



IFC-ECCBSO-CBRT Conference on "*Uses of Central Balance Sheet Data Offices' information*"

Co-organised by the IFC, the European Committee of Central Balance Sheet Data Offices (ECCBSO) and the Central Bank of the Republic of Turkey (CBRT)

Özdere-İzmir, Turkey, 26 September 2016

## Assessment of SMEs by credit institutions using CBSO (Central Balance Sheet Data Office) data<sup>1</sup>

Manuel Ortega, Bank of Spain

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<sup>1</sup> This paper was prepared for the meeting. The views expressed are those of the author and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

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# Assessment of SMEs by credit institutions using CBSO (Central Balance Sheet Data Office) data

A use case developed by the Banco de España

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2017.09.15

## Abstract

Since 2016, Spanish credit institutions are obliged to use a harmonised risk assessment methodology established under a binding regulation approved by the Banco de España. The "SME-Financial Information" report that credit institutions must provide to SMEs that are to have their credit facilities reduced must meet certain requirements. Among other things, it must include the relative position of the company within its sector of activity. This note presents the full project developed by Banco de España and the content of the above report, more specifically, the part developed by the Banco de España CBSO using the BACH database methodology of the European Committee of Central Balance Sheet Data Offices (ECCBSO).

**Keywords:** CBSO (Central Balance Sheet Data Offices), financial statements, statistics, non-financial corporations, risk assessment, benchmark information, accounting data, XBRL files, BACH database

**JEL classification:** D80, G21

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## Promoting SME financing in Spain: legal precedent

### Presentation of the project: legal precedent (Law 5/2015)

As a consequence of the financial crisis and the deterioration of the financial conditions facing non-financial corporations, the Spanish Government passed, in April 2015, Law 5/2015 on the promotion of financing to SMEs, aimed at easing access to financing for SMEs and increasing the alternative methods of financing. Among a vast variety of measures set out, some centred on the creation of legal support for new financing channels (asset securitisation, participating loans, crowdfunding, etc.). Other measures sought to reduce the information asymmetry gap, a problem specifically affecting SMEs, especially when small companies wishing to establish new financing relationships with commercial banks have to provide full financial information on their behaviour.

To that end, Law 5/2015 obliges credit institutions to provide a financial report on the financial situation and payment track record to SMEs that are to have their credit facilities reduced. More precisely, when commercial banks decide to reduce credit facilities, they must give 3 months' notice to the non-financial corporation and, at the same time, provide a document entitled "SME-Financial Information" ("Información financiera PYME", in Spanish). The law establishes an obligation for the Banco de España to standardise this document and to create a standardised methodology for the assessment of the credit quality of an SME (also including sole proprietors).

### Banco de España banking regulation (Circular 6/2016): SME report and risk assessment methodology

In December 2015, the Banco de España, in fulfilment of the above obligation, published a draft regulation setting out the harmonised content of the report and of the risk assessment methodology, both developed by the Directorate General Banking Supervision with the participation of other departments of the Bank. After receiving the input and feedback of the different stakeholders from the private sector, the regulation was passed and published in the Official Gazette as Circular 6/2016, of 30 June 2016.

The content of the "SME-Financial Information" report must principally include the records available at the credit institution about the credit history of the company, such as:

- **Reporting to the Central Credit Register-CCR** (the information submitted monthly by all commercial banks to Banco de España's CCR, on loans and all types of credit provided to non-financial corporations, sole proprietors and households) about the particular SME concerned.
- **Information provided by the commercial bank to private data compilers** about the solvency history of the company.
- **Credit history, with all kinds of details** about the records for the last 5 years', including, for example: a) a list of all credit products arranged by the company, past and current, b) a list of unpaid loans, c) refinancing agreements, d) insurance contracts connected to financial flows, ....

- **Detailed movements over the last year** in all the financial contracts arranged by the company with the bank.
- **Credit rating** given, according to the harmonised methodology defined in the regulation.
- **Relative position of the company within its sector of activity.** The content of this part of the report will be detailed in the next section of this article.

The aforementioned report is highly confidential and can only be provided to companies that request it or that are to have their credit facilities reduced at this commercial bank. In the first case, when the report is prepared at the request of a company (that is, when the non-financial corporation asks for it), the commercial bank can apply a charge. Otherwise (when the commercial bank is obliged to prepare the report due to a reduction in credit), the report has to be prepared and provided free of charge to the SME.

As mentioned earlier, Law 5/2015 established an obligation for the Banco de España to develop a harmonised method of risk assessment to be applied by commercial banks when assessing loans to SMEs and sole proprietors. In a nutshell, the method aims to assess, in a standardised manner, the credit quality of an SME.

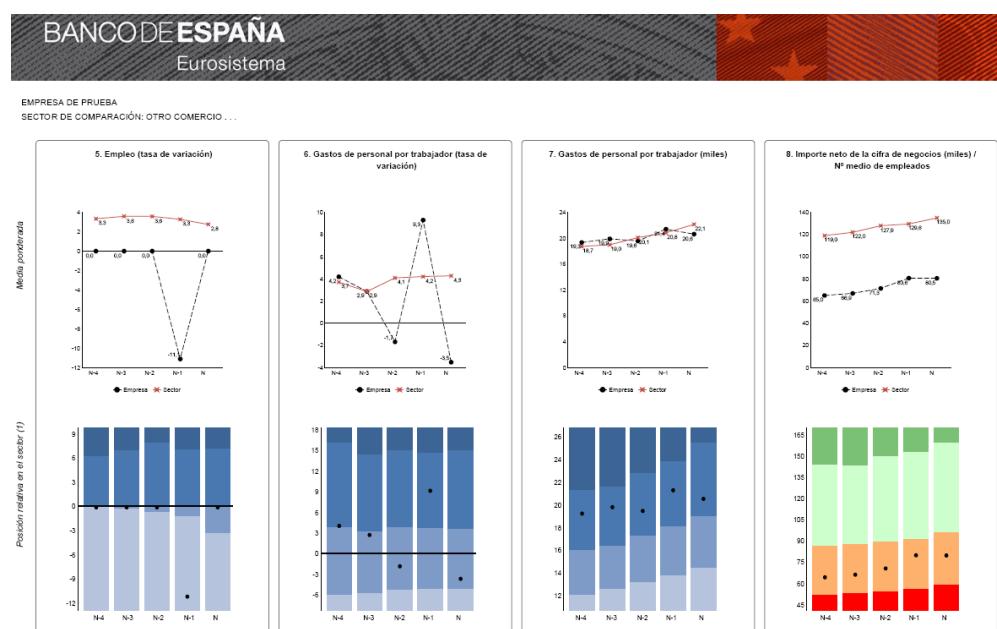
According to the method developed by Banco de España, which financial institutions are obliged to apply since 2016, three variables have to be taken into account:

- **Financial situation of the debtor.** For that purpose, financial corporations should use the financial statements officially filed by companies in the Mercantile Registers in Spain.
- **Qualitative variables**, such as years of relationship with the debtor, sector of activity where it operates, experience and track record with the shareholders of the company....
- **Behavioural variables**, like the existence of previous default and/or payment delays, overdrafts, other....
- Additionally, and as an objective measure of the financial situation, the commercial bank has to take into account the **relative position of the debtor in relation to companies of the same size and sector of activity.**

The result of the analysis must then be classified under one of the following levels or headings: "low risk", "medium-low risk", "medium-high risk", "high risk" and finally, "not available" (the latter applies when there is not enough information to deliver an opinion). The system introduces a degree of flexibility: each credit institution has to declare to the regulator (Banco de España) the relationship in respect of these levels and the 3 groups of variables defined in the method. Those interested in learning about the full details of the method applied can find them (only in Spanish) in Circular 6/2016, [http://app.bde.es/clf\\_www/leyes.jsp?id=155613&tipoEnt=0](http://app.bde.es/clf_www/leyes.jsp?id=155613&tipoEnt=0)).

## Position of the debtor within its sector of activity. Available past experience: BACH database and XBRL data

As part of the "SME-Financial Information" report, the information about the position of the company in relation to its sector of activity and size has become an important part of the method, due to its intrinsic homogeneity, if it were defined properly. More precisely, financial and risk analysts, in addition to their opinion derived from qualitative and behavioural information, can base part of their assessment on unquestionable statistical data: the position of a company inside a population distribution. In April 2015, the Banco de España's CBSO participated in the interdepartmental working group created by the Bank to define the content of the risk assessment methodology. The CBSO contributed its experience, since 1984, in the preparation of benchmark studies provided to the companies contributing to its surveys and databases. Annually, these companies receive, in return for their collaboration on the CBSO survey, an individual study showing their behaviour in relation to companies of the same sector and size, in weighted average terms and in relation to the statistical distribution. For a set of selected economic and financial ratios, the company can observe graphically whether it belongs to the best-positioned (those above the third quartile of the statistical distribution) or the worst-positioned companies (those below the first quartile).



The participation of the CBSO in the aforementioned working group was based on the following:

- **Graphic benchmark analysis.** Preparation of a visual technical solution similar to the individual study provided to the Spanish non-financial corporations (the benchmark study previously mentioned).

- **Homogeneous ratios definitions.** Selection of economic and financial ratios from a European database and well-tested methodology: BACH database of the European Committee of Central Balance Sheet Data Offices, to which Banco de España's CBSO has contributed since its inception, in 1987.
- **Use of available information.** Definition of the ratios in a simplified version, in order to use the official information available: the statutory deposit of the annual accounts in the Mercantile Registers, in electronic format (XBRL)
- **Tool free of charge, using electronic standards.** Development of a user-friendly tool (Excel) to facilitate its immediate use by credit institutions that prefer not to develop their own internal IT solution, and to use the XBRL files available in the Mercantile Registers for that purpose.

## Homogeneity ratios definition: use of BACH database methodology

From April 2015 to October 2015 several meetings were organised internally with different areas of the Banco de España and with credit institutions, in order to define the risk assessment methodology. With respect to the study of the position of the debtor in relation to its sector of activity, it was decided to define several areas of analysis and to select commonly used ratios for each. The areas selected were (those interested in the list of ratios and definitions can find them in "Circular 6/2016, anejo 3", and on the Banco de España website, <http://www.bde.es/bde/en/areas/cenbal/>, under the heading "Template of report on borrower position"): activity, margins, profitability, liquidity, working capital, indebtedness, solvency and interest repayment capacity. Finally, 9 ratios were defined.

Once the areas had been selected, the precise definition was established according to the BACH methodology. According to the website of the ECCBSO ([www.eccbso.org](http://www.eccbso.org)), BACH (Bank for the Accounts of Companies Harmonized) "is a database containing harmonised annual accounts statistics of European non-financial enterprises. Hence, the database was conceived as a useful tool both for country comparisons and to analyse the structure and performances of the non-financial companies in Europe". The database includes aggregated values from the income statement, balance sheet and financial ratios, in absolute values, weighted averages and quartiles, from 10 European countries (Austria, Belgium, Czech Republic, France, Germany, Italy, Poland, Portugal, Slovakia and Spain). The period covered is from 2000 onwards, providing details for breakdowns by four size classes (Small, Medium, SMEs, Large) and business sectors (NACE sections and divisions).

The below image captures the homepage of the BACH database, hosted by Banque de France on its website, freely available for all users. The same information, but only relating to the Spanish figures, can be found and accessed free of charge on the Banco de España website, under the heading "Sectorial ratios of non-financial corporations (RSE database); the main difference between the two databases is that the version available on the Banco de España website offers more details according to the sector of activity (3 digits NACE, instead 2 digits BACH). **The RSE database is the result of collaborative work between by Banco de España's CBSO and the Spanish Mercantile Registers.**

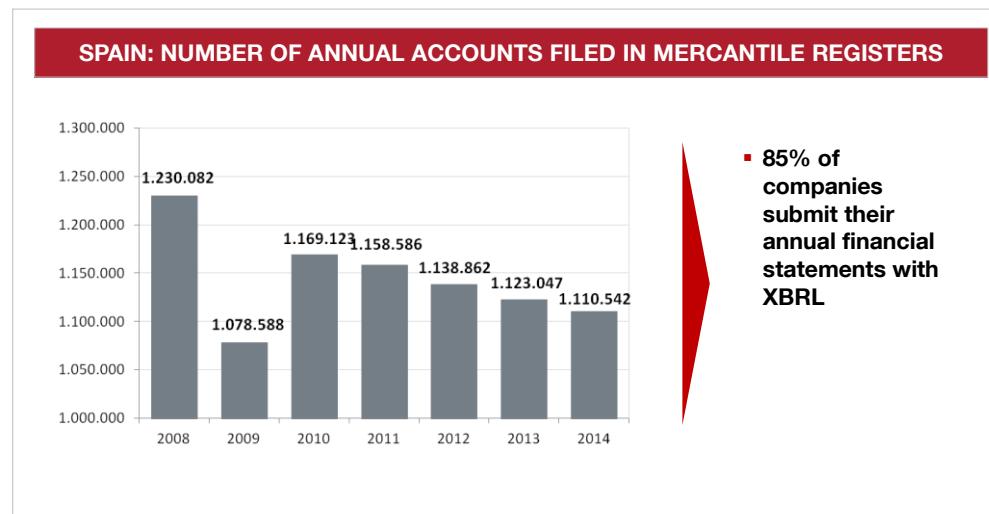
## Use of the information available about companies: official data deposited in Mercantile Registers (XBRL files)

Since 1991 Spanish companies are obliged to deposit their annual financial statements (balance sheet, income statement, cash flow and annex) in the Mercantile Registers. The Banco de España's CBSO, in collaboration with them and with the national accounting standards setter (ICAC, Instituto de Contabilidad y Auditoría de Cuentas), under the legal umbrella of the Ministry of Justice, maintains the official formats for such depositing that are used by all companies in Spain. SMEs have to use an abridged version of the format, which since 2008 is also available in electronic format, under the XBRL standard<sup>1</sup>. For that purpose, all the aforementioned institutions collaborate with the XBRL Spanish association, preparing annually the XBRL taxonomy that "translates" into digital language the prescriptions established in the accounting regulations and annual changes thereto.

Finally, every year over 800,000 companies deposit their annual accounts in XBRL files with the Mercantile Registers. The definitions of the ratios selected in the project,

<sup>1</sup> Those interested in learning more about XBRL can obtain information on the websites of the non profit international organization XBRL Int (<https://www.xbrl.org/>), or of the Spanish XBRL association (<http://www.xbrl.es/es/>)

taking into account the BACH methodology, have been adapted to use the information available in the XBRL files. Finally, **the 9 ratios selected can be calculated using 15 variables of the balance sheet and 11 variables of the income statement that all Spanish SMEs have to submit in the statutory deposit**: no extra work is necessary from the companies and/or the credit institutions to obtain the ratios of the new risk assessment method.



## Technical solution for financial institutions and non-financial corporations: Excel/XBRL tool freely available on the web

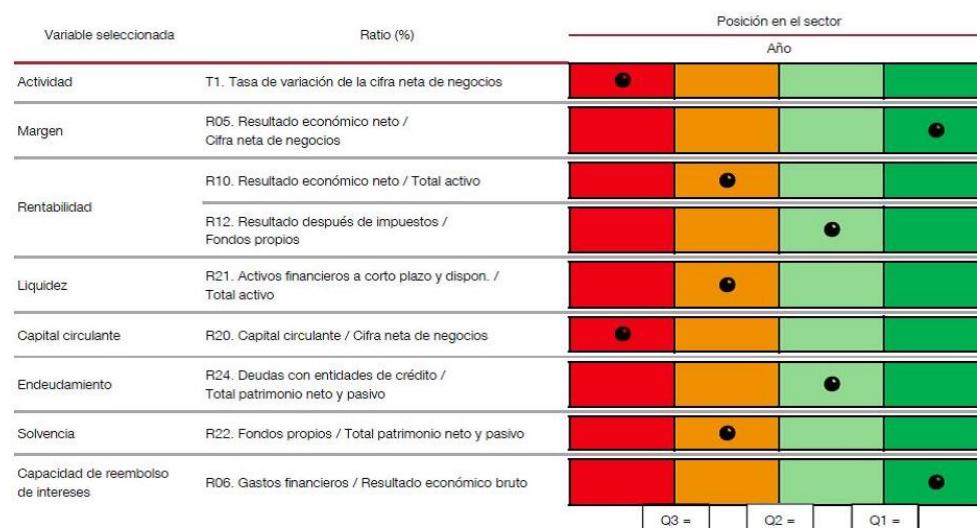
In order to introduce the new regulation with the least possible impact on the risk assessment process of financial institutions, the Banco de España introduced the system with a long period of preparation and distributed a self-developed tool to ease the introduction of the new system. The first internal meetings among the Banco de España departments involved took place in April 2015. Afterwards, from June 2015 to October 2015 several meetings and exchanges of opinion with the credit institutions made it possible to take into account the opinion of their experts. Finally, in December 2015 the draft regulation was published for public comment; in June 2016 the regulation was approved.

The second measure taken in order to ease the introduction of the new methodology was to create a freely available tool, developed using an Excel file with XBRL embedded solution (the tool is available at <http://www.bde.es/bde/en/areas/cenbal/>). The tool allows:

- **Automatic uploading of non-financial corporation data.** Introduction of non-financial corporation data (15 items of the balance sheet and 11 of the income statement) can be done manually or automatically, using the XBRL file deposited by the company in the Mercantile.

- **Calculation of the 9 ratios for non-financial corporations.** The embedded formulae (using the BACH methodology) of the 9 ratios included in the tool allow their calculation for each corporation under scrutiny.
- **Uploading of the ratios of the sector of activity.** Once the corporation's sector of activity and size have been selected and downloaded from the RSE database, the user of the tool can automatically upload them to the Excel file. This process is necessary in order to obtain the benchmark data that will serve as reference to allocate the SME in the statistical distribution; doing it means that one can easily check in which part of the population the company is situated (among the best or worst performing companies). This process, that has to be done individually, case by case, has also been eased for credit institutions interested in developing their own internal tool: those interested have received the full dataset with the Spanish data to integrate it into their own risk assessment processes
- **Display of the data of the company on a comparative basis with its sector of activity and size.** As result, the position of the company can be known. The next image shows an example of this product.

INFORME PLANTILLA SOBRE LA POSICIÓN DEL ACREDITADO RESPECTO A SU SECTOR DE ACTIVIDAD



FUENTE: Banco de España.

Nota: Los cuartiles de la distribución estadística (Q1, Q2, Q3), delimitan cuatro áreas que informan de la posición relativa en la que se encuadran las empresas, según estas se localicen, a lo largo de ella, desde una posición menos favorable (área de color rojo intenso) a la más favorable (área de color verde intenso).

## Final remarks

Historically, access in Spain to finance by small non-financial firms depended more on the existence of sufficient collateral and/or guarantors than on the use of professional analysis of the past and foreseeable future performance of the company. In a new environment, where the suitability of a company to receive funding will be based on a profound knowledge of the company, the availability of information, qualitative and quantitative is the cornerstone of any risk assessment procedure. The development of harmonised but flexible methods, together with the availability of benchmark data for comparisons (between a company and its peers), becomes a crucial tool for credit institutions. The one developed by the Banco de España using European methodology and the data available in its Central Balance Sheet Data Office is intended to serve this purpose.



Irving Fisher Committee on  
Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

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## **Assessment of SMEs by credit institutions using CBSO data: a user's case developed by the Banco de España**

### **Conference "Uses of Central Balance Sheet Data Offices' Information"**

IFC / ECCBSO / CBRT  
Özdere-Izmir, September 26th, 2016

**Manuel Ortega**  
Head of Central Balance Sheet Data Office Division. Banco de España  
Chairman of ERICA (European Records of IFRS Consolidated Accounts) WG, of ECCBSO  
Representative of Banco de España in XBRL Spain



## 1. Presentation of the project

- Legal precedent
- Report “SME financial information”
- Risk assessment methodology

## 2. Experience previously available (BACH database and XBRL)

## 3. Technical solution for financial institutions

## 4. Challenges for CBSOs: representativeness and new ratios

# 1. Presentation of the project: legal precedent



- **Law 5/2015 promoting SME financing**
  - *How to promote financing to SMEs: easing access, increasing the alternative methods of financing*
  - ***Easing access: reducing the information asymmetry gap***
  - *To that end, the law obliges financial institutions to provide a financial report on the financial situation and payment track record to SMEs that are to see their credit facilities reduced. This is the “SME financial information” report (“**Información Financiera-PYME**”)*
- The **Banco de España** was obliged by this law to:
  - ***Standardise this document***
  - Create a ***standardised methodology for the assessment of the credit quality of an SME (also including sole proprietorships)***

# 1. Presentation of the project: “SME financial information” report



- In December 2015 the Banco de España published a Draft Regulation with the harmonised content of the report and of the risk assessment methodology, developed by the Directorate General Banking Supervision. **In June 2016 the Regulation was published** in the Official Gazette “Circular 6/2016, 30 June 2016”)
- **Content of the “SME financial information” report.** Mainly, records available at the credit institution with the credit history of the company:
  - *Declarations to the Central Credit Register*
  - *Information provided to private data compilers about solvency history*
  - *Credit history*
  - *Movements over the last year in financial contracts*
  - *Credit rating*
- The report also has to provide the relative position of the Company within its sector of activity
- The report is confidential and can only be provided to the company

# 1. Presentation of the project: a single harmonised method for credit assessment



- **Target of the method:** to assess, in a standardised and comparable manner, the credit quality of the SME
- **Harmonised risk assessment method.** Taking into account three variables:
  - *Financial situation of the debtor. To that aim: use of financial statements officially filed with the Mercantile Registers*
  - *Qualitative variables (years of relationship, sector of activity, shareholder experience...)*
  - *Behavioral variables (default, payment delays, overdrafts...)*
  - *Additionally, relative position of the debtor in relation to the companies of the same sector of activity and size*
- **Result:** qualify each creditor under one of these levels or headings: “Low risk” “Medium-Low risk”, “Medium-High risk”, “High risk”, “Not available”
- **Flexibility:** each credit institution declares the relationship in respect of these levels and the 3 groups of variables defined in the method



## 1. Presentation of the project

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- Risk assessment methodology

## 2. Experience previously available (BACH database and XBRL)

## 3. Technical solution for financial institutions

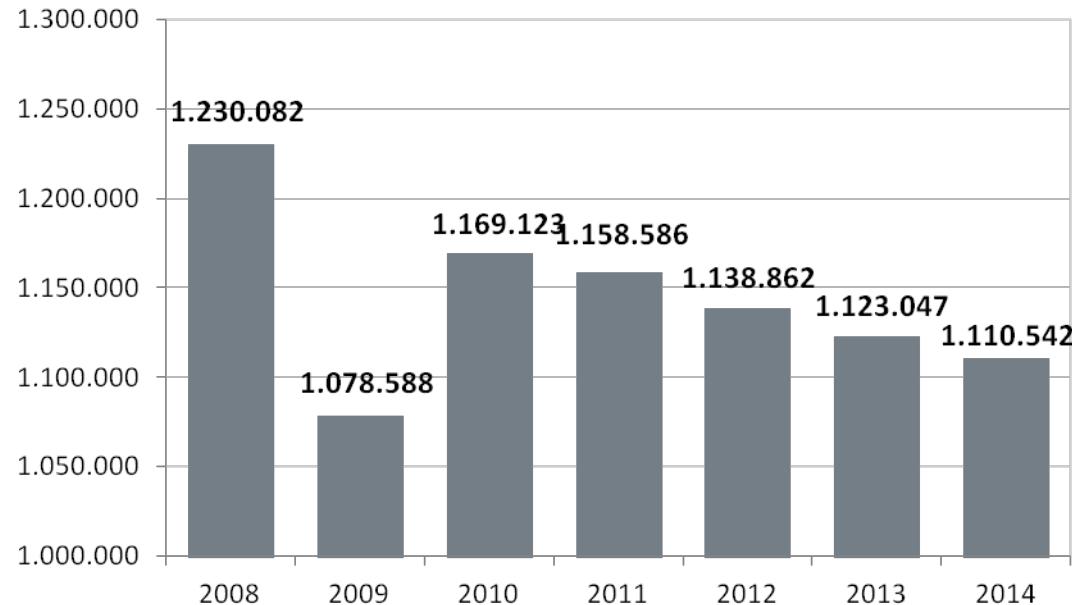
## 4. Challenges for CBSOs: representativeness and new ratios

## 2. Experience in Spain: XBRL files available



Mercantile Registers receive thousands of annual accounts (XBRL instance documents) every year

### NUMBER OF ANNUAL ACCOUNTS FILED



- 85% of companies submit their annual financial statements with XBRL

## **2. Experience in Spain: XBRL files available**



XBRL Instances filed with Mercantile Registers include: Balance Sheet, Profit and Loss Account, Statement of Changes in Equity and identification data, among others

CUENTA DE PÉRDIDAS Y GANANCIAS NORMAL

P1

NIF:	<input type="text"/>
DENOMINACIÓN SOCIAL:	
<input type="text"/>	
<input type="text"/>	

Espacio destinado para las firmas de los administradores

(DETALLE) / HABER	NOTAS DE LA MEMORIA	EJERCICIO	(1)	EJERCICIO	(2)
<b>A) OPERACIONES CONTINUADAS</b>					
1. Importe neto de la cifra de negocios		40100			
a) Ventas		40110			
b) Prestaciones de servicios		40120			
c) Ingresos no cárteros fraccionados de las sociedades holding		40130			
2. Variación de existencias de productos terminados y en curso de fabricación		40200			
3. Trabajos realizados por la empresa para su activo		40300			
4. Aprovechamientos		40400			
a) Consumo de mercaderías		40410			
b) Consumo de materias primas y otras materias consumibles		40420			
c) Trabajos realizados por otras empresas		40430			
d) Detérioro de mercaderías, materias primas y otros aprovechamientos		40440			
5. Otros ingresos de explotación		40500			
a) Ingresos accesorios y otros de gestión corriente		40510			
b) Subvenciones de explotación incorporadas al resultado del ejercicio		40520			
6. Gastos de personal		40600			
a) Sueldos, salarios y asalariados		40610			
b) Cargas sociales		40620			
c) Provisiones		40630			
7. Otras gastos de explotación		40700			
a) Servicios interiores		40710			
b) Tributos		40720			
c) Impuestos, devengo y variación de provisiones por operaciones comerciales		40730			
d) Otros gastos de gestión corriente		40740			
e) Gastos por emisión de gasea de efecto inventario		40750			
8. Amortización del inmovilizado		40800			
9. Impautación de subvenciones de inmovilizado no financiero y otros		40900			
10. Exceso de provisiones		41000			
11. Detérioro y resultado por enajenaciones del inmovilizado		41100			
a) Detérioro y pérdidas		41110			
b) Resultados por enajenaciones y otras		41120			
c) Detérioro y resultado por enajenaciones del inmovilizado de las sociedades holding		41130			
12. Diferencia negativa de combinaciones de negocio		41200			

(1) Refiere al que son referidas las cuentas anexas.

(2) Refiere al que son referidas las cuentas anexas.

ESTADO DE CAMBIOS EN EL PATRIMONIO NETO NORMAL			
A) Estado de ingresos y gastos reconocidos en el ejercicio			
		Espacio destinado para las firmas de los administradores	
		NOTAS DE LA MEMORIA	EJERCICIO (1)
			EJERCICIO (2)
<b>RESULTADO DE LA CUENTA DE PÉRDIDAS Y GANANCIAS</b>		19100	
GREBES Y GASTOS IMPUTADOS DIRECTAMENTE AL PATRIMONIO			
ETO			
<b>Por elaboración de instrumentos financieros</b>		50010	
Activos financieros disponibles para la venta		50011	
Otros ingresos/ganancias		50012	
<b>Por coberturas de flujos de efectivo</b>		50020	
Subvenciones, donaciones y legados recibidos		50030	
<b>Por ganancias y pérdidas actuariales y otros ajustes</b>		50040	
Activos no corrientes y pasivos vinculados, mantenidos para la venta		50050	
Diferencias de conversión		50060	
<b>Efecto impositivo</b>		50070	
Total ingresos y gastos imputados directamente en el patrimonio		50080	
(Nota 2.2 o 3.3 al P.V.P.V.E.R.)		50090	
<b>TRANSFERENCIAS A LA CUENTA DE PÉRDIDAS Y GANANCIAS</b>			
<b>Por elaboración de instrumentos financieros</b>		50080	
Activos financieros disponibles para la venta		50081	
Otros ingresos/ganancias		50082	
<b>Por coberturas de flujos de efectivo</b>		50090	
Subvenciones, donaciones y legados recibidos		50100	
Activos no corrientes y pasivos vinculados, mantenidos para la venta		50110	
Diferencias de conversión		50120	
<b>Efecto impositivo</b>		50130	
Total transferencias a la cuenta de pérdidas y ganancias		50140	
(Nota 4.1 o 4.2 al P.V.P.V.E.R.)		50150	
<b>TOTAL DE INGRESOS Y GASTOS RECONOCIDOS (A + B + C)</b>		50400	

## 2. Experience in Spain: individual study for CBSO collaborators (non-financial corporations)



**BANCODE ESPAÑA**  
Eurosistema

HOJA RESUMEN. DATOS DE

Example of comparative study provided to  
Non-Financial corporations by CBSO

EMPRESA DE PRUEBA  
SECTOR DE COMPARACIÓN: OTRO COMERCIO ..

### COMPARACIÓN SERIE HISTÓRICA, EMPRESA-SECTOR (1)

	N-4		N-3		N-2		N-1		N	
	Empresa	Sector	Empresa	Sector	Empresa	Sector	Empresa	Sector	Empresa	Sector
Cifra neta de negocios (Tasa de variación)	3,2	5,6	2,9	5,1	6,6	5,2	0,5	5,6	-0,2	5,3
Gastos de personal por trabajador (Tasa de variación)	4,2	3,7	2,9	2,9	-1,7	4,1	9,3	4,2	-3,5	4,3
Resultado ordinario neto (Tasa de variación)	-12,5	17,2	14,3	13,6	68,8	6,1	88,9	0,2	29,4	10,3
Rentabilidad ordinaria del activo (Porcentaje)	2,8	8,2	3,1	8,3	5,1	8,0	9,2	7,3	11,7	8,5
Coste medio de la financiación (Ratio)	0,0	6,4	0,0	5,8	0,0	5,8	0,0	5,5	n.s.	6,8
Endeudamiento (Ratio. Saldos medios)	0,0	47,4	0,0	47,3	0,0	46,4	0,0	46,8	0,0	47,4

(1) Información del sector en media ponderada

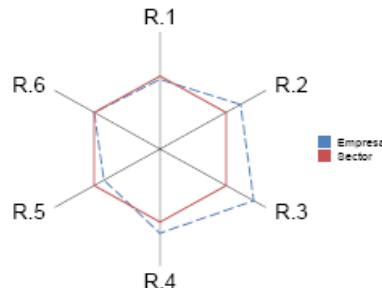
n.d. = dato no disponible

n.s. = dato no significativo

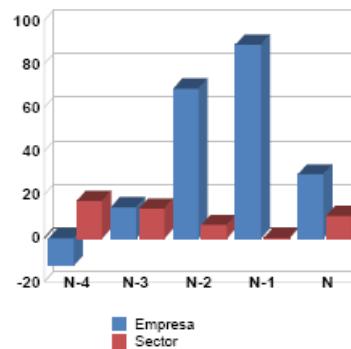
n.c. = no calculable

### SITUACIÓN COMPETITIVA EMPRESA-SECTOR AÑO N (2)

- R.1 Crecimiento Cifra neta de negocios
- R.2 Crecimiento Resultado ordinario neto
- R.3 VAB cf / Cifra neta de negocios
- R.4 Margen bruto de explotación
- R.5 Cifra neta de negocios / Empleados
- R.6 Rentabilidad ordinaria de los recursos propios



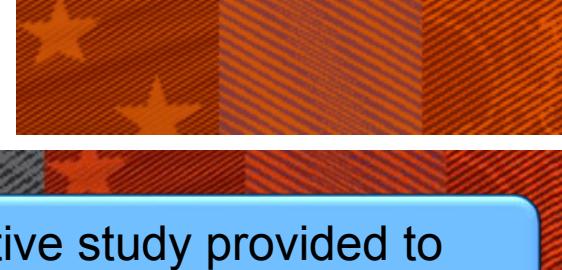
### RESULTADO ORDINARIO NETO (Tasa de variación)



### ESTRUCTURA DE GASTOS AÑO N



## 2. Experience in Spain: individual study for CBSO collaborators (non-financial corporations)



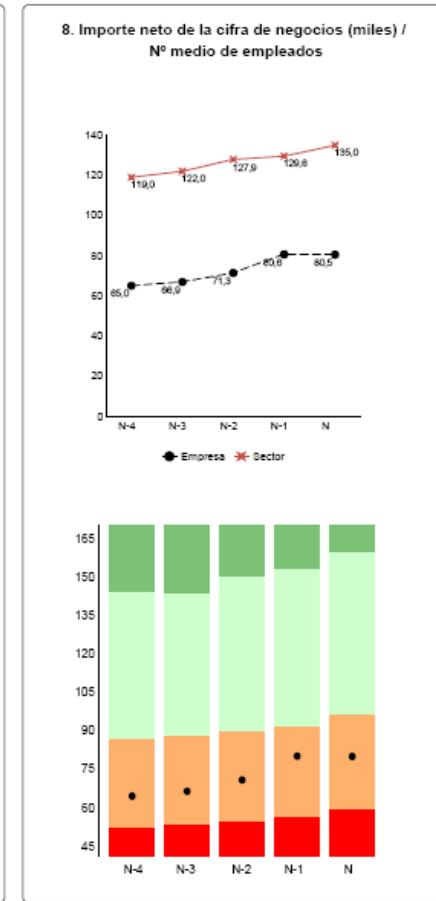
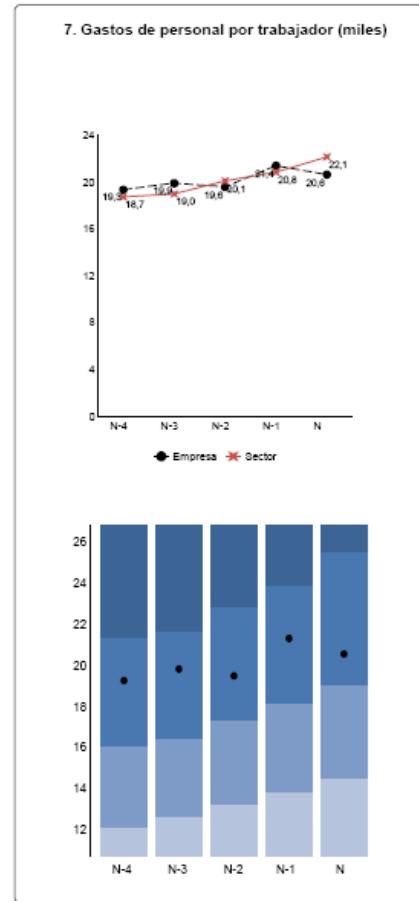
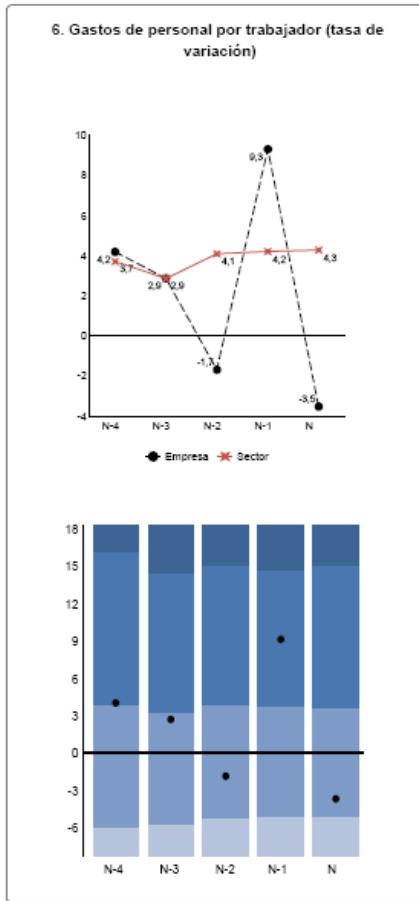
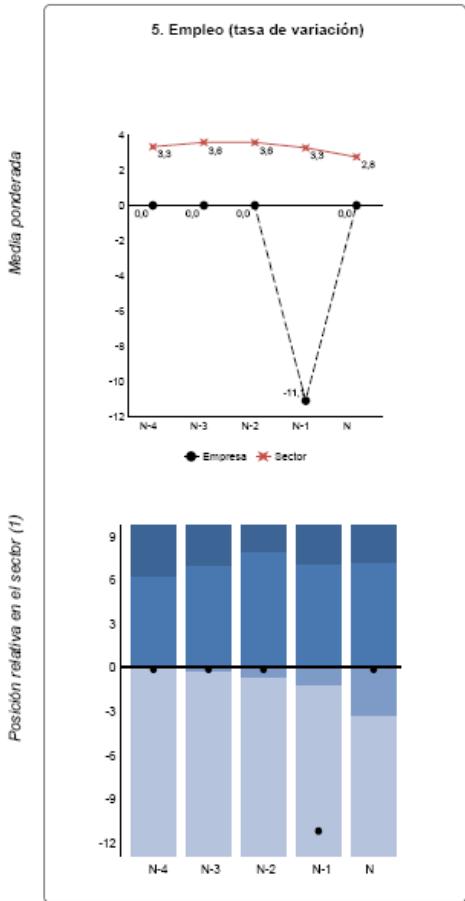
BANCODE **ESPAÑA**

Eurosistema

EMPRESA DE PRUEBA

SECTOR DE COMPARACIÓN: OTRÓ COMERCIO . . .

Example of comparative study provided to  
Non-Financial corporations by CBSO



## 2. Experience available: BACH database, the Spanish version

RSE (statistical distributions) database, created by Banco de España and Mercantile Registers

The screenshot displays two web pages side-by-side. The left page is from the Banco de España's Central de Balances, titled 'Sectoral rates of non-financial corporations'. It includes a sidebar with general information and a search form for 'Search Sectoral Rates'. The right page is from the eccbs website, titled 'Ratios Sectoriales de las Sociedades no Financieras'. It features logos for 'BANCO DE ESPAÑA' and 'eccbs', and a table showing various financial ratios for Spain in 2012 across different sectors.

Ratio	Nombre de Ratio	Empresas	Q1	Q2	Q3
R01	Costes operativos, beneficios y rentabilidades	982	20.41	33.46	47.72
R02	Valor añadido / Cifra neta de negocios	982	17.92	29.80	46.85
R03	Gastos de personal / Cifra neta de negocios	982	-0.77	4.53	9.05
R04	Capital circulante	848	-1.63	9.76	22.76
R05	Resultado económico neto / Cifra neta de negocios	982	-5.40	1.41	4.11
R16	Cash flow (resultado económico bruto) / Total deuda neta	993	64.03	107.89	159.16
R10	Resultado económico bruto / Total activo	993	-4.54	1.41	4.44
R11	Existencias / Cifra neta de negocios	888	-3.50	1.97	8.47
R12	Resultado antes de impuestos / Fondos propios	888	-2.73	1.44	6.48
R17	Resultado después de impuestos / Fondos propios	982	4.73	19.58	43.52

This database, derived from BACH, provides information for the comparative analysis of individual corporations with aggregates of non-financial corporations, using 29 ratios, with details by size (turnover), economic activity (3 digits) and country



## 1. Presentation of the project

- Legal precedent
- Report “SME financial information”
- Risk assessment methodology

## 2. Experience previously available (BACH database and XBRL)

## 3. Technical solution for financial institutions

## 4. Challenges for CBSOs: representativeness and new ratios

### 3. Technical solution for financial institutions: Excel report comparing company to its sector of activity



Excel file with XBRL api (developed by XBRL Spain and the Banco de España): a harmonised automated solution

1. Company data, two options:
  1. *Manual typing on the Excel*
  2. *Import of XBRL file officially filed with the Mercantile Register*
2. Sector of activity data:
  1. *Download an xls file from RSE database*
  2. *Use the Excel file to print the report*

### 3. Technical solution for financial institutions: Excel report comparing company to its sector of activity



#### Company data:

- Annual accounts officially filed with Mercantile Registers
- 15 variables from Balance Sheet, 11 from profit and loss account

**BALANCE DE PYMES**

NIF: [ ]	DENOMINACIÓN SOCIAL: [ ]
Espacio destinado para las firmas de los administradores	
ACTIVO	
A) ACTIVO NO CORRIENTE	111
I. Inmovilizado Intangible	111
II. Inmovilizado material	111
III. Inversiones inmobiliarias	111
IV. Inversiones en empresas del grupo y asociadas a largo plazo	111
V. Inversiones financieras a largo plazo	111
VI. Activos por impuesto diferido	111
VII. Deudores comerciales no corrientes	111
B) ACTIVO CORRIENTE	121
I. Existencias	121
II. Deudores comerciales y otras cuentas a cobrar	121
III. Clientes por ventas y prestaciones de servicios	121
IV. Clientes por ventas y prestaciones de servicios a largo plazo	121
V. Acciones (sociedades) por desembolsos exigibles	121
VI. Inversiones en empresas del grupo y asociadas a corto plazo	121
VII. Inversiones financieras a corto plazo	121
VIII. Periodificaciones a largo plazo	121
IX. Efectivo y otros activos líquidos equivalentes	121
TOTAL ACTIVO (A + B)	121

**BALANCE DE PYMES**

NIF: [ ]	DENOMINACIÓN SOCIAL: [ ]
Espacio destinado para las firmas de los administradores	
PATRIMONIO NETO Y PASIVO	
A) PATRIMONIO NETO	
A.1) Fondos propios	
1. Capital	32200
2. Capital esmeritado (Capital no exigido)	32200
3. Prima de emisión	111
4. Reservas	111
5. Resultados de ejercicios anteriores	111
6. Otras aportaciones de socios	111
7. Resultado del ejercicio	111
8. Dividendos a cuenta	111
A.2) Ajustes en patrimonio neto	
1. Subvenciones, donaciones y legados recibidos	32581
2. PASIVO NO CORRIENTE	
2.1. Provisión a largo plazo	32582
2.2. Deudas con empresas del grupo y asociadas a largo plazo	32600
2.3. Deudas con características especiales a largo plazo	32700
2.4. Deudas con entidades de crédito	32720
2.5. Acreedores por arrendamiento financiero	32730
2.6. Otras deudas a corto plazo	32790
2.7. Deudas con empresas del grupo y asociadas a corto plazo	32800
2.8. Acreedores comerciales y otras cuentas a pagar	32800
2.9. Proveedores	32880
2.10. Proveedores a largo plazo	32881
2.11. Proveedores a corto plazo	32882
2.12. Otras acreedores	32900
2.13. Periodificaciones a corto plazo	32900
2.14. Deudas con características especiales a corto plazo	329700
TOTAL PATRIMONIO NETO Y PASIVO (A + B + C)	300000

**BALANCE DE PYMES**

NIF: [ ]	DENOMINACIÓN SOCIAL: [ ]
Espacio destinado para las firmas de los administradores	
PATRIMONIO NETO Y PASIVO	
C) PASIVO CORRIENTE	
1. Provisión a corto plazo	32200
2. Deudas a corto plazo	32200
3. Deudas con entidades de crédito	32220
4. Acreedores por arrendamiento financiero	32230
5. Otras deudas a corto plazo	32290
6. Deudas con empresas del grupo y asociadas a corto plazo	32300
7. Acreedores comerciales y otras cuentas a pagar	32300
8. Proveedores	32380
9. Proveedores a largo plazo	32381
10. Proveedores a corto plazo	32382
11. Otras acreedores	32500
12. Periodificaciones a largo plazo	32600
13. Deudas con características especiales a largo plazo	32700
14. Deudas con entidades de crédito	32720
15. Acreedores por arrendamiento financiero	32730
16. Otras deudas a corto plazo	32790
17. Deudas con empresas del grupo y asociadas a corto plazo	32800
18. Acreedores comerciales y otras cuentas a pagar	32800
19. Proveedores	32880
20. Proveedores a largo plazo	32881
21. Proveedores a corto plazo	32882
22. Otras acreedores	32900
23. Periodificaciones a corto plazo	32900
24. Deudas con características especiales a corto plazo	329700
TOTAL PATRIMONIO NETO Y PASIVO (A + B + C)	300000

**CUENTA DE PÉRDIDAS Y GANANCIAS DE PYMES**

NIF: [ ]	DENOMINACIÓN SOCIAL: [ ]
Espacio destinado para las firmas de los administradores	
(DEBIL / HABER)	
1. Importe neto de la cifra de negocio bruto fabricado	40100
2. Variación de existencias de productos terminados y en curso de fabricación	40200
3. Trabajos restantes por la empresa para su activo	40300
4. Aprovechamientos	40400
5. Otros ingresos de explotación	40500
6. Gastos de personal	40600
7. Otros gastos de explotación	40700
8. Amortización del inmovilizado	40800
9. Amortización de subvenciones de inmovilizado no financiero y otras	40900
10. Excesos de provisión	41000
11. Deterioro y resultado por enajenaciones del inmovilizado	41100
12. Resultado de explotación	41200
13. RESULTADO DE EXPLOTACIÓN (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12)	49100
14. PASIVO NO CORRIENTE	
15. Ingresos financieros	41400
16. Impresión de subvenciones, donaciones y legados de carácter financiero	41430
17. Otros ingresos financieros	41450
18. Gastos financieros	41500
19. Variación de valor razonable en instrumentos financieros	41600
20. Diferencias de cambio	41700
21. Deterioro y resultado por enajenaciones de instrumentos financieros	41800
22. Otros ingresos y gastos de carácter financiero	42100
23. Incorporación al activo de gastos financieros	42110
24. Ingresos financieros derivados de conversión de acreedores	42120
25. Fondo de ingresos y gastos	42130
26. RESULTADO FINANCIERO (13 + 14 + 15 + 16 + 17 + 18)	49200
27. RESULTADO ANTES DE IMPUESTOS (A + B + C)	49300
28. Impuestos sobre beneficios	49500
29. RESULTADO DEL EJERCICIO (C - 19)	49500

(1) Importe neto de las cifras de negocio bruto de producción expresadas en miles de euros.  
 (2) Variación de valor razonable de los instrumentos financieros.

(3) Importe neto de las cifras de negocio bruto de explotación.

(4) Importe neto de las cifras de negocio bruto de fabricación.

(5) Importe neto de las cifras de negocio bruto de enajenación.

(6) Importe neto de las cifras de negocio bruto de amortización.

(7) Importe neto de las cifras de negocio bruto de trabajos restantes.

(8) Importe neto de las cifras de negocio bruto de gastos de personal.

(9) Importe neto de las cifras de negocio bruto de otros gastos de explotación.

(10) Importe neto de las cifras de negocio bruto de amortización de subvenciones de inmovilizado no financiero y otras.

(11) Importe neto de las cifras de negocio bruto de exceso de provisión.

(12) Importe neto de las cifras de negocio bruto de deterioro y resultado por enajenación del inmovilizado.

(13) Importe neto de las cifras de negocio bruto de resultado de explotación.

(14) Importe neto de las cifras de negocio bruto de resultado de pasivo no corriente.

(15) Importe neto de las cifras de negocio bruto de ingresos financieros.

(16) Importe neto de las cifras de negocio bruto de impresión de subvenciones, donaciones y legados de carácter financiero.

(17) Importe neto de las cifras de negocio bruto de otros ingresos financieros.

(18) Importe neto de las cifras de negocio bruto de gastos financieros.

(19) Variación de valor razonable en instrumentos financieros.

(20) Importe neto de las cifras de negocio bruto de diferencias de cambio.

(21) Importe neto de las cifras de negocio bruto de deterioro y resultado por enajenación de instrumentos financieros.

(22) Importe neto de las cifras de negocio bruto de otros ingresos y gastos de carácter financiero.

(23) Importe neto de las cifras de negocio bruto de incorporación al activo de gastos financieros.

(24) Importe neto de las cifras de negocio bruto de ingresos financieros derivados de conversión de acreedores.

(25) Importe neto de las cifras de negocio bruto de fondo de ingresos y gastos.

(26) Importe neto de las cifras de negocio bruto de resultado financiero.

(27) Importe neto de las cifras de negocio bruto de resultado antes de impuestos.

(28) Importe neto de las cifras de negocio bruto de impuestos sobre beneficios.

(29) Importe neto de las cifras de negocio bruto de resultado del ejercicio.

STATISTICS DEPARTMENT

RCH

### 3. Technical solution for financial institutions: Excel report comparing company to its sector of activity



Sector of activity and size of the Company: data available in RSE database (i.e. BACH methodology)

Only using 9 ratios (8 BACH ratios + Rate of change of Net Turnover)

BANCO DE ESPAÑA  
Eurosistema

eccbsi  
Euro Capital Business Sector Index

Registadores  
de España

#### Ratios Sectoriales de las Sociedades no Financieras

País: España

Año: 2014

Sector de actividad (CNAE): N829 Actividades de apoyo a las empresas n.c.o.p.

Tamaño (cifra neta de negocio): Total tamaño

Tasa de cobertura (% número de empresas): 4,64

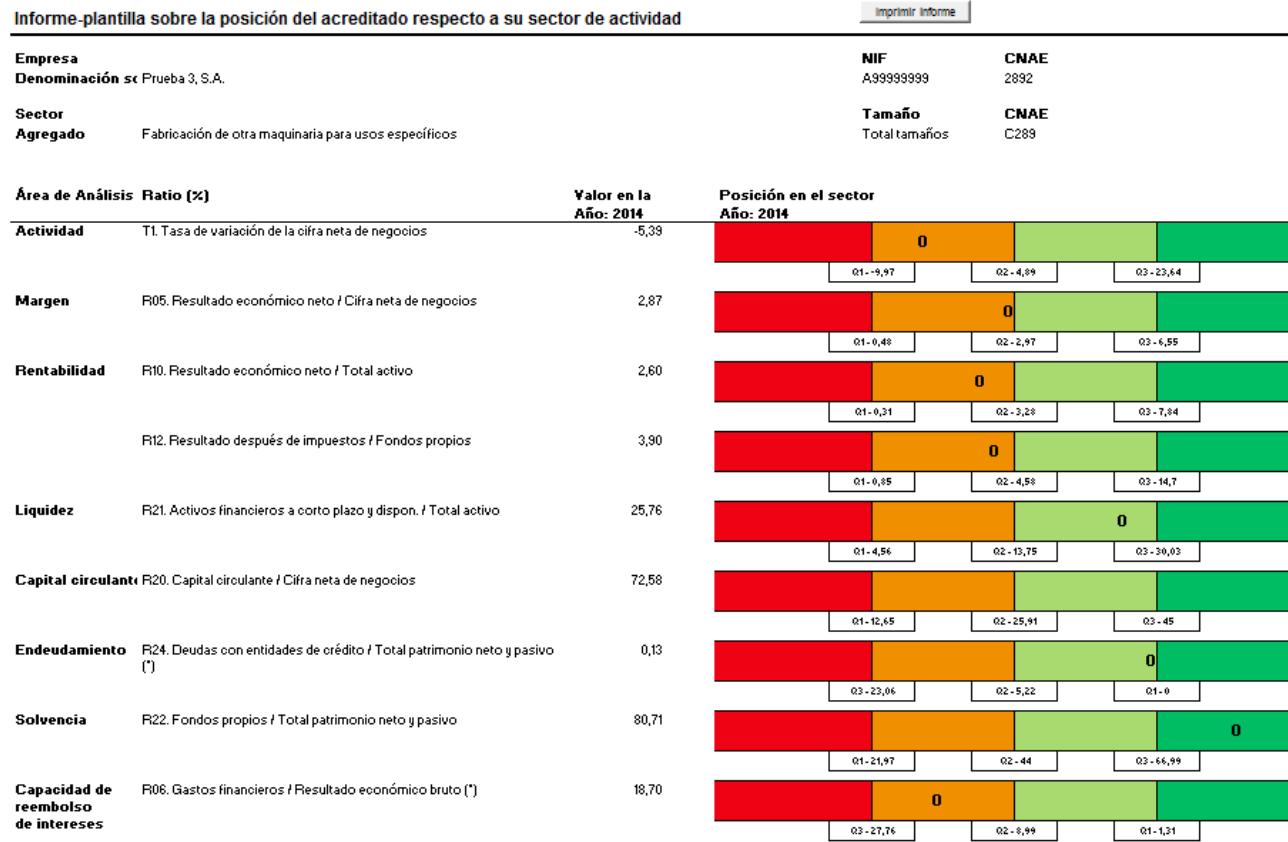
Tasa de cobertura (% número de empleados): 34,4

Ratio	Nombre de Ratio	Empresa	Q1	Q2	Q3
<b>Costes operativos, beneficios y rentabilidades</b>					
R01	Valor añadido / Cifra neta de negocios	1874	35,26	59,33	79,86
R02	Gastos de personal / Cifra neta de negocios	1874	27,65	49,09	74,72
R03	Resultado económico bruto / Cifra neta de negocios	1874	-0,48	5,30	17,82
R04	Cash flow (resultado económico bruto) / Total deuda neta	1280	-2,18	8,30	31,53
R05	Resultado económico neto / Cifra neta de negocios	1874	-3,81	2,73	12,85
R16	Cifra neta de negocios / Total activo	1956	23,17	101,13	203,20
R10	Resultado económico neto / Total activo	1956	-153	2,39	3,38
R11	Resultado antes de impuestos / Fondos propios	1707	0,00	6,40	24,80
R12	Resultado después de impuestos / Fondos propios	1707	-0,10	4,88	13,38
<b>Capital circulante</b>					
R17	Existencias / Cifra neta de negocios	1874	0,00	0,00	0,04
R18	Deudores comerciales / Cifra neta de negocios	1874	3,21	13,38	29,35
R19	Acreedores comerciales / Cifra neta de negocios	1874	0,00	0,00	2,88
R20	Capital circulante / Cifra neta de negocios	1874	-0,17	10,53	26,48
<b>Gastos e ingresos financieros</b>					
R07	Gastos financieros y asimilados / Cifra neta de negocios	1874	0,00	0,18	1,47
R06	Gastos financieros y asimilados / Resultado económico bruto	1408	0,00	2,57	16,80
R03	Resultado financiero / Cifra neta de negocios	1874	-1,01	-0,04	0,01
R08	Resultado financiero / Resultado económico bruto	1408	-12,64	-0,34	0,03
<b>Estructura del activo</b>					
R13	Inmovilizado financiero / Total activo	1956	0,00	0,37	3,24
R14	Inmovilizado material / Total activo	1956	0,39	7,67	34,60
R15	Activo circulante / Total activo	1956	28,26	68,05	93,37
R21	Activos financieros a corto plazo y dispon. / Total activo	1956	5,19	21,81	52,70
<b>Estructura del pasivo</b>					
R22	Fondos propios / Total patrimonio neto y pasivo	1956	16,37	47,93	78,53
R23	Provisiones para riesgos y gastos / Total patrimonio neto y pasivo	1956	0,00	0,00	0,00
R24	Deudas con entidades de crédito / Total patrimonio neto y pasivo	1956	0,00	0,00	13,62
R25	Deudas con entidades de crédito, medio y largo plazo / Total patrimonio neto y pasivo	1956	0,00	0,00	6,04
R26	Deudas con entidades de crédito, corto plazo / Total patrimonio neto y pasivo	1956	0,00	0,00	0,33
R27	Deudas a medio y largo plazo / Total patrimonio neto y pasivo	1956	0,00	0,00	13,37
R28	Deudas a corto plazo / Total patrimonio neto y pasivo	1956	9,32	30,28	62,50
<b>Actividad</b>					
T1	Tasa de variación de la cifra neta de negocios	1847	-12,32	1,62	23,19

Fuente: Banco de datos RSE (ratios sectoriales de socios de sectores no financieros). Banco de España (Central de Balances) / Registrar de España (Registrar Mercantiles - CFE). Comisión Europea de Control de Balances.

Aviso: Los datos incluidos en el Banco de datos RSE se forman una muestra estadística. Se prohíbe la redistribución de los datos, incluyendo su uso para fines distintos a su finalidad.

### 3. Technical solution for financial institutions: Excel report comparing company to its sector of activity



(\*) Nota: que en el gráfico de cada ratio se ha invertido el orden de los cuartiles.

Using 26 accounting concepts and 9 sectorial ratios, we see in a nutshell the financial situation of a company within its sector of activity

### 3. Technical solution for financial institutions: Excel report comparing company to its sector of activity



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ecbs  
European Central Bank - Central Balance Sheet Data Office

R

Final Report

#### Posición relativa de la empresa

	Hoja de carga de datos			Ratio Sectoriales		
	Identificación	Denominación social	Año: 2014	Sector de actividad (CNAE)	Tamaño (cifra neta de negocio)	Tasa de cobertura (% número)
- Datos de la empresa:	NIF		Año: 2014	Fabricación de otra maquinaria para usos específicos		
- Datos del Agregado:	CNAE					
- Informe plantilla En:	AÑO					
- Instrucciones de us:	Activo Clave	Partida	Ratio	Nombre de Ratio		
	11700	Deudores comerciales		<b>Costes operativos, beneficios</b>		
	12200	Existencias	R01	Valor añadido / Cifra neta de negocio		
	12380	Clientes por ventas	R02	Gastos de personal /		
	12370	Accionistas (socios)	R03	Resultado económico		
	12400	Inversiones en empresas	R04	Cash flow (resultado +)		
	12500	Inversiones financieras	R05	Resultado económico		
	12700	Efectivo y otros activos	R16	Cifra neta de negocio		
	10000	Total activo (= Total R16)	R10	Resultado económico		
			R11	Resultado antes de impuestos		
			R12	Resultado después de impuestos		
	21000	Fondos Propios		<b>Capital circulante</b>		
	31220	Deudas con entidad financiera	R17	Existencias / Cifra neta de negocio		
	31230	Acreedores por arrendamiento	R18	Deudores comerciales		
	31600	Acreedores comerciales	R19	Acreedores comerciales		
	32320	Deudas con entidades de crédito a corto plazo				
	32330	Acreedores por arrendamiento financiero a corto plazo				
	32580	Proveedores (1)				

#### Informe-plantilla sobre la posición del acreditado respecto a su sector de actividad



BANCO DE ESPAÑA  
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DIRECTORATE GENERAL ECONOMICS STATISTICS AND RESEARCH  
STATISTICS DEPARTMENT



## 1. Presentation of the project

- Legal precedent
- Report “SME financial information”
- Risk assessment methodology

## 2. Experience previously available (BACH database and XBRL)

## 3. Technical solution for financial institutions

## 4. Challenges for CBSOs: representativeness and new ratios

#### 4. Challenges. Representativeness: new quality controls



New fears: statistics directly applied to risk assessment decision / Need for stability

1) Exclusion of anomalous microdata (“outliers”)

3) Revision of Banque de France Requirements (**Banque de France Requirements**)

2) Confidentiality criteria (**confidentiality**)

5) Representativeness of the provisional sample (December of t+1) compared to the definitive one (June of t+2)  
**(homogeneity of provisional sample)**

4) Additional controls to censor nodes with anomalous values  
**(Box plot controls)**

7) The coverage of the sample:  
Saving nodes with a high coverage despite their data (**Coverage**)

6) Concentration of the observations near the quartiles  
**(density of the sample)**

**NEW**

## 4. Challenges: need of new ratios (rate of growth / more NACE details)



SME  
Financial  
information

R21

R25

R05

R12

R10

R20

R22

R24

### ADDITIONAL REQUIREMENTS OF INFORMATION NOT PROVIDED BY BACH:

#### Turnover annual variation rate:

This ratio doesn't exist in BACH database. It would be very useful to include this ratio in BACH Database

### OTHER NEW REQUIREMENTS? NEW CHALLENGES FOR BACH?

- More accurate ratios to measure Liquidity (Cash and banks/Total Assets)?
- New ratios to measure the cost of financing?
- Greater breakdowns by sector? by size?



# THANKS. QUESTIONS?

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DIRECTORATE GENERAL ECONOMICS STATISTICS AND RESEARCH  
STATISTICS DEPARTMENT