The line of research State aid & financing decisions examines the financing choices of Italian firms in Covid-19 times. Italy has been severely affected by the Covid-19 pandemic and its first total lockdown lasted for almost two months. Halting the economic activity for such a long period caused a widespread liquidity crisis. For this reason, the Italian government put forward several extraordinary policy measures to mitigate the negative impact of the Covid-19 pandemic on the financial health of firms with the so-called Liquidity Decree ("Decreto Liquidità", Decree-Law 23/2020, converted into Law 40/2020). Among other measures, the decree allowed medium and large firms to access the so-called "Guarantee Italy" program ("Garanzia Italia"). An export-credit company controlled by the state, SACE S.p.A. (part of group Cassa Depositi e Prestiti, the Italian state-owned investment bank promoting economic development) was authorized to provide an exceptional guarantee plan (up to a total amount of €200 billion, corresponding to 11% of the Italian GDP) to new loans taken out by Italian firms through the banking system. According to SACE, as of December 23, 2020, 1254 deals were covered by the state guarantee, for an overall amount of €19 billion.

The mechanics of the guarantee goes as follows. It is granted to medium-to-long term bank loans maturing up to six years. Firms are able to apply for this state guarantee up to the end of June 2021, provided they had not been "in distress" or had deteriorated exposures with the banking system prior to the burst of Covid-19. There is an upper limit to the loan size (25% of the 2019 turnover or twice as much as the 2019 labor costs, whichever is higher), and to the percentage of the guarantee (ranging from 70 to 90% of the loan). The state guarantee's annual cost is between 25 and 200 basis points, depending on the firm's size and the loan maturity. Besides the actual fee due to SACE, there is another implicit cost attached to the state guarantee. The borrowing firm must agree to curb its distribution policy, as it is not allowed to distribute cash to its shareholders (both in the form of dividends and share buybacks) for the 12 months following the loan inception.

Both public and private firms can apply to the funding scheme. This heterogeneity offers a novel opportunity of analysis. Private firms differ from public firms under a number of aspects. They have a much more concentrated ownership structure, have less access to capital markets, are more reluctant to use external equity, hold less cash, have higher leverage ratios, are younger and smaller, and have a lower propensity to smooth dividends over time (Giacomelli and Trento, 2005; Brav, 2009; Michaely and Roberts, 2012; Bigelli and Sánchez-Vidal, 2012; Gao et al., 2013; Mortal et al., 2020; Lyandres et al., 2019). This makes private firms' financing and distribution decisions different from those of their public counterparts and, for our purposes, may directly impact the attractiveness and usefulness of state-guaranteed funds across the two groups of firms. We aim to understand how private and public firms adapt their capital structure and distribution policies under unforeseen shocks like Covid-19, in the presence of state-guarantees.

The intended contributions of the second line of research can be illustrated as follows. As previously mentioned, financial flexibility is valuable tofirms, especially during a crisis. By looking at a sample of publicly traded firms, Fahlenbrach et al. (2021) find that firms enjoying greater financial flexibility can better fund a revenue shortfall and need less assistance from policy responses. Private firms are more financially constrained than their public counterparts. Therefore, financial flexibility should be far more valuable to private firms than to public firms. The project aims to complement Fahlenbrach et al.'s study, by looking at public and private firms that actually received state help, to understand how the

increased financial flexibility affects their financing decisions. Under this lens, the study should contribute to the debate on the benefits and costs of financial flexibility, and the value to a firm of targeted policy interventions aimed at bolstering liquidity in case of a sudden external shock.

Second, the guarantee comes at a cost since there is an explicit covenant on a firm's distribution policy. This offers an opportunity to assess the value of a firm's payout decisions. It can be conjectured that firms willing to apply for a state-guaranteed loan are those which attribute less importance to the negative covenant. Existing literature shows that private firms pursue a residual payout policy, while public firms actively smooth cash distributions (Michaely and Roberts, 2012; Drobetz et al., 2018). Therefore, the cost of the guarantee should be smaller for private firms. One can argue that financially constrained firms applying for the state guarantee are ex-ante unconcerned about the dividend ban in the upcoming year, due to their liquidity shortage. However, this concern is partially mitigated by the exclusion of distressed firms from the opportunity to take out guaranteed loans. For this part, the sample firms include public and private firms that are financially constrained (albeit not in distress) according to the above-mentioned indicators and, hence, eligible for state-guaranteed funding.

Overall, we predict that, due to greater benefits and smaller costs, the likelihood of accessing the state guarantee should be higher for private firms than for their public counterparts. The value -effectiveness of borrowed funds should also be higher for private firms, as it is known that the access to capital markets allows public firms to invest more efficiently and better exploit growth opportunities (Mortal and Reisel, 2013; Gilje and Taillard, 2016; Phillips and Sertsios, 2017). These findings are of global relevance, since private firms greatly outnumber public firms everywhere in the world.

An important side result of the research is the estimate of the probability for a firm accessing the state guarantee to repay its debt. Even if a firm's operating cash flows return to pre-Covid levels, such cash flows will have to service a significantly larger amount of debt. This could lead to a situation where it is optimal for the government to partially refinance the liquidity program and/or postpone the loans' maturity to minimize a firm's default probability. This outcome would be highly undesirable, as it would overturn the policy measure and result in a loss of public funds.

Accounting and financial data on private and public firms will be retrieved from Bureau Van Dijk/Aida database. We are in contact with SACE who agreed to provide details on the companies that have obtained funding under the "Garanzia Italia" program.

Training Plan

The research project consists of the following Work Packages (WPs).

WP1 Literature Review (Months: 1-3)

WP1 will conduct a detailed assessment of the literature on the impact of government interventions to support businesses during systemic crises, specifically focusing on the Covid-19 pandemic wave.

Deliverable: D1. Literature Review

WP2 Data Collection (Months: 2-5)

WP2 is dedicated to the process of collecting and systematizing data from SACE, merging information from other sources specified in the project description.

Deliverable: D2. Final Database for Econometric Analysis

WP3 Data Analysis (Months: 5-10)

Using the data collected in WP2, the researcher will conduct econometric analyses to address the research questions outlined in the project.

Deliverable: D3. Tables and figures related to the analyses

WP4 Paper Writing (Months: 8-12)

WP4 aims to develop one or two scientific papers aimed at disseminating the findings from WP3.

Deliverable: D4. One or two scientific papers