

# Spanish and Portuguese Companies Microdata (iBACH) - Data Manual

Extraction Date - May 2024

BPLIM

2024-06-18

The Spanish and Portuguese Companies Microdata contain economic and financial granular information on non-financial Spanish and Portuguese corporations from iBACH. This dataset derives from BACH dataset. BACH is a database of aggregated and harmonized accounting data of non-financial companies, based on national accounting standards (individual annual accounts).

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## General Information

**Dataset Designation in English:** Spanish and Portuguese Companies Microdata (iBACH)

**Data Type:** Longitudinal Data

**Unit of Analysis:** Firms

**Frequency:** Annual

**Start Year:** 2008

**Most recent year:** 2022

**Reference date:** The data reports to the fiscal period declared by the firm. The reference period is defined as the year with the larger number of days of the exercise.

**Data Organization:** Data is organized in one file per country and reference year. In all files each row corresponds to one firm in a given year. All files are available in .csv format.

**Version of the data:** The data made available by BPLIM and BELab corresponds to a data freeze at a certain time of the year. Therefore, all files contain the information as reported in the extraction date. The most recent update of the data occurred in May 2024.

**Languages Available:** Variable labels and value labels are available in English.

**Related Datasets:** BPLIM also makes available the *Central Balance Sheet Annual Data* and the *Central Balance Sheet Harmonized Panel Data* with more detailed economic and financial information for Portuguese non-financial corporations.

**Digital Object Identifier:** 10.17900/iBACH.May2024.V1 | 10.48719/BELab.iBACH0822\_01

**Access:** This dataset is also made available by [BELab data laboratory](#).

## Geographical Coverage

The data refers to firms located in Portugal and Spain.

## Population

iBACH covers the population of all Portuguese non-financial corporations and a sample of Spanish non-financial companies with coverage exceeding 50% of Gross Value Added and Employment.

## Methodology

BACH (Bank for the Accounts of Companies Harmonized) is managed by the European Committee of Central Balance-Sheet Data Offices (ECCBSO). The ECCBSO is an informal body of experts from National Central Banks and National Statistical Institutes of Europe. Under the aegis of the ECCBSO, the BACH Working Group is responsible for maintaining and improving the BACH database.

*Banco de Portugal* and *Banco de España* celebrated a Protocol to provide the Portuguese and Spanish BACH microdata (iBACH) for research purposes. This data set contains economic and financial information for non-financial corporations of both countries.

The **Spanish data** come from the mandatory deposits of annual accounts in the Mercantile Registries, on the basis of the Agreement signed between the Banco de España and CORPME. Analytical variables are offered, constructed by the Central Balance Sheet Data Office on the basis of the basic information in the annual accounts.

The **Portuguese data** come from the Annual data of the Central Balance-Sheet Database. The information is gathered from Annex A of IES - Simplified Corporate Information (*Informação Empresarial Simplificada*, in the Portuguese acronym).

In December of year N the information for the year N-1 is uploaded for the first time and year N-2 is updated for the last time.

Every year BPLIM and BELab create a data freeze. The most recent version of the data was extracted on May 2024 and includes data from 2008 to 2022.

This manual summarizes the variables available. For more complete information please see the [BACH's User Guide](#).

## Description of Files

The iBACH data is organized in one file per country and reference year:

Type of Information	File Name
<b>iBACH - Portugal</b>	BPLIM_IBACH_A_YFRM_YYYY_eeee_PT_V01.csv
<b>iBACH - Spain</b>	BELab_iBACH0822_01_YYYY_ES_Anonimized.csv

Where *A* stands for anonymized, *YYYY* corresponds to the reference year, and *eeee* reports the extraction date.

All files contain a unique firm identifier (*did*) that does not allow the matching with other datasets available at BPLIM or BELab. All datasets are anonymized.

Files are provided in a *.csv* file with all the metadata available in the file:

[ibach\\_meta\\_YFRM\\_MAY24\\_PTES\\_V01](#).

## Description of Variables

Below we provide a general description of the variables included in the data. The metadata files and more detailed information about each variable is available in the [“Auxiliary Files” section](#).

### General Information

#### Identifiers

**Firm identifier (*did*)** – Unique identifier that enables tracking the legal entity over time.<sup>1</sup> *did* is the anonymized firm identifier, which is country specific.

**Reference year of the data (*dyear*)** – Period of reference for the accounting exercise.

**Localization of the firm (*dregion*)** - Localization of the firm (or the headquarter of the firm), at NUTS-3 level. For a complete list of codes see the metadata file [iBACH\\_meta\\_YFRM\\_MAY24\\_PTES\\_V01](#). Codes started by “1” are specific to Spain and by “2” to Portugal.

**Country of the firm (*dcountry*)** - Country where the firm is located according to the 3-digit numeric code ISO 3166-1.

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<sup>1</sup>The identifier may change for a residual number of Spanish companies over time.

Code	Designation
620	620 Portugal
724	724 Spain

**Legal form** (*dnlegal*) - Legal form, which results from the combination of a two-letter ISO code and letters identifying the legal form according to a national classification scheme. Codes started by “1” are specific to Spain and by “2” to Portugal.

Code	Designation
101	101 ESA Public limited companies
102	102 ESB Private limited companies
103	103 ESC Collective companies
104	104 ESD Limited partnership companies
105	105 ESF Cooperative companies
106	106 ESG Associations
107	107 ESN Foreign Entities
108	108 ESQ Public organizations
109	109 ESV Others
110	110 ESW Permanent Establishments of Non-Resident Entities in Spain
201	201 PTACEEIE Complementary Grouping of Companies and European Economic Interest Grouping
202	202 PTBranc Branch companies
203	203 PTCoper Cooperative companies
204	204 PTLda Private limited companies
205	205 PTNProf Non-profit organizations
206	206 PTOthers Others
207	207 PTS.A. Public limited companies
208	208 PTSocPro Professional societies

**Sector of activity** (*dsector*) - Main economic activity of the firm, according to the NACE Rev. 2 classification at 4-digit level.<sup>2</sup> For a complete list of codes see the metadata file [iBACH\\_meta\\_YFRM\\_MAY24\\_PTES\\_V01](#).

<sup>2</sup>There are some codes that are invalid according to NACE Rev. 2 classification, but valid according to each country’s national classifications. This is the case of codes *5511* and *5512* (‘Hotels and similar establishments with restaurant’ and ‘Hotels and similar establishments without restaurant’, respectively) for Portuguese data. The same occurs in the Spanish data, for example, with codes *1021* and *1022* (‘Processing of fish, crustaceans and molluscs’ and ‘Manufacture of canned and preserved fish’, respectively).

**Year of birth or incorporation (*dyincorp*)** - Year of birth. With few exceptions, it corresponds to the year of incorporation in the register or the database used to fill in the financial statements.

**Firm's status of activity(*dcease*)** - Firm's status of activity.

Code	Designation
1	1 Still exists
2	2 Has been merged with other firms
3	3 Has been liquidated

**Year of liquidation of the firm(*dyliquid*)** - Year when the firm ceased its activity (when applicable).

**Number of employees for the reference period(*dnumberempl*)** - Number of employees for the reference period (the year), with regards to the firm's payroll. In the Spanish data this correspond to the number of employees in full time equivalents (FTE). The Portuguese data includes unpaid employees and employees working in establishments located abroad.

**Number of months for the account exercise (*dnumbermth*)** - Number of months on which the account exercise has been conducted.

**Non-response treatment (*dunrt*)** - Non-response treatment for the full data of the firm.

Code	Designation
0	0 Reported
1	1 Estimated

**Active firm (*dactive*)** - Non-active firms are those that meet one of the conditions<sup>3</sup>: (i) Assets and Liabilities >0 and all the items of the profit & loss account =0, or (ii) whenever **dcease=2** or **dcease=3**

Code	Designation
0	0 Non-active
1	1 Active

**Accounting regime (*dregime*)** - Type of accounting report of the firms.

<sup>3</sup>Condition is not considered to be met when the affected profit & loss account variables have been rounded to zero in iBACH database, but are originally different to this value.

Code	Designation
1	1 Ordinary
2	2 Abridged
3	3 Micro

## Economic and Financial Variables

The blocks of information that the user can access are the income statement and the balance sheet. The variables are presented in **thousands of euros**.<sup>4</sup>

### Income Statement

Variable name	Short description	Full description
i0100	Net turnover	Includes sales of goods and services net of returns, deductions and rebates. Sales are net of VAT and Excise taxes.
i0200	Variation in stocks of finished goods and work in progress	Includes change in inventories of production recognized in the income statement.
i0300	Capitalised production	Includes costs capitalized by the entity recognized as income in the period.
i0400	Other income	Includes other income not identified in previous items (i0100, i0200 and i0300).
i0410	Of which: Operating subsidies and supplementary operating income	Details of other income relating to operating subsidies and supplementary operating income.
i0420	Of which: Financial income	Details of other income relating to financial income.

<sup>4</sup>Zero does not mean missing value. In some cases it is not possible to distinguish between zeros and missing values.

Variable name	Short description	Full description
i0500	Cost of goods sold, materials and consumables	Includes cost of materials and consumables used and the cost of goods sold in the period.
i0600	External supplies and services	Includes expenses with external supplies and services in the period. The costs of external human resources (outsourcing) are included in this item.
i0700	Staff costs	Includes expenses with the staff recognized in the period.
i0800	Other expenses	Includes other expenses not identified in previous items (i0500, i0600 and i0700).
i0810	Of which: Operating taxes and other operating charges	Details of other expenses relating to operating taxes and other operating charges.
i0820	Of which: Provisions (net of reversals)	Details of other expenses relating to Provisions (net of reversals)
i0830	Of which: Financial expenses other than interests on financial debt	Details of other expenses relating to financial expenses, except interests on financial debts (included in i1000)



Variable name	Short description	Full description
i0840	Of which: Extraordinary expenses and impairments (net of reversals), except on inventories and receivables	Details of other expenses relating to extraordinary expenses and reduction/increase in fair value and impairment charges (net of reversals), except impairments (net of reversals) included in i0850
i0850	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
i0900	Depreciation and amortization on intangible and tangible fixed assets	Includes depreciation and amortization of assets included in the items a1100 and a1200 recognized in the period.
i1000	Interests on financial debts	Includes financing costs recognized in the period.
i1100	Tax on profit	Includes income taxes recognized in the period.
it100	Total income	(i0100+i0200+i0300+i0400)
it200	Total expenses	(i0500+i0600+i0700+i0800+i0900+i1000+i1100)

Variable name	Short description	Full description
it300	Net profit or loss for the period	(it100-it200)
i0120	Exports	Total exports by the firm (goods or services produced in the entity's country that are sold to someone in another country)
i0130	Imports	Total imports by the firm (foreign goods and services bought)
f1000	Dividends paid	Payments to shareholders. This variable is only reported since 2010 for Portugal.
f2000	Cash flow	Variation in Cash and bank (a7000). This variable is only reported since 2010 for Portugal.
f2100	Operating cash flow	Cash flow from the operating activities. This variable is only reported since 2010 for Portugal and 2013 for Spain.
f2200	Investing cash flow	Cash flow from investment activities. This variable is only reported since 2010 for Portugal and 2013 for Spain.
f2300	Financing cash flow	Cash flow from financing activities. This variable is only reported since 2010 for Portugal and 2013 for Spain.

#### Balance Sheet - Assets <sup>5</sup>

Variable name	Short description	Full description
a1000	Fixed assets	(a1100+a1200+a1300)
a1100	Intangible fixed assets	Includes brands, patents, copyrights, licenses, etc., even if such assets are held under finance lease contracts. This item also includes the Goodwill recognized separately.
a1200	Tangible fixed assets	Includes Lands, buildings, machineries, administration and transport equipments, etc., even if such assets are held under finance lease contracts. This item also includes the bearer biological assets and investment properties.
a1300	Financial fixed assets	Includes holdings of shares in the capital of other entities on a continuing basis, as well as loans made to such entities.

<sup>5</sup> Assets are presented at net value of accumulated depreciation, accumulated impairment losses and other adjustments.

Variable name	Short description	Full description
a1310	of which: Shares in affiliated undertakings and participating interests	Details of financial fixed assets relating to investments in (holdings of shares in the capital of) associates, subsidiaries and jointly controlled entities.
a2000	Inventories	Includes raw materials and consumables, goods, work in progress and finished products, as well as consumable biological assets.
a2100	of which: Payments on account	Details of inventories relating to payments on account.
a3000	Trade receivables	Includes credit granted to customers for sales or services net of advances received (except for payments received on account of orders, included in l5000).
a4000	Other receivables	Includes other accounts receivable (except trade receivables), as well as non-current assets held for sale (net of any associated liabilities).
a4100	Current	
a5000	Deferred assets	Includes deferred tax assets and expenses to be recognized in future periods.
a6000	Other financial assets, current	Includes financial assets held for trading and derivatives.
a7000	Cash and bank	Includes the amount available in cash, demand deposits and other deposits in financial institutions.
a0000	<b>TOTAL BALANCE SHEET</b>	$(a1000+a2000+a3000+a4000+a5000+a6000+a7000)=e0000+l0000$

## Balance Sheet - Equity and Liabilities

Variable name	Short description	Full description
e1000	Capital, reserves, earnings and other equity instruments	Includes paid capital, reserves, treasury stock and other equity instruments. Subscribed capital but not paid is deducted from this item. This item also includes the cumulative net income of prior periods, the net income for the period as well as dividends paid in advance.
e1100	Of which: Paid capital	Amount of capital “paid in” by investors during common or preferred stock issuances, including the par value of the shares themselves. Paid-in capital represents the funds raised by the business from selling its equity and not from ongoing operations.
e1200	Of which: Reserves other than revaluations, adjustments on financial investments and other comprehensive income	Accumulated capital surplus of a company reinvested in the company. It includes both legal reserves and voluntary reserves.
e2000	Revaluations, adjustments on financial investments and other comprehensive income	Includes surplus revaluation of tangible and intangible assets, adjustments on financial assets recognized in equity and other changes in equity.
e0000	<b>TOTAL EQUITY</b>	(e1000+e2000)
lp000	Provisions	Includes all provisions.

Variable name	Short description	Full description
lp100	of which: Provisions for pensions and similar obligations	Details of provisions relating to liability for post-employment benefits.
l1000	Bonds and similar obligations	Includes bonds and similar securities issued by the entity.
l1100	Current	Bonds and similar securities due to be settled within 12 months after the reporting period
l1200	Non-current	Bonds and similar securities not due to be settled within 12 months after the reporting period
l2000	Amounts owed to credit institutions	Includes debt of the entity vis-à-vis credit institutions (includes financial leasing)
l2100	Current	Amounts owed to credit institutions due to be settled within 12 months after the reporting period
l2200	Non-current	Amounts owed to credit institution not due to be settled within 12 months after the reporting period
l3000	Other creditors	(l3100+l3200)
l3100	Other financial creditors	Includes the remaining funding from other financial creditors not identified in l1000 and l2000, mainly intra-group debt.
l3110	Current	Funding from other financial creditors due to be settled within 12 months after the reporting period
l3120	Non-current	Funding from other financial creditors not due to be settled within 12 months after the reporting period
l3200	Other non-financial creditors	Includes other accounts payables (except trade payables and payables to other financial creditors), mainly tax and social security payables, staff debt and active dividends to be paid
l3210	Current	Funding from other non-financial creditors due to be settled within 12 months after the reporting period
l4000	Trade payables	Includes debts to suppliers of goods and services, net of advances made (except for payments on account, included in a2100)

Variable name	Short description	Full description
l5000	Payments received on account of orders, current	Includes payments received by the entity on account of orders
l6000	Deferred liabilities	Includes income to be recognized in future periods, including deferred tax liabilities
l0000	<b>TOTAL LIABILITIES</b>	(lp000+l1000+l2000+l3000+l4000+l5000+l6000)

### Ratios and Derived Variables

Ratios and derived variables are calculated based on the information available. For an overview of the formulas used to compute these variables check the auxiliary file [ratios\\_formulas.xlsx](#). A Stata ado file (ibachdev.ado) is provided by BPLIM and BELab upon request to compute the variables listed below.

Variable Name	Variable Description
<b>Financial Structure Ratios</b>	
r0110	Assets to Equity ratio
r0120	Liabilities to Equity ratio
r0140	Other financial assets and cash and bank / Total assets
<b>Financial and Debt Service Ratios</b>	
r0210	Financial income net of charges other than interest over EBITDA
r0220	EBITDA over Interest on financial debt
r0230	Interest burden
r0240	Interest and similar charges / Net turnover
r0250	Interest and similar charges / Gross operating profit
r0260	Net financial income / Gross operating profit
r0270	Gross operating profit / Total net debt
r0280	Credit institutions net indebtiness ratio
r0290	Financing cost (strict sense definition)
r2900	Financing cost (broad definition)

Variable Name	Variable Description
<b>Profitability Ratios</b>	
r0310	Gross value added / Net turnover
r0320	Gross operating profit / Net turnover (ROS)
r0330	EBITDA / Net turnover
r0340	Net operating profit / Net turnover
r0350	EBIT / Net turnover
r0360	EBT / Net turnover
r0370	Net financial income / Net turnover
r0380	Return on equity
r0390	Net operating profit / Total assets
r3100	Profit or loss of the year before taxes / Equity
r3110	EBITDA - Return on investments
r3120	Return on sales
<b>Activity and Technical Ratios</b>	
r0410	Asset turnover ratio
r0420	Coefficient Employee expenses over Gross value added
<b>Working Capital Ratios</b>	
r0510	Inventories / Net turnover
r0520	Trade receivables / Net turnover
r0530	Trade payables / Net turnover
r0540	Operating working capital / Net turnover
r0550	Days Sales Outstanding
r0560	Days Payables Outstanding
<b>Derived variables - Income statement</b>	
d1001	Financial income net of charges other than interest
d1002	Interest and similar charges
d1003	Net financial income
d1004	Gross Value Added (GVA)
d1005	Gross Operating Profit
d1006	Net Operating Profit
d1007	EBITDA
d1008	EBIT
d1009	EBT
<b>Derived variables - Balance sheet</b>	
d2001	Other financial assets and cash and bank

Variable Name	Variable Description
d2006	Financial liabilities (strict sense definition)
d2007	Financial liabilities (broad definition)
d2008	Non financial liabilities (strict sense definition)
d2009	Non financial liabilities (broad definition)
d2010	Total net debt
d2011	Operating working capital

## Basic Descriptive Statistics

Table 1- Number of firms over the data period - Portugal (as of May 2024 extraction)

	Frequency
dyear	
2008	374,381
2009	374,541
2010	383,151
2011	389,796
2012	389,567
2013	392,750
2014	397,263
2015	407,704
2016	414,565
2017	429,536
2018	445,587
2019	465,995
2020	481,687
2021	496,375
2022	508,594
Total	6,351,492

Table 2- Number of firms over the data period - Spain (as of May 2024 extraction)

	Frequency
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dyear		
2008		529,694
2009		700,344
2010		731,202
2011		761,006
2012		776,323
2013		804,077
2014		836,608
2015		853,084
2016		860,369
2017		795,509
2018		832,947
2019		831,342
2020		817,852
2021		782,958
2022		584,699
Total		11,498,014
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A **dashboard** with some basic descriptive statistics is available on [BELab website](#).

## Auxiliary Files

For a description of each variable please check the metadata file [ibach\\_meta\\_YFRM\\_MAY24\\_PTES\\_V01](#).

Summary statistics for each data set are available on BPLIM's servers:

File	Summary Statistics
Portugal	<a href="#">stat_Portugal</a>
Spain	<a href="#">stat_Spain</a>

## Reading the data in Stata

Files are provided in a *.csv* file with all the metadata available in the file:

[ibach\\_meta\\_YFRM\\_MAY24\\_PTES\\_V01](#).

**metaxl** Stata package, which can be installed from [BPLIM's Github repository](#), can be used to apply the metadata to the data.

For example, using the file with Portuguese data for 2022:

```
import delimited using "./BPLIM_IBACH_A_YFRM_2022_MAY24_PT_V01.csv", ///
clear varnames(1) delimiter(";")
metaxl clear
metaxl apply, meta(ibach_meta_YFRM_MAY24_PTES_V01)
describe
```

## Useful Links

[BACH database](#)

[The Bank for the Accounts of Companies Harmonized \(BACH\) database - ECB Statistics Paper Series](#)

## Citation of this Dataset

Any study or other document that uses the iBACH data provided by BPLIM or BELab has to properly cite the data source as:

Banco de Portugal Microdata Research Laboratory - BPLIM (2024): Portuguese Companies Microdata (iBACH). Extraction: May 2024. Version: V1. Banco de Portugal. Dataset. <https://doi.org/10.17900/iBACH.May2024.V1>

BELab. Banco de España/CORPME, Colegio de Registradores de la Propiedad y Mercantiles de España. Spanish Companies Microdata (iBACH). DOI: 10.48719/BELab.iBACH0822\_01

To cite this dataset you can use the package biblatex with the following two BibTeX entries:

```
@dataset{iBACH.May2024.V1,
author = {{Banco de Portugal Microdata Research Laboratory - BPLIM}},
publisher = {Banco de Portugal},
title = {{P}ortuguese {C}ompanies {M}icrodata (iBACH)},
year = {2024},
version = { V1, Extraction May 2024},
doi = {10.17900/iBACH.May2024.V1},
url = {https://doi.org/10.17900/iBACH.May2024.V1}
}
```

```

@dataset{BELab.iBACH0822_01,
author = {{BELab. Banco de Espa\~{n}a/CORPME, Colegio de Registradores
de la Propiedad y Mercantiles de Espa\~{n}a}},
publisher = {Banco de Espa\~{n}a},
title = {{S}panish {C}ompanies {M}icrodata (iBACH)},
year = {2024},
doi = {10.48719/BELab.iBACH0822_01},
url = {https://doi.org/10.48719/BELab.iBACH0822_01}
}

```