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Microdata on Loans from CCR and Economic Indicators from Central Balance Sheet Data Office (CIR_CBI)

BELab user guide

Financial Reporting and CCR Department and Statistics Department

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1 Introduction

The data laboratory of the Bank of Spain, known as BELab, provides information about companies by combining loans to legal entities reported to the Central Credit Information System of the Bank of Spain (CIR) by reporting entities, with a set of economic and financial ratios calculated by the Central Balance Sheet Office (CB) from the annual accounts submitted by companies to the Mercantile Registries. The most notable characteristics of this dataset are:

a) Granular information, loan by loan.
b) Debtors are anonymized.
c) Seventeen variables or attributes from the CIR that outline the main characteristics of the loans and their debtors.
d) Six attributes and fifteen economic and financial ratios from the CB that allow for the characterization of the companies in this dataset.
e) Nearly 750,000 different debtors and over 15 million transactions since 2016 related to non-financial companies residing in Spain.
f) The data undergo primary anonymization procedures by transforming identifiers and secondary anonymization to minimize the risk of reidentification.

2 Description of the dataset

Some of the characteristics of the dataset contained in the CCR are outlined below

Time horizon	From 2016 onwards
Data frequency	Annual, situation as at 31 December
Frequency of data delivery to BELab	Annual (December)
Upload and update schedule	Given a period N: - Initial upload in December of N+1. - Updated in December N+2.
Information perimeter	- Loans extended to legal persons resident and non-resident in Spain and reported to the CCR by the reporting agents (credit institutions, branches in Spain of foreign credit institutions, specialised lending institutions, Sareb, mutual guarantee companies and reguarantee companies, Banco de España, the Deposit Guarantee Scheme for Credit Institutions, SAECA). - Economic and financial ratios constructed by the Central Balance Sheet Office based on the basic information from the annual

	accounts. For each ratio, intervals have been defined according to their statistical distributions, allowing each company to be assigned the corresponding interval.

Data source	- Information reported pursuant to Circular 1/2013 del Banco de España, sobre la Central de Información de Riesgos. - The 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.

Format of the information	- Files in.csv format, delimited by "," - Zero values are differentiated from missing (blank) values

Universe	Two different sets of information are provided. The first group consists of non-financial companies residing in Spain from the Central Balance Sheet Office (CB) that have loans reported to the Central Credit Information System (CCR). The second group comprises companies from the CB that do not have loans reported to the CCR. The attribute "CIR_data" allows distinguishing between these two sets of companies.

3 Citations

For any study or other document which is made available to the public and contains information derived from the provided data, the researcher is obliged to properly cite the data source as:

"BELab. Banco de España/Central de Información de Riesgos and Central de Balances/CORPME, Colegio de Registradores de la Propiedad y Mercantiles de España. DOI: 10.48719/BELab.CIR-CBI1622_01"

4 Description of the variables

The variables available are set out below, grouped into CCR variables (identification codes, debtor characteristics, loan characteristics) and CBI variables (atributos y variables económico-financieras).

4.1 CCR Variables

4.1.1 Identifiers (anonymized)

Item	Variable name	Type	Possible values	Unit (scale)
Debtor Identifier	Debtor_Id	Alphanumeric	Any	N.A.
Loan Identifier	Loan_Id	Alphanumeric	Any	N.A.

4.1.2 Debtor Characteristics

Item	Variable Name	Type	Possible values
Legal form	Legal_form	Alphanumeric	FJ1 - Public limited company FJ2 – Private limited company FJ3 - Other legal form
CNAE	Economic_Activity	Alphanumeric	See possible values in Annex

4.1.3 Loans Characteristics

Item	Variable name	Type	Possible values
Type of product	Instrument_type	Alphanumeric	T11 Trade receivables with recourse T12 Trade receivables without recourse T20 Financial credit T30 Finance lease T40 Reverse repurchase loan
Currency ISO code of the currency in which the loan is denominated	Currency	Alphanumeric	EUR Euro USD US Dolar GBP Pound sterling 999 Other
Residual maturuty The time to loan maturity from the data reference date.	Residual_ maturity	Alphanumeric	L00 Demand L01 Up to 3 months (excepting those on demand) L02 Over 3 months and up to 6 months L03 Over 6 months and up to 1 year L04 Over 1 year and up to 2 years L05 Over 2 years and up to 5 years L06 More than 5 years L07 Undefined maturity
Type of collateral	Main_collateral_ type	Alphanumeric	G00 Uncollateralized G20 Real estate mortgage G30 Collateral in the form of pledged financial instruments G40 Other forms of collateral
Coberturadelagarantíareal**Coverage of collateral** Extent to which the collateral covers the exposure.	Main_collateral_ coverage	Alphanumeric	C01 Total C02 Partial
Type of personal guarantee		Alphanumeric	A00 No personal guarantee A10 State guarantee: CESCE (Spain's official export credit company) or a State-owned

	Main_personal_ guarantee		enterprise whose core business is insuring or guaranteeing credit A20 Guaranteed by a CCR reporting agent A90 Other guarantees
Coverage of personal guarantee Extent to which the personal guarantee covers the exposure	Main_pers_gura ntee_coverage	Alphanumeric	C01 Total C02 Partial
Transaction region	Investment_ autonomus_ community	Alphanumeric	See possible values in Annex
Status	Instrument_ status	Alphanumeric	S01 Default between 90 days and four years past-due S02 Default of more than four years S03 Suspended instrument S04 Other, instrument with not default
Joint loan	Joint_Debtor	Alphanumeric	T1 Individual T2 Joint (the loan debtor is jointly liable with one or more debtors for the full exposure or is the sole debtor in the transaction)

Item	Variable Name	Type	Possible values	Unit (scale)
Drawn amount (Amount in euro of the exposure corresponding to the principal due and not due, interests and fees due, late-payment interest and claimable expenses receivable)	Drawn_amount	Numerical, whole number without decimals	Integer >=0	Euro (units)
Undrawn amount	Undrawn_amou nt	Numerical, whole number without decimals	Integer >=0	Euro (units)
Number of joint debtors Number of legal person debtors jointly liable for the exposure.	Number_Joint_ Debtors	Numerical	Integer >=0	Counter (units) Value 1 in joint loans between one legal person debtor and one or more natural person debtors, individual loans, the value "missing" is taken.

4.2 CBI Variables (attributes and ratios)

4.2.1 CBI Attributes

Item	Variable name	Description	Values
Compliance with CBSO quality standards	Quality	Reports on whether the firm complies or not with CBSO-defined quality standards, including thestandard of reliable units	S Does comply N Fails comply
Consistent Staff	Consist_staff	Indicator of whether the Questionnaire has passed the Consistent Staff Test	S Yes N No
Reliable units	Reliable_units	Reports on whether the firm, in the CBSO's opinion, presents its data with reliable units.	S they're reliable N No, they are not relaible
Statistical Size	Stat_size	Identifier of Size calculated with statistical criteria. It has a length of 1 numerical position.	0 Not informed 1 Large 2 Medium 3 Small 4 Microfirm
Age (with intervals)	Age	Edad de la empresa calculada como año de constitución menos año del ejercicio.	>= 0 and <3 >=3 and <6 >= 6 and <11 >= 11 and < 21 >= 21
Company available in CCR	Cir_data	Indicate whether the company is available in the CCR, and therefore has information about loans, or if it is not available and only has CBI information	1 Yes 0 No

4.2.2 CBI Econonomic- Financial Variables CBI

Concepto	Variable name	Intervals	Unit	Values
Production	Output	From 0 to 9 From 10 to 49 From 50 to 99 From 100 to 499 500 or more	Thousand of euros	[0,10) [10,50) [50,100) [100,500) [500,Inf]
Gross Value Added (GVA) (Value of output – Inputs)	Gva	<0 From 0 to 9 From 10 to 49 From 50 to 99 From 100 to 499 500 or more	Thousand of euros	[-Inf,0) [0,10) [10,50) [50,100) [100,500) [500,Inf]
Gross operating profit (GOP) (GVA-Personnel Costs)	Gop	<0 From 0 to 9 From 10 to 49 From 50 to 99 From 100 to 499 500 or more	Thousand of euros	[-Inf,0) [0,10) [10,50) [50,100) [100,500) [500,Inf]

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Assets	Assets	De 0 a 49	Miles de euros	[0,50)
		De 50 a 149		[50,150)
		De 150 a 349		[150,350)
		De 350 a 1000		[350,1000)
		1000 o más		[1000,Inf]
Total average employment	Avg_employment	= 0	Personas	0
		De 0 a 4		(0,4)
		De 5 a 9		[4,10)
		De 10 a 49		[10,50)
		50 o más		[50,Inf]
Gross operating profit / Output	Gop_output	< 0 >= 0 and < 5 >= 5 and < 10 >= 10 and < 20 >= 20	Percentage	[-Inf,0) [0,5) [5,10) [10,20) [20, Inf]
R.1 Ordinary return on investment (Net ordinary result*+ financial expenses) Activo neto de financiación a corto plazo sin coste *NOR: GOP+ Net financial incomes-amortizaciones, deterioros y provisiones de explotación	ROA	< 0 >= 0 and < 5 >= 5 and < 10 >= 10 and < 20 >= 20	Percentage	[-Inf,0) [0,5) [5,10) [10,20) [20, Inf]
R.2 Interest on borrowed funds and similar costs to interest-bearing borrowing	Debt_cost	= 0 > 0 and < 2 >= 2 and < 4 >= 4 and < 6 >= 6 and < 8 >= 8	Percentage	0 (0,2) [2,4) [4,6) [6,8) [8, Inf]
Debt ratio [External interest-bearing funds to (gross operating profit + financial revenue), final balance	Debt_ratio	< 0 = 0 > 0 and < 5 >= 5 and < 10 >= 10	Number of times	[-Inf,0) 0 [0,5) [5,10) [10, Inf]
Average supplier payment periods [(Balance of non-current trade creditors + suppliers, net of advances to suppliers, for those companies with this last category) / (Amount	Supplier_payment_period	< 0 = 0 > 0 and <60 >= 60 and < 90 >= 90 and < 120 >= 120	Days	[-Inf,0) 0 (0,60) [60,90) [90,120) [120,Inf]

of purchases + work performed by other companies + VAT paid to suppliers for internal transactions)] * 365.				
Average customer payment periods [(balance of non-current trade debtors + customers, net of customer advances, for those companies with this last category) / (Net amount of turnover + VAT charged to customers for internal transactions)] * 365.	Costumer_collection_period	< 0 = 0 > 0 and <60 >= 60 and < 90 >= 90 and < 120 >= 120	Days	[-Inf,0) 0 (0,60) [60,90) [90,120) [120,Inf]
Permanent Employees/ Average of total employees (%)	Fix_staff	= 0 >0 and <40 >=40 and <80 >=80 and < 100 = 100	Percentage	0 (0,40) [40,80) [80,100) 100
Intangible Assets/ Total aassets (%) (*)	Intangible_ratio	= 0 > 0 and < 10 >= 10	Percentage	0 (0,10) [10, Inf]
Liquidity ratio (Cash and other equivalent liquid assets / total assets) (%) (*)	Liquidity_ratio	>= 0 and <5 >= 5 and <10 >=10 and <20 >=20	Percentage	[0,5) [5,10) [10,20) [20, Inf]
Total Assets/Output (*)	Assets_output	>=0 and <1 >= 1 and <2 >= 2 and <5 >= 5	Number of times	[0,1) [1,2) [2,5) [5,Inf]
Personnel costs / Output (%) (*)	Pers_cost_output	= 0 >0 and <20 >=20 and < 40 >=40 and <80 >=80	Porcentaje	0 (0,20) [20,40) [40,80) [80, Inf]

(*) Ratio not calculated by CBI. Calculated in BELab

5 Annex – Possible values for Economic Activity and transaction region CCR variables

Economic Activity

Spanish National Classification of Economic Activities (CNAE-2009) code corresponding to the debtor's main economic activity.

Code	Description
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other services
T-U	Other

Transaction region

Spanish region in which the investment financed by the loan is made.

For loans invested in Spain, the two-figure code of the region in which the funds are invested, if identifiable and known, and, failing that, of the payment or concession period.

For loans to finance real estate development or construction, or land for real estate development, the region in which the construction or land is located.

For transactions reported with the values "Asset arising from off-balance sheet transactions" and "Past-due derivatives" in the "Product type" field of this module, the borrower's region of residence will be reported.

Code	Description	Code	Description
01	Andalusia	11	Galicia
02	Aragon	12	Madrid
03	Asturias	13	Murcia
04	Balearic Islands	14	Navarre
05	Canary Islands	15	Valencia
06	Cantabria	16	Basque Country
07	Castile and Leon	17	Rioja
08	Castile-La Mancha	19	Ceuta and Melilla
09	Catalonia		
10	Extremadura		

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