Discussion of "Fiscal Multipliers in the COVID19 Recession" by Auerbach, Gorodnichenko, McCrory and Murphy

Adrien Auclert

Stanford

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The COVID19 shock

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  1. New type of shock, requiring new theories
  2. Came in age of big data, requiring processing & analysis
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- Many things we still do not know, but we do know this:
  - Yuriy Gorodnichenko's research output is demand-determined !

This paper

- Estimates cross-CBSA fiscal multipliers by lockdown status

$$\Delta N_i = \alpha + 1_{Lockdown_i} + \beta_1 \Delta G_i + \beta_2 \Delta G_i 1_{Lockdown_i} + \epsilon_i \quad (1)$$

  - ΔN_i is 04/20 − 04/19 employment
  - ΔG_i is (05/19-04/20) − (05/18-04/19) DOD spending
  - $1_{Lockdown_i} = 1$ if CBSA i had more than 0.75 week of SAH order

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- Main findings:
  - $\beta_1 \gg 0$: about 22 jobs per million USD spent in a year
  - $\beta_1 + \beta_2 \simeq 0$: "broken multiplier" for locked-down CBSAs
  - For consumption, $\beta_1^c \simeq \beta_2^c \simeq 0$: no spillover to C either way

My discussion

1. Empirical strategy
2. Implied output multipliers
3. Understanding the mechanism

- Key point: $\beta_1 \simeq \beta_2 \simeq 0$ looks like the norm here: why?

Empirical strategy

- Usual concern in running (1): ΔG_i not randomly assigned
  - Standard solution is Bartik $\Delta G_i = \gamma_i \Delta G$ [Nakamura-Steinsson 2014]
  - Here $\Delta G = 0$... run OLS instead

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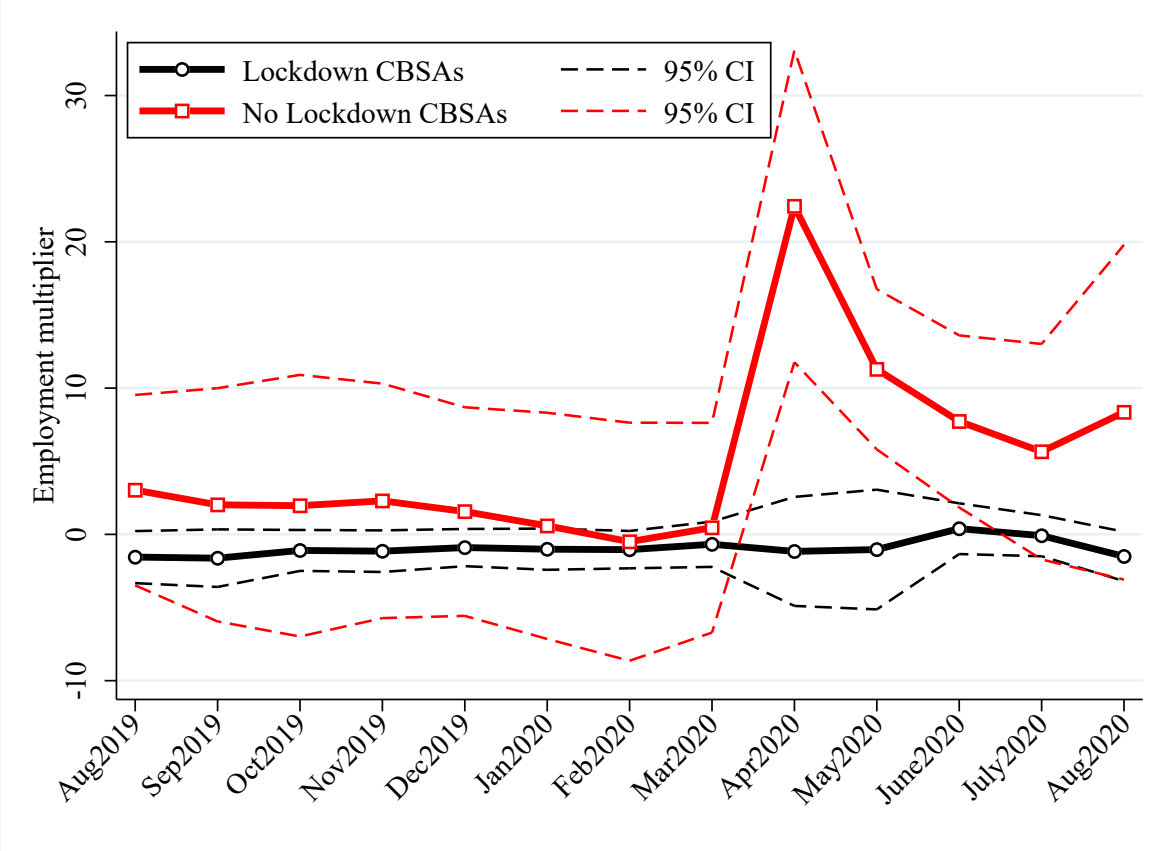
"While our specification does not produce unbiased estimates in normal times, we proceed under the assumption that it can provide evidence of state dependence if such state dependence exists"

- I am not sure why that should be true
  - Is this a statement about magnitudes or just signs?
  - Maybe write down a simple model to clarify?

Magnitudes at other times: $\beta_1 \simeq \beta_2 \simeq 0$

Figure 6. Placebo.



- Is average multiplier zero except in April? What does Bartik IV give?

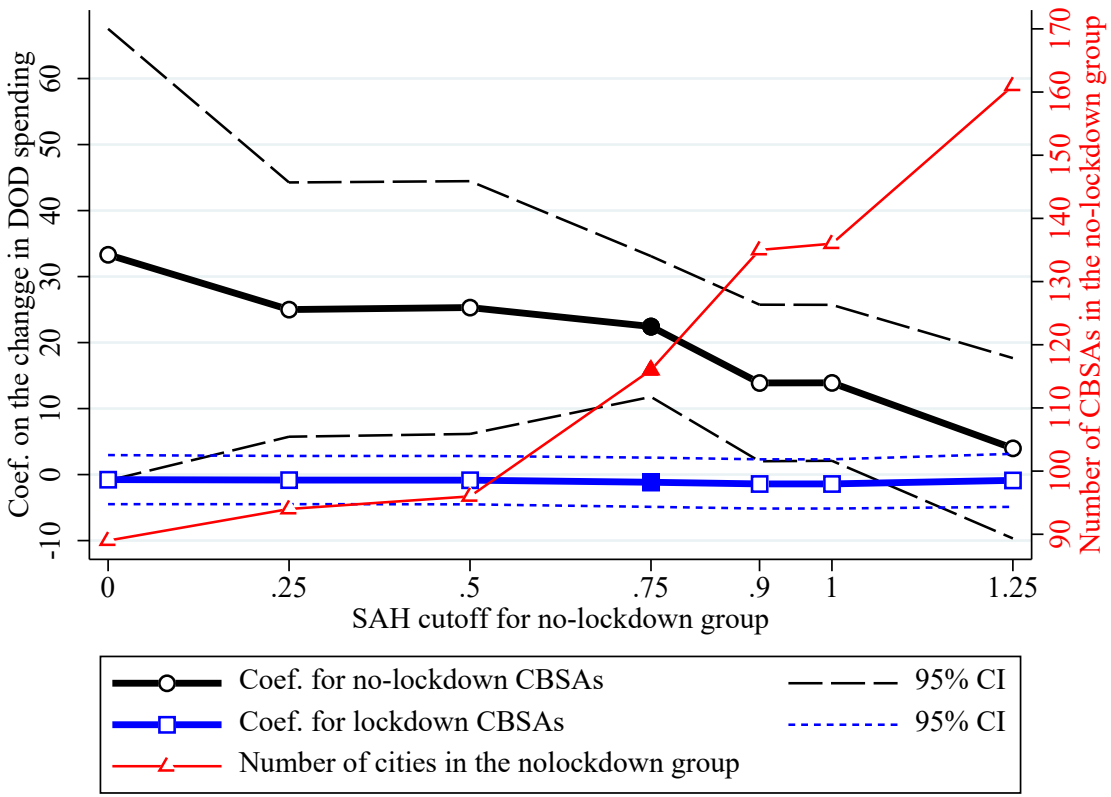
Choice of split

- Choice of split for $1_{Lockdown_i}$ is very uneven
  - Not locked down has $N = 116$ CBSAs with mean pop of 97.5k
  - Locked down has $N = 824$ CBSAs with mean pop of 337k
  - So locked down group has 24 times more pop
- Baseline justified by tradeoff between power and size, but I am not sure what should be special about 0 SAH weeks
- Underlying theories would likely be more consistent with cts effect
- Could run a continuous, maybe nonlinear version?

$$\Delta N_i = \alpha + \beta_1 \Delta G_i + \beta_2 \Delta G_i SAH_i + \beta_2 \Delta G_i \left(SAH_i\right)^2 + \epsilon_i$$

What is so special about 0?

Figure 5. Coefficient on DOD spending as a function of SAH cutoff.



- Looks very nonlinear. What are the 0 CBSAs? $\beta_1 \simeq \beta_2 \simeq 0$ else?

Implied output multipliers

- Baseline employment effect in no-lockdown cities is

$$\Delta N_i = 22 \text{ jobs/\$1m DOD spending}$$

- Translate into output multiplier, with Okun elasticity of 1: [Chodorow-Reich 2019]

$$\Delta Y_i \simeq \frac{Y}{N} \Delta N_i$$

- Output per worker of \$150k in 2020: fiscal multiplier of 3.3

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- Output per worker of \$150k in 2020: fiscal multiplier of 3.3
  - Seems large relative to existing studies
  - Could make calculation more precise (eg use Y/N for DOD)
- Ultimately must explain:
  - Why $\beta_1 \simeq \beta_2 \simeq 0$ most of the time
  - Why β_1 so large in this particular event

Broken high-MPC channel?

- What happened in April/June 2020 in 0-SAH CBSAs?

$$Y = C + I + G + NX$$

- If C did not respond in no-lockdown cities but output multiplier was 3, what did?
  - Measurement error in Chetty consumption data?
  - Response of private investment?

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  - Measurement error in Chetty consumption data?
  - Response of private investment?
- If C did not respond in locked-down cities but output multiplier was 0, what did?
  - What about at other times?

Exploiting granularity

- Alternative is to exploit granularity of employment data
  - Where was employment increased? Defense jobs? Nontraded sectors?
  - Traded employment should be ~ 0 since this is cross-sectional
  - [Auclert-Dobbie-Goldsmith-Pinkham 2019]
- Use same granularity to ask: why are multipliers 0 at other times and in locked down cities?
  - Do DOD contracts not create defense-related jobs, or is there an offset in other employment?

Conclusion

- Thought provoking paper on important topic!
- Not (yet) the definitive study on COVID multipliers
- Can use granularity of employment data and do more to reconcile with existing literature estimates