#### **COVID-19 and SME Failures**

#### **Discussion by Ryan Decker**

Paper by Gourinchas, Kalemli-Özcan, Penciakova, and Sander

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The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors of the Federal Reserve System

# A sensible approach to estimating 2020 business failures, ex ante

- Assess the initial cash position of businesses (Orbis)
- Hit businesses with Covid shocks
  - Aggregate demand
  - Sector demand
  - Sector labor supply
- Track business responses (via a cost minimization model)
- Tally up business failure (exhaustion of liquid assets), compare to baseline without Covid
- Explore policy remedies

### My takeaways

- Policy simulations look quite plausible. In U.S. GDP space:
  - Targeted bailout costs \$100b
  - All firms bailout costs \$400b
  - Full labor subsidy costs \$400b (8-week) or \$800b (16-week)
  - PPP was about \$500b
- Scope for failure is substantial (2x normal rate)
- Big cross-country variation
  - ~1.5x in Greece, Romania, Slovak Republic
  - ~2.3x in Italy, Slovenia
- Risk to the banking sector is modest

#### Comments

- 1. The firm size and age distribution
- 2. Demand shock specification
- 3. Can you say anything about the U.S.?

# 1. Business death is a tiny-firm phenomenon (at least in U.S.)



Note: Unweighted exit rates with DHS denominators. BDS data are noisy in Economic Census years (2's and 7's). Source: Census Bureau Business Dynamics Statistics (BDS).

- Both the level and the cyclicality of firm death are driven primarily by firms with 1-4 employees (Crane, Decker, Flaaen, Hamins-Puertolas, Kurz 2020)
  - Among tiny firms, older firms have lower death (and maybe less cyclicality)
- Most SME activity faces low baseline death risk and low death cyclicality

# Can you shed light on the size/age distribution of death?

- All estimates indicate higher firm death rate than employmentweighted firm death rate
- Can you say more about this?
  - Does the 2020 pattern diverge from typical death patterns across the size and age distribution?
  - For example, how are firms in the 100-250 category doing? Are older firms dying?
  - For what it's worth: Crane et al. (2020) find ex post evidence that the rise in deaths has been concentrated among small units in certain industries
- Does the size/age distribution of death have policy implications?
  - What happens if your policy targeting is more narrowly based on size and/or age?
- Not clear what would be optimal:
  - Bail out only high-baseline-risk groups?
  - Or... DON'T bail out high-baseline-risk group?
  - Question is whether size/age help you target *viable* firms

### 2. Demand shock specification

- Sector-level demand and supply shocks measured from granular occupational and industry data
  - Data are for U.S. Any alternatives? How generalizable are US assumptions?
- Aggregate demand shock from June 2020 IMF WEO
  - Please clarify how AD shock incorporates sector shocks (p.22)
  - IMF policy expectations are embedded in WEO (authors note carefully)
    - $\rightarrow$  Is the "true" AD shock larger than IMF projection suggests?
    - If so, failure rates are underestimated
    - Rigorous estimation of AD shock beyond scope of paper—but could still improve

## Can you remove policy from AD shock measure? Maybe!

 Consider removing fiscal impetus from WEO-based AD shock (use WEO or Policy Tracker)

More than two-thirds of governments across the world have scaled up their fiscal support since April to mitigate the economic fallout from the pandemic and the stringent lockdowns as growth is revised further down relative to the April 2020 *World Economic Outlook*. These measures have helped save lives, protect livelihoods, and preserve employment and business relations.



Additional spending and forgone revenue

Loans, equity, and guarantees

# 3. Can this framework inform U.S. policy?

- Study limited to (mainly) Europe for data reasons
- U.S. data won't allow this kind of analysis any time soon
  - $\rightarrow$  You don't have much U.S. competition
- Can use revenue function parameter estimates from Europe or U.S. literature
- Need cash balance, financial expenses, cashflow microdata for U.S. firms
  - Your LBD-weighted U.S. Orbis data... ?
  - Just use European data?
- Or make synthetic U.S. firms
  - Simulate U.S. firms using aggregate U.S. data?
  - Turn European firms into U.S. firms using adjustments from aggregate U.S. data?

### U.S. financial data for SMEs

- Quarterly Financial Report (QFR, Census)
  - Income statement and some balance sheet, 2019q4
  - Not all sectors but detail in some sectors
  - Some minimal size breakdown
- IRS Integrated Business Data
  - Partnerships & LLCs, income statement & assets, by NAICS or asset size (through 2017) <u>https://www.irs.gov/statistics/soi-tax-stats-partnership-data-by-size-of-total-assets</u>
  - Various other through 2015 <u>https://www.irs.gov/statistics/soi-tax-stats-integrated-business-data</u>
  - Very detailed data for SMEs through 2003 <u>https://www.irs.gov/statistics/soi-tax-stats-integrated-business-data</u>
- SUSB: Revenue and payroll tabulations by firm size (2017)
- Also... microdata from Kauffman Firm Survey (2011)

# Can this framework inform U.S. policy?

- Doing the exercise for the U.S. would be less convincing than the Orbis work
- .... But more convincing than anything else out there
- Could do it a couple different ways to get bounds on effects

### Smaller points

- Do you use sampling weights with Orbis data? Maybe I missed the discussion of this—if not, would be good to know
- "Bankruptcies" terminology is confusing—most small firms that die don't use bankruptcy system
- Is the labor supply constraint holding back pandemic-friendly sectors that grew? (e.g., NAICS 445, 454, 492, 493 employment is up since February!)
- Assumption of sticky prices seems reasonable—but may be good to at least discuss what has happened with prices empirically.
- What if business owners can supply personal funds? May be important for accounting for ex post exit if lower than projected (Crane et al. 2020)
- Seems natural to assess policy implications for aggregate productivity
- Can you test the model/framework on the GFC?

#### Nice paper!