2023
July

News release:

FINANCING COSTS OF NON-FINANCIAL CORPORATIONS IN EUROPEAN COUNTRIES

A Statistical Analysis based on Accounting Data

FSA (Financial Statement Analysis) WG

European Committee of Central Balance Sheet Data Offices (ECCBSO)

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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.

Contents

1. Introduction

This news release analyzes the financing costs (FC) of non-financial corporations (NFC) and is an updated version of previous work. It covers a time span ranging from 2000 to 2021, which is the most recent year with available data. Results relate to the six countries participating in the working group: France, Italy, Poland, Portugal, Spain, and Türkiye.[1]

The main indicator of financing costs is computed on the basis of accounting data and is equal to the ratio between interests on financial debts and the sum of bonds and credits. Monitoring the evolution of financing costs appears especially relevant in the current context and it is expected that that the burden of interest on financial debt will reflect the rise of interest rates that started in the summer of 2022. The next report on the financing costs of NFC in European countries is going to follow these dynamics

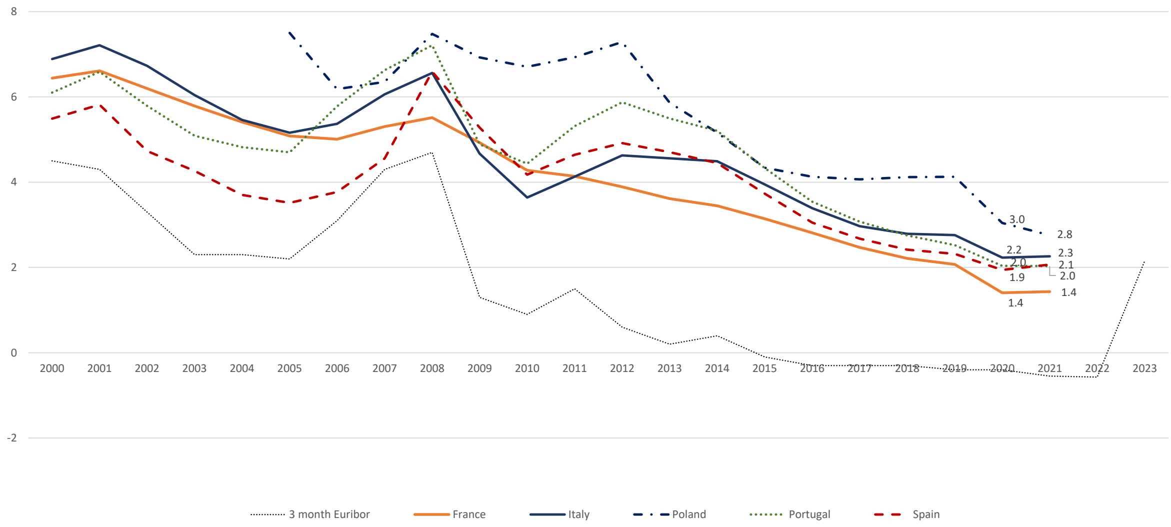
More details about the FC indicator, based on BACH [2] methodology, are reported in Annex I and it is calculated on a country basis, as well as by sector of activity and size[3] of companies. Details about participating countries, as well as sectors and size criteria can be found in Annex II. The number of companies in each country by sector is reported in Annex III.

2. Summary statistics of financing costs

The median financing costs decreased in all countries over the last 20 years. Since 2012, financing costs decreased almost monotonically in all countries, reaching a historical low level. In 2021, median financing costs have been overall stable with respect to the previous year: they decreased by 2 percentage points (p.p.) in Poland and increased by the same amount in Spain (Figure 1). Comparing the level of financing costs in 2021 across European countries, the lowest are in France and the highest in Poland.

[1] Previous reports included German data; see the section publication on the website https://www.eccbso.org/wba/working-groups.
[2] The Bank for the Accounts of Companies Harmonized (BACH) database contains aggregated and relatively harmonized annual accounting data of non-financial enterprises.
[3] Micro companies, defined as firms with sales below 2 million euros, are excluded throughout the report.

Figure 1 – Financing costs' median between 2000 and 2021 (in %).

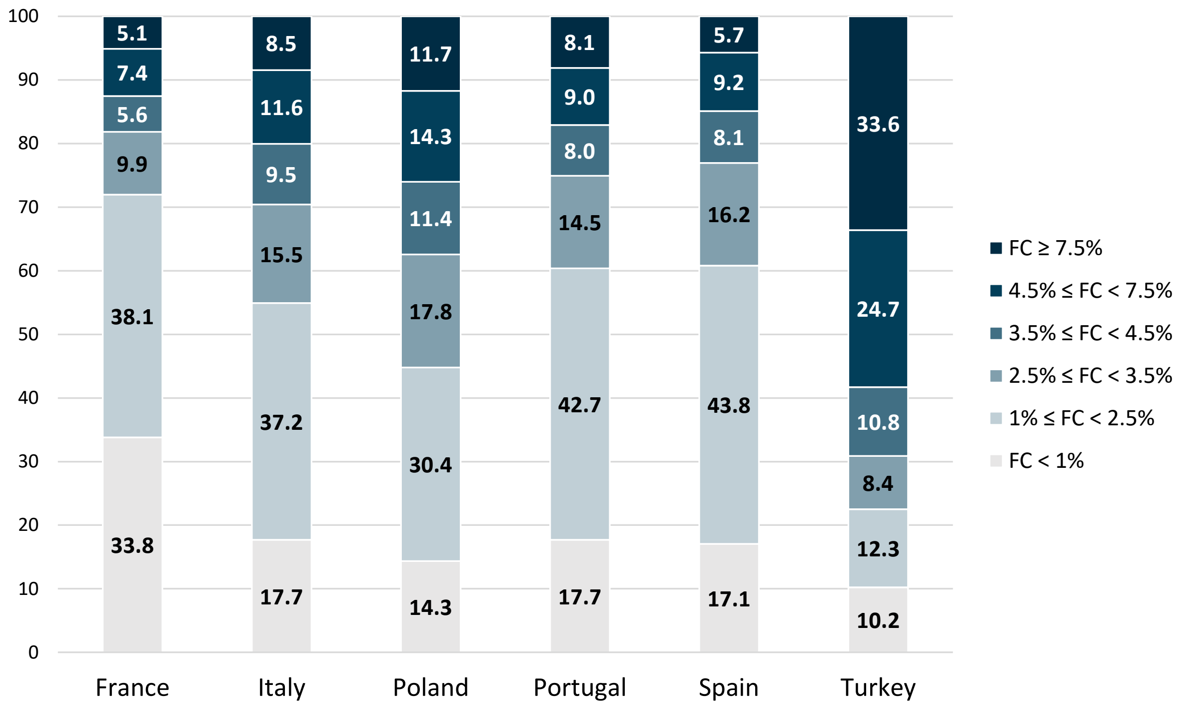


In order to assess the heterogeneous levels of the financing costs faced by firms within countries, it is useful to distinguish several financing cost classes. The first class refers to firms facing financing costs below 1%, while, at the other extreme, the last class above 7.5%.

It is then possible to compare across countries the percentages of corporations by class of financing costs in 2021 (Figure 2). The situation appeared especially favorable for French firms, followed by firms in Portugal, Spain, and Italy. Polish companies faced somewhat higher financing costs, and Turkish firms the highest ones. More in detail:

- The share of firms with financing costs below 1% was above 17% in Portugal, Italy and Spain, while in France it is almost the double;
- The large majority of firms had financing costs below 2.5% in most countries, except Poland and Turkey;
- In all countries, a non-negligible percentage of corporations faced financing costs above 7.5%: from 5% of firms in France to 34% in Turkey.

Figure 2 – Percentage of corporations, by class of financing costs, in 2021 (in %).

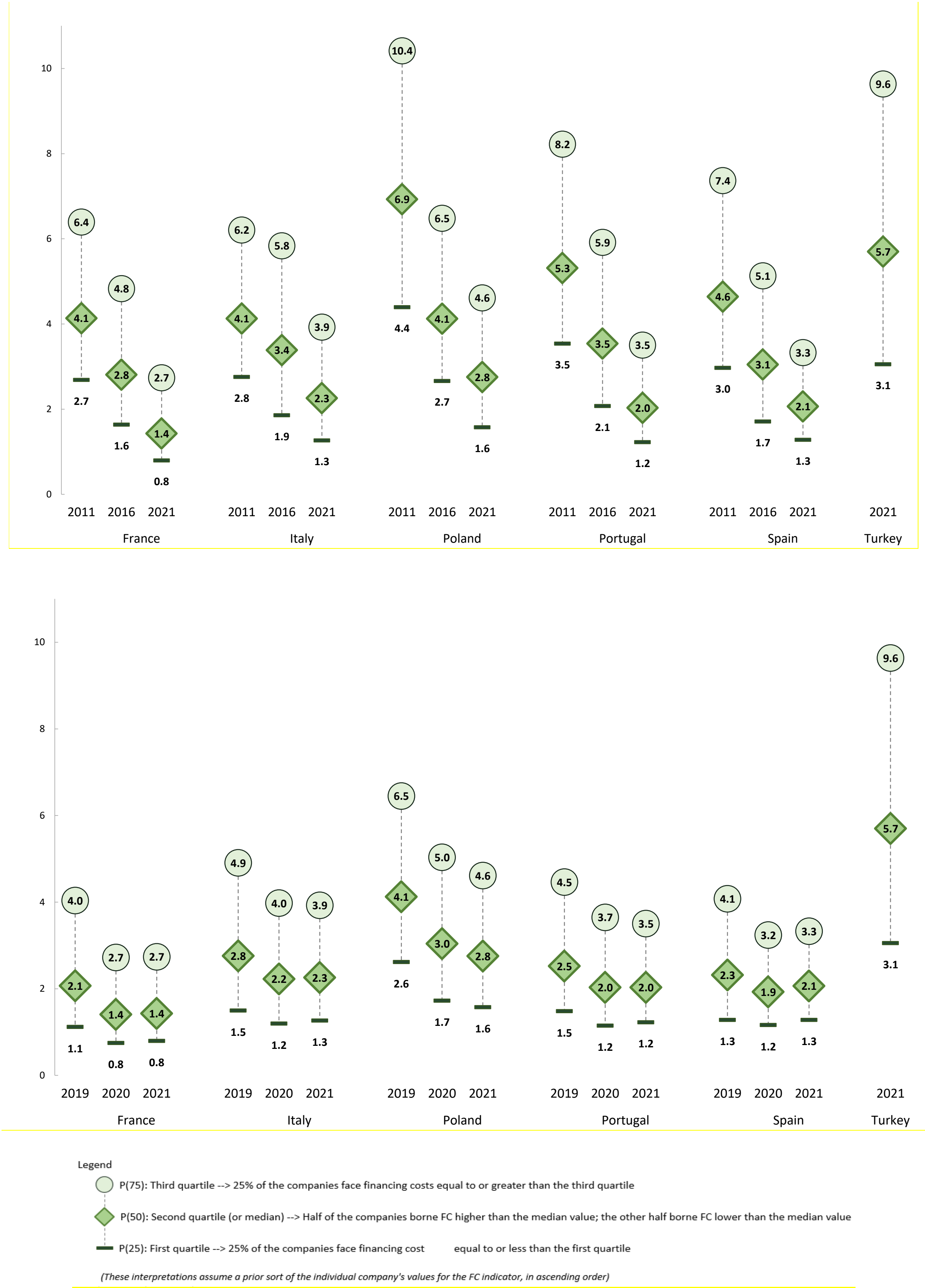


Financing costs are a good indicator of the financial pressure that corporations face. It is therefore useful to investigate not only the evolution of the median financing costs over time (Figure 1), but also that of all the quartiles of the distribution (Figure 3). Indeed, this analysis provides insights about the weight of financing costs for companies and, therefore, their exposure to the recent rises of interest rates.

The first panel of Figure 3 suggests that the third, second and third quartiles of the distribution of financing costs monotonically decreased in all countries from 2011 to 2016 and from the latter to 2021. In particular, in most countries the highest quartile of the distribution in 2021 is at a level of financing costs comparable to that of the lowest quartile in 2011. Therefore, in 2021 firms were in a favorable position, in terms of financing costs, to be resilient facing crises and the current rise in interest rates.

The second panel of Figure 3 focuses on the previous three years for which financing costs are available: not only the second quartile, but also the first and, crucially, the third one prove stable.

Figure 3 – Quartiles of the financing cost distribution, by country, in 2011, 2016, and 2021 (first panel, in %), as well as in 2019, 2020, and 2021 (second panel, in %).



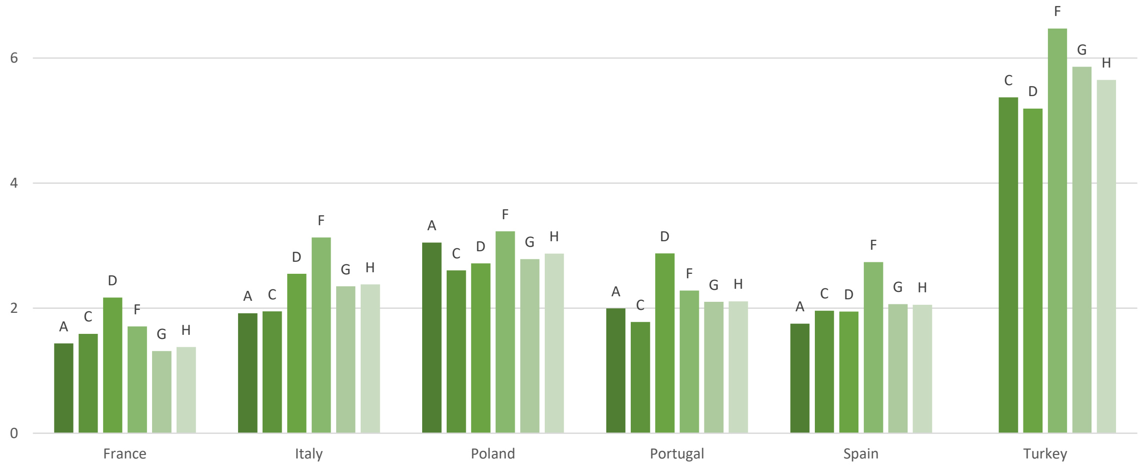
3. Detailed results

3.1 Financing costs by sectors of activity

The ranking of sectors of activity in terms of their median financing cost is heterogeneous across countries (Figure 4). For example, in France and Portugal firms in the energy sector face significantly higher financing costs compared with other sectors within the same countries, while construction firms face the highest financing costs in Italy, Poland, Spain, and Turkey. The agricultural sector faces relevant costs in Poland, while its financing costs are relatively low in France, Spain, Italy, and Portugal. Firms in the manufacturing sector have lower financing costs than all other sectors in Portugal and Poland, and than most other sectors in Italy and Spain. Trade and services face similar financing costs within each country. Their level is typically intermediate relative to other sectors within countries, while in France the median financing costs in trade and services are below those of any other sector. In conclusion, no sector stands out consistently across countries as characterized by the lowest or highest median financing costs.

In some countries, the relative ranking of sectors, as far as their financing costs are concerned, has evolved over time. In Poland, for instance, the median financing cost in the agricultural sector, which in 2020-2021 is high in comparison to the other sectors in the country, was the lowest in the previous years. In France, the median financing cost in the energy sector has been high since several years, but the financing costs in the construction sector used to be higher (and the highest) and in the agriculture sector lower than in trade and services (and the lowest). Financing costs in construction are persistently high also in Portugal, as well as the highest in Spain, Italy, Poland, and Turkey. Indeed, the construction sector is very pro-cyclical and highly dependent on external financing, so that lenders typically demand a debt financing premium for the higher perceived risk.

Figure 4 – Median of financing costs, by country and sector of activity in 2021 (in %).



Legend	
A	Agriculture, Mining, etc.
C	Manufacturing
D	Energy and Water
F	Construction
G	Trade
H	Services

3.2 Vulnerable firms and vulnerable debt

A measure of the vulnerability of firms to the cost of interests on their financial debt is the interest coverage ratio (ICR), defined as the ratio between EBITDA and interests on financial debt.

The percentage of firms with an ICR below 2, which are defined as vulnerable, decreased over time in all countries, despite a temporary increase in 2020 due to the economic consequences of the Covid-19 crisis (Figure 5). The same general conclusion holds in terms of vulnerable debt (Figure 6).

The countries where the percentage of vulnerable firms over ten years between 2011 and 2021 shrank the most are Spain and Portugal, mainly between 2011 and 2016 (upper panel of Figure 5). The latter, however, still had the largest proportion of vulnerable debt in 2021, followed by France and Spain (Figure 6). In contrast, the country characterized by both the lowest share of firms with an ICR below 2 and the lowest proportion of vulnerable debt in 2021 was Poland.

In all countries within our sample, the percentage of debt held by vulnerable firms increased between 2019 and 2020, particularly in Spain and Italy (lower panel of Figure 6). However, in 2021 it decreased everywhere, often going back to a percentage similar to 2019 and, in the case of France and Poland, even below.

Figure 5 – Percentage of vulnerable firms (ICR<2), by country, in 2011, 2016, and 2021 (first panel, in %), as well as in 2019, 2020, and 2021 (second panel, in %).

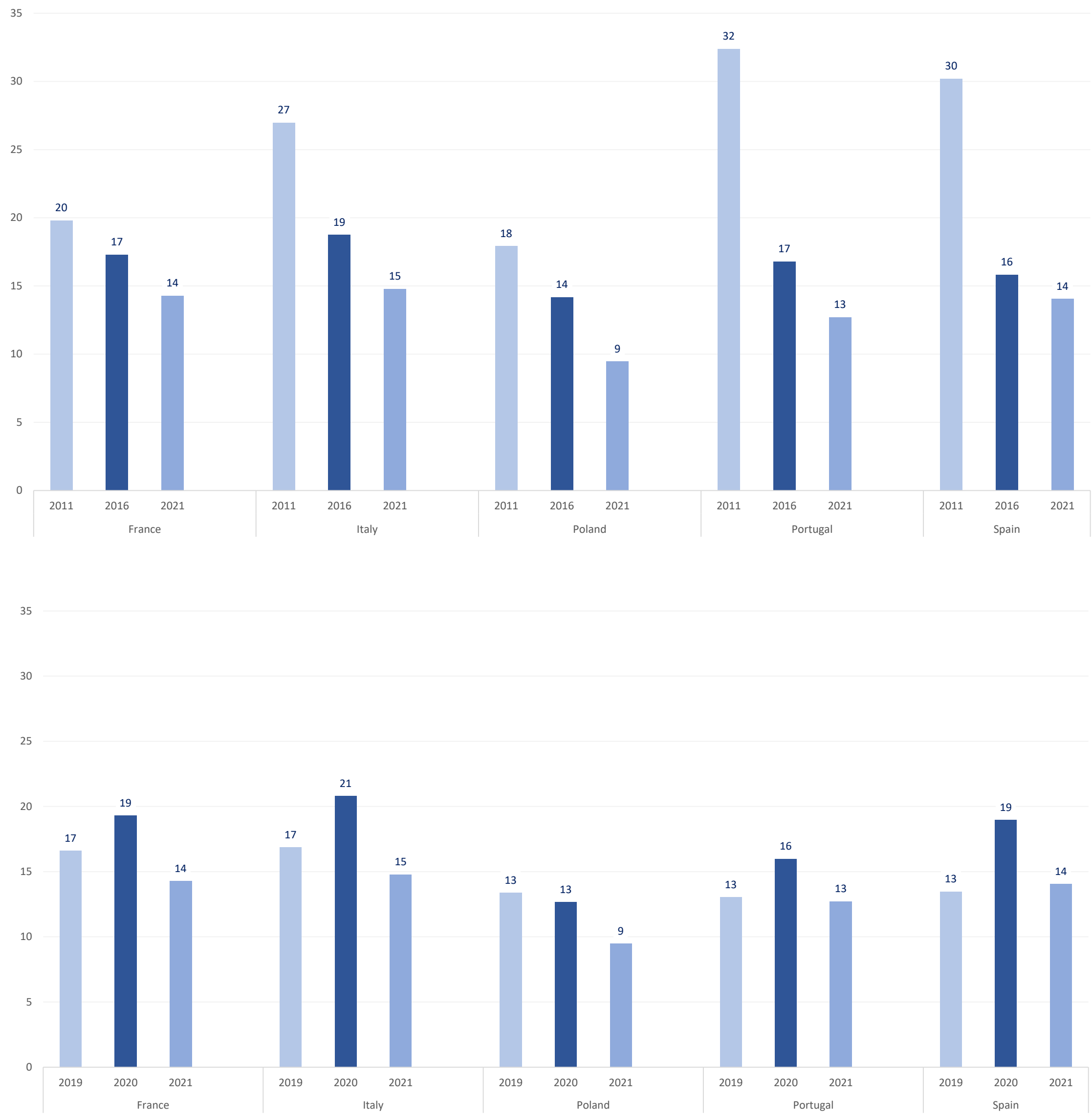
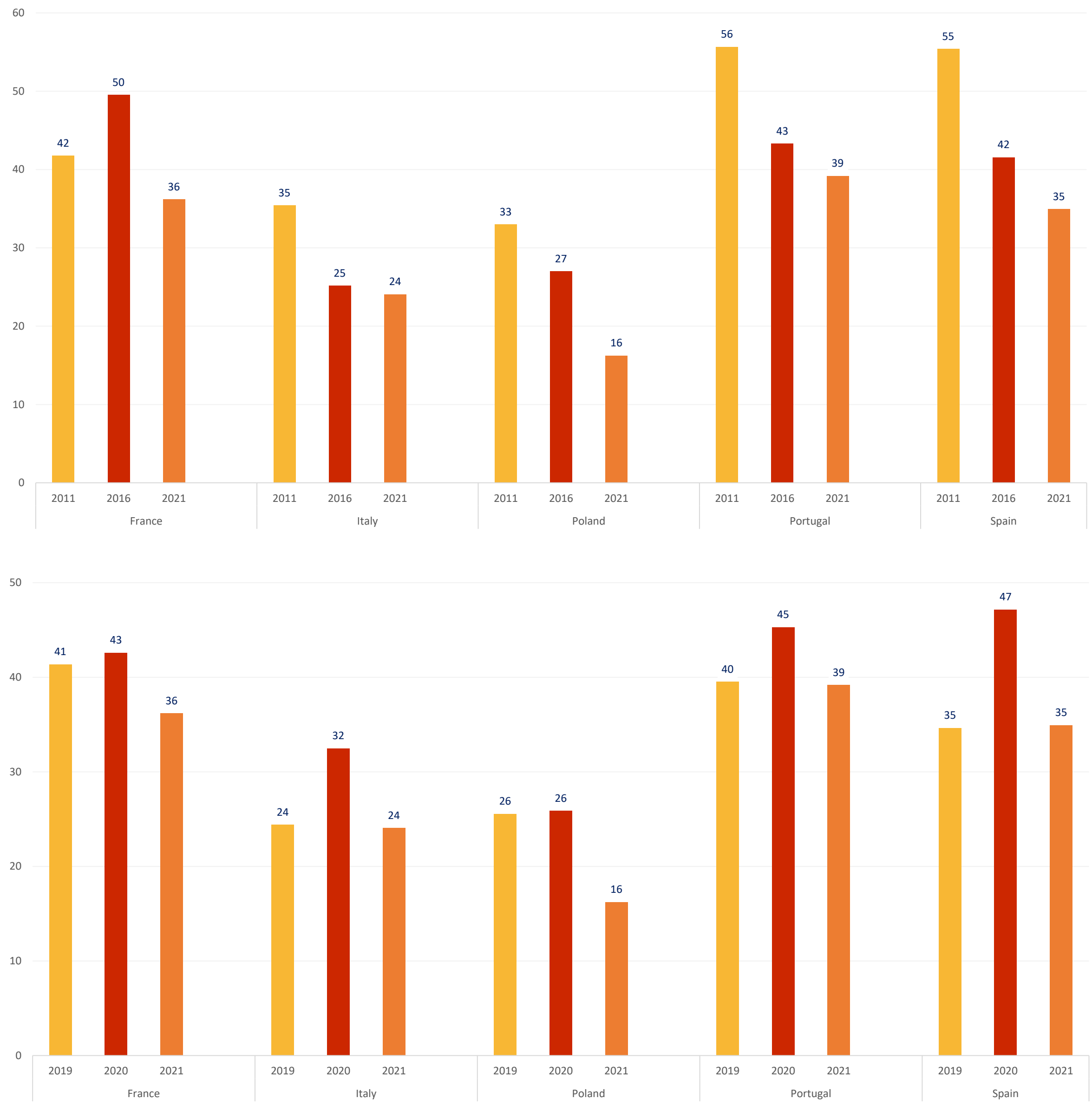


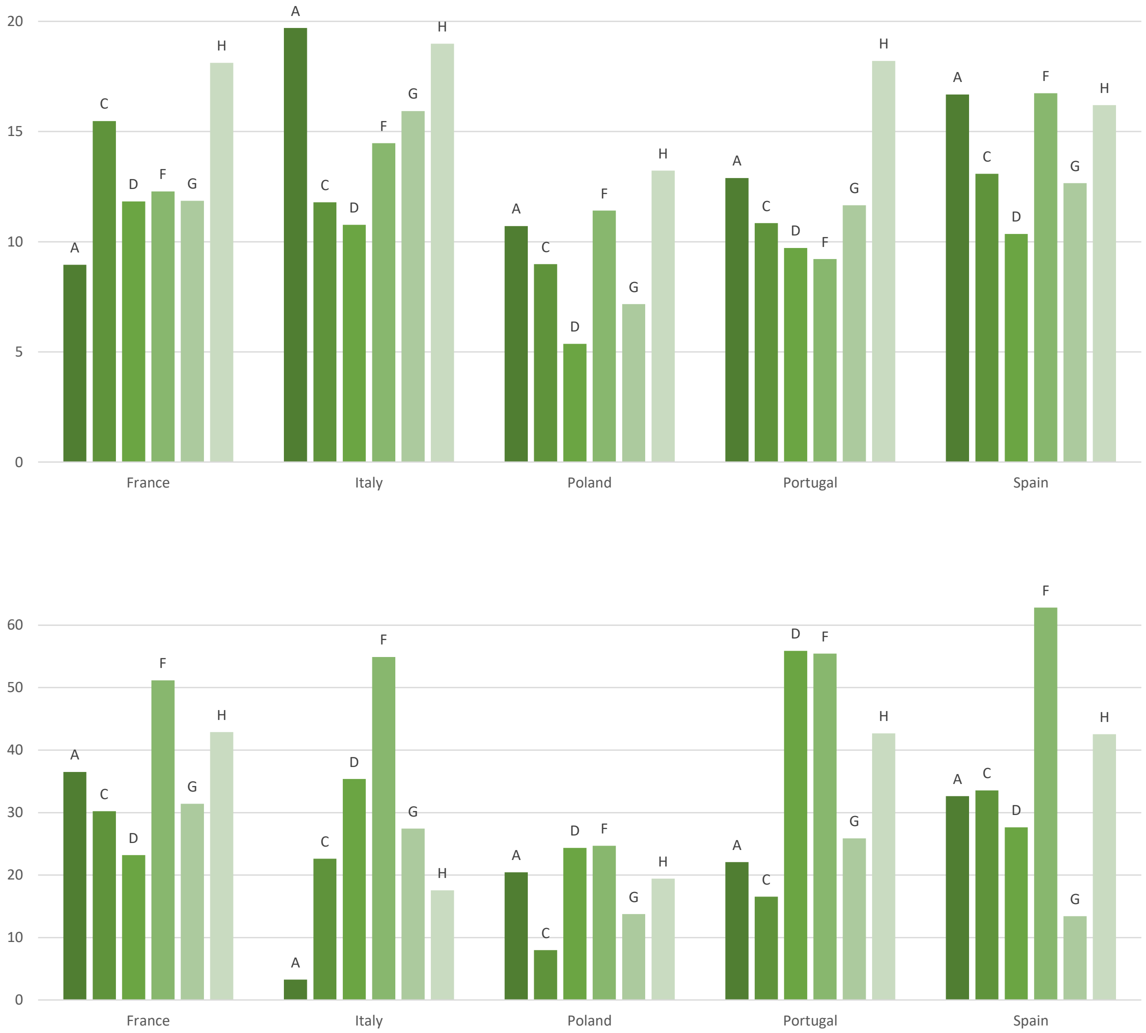
Figure 6 – Percentage of debt held by vulnerable firms (ICR<2), by country, in 2011, 2016, and 2021 (first panel, in %), as well as in 2019, 2020, and 2021 (second panel, in %).



In 2021, vulnerable companies were most often in the services sector (upper panel of Figure 7). However, in terms of debt held, the most vulnerable sector typically was construction (lower panel).

While the percentage of vulnerable firms and their debt decreased in all countries over the ten years between 2011 and 2021, there is concern about their evolution in the most recent years, as interest rates increased by several percentage points since the summer of 2022. The next report on the financing costs of NFC in European countries is going to follow these dynamics.

Figure 7 – Percentage of vulnerable firms (first panel, in %) and their debt (second panel, in %), by country across sectors.



Legend	
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:

***I_{10}**: Interests on financial debts*

***L_1**: Bonds and similar obligations*

***L_2**: Amounts Owned to Credit Institutions*

***L_{31}**: 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 25^{th} percentile (or first quartile) of FC, P75 is the 75^{th} percentile (or third quartile), and IQR is the interquartile range (which is equal to $P75 - P25$).

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.

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:

- ***I_1:*** *Net turnover*
- ***I_2:*** *Variation in stocks of finished goods and work in progress*
- ***I_3:*** *Capitalised production*
- ***I_{41}:*** *Operating subsidies and supplementary operating income*
- ***I_5:*** *Cost of goods sold, materials and consumables*
- ***I_6:*** *External supplies and services*
- ***I_7:*** *Staff costs*
- ***I_{81}:*** *Operating taxes and other operating charges*
- ***I_{10}:*** *Interests on financial debts*

Annex II – Sector of activity and size criteria

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

* except F43.1 - "Demolition and site preparation"
** except M70.1 - "Head Offices"

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

Annex III – Number of companies included by country and sector of activity

Financial Cost indicator, total (without micro) in 2021

	Total	Agriculture, Mining, etc.	Manufacturing	Energy and Water	Construction	Trade	Services
France	112,928	1,948	19,451	2,289	13,186	43,439	32,615
Italy	76,569	1,384	27,805	2,424	7,387	23,088	14,481
Poland	14,010	300	4,784	860	1,138	3,717	3,211
Portugal	16,143	439	4,109	393	1,428	6,035	3,739
Spain	37,835	1,233	9,191	529	3,321	14,674	8,887
Turkey	1,271	-	482	221	184	131	253

As noted in the previous publication, for Turkey, financing expenses in financial statements of firms cover broader definition than interest on financial debts; interest and other financing expenses. Therefore, a new database, which covers the Turkish non-financial corporations with an outstanding foreign denominated credit amount higher than 15 million US, allowed the calculation of corresponding financing costs. This database includes a separate account of interest expenses on financial debts. For Turkey, total includes mining.

Interest coverage ratio, total (without micro) in 2021

	Total	Agriculture, Mining, etc.	Manufacturing	Energy and Water	Construction	Trade	Services
France	108,332	1,854	18,515	2,138	12,717	42,005	31,103
Italy	76,928	1,340	27,649	2,424	7,658	23,177	14,680
Poland	13,002	280	4,442	820	1,060	3,474	2,926
Portugal	14,895	411	3,816	360	1,313	5,601	3,394
Spain	34,870	1,139	8,538	483	3,077	13,479	8,154