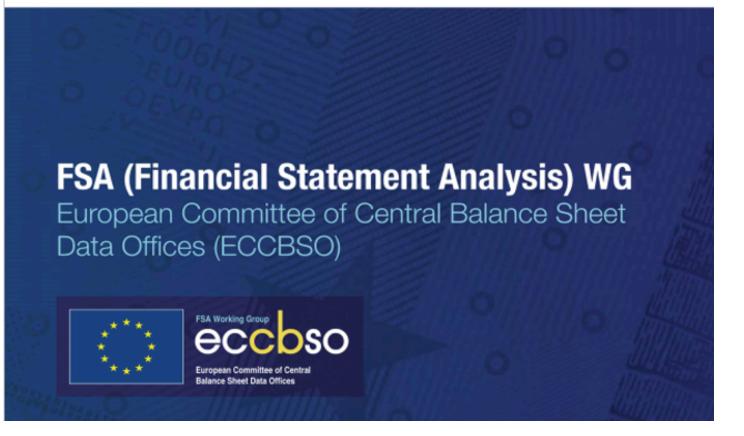
News release:

FINANCING COSTS OF NON-FINANCIAL CORPORATIONS IN EUROPEAN COUNTRIES

A Statistical Analysis based on Accounting Data



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Disclaimer

The views expressed in this paper are those of authors and do not necessarily represent those of the ECCBSO or those of the national central banks. The financial cost indicator used in this study was calculated with a harmonized definition. Nevertheless, it reflects national charts of accounts, which may not be completely harmonized.



Executive Summary

In this release, we analyze the financing costs (FC) of non-financial corporations (NFC). The main indicator of the financing costs is computed on the basis of the accounting data. This indicator - based on BACH (*) methodology described in Annex I - is calculated on a country basis, as well as by sector of activity and size of companies.

This release is an updated version of the previous work. It covers a time span ranging from 2000 to 2022, which is the most recent year with available data. Details about the participating countries, as well as the sectors and size criteria, can be found in Annex II.

(*) The Bank for the Accounts of Companies Harmonized (BACH) database contains aggregated and relatively harmonized annual accounting data of non-financial enterprises.

- After an historical low in 2021, the median financing costs in 2022 have overall increased in all the considered countries (Page 3) Figure 1 Financing costs' median, between 2012 and 2022 (in %)
- In most countries, the majority of firms had financing costs below 2.5% in 2022 (Page 4) Figure 2 Percentage of corporations, by class of financing costs (in %), in 2022
- Financial pressure faced by NFC has slightly increased in 2022 amid a context of rising interest rates

 (Page 5) Figure 3a First panel 2019, 2021 and 2022 Quartiles of the financing cost distribution, by country (in %)

 (Page 6) Figure 3b Second panel 2012, 2017 and 2022 Quartiles of the financing cost distribution, by country (in %)
- Sectoral financing costs are heterogeneous across countries (Page 7) Figure 4 - Median of financing costs, by country and sector of activity (in %), in 2022
- The percentage of vulnerable firms are below or at the pre-pandemic level in most countries

(Page 8) Figure 5a - First panel 2019, 2021 and 2022 - Percentage of vulnerable firms (ICR<2), by country (in %)

(Page 8) Figure 6a - First panel 2019, 2021 and 2022 - Percentage of debt held by vulnerable firms (ICR < 2), by country (in %)

(Page 9) Figure 5b - Second panel 2012, 2017 and 2022 - Percentage of vulnerable firms (ICR<2), by country (in %)

(Page 9) Figure 6b - Second panel 2012, 2017 and 2022 - Percentage of debt held by vulnerable firms (ICR<2), by country (in %)

(Page 10) Figure 7 - Percentage of vulnerable firms (ICR<2), by country (in %), in 2022

(Page 10) Figure 8 - Percentage of debt held by vulnerable firms (ICR<2), by country (in %), in 2022

Annexes

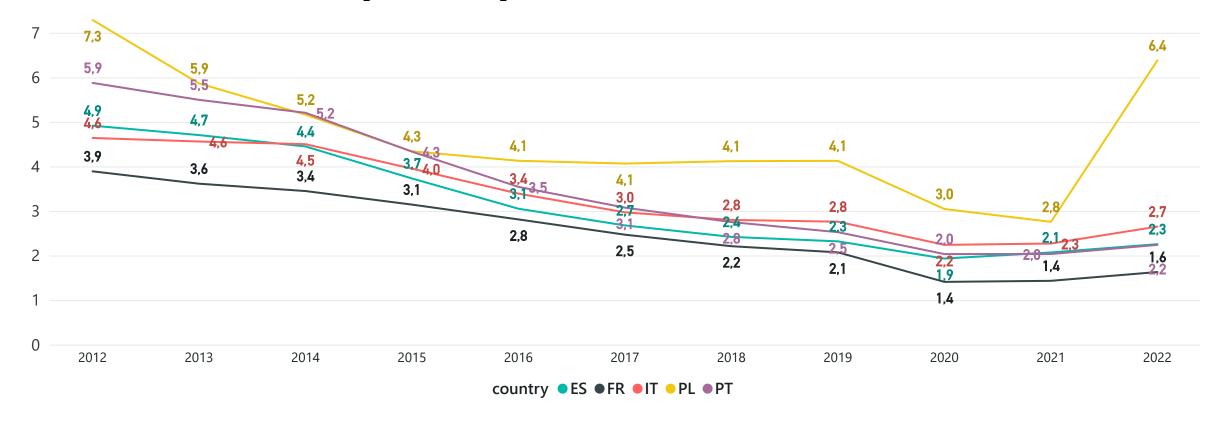
(Page 11) Annex I: Methodology

(Page 12) Annex II: Sector and size criteria



Over the past 10 years, the median financing costs have generally decreased in all countries, except for the period from 2021 to 2022. Since 2012, financing costs decreased almost monotonically in all countries, reaching a historical low level. However, in 2022, the median financing costs have increased overall compared to the previous year (Figure 1), especially in the case of Poland (+3.6 percentage points). Comparing the level of financing costs in 2022 across the European countries, France had the lowest, while Poland had the highest.

Figure 1 - Financing costs' median, between 2012 and 2022 (in %)





In order to assess the heterogeneity of the financing costs faced by firms within countries, it is useful to distinguish several classes. The first class refers to firms facing financing costs below 1%, while, at the other extreme, the last class above 7.5%. The results are very heterogeneous across countries (e.g. the 2022 situation in Poland appears very different from that in Spain or France). More than 50% of the firms had financing costs below 2.5% in most countries, except Poland and Italy. The share of firms with financing costs below 1% was above 10% in Italy, Portugal and Spain, and in France it was almost the triple. In all countries, a non-negligible percentage of corporations faced financing costs above 7.5%, though that percentage is heterogeneous (e.g., in Poland almost 40% of firms faced this financing pressure, while in France only 6%).

100% 8.6% 11,2% 8,0% 10,3% 10,0% 6.3% 14,1% 80% 39.9% 9,2% 8.7% 11.1% 10,6% 17,3% 16,6% ●FC < 1% 60% ●1% <= FC < 2.5% 17.3% **2**,5% <= FC < 3,5% 41,3% 26,2% 3,5% <= FC < 4,5% 40% •4,5% <= FC < 7,5% 41,1% 43,1% •FC >= 7,5% 8.5% 35.7% 7.9% 20% 27.5% 11,1% 14.9% 13.0% 11.1% 6.4% 0% FR ES PT ΙT PL

Figure 2 - Percentage of corporations, by class of financing costs (in %), in 2022



- P(75): Third quartile 25% of the companies face financing costs equal to or greater than the third quartile.
- P(50): Second quartile (or median) Half of the companies bear financing costs above the median.
- P(25): First quartile 25% of the companies face financing costs equal to or less than the first quartile.

Comparing the last two years available (2021 and 2022) with 2019 (pre-covid) suggests, for most countries, an increase for all quartiles of financing costs from 2021 to 2022, amid a context of rising interest rates, though 2022 levels remained generally lower than pre-covid ones.

First panel - 2019, 2021 and 2022

Figure 3a - Quartiles of the financing cost distribution, by country (in %)



Legend: ES - Spain, FR - France, IT - Italy, PL - Poland, PT - Portugal

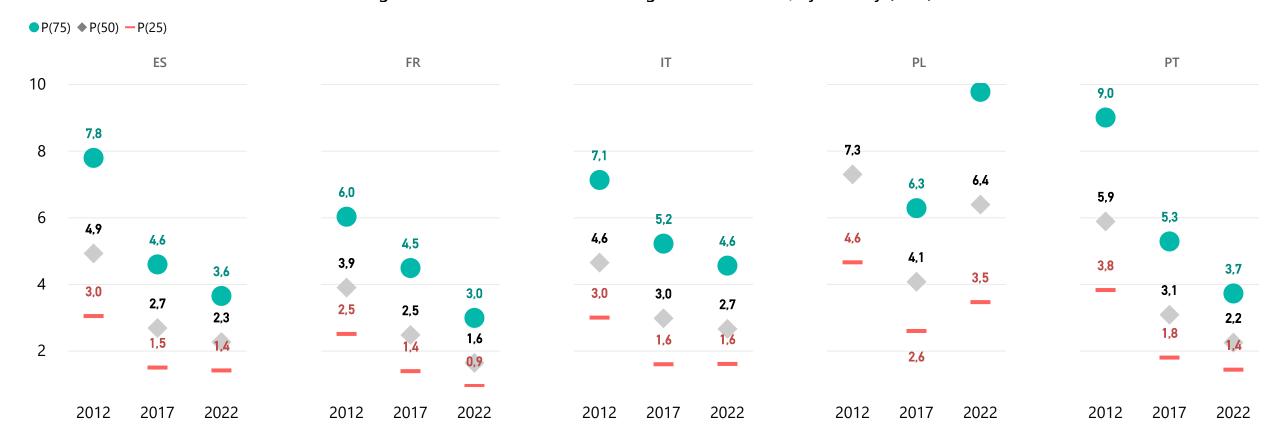


- P(75): Third quartile 25% of the companies face financing costs equal to or greater than the third quartile.
- P(50): Second quartile (or median) Half of the companies bear financing costs above the median.
- P(25): First quartile 25% of the companies face financing costs equal to or less than the first quartile.

Comparing quartiles of the distribution of financing costs in 2012, 2017, and 2022 suggests that all quartiles substantially dropped from 2012 to 2017 and further declined from 2017 to 2022, with the exception of Poland.

Second panel - 2012, 2017 and 2022

Figure 3b - Quartiles of the financing cost distribution, by country (in %)

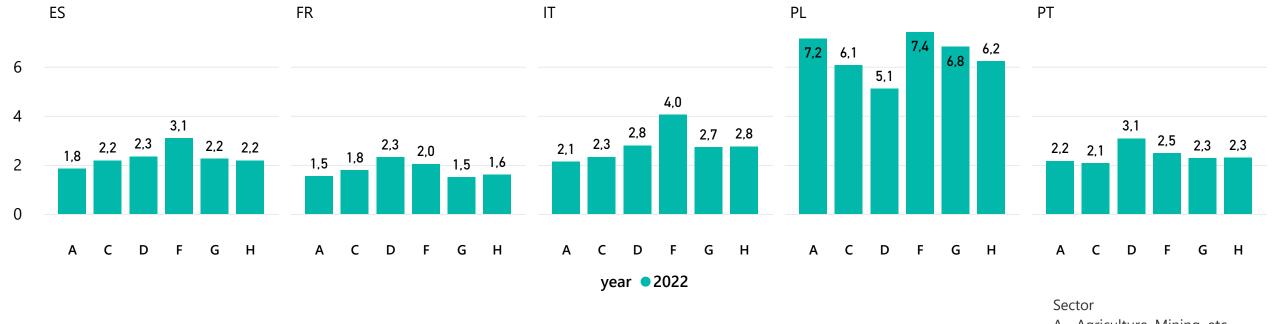


Legend: ES - Spain, FR - France, IT - Italy, PL - Poland, PT - Portugal



Comparing the median financing costs in 2022 for different sectors across five European countries suggests that the ranking of sectors of activity was heterogeneous across countries. Indeed, the sectors of activity characterized by the lowest or highest median financing costs were not the same in different countries.

Figure 4 - Median of financing costs, by country and sector of activity (in %), in 2022



Legend: ES - Spain, FR - France, IT - Italy, PL - Poland, PT - Portugal

A - Agriculture, Mining, etc.

- C- Manufacturing
- D- Energy and Water
- F Construction
- G Trade
- H Services



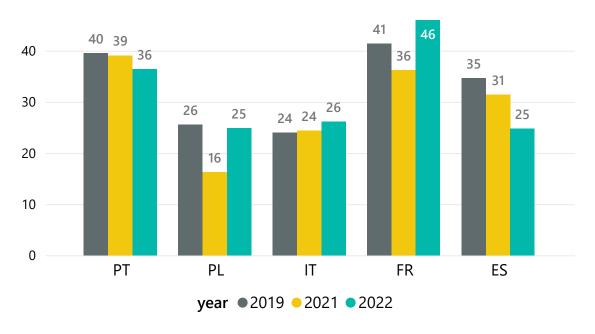
Comparing the percentage of vulnerable firms (figures 5a) and their debt (figure 6a) across European countries between 2019 and 2022 suggests that most countries maintained or reduced the percentage of vulnerable firms, except for Spain in 2021. Portugal had the lowest vulnerable firm percentage, yet one of the highest vulnerable debt proportions. France and Italy increased their share of vulnerable debt, while Portugal, Poland, and especially Spain decreased theirs. Comparing 2021 and 2022, Portugal and Spain also reduced the percentage of vulnerable firms.

First panel - 2019, 2021 and 2022

Figure 5a - Percentage of vulnerable firms (ICR<2), by country (in %)



Figure 6a - Percentage of debt held by vulnerable firms (ICR<2), by country (in %)





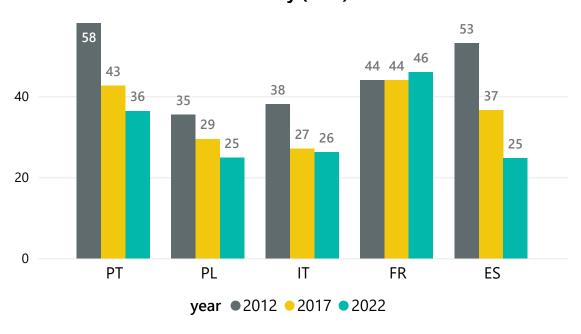
Comparing the percentage of vulnerable firms (figures 5b) and their debt (figure 6b) across European countries in 2012, 2017, and 2022 suggests that in most countries the percentage of vulnerable firms declined. The countries where the percentage of vulnerable firms shrank the most were Portugal, Italy, and Spain, mainly between 2012 and 2017. In most countries also the percentage of debt held by vulnerable firms dropped, with the exception of France.

Second panel - 2012, 2017 and 2022

Figure 5b - Percentage of vulnerable firms (ICR<2), by country (in %)



Figure 6b - Percentage of debt held by vulnerable firms (ICR<2), by country (in %)





Comparing the percentage of vulnerable firms (figures 7) and their debt (figure 8) for different sectors across European countries in 2022 suggests that in most countries the agriculture (and mining) and the services sectors had the highest percentage of vulnerable firms, while energy and water and construction had the highest percentage of debt held by vulnerable firms.

Figure 7 - Percentage of vulnerable firms (ICR<2), by country (in %), in 2022

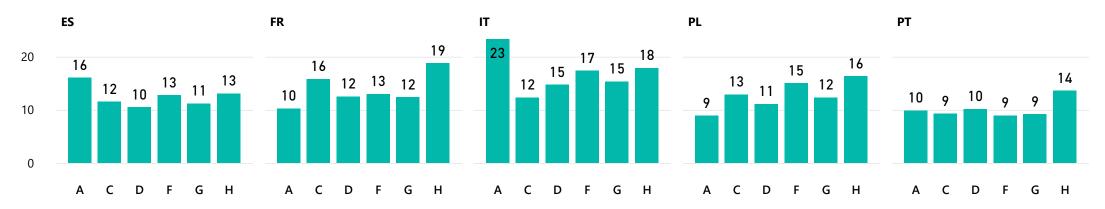
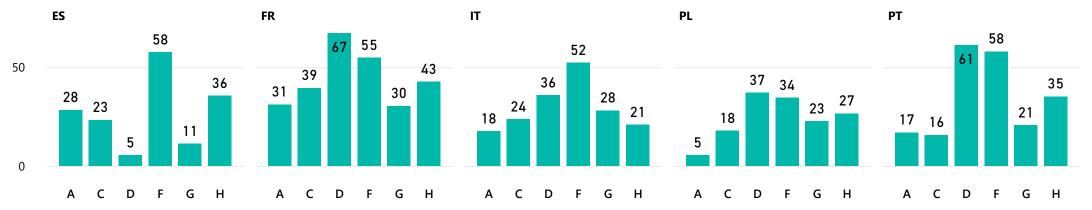


Figure 8 - Percentage of debt held by vulnerable firms (ICR<2), by country (in %), in 2022



Legend: ES - Spain, FR - France, IT - Italy, PL - Poland, PT - Portugal

Sector

A - Agriculture, Mining, etc.

C- Manufacturing

D- Energy and Water

F - Construction

G - Trade

H - Services



Annexes

Annex I: Methodology

Financial Cost indicator (FC)

The financing cost ratio was computed according to the definition in the BACH database. Table 1 provides more detail on the calculation.

Table 1 - Composition of the Financing Cost indicator

Financing Cost indicator			
Numerator	I_{10}		
Denominator	$L_1 + L_2 + L_{31}$		
FC (%)	$\frac{I_{10}}{L_1 + L_2 + L_{31}}$		

Legend:

I10: Interests on financial debts

L₁: Bonds and similar obligations

L2: Amounts Owned to Credit Institutions

L31: Other financial creditors

Data selection

Some exclusion criteria were applied to the database to avoid statistical noise and outliers that could bias the results. More precisely, there were three groups of data excluded:

a) Outlier observations, classified as observations that satisfy any of the following conditions:

$$FC < P25 - 6 \times IQR$$

$$FC > P75 + 6 \times IQR$$

where FC is the financing cost indicator, P25 is the 25th percentile (or first quartile) of FC, P75 is the 75th percentile (or third quartile), and IQR is the interquartile range (which is equal to: ICR = P75 - P25).

- b) Companies with outstanding debt, but without financial expenses;
- c) Companies without debt, but with financial expenses.

For reasons of confidentiality, the results for samples with less than 30 companies are not disclosed.



Annex I: Methodology (cont.)

Interest coverage ratio (ICR)

The interest coverage ratio is calculated according to the formula presented in Table 2 (based on BACH database items definitions).

Table 2 – Composition of Interest coverage ratio

Interest coverage ratio (ICR)		
Numerator	$EBITDA = I_1 + I_2 + I_3 + I_{41} + -I_5 - I_6 - I_7 - I_{81}$	
Denominator	I_{10}	
ICR (%)	$\frac{EBITDA}{I_{10}}$	

Legend:

I1: Net turnover

12: Variation in stocks of finished goods and work in progress

I3: Capitalised production

141: Operating subsidies and supplementary operating income

Is: Cost of goods sold, materials and consumables

In: External supplies and services

I7: Staff costs

Is: Operating taxes and other operating charges

I10: Interests on financial debts

Annexes

Annex II: Sector of activity and size criteria

Sector	Code	NACE Rev. 2
Agriculture, Mining, etc.	Α	A, B
Manufacturing	С	С
Energy and Water	D	D, E
Construction	F	F*
Trade	G	G
Services	Н	H, I, J, L, M**, N, P, Q, R, S
Total	То	(All NACE codes, except F43.1, M70.1, K, T and U)

^{*} except F43.1 - "Demolition and site preparation"

Sizes	Code	Sales Thresholds*, in €M (millions of euros)
Micro	SZ1	Sales ≤ €2M
Small	SZ2	€2M < Sales ≤ €10M
Medium	SZ3	€10M < Sales ≤ €50M
Large	SZ4	Sales > €50M
Total without Micro	SZ0	Sales > €2M

^{* 2015} base year, deflated by HICP (Harmonized Index of Consumer Prices) in each year

^{**} except M70.1 - "Head Offices"