

ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

Bachelor Thesis [International Bachelor Economics and Business Economics]

“The effect of the COVID-19-related subsidies on SMEs liquidity across economic sectors, between April 2020 and January 2022.”

Name student: Jakub Ujma

Student ID number: 539641

Supervisor: Pilar Garcia-Gomez

Second assessor: Max Coveney

Date final version: 17.08.2022

The views stated in this thesis are those of the author and not necessarily those of the supervisor, second assessor, Erasmus School of Economics or Erasmus University Rotterdam.

## Table of contents

Table of contents.....	2
Abstract .....	3
Introduction.....	3
Literature review .....	4
The financial struggle during COVID – 19:.....	4
Subsidies – what do we know and how to address them correctly? .....	5
Firm characteristics affecting performance in uncertain times .....	6
Cross-country differences .....	7
Hypotheses:.....	9
Methodology .....	9
Data source.....	9
Sample restriction .....	9
Dependent and independent variables.....	10
Descriptive statistics .....	11
Method.....	14
Results .....	15
Conclusions and discussion .....	18
Limitations of the study.....	20
Policy advice .....	20
References:.....	22
Appendix.....	26

## Abstract

This thesis aims to estimate the short-term effect that COVID-19-related subsidies had on firms' performance. The data used in this paper were supplied by the World Bank Group and retrieved from World Bank Enterprise Surveys (WBES) portal. I analyze a merged dataset of 3 separate surveys conducted in Austria, France, and Spain. The subsidies' effects on firms' performance were estimated using seven different probit regression models for which firm-specific information was controlled. Results do not suggest any positive impact regardless of subsidy type; however, their effectiveness differed per economic sector. On top of that, I found evidence that during the analysed period firms' performance depended on the country they operated in.

## Introduction

The COVID-19 outbreak shocked the whole world in 2020. In just a couple of weeks, it led to massive closures, bankruptcies, and firings in the U.S. (Bartik, Bertrand, Cullen, Glaeser, Luca, & Stanton, 2020). It also caused global GDP and trade to deteriorate drastically that year (Chetty, Friedman, Hendren, & Stepner, 2020, p.3). On top of that, temporary border closures slowed the transportation of goods and made it more restricted. Even though in 2021, the economy grew again, the consequences of the crisis are still severe and visible in the financial structures of firms (OECD, 2022, p.21).

Over the last two and a half years, demand for goods has fallen worldwide, decreasing firms' performance. New regulations imposed by the governments, such as social distancing, curfew, and mandatory face coverage, negatively influenced the market activity of most customers. Such a state worsened the economic situation – especially for small enterprises, which are often dependent only on a small client base (OECD, 2021, p.7).

This paper tests whether the government's support was enough to upkeep firms' performance on the pre-pandemic level and checks whether the subsidies significantly helped the entrepreneurs. At the same time, it accounts for firm-specific characteristics that were indicated by scholars as essential for financial resilience past economic downturns. Moreover, this thesis explores the effects of direct cash transfers, access to new credit, payments deferral, fiscal exemptions, and wage subsidies on companies in sectors of manufacturing, wholesale and retail, gastronomy, services, and construction.

Research in this area is an excellent tool for governments and policymakers. It facilitates the identification of the most efficient ways to keep the economy in a good state and avoid GDP contraction. Analysis from this paper aims to improve the current financing scheme or be a foundation for a more effective one. I used data from the World Bank Enterprise Surveys (WBES) conducted in three countries with similar economic backgrounds and financing possibilities - Spain, France, and Austria. These countries also have the same currency and belong to the European Union (E.U.). At the time of data extraction, those were the only E.U. countries for which the most current data (from 2021) was available.

## Literature review

### The financial struggle during COVID – 19:

Since the beginning of the crisis, all companies have been operating under increased risk and uncertainty. According to the 22<sup>nd</sup> Survey on the Access to Finance of Enterprises (SAFE) conducted between October 2019 and March 2020 firm's liquidity and expectations about future access to finance were the most affected in that period (European Central Bank, 2020). For the first time in six years, an average SME enterprise in the euro area reported a decrease in both – turnover and profitability. According to the European Central Bank (2020), the degree of a company's concerns about its survival and access to finance strongly depended on the virus's stage of development in a country.

The health-related measures undertaken against the virus constrained customers to necessary goods, and market activity decreased substantially (Juergensen, Guimón, & Narula, 2020). Moreover, supply chains were interrupted, and the working conditions in most companies changed drastically (Shafi, Liu & Ren, 2020). Knowing that financial planning, control, and stability improve company's performance (Thornhill & Amit, 2003), it is no surprise that the financial results of SMEs worsened significantly during such an extreme and adverse shock. Pal, Torstensson, and Mattila (2014) and Rico, Pandit, and Puig (2021) support this statement. They found that in times of crisis, debt reduction, stable cash flow combined with financial reserves, play a significant role in the firms' resilience.

Eggers (2020) claims that during crises, SMEs are at the center of adverse effects and their finances are the most vulnerable due to the liability of smallness and newness (Freeman, Carroll, & Hannan, 1983). The adverse selection makes it difficult for banks to assess the

current financial stability of the company, forcing the crediting institutions to tighten the conditions or ask for a higher collateral. Such actions automatically affect SMEs' poorly diversified financial portfolios and make it challenging for them to cover current expenses (Piette & Zachary, 2015). Moreover, Williams, and Schaefer (2013) point out that SMEs are extraordinarily dependent on patrons and regular customers, so sometimes losing just one client can decide about firm's bankruptcy. Thus, small companies are currently in the biggest need of financial help (Shafi et al., 2020; Eggers, 2020).

At the same time, SMEs constitute more than 95% of firms in all European countries, pose a backbone of its economy, and are responsible for creation of more jobs than large enterprises (De Kok, Vroonhof, Verhoeven, Timmermans, Kwaak, Snijders, & Westhof, 2011). Hud and Hussinger (2015) underline their importance and claim that even a temporary stagnation might bring long-term consequences, which are difficult to reverse even in the long run.

According to Shafi et al. (2020), in Pakistan, 83% of the companies did not have any plan regarding how to handle the sudden strike of the COVID-19. Moreover, due to the changes provoked by the pandemic, some most vulnerable sectors like gastronomy or tourism declared that they would find it challenging to survive more than four months without external financing (Bartik et al., 2020; Shafi et al., 2020). It was primarily due to their limited accumulated funds and insecurity about future access to finance.

The early stage of the pandemic was hectic and brought more uncertainties than later periods (European Central Bank, 2020). European Central Bank (2021), in the results of the 25<sup>th</sup> SAFE survey (conducted almost a year and a half after the 22<sup>nd</sup>), suggest that concerns about access to finance decreased to the pre-pandemic levels in most countries. This decrease is consistent with the OECD (2022, p.25) report – that many countries relaxed credit conditions and decreased collateral requirements in response to the government's actions such as credit guarantees or low-interest credits.

#### [Subsidies – what do we know and how to address them correctly?](#)

Hud and Hussinger (2015) found that in general research and development (R&D) subsidies foster innovation, lead to sustainable economic growth in the long term, as well as prevent stagnation in the short term. However, when companies focus primarily on survival, a

"crowding out" effect of the R&D subsidies was observed. Their findings from the 2008 crisis suggest that subsidies should be addressed in a straightforward yet controlled way, and their purpose should be to keep the liquidity and employment at pre-crisis levels. According to Juergensen et al. (2020), during COVID – 19, policymakers successfully identified SMEs as the most vulnerable companies in the economy and focused more on their financial health than in 2008.

In the early stage of current pandemic, Golubeva (2021) ran a short-term analysis and found no evidence supporting positive effect of subsidies on the probability of experiencing financial oppression. However, this might be because not all grants had been put in place yet or not enough time had passed to see the first effects.

The economic impact of COVID-19 is likely to differ across sectors and sizes of enterprises (Pedauga, 2022; Romero-Jordán, Delgado-Rodríguez, Alvarez-Ayuso, & de Lucas-Santos, 2014). That is why some researchers focus only on one industry and identify the economic factors influencing performance in a narrower scope. Juergensen et al. (2020) analyze the manufacturing sector and claim that the government's measures should adjust to different SME types, client bases, and company needs instead of one aggregate scheme for all firms. In the retail sector analysis by Bartik et al. (2020) authors find that straightforward eligibility criteria for all sorts of helps positively affect firm's resilience. Establishing clear subsidy conditions and identifying companies that need it the most is key to avoid the situation from 2008, when the most prospective and innovative firms struggled the most with obtaining the access to funds (Lee, Sameen, & Cowling, 2015).

Finally, Kraus, Clauss, Breier, Gast, Zardini, and Tiberius (2020) and Juergensen et al. (2020) argue that future policies should promote sustainable growth and long-term resilience as it would be more effective than solely covering the current needs.

#### [Firm characteristics affecting performance in uncertain times](#)

Golubeva (2021) has already studied the effect of COVID – 19 subsidies on performance. She found that size, sector, and exporting activity influence performance significantly. Bartik et al. (2020) also underline the relevance of the company size. He found that firms with 100 and more employees are more confident about their survival and, at the same time, expect the crisis to last longer.

The age of the company appears to be equally important. The liability of newness and lack of experience may be decisive when it comes to survival under difficult circumstances (Eggers, 2020). On the other hand, Thornhill and Amit (2003) claim that it depends on the sector in which the company operates, whether old or young firms perform better. Young ones sometimes adapt more quickly to the new status quo, whereas older ones already have a high reputation, experience, and broader client base. Authors claim that the older firms usually suffer more in the retail and wholesale industries. In the accommodation and gastronomy services, it is usually the younger ones.

Moreover, the European Central Bank (2020) survey suggests that unskilled labor constituted a big problem for many firms. This claim is consistent with the view of Sumedrea (2013) that having a highly skilled workforce, being open-minded, and thinking “outside of the box” positively influences performance during the crisis through increased creativeness and rapid adjustments. Overall, more innovative, proactive firms, which also have more accumulated knowledge perform better (Eggers, 2020).

Firm ownership also affects financial performance. Kraus et al. (2020) found that family firms usually have closer relations with employees and stakeholders, making them more reliable and trustworthy. At the same time, they are long-term oriented, hoping to pass the company on to the next generations. The family financial support is a precious benefit when finance is scarce. It is observed especially useful in micro- and small- enterprises with smaller operating costs. On top of that, D'Aurizio, Oliviero, and Romano (2015) found that even partial family ownership mitigates agency costs when borrowing money from banks.

Bartik et al. (2020) show evidence that most entrepreneurs would choose equity before additional debt, as it does not require paying the interest. Moreover, Kraus et al. (2020) claim that during the early stage of the COVID-19, firms relied on the subsidies and started reducing personnel costs by firing or laying people off instead of using other financing sources.

### [Cross-country differences](#)

Table 1A in the appendix presents a cross-country overview of the most critical subsidies, their timing, and targets in Austria, Spain, and France. In all analyzed countries the first recovery plans were proposed and implemented in April 2020. Subsidies were paid out as

one time transfer or on a continuous basis. The main difference across countries was that sometimes the subsidies were granted conditionally on a decrease in the company's turnover (grants in France), and others on a revenue loss (grants in Austria). These differences could have resulted in addressing a different group of receivers and contribute to cross-country differences in the effectiveness of these measures.

Moreover, Table 1A shows that sectors hit the most by the pandemic (like culture-, leisure-, and motorization-related firms) received additional support. Governments proposed credit guarantee programs to ease the concerns about finance accessibility in all studied countries. On top of that, each country provided wage subsidies to avoid massive layoffs and high unemployment rates.

**Table 1**

*Cross-country comparison of most important measures affecting firms' performance during pandemic and structure of SME market.*

	Cumulative excess mortality	restrictions stringency	Number of all companies	50 – 249 emp.	20 - 49 emp.	10 – 19 emp.	0 – 9 emp.	fiscal help
	Per million citizens	The ratio of lockdown measures	In millions in 2019	% Of all companies by size in 2019				% Of 2019 GDP
SPAIN	2085	60.18	2,692	0.62%	1.75%	3.29%	94.20%	7.4%
FRANCE	1235	64.44	2,968	0.69%	1.53%	2.95%	94.67%	8%
AUSTRIA	1679	63.20	0,331	1.62%	3.73%	7.06%	87.22%	12.6%

*Note.* Hale et al. (2022) provide the original measure of the stringency index, which is available for each day between 01.04-2020 and 31.01-2022. The regulations stringency presented in Table 1 is an average of these daily measures. The methodology of the stringency index is also provided by Hale et al. (2022). The amount of financial help provided by the government was retrieved from the International Monetary Fund (IMF) website (International Monetary Fund, 2021). The company size distribution and the total number of companies were obtained from the Eurostat database (Eurostat, 2019). Finally, the excess mortality information was retrieved from the Our World in Data website (Our World in Data, 2022) and accounts for the same period as restrictions stringency.

Table 1 presents information about the structure of the SME sector. Austria has fewer companies hiring nine or fewer workers than Spain and France. Moreover, it has allocated 4.6 percentage points more of their GDP to fight the effects of the pandemic, implementing the biggest recovery package in Europe (International Monetary Fund, 2021) when measured in percent of the GDP. The packages, directly and indirectly, influenced companies' liquidity. The businesses receive funds transfers, and the reduction of payroll taxes improves the financial situation of individuals and positively impacts the market activity. Despite the highest expenditures, Austria had a higher excess mortality ratio per



million citizens than France. All in all, Spain lands last in all criteria mentioned in this paragraph. This suggests that companies operating there might have been in a more challenging financial situation than firms operating elsewhere.

#### Hypotheses:

Based on the literature review and cross-country differences, I propose the following hypotheses:

*H<sub>1</sub>: The government's financial help decreases the probability of a firm's liquidity (or cash flow) deterioration.*

*H<sub>2</sub>: The effectiveness of subsidies differs per subsidy type.*

*H<sub>3</sub>: The effectiveness of different subsidy types varies per sector.*

*H<sub>4</sub>: There are cross-country differences in firms' performance during the crisis.*

## Methodology

### Data source

COVID-19 pandemic is a recent topic; thus, short-term data is used in this analysis. This thesis uses data retrieved from the World Bank Enterprise Survey (WBES) repository. Respondents of this survey establish a representative sample of the private sector, consisting of all enterprise sizes with oversampling firms with more than 100 employees. The data is cross-sectional and was collected continuously between 12.2019 and 01.2022.

The used dataset is a merge of 3 separate datasets from Austria, Spain, and France. Countries were chosen based on similarities like European Union membership, a developed economy, the same currency, and data availability. Other authors have already used this dataset in research about innovativeness (Morris, 2018), corruption (Barth, Lin C., Lin P., and Song, 2009), and cross-country analysis of firms' performance (Golubeva, 2021).

### Sample restriction

After merging the datasets, the sample consisted of 3027 firm-level observations. Subsequently, I restricted the sample by eliminating enterprises in which the responder did not know the answer to a question<sup>1</sup> or when the question did not apply to the company. Moreover, the interviews before 04.2020 were not considered in the sample because COVID-19-related subsidies were unavailable before this date (Table 1A, column 2). On top

---

<sup>1</sup> Only to questions which were important for the analysis.

of that, all regressions adopt the European Commission’s definition of SMEs - total turnover of a company does not exceed 50 million euros, and the number of employees is not greater than 250 (European Union Commission, 2003). Finally, all outliers were eliminated from the sample.

It resulted in the sample of 2349 observations; however, it was only analyzed in the first regression. In the following ones, only companies which received at least one subsidy were included, which resulted in 1443 observations being in the sample.

### Dependent and independent variables

All information about dependent, independent, and control variables included in the regressions is available in Table 2.

**Table 2**

Description of all variables used to estimate the effect of subsidies on liquidity and cash flow change.

VARIABLE	DESCRIPTION
<b>Dependent variable:</b>	
LIQUIDITY or CASH FLOW decrease	The dummy variable takes value of 1 if the liquidity or cash flow decreased between the time of the interview and the start of COVID-19 and 0 if it stayed the same or increased.
<b>Independent variables:</b>	
<b>Variables of main interest:</b>	
ANY HELP	The dummy variable checks whether the establishment received any COVID – 19-related help from the government between the beginning of the pandemic and the time of conducting the interview. If it did, the variable takes a value of 1; if not, it takes a value of 0. The companies which answered that they were about to receive help within the next three months were assigned to a group that did not receive the donation to confine the dependent variable to a binary form.
SPECIFIC COVID SUBSIDIES (Cash transfers for businesses, Deferral of credit payments, Access to new credit, Fiscal Exemptions or reductions, Wage subsidies)	5 different dummy variables. Each of them separately controls whether the establishment received: cash transfers for businesses, deferral of credit payments, access to new credit, fiscal exemptions or reductions, or wage subsidies. If it did, the variable takes the value of 1; if not, it takes the value of 0.
<b>Firm-specific factors:</b>	
SIZE	The logarithm of the company's size. Size is measured in the number of employees.
AGE	The logarithm of the company's age. Age is calculated as the year of the interview minus the year when the company began operations.
EXPORTER	Dummy variable. It takes the value of 1 if the firm's direct exports are at least 10% of all sales and equals 0 otherwise.
FAMILY FIRM	Dummy variable. A family firm takes the value of 1 if the family owns at least 90% of the company and constitutes at least 50% of key management positions.

VARIABLE	DESCRIPTION
REGION	Dummy variables control the region where the establishment operates – Austria, France, or Spain. If it does operate there, the variable takes the value of 1 and 0 otherwise.
SECTOR	Dummy variables of the sectors: manufacturing, retail and wholesale, services, construction, hotels, and restaurants. If the company belongs to the sector, the dummy takes the value of 1 and 0 otherwise.
<b>Financial aspect:</b>	
FINANCIAL BUFFER	The logarithm of the number of weeks this establishment could survive if the sales stopped today.
<b>COVID-19-related problems:</b>	
OBSTACLE - uneducated workforce	The survey participants primarily assessed how severely they were affected by the uneducated workforce problem on a scale from 0 to 4. Subsequently, I manually split it into three dummy variables: 1) no obstacle or a minor obstacle (interviewed answered 0 or 1) 2) medium obstacle (interviewed answered 2) 3) severe obstacles (interviewed answer 3 or 4)
WEEKS CLOSED	The logarithm of the number of weeks the establishment has been closed. Closure might have been due to the COVID – 19 measures or a cost-cutting tactic.
PERIOD	Two dummies control for the timing of the survey. The first one takes the value of 1 if the interview was conducted between 04.2020 – 03.2021, and the second takes the value of 1 between 04.2021 – 01.2022.

## Descriptive statistics

**Table 3**

*Descriptive statistics of all variables included in the regressions*

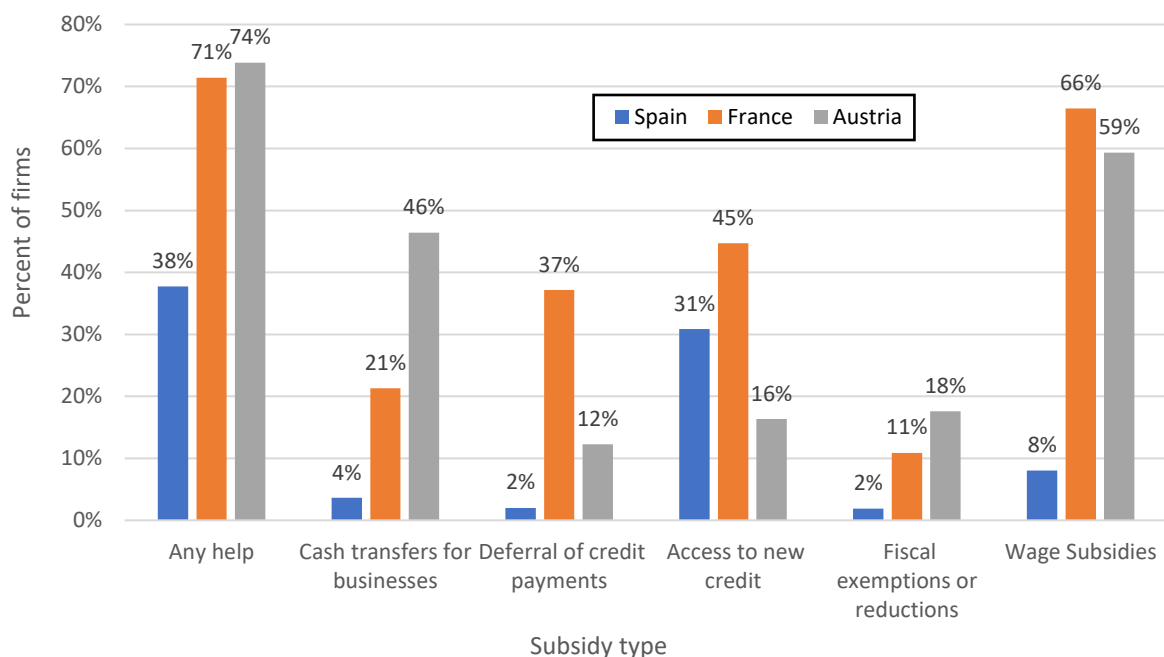
Variable	Obs	Mean	Std. Dev.	Min	Max
Decrease in liquidity or cash flow	2349	.387		0	1
Any help	2349	.614		0	1
Cash transfer	2349	.209		0	1
Deferral of payments	2349	.210		0	1
Access to credit	2349	.343		0	1
Fiscal exemptions	2349	.094		0	1
Wage subsidies	2349	.466		0	1
<i>Sector</i>					
Manufacturing	2349	.532		0	1
Retail and wholesale	2349	.167		0	1
Construction	2349	.075		0	1
Hotel or restaurant	2349	.081		0	1
Services	2349	.144		0	1
<i>Region</i>					
France	2349	.476		0	1
Austria	2349	.208		0	1
Spain	2349	.316		0	1
Family firm	2349	.490		0	1
Age (log)	2349	3.193	.741	0	4.595

Variable	Obs	Mean	Std. Dev.	Min	Max
Size (log)	2349	3.008	1.035	1.609	5.521
Exporter	2349	.302		0	1
Financial buffer (log)	2349	2.178	.939	0	6.254
Weeks closed (log)	2349	.762	1.025	0	4.174
<i>Obstacle uneducated workforce</i>					
No	2349	.394		0	1
Medium	2349	.230		0	1
Severe	2349	.376		0	1
Period 04.2020 – 03.2021	2349	.467		0	1
Period 04.2021 – 01.2022	2349	.533		0	1

Table 3 shows the descriptive statistic of all variables. It includes maximum and minimum values, standard deviation, mean, and the number of observations. In the table, we can see that 61% of surveyed enterprises received some type of COVID – 19-related subsidy. The most popular type of help was wage subsidies, and that more than half of the companies from the sample operate in the manufacturing sector.

**Figure 1**

*Percentage of companies that received a specific type of help per country.*



*Note.* Figure 1 presents a more detailed view of how subsidies are distributed in analyzed countries. It also compares quantities of subsidy types used in Spain, France, and Austria.

According to Figure 1 wage subsidies were the most popular mechanism for companies in France and Austria, whereas, in Spain, it was access to new credit. In Austria, almost 50% of companies that received any help, received direct cash transfers to business - over two times more than in France. There, entrepreneurs were supported through deferral of credit and access to new credit.

This graph also illustrates the cross-country differences discussed in the literature review. We see that entrepreneurs in Spain were probably more exposed to the negative effects of the pandemic, as the number of firms that received help in the sample is almost two times lower than in other countries. Moreover, most Spanish companies received only one sort of financial endowment – access to credit. Cash transfers, deferral of payments, fiscal exemptions, and wage subsidies were received by less than 10% of the Spanish companies.

**Table 4**

*Subsidies distribution across countries and company sizes.*

Country	Size	Any help	Cash transfers for businesses	Deferral of credit payments, rent, or mortgage	Access to new credit	Fiscal exemptions or reductions	Wage Subsidies	Sum
Spain	Micro	38%	21%	8%	67%	8%	17%	1,21
	Small	37%	3%	5%	88%	7%	22%	1,25
	Large	38%	9%	4%	84%	3%	23%	1,23
France	Micro	73%	47%	48%	63%	16%	92%	2,66
	Small	67%	18%	59%	65%	14%	95%	2,51
	Large	73%	28%	49%	60%	16%	92%	2,45
Austria	Micro	71%	77%	21%	20%	29%	72%	2,19
	Small	72%	45%	10%	21%	11%	84%	1,71
	Large	77%	58%	16%	25%	24%	86%	2,09

*Note.* Size specification is under the definition provided by the European Union Commission (2003)<sup>2</sup>. The first column shows the ratio of companies receiving help to all companies in the sample. In the following ones, the ratio equals companies receiving a specific type of help over companies that received any benefit at all. Finally, the last column sums up the five previous ones and then is divided by 100% to present how many subsidies an average company received if it was eligible for any.

<sup>2</sup> Micro enterprises are ones that have less than 10 employees and less than 2 million euros of turnover. Small ones employ less than 50 workers and turnover does not exceed 10 million euro. Finally, the large ones hire less than 250 employees, and their turnover is less than 50 million euro.

Table 4 looks in more detail at the distribution of financial help across micro, small, and large enterprises. In Spain, all company sizes received a similar amount of support per company. Conversely, micro-enterprises received more subsidies in France and Austria than small and large ones. Unfortunately, the dataset is only limited to the dummy information, whether the facility received help or not, so the differences in monetary terms cannot be identified.

Overall, micro-enterprises were the main beneficiary of the cash transfers to businesses, whereas access to finance and wage subsidies were distributed more by small and large firms.

### Method

I run the analysis with a series of probit models. Probit regression predicts the probability of the dependent, binary variable falling into one of the two possible outcomes. It does so based on the predictors.

$$(1) \text{ liquidity decrease} = \begin{cases} 0 & \text{if liquidity rose or stayed the same} \\ 1 & \text{if liquidity decreased} \end{cases}$$

In this case the dependent variable is described in (1) and predictors are all independent variables mentioned in the right-hand side of the equations (2), (3), and (4), that were used in the analysis. The emboldened parts are the differences between them. In the notation  $e$  is a normally distributed error term and  $\alpha$  is a constant.

To study the effect of the government support on liquidity, the following probit model was used:

$$\begin{aligned} (2) P(\text{liquidity or cash flow decrease} = 1) & \\ &= F(\alpha + \beta_1(\text{receiving any help}) + \beta_2(\text{sector}) + \beta_3(\text{region}) \\ &+ \beta_4(\text{family firm}) + \beta_5(\text{age}) + \beta_6(\text{size}) + \beta_7(\text{exporter}) \\ &+ \beta_8(\text{financial buffer}) + \beta_9(\text{weeks closed due to COVID - 19}) \\ &+ \beta_{10}(\text{uneducated workforce}) \\ &+ \beta_{10}(\text{interviewed between 04.2020 and 03.2021}) + e) \end{aligned}$$

Secondly, to check the differences in effectiveness of subsidies (cash transfers for businesses, deferral of credit payments, access to new credit, fiscal exemptions/reductions, and wage subsidies), I used regression (3):

(3)  $P(\text{liquidity or cash flow decrease} = 1)$

$$\begin{aligned}
 &= F(\alpha + \beta_1(\text{cash transfers}) + \beta_2(\text{Deferrals of payments}) \\
 &+ \beta_3(\text{access to new credit}) \\
 &+ \beta_4(\text{fiscal exceptions or reductions}) + \beta_5(\text{wage subsidies}) \\
 &+ \beta_6(\text{sector}) + \beta_7(\text{region}) + \beta_8(\text{family firm}) + \beta_9(\text{age}) + \beta_{10}(\text{size}) \\
 &+ \beta_{11}(\text{exporter}) + \beta_{12}(\text{financial buffer}) \\
 &+ \beta_{13}(\text{weeks closed due to COVID - 19}) + \beta_{14}(\text{uneducated workforce}) \\
 &+ \beta_{15}(\text{interviewed between 04.2020 and 03.2021}) + e)
 \end{aligned}$$

Finally, regression (4) helped to estimate the effect of each subsidy type on firms' performance across economic sectors. It includes interaction terms effect between subsidy type and sectors, which allowed understanding these relations. Moreover, for each subsidy type it was run separately, which can be seen in the Table 5, columns 3 to 7.

(4)  $P(\text{liquidity or cash flow decrease} = 1)$

$$\begin{aligned}
 &= F(\alpha + \beta_1(\text{receiving a specific subsidy}) * (\text{sector}) + \beta_3(\text{region}) \\
 &+ \beta_4(\text{family firm}) + \beta_5(\text{age}) + \beta_6(\text{size}) + \beta_7(\text{exporter}) \\
 &+ \beta_8(\text{financial buffer}) + \beta_9(\text{weeks closed due to COVID - 19}) \\
 &+ \beta_{10}(\text{uneducated workforce}) \\
 &+ \beta_{10}(\text{interviewed between 04.2020 and 03.2021}) + e)
 \end{aligned}$$

A coefficient of a predictor changes the z-score, through which the probability of dependent variable taking value 1 can be established. Positive coefficient increases the likelihood of liquidity decreasing by its value, whereas a negative coefficient does the contrary. The marginal effect of variables on liquidity is not always equal, because probit is a non-linear function.

STATA 16.1 software was used to compute the analysis.

## Results

**Table 5**

*Probit regression results and coefficients of all predictors of the dependent variable – liquidity decrease.*

VARIABLES / TITLE	Effect of subsidy	Effects of specific subsidies	cash transfers	deferrals of payments	access to new credit	fiscal exemptions / reductions	wage subsidies
The dependent variable is always a dummy – A decrease in liquidity							
No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Any help	0.41*** (0.06)						
Cash transfers		0.11 (0.08)	0.15 (0.12)				
Deferrals of payments		-0.07 (0.09)		0.10 (0.11)			
Access to new credit		0.23*** (0.08)			0.14 (0.10)		
Fiscal exemptions/reductions		0.07 (0.10)				0.13 (0.17)	
Wage subsidies		0.17 (0.11)					0.22 (0.14)
Subsidy from the regression title*retail and wholesale			-0.12 (0.21)	-0.16 (0.23)	0.06 (0.20)	-0.11 (0.30)	-0.45** (0.22)
Subsidy from the regression title *Construction			-0.51* (0.29)	0.02 (0.27)	0.31 (0.27)	-0.35 (0.48)	0.13 (0.34)
Subsidy from the regression title *hotel/restaurant			-0.25 (0.27)	-0.41* (0.24)	0.12 (0.23)	0.09 (0.27)	0.33 (0.34)
Subsidy from the regression title *services			0.31 (0.23)	-0.11 (0.21)	0.17 (0.20)	-0.22 (0.32)	-0.23 (0.26)
Retail and wholesale	-0.15* (0.08)	-0.10 (0.11)	-0.08 (0.13)	-0.06 (0.12)	-0.14 (0.15)	-0.10 (0.11)	0.20 (0.19)
Construction	-0.33*** (0.12)	-0.23* (0.14)	-0.11 (0.16)	-0.26 (0.17)	-0.42** (0.21)	-0.22 (0.14)	-0.37 (0.31)
Hotel or restaurant	0.45*** (0.13)	0.58*** (0.14)	0.73*** (0.23)	0.80*** (0.18)	0.54*** (0.19)	0.51*** (0.17)	0.29 (0.33)
Services	0.04 (0.08)	0.07 (0.11)	-0.03 (0.12)	0.10 (0.13)	-0.03 (0.12)	0.09 (0.11)	0.24 (0.24)
France	-0.32*** (0.07)	-0.48*** (0.13)	-0.42*** (0.10)	-0.42*** (0.10)	-0.38*** (0.10)	-0.41*** (0.09)	-0.51*** (0.13)
Austria	-0.41*** (0.09)	-0.43*** (0.14)	-0.46*** (0.12)	-0.43*** (0.12)	-0.28** (0.12)	-0.42*** (0.12)	-0.47*** (0.14)
Family firm	0.12** (0.06)	0.10 (0.07)	0.10 (0.07)	0.10 (0.07)	0.10 (0.07)	0.11 (0.07)	0.12 (0.07)
Age	-0.07* (0.04)	-0.09* (0.05)	-0.09* (0.05)	-0.09* (0.05)	-0.08* (0.05)	-0.09* (0.05)	-0.08* (0.05)
Size	-0.11*** (0.03)	-0.11*** (0.04)	-0.10*** (0.04)	-0.11*** (0.04)	-0.11*** (0.04)	-0.11*** (0.04)	-0.11*** (0.04)
Exporter	0.08 (0.06)	0.01 (0.08)	0.02 (0.08)	0.03 (0.08)	0.01 (0.08)	0.03 (0.08)	0.02 (0.08)
Buffer	-0.18*** (0.03)	-0.16*** (0.04)	-0.17*** (0.04)	-0.17*** (0.04)	-0.16*** (0.04)	-0.17*** (0.04)	-0.17*** (0.04)
Weeks closed	0.24*** (0.03)	0.15*** (0.04)	0.16*** (0.04)	0.17*** (0.04)	0.16*** (0.04)	0.17*** (0.04)	0.16*** (0.04)
Uneduc. workforce medium	-0.08 (0.07)	-0.13 (0.09)	-0.14 (0.09)	-0.12 (0.09)	-0.12 (0.09)	-0.12 (0.09)	-0.12 (0.09)
Uneduc. workforce severe	0.05 (0.06)	0.02 (0.08)	0.02 (0.08)	0.03 (0.08)	0.03 (0.08)	0.03 (0.08)	0.03 (0.08)
Period 04.2020-03.2021	0.19*** (0.06)	0.12 (0.07)	0.12 (0.07)	0.11 (0.07)	0.11 (0.07)	0.11 (0.07)	0.11 (0.07)
Constant	0.47*** (0.18)	0.65*** (0.23)	0.86*** (0.22)	0.87*** (0.22)	0.72*** (0.23)	0.87*** (0.22)	0.78*** (0.23)
Observations	2,349	1,443	1,443	1,443	1,443	1,443	1,443
Pseudo R <sup>2</sup>	0.10	0.09	0.09	0.09	0.09	0.09	0.09

*Note.* The robust standard errors are in the parentheses. In columns 2-7, the sample is restricted to companies that received help from the government. Significance of the stars: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



I first estimate the effect of receiving a subsidy on a firm's financial condition (column 1 in Table 5). The association between these two variables is negative, as subsidy decreased liquidity – contrary to what was expected. This result might be triggered by the reversed causality because receiving a subsidy influences a company's liquidity (or cash flow), however, to be eligible for one, it must deteriorate first, so a twofold effect is probable.

To avert this problem in other regressions, only companies which received COVID – 19 - related financial support are included in the sample. This restricts the sample to 1443 enterprises that struggled with their finances enough to be eligible for at least one of the subsidies.

Results in the second column of Table 5 suggest that access to new credit significantly and positively affects the liquidity decrease. At the same time, all other types of help: cash transfers to businesses, payment deferrals, fiscal exemptions, and wage subsidies, do not have any association with financial stability. Given these results, there is no evidence that subsidies significantly improve financial stability during the COVID – 19.

Next, I investigate the effectiveness of the different policies across sectors (Table 5, columns 3 to 7). The regressions show that cash transfers to businesses were extraordinarily effective in the construction sector compared to manufacturing and services. Furthermore, payment deferrals were more effective in the hotel and gastronomy sector than in manufacturing and construction. Finally, wage subsidies worked better in the retail and wholesale industry than in manufacturing, construction, hotels, or restaurant sector. These results suggest that some sectors were more responsive to the subsidies. Moreover, results of all regressions suggest that the hotels and restaurants were in bigger financial oppression than manufacturers.

The cross-country differences in performance are observed as well. Austrian and French firms seem to be in a better position during the crisis than the Spanish ones. In all columns, the coefficients of these two countries are significant and negative, implying that operating there increases financial stability.

As expected by the literature, age and size of the company are positively correlated with firm's stable financial situation. Financial buffer also positively influences its financial stability. This suggests that the equity resources were vital for resilience during this time.

The evidence was found that the number of weeks establishment was closed increased the probability of having difficulties with short-term debts and obligations between 04.2020 and 01.2022. The date of an interview seemed to influence the liquidity when the whole sample was analyzed and lost its importance when only firms that obtained financial assistance were included. In the analysis of an entire sample (Table 5, column 1), companies interviewed in the first 12 months after the announcement of the first financial measures had a higher probability of reporting a decrease in liquidity (or cash flow). Results of the same regression suggest that the family-owned and managed institutions, are prone to experience financial trouble throughout the crisis.

## Conclusions and discussion

The main objective of this thesis was to identify the subsidies' effect on firm's liquidity (or cash flow) during the COVID – 19 pandemic. Research results suggest that it was not positive, and there is no support to state that one kind of endowment was more efficient than others. It means that hypotheses 1 and 2 must be rejected. Receiving help in one or multiple forms does not decrease the probability of liquidity deterioration, and the effectiveness is not different across subsidy types (cash transfers, deferrals of payments, access to new credit, fiscal exemptions/reductions, and wage subsidies). Like Golubeva (2021), this thesis does not find evidence for a positive effect of subsidies on performance.

When the interaction terms of subsidy and sector were analyzed, some subsidies appeared to yield better results in construction, gastronomy, or retail and wholesale sectors. These findings support hypothesis 3 and are partially consistent with the claims of Juergensen et al. (2020) and Bartik et al. (2020) that companies from different sectors should not be subject to a one-fit-all approach. Instead, a more personalised financing scheme is preferred. How subsidies affect companies should be examined more thoroughly through in-depth sector segmentation in further research. Such information facilitate the improvement of current or creation of a new, more effective way of supporting companies in crises.

Finally, this study confirms cross-country differences in the firms' performance during the COVID – 19. It was expected given the information in Table 1 and Figure 1, that showed differences in the amount of help provided to the economy and lockdown severity. The hypothesis 4 cannot be rejected.

It seems that all variables, besides family ownership and workers education influence the liquidity in a direction already established by the literature. Size and age positively influence the performance as Bartik et al. (2020) and Eggers (2020) suggest. The cross-sector differences were found as in Pedauga (2022) and Romero-Jordan et al. (2014) papers. Results in this thesis provide evidence for cross-country differences however, it is unclear whether it is due to the initial condition of the companies or the smaller number of received subsidies, and it should be examined in further research.

The negative association between family firms and liquidity implies that being a family-owned and managed institution increases the probability of experiencing financial trouble - a contrary to what Kraus et al. (2020) and D'Aurizio et al. (2015) found. In the analysis, I also did not find any evidence for uneducated labour decreasing the performance significantly as Sumedrea (2013) and Eggers (2020) did.

The surprising negative association between the access to new credit and liquidity could be partially explained by the twofold attitude of credit recipient. One might take credit to cover the current expenses whereas other to invest and gain profits from the investment. If the firm was interested in surviving the moments of the biggest financial struggle, hoping that everything would return to pre-pandemic conditions the credit does not influence liquidity in the long term.

Another explanation, which also applies to the other four subsidy types, is the timing of data collection. The time gap between receiving help and the interview might not be enough for subsidy to yield expected results. The effects could be visible after a more extended period. On top of that, the eligibility criteria could have been scripted inefficiently, and companies that would have experienced a decrease regardless of COVID – 19 received help too. Finally, the effect of direct cash transfers on the final effect might have also depended on the manager's abilities. In a further study, more scholars should investigate it.

The significant coefficient of interview timing (column 2, Table 5) can also be explained by two different effects. Firstly, subsidies helped some firms to move on from the financial oppression, as was partially suggested in the 22<sup>nd</sup> SAFE survey conducted by the ECB (European Central Bank, 2020), which increased the performance in further periods. The

second effect, which seems more probable given the results in this thesis, is that the worst performers exited the market, and only the most resilient survived.

Further research on issues and associations described in this paragraph is necessary to establish firms' behavior during the crisis and how exactly subsidies influence companies' liquidity.

### Limitations of the study

This study has three main limitations.

First, the data does not provide the exact date of receiving financial help. In the analysis, I assume all eligible companies applied for it as soon as possible, and most firms received help in the first couple of months after its implementation.

Future researchers could use a more detailed, longitudinal database describing companies' financial health for five or more years. This data would then account for the pre-and post-pandemic times, allowing us to see the effects of financial help in the long term. A more precise estimation of how much time is needed to see the first effects of the subsidy could then be done.

Another limitation related to the dataset is that it does not provide the specific amount granted or deferred, as well as the size of the credit given to the enterprise as part of the COVID -19-related help. Knowing such detail would allow estimating the necessary amount per enterprise to sustain the liquidity during the crises like COVID-19.

Finally, in this study, only three countries are included and analyzed. In the future, more regions should publish details about firms' financial conditions. Then this analysis should be repeated, however, with a broader country range, including low-, medium-, and high-income countries. Also, more focus should be brought to the economic and political environment. It would help to describe the cross-country differences better. One could, for example, include the Index of Economic Freedom provided by The Heritage Foundation or some of its components such as market openness, inflation, or financial freedom.

### Policy advice

Given the results of this thesis, the question arises whether the subsidies were addressed correctly. The one-fit-all approach might not have been the best one. In the second half of

2022, most European countries will struggle with high inflation levels, partially because of this financial support to companies. Some may say that the consequences are too big compared to what was achieved by the subsidy programs. To avoid critique, effective addressing of measures should be policymakers' highest priority. With the help of this and similar research, I think that the utility of subsidies can be maximized for enterprises and the economy. I found evidence for differences in how different sectors react to the subsidies. It proves that policymakers should always consider the nature and environment of the company when addressing support measures.

Soon another policy package might be necessary as Russia's military invasion in Ukraine will oppress SMEs even more. High inflation rates and increased investment risk in Europe slow its economic growth (OECD, 2022, p.20). Moreover, in the second half of 2022, in most European countries and the U.S. PMI indexes hit the lowest levels in a long time. If these trends continue, the customer market activity will decrease, and firms will again be in the need of external support.

## References:

- Barth, J. R., Lin, C., Lin, P., & Song, F. M. (2009). Corruption in bank lending to firms: cross-country micro evidence on the beneficial role of competition and information sharing. *Journal of Financial Economics*, 91(3), 361-388.
- Bartik, A. W., Bertrand, M., Cullen, Z., Glaeser, E. L., Luca, M., & Stanton, C. (2020). The impact of COVID-19 on small business outcomes and expectations. *Proceedings of the National Academy of Sciences*, 117(30), 17656-17666.
- Chetty, R., Friedman, J. N., Hendren, N., Stepner, M., & The Opportunity Insights Team. (2020). *How did COVID-19 and stabilization policies affect spending and employment? A new real-time economic tracker based on private sector data* (Vol. 27431). Cambridge, MA: National Bureau of Economic Research.
- D'Aurizio, L., Oliviero, T. & Romano, L. (2015). Family firms, soft information, and bank lending in a financial crisis. *Journal of Corporate Finance*, 33, s. 279–292.  
doi:10.1016/j.jcorpfin.2015.01.002
- De Kok, J., Vroonhof, P., Verhoeven, W., Timmermans, N., Kwaak, T., Snijders, J., & Westhof, F. (2011). Do SMEs create more and better jobs. *Report prepared by EIM for the European Commission DG Enterprise and industry, Brussels, European Commission*.
- Dias, Á., Manuel, E. C., Dutschke, G., Pereira, R., & Pereira, L. (2021). Economic crisis effects on SME dynamic capabilities. *Economic Crisis Effects on SME Dynamic Capabilities*, (1), 63-80.
- Eggers, F. (2020). Masters of disasters? Challenges and opportunities for SMEs in times of crisis. *Journal of Business Research*, 116, 199-208.
- European Central Bank (2020, May 8). *Survey on the access to finance of enterprises (SAFE)*. Retrieved July 10, 2022, from [https://www.ecb.europa.eu/stats/ecb\\_surveys/safe/html/ecb.safe202005~c4b89a43b9.en.html](https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/ecb.safe202005~c4b89a43b9.en.html)
- European Central Bank (2021, November 24). *Survey on the access to finance of enterprises (SAFE)*. Retrieved July 10, 2022, from

[https://www.ecb.europa.eu/stats/ecb\\_surveys/safe/html/ecb.safe202111~0380b0c0a2.en.html#toc2](https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/ecb.safe202111~0380b0c0a2.en.html#toc2)

European Union Commission. (2003). Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises. *Official Journal of the European Union*, 46(L124), 36-41.

Eurostat. (2019). Annual enterprise statistics for special aggregates of activities (NACE Rev. 2) (SBS\_NA\_SCA\_R2) [Data file]. Retrieved July 20, 2022, from [https://ec.europa.eu/eurostat/databrowser/view/sbs\\_na\\_sca\\_r2/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/sbs_na_sca_r2/default/table?lang=en)

Freeman, J., Carroll, G. R., & Hannan, M. T. (1983). The liability of newness: Age dependence in organizational death rates. *American Sociological Review*, 692-710.

Golubeva, O. (2021). Firms' performance during the COVID-19 outbreak: International evidence from 13 countries. *Corporate Governance: The International Journal of Business in Society*.

Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., Webster, S., Cameron-Blake, E., Hallas, L., Majumdar, S. & Tatlow, H. (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature human behaviour*, 5(4), 529-538. (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human Behaviour*, 5(4), 529-538.

Hud, M., & Hussinger, K. (2015). The impact of R&D subsidies during the crisis. *Research Policy*, 44(10), 1844-1855.

International Monetary Fund (2021, July 2). Policy responses to COVID-19. *Policy Tracker*. Retrieved August 2, 2022, from <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#A>

Juergensen, J., Guimón, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: assessing impact and policy responses. *Journal of Industrial and Business Economics*, 47(3), 499-510.

Kraus, S., Clauss, T., Breier, M., Gast, J., Zardini, A., & Tiberius, V. (2020). The economics of COVID-19: initial empirical evidence on how family firms in five European countries cope with the corona crisis. *International Journal of Entrepreneurial Behavior & Research*.

Lee, N., Sameen, H., & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2), 370-380.

Morris, D. M. (2018). Innovation and productivity among heterogeneous firms. *Research Policy*, 47(10), 1918-1932.

OECD (2021), "No net zero without SMEs: Exploring the key issues for greening SMEs and green entrepreneurship", *OECD SME and Entrepreneurship Papers*, No. 30, OECD Publishing, Paris, <https://doi.org/10.1787/bab63915-en>.

OECD (2022), *Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard*, OECD Publishing, Paris, <https://doi.org/10.1787/e9073a0f-en>.

Our World in Data. (2022). Excess mortality: Cumulative number of deaths from all causes compared to projection based on previous years, per million people [Interactive Map]. Retrieved July 20, 2022, from <https://ourworldindata.org/grapher/cumulative-excess-deaths-per-million-covid?country=MEX~PER~FRA~BRA~USA~GBR~BGR~ISR~AUS>

Pal, R., Torstensson, H., & Mattila, H. (2014). Antecedents of organizational resilience in economic crises—an empirical study of Swedish textile and clothing SMEs. *International Journal of Production Economics*, 147, 410-428.

Pedauga, L., Sáez, F., & Delgado-Márquez, B. L. (2022). Macroeconomic lockdown and SMEs: the impact of the COVID-19 pandemic in Spain. *Small Business Economics*, 58(2), 665-688.

Piette, C. H., & Zachary, M. D. (2015). Sensitivity to the crisis of SME financing in Belgium. *Economic Review*, (iii), 31-45.

Piłat, A., Rozkut, M., Samołyk, O., Ropiak, P., & Walewski, M., (2021). *Przegląd pakietów pomocowych oferowanych przez wybrane państwa europejskie w odpowiedzi na kryzys COVID 19*. Bank Gospodarstwa Krajowego.

[https://www.bgk.pl/files/public/Pliki/Analizy\\_ekonomiczne/raport\\_BGK\\_narzedzia\\_pomocowe\\_COVID\\_styczen2021.pdf](https://www.bgk.pl/files/public/Pliki/Analizy_ekonomiczne/raport_BGK_narzedzia_pomocowe_COVID_styczen2021.pdf)



Reisner, C. (2021, April 7). *Support measures for companies affected by COVID-19*. Retrieved August 2, 2022, from <https://investinaustria.at/en/blog/2020/03/covid-19-support-measures-companies.php>

Rico, M., Pandit, N. R., & Puig, F. (2021). SME insolvency, bankruptcy, and survival: an examination of retrenchment strategies. *Small Business Economics*, 57(1), 111-126.

Romero-Jordán, D., Delgado-Rodríguez, M. J., Alvarez-Ayuso, I., & de Lucas-Santos, S. (2014). Assessment of the public tools used to promote R&D investment in Spanish SMEs. *Small Business Economics*, 43(4), 959-976.

Shafi, M., Liu, J. & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and Medium-sized Enterprises operating in Pakistan. *Research in Globalization*, 2, s. 100018. doi:10.1016/j.resglo.2020.100018

Simmons & Simmons LLP. (n.d.). *Spain business support guidance*. Retrieved August 2, 2022, from <https://www.simmons-simmons.com/en/features/coronavirus-covid-19/ck8a77u3w14qg0a98se7bkm2r/government-and-regulatory-covid-19/ck8751rvl0spq0a88ae978fcv/government-measures-to-support-business/ck8emj5ae12610988ag6sqa95/spain-business-support-guidance>

Sumedrea, S. (2013). Intellectual capital and firm performance: A dynamic relationship in crisis time. *Procedia Economics and Finance*, 6, 137-144.

Thornhill, S., & Amit, R. (2003). Learning about failure: Bankruptcy, firm age, and the resource-based view. *Organization Science*, 14(5), 497-509.

Williams, S., & Schaefer, A. (2013). Small and medium-sized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues. *Business Strategy and the Environment*, 22(3), 173-186.

## Appendix

**Table 1A**

*The table includes the main financial help programs across 3 European countries.*

<i>Austria</i>	When?	What?	Who?
	04.2020	Compensation up to 80% of lost income and up to 2000 euros for six months.	Micro enterprises and self-employed with a turnover of fewer than 2 million euros in a year, with significant losses caused by the pandemic.
	04.2020	Loan Guarantees	Businesses located in Austria with problems with liquidity.
	04.2020 and the second round from 11.2020	Non-repayable grants. Coverage of 25%, 50% or 75% of lost revenue.	SMEs with financial difficulties due to COVID-19. Companies that lost revenue amounted to 40-60, 60-80, and 80-100 percent, respectively.
	03.2020	From 80 to 90 % of the wage's coverage	All companies in Austria.
		Social security deferrals, income, and corporate tax deductions, and liquidity help in the tourism and leisure sectors.	All companies in Austria.
<i>Spain</i>		Credit and loans guarantees	Eligible SMEs
		Loans from the government to support the liquidity of SMEs	Eligible SMEs
	03.2020	Wage subsidies	SMEs and self-employed
	03.2020	Tax deferrals (VAT, CIT) and deadline extensions.	All companies in Spain
	03.2020	Deferral of social security contributions	SMEs which did not fire the workers and can prove they suffered because of the pandemic
<i>France</i>	03/04.2020	90% credit guarantees	Companies with less than 5 thousand employees and less than 1,5-billion-euro turnover, and for the self-employed.
		Additional guarantees for the tourism sector.	
	04.2020	Non-repayable grants	Companies with income smaller than 1 million EUR, which turnover dropped by at least 70%.
			Tech-related start-ups
			Additional grants for culture-, leisure- and motorization-related enterprises.
		Tax deferrals (CIT and other payroll taxes)	Eligible SMEs
		Deferral of social security contributions	

*Note.* The table does not contain all the measures undertaken by governments and only aims to show the differences in the country's programs. Information sources: Piñat et al. (2021), Simons&Simons (n.d.), Reisner (2021), and International Monetary Fund (2021).