e-mail: [hdeu@cbs.nl](mailto:hdeu@cbs.nl)

**José Ramón Cano**

Banco de España; e-mail: [joser.cano@bde.es](mailto:joser.cano@bde.es)

**Karelle Thiebot-Goget**

Banque de France; e-mail: [karelle.thiebot-goget@banque-france.fr](mailto:karelle.thiebot-goget@banque-france.fr)

**Lars Holstein**

Deutsche Bundesbank; e-mail: [lars.holstein@bundesbank.de](mailto:lars.holstein@bundesbank.de)

**Luis Ángel Maza**

Banco de España; e-mail: [lmaza@bde.es](mailto:lmaza@bde.es)

**Margarida Brites**

Banco de Portugal; e-mail: [mpbrites@bportugal.pt](mailto:mpbrites@bportugal.pt)

**Matthias Bürker**

Banque de France; e-mail: [matthias.burker@banque-france.fr](mailto:matthias.burker@banque-france.fr)

**Miroslav Kalous**

Česká Národní Banka; e-mail: [miroslav.kalous@cnb.cz](mailto:miroslav.kalous@cnb.cz)

**Patricia Gonzalez**

STATEC; e-mail: [patricia.gonzalez@statec.etat.lu](mailto:patricia.gonzalez@statec.etat.lu)

**Paula Menezes**

Banco de Portugal; e-mail: [pamenezes@bportugal.pt](mailto:pamenezes@bportugal.pt)

**Reinhard Konczer**

Oesterreichische Nationalbank; e-mail: [reinhard.konczer@oenb.at](mailto:reinhard.konczer@oenb.at)

**Sébastien Pérez-Duarte**

European Central Bank; e-mail: [sebastien.perez\\_duarte@ecb.int](mailto:sebastien.perez_duarte@ecb.int)

**Stinne Skriver Jørgensen**

Danmarks Nationalbank; e-mail: [ssjo@nationalbanken.dk](mailto:ssjo@nationalbanken.dk)

**Tomáš Eder**

Národná Banka Slovenska; e-mail: [tomas.eder@nbs.sk](mailto:tomas.eder@nbs.sk)

**Vítor Lopes Silveira**

Banco de Portugal; e-mail: [vsilveira@bportugal.pt](mailto:vsilveira@bportugal.pt)

**© European Central Bank, 2015**

Postal address 60640 Frankfurt am Main, Germany  
Telephone +49 69 1344 0  
Website [www.ecb.europa.eu](http://www.ecb.europa.eu)

All rights reserved. Any reproduction, publication and reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the authors.

Information on all of the papers published in the ECB Statistics Paper Series can be found on the ECB's website, <http://www.ecb.europa.eu/pub/research/statistics-papers/html/index.en.html>.

ISSN 2314-9248 (online)  
ISBN 978-92-899-1907-4  
DOI 10.2866/539767  
EU catalogue No QB-BF-15-003-EN-N