Short and medium term potential impacts of economic and financial public policies under the COVID-19 pandemic. Causes and insights from a large panel of Portuguese companies

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Abstract

In the context of COVID-19, the Portuguese government has been intervening in the Portuguese economy with multiple policy interventions (e.g., lay-off, credit lines, debt moratoria) designed to help companies overcome liquidity problems, avoid firing employees, and keep their viability. The Portuguese Chamber of Industry and Commerce (Associação Industrial Portuguesa) closely followed the impact of these policies in Portuguese companies through a set of surveys realized in April, May and June 2020. More than 2000 companies representative of the Portuguese economy have been voluntarily answering to these surveys that provide a wide range of information regarding their economic and financial situation and the use of public mechanisms along time. This paper aims at analyzing and explaining the impact of policy interventions on Portuguese companies and how firms' characteristics influence the request of public policies and access to them, through statistical analysis of a set of surveys from the Portuguese Chamber of Industry and Commerce. The policies impact was diverse based on companies' different size, specific characteristics and sectorial integration.

The next two years will be crucial to determine the real impact of the pandemics to Portuguese economic and social situation as well as how effectively political measures tackled Companies huge difficulties and the importance of public policies to the survival rate of enterprises.

Keywords: COVID-19, impact, firms, crisis, public policies, Econometrics

1. Introduction

On 31 December of 2019, Wuhan City, China, witnessed the origin of the SARS-CoV-2, responsible for the disease known as COVID-19, a highly transmittable and pathogenic viral infection (Mohapatra et al., 2020). The virus spread at an enormous pace, and in response, on March 11, 2020, the World Health Organization declared that the COVID-19 outbreak evolved into a full-blown global pandemic (World Health Organization et al., 2020). Portugal's first official case was reported on March 2, 2020 (TSF,2020). It was necessary soon to impose drastic social distancing measures and to promote health practices to reduce the transmission rate of the virus, in order to "flatten the curve" of infections, so the Portuguese Parliament debated and authorized the President of the Republic to declare a state of emergency between March 19 and 2 April. Since its declaration, the state of emergency has been renewed numerous times (Assembleia da República, 2021). This extreme, but necessary, measure means that non-essential businesses with interactions with the public would have to close and teleworking was required whenever possible. Containment policies, such as lockdown and social distancing, are inseparable from the economic impact, so these strict health policies naturally force a large economic shutdown, as output is not produced when the labor force is quarantined. The survival of companies critically relied on government's support policies. In response, governments around the world developed a wide range of unprecedent measures to financially support firms.

This study is motivated by the ongoing pandemic and its unprecedent effects on the economy, and consequently on firms' performance. The Portuguese government has been intervening in Portuguese economy thought a set of different policy interventions (Credit lines, Tax Deferral, Debt Moratorium, Layoff, etc.), designed to help companies to overcome liquidity problems and maintain their work force close to pre-crisis levels. While the government has implemented a wide range of policy support, evidence of the reach and efficacy of these measures, as well as its alignment with firms' needs remain scarce. The Associação Industrial Portuguesa (AIP), which is an association linked with projects which primary objective is stimulating Portuguese businesses' activity, has been closely following the impact of these policies in Portuguese companies, through 3 surveys (AIP, 2020; AIP 2020b; AIP, 2020c), obtaining feedback of more than 2000 companies regarding their economic and financial situation, and the use of public mechanism over the course of the pandemic. These companies were surveyed on April, May, and June 2020.

During the pandemic, a firm's ability to survive depends not only on the magnitude of the decline of its revenues or adaptations made to cope with the crisis, but also on government interventions of economic nature to help companies to overcome their financial problems and avoid insolvency occurrences. The Portuguese government adopted a set of measures to minimize the economic impact caused by the pandemic, and we focused on the four main measures: (i) the creation of a large Credit line of €6.2 billion, by the name of '*Linha de apoio à economia COVID-19'* (Expresso, 2020). It contained four different lines: leisure, of 200 million; accommodation and tourism, 600 million; restaurants, 900 million; and support to economic activity, without any specific sector, of €4.5 billion. Certain conditions must be verified for a company's application for financing to be approved. Business will not have access to financing if the bank performs a negative risk assessment if the company has a negative net worth in the last approved balance sheet or if its situation is not regularized with the Tax Authorities or Social Security. In order to be eligible for this type of support, companies must present negative impacts of the COVID-19 outbreak on their economic activity and a fixed or variable interest rate modality will be applied to the operation, according to the agreement between the bank and beneficiary (Portugal 2020, 2020), (ii) implementation of a simplified Layoff scheme, to support job retention, aimed at companies that have closed down totally or partially, suffered total or partial shutdown of their business activity as a result of the disruption of global supply chains, cancellation of orders and suffered a drop of 40% or more of its sales compared to the previous two months. The measure ensures the payment of two-thirds of the employees' gross salary, where 70% of this value is ensured by the Social Security and the remaining by the employer (Boletim Ordem Advogados, 2020). Such as the requirements for receiving credit, only firms in compliance with the Tax Authorities and Social Security (no debts) can request this measure (DGERT, 2021), (iii) possibility of fractionated payment of Value Added Tax (VAT), income taxes (*IRS* and *IRC*) and Social Security contributions, without any penalty. Thus, if companies have a business volume up to €10 million in 2018, started activity on or after January 1, 2019, or had a decline in sales of at least 20%, they could fractionate the delivery of VAT, as well as the deliveries of the *IRS*, *IRC* and Social Security contributions (Boletim Ordem Advogados, 2020b) and (iv) Debt moratoria, only available if the firm requesting it is not delinquent on their debt and all their obligations with the Social Security (Banco de Portugal, 2021).

We conducted a literature review between February 15 and April 14, 2021 to review statistical concepts and studies necessary to understand the environment that encompassed companies during the pandemic. Firstly, a research was performed to investigate how firms react to the COVID-19 economic shock, according to their characteristics and absent of financial support. This was crucial to identify which type of firms need financial support the most. In general, results show that firms with bigger size, more operating flexibility and better financial conditions (e.g., higher leverage, more cash flow and less fixed assets) face less adversities caused by the pandemic, and that Manufacturing, Retail and Accommodation, restaurant and similar are amongst the most affected sectors. In the second part of the research, we reviewed statistical and econometric methods used to analyze the reach – targets and effectiveness – of policy support measures directed to companies worldwide. Up to our knowledge, there is scarce literature exploring the impact and effectiveness of policy interventions in Portugal. Kozeniauskas et al. (2020) was the only one performing a study addressing the pandemic's effect on companies and which firms have benefited from government policies, using a panel of Portuguese firms. This research provided information and insights for the methodology to follow.

Using cross-sectional data obtained from the surveys, we developed a set of regression models, on *RStudio,* to explain in order to explain 1) Which firm's characteristics influence the request for public policies 2) Which firm's characteristics explain higher access to governmental financial support and 3) If governmental financial support boost the economic activity of companies and grant evident on other topics.

The remainder of this paper is organized as follows. Section 2 discusses the data and methodology. Section 3 presents the results. Section 4 discusses the results and highlights main conclusions of the study.

2. Data and Methodology

The surveys were all conducted in 2020, during the months of April (from April 9th to 14th), May (from May 8th to 12th) and June (from June 22nd to 26th). The surveys differ in their content but contain a common component, concerning the activity and size of the company. This part contains questions regarding the company's economic activity, number of employees and business volume in 2019, and whether the company exports its products and services. Respondents submit the company's economic activity according to the CAE – Rev.3 (*Classificação da Atividade Económica*). Had we followed this classification system of company's economic activity, companies would be grouped according to 21 sections (Instituto Nacional de Estatísica, 2007). In order to simplify this classification, we grouped several sections into sectors: Industry, Accommodation, restaurant and similar, Services, Construction, Commerce, Transportation and storage and Agriculture and fishing. Another simplification was made, considering the company's number of employees and business volume in 2019, which combined, defines the company's dimension (Instituto Nacional de Estatística, 2018). Not only the surveys differ in their content but also in the number of respondents (April – 2411 respondents, May – 2058 respondents, June – 1707 respondents) and distribution of companies, according to dimension and sector. The bibliographic references section contain links directing to a copy of the surveys.

In a way to achieve the objectives proposed, analysis on how firm's characteristics influence the request for public policies and access to them, and on whether financial support improved the economic activity of recipient firms, we will be resorting to Econometrics, which is the use of statistical methods using quantitative data to test existing hypotheses in economics or finance (Stock & Watson, 2015). We developed a set of econometric models, on *RStudio*¸ using cross-sectional data obtained from the surveys. Once the survey's content is unique for each month (i.e., varies from month to month), this results in different regression models with different variables.

In order to explain which firm's characteristics influence the request of public policies in April 2020 (1.1), May 2020 (1.2) and June 2020 (1.3) the following models were developed,

$$Request_{ij} = Sector_i + Dimension_i + Exporter_i + Business\ Volume_i + Dismissals_i + Social\ Security\ Situation_i + Tax\ Authorities\ Situation_i \quad (1.1)$$

$$Request_i = Sector_i + Dimension_i + Exporter_i + + Dismissals_i \quad (1.2)$$

$$Request_i = Sector_i + Dimension_i + Exporter_i + + Dismissals_i + Change\ in\ business\ volume_i \quad (1.3)$$

Where the dependent variable, ***Request*** is a binary variable equal to 1 if firm *i* requests the public policy *j* (Layoff, Tax deferral, Debt moratorium or Credit line), and 0 otherwise, during April 2020, and equal to 1 if firm *i* requests credit, and 0 otherwise, during May and June 2020. Before the explanation of the independent variables, it is required a definition of factor variable. A "factor" is vector whose elements can take on one of a specific set of values. The set of values that the elements of a factor can take are called its levels (Institute for Digital Research and Education, 2021). Thus, ***Sector***, which represents firm's *i* sector, is a factor variable with 7 levels: *Industry, Accommodation, restaurant and similar, Services, Construction, Commerce, Transportation and storage* and *Agriculture and fishing;* ***Dimension,*** which represents firm's *i* dimension, is a factor variable with 4 levels: *Micro, Small, Medium* and *Big*; ***Exporter***, that explains whether the company exports products/services or not, is a factor variable with 2 levels: *Yes* and *No*; ***Business volume*** represents the comparison between the firm's business volume in March 2020 and February 2020 (or March 2019). It is a factor variable with 2 levels: *Inferior* and *Superior*. ***Dismissals*** represents whether the firm fired employees due to the pandemic. It is a factor variable with 2 levels: *Yes* and *No*; ***Social Security Situation*** and ***Tax Authorities Situation*** represents the firm's situation with Social Security's and Tax Authorities' obligations, respectively. They are factor variables with 3 levels: *Normal, Settled debt* and *Indebted;* ***Change in business volume***, which represents the comparison between business volume of the company in the last 3 months (March, April and May 2020) and the same period in 2019. It contains 7 levels: *20% drop*, *40% drop*, *70% drop*, *90% drop*, *No revenue*, *Kept revenue* and *Increased revenue*.

In order to explain which firm's characteristics influence the access to credit in May 2020 (2.1) and June 2020 (2.2), the following models were constructed,

$$Access_i = Sector_i + Dimension_i + Exporter_i + Dismissals_i \quad (2.1)$$

$$Access_i = Sector_i + Dimension_i + Exporter_i + Dismissals_i + Change\ in\ business\ volume_i \quad (2.2)$$

Where the dependent variable, ***Access*** is a binary variable equal to 1 if firm *i* receives credit and 0 otherwise, during May and June 2020. The remaining variables represent the same as the ones included in equations (1.2) and (1.3), containing the same levels as well.

The next regression model explores the association between receiving financial assistance (i.e. access to credit) and changes in firm's business activity, in June 2020, measured by a set of indicators. The aim is to investigate whether receiving this policy boosts the economic activity of companies, as intended.

$$Indicator_i = Sector_i + Dimension_i + Credit\ line\ access_i \quad (3)$$

Where change in business activity is measured by the indicators: (i) ***Dismiss in the short term***, a binary dependent variable equal to 1 if firm *i*, in the short term, foresees dismissals as a result of the pandemic, and 0 otherwise; (ii) ***Expand capital***, a binary dependent variable equal to 1 if firm *i* plans to expand the company's capital to new partners, and 0 otherwise; (iii) ***Sell the company***, a binary dependent variable equal to 1 if firm *i* plans to sell the company, and 0 otherwise; (iv) ***Acquire another company***, a binary dependent variable equal to 1 if firm *i* intends to acquire another company, and 0 otherwise; (v) ***Change economic activity***, a binary dependent variable equal to 1 if firm *i* plans to change their business activity, and 0 otherwise; (vi) ***PEVE application***, a binary dependent variable equal to 1 if firm *i* is considering adhering to *PEVE (Processo Extraordinário de Viabilização de Empresa)*, and 0 otherwise; (vii) ***PER application***, a binary dependent variable equal to 1 if firm *i* is considering adhering to *PER* (*Processo especial de revitalização*), and 0 otherwise and (viii) ***Insolvency application***, a binary dependent variable equal to 1 if firm *i* plans to file for insolvency, and 0 otherwise. The remaining variables represent the same as the ones included in equation (1.3), containing the same levels as well, with the exception of the factor variable ***Credit line access***, which represents whether firm *i* received credit, a factor variable with 2 levels: *Yes* and *No*.

When formulating these models, we considered models where the dependent variable (outcome of interest) is binary. For this case, we initially considered 2 classes of regression models: probit and logit, as they are the most appropriate to explain a limited dependent variable (Hanck et al., 2020). Probit and logit regression are nonlinear regression models specifically designed for binary dependent variables. Since the dependent variable is a nonlinear function of the regressors, the coefficient of the regressors has no simple interpretation. The main information we can obtain from the coefficients is that a positive coefficient means that an increase in the predictor leads to an increase in the predicted probability, and a negative coefficient means that an increase in the predictor leads to a decrease in the predicted probability. The easiest way to interpret the coefficients of a probit and logit model is to compute predicted probabilities (Stock & Watson, 2015). So as to enable a meaningful interpretation of results, we used the functions *pnorm* and *plogis* on *RStudio*, calling these functions and then using the coefficient value as argument, obtaining this way the predicted probability. These regression functions are very similar and produce very similar estimates and there is no general recommendation for which

method to use. However, Chen et al. (2011) conducted Monte Carlo experiments to compare the Bayesian and sample theory model selection criteria in choosing the probit and logit models. Results show that if unbalanced binary data is generated by a leptokurtic distribution, the logit model is preferred over the probit model. The probit model is preferred if unbalanced data is generated by a platykurtic distribution. We adopted the aforementioned strategy to select between the usage of probit and logit regression models. We used probit model when constructing the regression models (17.1), (17.2), (17.3), (18.2) and (19) when considering the dependent variables *Dismiss in the short term* and *Sell the company,* and logit in the remaining ones.

3. Results

Table 1 presents the results obtained from computing into predicted probabilities the coefficients obtained from the regression Equation (1.1), according to sector. The fact that firms belong to the Accommodation, restaurant and similar sector seems to heavily influence their decision to apply for any public policy, as these companies were the ones more likely to request every public policy (statistically significant results). This highlights the financial difficulties of this sector during the pandemic. Contrarily, we found that Construction companies presented the lowest probability of requesting any public policy. Layoff was the most adhered public policy, and Construction companies were the ones less likely to request it, as other sectors tend to apply for Layoff. Considering Tax deferral and Debt moratorium application, we observe that Accommodation, restaurant and similar and Transportation and storage companies were the ones more likely to request these public policies (statistically significant results). Considering sector, firms showed similar probabilities of requesting credit, except for Accommodation, restaurant and similar companies (higher probability).

Table 1 – Probability (%) of requesting for Public Policies, according to sector, in April 2020

Sector/Public Policy	Layoff	Tax deferral	Debt moratorium	Credit Line
Industry	66.35	59.83	65.87	56.24
Accommodation, restaurant and similar	93.33	74.51	76.52	80.78
Services	70.33	65.17	56.91	59.25
Construction	43.41	57.73	50.96	52.27
Commerce	70.06	59.68	59.52	60.10
Transportation and storage	67.18	70.95	77.22	57.06

When formulating the factor variable *Sector,* the level *Agriculture and fishing* was used as reference, due to low representativity. A reference is a category of comparison for the other levels, i.e.,

other levels are compared to the reference, and the *RStudio* omits the coefficient of the reference, and therefore, we cannot obtain a predicted probability of requesting public policies for the level *Agriculture and Fishing* (University Information Technology , 2021)

We note that micro companies present the lowest probability of requesting any public policy, even though they are the group of companies, when considering dimension, most impacted by the pandemic, according to information extracted from the surveys' statistical analysis. Micro companies' managers may be less sophisticated and/or have fewer resources to devote to learning about or applying to programs, which translates in a lower probability of requesting and therefore lower probability of accessing funds (once no application is submitted). Other authors addressed this situation, as Xavier et al. (2020), using a dataset covering more than 120,000 firms in 60 countries, stated that lack of awareness is the main reason for firms being unable to access government support programs, and micro companies were the ones more affected by this factor. In another study, Humphries et al. (2020) concluded that American larger firms were more informed, which have played an important role in unequal access relief aid. Considering dimension, the fact that firms are medium-sized seems to influence the request of public policies, as they are the ones more likely to request every public policy, except for Tax Deferral (Table 2).

Table 2 – Probability (%) of requesting for Public Policies, according to dimension, in April 2020

Dimension/Public Policy	Layoff	Tax deferral	Debt moratorium	Credit Line
Micro	37.11	43.92	35.27	38.44
Small	44.95	56.71	45.66	47.17
Medium	52.19	51.68	47.61	55.84

When formulating the factor variable *Dimension*, the level *Big* was used as a reference, as it would be more interesting to observe how SME's submit applications, as they are the group of companies that faced more severe financial constraints during COVID-19 (Carletti et al., 2020).

When considering the internationalization strategy of companies, we conclude that firms that export their products and services are more likely to request for Credit, followed by Debt moratorium and Tax deferral. The fact that firms export does not seem to heavily influence their decision to apply for Layoff (statistically significant results). We investigated if a negative variation on business volume, caused by the pandemic, affects firms' decision to apply for public policies. The results show that firms that suffered a negative decline in their business volume tend to be more likely to apply for Layoff.

We also tested the influence of dismissals (whether firms fired employees due to the pandemic) on the request of public policies. This variable was included to verify if the fact that companies have fired employees (indication of critical financial situation) influence their decision to request public

policies. Results show that firms that dismissed employees show similar probability of requesting every public policy.

Firms must fulfill some requirements to be eligible for public policies. In the case of Layoff, Debt moratorium and Credit line, companies were only eligible to take advantage of these policies if they had all their obligations with the Social Security and Tax Authorities met. Results obtained when studying how firms' request varies according to these two variables (*Social Security* and *Tax Authorities situation*) show that firms still applied for these measures, even though did not met the criteria. This raises some questions, and this phenomenon can be explained by two hypothetical reasons: Perhaps firms were misinformed about the requirements and/or in an act of desperation, caused by the uncertainty raised by the pandemic, companies still decided to apply for these measures, conscious that they did not fulfill the requirements needed.

Overall, in April 2020, considering the variables presented in Equation (1.1), we note that *Sector* and *Business Volume* seem to be the ones with more influence (bigger predicted probabilities) in the request of public policy. *Dimension, Exporter*, *Dismissals*, *Social Security Situation* and *Tax Authorities Situation* do not seem to heavily influence a firm's decision to apply for public policies.

When analyzing the results regarding relationship between request for credit and the sector, in May and June 2020, we note that firms belonging to the Services and Construction sectors were the ones less likely to apply for this public policy, in both months. In May 2020, firms presented similar probabilities of requesting credit, except for Services and Construction companies. In the following month, the paradigm changed. The fact that firms belong to the Accommodation, restaurant and similar sector seems to heavily influence their request for credit, as they were the ones considerably more likely to request this public policy. Comparing both months, we observed a decrease in the probability of requesting credit line in all sectors. We investigated the influence of firms' dimension on the probability of requesting for credit and concluded that, in May 2020, Micro and Small companies had similar probability of requesting for this policy (statistically significant results). We did not include big companies in this analysis, as only 1 out of 14 big companies, present in the May's sample, applied for this measure. This would lead to a distorted statistical analysis due to the lack of data regarding this class of company. In June 2020, similar to what occurred in April 2020, Medium companies were more likely to apply for this measure (statistically significant results) and Micro firms the ones less likely to apply for it (Table 2). Resorting to data available relative to June 2020, we also tested how firms' variation in Business volume, due to the pandemic, influence their request for credit. As expected, companies that experienced largest decreases tend to be more likely to apply for this measure.

Overall, in May 2020, we note that the variables *Sector* and *Exporter* seem to have a bigger influence in a firm's decision to request for credit (bigger predicted probabilities), compared to *Dimension* and *Dismissals.* Contrarily to the findings resorting to data from April and May 2020, the variable *Dimension* heavily influenced firm's decision to apply for credit in June 2020, having more influence than the variable *Sector*, which slightly influenced firm's decision to apply for this measure. We observe that the variable *Exporter* and a negative *Change in Business Volume* also influences the decision to request for credit. The fact the firms dismissed employees does not influence their decision to apply for credit.

In May 2020, companies belonging to the Accommodation, restaurant and similar sector presented one of the lowest probability of accessing credit (statistically significant result), in spite of being the ones with the highest probability of requesting credit, in the same month. Additionally, this was the sector with more credit available for access, as applications for credit destined for this sector were still available, unlike other sectors. The fact that firms belonged to the Commerce sector seems to influence their access of credit, as they had the highest probability of accessing this public policy. In the following month, firms of every sector were more likely to obtain access, as Accommodation, restaurant and similar companies had the biggest probability of receiving economic aid. Services and Construction companies (less likely to apply for credit) presented the lowest probability of accessing credit in both months. We exposed previously that Medium companies were more likely to apply for credit, in June 2020, and this is reflected in their probability of getting access to it. Since this group of companies is more likely to apply for economic aid, they are also more likely to receiving it (statistically significant results). We observe that, in May 2020, Small firms were considerably more likely to receive credit, compared to Micro firms, even thought they had similar probability of requesting it. When studying how the allocation of funds varies according to the Business volume variation, caused by the pandemic, we observe that firms with largest decline in Business volume are less likely to get access to credit, although they were the ones more likely to request financial aid. We note that a company that kept revenue, in comparison with another that suffered reduction in their business volume, have a similar, or even higher, probability of obtaining funds. Note that companies that increased revenues, during the pandemic, had a probability close to 30% of receiving to credit. This are disturbing results, as it can maybe an indicator of mistargeting of funds, as access to funding of companies in a more critical situation is denied. A possible explanation for this phenomenon can be the rigid requirements involved in the application process (Portugal 2020, 2020), where companies in a better financial situation are in a more favorable position to obtain the credit. These companies, who performed better during pandemic, are also possibly more economically viable than those who struggled during the pandemic, so funds are directed to them once they are more susceptible to recovery.

Overall, in May 2020, firms presented lower probability of accessing credit, compared to June 2020, and *Dimension* and *Sector* did not influence the probability of receiving credit. In June 2020, *Dimension* had the biggest influence in the probability of receiving credit, followed by *Sector and Exporter*

When investigating whether receiving financial assistance (i.e., access to credit) changes, positively, the performance of companies, we find that receiving credit is associated with fewer firms foreseeing dismissals in the short term, selling the company, change economic activity and submit PEVE, PER and Insolvency applications. Firms that receive credit also have lower probability of expanding capital to new partners. More specifically, receiving credit heavily influence firms' decision regarding selling the company and submitting PEVE, and moderately influences decisions such as Insolvency and PER application, change economic activity, dismissals in the short term and expanding capital. Access to credit doesn't seem to influence firm's decision to acquire another company. Our findings show that credit's access plays an important role in promoting economic performance of recipient firms.

4. Discussion and Conclusions

Even though firms showed similar number of requests for credit in May and June 2020, results show that firms were much more likely to obtain credit in June 2020 (considering that, in the beginning of May 2020, there was still credit available to be distributed among companies). The main reason for this event is the considerable amount of time involved in the process of application and decision (Portugal, 2020), which, has an average duration of 28 days (CIP, 2020). This lengthy duration jeopardizes companies, as they are in desperate need of swift financial assistance, in order to keep business afloat to minimize short term unemployment (Makin et al., 2021). Considering the allocation of funds directed to Accommodation, restaurant and similar companies (most affected by the pandemic), in May 2020, we observe an inefficient distribution of credit, as these companies were the ones more likely to request credit and had the third lowest probability of accessing this public policy, among other sectors. We observe that significant decline in firms' business volume, due to the pandemic, does not seem to heavily influence the access to credit, as firms that kept revenue have similar probabilities of accessing this public policy, compared to companies that have been severely impacted. When considering firm's dimension, we observe a mistargeting of funds, as Micro companies were the ones most affected by the pandemic and had a lower probability of receiving financial assistance, compared to Medium companies. This can maybe be explained by the lower probability of these firms requesting credit, compared to Medium companies, but it was expected more financing directed to them, due to the magnitude of their decline in business volume. Financial assistance, in the form of portfolio guarantee model (provision of guarantees to facilitate obtaining credit), can be an alternative for these firms that had their access to credit denied, due to the rigid requirements involved in the process. The amount of requests for financing suspended due to exhaustion of the line is estimated at €3 billion, according to AIP (AIP, 2020c). Note that 70% of the largest credit line capacity was exhausted on May 6, 2020, and only the Accommodation, restaurant and similar sector could apply for credit through specific lines (Sociedade de Investimento, 2020). Regarding the impact of this public policy, we note that credit access positively promotes the economic performance of recipient firms. Firms were asked if whether the measures taken by the government to deconfine and return to economic activity were sufficient, where, out of 1970 respondent firms, 774 companies considered the government's actions were not adequate enough. AIP also questioned the surveyed companies about the priority they gave to the extension, until December 2020, to the extension of Layoff, Debt Moratoria, Tax and Social Security deferral, and companies prioritized the extension of the latest.

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