

Central Balance Sheet Harmonized Panel Data - Data Manual

Extraction Date: June 2019

Manual Date: 17 April 2020

Abstract: In 2010, the national accounting standards underwent some changes, and *Plano Oficial de Contabilidade* (POC, Official Chart of Accounts) was replaced by *Sistema de Normalização Contabilística* (SNC, Accounting Standards System). This had an impact on the base information in the Central Balance Sheet Database (CB). This manual describes the panel data of Central Balance Sheet Database with harmonized variables over time available at BPLIM.

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General Information

Dataset Designation in English: Central Balance Sheet Harmonized Panel Data (CBHP)

Dataset Designation in Portuguese: *Painel Harmonizado da Central de Balanços* (CBHP)

Data Type: Longitudinal Data

Unit of Analysis: Firms

Frequency: Annual

Start Date: 2006

Most recent year: 2017

Reference date: The data reports to the fiscal period declared by the firm. For most cases, the fiscal period coincides with the civil year. For those firms with fiscal period different than the civil year, the reference year is the one covering most of the days of the fiscal period.

Data Organization: Data is organized in five files:

- General Information on the firm (Cover Sheet),
- Economic and Financial Information (Balance Sheet and Profit and Loss Statements),
- Employment Information,
- Trade Information per Market,
- Corporate Actions.

In all files each row corresponds to one firm in a given year. ¹ All files are available in Stata format, version 15.

Version of the Data: The data made available by BPLIM corresponds to a data freeze at a certain time of the year.² Therefore, all files contain the information as reported in the extraction date. The most recent update of the data occurred in June 2019.

Languages Available: Variable labels and value labels are available in Portuguese and for most of the variables also in English. ³

Related Datasets: This product is built based on the information from Central Balance Sheet Database (CB).

Digital Object Identifier: 10.17900/CB.CBHP.Jun2019.V1

¹For 'Corporate Actions' data file, there may be multiple firm entries per year since the firm may be involved in more than one event for the same reference year.

²For more information, see the manual on the Annual Data of Central Balance Sheet Database.

³To see the labels in English type the following command line in Stata: 'label language en'.

Geographical Coverage

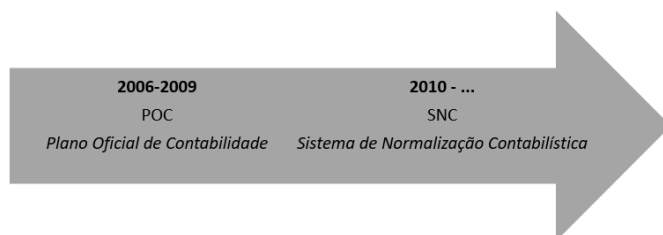
The data refers to firms located in the Mainland Portugal and Autonomous Regions – Azores and Madeira.

Population

The population of the CBHP is the same as in the annual data, i.e. the population of all Portuguese non-financial corporations. For more information, please see the manual on *Central Balance Sheet Database (CB) - Annual Data*.

Methodology

Central Balance Sheet Database (CB) provides economic and financial information on Portuguese non-financial corporations. The data is collected through *Informação Empresarial Simplificada* (IES) since 2006. In 2010, the national accounting standards underwent some changes, and *Plano Oficial de Contabilidade* (POC, Official Chart of Accounts) was replaced by *Sistema de Normalização Contabilística* (SNC, Accounting Standards System), which is closer to the International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). This had an impact on the base information in CB (Banco de Portugal, 2014).



With the introduction of SNC, several changes were introduced. For example:

- some accounting items were simply redenominated;
- some accounting items were aggregated or disaggregated;
- there are new variables being reported. The Interest Income (VF16150) and Net Non-current Assets Held for Sale (VF16035) are some examples of variables that are not reported in the financial statements written according to POC;
- the asset items in POC accounting system were reported in gross terms and the amortizations and adjustments were reported separately for each item of the Balance Sheet. The financial statement written according to

SNC does not have a separate item for depreciations as POC did and all variables are being reported in net terms.

- SNC introduced different reporting standards for firms with different sizes. After 2010, Micro-Entities and Small-sized Entities ⁴ were required to report a lower number of variables.

Therefore, some accounting items in the old accounting system have an approximate correspondence and others have no correspondence at all in SNC. Some variables had to be aggregated to guarantee the comparability before and after 2010. Besides, the harmonized variables can only be calculated if their components are reported for all entities according to the reporting standards adopted by the firm. Therefore, CBHP contains a lower number of variables than those included in CB. Currently we make available approximately 60 harmonized variables on the Balance Sheet and Profit and Loss Statement. In the Employment Information file, we make available 20 variables and in the Trade Information per market file, 14 variables are available. All variables in the Cover Sheet File and the Corporate Actions File are available given that this type of information was not affected by the accounting standards.

Table 1 – Number of Harmonized Variables by type of information

| Type of Information | Number of Harmonized Variables | Time Period |
|---|--------------------------------|-------------|
| General Information (Cover Sheet) File | 26 | 2006-2017 |
| Economic and Financial Information File | 61 | 2006-2017 |
| Employment Information File | 20 | 2006-2017 |
| Trade Information per Market File | 14 | 2006-2017 |
| Corporate Actions | 10 | 2006-2017 |

In this section, we describe the procedure to compute the harmonized variables available in CBHP. For a complete account on how each variable made available in the panel was computed, check the Description of Variables. All the calculations are done based on the annual files of CB. Therefore, the number of firms and the time period available are the same as in the annual files. The panel dataset is updated once per year around the month of June, at the same time as the annual data of CB. The most recent extraction occurred in June 2019.

The harmonization procedure is different for each file described in Table 1. While the information in the Cover sheet did not suffer any significant change with the introduction of SNC, the harmonization of the Economic and Financial Informa-

⁴A Micro-Entity is defined as a firm that falls below in at least two of the following criteria at the balance sheet date: i) total assets equal to 500.000 euros; ii) net turnover equal to 500.000 euros; or iii) average number of employees equal to 5. Small-sized Entities are firms satisfying at least two of the following conditions: i) total assets below 500.000 euros; ii) total gross sales and other income lower than 1.000.000 euros or; iii) average number of employees less than 20. For more details please check the manual on *Central Balance Sheet Database (CB) - Annual Data*.

tion is not a straightforward task. Therefore, we classified the harmonization methodology in three different categories:

- **Type 1:** covers the information unaffected by the change in the accounting system, which includes the Cover Sheet and the Corporate Actions Files. In these cases, we simply append the annual datasets. The name of the variables remain the same since no change on the original data was undertaken.
- **Type 2:** covers the information that was directly affected by the change in the accounting system, i.e., the Economic and Financial Information and Trade Information per Market. It also includes the Employment Information because the variables are collected through different tables in IES and have different denominations under POC and SNC accounting systems. For this type of files, we rely on the definition of the variables under the current accounting system (SNC) and compute a formula using the POC items needed to ensure the comparability over time. For example, the procedure to compute the item Turnover (D001) is illustrated below for a fictional firm:

| ano | tina | planocont | VF03045 | VF03046 | VF03047 | VF16132 | D001 |
|------|------------------|-----------|---------|---------|---------|---------|------------|
| 2006 | 500000000 | POC | . | . | . | . | 0 |
| 2007 | 500000000 | POC | 100 | 100 | 100 | . | 300 |
| 2008 | 500000000 | POC | 100 | 100 | . | . | 200 |
| 2009 | 500000000 | POC | 100 | 100 | 100 | . | 300 |
| 2010 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2011 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2012 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2013 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2014 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2015 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2016 | 500000000 | SNC | . | . | . | 100 | 100 |
| 2017 | 500000000 | SNC | . | . | . | 100 | 100 |

The SNC variable - VF16132 (Turnover) - corresponds to the sum of the variables VF03045, VF03046 and VF03047 in the POC accounting system. Therefore, a new harmonized variable is computed - D001 - using these auxiliary variables. After calculating the harmonized variable, the auxiliary variables are dropped and only the variables in bold are kept in the dataset. All missing values in the auxiliary variables are treated as zeros. The report of IES is mandatory for all firms that are required to send the financial statements to the Ministry of Finance. Therefore, all items have to be completed in a consistent manner so that the firm is able to submit the declaration and the real value of a specific variable is assumed to be zero if it is not reported. The naming convention for Balance Sheet variables in the panel data is Bxxx or BLxxx, for Profit and Loss Statement is Dxxx or DLxxx, for Employment Information is Exxx and for

Trade Information per Market is MGxxx.

After identifying all variables that can be potentially included in the panel dataset, we produced and analyzed technical reports on each variable. Namely, we did the following checks to ensure the compatibility of the panel variables over time:

1. analyze the evolution of the mean and median values of the relative changes over time.⁵ We try to identify whether there is any discontinuity in 2010, the first year in which most of the firms reported under *Sistema de Normalização Contabilística*.⁶
2. check whether abnormal relative changes (relative changes above 100%) are found more often in the transition to the new accounting system.
3. decomposition of the yearly variation of the total value of each variable due to the expansion and contraction of incumbents and the entry and exit of firms.
4. regression of each variable on time dummies to detect any structural change in the variable after 2010.

The link to the report on each variable is available in the section Description of Variables. The harmonization procedure tries to ensure the compatibility of the variables over time as much as possible. However, there may be more than one harmonization methodology and the transition between the old and the new accounting rules and concepts may take some time. For these reasons, some harmonized variables may show a clear discontinuity in 2010.

We also produce reports for the Economic and Financial Information File, Employment Information File and Trade Information per Market File checking whether the sum of disaggregated variables corresponds to the aggregated variables. These reports are available in the Auxiliary Files Section.

- **Type 3:** covers the Economic and Financial Indicators files containing information affected by the change in the accounting system. The information on this file is calculated using the variables available in the Economic and Financial Information File. We provide a Stata ado file to compute all the economic and financial indicators that are possible to harmonize over time given the information available in the panel dataset. By adopting this procedure, the size of the dataset is minimized. All indicators variables calculated by this ado are denominated Rxxx.

⁵The relative changes are defined as the difference between the value of the variable observed in year t minus the value observed in the previous year. Relative changes are computed with respect to the average of year t and t-1 and are measured in percentage.

⁶In 2010 some declarations were reported according to *Plano Oficial de Contas*. This situation occurs mostly for declarations sent in the cessation period and before or after the firms adopts a special fiscal period - a fiscal period different from the calendar year.

Description of Files

Similarly to the annual data files, CBHP is organized in five files. Each file provides a different type of information, namely:

| Type of Information | File Name |
|--|---|
| A. General Information (Cover sheet) | CBHP_A_YFRM_yyyyYYYY_eeee_ROSTO_V01.dta |
| B. Economic and Financial Information | CBHP_A_YFRM_yyyyYYYY_eeee_CONTAS_V01.dta |
| C. Employment Information | CBHP_A_YFRM_yyyyYYYY_eeee_PESSOAL_V01.dta |
| D. Trade Information per Market | CBHP_A_YFRM_yyyyYYYY_eeee_MG_V01.dta |
| E. Corporate Actions | CBHP_A_YFRM_yyyyYYYY_eeee_AMARC_V01.dta |

Where *A* stands for anonymized and *yyyy* corresponds to the first year available and *YYYY* corresponds to most recent year available. *eeee* reports the extraction date.

All files contain a unique firm identifier (*tina*) and a reference year (*ano*) allowing the matching of the different types of information by firm. Whenever possible, labels and value labels were attributed to all categorical variables. All data sets are anonymized.

Description of Variables

A. General Information File (Cover Sheet)

The information reported in this file was not affected by the change in the accounting system. Therefore, the panel dataset includes all the variables available in the annual data files.

A1. Identifiers

Firm identifier (*tina*) – Unique identifier that enables tracking the firm over time. *tina* is the anonymized tax identification number. The first digit of the tax identification number contains information on the type of corporation and legal form. Therefore, this first digit is preserved in *tina*.

Reference year of the data (*ano*) – Reference year of the data.

A2. Other variables

All the variables available in CB are also available in the CBHP. For a full description of these variables please check the manual on *Central Balance Sheet*

Database (CB) - Annual Data or the auxiliary file `var_rosto.html`.

The variables reporting the accounting system (*planocont*) and the accounting standards (*regime*) under which the firm is reporting information are kept in the panel dataset. These variables do not have any interpretation given that all the economic and financial variables included in the panel dataset are harmonized over time. They are kept in the dataset because they may be useful in case one wants to calculate additional variables not provided by BPLIM.

B. Economic and Financial Information File

This file provides a set of balance sheet and profit and loss statement variables harmonized over time. For a full account of the SNC items included in the definition of the harmonized variable see the auxiliary file `contas_snc_items.html`.

B1. Identifiers

Firm identifier (*tina*) – Unique identifier that enables tracking the legal entity over time. *tina* is the anonymized tax identification number.

Reference year of the data (*ano*) – Reference year of the data.

B2. Balance Sheet Variables

Assets

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---------------------------------|--|--------------|----------------|-----------------|
| B001 | Total Assets (QS) | Total non-current assets; Total current assets | VF15991 | Formula in POC | Report - B001 |
| B004 | > Total non-current assets (QS) | Fixed tangible assets and intangible assets; Financial investments; Remaining non-current assets | VF15994 | Formula in POC | Report - B004 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---|---|--------------|----------------|-----------------|
| B005 | > > Fixed tangible assets and intangible assets | Intangible assets (including Goodwill); Land and buildings; Basic equipment; Other fixed assets; Payments on account of fixed assets | VF15995 | Formula in POC | Report - B005 |
| B012 | > > > Fixed tangible assets | Land and buildings; Basic equipment; Other fixed assets; Payments on account of fixed assets 7 | VF16002 | Formula in POC | Report - B012 |
| B025 | > > Financial investments | Investments in subsidiary and associated companies; Financial investments (excepting investments in subsidiary and associated companies | VF16015 | Formula in POC | Report - B025 |
| B158 | > > Non-current assets - Remaining non-current assets | Shareholders / partners; Deferred tax assets | VF18510 | Formula in POC | Report - B158 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|---|--------------|----------------|-----------------|
| B029 | > Total Current assets (QS) | Inventories and biological assets; Customers; Remaining current assets; Cash and bank deposits; Non-current assets held for sale ⁸ | VF16019 | Formula in POC | Report - B029 |
| B032 | > > Current assets - Inventories and biological assets | Raw and subsidiary materials and consumables; Advances from customers; Inventories (excepting Raw and subsidiary materials and consumables) | VF16022 | Formula in POC | Report - B032 |
| B041 | > > Current assets - Customers | | VF16031 | Formula in POC | Report - B041 |
| B049 | > > Current assets - Cash and bank deposits | | VF16039 | Formula in POC | Report - B049 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|--|--------------|----------------|-----------------|
| B159 | > > Current assets - Remaining current assets | Current assets - State and other public entities; Other current assets; Shareholders; Deferred expense | VF18511 | Formula in POC | Report - B159 |
| B042 | > > Current assets - State and other public entities | | VF16032 | Formula in POC | Report - B042 |

Equity

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|------------------------------------|---|--------------|----------------|-----------------|
| B060 | Equity and Liabilities (QS) | Equity; Liabilities | VF16050 | Formula in POC | Report - B060 |
| B061 | > Equity (QS) | Paid-up capital; Other equity instruments; Reserves and retained earnings; Other items of equity; Net income; Interim dividends | VF16051 | Formula in POC | Report - B061 |
| BL005 | > > Legal reserves | | VF13024 | Formula in POC | Report - BL005 |

⁷With the introduction of SNC some components that were previously classified as fixed tangible assets were reallocated to intangible assets to accommodate international standards. An example is highway concessions which were considered as tangible assets in POC and were reclassified as intangible assets in SNC.

⁸This variable has no match in *Plano Oficial de Contas*.

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|------------------------|------------|--------------|----------------|-----------------|
| BL007 | > > Retained earnings | | VF13026 | Formula in POC | Report - BL007 |
| B074 | > > Interim dividends | | VF16064 | Formula in POC | Report - B074 |
| B143 | > > Subscribed capital | | VF16425 | Formula in POC | Report - B143 |

Liabilities

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---|--|--------------|----------------|-----------------|
| B080 | > Liabilities (QS) | Non-current liabilities; | VF16070 | Formula in POC | Report - B080 |
| B081 | > > Non-current liabilities | Current liabilities Obtained funding; Post-employment benefits; Remaining non-current liabilities | VF16071 | Formula in POC | Report - B081 |
| B085 | > > > Non-current liabilities - Obtained funding | | VF16075 | Formula in POC | Report - B085 |
| B160 | > > > Non-current liabilities - Remaining non-current liabilities | Provisions; Other accounts payable; Deferred tax liabilities | VF18512 | Formula in POC | Report - B160 |
| B089 | > > Current liabilities (QS) | Suppliers; Obtained funding; Remaining current liabilities | VF16079 | Formula in POC | Report - B089 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---|--|--------------|----------------|-----------------|
| B093 | > > > Current liabilities - Suppliers | | VF16083 | Formula in POC | Report - B093 |
| B161 | > > > Current liabilities - Remaining current liabilities | State and other public sector institutions; Other current liabilities; Deferred income | VF18513 | Formula in POC | Report - B161 |
| B094 | > > > > Current liabilities - State and other public entities | | VF16084 | Formula in POC | Report - B094 |

B3. Profit and Loss Statement Variables

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|----------------------|----------------------------|--------------|----------------|-----------------|
| D021 | Total income | Turnover; Remaining income | VF16152 | Formula in POC | Report - D021 |
| D001 | > Turnover | Sales; Services | VF16132 | Formula in POC | Report - D001 |
| D002 | > > Sales | Sales of good and products | VF16133 | Formula in POC | Report - D002 |
| DL017 | > > Services | | VF15599 | Formula in POC | Report - DL017 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|---|--------------|----------------|-----------------|
| D111 | > Remaining Income | Operating subsidies; Variation in production; Capitalized production; Other incomes; Obtained interest and similar income ⁹ | VF18514 | Formula in POC | Report - D111 |
| D005 | > > Operating subsidies | | VF16136 | Formula in POC | Report - D005 |
| D006 | > > Variation in production | | VF16137 | Formula in POC | Report - D006 |
| D007 | > > Capitalized production | | VF16138 | Formula in POC | Report - D007 |
| DL043 | Supplementary income | | VF15650 | Formula in POC | Report - DL043 |
| D013 | Other incomes - Income from financial assets | | VF16144 | Formula in POC | Report - D013 |
| D062 | Total Expenses (QS) | Costs of goods sold and material consumed; Supplies and external services; Employee expenses; Remaining expenses; Ex-penses/reversals of deprecia-tions and amortiza-tions; Interest expenses; Income tax | VF16193 | Formula in POC | Report - D062 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|---|-------------------|----------------|-----------------|
| D025 | > Costs of goods sold and material consumed | | VF16156 | Formula in POC | Report - D025 |
| D026 | > Supplies and external services | | VF16157 | Formula in POC | Report - D026 |
| D029 | > Employee expenses | Salaries; Social security expenses; Other employee expenses | VF16160 | Formula in POC | Report - D029 |
| D030 | > > Salaries | Salaries of Corporate Bodies; Salaries of employees | VF16161 | Formula in POC | Report - D030 |
| DL011 | > > > Salaries of corporate bodies | | VF15555 | Formula in POC | Report - DL011 |
| DL012 | > > > Salaries of employees | | VF15557 | Formula in POC | Report - DL012 |
| DL045 | > > Employee expenses - Other, except salaries | Social security expenses; Insurance schemes for accidents at work and occupational diseases; Expenses with social actions; Post-employment benefits; Indemnities; Other employee expenses | VF15554 - VF16161 | Formula in POC | Report - DL045 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---|---|--------------|----------------|-----------------|
| DL013 | > > > Social security expenses | | VF15565 | Formula in POC | Report - DL013 |
| DL014 | > > > Insurance schemes for accidents at work and occupational diseases | | VF15566 | Formula in POC | Report - DL014 |
| D108 | > Remaining expenses | Impairment (losses/reversals) and changes (gains/losses) in fair value; Provisions (in-creases/decreases); Other expenses | VF16572 | Formula in POC | Report - D108 |
| D041 | > Ex-penses/reversals of depreciations and amortizations | | VF16172 | Formula in POC | Report - D041 |
| D053 | > Interest expenses | | VF16184 | Formula in POC | Report - D053 |
| D060 | > Income tax | | VF16191 | Formula in POC | Report - D060 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|--|--------------|----------------|-----------------|
| D112 | Impairment losses, changes in fair value and other expenses and losses in fin. invest. and fin. instrum. | Impairment (losses/reversals) and changes (gains/losses) in fair value in financial instruments and investments; Other expenses - expenses in financial investments and other financing expenses | VF18515 | Formula in POC | Report - D112 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|-----------------------------|--|--------------|----------------|-----------------|
| D082 | Operating net income | (Turnover; Remaining income (excepting Obtained interest and similar income) ¹⁰ ; Impairment losses, changes in fair value and other expenses and losses in fin. invest. and fin. instrum.) - (Income from financial assets; Costs of goods sold and material consumed, Supplies and external services, Employee expenses and Remaining expenses) | VF16213 | Formula in POC | Report - D082 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|--|--|--------------|----------------|-----------------|
| D084 | Earnings before Interest, Taxes, Depreciation and Amortization - EBITDA | (Turnover; Remaining income (excepting Obtained interest and similar income) ¹¹) - (Costs of goods sold and material consumed; Supplies and external services; Employee expenses; Remaining expenses) | VF16215 | Formula in POC | Report - D084 |
| D085 | Earning before Interest and Tax - EBIT | (Turnover; Remaining income (excepting Obtained interest and similar income) ¹²) - (Costs of goods sold and material consumed; Supplies and external services; Employee expenses; Remaining expenses; Ex-penses/reversals of deprecia-tions and amortizations) | VF16216 | Formula in POC | Report - D085 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|---|---|--------------|----------------|-----------------|
| D086 | Earnings before Tax - EBT | (Turnover; Operating subsidies; Variation in production; Capitalized production; Other income; Interest, dividends and other similar income) - (Costs of goods sold and material consumed; Supplies and external services; Employee expenses; Impairment, provisions, Losses/reversals of deprecia- tions and amor- tizations; Other expenses; Financial expenses and losses) ¹³ | VF16217 | Formula in POC | Report - D086 |
| D087 | Net income | Total Income - Total Expenses ¹⁴ | VF16218 | Formula in POC | Report - D087 |
| DL002 | Other expenses - Cash discounts granted | | VF15843 | Formula in POC | Report - DL002 |

| Variable | Variable description | Definition | SNC Variable | Formula in POC | Variable Report |
|----------|------------------------------------|------------|-------------------|----------------|-----------------|
| DL005 | Other expenses - Other - Donations | | VF15859 | Formula in POC | Report - DL005 |
| DL047 | Indirect taxes | | VF15841 + VF15842 | Formula in POC | Report - DL047 |

C. Employment Information File

This file contains information on the number of employees and number of hours worked. Although the change in the accounting system did not have a direct impact on the report of this information, the denomination of the variables is different under both accounting regimes. Also, some variables are no longer required after 2010, such as the number of paid apprentices and home workers. The number of employees by gender only started being reported after 2010. These variables are reported on Tables Q05-0507-Nota7 in the forms written according to POC and Q05A-05291-A in the forms written according to SNC.

C1. Identifiers

Firm identifier (*tina*) – Unique identifier that enables tracking the legal entity over time. *tina* is the anonymized tax identification number.

Reference year of the data (*ano*) – Reference year of the data.

C2. Number of employees

| Variable | Variable description | SNC Variable | Formula in POC | Variable Report |
|----------|---------------------------------------|--------------|----------------|-----------------|
| E001 | Number of (paid and unpaid) employees | VF15532 | VF03319 | Report - E001 |

⁹Obtained interest and similar income has to be subtracted to Remaining Income to make it compatible with the POC formula.

¹⁰The item “Obtained interest and similar income” has no correspondence in the POC accounting system.

¹¹Obtained interest and similar income has to be subtracted to Remaining Income to make it compatible with the POC formula.

¹²Obtained interest and similar income has to be subtracted to Remaining Income to make it compatible with the POC formula.

¹³In SNC, some components of EBT are different from the ones used to compute EBIT.

¹⁴This variable is not computed using the total income and total expenses as given by D021 and D062, respectively. This formula corresponds to the difference between D020 - Total income and D061 - Total expenses.

| Variable | Variable description | SNC Variable | Formula in POC | Variable Report |
|----------|---|-----------------|-------------------|-----------------|
| E002 | Number of paid employees | VF15534 | VF03321 | Report - E002 |
| E003 | Number of unpaid employees | VF15536 | VF04902 | Report - E003 |
| E004 | Number of (paid and unpaid) full-time employees | VF15538 | VF03320 | Report - E004 |
| E005 | Number of paid full-time employees | VF15540 | VF04903 | Report - E005 |
| E006 | Number of (paid and unpaid) part-time employees | VF15542 | VF04904 | Report - E006 |
| E007 | Number of paid part-time employees | VF15544 | VF03324 | Report - E007 |
| E008 | Number of employees allocated to research and development | VF15550 | VF03326 | Report - E008 |
| E009 | Service providers | VF15551 | VF03325 | Report - E009 |
| E010 | Temporary Agency Employment | VF15553 | VF03327 | Report - E010 |

C3. Number of hours of work

| Variable | Variable description | SNC Variable | Formula in POC | Variable Report |
|----------|---|-----------------|-------------------|-----------------|
| E011 | Number of hours worked by paid and unpaid employees | VF15533 | VF03328 | Report - E011 |
| E012 | Number of hours worked by paid employees | VF15535 | VF03330 | Report - E012 |
| E013 | Number of hours worked by unpaid employees | VF15537 | VF04905 | Report - E013 |
| E014 | Number of hours worked by paid and unpaid full-time employees | VF15539 | VF03329 | Report - E014 |
| E015 | Number of hours worked by paid full-time employees | VF15541 | VF04906 | Report - E015 |

| Variable | Variable description | SNC Variable | Formula in POC | Variable Report |
|----------|---|--------------|----------------|-----------------|
| E016 | Number of hours worked by paid and unpaid part-time employees | VF15543 | VF04907 | Report - E016 |
| E017 | Number of hours worked by paid part-time employees | VF15545 | VF03331 | Report - E017 |
| E018 | Number of hours worked by service providers | VF15552 | VF03332 | Report - E018 |

D. Trade information per market file

According to the forms written according to POC and respective filling instructions (Q0544-Nota44), some variables are reported in net terms. These variables were reported in a different table and have new denominations in the new accounting system (Q05-A-05301-A). However, there is a direct correspondence between the POC and SNC variables.

D1. Identifiers

Firm identifier (*tina*) – Unique identifier that enables tracking the legal entity over time. *tina* is the anonymized tax identification number.

Reference year of the data (*ano*) – Reference year of the data.

D2. Variables available

| Variable | Variable description | SNC Variable | Formula in POC | Variable Report | |
|----------|-----------------------------------|--------------|----------------|-----------------|----------------|
| MG001 | Total Sales - Internal Market | | VF15619 | VF03949 | Report - MG001 |
| MG002 | Total Services - Internal Market | | VF15623 | VF03950 | Report - MG002 |
| MG003 | Total Purchases - Internal Market | | VF15627 | VF03951 | Report - MG003 |
| MG004 | Total Sales - EU-Market | | VF15620 | VF03953 | Report - MG004 |
| MG005 | Total Services - EU-Market | | VF15624 | VF03954 | Report - MG005 |
| MG006 | Total Purchases - EU-Market | | VF15628 | VF03955 | Report - MG006 |
| MG007 | Total Sales - Extra EU-Market | | VF15621 | VF03957 | Report - MG007 |
| MG008 | Total Services - Extra EU-Market | | VF15625 | VF03958 | Report - MG008 |
| MG009 | Total Purchases - Extra EU-Market | | VF15629 | VF03959 | Report - MG009 |
| MG010 | Total Sales | | VF15622 | VF03961 | Report - MG010 |
| MG011 | Total Services | | VF15626 | VF05195 | Report - MG011 |
| MG012 | Total Purchases | | VF15630 | VF03962 | Report - MG012 |

E. Corporate Actions File

This file contains information on firm actions that occurred during the fiscal period altering the structure of the firm and affecting the comparability of the economic and financial information over time. The variables below are computed by the Statistics Department of *Banco de Portugal* and, therefore, are not affected by the change in the accounting system. The data has a significant but not exhaustive coverage of the corporate actions that have an impact on the structure of the non-financial corporations included in CBHP.

E1. Identifiers

Firm identifier (*tina_origem*, *tina_destino*) – firm identification codes that enable identifying the firm of origin and the firm of destination of the corporate action.

tina_origem - firm of origin's anonymized tax identification number,

tina_destino - firm of destination's anonymized tax identification number.

Reference year of the data (*ano*) – Reference year of the data.

Number of order of the corporate action (*numordem*): Corporate action's number of order.

E2. Information on the Corporate Action

Type of corporate action (*tipoacont*) - this variable reports the type of corporate action:

| Code | Designation |
|------|---|
| 10 | Merge |
| 20 | Split |
| 30 | Activity Interruption by non-seasonal companies (>3 months, consecutive or not) |
| 62 | Dissolution of a significant part of productive assets without split |
| 67 | Other corporate actions |
| 70 | Disposal of a significant part of productive assets |
| 71 | Acquisition of a significant part of productive assets |
| 72 | Transfer of a significant part of productive assets |
| 78 | Change of economic activity with the creation of a new firm |
| 79 | Change of economic activity without the creation of a new firm |

Some relevant definitions are available in subsection E3. Relevant Definitions

Number of months of activity interruption (*mesesparagem*) - number of months the firm interrupted its activity. This variable is only filled in when the type of corporate action corresponds to an activity interruption (*tipoacont*=30).

Effect on data comparability (*efeitopessoal*, *efeitobalanco*, *efeitodemresult*, *efeitocontas*) - set of dummy variables stating whether the corporate action has an effect on data comparability. By default, it is considered that the corporate action has an effect on data comparability if the relative annual change of the relevant variable (Number of Paid and Unpaid Employees, Total Assets or Turnover) exceeds 10%. After the quality control takes place, however, the action may be considered to have or not an effect on data comparability according to the analysis of the firm's information.

efeitopessoal - dummy variable taking value one ("Yes") if the corporate action has an impact on the Number of Paid and Unpaid Employees.¹⁵

efeitobalanco - dummy variable taking value one ("Yes") if the corporate action has an impact on Total Assets.

efeitodemresult - dummy variable taking value one ("Yes") if the corporate action has an impact on Turnover.

efeitocontas - dummy variable taking value one ("Yes") if the corporate action has an impact on the overall economic and financial statements.

E3. Relevant definitions

Merge- This corporate action occurs if two or more companies combine into a newly created company or an existing one. In this last case, the firm is simultaneously the Firm of Origin and the Firm of Destination.

Split – This corporate action occurs when a company divides its activity into two or more existing and/or newly created companies. If the firm splitting its activity stay in business then this firm is simultaneously the Firm of Origin and the Firm of Destination.

Change of Economic Activity (with/without the creation of a new firm) - structural change on the firm affecting the comparability of the information over time. For example, a firm being assigned a new Tax Identification Number due to changes in firm's legal form, sector of activity or institutional sector.

Dissolution of a significant part of productive assets without split - significant diminution in the economic activity of the firm that is not explained by the transfer of productive assets to an existing or newly created firm.

¹⁵Please note that the variable Number of Paid and Unpaid Employees is only reported in IES from 2006 onwards. Therefore, it is not possible to assess the effects of the corporate actions reported in 2006 on employment information (*efeitopessoal*). For this reason, the variable *efeitocontas* may also be understated in 2006.

F. Economic and Financial indicators

The Economic and Financial Indicators are calculated based on the information available in the Economic and Financial Information file. For an overview of the formulas used to compute these variables check the auxiliary file `indicadores_formula.html`. A Stata ado file (`cbhp_addindic.ado`) is provided by BPLIM upon request to create the variables listed below. These variables follow the naming convention `Rxxx`.

| | Variable Name | Variable Description |
|------|---|----------------------|
| R001 | Current ratio | |
| R002 | Quick ratio | |
| R003 | Capital ratio (QS) | |
| R006 | Assets to equity ratio | |
| R007 | Solvency ratio (QS) | |
| R009 | Non-current assets coverage ratio | |
| R023 | Financial Cost Effect | |
| R034 | Return on sales | |
| R036 | Return on assets | |
| R040 | EBITDA over Turnover | |
| R041 | Degree of combined leverage | |
| R050 | Asset turnover (times) - (QS) | |
| R056 | Coefficient Fixed non-financial assets over employee expenses | |
| R150 | Asset turnover ratio | |
| R152 | Profit or loss of the year before taxes (EBT) / Equity | |
| R155 | Profit or loss of the year before taxes (EBT) / Net turnover | |
| R156 | Equity / Total assets | |
| R157 | Trade payables / Total assets | |
| R158 | Total income / Net turnover | |
| R159 | Total expenses / Net turnover | |
| R160 | Financial fixed assets / Total assets | |
| R161 | Trade receivables / Total assets | |

Basic Descriptive Statistics

Table 1- Firm flows (as of June 2019 extraction)

```
(CB Panel 2006-2017 - Ref. 2019_06 - YFRM/Rosto (V01) - Anonymized)
*****
Analyzing S:/data/Products/CB/2019_06/CB_Panel/Output/Data/Firms/CBHP_A_YFRM_20062017_JUN19_ROSTO_V01.dta
*****
Basic descriptives
*****
There are 4574014 time x individuals observations
There are 687218 unique individuals
Time values range from 2006 to 2017
```

Maximum time range is 12
The average number of periods per individual is 6.66
The level of completeness is 55.47% (100% is a fully balanced panel)
Average number of gaps per individual is 0.03
Average gap size is 1.72
Largest gap is 10

Distribution of number of observations per individual

| Observ per individual | Freq. | Percent | Cum. |
|-----------------------|---------|---------|--------|
| 1 | 74,189 | 10.80 | 10.80 |
| 2 | 74,892 | 10.90 | 21.69 |
| 3 | 68,354 | 9.95 | 31.64 |
| 4 | 55,962 | 8.14 | 39.78 |
| 5 | 48,089 | 7.00 | 46.78 |
| 6 | 40,769 | 5.93 | 52.71 |
| 7 | 36,927 | 5.37 | 58.09 |
| 8 | 29,713 | 4.32 | 62.41 |
| 9 | 26,424 | 3.85 | 66.26 |
| 10 | 26,691 | 3.88 | 70.14 |
| 11 | 27,343 | 3.98 | 74.12 |
| 12 | 177,865 | 25.88 | 100.00 |
| Total | 687,218 | 100.00 | |

Number of individuals per time unit

| Time | Freq. | Percent | Cum. |
|-------|-----------|---------|--------|
| 2006 | 344,417 | 7.53 | 7.53 |
| 2007 | 359,638 | 7.86 | 15.39 |
| 2008 | 369,909 | 8.09 | 23.48 |
| 2009 | 369,928 | 8.09 | 31.57 |
| 2010 | 370,692 | 8.10 | 39.67 |
| 2011 | 379,575 | 8.30 | 47.97 |
| 2012 | 380,911 | 8.33 | 56.30 |
| 2013 | 386,118 | 8.44 | 64.74 |
| 2014 | 391,405 | 8.56 | 73.30 |
| 2015 | 401,154 | 8.77 | 82.07 |
| 2016 | 408,034 | 8.92 | 90.99 |
| 2017 | 412,233 | 9.01 | 100.00 |
| Total | 4,574,014 | 100.00 | |

Distribution of the size of the time gaps

| Size of time gaps | Freq. | Percent | Cum. |
|-------------------|--------|---------|-------|
| 1 | 12,509 | 63.09 | 63.09 |
| 2 | 3,728 | 18.80 | 81.89 |
| 3 | 1,821 | 9.18 | 91.07 |
| 4 | 893 | 4.50 | 95.58 |
| 5 | 508 | 2.56 | 98.14 |
| 6 | 185 | 0.93 | 99.07 |
| 7 | 98 | 0.49 | 99.57 |

| | | | |
|-------|--------|--------|--------|
| 8 | 64 | 0.32 | 99.89 |
| 9 | 19 | 0.10 | 99.98 |
| 10 | 3 | 0.02 | 100.00 |
| Total | 19,828 | 100.00 | |

Distribution of the number of gaps by individual

| Number of gaps per individual | Freq. | Percent | Cum. |
|-------------------------------------|---------|---------|--------|
| 0 | 668,634 | 97.30 | 97.30 |
| 1 | 17,405 | 2.53 | 99.83 |
| 2 | 1,115 | 0.16 | 99.99 |
| 3 | 63 | 0.01 | 100.00 |
| 4 | 1 | 0.00 | 100.00 |
| Total | 687,218 | 100.00 | |

Time changes - incumbents, entrants and exits

| time | total | inc1 | entry | first | reent | inc2 | exit | last | reex |
|------|--------|--------|--------|--------|-------|--------|--------|--------|------|
| 2006 | 344417 | 0 | 344417 | 344417 | 0 | 325281 | 19136 | 16407 | 2729 |
| 2007 | 359638 | 325281 | 34357 | 34357 | 0 | 335218 | 24420 | 22185 | 2235 |
| 2008 | 369909 | 335218 | 34691 | 33121 | 1570 | 341264 | 28645 | 25779 | 2866 |
| 2009 | 369928 | 341264 | 28664 | 27341 | 1323 | 341332 | 28596 | 25508 | 3088 |
| 2010 | 370692 | 341332 | 29360 | 26911 | 2449 | 345825 | 24867 | 23043 | 1824 |
| 2011 | 379575 | 345825 | 33750 | 30756 | 2994 | 350773 | 28802 | 27261 | 1541 |
| 2012 | 380911 | 350773 | 30138 | 27401 | 2737 | 352548 | 28363 | 26890 | 1473 |
| 2013 | 386118 | 352548 | 33570 | 31782 | 1788 | 359107 | 27011 | 25388 | 1623 |
| 2014 | 391405 | 359107 | 32298 | 30670 | 1628 | 365901 | 25504 | 24142 | 1362 |
| 2015 | 401154 | 365901 | 35253 | 33329 | 1924 | 374039 | 27115 | 26028 | 1087 |
| 2016 | 408034 | 374039 | 33995 | 32264 | 1731 | 375680 | 32354 | 32354 | 0 |
| 2017 | 412233 | 375680 | 36553 | 34869 | 1684 | 0 | 412233 | 412233 | 0 |

time - time period
total - total number of individuals at time t
inc1 - number of individuals at t that are also present at t-1
entry - number of individuals at t that are not present at t-1
first - number of individuals at t who show up for the first time at t
reent - number of individuals at t that are reentering at time t
inc2 - number of individuals at t that are also present at t+1
exit - number of individuals at t that are not present at t+1
last - number of individuals at t that are not present at any future time
reexit - number of individuals at t not present at t+1 that appear in later times
the following identities hold:
total[t+1]=total[t]-exit[t]+entry[t+1]
inc1=total-entry)
entry=first+reent

```
inc2=inc1[t+1]
exit=last+reexit
*****
Top 10 patterns in the data
*****
```

| | Pattern | Frequency |
|-----|--------------|-----------|
| 1. | 111111111111 | 177865 |
| 2. | 000000000001 | 34869 |
| 3. | 000000000011 | 29582 |
| 4. | 000000000111 | 27703 |
| 5. | 000000001111 | 23218 |
| 6. | 000000011111 | 22437 |
| 7. | 111000000000 | 19417 |
| 8. | 110000000000 | 19335 |
| 9. | 000001111111 | 17118 |
| 10. | 000000111111 | 17062 |

Note: 1 if observation is in the dataset; 0 otherwise

Auxiliary Files

For summary statistics, a codebook and description of each dataset please check the following auxiliary files:

| File | Summary Statistics | Codebook | Dataset description | Report |
|---|--------------------|--------------|---------------------|--------------|
| Summary of all variables | variables_pt_en | | | |
| General Information File | stat_Rosto | cdsk_Rosto | dscr_Rosto | |
| Economic and Financial Information File | stat_Contas | cdsk_Contas | dscr_Contas | rppt_Contas |
| Employment Information File | stat_Pessoal | cdsk_Pessoal | dscr_Pessoal | rppt_Pessoal |
| Trade Information per Market File | stat_MG | cdsk_MG | dscr_MG | rppt_MG |
| Corporate Actions File | stat_amarc | cdsk_amarc | dscr_amarc | |

Citation of this dataset

Banco de Portugal Microdata Research Laboratory (BPLIM) (2019): Central Balance Sheet Harmonized Panel. Extraction: June 2019. Version: V1. BANCO DE PORTUGAL. Dataset. <https://doi.org/10.17900/CB.CBHP.Jun2019.V1>

References

Banco de Portugal (2014). Quadros do Setor e Quadros da Empresa e do Setor-Notas Metodológicas Série Longa 1995-2013. Estudos da Central de Balanços. Lisboa.

Appendix

Balance Sheet Variables

B001 - Formula in POC

Total Assets

| | Variable name | Variable description | Coefficient |
|--|---------------|-------------------------------|-------------|
| | B004 | Total non-current assets (QS) | 1 |
| | B029 | Total current assets (QS) | 1 |

return

B004 - Formula in POC

Total non-current assets (QS)

| | Variable name | Variable description | Coefficient |
|--|---------------|---|-------------|
| | B005 | Fixed tangible assets and intangible assets | 1 |
| | B025 | Financial investments | 1 |
| | B158 | Non-current assets - Remaining non-current assets | 1 |

return

B005 - Formula in POC

Fixed Tangible Assets and Intangible Assets

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|-----------------------|------------------|-------------|
| VF03088 | Intangible assets | Q04-A0207-3-soma | 1 |
| VF03117 | Tangible fixed assets | Q04-A0218-3-soma | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|------------------------------|-------------|
| VF03587 | Investment in properties | Q05-0510-Nota10-A1489-9-soma | 1 |
| VF03642 | Amortizations and adjustments - Financial investments - Investment in properties | Q05-0510-Nota10-A1506-4-soma | -1 |

return

B012 - Formula in POC

Fixed Tangible Assets

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|------------------------------|-------------|
| VF03117 | Tangible fixed assets | Q04-A0218-3-soma | 1 |
| VF03587 | Investment in properties | Q05-0510-Nota10-A1489-9-soma | 1 |
| VF03642 | Amortizations and adjustments - Financial investments - Investment in properties | Q05-0510-Nota10-A1506-4-soma | -1 |

return

B025 - Formula in POC

Financial Investments

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|------------------------------|-------------|
| VF03140 | Financial investments | Q04-A0227-3-soma | 1 |
| VF03587 | Investment in properties | Q05-0510-Nota10-A1489-9-soma | -1 |
| VF03642 | Amortizations and adjustments - Financial investments - Investment in properties | Q05-0510-Nota10-A1506-4-soma | 1 |

return

B029 - Formula in POC

Total current assets

| | Variable name | Variable description | Coefficient |
|------|--|----------------------|-------------|
| B032 | Current assets - Inventories and biological assets | | 1 |
| B041 | Current assets - Customers | | 1 |
| B159 | Current assets - Remaining current assets | | 1 |
| B049 | Current assets - Cash and bank deposits | | 1 |

return

B032 - Formula in POC

Current Assets - Inventories and Biological Assets

| | Variable name | Variable description | Item in IES | Coefficient |
|---------|------------------------------|----------------------|------------------|-------------|
| VF03159 | Current assets - Inventories | | Q04-A0234-3-soma | 1 |

return

B041 - Formula in POC

Current Assets - Customers

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03162 | Assets - Medium and long term debt - Customers (current account) | Q04-A0235-3 | 1 |
| VF03165 | Assets - Medium and long term debt - Customers - Notes receivable | Q04-A0236-3 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03168 | Assets - Medium and long term debt - Customers - Doubtful debtors | Q04-A0237-3 | 1 |
| VF03194 | Assets - Short term debt - Customers (current account) | Q04-A0247-3 | 1 |
| VF03197 | Assets - Short term debt - Customers - Notes receivable | Q04-A0248-3 | 1 |
| VF03200 | Assets - Short term debt - Customers - Doubtful debtors | Q04-A0249-3 | 1 |
| VF03289 | Liabilities - Medium and long term debt - Advances from customers | Q04-A0308-1 | -1 |
| VF03307 | Liabilities - Short term debt - Advances from customers | Q04-A0326-1 | -1 |

return

B042 - Formula in POC

Current assets - State and other public entities

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03182 | Assets - Medium and long term debt - State and other public entities (Net Assets) | Q04-A0243-3 | 1 |
| VF03214 | Assets - Short term debt - State and other public entities (Net Assets) | Q04-A0255-3 | 1 |

return

B049 - Formula in POC

Current Assets - Cash and Bank Deposits

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---------------------------------|------------------|-------------|
| VF05131 | Assets - Cash and bank deposits | Q04-A0268-3-soma | 1 |

return

B060 - Formula in POC

Equity and Liabilities

| Variable name | Variable description | Coefficient |
|---------------|----------------------|-------------|
| B061 | Equity (QS) | 1 |
| B080 | Liabilities (QS) | 1 |

return

B061 - Formula in POC

Equity

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03258 | Equity - Capital | Q04-A0277-1 | 1 |
| VF03188 | Assets - Medium and long term debt - Subscribed capital | Q04-A0245-3 | -1 |
| VF03220 | Assets - Short term debt - Subscribed capital | Q04-A0257-3 | -1 |
| VF03261 | Equity - Supplementary capital | Q04-A0280-1 | 1 |
| VF03265 | Equity - Reserves- Legal reserves | Q04-A0284-1 | 1 |
| VF03266 | Equity - Reserves- Statutory reserves | Q04-A0285-1 | 1 |
| VF03267 | Equity - Reserves- Contractual reserves | Q04-A0286-1 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03268 | Equity - Reserves- Other reserves | Q04-A0287-1 | 1 |
| VF03269 | Equity - Retained earnings | Q04-A0288-1 | 1 |
| VF03259 | Equity - Own shares- Nominal value | Q04-A0278-1 | 1 |
| VF03260 | Equity - Own shares- Discounts and Premiums | Q04-A0279-1 | 1 |
| VF03262 | Equity - Share Premiums | Q04-A0281-1 | 1 |
| VF03263 | Equity - Adjustments to investments in group and associated companies | Q04-A0282-1 | 1 |
| VF03264 | Equity - Revaluation reserves | Q04-A0283-1 | 1 |
| VF04061 | Split of account Accruals and deferrals - Investment subsidies | Q06-A0666 | 1 |
| VF03270 | Equity - Net income | Q04-A0289-1 | 1 |
| VF03271 | Equity - Interim dividends | Q04-A0290-1 | 1 |

return

B074 - Formula in POC

Interim dividends

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------------|-------------|-------------|
| VF03271 | Equity - Interim dividends | Q04-A0290-1 | 1 |

return

B080 - Formula in POC

Liabilities - Total

| Variable name | Variable description | Coefficient |
|---------------|--------------------------|-------------|
| B081 | Non-current liabilities | 1 |
| B089 | Current liabilities (QS) | 1 |

return

B081 - Formula in POC

Non-current liabilities- Total

| | Variable name | Variable description | Coefficient |
|--|---------------|--|-------------|
| | B085 | Non-current liabilities - Obtained funding | 1 |
| | B160 | Non-current liabilities - Remaining non-current liabilities | 1 |
| | VF03273 | Provisions- Provisions for pension liabilities (Q04-A0292-1) | 1 |

return

B085 - Formula in POC

Non-current liabilities - Obtained Funding

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03277 | Liabilities - Medium and long term debt - Bond loans: convertible | Q04-A0296-1 | 1 |
| VF03278 | Liabilities - Medium and long term debt - Bond loans: non-convertible | Q04-A0297-1 | 1 |
| VF03279 | Liabilities - Medium and long term debt - Participating loans | Q04-A0298-1 | 1 |
| VF03280 | Liabilities - Medium and long term debt - Loans from credit institutions | Q04-A0299-1 | 1 |
| VF03286 | Liabilities - Medium and long term debt - Group companies | Q04-A0305-1 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03287 | Liabilities - Medium and long term debt - Affiliate and participating companies | Q04-A0306-1 | 1 |
| VF03288 | Liabilities - Medium and long term debt - Other shareholders (partners) | Q04-A0307-1 | 1 |
| VF03290 | Liabilities - Medium and long term debt - Other loans | Q04-A0309-1 | 1 |

return

B089 - Formula in POC

Current liabilities - Total

| Variable name | Variable description | Coefficient |
|---------------|---|-------------|
| B093 | Current liabilities - Suppliers | 1 |
| B161 | Current liabilities - Remaining current liabilities | 1 |
| VF03295 | Liabilities - Short term debt - Bond loans: convertible (Q04-A0314-1) | 1 |
| VF03296 | Liabilities - Short term debt - Bond loans: non-convertible (Q04-A0315-1) | 1 |
| VF03297 | Liabilities - Short term debt - Participating loans (Q04-A0316-1) | 1 |
| VF03298 | Liabilities- Short term debt - Loans from credit institutions (Q04-A0317-1) | 1 |
| VF03304 | Liabilities - Short term debt - Group companies (Q04-A0323-1) | 1 |
| VF03305 | Liabilities - Short term debt - Affiliate and participating companies (Q04-A0324-1) | 1 |
| VF03306 | Liabilities - Short term debt - Other shareholders (partners) (Q04-A0325-1) | 1 |
| VF03308 | Liabilities - Short term debt - Other loans (Q04-A0327-1) | 1 |

| Variable name | Variable description | Coefficient |
|---------------|----------------------|-------------|
|---------------|----------------------|-------------|

return

B093 - Formula in POC

Current liabilities - Suppliers

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF05125 | Assets - Medium and long term debt - Advances to suppliers | Q04-A0241-3 | -1 |
| VF05127 | Assets - Short term debt - Advances to suppliers | Q04-A0253-3 | -1 |
| VF03282 | Liabilities - Medium and long term debt - Suppliers (current account) | Q04-A0301-1 | 1 |
| VF03283 | Liabilities - Medium and long term debt - Suppliers - Trade accounts payable: unchecked invoices | Q04-A0302-1 | 1 |
| VF03284 | Liabilities - Medium and long term debt - Suppliers - Notes payable | Q04-A0303-1 | 1 |
| VF03300 | Liabilities - Short term debt - Suppliers (current account) | Q04-A0319-1 | 1 |
| VF03301 | Liabilities - Short term debt - Suppliers - Trade accounts payable: unchecked invoices | Q04-A0320-1 | 1 |
| VF03302 | Liabilities - Short term debt - Suppliers - Notes payable | Q04-A0321-1 | 1 |

return

B094 - Formula in POC

Current liabilities - State and other public entities

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03310 | Liabilities - Short term debt - State and other public sector institutions | Q04-A0329-1 | 1 |
| VF03292 | Liabilities - Medium and long term debt - State and other public sector institutions | Q04-A0311-1 | 1 |

return

B143 - Formula in POC

Subscribed capital

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03258 | Equity - Capital | Q04-A0277-1 | 1 |

return

B158 - Formula in POC

Non-current assets - Remaining non-current assets

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03171 | Assets - Medium and long term debt - Group companies | Q04-A0238-3 | 1 |
| VF03174 | Assets - Medium and long term debt - Affiliate and participating companies | Q04-A0239-3 | 1 |
| VF03177 | Assets - Medium and long term debt - Other shareholders (partners) | Q04-A0240-3 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF05135 | Accruals and deferrals - Deferred tax assets | Q04-A0272-3 | 1 |

return

B159 - Formula in POC

Current assets - Remaining current assets

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|------------------|-------------|
| VF03182 | Current assets - Medium and long term debt - State and other public sector institutions | Q04-A0243-3 | 1 |
| VF03214 | Assets - Short term debt - State and other public sector institutions | Q04-A0255-3 | 1 |
| VF05126 | Assets - Medium and long term debt - Advances to fixed assets suppliers | Q04-A0242-3 | 1 |
| VF03185 | Assets - Medium and long term debt - Other debtors | Q04-A0244-3 | 1 |
| VF05128 | Assets - Short term debt - Advances to fixed assets suppliers | Q04-A0254-3 | 1 |
| VF03217 | Assets - Short term debt - Other debtors | Q04-A0256-3 | 1 |
| VF03244 | Assets - negotiable securities | Q04-A0265-3-soma | 1 |
| VF05132 | Accruals and deferrals - Accrued profits | Q04-A0269-3 | 1 |
| VF05134 | Accruals and Deferrals-Deferred daily adjustments in futures contracts | Q04-A0271-3 | 1 |
| VF03203 | Assets - Short term debt - Group companies | Q04-A0250-3 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03206 | Assets - Short term debt - Affiliate and participating companies | Q04-A0251-3 | 1 |
| VF03209 | Assets - Short term debt - Other shareholders (partners) | Q04-A0252-3 | 1 |
| VF05133 | Accruals and deferrals - Deferred costs | Q04-A0270-3 | 1 |

return

B160 - Formula in POC

Non-current liabilities - Remaining non-current liabilities

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|------------------|-------------|
| VF03273 | Liabilities - Provisions- Provisions for pension liabilities | Q04-A0292-1 | -1 |
| VF03276 | Liabilities - Provisions - Total | Q04-A0295-1-soma | 1 |
| VF03285 | Liabilities - Medium and long term debt - Fixed assets suppliers - notes payable | Q04-A0304-1 | 1 |
| VF03291 | Liabilities - Medium and long term debt - Fixed assets suppliers (current account) | Q04-A0310-1 | 1 |
| VF03293 | Liabilities - Medium and long term debt - Other creditors | Q04-A0312-1 | 1 |
| VF03315 | Accruals and deferrals - Deferred tax liabilities | Q04-A0334-1 | 1 |

return

B161 - Formula in POC

Current liabilities - Remaining current liabilities

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03292 | Liabilities - Medium and long term debt - State and other public sector institutions | Q04-A0311-1 | 1 |
| VF03310 | Liabilities - Short term debt - State and other public sector institutions | Q04-A0329-1 | 1 |
| VF03303 | Liabilities - Short term debt - Fixed assets suppliers - Notes payable | Q04-A0322-1 | 1 |
| VF03309 | Liabilities - Short term debt - Fixed assets suppliers (current account) | Q04-A0328-1 | 1 |
| VF03311 | Liabilities - Short term debt - Other creditors | Q04-A0330-1 | 1 |
| VF03313 | Accruals and deferrals - Accrued costs | Q04-A0332-1 | 1 |
| VF03281 | Liabilities - Medium and long term debt - Advances on sales | Q04-A0300-1 | 1 |
| VF03299 | Liabilities - Short Term advances on sales | Q04-A0318-1 | 1 |
| VF03314 | Accruals and deferrals - Deferred profits | Q04-A0333-1 | 1 |
| VF04061 | Accruals and deferrals - Investment subsidies | Q06-A0666 | -1 |

return

BL005 - Formula in POC

Legal reserves

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|------------------------------------|-------------|-------------|
| VF03265 | Equity - Reserves - Legal Reserves | Q04-A0284-1 | 1 |

return

BL007 - Formula in POC

Retained earnings

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------------|-------------|-------------|
| VF03269 | Equity - Retained earnings | Q04-A0288-1 | 1 |

return

Profit and Loss Statement Variables

D001 - Formula in POC

Turnover

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03045 | Sales - goods | Q03-A0124-1 | 1 |
| VF03046 | Sales - products | Q03-A0125-1 | 1 |
| VF03047 | Services | Q03-A0126-1 | 1 |

return

D002 - Formula in POC

Sales

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-----------------------------|-------------|
| VF05908 | Sales | [Q03-A0124-1]+[Q03-A0125-1] | 1 |

return

D005 - Formula in POC

Operating subsidies

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03052 | Operating subsidies | Q03-A0130-1 | 1 |

return

D006 - Formula in POC

Variation in production

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|-------------------------|-------------|-------------|
| VF03049 | Variation in production | Q03-A0127-2 | 1 |

return

D007 - Formula in POC

Capitalized production

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|------------------------|-------------|-------------|
| VF03050 | Capitalized production | Q03-A0128-2 | 1 |

return

D013 - Formula in POC

Other incomes - Income from financial assets

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------------------|-------------|
| VF03972 | Revenues - Interests income | Q05-0545-Nota45-A1439-1 | 1 |
| VF05206 | Revenues - Gains in group and associated companies | Q05-0545-Nota45-A1440-1 | 1 |
| VF05207 | Revenues - Income from equity holdings | Q05-0545-Nota45-A1442-1 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------------------|-------------|
| VF03977 | Revenues - Reversals and other financial revenues | Q05-0545-Nota45-A1446-1 | 1 |
| VF04054 | Extraordinary revenues – Disposal of financial investments | Q06-A0659 | 1 |

return

D021 - Formula in POC

Total income

| Variable name | Variable description | Coefficient |
|---------------|----------------------|-------------|
| D001 | Turnover | 1 |
| D111 | Remaining Income | 1 |

return

D025 - Formula in POC

Costs of goods sold and material consumed

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03019 | Cost of goods sold and material consumed - Total | Q03-A0102-2 | 1 |

return

D026 - Formula in POC

Supplies and external services

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--------------------------------|-------------|-------------|
| VF03020 | Supplies and external services | Q03-A0103-2 | 1 |

return

D029 - Formula in POC

Employee expenses

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|------------------------------|-------------|-------------|
| VF03021 | Employee expenses - Salaries | Q03-A0104-1 | 1 |
| VF03022 | Employee expenses - Pensions | Q03-A0105-1 | 1 |
| VF03023 | Employee expenses - Others | Q03-A0106-1 | 1 |

return

D030 - Formula in POC

Employee expenses - Salaries

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03021 | Salaries | Q03-A0104-1 | 1 |

return

D041 - Formula in POC

Expenses/reversals of depreciations and amortizations

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------------------|-------------|
| VF03025 | Depreciation of intangible and tangible fixed assets | Q03-A0107-1 | 1 |
| VF03965 | Costs - Amortizations of investment in properties | Q05-0545-Nota45-A1431-1 | 1 |

return

D053 - Formula in POC

Interest expenses

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------------------|-------------|
| VF03964 | Interests paid | Q05-0545-Nota45-A1429-1 | 1 |

return

D060 - Formula in POC

Income tax

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03041 | Income tax | Q03-A0120-2 | 1 |

return

D062 - Formula in POC

Total expenses (QS)

| | Variable name | Variable description | Coefficient |
|------|---------------|---|-------------|
| D025 | | Costs of goods sold and material consumed | 1 |
| D026 | | Supplies and external services | 1 |
| D029 | | Employee expenses | 1 |
| D108 | | Remaining expenses | 1 |
| D041 | | Expenses/reversals of depreciations and amortizations | 1 |
| D053 | | Interest expenses (QS) | 1 |
| D060 | | Income tax | 1 |

return

D082 - Formula in POC

Operating net income

| Variable name | Variable description | Coefficient |
|---------------|--|-------------|
| D001 | Turnover | 1 |
| D111 | Remaining income | 1 |
| D112 | (Remaining expenses) of which: Impairment losses, changes in fair value and other expenses and losses in fin. invest. and fin. instrum. | 1 |
| D013 | (Remaining income) of which: income from financial assets | -1 |
| D025 | Costs of goods sold and material consumed | -1 |
| D026 | Supplies and external services | -1 |
| D029 | Employee expenses | -1 |
| D108 | Remaining expenses | -1 |

return

D084 - Formula in POC

Earnings before interest, taxes, depreciation and amortization - EBITDA

| | Variable name | Variable description | Coefficient |
|--|---------------|---|-------------|
| | D001 | Turnover | 1 |
| | D111 | Remaining Income | 1 |
| | D025 | Costs of goods sold and material consumed | -1 |
| | D026 | Supplies and external services | -1 |
| | D029 | Employee expenses | -1 |
| | D108 | Remaining expenses | -1 |

return

D085 - Formula in POC

Earnings before interest and taxes - EBIT

| Variable name | Variable description | Coefficient |
|---------------|---|-------------|
| D084 | Earnings before Interest, Taxes, Depreciation and Amortization - EBITDA | 1 |

| Variable name | Variable description | Coefficient |
|---------------|---|-------------|
| D041 | Expenses/reversals of depreciations and amortizations | -1 |

return

D086 - Formula in POC

Earnings before taxes - EBT

| Variable name | Variable description | Coefficient |
|---------------|---|-------------|
| D085 | Earnings before Interest and Tax - EBIT | 1 |
| D053 | Interest expenses | -1 |

return

D087 - Formula in POC

Net income

| Variable name | Variable description | Coefficient |
|---------------|---------------------------|-------------|
| D086 | Earnings before Tax - EBT | 1 |
| D060 | Income tax | -1 |

return

D108 - Formula in POC

Remaining expenses

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF03026 | Adjustments | Q03-A0108-1 | 1 |
| VF03034 | Depreciation and adjustments of financial fixed assets | Q03-A0114-1 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------------------|-------------|
| VF03055 | Reversals of amortizations and adjustments | Q03-A0132-1 | -1 |
| VF03965 | Costs - Amortizations of investment in properties | Q05-0545-Nota45-A1431-1 | -1 |
| VF03027 | Provisions | Q03-A0109-1 | 1 |
| VF03993 | Revenues - Provisions decreases | Q05-0546-Nota46-A1463-1 | -1 |
| VF03029 | Taxes | Q03-A0110-1 | 1 |
| VF03030 | Other operating costs | Q03-A0111-1 | 1 |
| VF03033 | Losses in group and associated companies | Q03-A0113-2 | 1 |
| VF03035 | Interest expenses - relative to group companies | Q03-A0115-1 | 1 |
| VF03036 | Interest expenses - others | Q03-A0116-1 | 1 |
| VF03039 | Extraordinary costs | Q03-A0118-2 | 1 |
| VF03964 | Interests paid | Q05-0545-Nota45-A1429-1 | -1 |

return

D111 - Formula in POC

Remaining income

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF03052 | Operating subsidies | Q03-A0130-1 | 1 |
| VF03049 | Variation in production | Q03-A0127-2 | 1 |
| VF03050 | Capitalized production | Q03-A0128-2 | 1 |
| VF03051 | Supplementary income | Q03-A0129-1 | 1 |
| VF03053 | Operating revenues | Q03-A0131-1 | 1 |
| VF03057 | Gains in group and associated companies | Q03-A0134-1 | 1 |
| VF03058 | Income from equity holdings | Q03-A0135-1 | 1 |

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------------------|-------------|
| VF03059 | Income from negotiable securities and other financial applications - relative to group companies | Q03-A0136-1 | 1 |
| VF03060 | Income from negotiable securities and other financial applications | Q03-A0137-1 | 1 |
| VF03061 | Interest Income and similar earnings- relative to group companies | Q03-A0138-1 | 1 |
| VF03062 | Interest Income and similar earnings - Others | Q03-A0139-1 | 1 |
| VF03065 | Extraordinary revenues | Q03-A0141-2 | 1 |
| VF03993 | Revenues - Decreases in Provisions | Q05-0546-Nota46-A1463-1 | -1 |

return

D112 - Formula in POC

(Remaining expenses) of which: Impairment losses, changes in fair value and other expenses and losses in financial investments and financial instruments

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------------------|-------------|
| VF05204 | Costs - Losses in group and associated companies | Q05-0545-Nota45-A1430-1 | 1 |
| VF03970 | Costs - Other financial costs | Q05-0545-Nota45-A1436-1 | 1 |
| VF04046 | Extraordinary costs – Disposal of financial investments | Q06-A0651 | 1 |
| VF03966 | Costs - Adjustments of financial fixed assets | Q05-0545-Nota45-A1432-1 | 1 |

return

DL002 - Formula in POC

Other expenses - Cash discounts granted

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--------------------------------|-------------------------|-------------|
| VF03968 | Costs - Cash discounts granted | Q05-0545-Nota45-A1434-1 | 1 |

return

DL005 - Formula in POC

Other expenses - Other - Donations

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------------------|-------------|
| VF03978 | Costs - Donations | Q05-0546-Nota46-A1448-1 | 1 |

return

DL011 - Formula in POC

Salaries of corporate bodies

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF04036 | Employee expenses - Salaries of corporate bodies | Q06-A0641 | 1 |

return

DL012 - Formula in POC

Employee Salaries

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF04037 | Employee expenses - Salaries of employees | Q06-A0642 | 1 |

return

DL013 - Formula in POC

Social security expenses

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|--|-------------|-------------|
| VF04040 | Employee expenses - Social security expenses | Q06-A0645 | 1 |

return

DL014 - Formula in POC

Insurance schemes for accidents at work and occupational diseases

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|---|-------------|-------------|
| VF04041 | Employee expenses - Insurance schemes for accidents at work and occupational diseases | Q06-A0646 | 1 |

return

DL017 - Formula in POC

Services

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03047 | Services | Q03-A0126-1 | 1 |

return

DL043 - Formula in POC

Supplementary income

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF03051 | Supplementary income | Q03-A0129-1 | 1 |

return

DL045 - Formula in POC

Employee expenses - Other, except salaries

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|------------------------------|-------------|-------------|
| VF03022 | Employee expenses - Pensions | Q03-A0105-1 | 1 |
| VF03023 | Employee expenses - Others | Q03-A0106-1 | 1 |

return

DL047 - Formula in POC

Indirect taxes

| Variable name | Variable description | Item in IES | Coefficient |
|---------------|----------------------|-------------|-------------|
| VF04032 | Indirect Taxes | Q06-A0637 | 1 |

return