

THE REGIONAL PERSPECTIVE OF THE BANCO DE ESPAÑA'S CENTRAL BALANCE SHEET DATA OFFICE (CBSO)

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WORKSHOP: "NEW INSIGHTS FROM FINANCIAL STATEMENTS"

BANCO DE ESPAÑA
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CONTENT

1. Introduction
2. “BExplore Regional Central Balance Sheet Data Office”
3. Regional coverage and representativeness of the CBI database
4. Exploring heterogeneity in firm size distribution at regional level
5. Conclusions



Why is it important to have a representative firm-level database at regional level?

- Firm-level databases enable a deeper understanding of economic developments, also at regional level:
 - Regional differences in corporate variables may reveal trends not observable at national level.
 - Shocks affecting the whole country (pandemic/energy) may have asymmetric impacts across regions.
 - In decentralized countries, different levels of regulation across autonomous communities (CCAA).
- Almunia, López-Rodríguez and Moral-Benito (2018) evaluated the macro-representativeness of the Banco de España's Integrated Central Balance Sheet Database (CBI, in Spanish).
 - The CBI was able to replicate, at national level, the growth rate of employment in the Spanish private sector and the firm size distribution.
- In Fernández-Cerezo, Fernández-Rosillo and Pérez-Martín (2024), we show that the CBI database is representative also at regional (CCAA) level:
 - The CBI exhibits high coverage of firms with respect to the population of firms in each CCAA.
 - The CBI replicates the sectoral distribution of employment across CCAA.
 - The CBI replicates the dynamics of aggregate employment at CCAA level.

1. INTRODUCTION

The Banco de España's CBI database



What is the CBI*
database?

Information based on financial accounts of Spanish NFCs:
balance sheet, income statement, # employees, **location****...



Sources of
information of CBI

Voluntary questionnaire directly from firms +
Mandatory deposits of annual accounts in Mercantile Registries



Data treatment &
cleansing to raw firm data

From 1M NFCs received per year to 840k firms suitable for analysis after
data cleansing by CBSO staff



Main characteristics of
the CBI

Unit of analysis: individual enterprise (identified by anonymised tax id)
Frequency: annual, from 1995 to 2022



How can CBI data be
accessed and visualized?

For researchers: microdata through [BELab data laboratory](#)
For general public: aggregate data through ["BExplore" visualizations](#)



* CBI: Integrated Central Balance Sheet Database

** Location: each firm is located in the province where it is headquartered.

2. "BEXPLORE REGIONAL CENTRAL BALANCE SHEET DATA OFFICE"

An interactive website to provide the general public with easy access to aggregate CBI regional data

In order to bring regional CBI analysis closer to users, an interactive tool named **"BExplore Central Balance Sheet Data Office Regional"** has been developed

MAIN CONTENT

Available statistical information:

N° of firms (% coverage)

Weighted Average Value

Median value (Q2)

about:



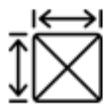
17 autonomous communities (CCAA) + Ceuta/Melilla



for: 52 provinces



14 sectors of activity



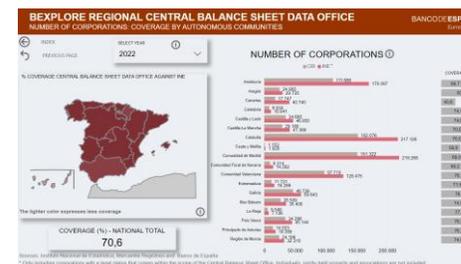
4 company sizes



15 years (2008-2022)

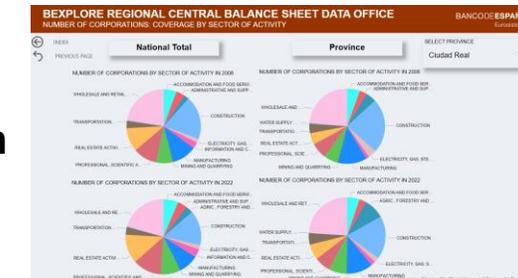
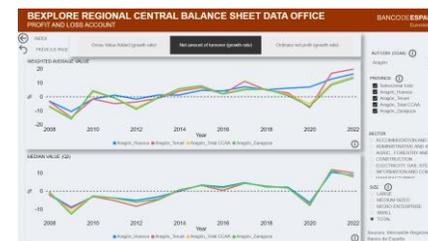


11 variables



Coverage rates

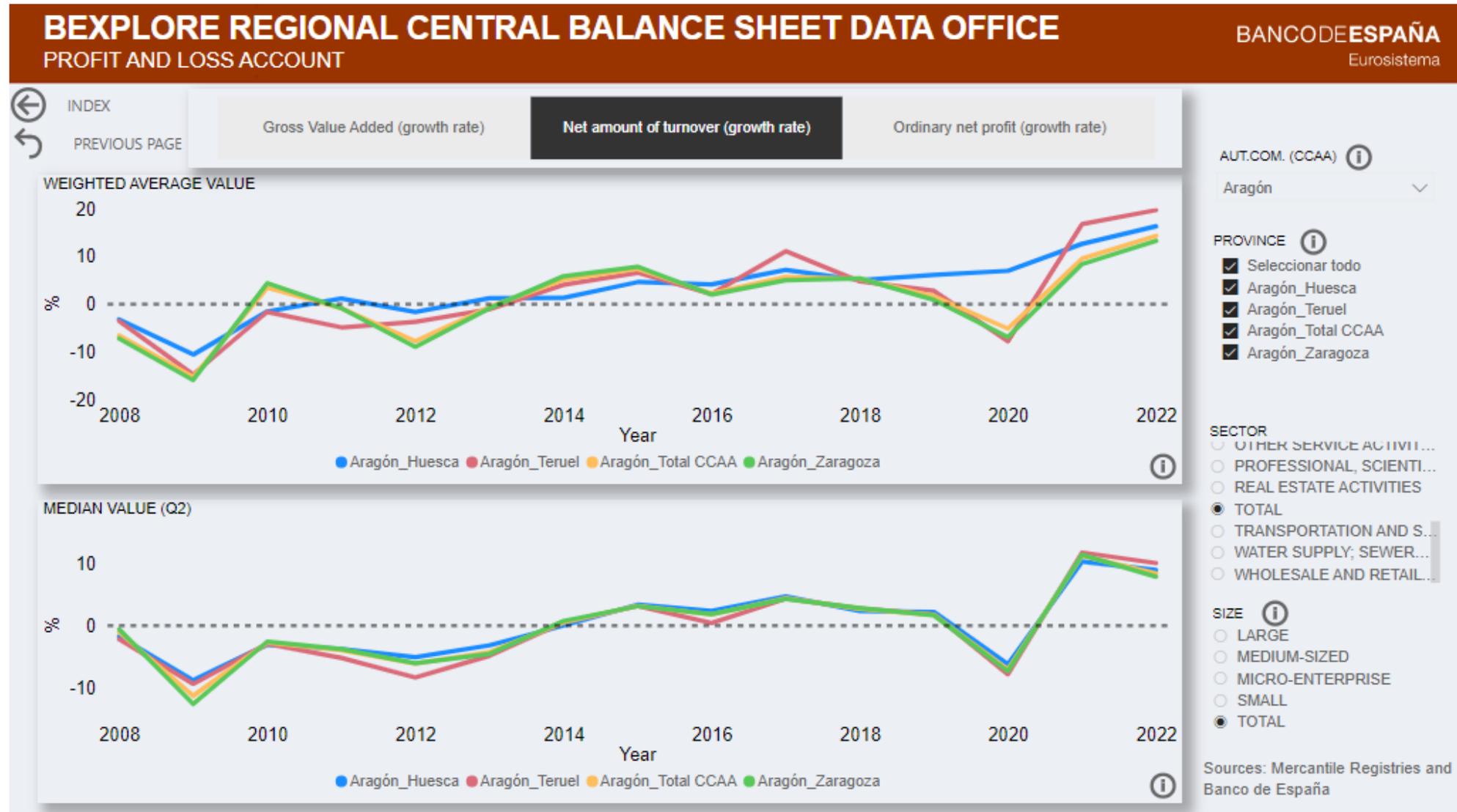
Sectoral breakdown



-P&L variables
-Employment and labor costs variables
-Financial ratios: margins, financial cost, debt ratio...

2. "BEXPLORE REGIONAL CENTRAL BALANCE SHEET DATA OFFICE"

Example



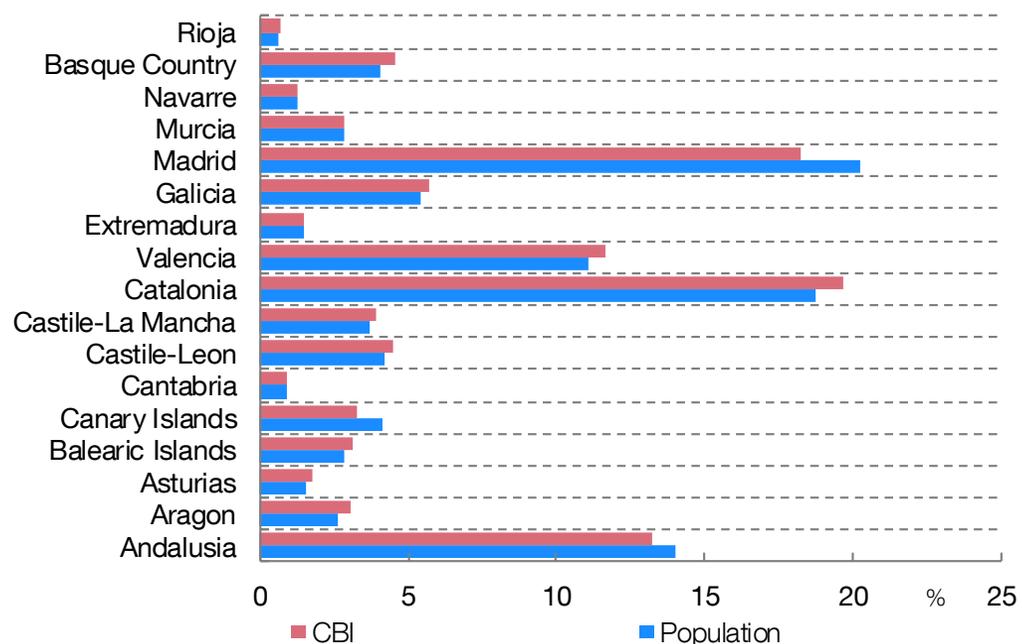
3. REGIONAL COVERAGE AND REPRESENTATIVENESS OF THE CBI DATABASE

The CBI database is reasonably representative of the population of Spanish NFCs at regional level

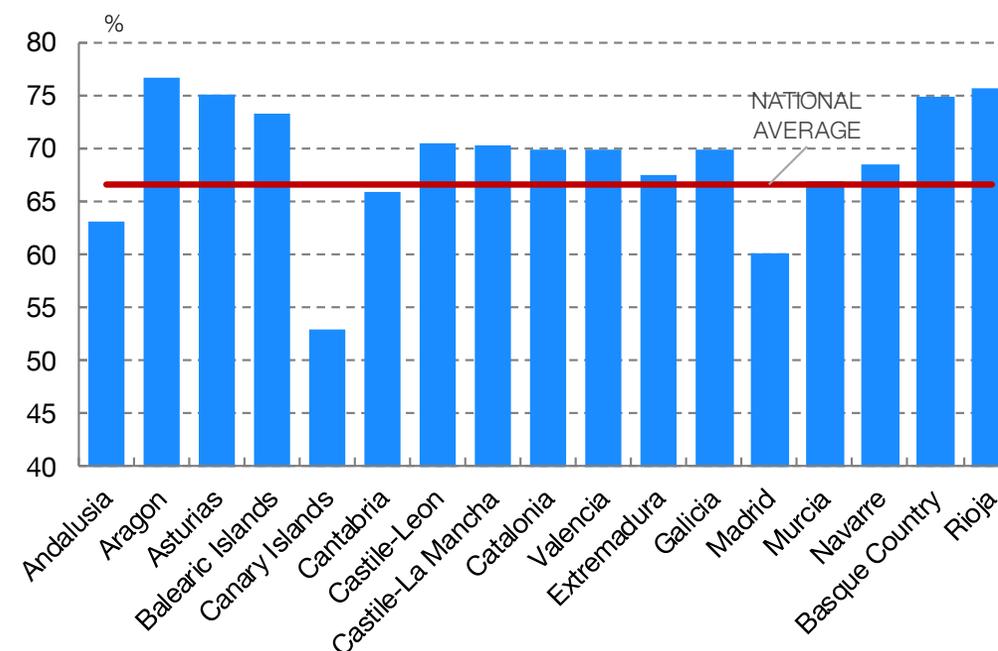
The regional distribution of the # of Spanish NFCs in the CBI adequately replicates that of the population

The coverage rate at national level is 66.5% on average, exceeding 70% in several CCAA

DISTRIBUTION OF THE NUMBER OF NFCs IN CBI AND IN POPULATION BY CCAA (a)



COVERAGE RATES BY CCAA (# NFCs IN CBI / # NFCs IN POPULATION) (a)



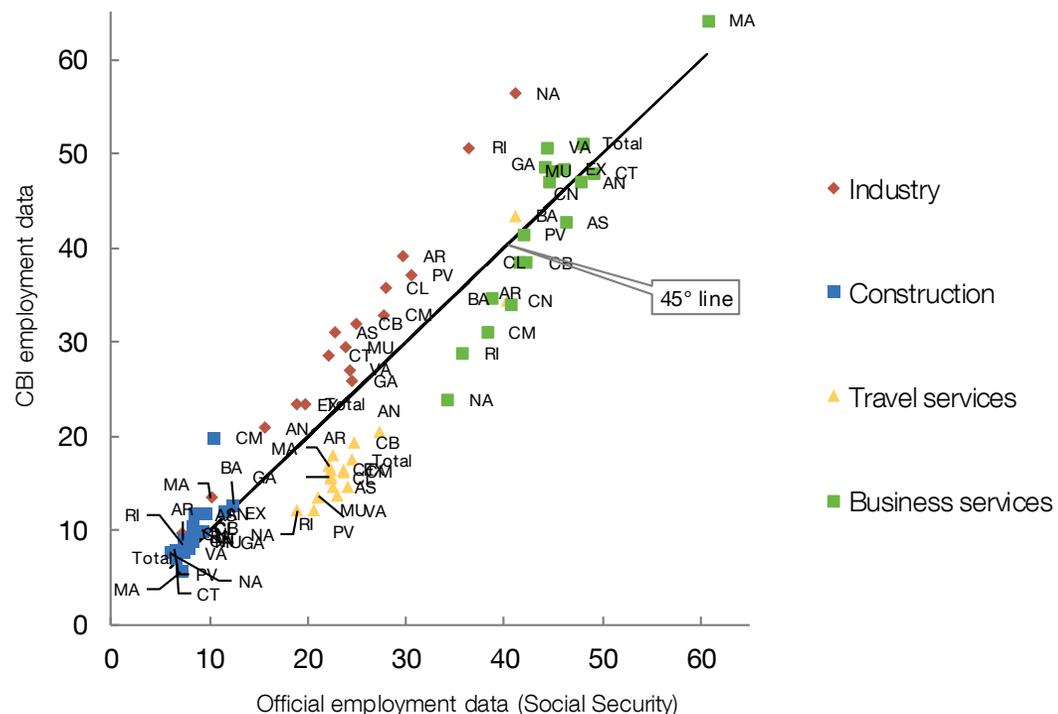
Sources: Banco de España and INE

(a): Average for the period 2009-2021. The number of firms comprising the population of NFCs in Spain comes from the Central Business Register, prepared by the National Statistics Institute (INE), which in turn feeds Eurostat's structural business statistics.

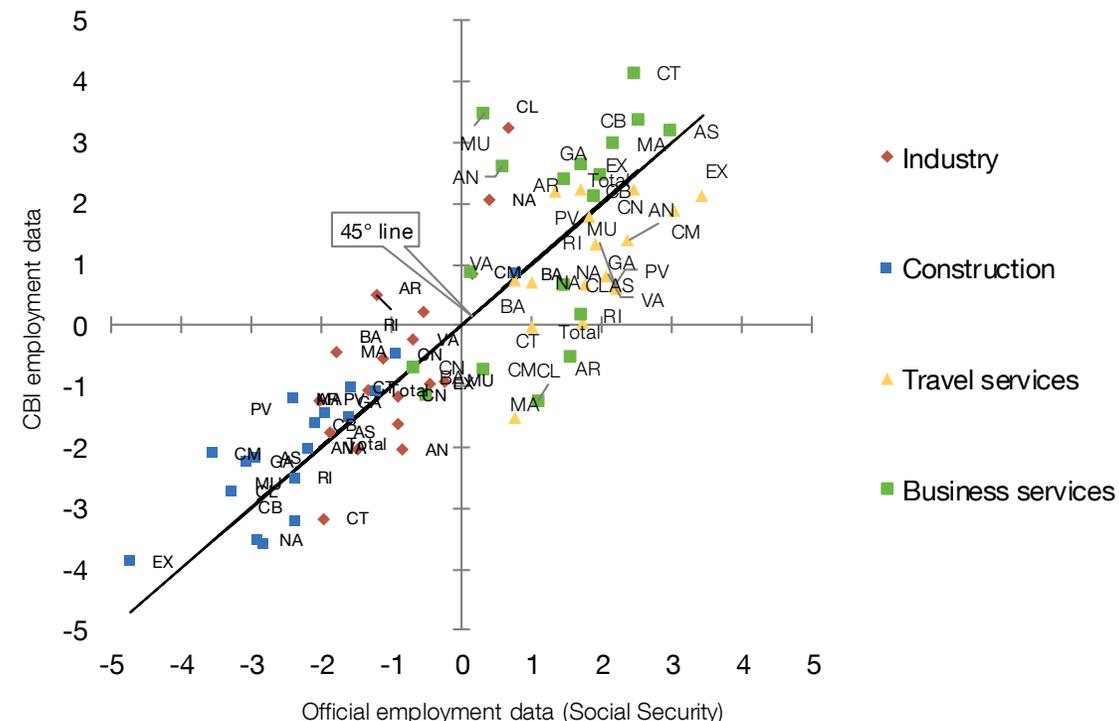
3. REGIONAL COVERAGE AND REPRESENTATIVENESS OF THE CBI DATABASE

The CBI database replicates the sectoral distribution of employment and the changes over time across CCAA

**SECTORAL SHARES OF EMPLOYMENT BY CCAA
(% OF TOTAL EMPLOYMENT IN EACH REGION) (a) (b)**



**CHANGES IN SECTORAL SHARES OF EMPLOYMENT BY CCAA
(DIFFERENCES BETWEEN THE AVERAGES FOR THE PERIODS
2015-2021 AND 2009-2014 IN PP) (b)**



Sources: Banco de España and Ministry of Inclusion, Social Security and Migration.

(a): Average for the period 2015-2021.

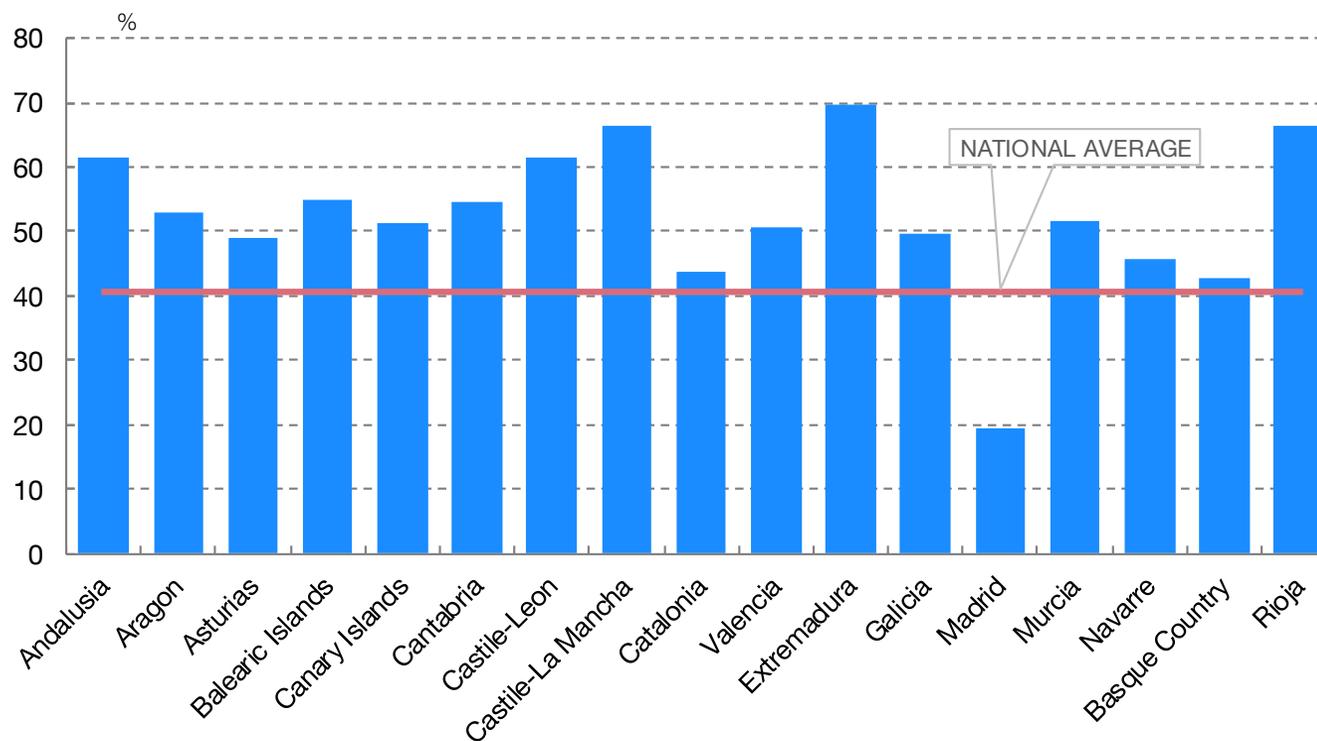
(b) “Industry” includes the firms under NACE Rev. 2 sections B, C, D and E. “Construction” includes firms in F. “Travel services” includes firms in H, I and R. “Business services” includes firms in G, J, M and N. AN: Andalusia, AR: Aragon, AS: Asturias, BA: Balearic Islands, CN: Canary Islands, CB: Cantabria, CL: Castile-Leon, CM: Castile-La Mancha, CT: Catalonia, VA: Valencia, EX: Extremadura, GA: Galicia, MA: Madrid, MU: Murcia, NA: Navarre, PV: Basque Country, RI: Rioja.

4. EXPLORING HETEROGENEITY IN FIRM SIZE DISTRIBUTION AT REGIONAL LEVEL

The CBI is a unique source in Spain for analysing regional heterogeneity in firm size distribution

- According to CBI, small firms (<50 employees) account for 70% of employment in Extremadura and only 20% in Madrid in the non-financial and non-agricultural market economy in Spain (vs 40% in the national average).

SHARE OF EMPLOYMENT AT SMALLER FIRMS (1-49 EMPLOYEES) IN CBI (a)



Source: Banco de España.

(a): Average for the period 2009-2021. Including non-financial and non-agricultural market economy firms, excluding firms without any employees.

4. EXPLORING HETEROGENEITY IN FIRM SIZE DISTRIBUTION AT REGIONAL LEVEL

CBI provides a breakdown of employment by firm size, sector and region

- Within each sector there are notable cross-regional differences in firm size.

**SHARE OF EMPLOYMENT AT SMALLER FIRMS
(<50 EMPLOYEES) IN CBI (a)**



Source: Banco de España.

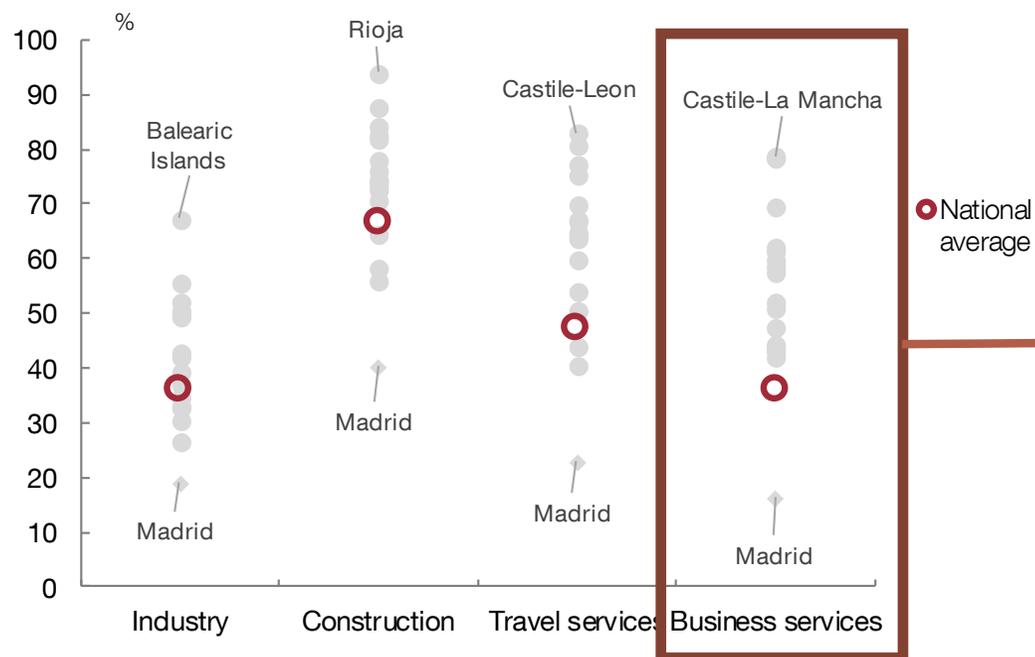
(a): Average for the period 2009-2021. Including non-financial and non-agricultural market economy firms, excluding firms without any employees. “Industry” includes the firms under NACE Rev. 2 sections B, C, D and E. “Construction” includes firms in F. “Travel services” includes firms in H, I and R. “Business services” includes firms in G, J, M and N. AN: Andalusia, AR: Aragon, AS: Asturias, BA: Balearic Islands, CN: Canary Islands, CB: Cantabria, CL: Castile-Leon, CM: Castile-La Mancha, CT: Catalonia, VA: Valencia, EX: Extremadura, GA: Galicia, MA: Madrid, MU: Murcia, NA: Navarre, PV: Basque Country, RI: Rioja.

4. EXPLORING HETEROGENEITY IN FIRM SIZE DISTRIBUTION AT REGIONAL LEVEL

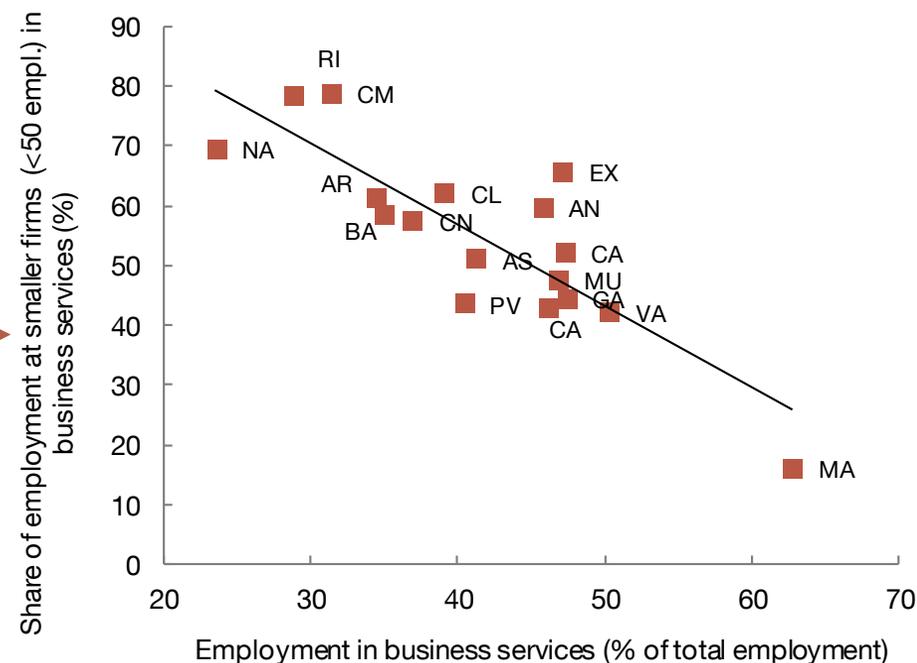
CBI provides a breakdown of employment by firm size, sector and region

- Within each sector there are notable cross-regional differences in firm size.
- The share of employment at smaller enterprises tends to be lower in those sectors in which the region is more specialized.

SHARE OF EMPLOYMENT AT SMALLER FIRMS (<50 EMPLOYEES) IN CBI (a)



SECTORAL SPECIALISATION AND THE SHARE OF EMPLOYMENT AT SMALLER FIRMS IN THE BUSINESS SERVICES SECTOR (a)



Source: Banco de España.

(a): Average for the period 2009-2021. Including non-financial and non-agricultural market economy firms, excluding firms without any employees. “Industry” includes the firms under NACE Rev. 2 sections B, C, D and E. “Construction” includes firms in F. “Travel services” includes firms in H, I and R. “Business services” includes firms in G, J, M and N. AN: Andalusia, AR: Aragon, AS: Asturias, BA: Balearic Islands, CN: Canary Islands, CB: Cantabria, CL: Castile-Leon, CM: Castile-La Mancha, CT: Catalonia, VA: Valencia, EX: Extremadura, GA: Galicia, MA: Madrid, MU: Murcia, NA: Navarre, PV: Basque Country, RI: Rioja.



Representative database

- The CBI database is a representative source of information for analyzing the structure of the Spanish business sector from a regional perspective.



Interactive tools

- In an effort to ease both external researchers' and the general public's access to Bank of Spain's databases, we are developing new user-friendly, interactive tools to present the potential uses of the CBI databases.



Cross-regional differences

- We showed that there are considerable cross-regional differences in firm size distribution.



Diverse potential research lines

- The availability of CBI firm-level data opens the door to various lines of research for analysis of regional heterogeneity in different key areas: e.g. the determinants of business size and growth, productivity, profit margins and investment dynamics.

THANKS FOR YOUR ATTENTION

