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How resilient companies navigated through Covid-19 pandemics[1]

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Abstract

Based on the financial statements of Portuguese non-financial corporations between 2015 and 2022, this study aims to assess the resilience of these companies in the face of external shocks. One of the most significant shocks in recent history was the Covid-19 pandemic, which began in the first quarter of 2020 and significantly altered the lives of people and the operations of companies due to the restrictions implemented as the pandemic worsened. This clearly affected how companies operated across different segments of activity, leading to an abrupt transition to digital practices, which was not possible at the same pace for all sectors.

Given that the pandemic had varying impacts on the companies within the Portuguese economy, depending on their sector of activity and their ability to adapt to new ways of operating in the market, this exploratory study aims to analyze how companies classified as resilient during the period 2015-2019 reacted to this shock. The study considers all companies that provided information for all the years from 2015 to 2019. Based on the financial statements reported annually by the companies in Annex A of the Simplified Corporate Information (IES), economic and financial indicators were calculated and analyzed to determine the resilience of the companies, initially, and based on the 2022 financial reports understand how the performance of these companies was affected, or not, by the pandemic crisis.

Keywords: companies' financial statements, Covid-19, resilience

JEL classification: G23, G32

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1. Introduction

Financial statements are one of the key elements used in analyses of different nature, in particular economic and financial analysis, not only to provide useful information for the company's own management but also for financial markets and its users / investors to assess companies' potential risks and their resilience, among others.

Using financial statements as basis, the aim of this study is to analyze the behavior of companies considered resilient before the Covid-19 pandemic and how they performed during and after this period. For this purpose, the sectors of activity most affected by the pandemic – Transportation and Storage and Accommodation and Food Service Activities (section H and I of NACE – Statistical Classification of Economic Activities) are going to be the focus of this analysis. The goal was to find evidence on how the companies that comprise those sectors managed to navigate through the challenges posed during the Covid-19 years comparing the key financial figures from 2019 and 2022.

To conduct the analysis, annual data from the Central Balance sheet database, which includes micro data of all Portuguese non-financial corporations, was used. The primary source of information of this database is the Annex A of the Simplified Corporate Information (IES). For study purposes we selected the years from 2015 to 2022, since this period provides a comprehensive overview of the companies' financial health prior to the pandemic, which is essential for assessing their resilience according to the defined criteria. Additionally, to observe the evolution of the proportion of resilient companies in different periods a second dataset from 2012 to 2019 was defined.

The Covid-19 pandemics, which began in the first quarter of 2020, significantly changed people's lives and company operations due to the restrictions introduced as the pandemic worsened. This significantly impacted how companies operated across different segments of activity, leading to an abrupt transition to digital practices, which was not possible for all sectors and at the same pace.

This paper is organized as follows. Chapter 2 presents a brief explanation of the methodology used to assess the resilience of a company and the rationale for the ratios used in the analysis. Chapter 3 identifies and describes the sectors most affected by the Covid-19 pandemic, comparing their financial situation between 2019 and 2022. Chapter 4 highlight the main conclusions.

2. Methodology

This chapter provides a brief description of the assumptions considered in the definition of the dataset, the rationale for the financial ratios used in the analysis, the underlying criteria employed to classify a company as resilient and the selected sectors of activity analyzed in the subsequent section.

Our dataset covers a time span from 2012 to 2022, comprising all the non-financial corporations (S11 companies according to the ESA 2010 definition) with financial statements available for each year within this period[1]. The classification of company size follows the criteria outlined in the EU recommendation 2003/361, and comprises micro, small, medium, and large dimensions.

After establishing the dataset, we selected five financial ratios that are most commonly used in financial companies' analysis. These ratios cover different aspects, including (i) financial and indebtedness structure since "*companies' financial debt is not only crucial for companies' investments and expansion as well as to finance its current activity*" (Barbosa, L. and de Pinho, P. (2016)), (ii) liquidity "*because it gives us a perspective if short-term debt has or not, a greater coverage by assets that can be converted into net financial assets also in short term*" (Martins A. and Santos M. (2022)), and (iii) operational performance / profitability since "*EBITDA, ROE and ROA are financial performance indicators that measure respectively, operating return, revenue and cost management capacity and the ability to generate returns on the total investments*" (Carvalho et al (2016)). It is also important to highlight the relevance of the selected ratios in risk assessment of companies, as it can be observed, for example, in the S&P Global Ratings' methodology for rating corporate industrial companies and utilities.

Thus, the financial ratios considered were:

- Equity to assets ratio $= \frac{Equity}{Total\ Assets};$
- Financial Leverage $= \frac{Financial\ Debt}{Financial\ Debt + Equity};$
- Current ratio $= \frac{Current\ Assets}{Current\ Liabilities};$
- EBITDA margin $= \frac{EBITDA\ (Earnings\ Before\ Interest,\ Taxes,\ Depreciation\ and\ Amortization)}{Revenue};$
- Financial Debt / EBITDA;

To assess whether a company is resilient or not in 2019 we compare individual companies' financial performance against their respective sector ratios, aggregating companies according to their NACE sections.

A company is considered to be resilient in 2019 if it meets the following criteria:

- For the last two years before pandemic (2018 and 2019), the company must have a positive EBITDA. Additionally, between 2015 and 2017, the company must record a positive EBITDA at least in an additional year.

[1] Companies born during these years (2015 to 2019) are excluded from the dataset. On the other hand, firms that ceased its activity and do not report its financial statements will not be considered as resilient.

- Therefore, for each year a score will be recorded and it will be considered positive if a company presents all of its ratios equal or above the weighted average of the sector in which it operates. Additionally, it is also relevant to highlight that:
  - Regarding the current ratio, this ratio needs to be higher than 100%. A low ratio (less than 100%) indicates difficulty to meet short-term financial obligations and the inability to take advantage of opportunities requiring quick cash;
  - For entities that have financial debt equal to "0", in the ratios in which this variable was used, these entities will be considered as being above the sector, since they will not face any constrains in meeting at least financial obligations.

Therefore, if a company presented a positive score in the last two years before pandemic (2018 and 2019) and one more positive score in the period from 2015 to 2017 and also satisfies the EBITDA criterion, then company is considered resilient.

Using the same criteria as previously outlined, but now applying them to financial statements from 2018 to 2022, the aim was to observe and analyze the impact of the COVID-19 pandemic on companies' resilience in the specific NACE sections and that will be examined in the next Chapter. By extending the timeframe to include the pandemic years, we can assess how the crisis affected companies' financial resilience within these sectors.

Also using the same criteria, an additional sample was constructed for the period between 2012 and 2016, in order to observe which companies were resilient in 2016, as well as between 2015 and 2019. By comparing the proportion of companies that keep this classification between 2016 / 2019 and 2019 / 2022 we can also check the Covid-19 impact in companies' resilience.

The next Chapter will focus on the NACE sections that were considered to be the most significantly impacted by the COVID-19 pandemic. To define these sectors of activity, we based on internal information available in Banco de Portugal, more precisely a survey jointly conducted by Banco de Portugal and the Statistics Portugal (Instituto Nacional de Estatística). It is possible to observe that the H (Transportation and Storage) and I (Accommodation and Food Service Activities) NACE sections were the most affected not only in terms of revenue reduction but also in what concerns the average time needed to recover to the regular activity level. As such we considered that it would be more beneficial to look deeper into these two NACE sections and consequently will be the focus of the subsequent analysis.

3. Data analysis

3.1. Full database characterization

As mentioned above, the sections that will be subject to a more detailed analysis will be H and I. It is also important to highlight that the dataset from 2015 to 2019 of total non-financial corporations presented a total of around 300 thousand companies in each year, of which, based on the criteria already mentioned, 13.73% were considered resilient in 2019.

3.2. Main results

3.2.1 Transportation and Storage

Initial characterization

In 2019, Section H (Transportation and Storage) comprised a total of 14,442 companies, with NACE 49 (Land transport and transport via pipelines) accounting for approximately 86% of the sector under review. It is also noteworthy that, in terms of company size, Section H is primarily composed of micro companies, representing around 86% of the total.

Between 2019 and 2022, 1,382 companies ceased its activity, of which 1,196 were classified as non-resilient (86.54%), of which 1,288 were classified as micro companies (93.20%). During the same period, 165 companies exited this section, while 176 companies entered, resulting in a net increase of 11 companies.

Sectoral Analysis

With respect to resilient companies, they accounted for 21.61% of the total companies within this sector (3,121 companies), a figure notably higher than the overall dataset, where 13.73% of firms were deemed resilient.

A preliminary analysis shows that, overall, section H demonstrated a strengthened position in 2022 compared to 2019, except for liquidity levels, which are below the levels of 2019, although they remain above 100%, as it can be observed in table 1.

General overview 1

	2022	2019	∆ 2019 /2022
Equity to assets ratio	27.11%	23.27%	3.84p.p.
Financial Leverage	58.41%	67.55%	-9.15p.p.
Current Ratio	123.41%	137.74%	-14.33p.p.
EBITDA margin	17.92%	16.53%	1.39p.p.
Financial Debt / EBITDA	3.14x	4.50x	-1.37x

It is also important to note that, when analyzing the section by company size, only micro companies do not follow the aforementioned trend, showing a slight deterioration in the Equity to assets ratio and Financial Leverage (please refer to table 2).

In this regard, medium-sized companies, with a total of 341 in this section, also stand out as they performed worse compared to the rest of the section in 2019. Between 2019 and 2022, this group of companies strengthened its capitalization, reduced debt levels, and improved its profitability ratios in higher magnitude when compared to the overall section's performance as it can be checked in table 3.

Micro companies			2
	2022	2019	Δ 2019 /2022
Equity to assets ratio	37.11%	40.72%	-3.61p.p.
Financial Leverage	40.34%	38.61%	1.73p.p.
Current Ratio	163.37%	194.70%	-31.33p.p.
EBITDA margin	10.63%	9.39%	1.24p.p.
Financial Debt / EBITDA	3.72x	5.14x	-1.43x

Medium-sized companies			3
	2022	2019	Δ 2019 /2022
Equity to assets ratio	20.73%	11.41%	9.32p.p.
Financial Leverage	69.45%	84.81%	-15.36p.p.
Current Ratio	130.28%	133.26%	-2.98p.p.
EBITDA margin	28.69%	23.04%	5.65p.p.
Financial Debt / EBITDA	3.01x	6.09x	-3.09x

From the perspective of companies considered resilient in 2019, a slightly deterioration was observed across the majority of the ratios considered in this study (as it can be verified in table 4), with large and micro companies being the primary contributors to this trend. This evolution is also observed with a higher magnitude in the companies resilient in 2019 and non-resilient in 2022 as it is showed in table 5.

Additionally, it is important to highlight that of the 3,121 companies classified as resilient in 2019, 49.54% of these companies (1,546) no longer hold this classification after the pandemic period. Within this subset: i) 558 companies reported negative or zero EBITDA in 2022; ii) 92 had negative Equity (of which 71 also reported negative EBITDA); and iii) 186 ceased operations. In terms of company size, the vast majority of entities that lost their resilient status in 2022 were micro companies (1,455). It is noteworthy that, for both micro and large enterprises, approximately half of the companies within these categories lost their resilient status. Conversely, about 26% of medium-sized companies are no longer considered resilient.

When comparing the companies that were resilient in both periods (please refer to table 6), we observe that, across all metrics considered in the study, there was an improvement when compared to 2019.

Resilient companies 2019			4
	2022	2019	∆ 2019 /2022
Equity to assets ratio	69.90%	70.49%	-0.59p.p.
Financial Leverage	15.27%	14.34%	0.93p.p.
Current Ratio	382.41%	419.14%	-36.73p.p.
EBITDA margin	35.44%	37.84%	-2.40p.p.
Financial Debt / EBITDA	0.72x	0.65x	0.07x

Resilient companies 2019 non resilient 2022			5
	2022	2019	∆ 2019 /2022
Equity to assets ratio	54.54%	64.78%	-10.24p.p.
Financial Leverage	32.02%	20.05%	11.96p.p.
Current Ratio	139.14%	242.54%	-103.40p.p.
EBITDA margin	23.87%	34.52%	-10.65p.p.
Financial Debt / EBITDA	2.86x	1.28x	1.58x

Resilient companies 2019 and 2022			6
	2022	2019	∆ 2019 /2022
Equity to assets ratio	77.51%	74.09%	3.41p.p.
Financial Leverage	7.30%	10.82%	-3.52p.p.
Current Ratio	592.64%	561.05%	31.59p.p.
EBITDA margin	39.41%	39.24%	0.18p.p.
Financial Debt / EBITDA	0.28x	0.42x	-0.14x

Analysis of the main subsectors of activity

Although a general favourable trend in ratios can be observed in Transportation and Storage, when looking at the two main NACE’s (49320 - Occasional passenger transport in light vehicles and 49410 - Road freight transport), which together account for approximately 80% (49320 – 5,835 companies, 49410 – 6,080 companies) of the companies in this section, an opposite trend was observed between the two.

Thus, while in 2019 the occasional passenger transport sector in light vehicles showed more robust indicators than the ones observed in the road freight transport sector (as can be observed in tables 7 and 8), it is noted that, as a result of mobility restrictions during the pandemic, which led to the temporary suspension of activity for some of these entities, a negative effect was felt among this set of companies. Consequently, at the end of year 2022 it was not possible to recover the levels reached in 2019, despite the relaxation of the restrictive measures that started to happen during the first quarter of 2022, which led to a significant increase in the number of incoming visitors to Portugal and consequently boosted the operational activity of these entities.

Companies from NACE 49320			7
	2022	2019	Δ 2019 /2022
Equity to assets ratio	40.27%	57.70%	-17.43p.p.
Financial Leverage	40.85%	25.00%	15.85p.p.
Current Ratio	272.85%	321.62%	-48.77p.p.
EBITDA margin	10.24%	11.36%	-1.12p.p.
Financial Debt / EBITDA	3.31x	2.45x	0.86x

Companies from NACE 49410			8
	2022	2019	Δ 2019 /2022
Equity to assets ratio	39.19%	39.30%	-0.11p.p.
Financial Leverage	41.71%	41.29%	0.42p.p.
Current Ratio	156.52%	153.23%	3.29p.p.
EBITDA margin	9.54%	8.53%	1.01p.p.
Financial Debt / EBITDA	2.30x	2.51x	-0.21x

It is also worth noting the deterioration of the companies' capitalization in NACE 49320, reflected in a reduction of approximately 17 percentage points in the Equity to assets ratio, which was influenced by the losses recorded in 2020 and 2021, as well as the increase in Financial Leverage. This was driven not only by the reduction in Equity but also by the increase in Financial Debt, since these entities faced a decline in its operational activity and the level of fixed costs did not decrease in the same proportion.

Finally, it should be noted that between 2019 and 2022, the number of companies with negative equity in the occasional passenger transport sector in light vehicles increased by around 37%, rising from 1,291 in 2019 companies to 1,766 in 2022.

Given the aforementioned developments, and in a sector that is predominantly represented by micro and small companies, of the 1,383 companies considered resilient in 2019, only 35.57% of them maintained this classification, highlighting the negative impact of the Covid-19 pandemic, and also the closure of 82 resilient companies.

Regarding NACE 49410, it is observed that this group of companies experienced a less turbulent period during the Covid-19 pandemic, not only because the transport of goods continued to operate with fewer restrictions but also due to the significant growth in online commerce driven by the previously mentioned restrictions, which boosted the operational activity of these transport companies.

As a result, no significant variations were observed in the financial ratios of these companies, although a reduction in the number of companies classified as resilient was observed, albeit to a significatively lesser extent (approximately 64% of companies remained resilient).

It is worth also noting that among the 821 companies in section H that were newly classified as resilient in 2022, around 52% of them are concentrated in the road freight transport sector.

Finally, in what regards the proportion of companies that keep its resilience classification in both periods for the two samples (2016 / 2019 and 2019 /2022) a decrease of -5.98p.p. (from 56.44% to 50.46%) was observed which indicates that company's resilience is affected by Covid-19 pandemics. This situation is more prominent in NACE 49320 where a greater decrease was observed (from 53.75% to 35.57%), due to the reasons mentioned above. On the opposite side, NACE 49410 observed an increase from 59.44% to 63.85%.

3.2.2 Accommodation and Food Service Activities

Initial characterization

Section I (Accommodation and Food Service Activities) comprised a total of 26,950 companies in 2019, with the majority (approximately 79%) categorized under NACE 56 (Food and Beverage Service Activities). In terms of size classification, the section was predominantly composed of micro-enterprises (82.00%) and small enterprises (15.80%).

Between 2019 and 2022, 3,275 companies ceased operations, of which 3,092 were deemed non-resilient in 2019, with the vast majority being micro-enterprises (2,879). During this period, the sector saw a net increase of 1,431 companies, accounting for 1,716 new entries and 285 exits.

Resilient companies, representing 13.75% of the total sector (3,706 companies), were in line with the overall companies' universe, which also stood at 13.73%.

Sectoral Analysis

Starting with a general analysis, Section I strengthened its position compared to 2019, as shown in Table 9. The EBITDA margin is particularly noteworthy, primarily due to operational factors. Since the mid of the first quarter of 2022, the easing of restrictions allowed Portugal to welcome tourists again, which significantly boosted the sector's performance. As a result, operational metrics, such as the number of overnight stays, nearly returned to 2019 levels, positively impacting the activity of this sector.

General overview 9

	2022	2019	Δ 2019 /2022
Equity to assets ratio	38.63%	35.60%	3.03p.p.
Financial Leverage	51.13%	54.56%	-3.43p.p.
Current Ratio	113.21%	100.18%	13.03p.p.
EBITDA margin	37.20%	26.90%	10.30p.p.
Financial Debt / EBITDA	4.25x	6.46x	-2.21x

When analyzing this section by company size, micro companies demonstrated the strongest performance across all metrics between 2019 and 2022 (see Table 10). However, it is important to note that despite this upward trend, these companies remained below the sector average across all metrics in both 2019 and 2022.

Additionally, large companies were the only group to report a current ratio below 100% in both periods, despite a slight improvement in 2022, as shown in Table 11.

Micro companies			10
	2022	2019	Δ 2019 /2022
Equity to assets ratio	19.87%	13.08%	6.79p.p.
Financial Leverage	70.42%	80.11%	-9.69p.p.
Current Ratio	112.96%	97.63%	15.33p.p.
EBITDA margin	16.30%	8.86%	7.44p.p.
Financial Debt / EBITDA	7.43x	14.74x	-7.32x

Large companies			11
	2022	2019	Δ 2019 /2022
Equity to assets ratio	44.10%	46.78%	-2.68p.p.
Financial Leverage	38.43%	34.83%	3.60p.p.
Current Ratio	94.07%	89.31%	4.76p.p.
EBITDA margin	22.40%	18.51%	3.90p.p.
Financial Debt / EBITDA	1.80x	2.09x	-0.30x

Regarding resilient companies, there was a decline in all the key metrics between 2019 and 2022. The current ratio dropped from 306.99% in 2019 to 292.11% in 2022, primarily driven by micro and small companies. Additionally, financial leverage increased from 16.00% in 2019 to 20.54% in 2022, with contributions from companies of all sizes with exception of large companies. These trends are illustrated in Tables 12, 13, and 14, below.

It is also noteworthy that nearly 72% of the 3,706 companies classified as resilient in 2019 no longer held this status by 2022. Of these 2,658 companies, 183 ceased operations, 450 reported a negative EBITDA in 2022, and 135 had negative equity in at least 2022, with 91 also recording a negative EBITDA. Moreover, it's important to highlight that over 1,300 of these companies had at least one year of negative EBITDA between 2020 and 2021.

In terms of company size, it is observed that the vast majority (2,658) of entities that lost their resilient status in 2022 were micro companies. This category experienced the highest percentage of companies losing resilience (76.04%), followed by large enterprises (62.50%).

Resilient companies 2019			12
	2022	2019	Δ 2019 /2022
Equity to assets ratio	68.33%	72.01%	-3.68p.p.
Financial Leverage	20.54%	16.00%	4.53p.p.
Current Ratio	292.11%	306.99%	-14.89p.p.
EBITDA margin	29.15%	30.11%	-0.96p.p.
Financial Debt / EBITDA	1.12x	0.80x	0.32x

Resilient micro companies 2019			13
	2022	2019	∆ 2019 /2022
Equity to assets ratio	59.43%	65.35%	-5.92p.p.
Financial Leverage	28.72%	22.26%	6.46p.p.
Current Ratio	341.10%	389.23%	-48.13p.p.
EBITDA margin	19.94%	22.45%	-2.50p.p.
Financial Debt / EBITDA	2.00x	1.25x	0.75x

Resilient large companies 2019			14
	2022	2019	∆ 2019 /2022
Equity to assets ratio	72.46%	69.49%	2.97p.p.
Financial Leverage	15.15%	15.72%	-0.57p.p.
Current Ratio	161.70%	133.99%	27.71p.p.
EBITDA margin	41.52%	37.76%	3.76p.p.
Financial Debt / EBITDA	0.48x	0.55x	-0.08x

Regarding the companies that were resilient in 2019 but not resilient in 2022 (Table 15), there is a general decline in the indicators under analysis, although they remain above the section's average. As for the companies that remained resilient in both periods, most of the ratios for 2022 are in line with the values observed in 2019.

Resilient companies 2019 non resilient 2022			15
	2022	2019	∆ 2019 /2022
Equity to assets ratio	60.68%	68.27%	-7.59p.p.
Financial Leverage	27.89%	19.37%	8.52p.p.
Current Ratio	222.23%	258.06%	-35,83p.p.
EBITDA margin	25.07%	27.53%	-2.46p.p.
Financial Debt / EBITDA	1.58x	0.94x	0.63x

Resilient companies 2019 and 2022			16
	2022	2019	∆ 2019 /2022
Equity to assets ratio	77.39%	76.89%	0.49p.p.
Financial Leverage	12.22%	11.73%	0.49p.p.
Current Ratio	415.21%	400.05%	15.16p.p.
EBITDA margin	35.21%	34.51%	0.70p.p.
Financial Debt / EBITDA	0.64x	0.61x	0.03x

Analysis of the main subsectors of activity

Given that this section experienced an overall positive growth between 2019 and 2022 and considering that the NACE codes within this section pertain to similar activities, we have divided the section into its two constituent NACE codes (55 – Accommodation and 56 – Food and Beverage Service Activities) to analyze their respective performance between 2019 and 2022.

As observed in the tables below (17 and 18), both NACE codes exhibited similar trends across the ratios considered in this study. However, it is important to highlight the significant increase in the EBITDA margin within the accommodation sector, whereas the food and beverage service sector maintained its EBITDA margins in line with 2019 levels. The increase in EBITDA obtained in the accommodation sector also contributed to a decrease in the Financial Debt / EBITDA ratio. Lastly, both activities showed similar improvements in the Current Ratio, supporting the overall positive trend within the section.

Companies from NACE 55			17
	2022	2019	Δ 2019 /2022
Equity to assets ratio	38.63%	35.60%	3.03p.p.
Financial Leverage	51.13%	54.56%	-3.43p.p.
Current Ratio	113.21%	100.18%	13.03p.p.
EBITDA margin	37.20%	26.90%	10.30p.p.
Financial Debt / EBITDA	4.25x	6.46x	-2.21x

Companies from NACE 56			18
	2022	2019	Δ 2019 /2022
Equity to assets ratio	28.65%	27.33%	1.33p.p.
Financial Leverage	52.39%	51.71%	0.69p.p.
Current Ratio	126.91%	108.14%	18.77p.p.
EBITDA margin	9.95%	9.22%	0.73p.p.
Financial Debt / EBITDA	2.44x	2.21x	0.23x

Despite the positive performance of the NACE codes under analysis between 2019 and 2022, a significant reduction in the number of resilient entities was observed in both during this period. Specifically, in NACE 55, only 38.93% of companies maintained their resilient status in 2022, while in NACE 56, this decline was even more pronounced, with only 23.56% of companies achieving resilient status in 2022. This trend is largely attributed to the negative impact of the COVID-19 pandemic, as many entities experienced negative results due to restrictions on both domestic and international movement. Some entities even closed their facilities temporarily, with some undertaking renovation projects.

Finally, it is worth noting that in 2022, 342 companies became classified as resilient, with 55.85% of these entities belonging to NACE 56.

As in section H, an impact by Covid-19 pandemics was observed in a greater magnitude, since the decrease in the companies that were resilient from 2016 to 2019 and 2019 to 2022 was around 40p.p. (from 68.27% to 28.28%).

4. Conclusion

Through the study that we conducted on the two most impacted sectors by the COVID-19 pandemic, based on the financial statements of the companies (the primary source of information of this study) it can be observed that there was a significant decline in the number of resilient companies between 2019 and 2022 (Section H: 49.54% reduction, and Section I: 71.72% reduction). It can also be noted the decline of the proportion of companies that kept its resilience status in the two samples considered. This situation was exacerbated by the years 2020 and 2021, as a significant portion of these entities operated under furlough schemes and, in some cases, temporarily ceased operations, leading to negative results. Nonetheless, it is important to highlight that with the easing of restrictions on the movement of people in 2022, there was an increase in tourist inflows into the country. Coupling this with high inflation, which was largely passed on to the end consumer, this resulted in an increase in operational activity for companies within these two sectors, allowing them to generally recover the levels observed in 2019.

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HOW RESILIENT COMPANIES NAVIGATED THROUGH COVID-19 PANDEMICS

WORKSHOP ON "NEW INSIGHTS FROM FINANCIAL STATEMENTS"

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Introduction| **Scope of the study**

- Primary goal: Analyze how resilient companies reacted to the Covid-19 pandemics shock
- Main source: Financial statements, since they are critical components for economic and financial analysis, providing insights into a company's performance and financial health
- Sections analyzed: The two most affected sectors in Portuguese economy "Transportation and Storage" and "Accommodation and Food Service Activities"

Dataset| **Definition**

- **Primary source**: Annex A of the Simplified Corporate Information (IES)

- **Dataset timespan**
  - **Main dataset:** From 2015 to 2022
  - **Second dataset:** From 2012 to 2019

- **Companies included:** Non-financial corporations (S11), with financial statements available for each year in each dataset

- **Rationale:** This period provides a comprehensive overview of the companies' financial health prior to the pandemic, which is essential for assessing their resilience according to the defined criteria

Methodology| **Resilience**

Ratios

- Equity to assets ratio = $\frac{Equity}{Total\ Assets}$
- Financial Leverage = $\frac{Financial\ Debt}{Financial\ Debt+Equity}$
- Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$
- EBITDA margin = $\frac{EBITDA}{Revenue}$
- Financial Debt / EBITDA

Resilience Criteria

- Last two years of each dataset, company must have a **positive EBITDA**. Additionally, at least in one of the other three years of each dataset one more positive EBITDA must be recorded;
- In each year a **positive score will be assigned if a company presents all of its ratios equal or above the weighted average of the sector** in which it operates and:
    - **Current ratio** must be higher than 100%;
    - Entities that have **financial debt 0**, will be considered as being above the sector in the ratios in which this variable is used.

Methodology

If a company presents a **positive score in the last two years of each dataset and one more on the other three years** considered and fulfil the EBITDA criteria the company is considered resilient.

Main results| **General Overview**

Evolution of all companies in Section H

Transportation and Storage			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	27.11%	23.27%	3.84p.p.
Financial Leverage	58.41%	67.55%	-9.15p.p.
Current Ratio	123.41%	137.74%	-14.33p.p.
EBITDA margin	17.92%	16.53%	1.39p.p.
Financial Debt / EBITDA	3.14x	4.50x	-1.37x

- **Strengthened position** in 2022 when compared to 2019
- **Liquidity levels are the exception**, although remain above 100%

Evolution of all companies in Section I

Accommodation and Food Service Activities			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	38.63%	35.60%	3.03p.p.
Financial Leverage	51.13%	54.56%	-3.43p.p.
Current Ratio	113.21%	100.18%	13.03p.p.
EBITDA margin	37.20%	26.90%	10.30p.p.
Financial Debt / EBITDA	4.25x	6.46x	-2.21x

- **Strengthened position** in 2022 when compared to 2019
- **EBITDA margin** is particularly noteworthy, primarily due to operational factors. Since the mid of the first quarter of 2022, the easing of restrictions allowed Portugal to welcome tourists again, which significantly boosted the sector's performance

Main results | **Main subsectors of activity section H**

Occasional passenger transport in light vehicles			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	40.27%	57.70%	-17.43p.p.
Financial Leverage	40.85%	25.00%	15.85p.p.
Current Ratio	272.85%	321.62%	-48.77p.p.
EBITDA margin	10.24%	11.36%	-1.12p.p.
Financial Debt / EBITDA	3.31x	2.45x	0.86x

Road freight transport			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	39.19%	39.30%	-0.11p.p.
Financial Leverage	41.71%	41.29%	0.42p.p.
Current Ratio	156.52%	153.23%	3.29p.p.
EBITDA margin	9.54%	8.53%	1.01p.p.
Financial Debt / EBITDA	2.30x	2.51x	-0.21x

- **More robust indicators** in 2019 compared to Road freight transport subsector
- **Covid-19 negatively affected this subsector**, not being able to **recover the 2019 levels in 2022**

- **Subsection less affected by Covid-19,** since it continued its operations with **fewer restrictions** and due to the **significant growth in online commerce**
- **No material changes observed** between the periods considered

Main results| **Resilient companies 2019**

Transportation and Storage			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	69.90%	70.49%	-0.59p.p.
Financial Leverage	15.27%	14.34%	0.93p.p.
Current Ratio	382.41%	419.14%	-36.73p.p.
EBITDA margin	35.44%	37.84%	-2.40p.p.
Financial Debt / EBITDA	0.72x	0.65x	-0.07x

Accommodation and Food Service Activities			
	2022	2019	Δ 2019 /2022
Equity to assets ratio	68.33%	72.01%	-3.68p.p.
Financial Leverage	20.54%	16.00%	4.53p.p.
Current Ratio	292.11%	306.99%	-14.89p.p.
EBITDA margin	29.15%	30.11%	-0.96p.p.
Financial Debt / EBITDA	1.12x	0.80x	0.32x

- **Slightly deterioration** observed across the majority of the ratios considered
- **Evolution was softened** by the companies that remained **resilient in both periods,** since they **strengthened** its position **across all metrics** between 2019 and 2022

- A **decline** can also be observed **in all the key metrics between 2019 and 2022**
- The companies that remained **resilient in both periods, kept its ratios in line** in 2019 and 2022

Main results | **Resilient companies**

Evolution of resilient companies in Transportation and Storage sector

		2019 Resilient	2019 Non-Resilient	Total
2016	Resilient	1,774	1,369	3,143
	Non-resilient	980	10,036	11,016
	Total	2,754	11,405	14,159

		2022 Resilient	2022 Non-Resilient	Total
2019	Resilient	1,575	1,546	3,121
	Non-resilient	821	10,500	11,321
	Total	2,396	12,046	14,442

Evolution of resilient companies in Accommodation and Food Service Activities

		2019 Resilient	2019 Non-Resilient	Total
2016	Resilient	1,493	694	2,187
	Non-resilient	1,265	20,029	21,294
	Total	2,758	20,723	23,481

		2022 Resilient	2022 Non-Resilient	Total
2019	Resilient	1,048	2,658	3,706
	Non-resilient	342	22,902	23,244
	Total	1,390	25,560	26,950

- In transportation and storage, the **proportion of companies that kept its resilience status** in both periods for the two samples **decrease around 6 p.p.** (from 56.44% to 50.46%)
- In accommodation and food service the **proportion of companies that kept its resilience status** in both periods for the two samples **decrease around 40 p.p.** (from 68.27% to 28.28%)
- **Covid-19 pandemics impacted Portuguese non-financial companies' resilience**

Conclusions

Did the COVID-19 pandemic impacted companies' performance?

- **Significant decrease in resilient companies** in the two most impacted sectors by the COVID-19 pandemic between 2019 and 2022 (Transportation and storage: - 49.54%, and Accommodation and food service activities: - 71.72%

- **Decline of the proportion of companies that kept its resilience status in the two samples considered**. This situation was exacerbated by the years 2020 and 2021, since a significant portion of these entities operated recurred to layoff programs and, in some cases, temporarily ceased operations, leading to negative results

- **Recovery in 2022 of the levels observed in 2019**: with the easing of restrictions on the movement of people in 2022, there was an increase in tourist inflows into the country. Coupling this with high inflation, which was largely passed on to the end consumer, this resulted in an increase in operational activity for companies within these two sectors