

**README – Replication package for “COVID-19 Is Also a Reallocation Shock,”  
by Jose Maria Barrero, Nicholas Bloom, and Steven J. Davis**

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This replication package contains code and non-confidential data that may be used to replicate the results from Barrero, Bloom, and Davis (2020). As of July 2020, researchers may request access to the confidential microdata used in the paper (and not included here) by emailing Brent Meyer at [Brent.Meyer@atl.frb.org](mailto:Brent.Meyer@atl.frb.org). The code we include here works with the non-confidential and confidential microdata to produce all the results in the paper.

We produce all results in the paper using Stata 16 MP on a 6-core 3.2 GHz Intel Core i7 2017 iMac with 32 GB of RAM. None of the results in the paper require significant computing power, however. We use Microsoft Excel for a smaller number of calculations and include the relevant spreadsheets.

**Included Code File:**

- *Master\_BarreroBloomDavis2020\_ReallocationShock.do* is the master file that contains all the code necessary to reproduce Tables 1 to 4 and Figures 1 to 4 from the main text as well as Tables C.1 to C.2 and Figures C.1 to C.2.
- The code contains detailed comments to guide the reader through replicating each of the results.
- The only modifications researchers need to make to the file are to (1) edit the location of the directories containing the confidential and non-confidential data, and (2) export figures and tables using their preferred method.

**Included (Non-confidential) Microdata Files:**

- *bfs\_us\_apps\_weekly\_nsa\_Jul162020update.csv* contains raw, weekly business formation statistics obtained from the US Bureau of Census, which we use to construct Figure 1. The raw data (and updates) may be found at: <https://www.census.gov/econ/bfs/index.html>
- *WFHquestionprodata.dta* contains responses to a 2,500-person survey fielded by QuestionPro on behalf of Stanford University in late May 2020, which asked respondents about their work status at the time of the survey. We use these data to produce Figure 3.
- *equity\_monthly.dta* contains monthly firm-level equity levels and returns from January 1984 to mid-July 2020, which we use to produce Figure 4 in the main text, as well as Figures C.2 and Table C.2 in the Online Appendix. See the paper for more details on how we construct these data from raw security data in Compustat (via WRDS).
- *equity\_daily\_Feb24\_Jul14.dta* contains daily firm-level equity levels and returns from February 24 to July 14, 2020, which we use to produce Figure 4 in the main text, as well as Figure C.2 in the Online Appendix. See the paper for more details on how we construct these data from raw security data in Compustat (via WRDS).

### **Confidential Microdata Files Not Included:**

The following files contain confidential microdata from the Atlanta Fed/Chicago-Booth/Stanford Survey of Business Uncertainty used to construct Figure 2 and Tables 2, 3, and 4 in the main text as well as Figure C.1 and Table C.1 in the Appendix. As of July 2020, researchers may request access to the confidential microdata by emailing Brent Meyer at [Brent.Meyer@atl.frb.org](mailto:Brent.Meyer@atl.frb.org). Researchers may use the master code file included in this package along with these confidential data to replicate the relevant results from the paper.

- *COVIDstaffingchanges.dta* contains data on staffing changes at SBU respondent firms between the beginning of March and mid-May 2020, which we use to produce Table 1 in the main text.
- *SBU\_forrealloc6.2020.dta* contains microdata on firm-level forecasts of own-firm sales and employment growth at a one-year horizon. (More specifically, the horizon is four

quarters for sales and twelve months for employment.) We use these data to construct Figures 2 and C.1 as well as Table C.1.

- *WFHprepostCOVID.dta* contains microdata from a May 2020 question in the SBU, asking about the share of employees working from home in 2019 (pre-COVID) as well the planned share of employees working from home post-COVID. We use these data to construct Tables 3 and 4 in the paper.
- *COVID19salesimpact42020.dta* contains responses from the SBU on a special question asking firms in March and April 2020 for their forecast of the causal impact of the COVID-19 pandemic on their 2020 sales revenue.

#### **Included Excel Files:**

- The master code file loads and processes the data used in Figure 1, but we used Excel to create the figure included in the working paper versions. We have included an Excel file, *Figure1withformatting.xlsx* with a copy of the processed data and the chart as it appears in the working paper version.
- *Figures2andC1Data.xlsx* contains the non-confidential *macrodata* series plotted in Figures 2 and C.1, which we also use to produce Table 1.
- *Inferring Permanent Job Losses from CPS data.xlsx* goes through the calculations in Appendix A step by step and in detail.
- *California Initial Claims.xlsx* contains supporting calculations for the statistics about initial California claims, used in Appendix B.
- *Calculations on JOLTS Data.xlsx* contains our calculations of the permanent layoff share using JOLTS data and reproduces Table B.1.