Economic Winners versus Losers

and

The Unequal Pandemic Recession

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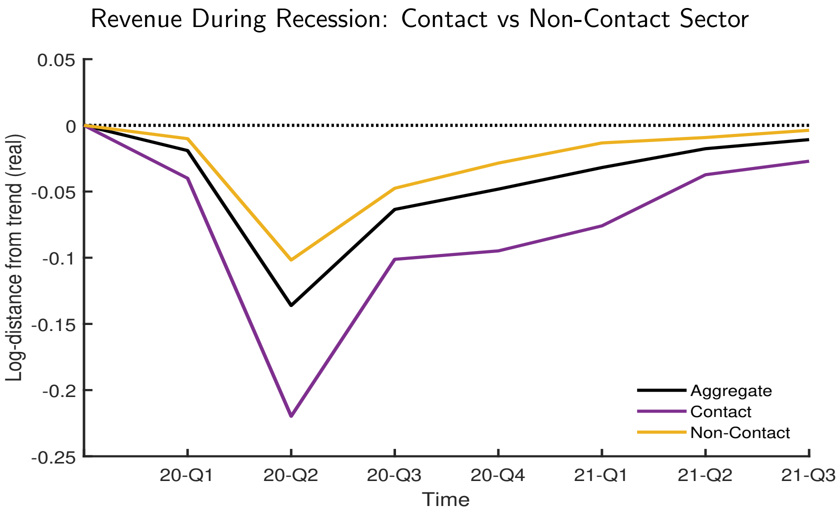
Motivation

- Recent recession has hit sectors unevenly
  - Sectors exposed to virus suffered more both in downturn and recovery

Motivation



Revenue During Recession: Contact vs Non-Contact Sector
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
Log-distance from trend (real)
20-Q1
20-Q2
20-Q3
20-Q4
21-Q1
21-Q2
21-Q3
Time
Aggregate
Contact
Non-Contact

Motivation

- Recent recession has hit sectors unevenly
  - Sectors exposed to virus have suffered more both in downturn and recovery
- Spending shift from exposed “contact” goods to safer substitutes
  - e.g. Retail stores $\rightarrow$ Amazon; Airlines $\rightarrow$ Zoom; Movie theaters $\rightarrow$ Netflix
- Substitution from pandemic “losers” to “winners” may
  - Enhance inequality
  - Enhance recession, depending on complementarities across sectors

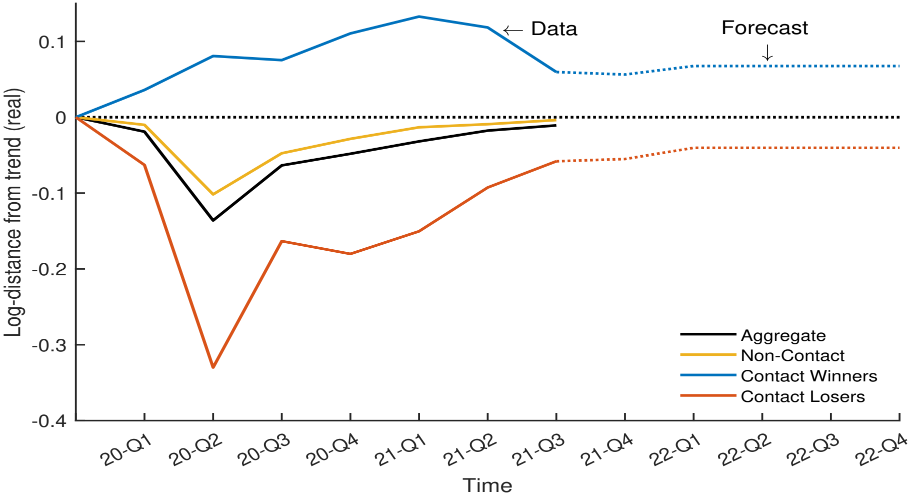
What We Do

1. Disaggregate revenue into: contact sector losers; winners; non-contact sector
   (a) We find: Quantitatively nontrivial substitution from losers to winners
   (b) Reallocation from losers to winners expected to persist
2. Develop 3 sector New Keynesian model to explain data
   (a) Model captures unequal recession and recovery
   (b) Also captures some of inflation runup

Identifying Contact Sector Winners vs. Losers: Three Steps

1. Begin with industry classification into contact vs non-contact by KMV (2020)
   - Include in contact portion of IT that provides substitutes (e.g. Amazon)
2. Stock market response to COVID news to identify winners vs losers
   (a) Construct Covid Resilience measure to summarize stock market response
      (i) Based on Davis et al. (2020)
      (ii) Sort into winners (favorable relative response) vs. losers (unfavorable)
   (b) Measure link between revenue and Covid Resilience
3. Aggregate firm revenues of winners and of losers to obtain sectoral series

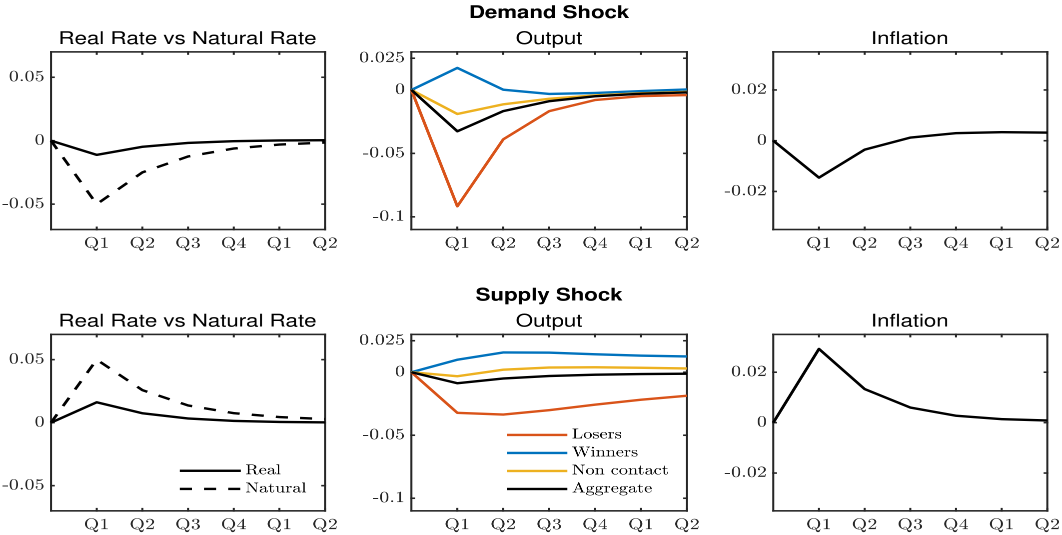
The Unequal Pandemic Recession: Winners' vs Losers' Revenue



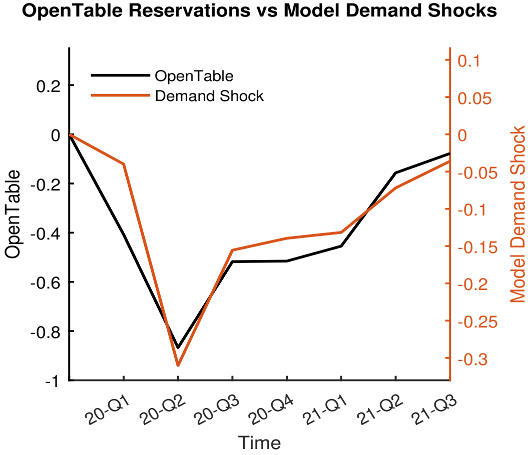
Model Overview

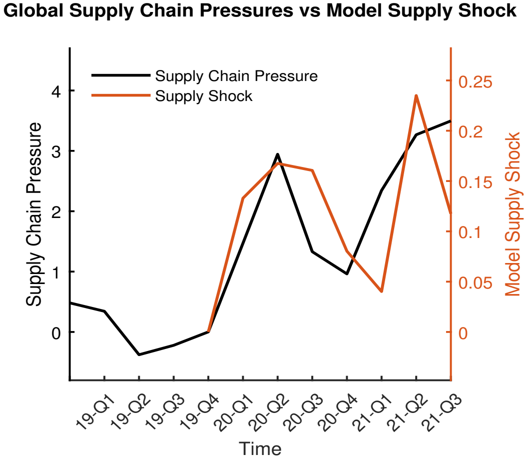
- NK model with 3 sectors (contact losers, winners, non-contact)
- Borrowing constraints
  - Introduces complementarity between sectors (GLSW, 2021)
- Learning by doing (productivity depends on recent activity levels)
  - Helps capture persistence in revenue gap between winners and losers
- Virus: 2 sectoral shocks (demand and labor supply) that hit contact losers
  - Shocks picked to target sectoral revenue and inflation data

Demand Shock vs Supply Shocks

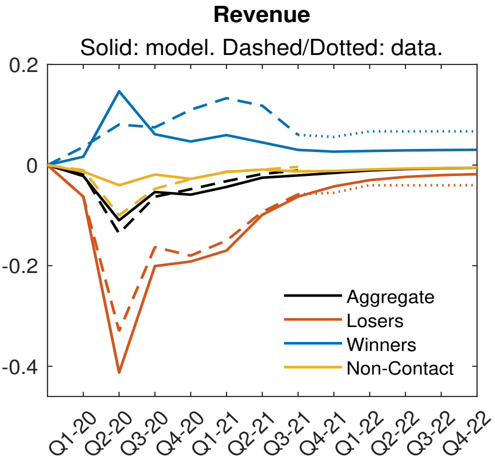


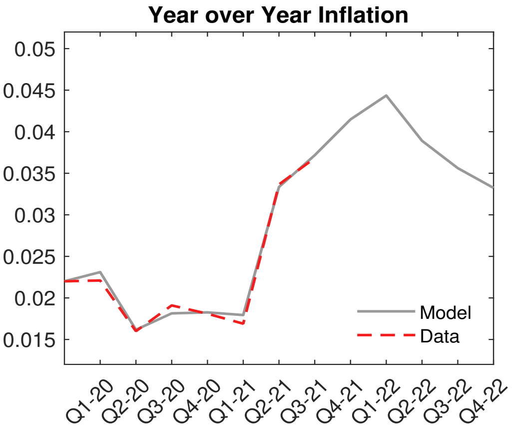
Shocks vs Data



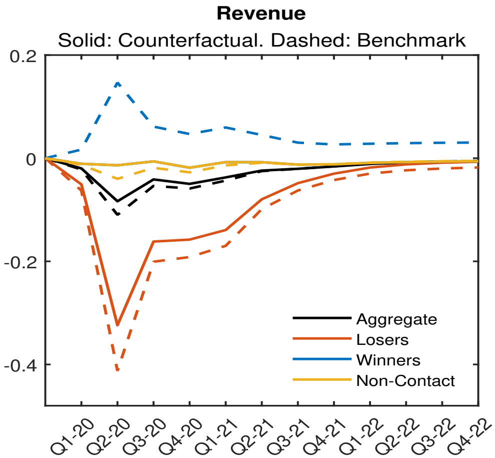


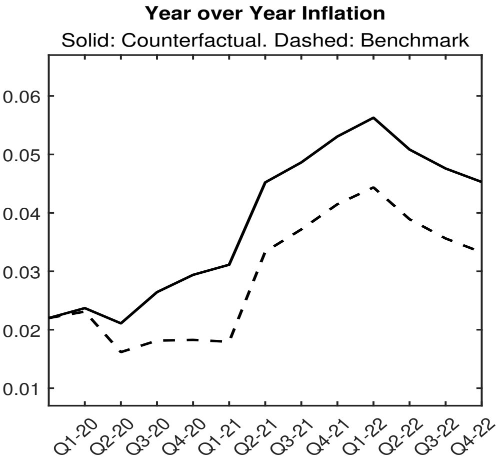
Model vs Data



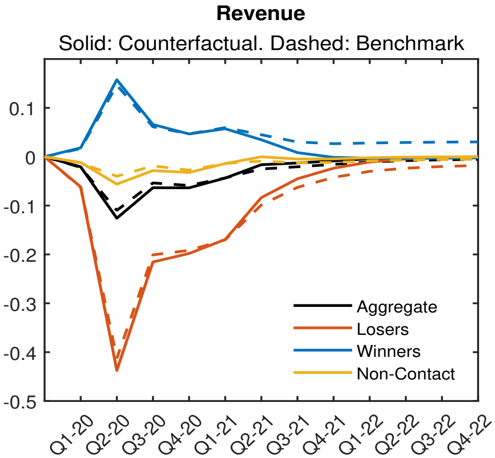


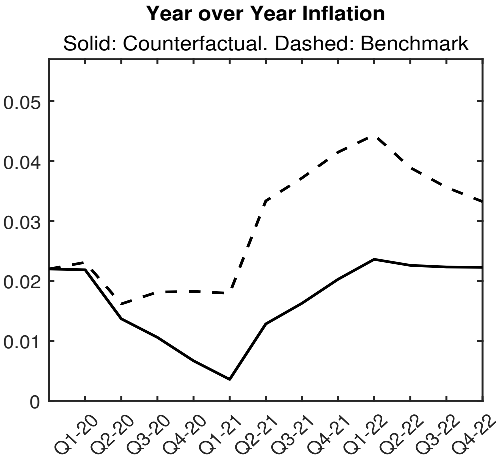
No Substitution



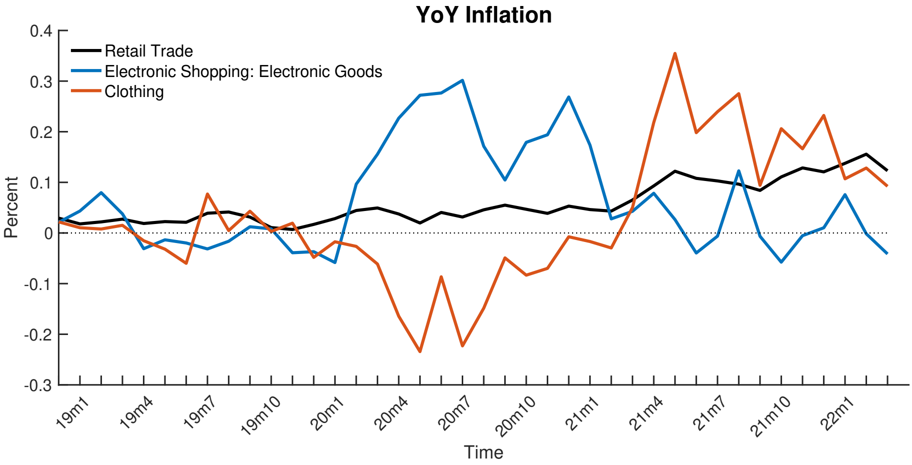


No Learning-by-Doing





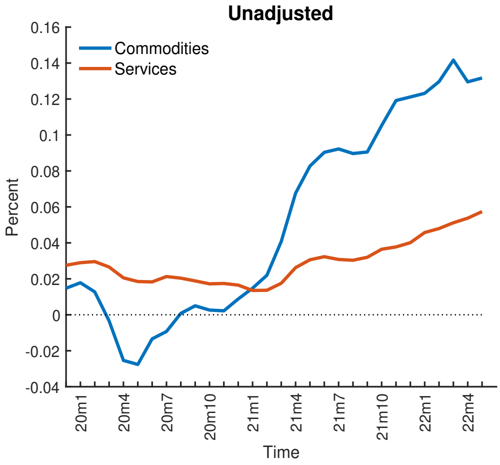
Inflation: Example of Winners vs Losers in Retail Trade

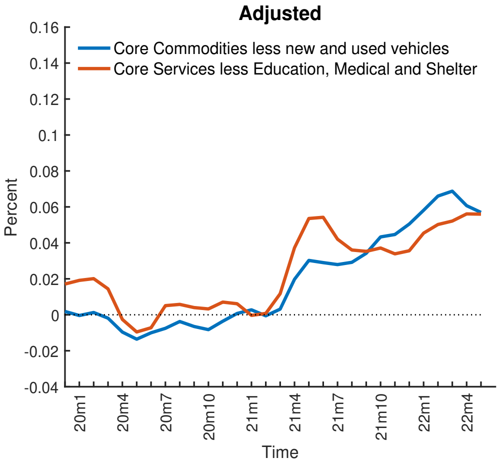


Concluding Remarks

- Provide measures of unequal sectoral dynamics during Covid-19 recession
  - Emphasize reallocation between contact sector winners versus losers
  - Implications for contraction and recovery phase
- Develop simple 3 sector NK model with learning by doing
  - Captures both aggregate and disaggregated data reasonably well
  - Also captures some of recent inflationary pressures
- Issues
  - Evidence for LBD
  - Disaggregated inflation data
  - Implications for monetary policy?

Inflation: Goods vs Services YoY Inflation





No Fiscal Policy