

From Just in Time, to Just in Case, to Just in Worst-Case

Jiang, Rigobon & Rigobon

Discussion by David Baqae

Fragility of Supply Chains

- ▶ Elegant paper about fragility of supply chains.
“Don’t put all your eggs in one basket.”
- ▶ How eggs are/ought to be allocated to baskets?
- ▶ If eggs decide, all eggs go to least risky basket (just in time).
- ▶ If consumer decides, eggs are diversified (just in case).
- ▶ If the consumer is ambiguity averse, eggs are more diversified (just in worst-case).

Is “Fragility” Inefficient?

- ▶ Source of inefficiency? Why might supply chains be excessively fragile?
- ▶ This paper: prices are fixed after shock.
- ▶ Otherwise, price rises after a bad shock.
- ▶ A firm in less favorable location would earn much higher profits.
- ▶ Profit motive would cause firms to diversify (recover efficiency).

Fragility of Supply Chains – Inefficiency

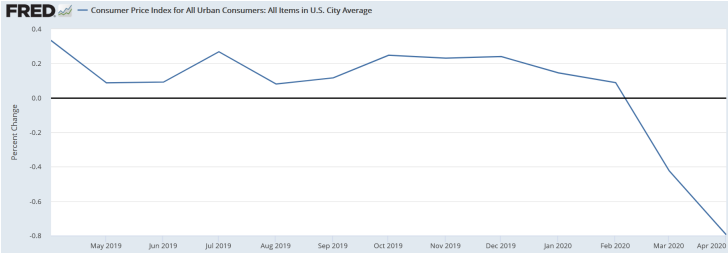
- ▶ After a couple of quarters, I would expect prices to adjust.
- ▶ Supply chains are durable decisions, can price inflexibility matter that much?
- ▶ In search of other externalities?
- ▶ Ex-post regret does not mean ex-ante inefficiency.

Application to Covid-19 Crisis

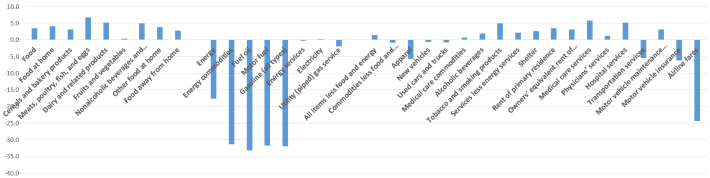
- ▶ Would diversifying from China have helped?
Aggregate shock vs. region-specific shock.

- ▶ Were the reductions in output due to fragile supply chains?
(vs old-fashioned supply and demand shocks)

Prices in the Covid-19 Crisis



(a) CPI inflation



(b) Prices by sector

Importance of Fragility in Covid-19 Crisis

- ▶ Were the reductions in output supply or demand driven?

In the United States, as of October 18, 2020, total spending by all consumers decreased by **3.7%** compared to January 2020.

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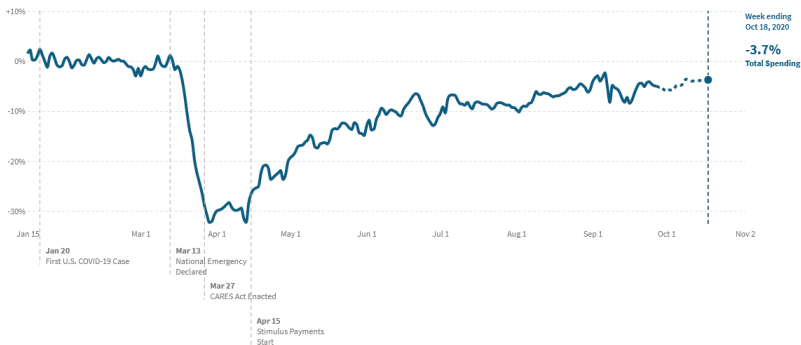


Figure: Nominal consumer spending

Was there a demand shock?

- ▶ Consumption Euler equation with log preferences:

$$d \log P^Y Y = -\rho \left(d \log(1+i) + d \log \beta - d \log \bar{p}_*^Y \right) + d \log \bar{Y}_*.$$

- ▶ If $d \log \bar{p}_*^Y \approx d \log \bar{Y}_* \approx 0$, nominal spending must be demand-driven.
- ▶ If shock demand-driven, then *fragility* of supply chain less relevant.
(supply chains matter, since they direct demand; e.g. Baqaee & Farhi, 2020).

Conclusion

- ▶ Excess fragility of supply chains greatly understudied by macroeconomists.
- ▶ Identifying the source and magnitude of potential inefficiency crucial.
- ▶ An early paper that will inspire many other papers.