Discussion of ‘Causal Effects of Closing Businesses in a Pandemic’

by Barrot, Bonelli, Grassi and Sauvagnat

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Motivation and Research Questions

- Unprecedented crisis in scope and nature

- Unprecedented “whatever it takes" policy response:
  - Government-imposed social distancing measures: business mandatory closings, work-at-home, school closures.
  - Large-scale support to business and individuals

- We can now look back and evaluate the policies:
  - Did social distancing measures reduce the virus spread?
  - Were these efficient from a cost-benefit perspective?

→ Very important questions for which answers can have tremendous impact on the public debate.
Aim of the research

- Identify causal effects of govt-mandated business closures on economic and health outcomes in the US.

- US provides a convenient setup given heterogeneity across states in the timing and sectoral composition of the measures.

- Compare more exposed vs less exposed units by a continuous dif-in-dif.

- Two sets of exercises:
  - At the firm-level
  - At the “Commuting-zone (CZs)” level
Methodological approach

1. Measure the labor restrictions by combining geographical and sectoral specialization of firms and industry composition of CZs, adjusted by the possibility to work at home.

\[
\text{Restricted}_f \text{Labor} = \sum_{\text{ind}} \sum_{\text{state}} \omega_{\text{ind}, \text{state}} \cdot \text{Closed}_{\text{ind}, \text{state}} \cdot (1 - \text{work-at-home}_{\text{ind}})
\]

\[
\text{Restricted}_c \text{Labor}_{cz} = \sum_{\text{ind}} \sum_{c \in \text{cz}} \omega_{\text{ind}, c} \cdot \text{Closed}_{\text{ind}, c, \text{state}} \cdot (1 - \text{work-at-home}_{\text{ind}})
\]

2. Use a time varying measures of \text{Restricted}_f \text{Labor} as continuous treatment accounting for vectors of fixed-effects.

\[
Y_{y,t} = \mu + \epsilon \text{Restricted}_f \text{Labor}_y \times I_{\text{shutdown}} + FE + \epsilon_{y,t}
\]

Identifying assumption: \text{Restricted}_f \text{Labor}_y uncorrelated with \epsilon_{y,t} in expectation.
Main results

1. **Firms.** 10% increase in RL associated to: -2% in sales, -1% in assets, -3% in stock market value
   - Identified using sector/quarter and state/quarter FE.

2. **CZs.** 1 std increase in RL associated to: 33% of std in weekly incidence rates and 63% std in death rates.
   - Identified using CZ/week, State/week FE and CZ/week controls.

In both cases, effects tend to take some time to materialize.
High-level comments

- Very interesting and thorough empirical work, with important contributions to the literature and the policy debate

- Rich set of results looking at a wide set of outcomes at two different levels of interest

- In particular, quantifying the consequences of labor supply restrictions is very important for policy and for modeling

- Framework and data can be readily extended to look at other policies and outcomes.
Comment on identification

- Nice to confirm no prior trends. Might not be enough in light of the complexity of the shock.

- Are supply shocks correlated with Restricted_Labor?

- At what level are demand shocks relevant?
  - Identification within states goes a long way if demand is regional (e.g., state-wide income support policies).
  - Nice also to control for National Closure.

- Choice by States on which sectors to close is key: can you say more on this?

- Minor: can the effect be non-linear? (i.e., it kicks in when $RL > 0.3$ say).
The Role of Production Networks

- Supply and demand shocks affecting CZs might arise from differential exposures to production networks.

- Simple and nice extension here would be to account for $\text{Restricted Upstream}_\text{Labor}$ and $\text{Restricted Downstream}_\text{Labor}$ in the same vein as the spillovers analysis
  - See e.g., Stumpner JIE 2019 that combines interregional trade flows with national IO tables.

- Would nicely complement previous work using equilibrium effects (Barrot, Grassi, Sauvagnat, 2020)

- Do contact-intensive industries tend to source/sell to contact-intensive industries?
Extensions

- Super interesting to evaluate impact of other policies
  - Do higher vaccine rates improve economic performance? (the trillion-dollar question)
  - Mask usage across regions?

- Evaluate heterogeneous impacts by type of population
  - Important debates about unequal labor market effects in terms of race, social status and skills
  - Data should be available at the CZ level (ie opportunity insights)
General comments

- Great and much needed work!

- In future work I would center the analysis around health outcomes and do extensions along those lines.

- Really liked the results on firms and employment as intermediary step.
  - But very data demanding (ie Homebase biased towards food services sectors).
The Covid 'shock(s)'

- Covid = agg. and relative (sector) supply and demand shocks (eg Guerrieri et al 2020; Baqae and Farhi 2020).

- **Supply shocks:**
  - Labor supply restrictions (workplace and school closures)
  - Productivity (work-at-home)
  - Supply disruptions (inputs, transport cost, distribution issues, access to imports)

- **Demand shocks:**
  - Changes in sectoral consumption patterns
  - Downstream through value chains
  - Aggregate: income losses

Shocks stem both from **policies** and individual **self-restrictions**