



THE IMPACT OF COVID-19 ON BANKRUPTCIES AND MARKET EXITS OF ITALIAN FIRMS

TOMMASO ORLANDO AND GIACOMO RODANO¹

The Covid-19 pandemic has had a large impact on the Italian economy, with GDP falling by 8.9 percent in 2020. However, fewer bankruptcy liquidations and, more generally, exits from the market occurred in 2020 than in 2019, and their numbers remained below pre-pandemic levels even in 2021. On top of the suspension of bankruptcy filings during the early pandemic period, such reduction is a consequence of the wide array of economic support measures implemented by the government. Indeed, the take-up of several such measures has been larger in sectors that were hit particularly hard by the Covid shock. Consistently, variations in the frequency of bankruptcies and exits are largely uncorrelated with the intensity of the economic impact of the pandemic at the sector level.

The Covid-19 pandemic has had a sizable impact on the Italian economy, with GDP falling by 8.9 percent in 2020. At the height of the crisis, fears spread that, as in past circumstances,² the shock would bring about numerous business crises, with a consequent rapid increase in the number of firms becoming insolvent and, more generally, leaving the market. This, in turn, could have negative repercussions on economic activity, both direct (for example because of the loss of important nodes in supply chains) and indirect (due, for instance, to court congestion). These concerns – widely shared also at the European level³ – have been the rationale for the introduction of exceptional support measures, which have enabled many companies to cover, at least partially, their liquidity needs and potential equity deficits.⁴

¹ Bank of Italy, Structural economic analysis Directorate, Law and economics Division. The opinions expressed in this note are those of the authors and do not necessarily reflect those of the Bank of Italy. The authors wish to thank Fabrizio Balassone, Andrea Brandolini and Silvia Giacomelli for their suggestions as well as Ivan Triglia for data assistance.

² Giacomelli, S., Mocetti, S., and Rodano, G., *Fallimenti d'impresa in epoca Covid*, Bank of Italy Covid-19 Note, January 2021.

³ See, for instance, ESRB, *Prevention and management of a large number of corporate insolvencies*, April 2021.

⁴ De Socio, A., Narizzano, S., Orlando, T., Parlapiano, F., Rodano, G., Sette, E., and Viggiano, G., *The effects of the COVID-19 shock on corporates' liquidity needs, balance sheets and riskiness*, Bank of Italy Covid-19 Note, November 2020; the box *The effects of the pandemic on the balance sheets and riskiness of firms in the various economic sectors*, in Bank of Italy, Financial stability report No. 1 – 2021; Orlando, T., and Rodano, G., *Firm undercapitalization in Italy: business crisis and survival before and after COVID-19*, Bank of Italy Occasional papers No. 590, December 2020.

This note provides evidence on bankruptcy liquidations⁵ and market exits of Italian firms during the pandemic period, and assesses the effects of some of the support measures introduced by the government since March 2020. As the most recent fully available accounting data refer to 2019, most analyses on the impact of the epidemic on businesses have been based on a comparison between forecasts of the evolution of accounting variables in presence of the shock and in a counterfactual scenario with no pandemic, typically focusing on corporates only.⁶ In this note, however, we use observations recorded in the Italian Business Register on declared bankruptcies and exits from the market of all corporations and partnerships (excluding sole proprietorships) up to the third quarter of 2021, as well as information on bankruptcy filings provided by the Ministry of Justice.

The main finding is that the number of bankruptcy liquidations and exits from the market was lower in 2020 than in 2019 (by 33 and 27 percent, respectively). This drop is particularly marked between March and June 2020, when the suspension of bankruptcy filings was in effect. However, reflecting a significant overall impact of public interventions, even in 2021 the levels of bankruptcies and exits have remained below those of 2019, as far as we can observe.

While part of the fall in the number of bankruptcies in the early pandemic period can be attributed to the moratorium on new bankruptcy filings, such intervention can hardly be the driver of the continuingly low level of bankruptcies and exits that persists to this day. This situation can be largely attributed to economic support measures introduced by the government since the beginning of the pandemic, such as – among others – a moratorium on loan repayment, state-backed guaranteed loans, and direct grants.

The effect of such measures has been proportional to the intensity of the Covid shock across sectors. Although the pandemic crisis hit different types of firms, in different areas, and – especially – in different sectors with varying intensity, firms that went bankrupt or exited the market in the first year of the pandemic do not appear to be structurally different from firms that went bankrupt or exited in the previous year, in the pre-pandemic world. In fact, there is no correlation between the intensity of the pandemic shock and the changes in the number of bankruptcies and exits at the sector level between 2019 and 2020.

This suggests that resources available through support schemes ended up to sectors that needed them most, contributing to a positive evaluation of these measures in containing business crises.⁷

⁵ In what follows, we sometimes refer to bankruptcy liquidations – occurring through judicial procedures typically initiated by creditors – simply as “bankruptcies”, unless otherwise explicitly stated. Bankruptcy restructurings are not included. Bankruptcy procedures allowing for both liquidation and restructuring (*concordati preventivi*) are also excluded, as our data do not allow us to pin-point those that are meant to lead to liquidation.

⁶ De Socio *et al.*, 2020, *op. cit.*

⁷ The fact that the overall level of bankruptcies and exits has remained below that of 2019 much beyond the end of the moratorium on bankruptcy filings may also indicate that support measures are overcompensating the pandemic shock. Assessing such overcompensation requires analyzing the relationship between support take-up and firm characteristics at the individual level, and will be the subject of future analyses.

1. Data

This note uses information recorded in the Business Register on bankruptcy liquidations (*fallimenti*) and other events of exit from the market of Italian firms. Such information is available in the *InfoCamere* database, under the management of the Chambers of commerce.⁸ Bankruptcy liquidations are recorded at the date of the judicial declaration that opens the procedure. Bankruptcy filings, which precede the actual bankruptcy declaration, do not appear in the Business Register. We draw aggregate information about them from data published by the Ministry of Justice. The size of firms is derived from firm-level information on workforce provided by the National Institute for Social Security (INPS).

The intensity of the Covid shock at the sector level is measured by the growth rate in revenues between 2019 and 2020 computed using data on electronic invoicing collected by the Italian Revenue Agency. This note also makes use of data on the actual take-up of support measures through the pandemic. In particular, data on the debt moratorium are drawn from the AnaCredit database, managed by the Bank of Italy. Information on state-backed guaranteed loans comes from *Mediocredito Centrale* and SACE.⁹ Information on direct grants to firms comes from the Telematic treasury services of the State Treasury within the Bank of Italy.¹⁰

2. Aggregate trends in bankruptcies and exits

Despite the significant decline in GDP, the number of declared bankruptcies was significantly lower in 2020 than in previous years (Figure 1, upper left panel): just under 7,400 firms underwent a liquidation procedure in 2020, compared to nearly 11,000 in 2019 (a decline of around one third). In addition to bankruptcy declarations, the chart to the left also shows the reduction in bankruptcy filings,¹¹ which went down by about one fourth compared to 2019. Firms exiting the market in 2020 also decreased by 27 percent compared to 2019, from about 70,000 to about 50,000.¹²

Analyzing the monthly dynamics of bankruptcy declarations and filings, as well as exits from the market that have occurred since the beginning of 2020 (Figure 1, lower panels), we see that much of the decline is concentrated in the second quarter of 2020, corresponding to the early months of the pandemic. During this period, a moratorium on bankruptcy filings was enacted, remaining in effect

⁸ The *InfoCamere* database reports two types of voluntary liquidation and/or dissolution of the company (which, together with bankruptcies, constitute the “exits” category for the purposes of this note). On the one hand, there are records of the removal from the Business Register. On the other hand, several formal acts that suggest the conclusion of the economic activity also appear in the Register: these include bankruptcy liquidations, as well as all acts indicating the substantial interruption of business operations. In this note the records of the removal from the Register are not considered. Even though the termination of business activity is sometimes not recorded as a formal exit, using legal cessations for the periodic monitoring of firm survival can be problematic as these events are often recorded with a significant delay with respect to the moment of actual business termination, which is the focus of this note. Whenever more than one of these events are recorded for a single firm, the earliest occurrence is considered as the moment in which the firm exits the market.

⁹ De Socio *et al.*, 2020, *op. cit.*, also use AnaCredit data to assess the potential impact of the moratorium on loan repayment. On guaranteed loans, see De Mitri, S., De Socio, A., Nigro, V., and Pastorelli, S., *Financial support measures and credit to firms during the pandemic*, Bank of Italy Occasional papers No. 665, December 2021.

¹⁰ Venditti, P., and Salvati, I., *L'emergenza sanitaria: il sostegno a lavoratori, famiglie e imprese erogato attraverso la Tesoreria dello Stato*, Bank of Italy Covid-19 Note, February 2021.

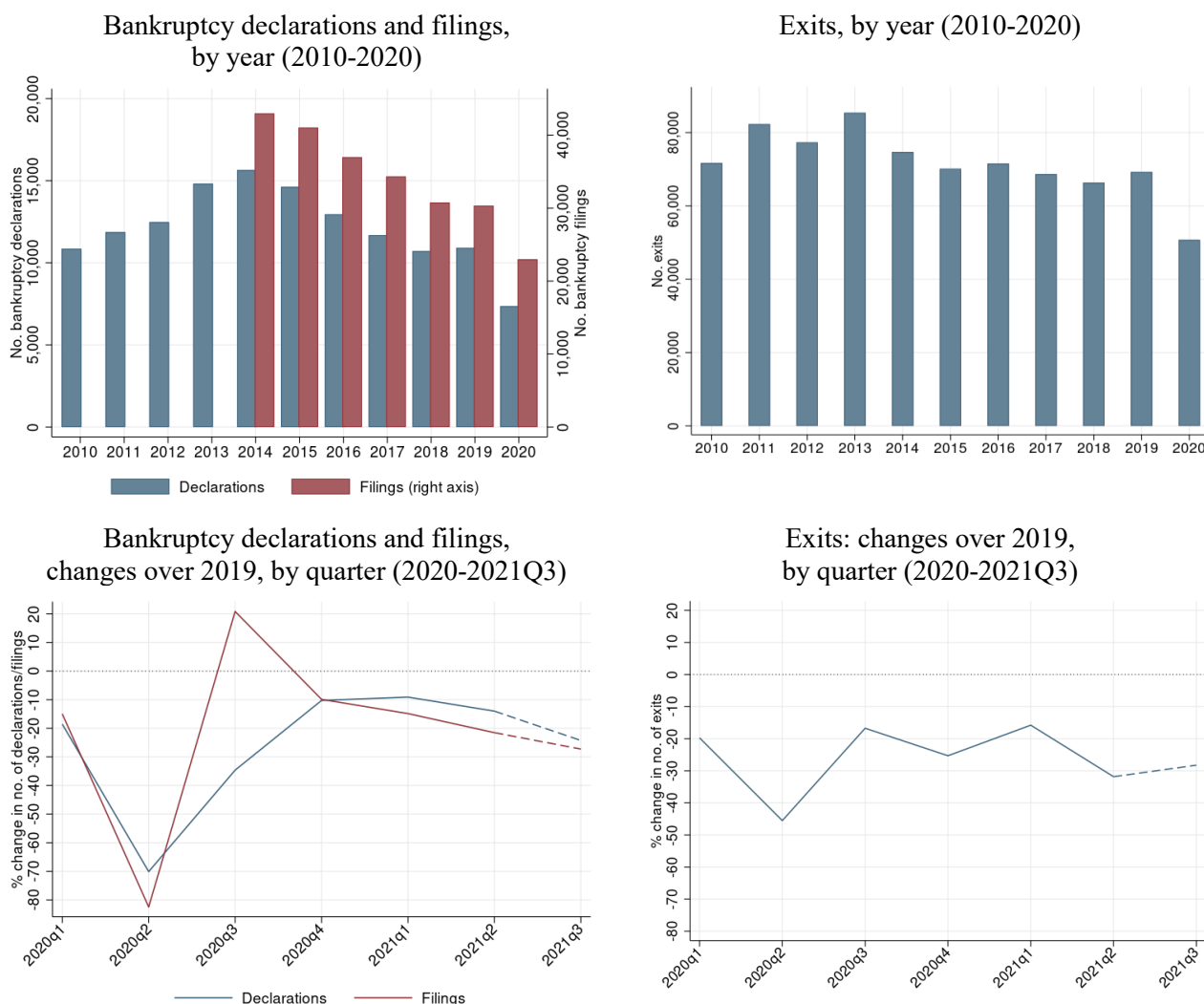
¹¹ Typically, about one third of bankruptcy filings receive court approval for liquidation.

¹² These trends are preserved in one considers corporations only. In this category, bankruptcies shrank from around 8,800 to 6,000, and exits from around 40,000 to 30,000.

until the end of June 2020, which partly explains such a dramatic fall in bankruptcy filings and declarations.¹³ However, we also observe a considerable decrease in exits from the market, which may occur in ways not directly affected by this measure.

Even after the end of the first lockdown, the number of bankruptcies and exits remained generally below those observed in 2019. The period between the filing and the declaration of a bankruptcy liquidation by the court lasts around 4 months on average. Thus, the suspension of bankruptcy filings between March and June 2020 may have slowed down new bankruptcy declarations even in the following quarters of 2020. However, it is unlikely that such effect might have persisted for more than a few months. First, bankruptcy filings already partially rebounded in the third quarter of 2020, when the moratorium was lifted. Second, because of their relatively short duration, the effect of their suspension can hardly be seen as the driver of the presence of fewer bankruptcies in 2021 than in 2019. Indeed, bankruptcy declarations in 2021 amount so far to 85 percent of those observed in the first three quarters of 2019, bankruptcy filings to 80 percent, and exits to 75 percent.

Figure 1 – Trends in bankruptcies and exits



Notes – Based on data from *InfoCamere* and the Ministry of Justice. Lower panels report percentage changes with respect to the corresponding quarter of 2019. As signaled by the dashed lines, figures referring to 2021Q3 may be subject to revisions.

¹³ A slowdown in court activity during the first pandemic period may also have contributed to the fall in new bankruptcy declarations by slowing down the conversion of previous filings.

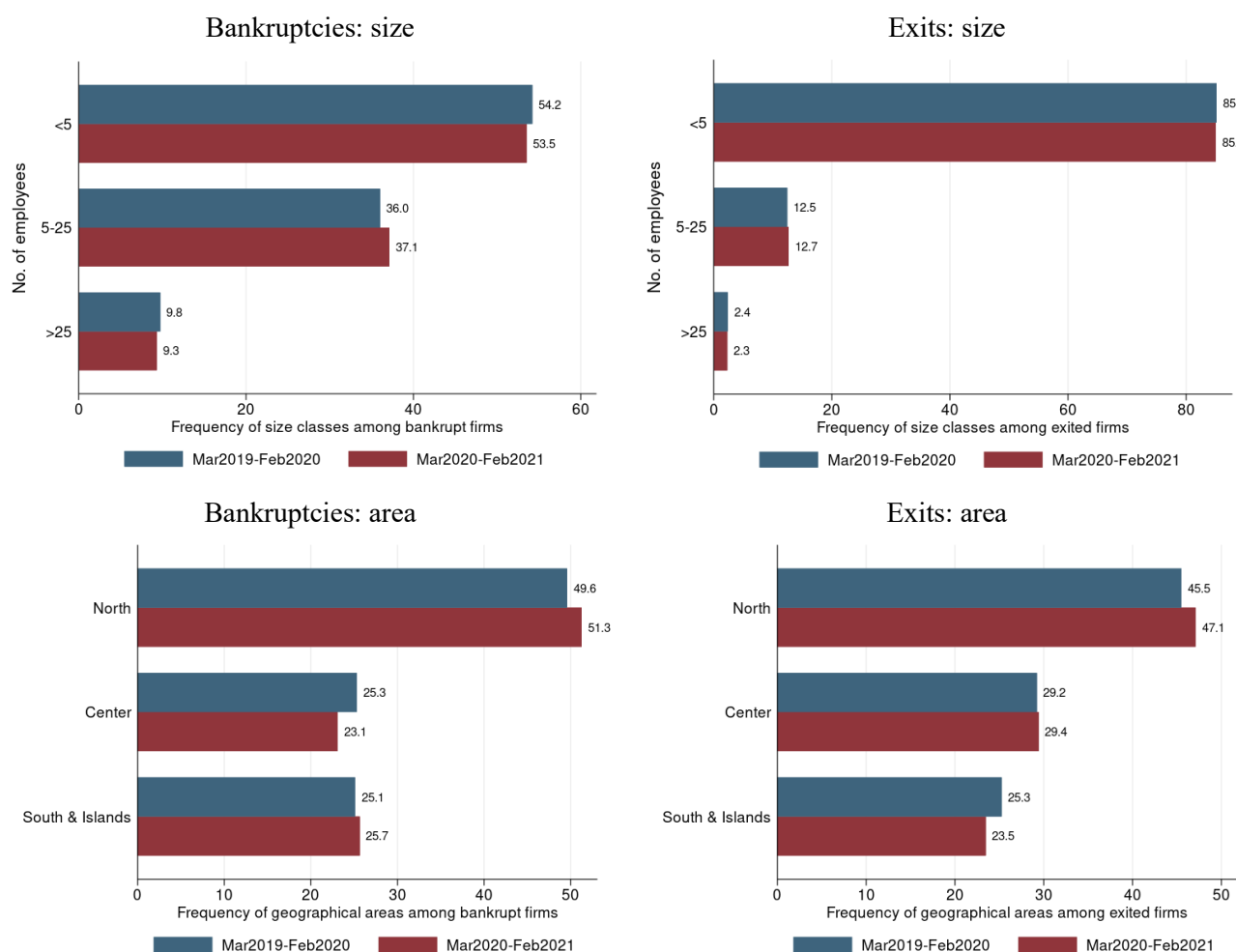
Analyses conducted on previous episodes of negative economic cycle¹⁴ yield estimates of the instantaneous (same year) and delayed (subsequent years) elasticity of the number of bankruptcies to changes in GDP. This allowed us to develop some scenarios of the evolution of bankruptcies in the short term. For instance, our estimates indicate that, in the absence of government intervention, the number of bankruptcies in 2020 could have exceeded 12,000, almost 4,800 more than those actually observed.

All these considerations point to a relevant impact of the public support measures, which persists to this day. To shed further light on this aspect, in the following section we use firm-level information to investigate: (i) whether the Covid shock has changed the composition of the pool of bankrupt and exited firms with respect to the pre-pandemic scenario; (ii) how the actual use of government support relates to changes in the number of bankruptcies and exits.

3. Which firms went bankrupt or left the market?

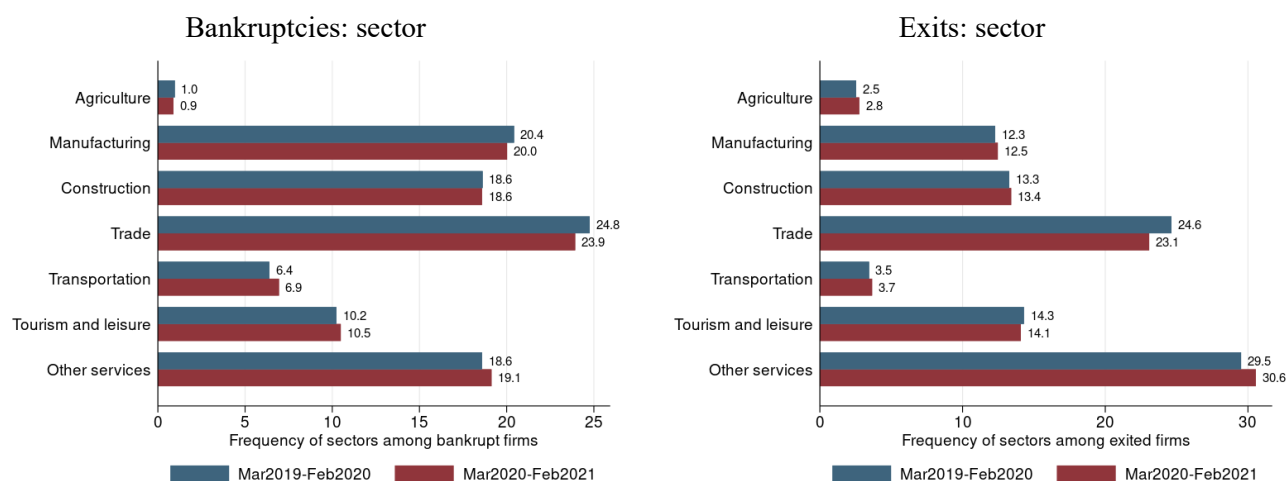
Each panel of Figure 2 reports the dimensional,¹⁵ geographic, and sectoral distribution of bankrupt and exited firms in the first year of the pandemic (March 2020 - February 2021) and, for comparison, in the previous 12 months (March 2019 - February 2020).

Figure 2 – Distribution of characteristics within bankrupt and exited firms



¹⁴ Giacomelli *et al.*, 2021, *op. cit.*

¹⁵ The definition of size classes is based uniquely on workforce size, as accounting data are available for corporations only.



Notes – Based on data from *InfoCamere* and *Inps*.

No relevant changes emerge in terms of size composition.¹⁶ As for geographic location, there are only moderate increases in the weight of Northern firms, both in bankruptcies and exits. Within bankruptcies, the share of firms based in regions of the Center has slightly decreased; among exits, the frequency of firms located in the South has decreased.

Differences in distribution between sectors of productive activity also appear to be limited. For example, there has been a decrease in the proportion of bankruptcies and exits of the trade sector, compared with an increase of other service sectors. However, maybe surprisingly, there are no significant changes in the weight of sectors such as tourism and leisure activities, among the most affected by the pandemic crisis.

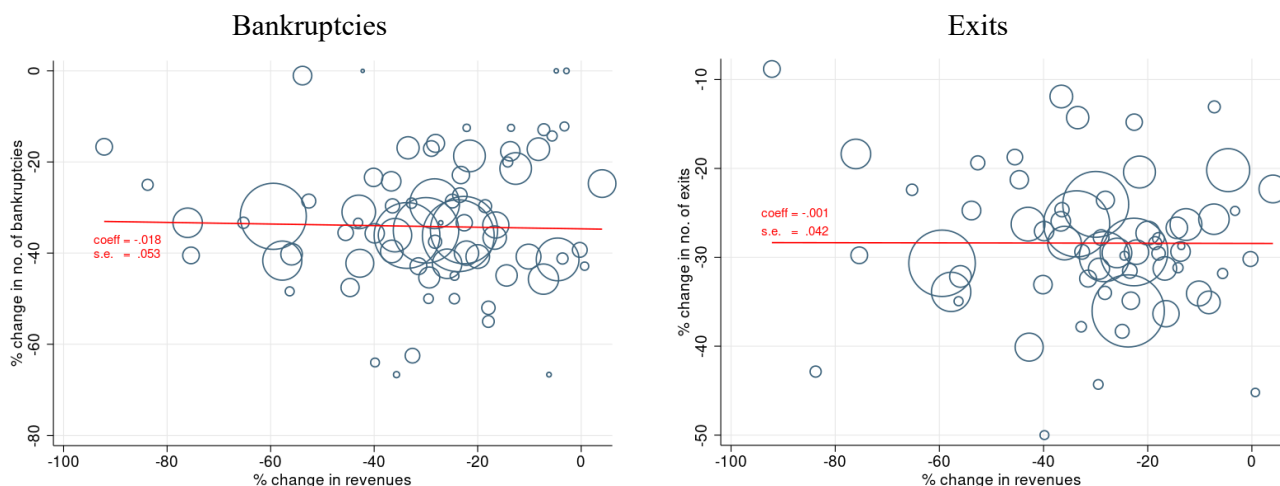
To further explore this aspect, we analyze with a more granular disaggregation of sectors the correlation between the intensity of the Covid shock (as measured by the average change in net revenues in March-May 2020 relative to the same period in 2019)¹⁷ and the change in the number of bankruptcies and exits. In the face of a crisis and in absence of counteraction by the government, one would expect most sectors to see their share of bankruptcies and exits increase, and more so for sectors subject to a stronger shock. However, as shown above, a generalized reduction in bankruptcies and exits has taken place.

If government intervention had been homogeneously distributed among sectors, one would expect bankruptcies and exits to *decrease less* in the hardest-hit sectors. On the contrary, as shown in Figure 3, there appears to be almost no correlation between the change in the frequency of bankruptcies and exits at sector level and the intensity of the Covid shock. Given the heterogeneity of the shock, it is plausible to assume that this is the consequence of support measures not only having had the ability to contain negative outcomes, but also to do so proportionally to the intensity of the shock itself.

¹⁶ In order to be subject to the bankruptcy procedure, a firm must fulfil minimum requirements in terms of revenues, total assets and debts. This can explain the difference in the size distribution of bankrupt and exited firms.

¹⁷ Qualitatively similar results emerge when measuring the intensity of the shock as either (i) the variation of revenues in all of 2020 with respect to all of 2019, or (ii) the variation in value added from National accounts, at a higher level of sectoral aggregation.

Figure 3 – Intensity of the Covid shock and changes in bankruptcies and exits

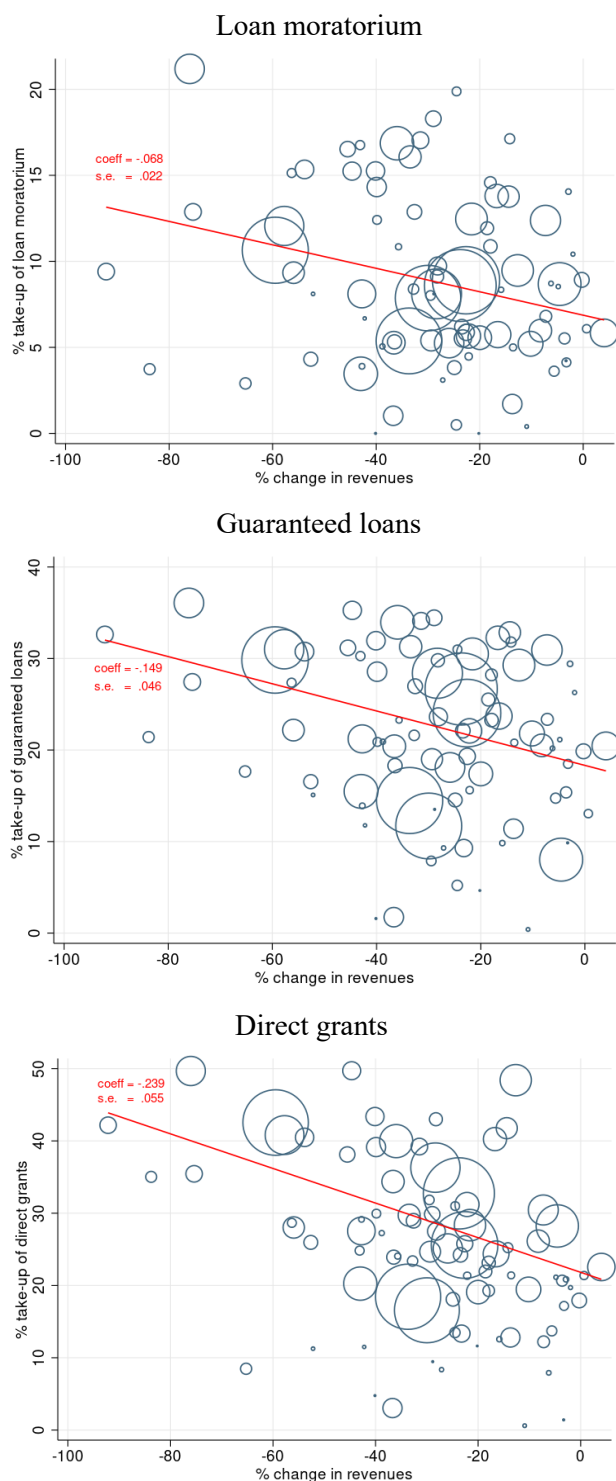


Notes – Based on data from *InfoCamere* and the Italian Revenue Agency. Sectors of economic activity are categorized according to the NACE classification at 2 digits. The charts show the correlation between the variation in revenues in the period March – May 2020 relative to the corresponding months of 2019 and the variation in bankruptcies/exits in the period March 2020 – February 2021 with respect to the period March 2019 – February 2020. Red lines represent a linear model of the relationship between the two variables, weighted by the number of firms recorded in the Business Register as operating in each sector in 2019. We report the estimate of the coefficient of interest and its standard deviation. Marker size is also proportional to the number of firms in each sector.

Indeed, Figure 4 illustrates how the actual take-up of some of the main support measures¹⁸ is significantly correlated with the intensity of the reduction in firm turnover in the first quarter of the pandemic. This concerns all three measures we consider here, chosen because of their importance and the possibility to draw a reliable measure of their take-up. The loan moratorium allows SMEs to delay the deadlines for principal and interest repayments on several types of debt contracts. Guaranteed loans are characterized by the provision of a full or partial state-backed guarantee. Direct grants were made available to firms displaying revenue losses exceeding specified thresholds. The correlation between the take-up of these measures and the intensity of the shock (i.e., the magnitude of the decrease in revenues) strengthens the hypothesis of a relatively efficient allocation of support resources in response to the needs induced by the pandemic crisis.

¹⁸ For each support measure, the take-up is approximated by the ratio between the number of firms that received the support (over a period depending on data availability for each specific measure) and the total number of firms recorded in the Business Register as operating in 2019. Computing the most appropriate value of the denominator (i.e., the number of potential beneficiaries) is complicated by the lack of relevant information for certain groups of firms (e.g., balance sheet information for partnership) and by the changes in eligibility criteria that occurred within the periods under analysis. For instance, a better estimate of the potential beneficiaries of direct grants would require the knowledge of individual variations in revenues.

Figure 4 – Intensity of the Covid shock and take-up of support measures



Notes – Based on data from *InfoCamere*, Italian Revenue Agency, *Anacredit*, *Mediocredito Centrale*, *SACE*, State Treasury. Sectors of economic activity are categorized according to the NACE classification at 2 digits. The charts show the correlation between the variation in revenues in the period March – May 2020 relative to the corresponding months of 2019 and the take-up of support measures, defined as the ratio between the number of firms that received the support and the total number of firms recorded in the Business Register as operating in that sector in 2019. Red lines represent a linear model of the relationship between the two variables, weighted by the number of firms in each sector as defined above. We report the estimate of the coefficient of interest and its standard deviation. Marker size is also proportional to the number of firms in each sector.