

The Inflationary Effects of Sectoral Reallocation

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discussed by Michael Weber

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Big Picture

- Large increase in realized inflation after reopening of economy
- Consumption reallocation from services to goods
- Large drop in aggregate employment
- Substantial dispersion of price and quantity response across sectors

What's the role of reallocation, aggr labor supply, sectoral TFP?

Model

- State of the art multi-sector New Keynesian model
- I/O linkages between sectors
- Heterogeneity in sectoral price rigidity
- Costs of reallocating inputs across sectors
- Preference, sectoral productivity, and aggregate labor supply shocks

Features not in Model

- No role of capital in model (standard)
- No international linkages (coming back later)

Findings

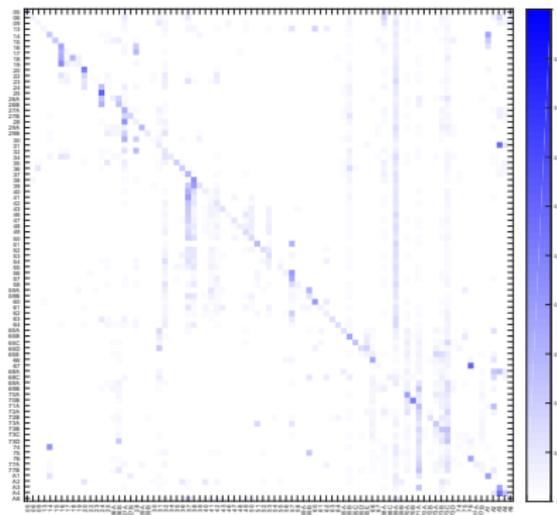
- Reallocation can explain 4 pp. increase in inflation
- Sectoral TFP shock important for XS of price and quantity response
- Can explain only 1.5pp increase in overall inflation
- Aggregate labor supply shock important for drop in employment
- Can explain 2pp increase in inflation in isolation
- Strong non-linearity:
 - Aggregate labor supply shock dampens effect of reallocation shock

Desiderata

- Flesh out role of supply chains versus reallocation
- Distinguish sectoral productivity shock from international bottlenecks

US I/O Tables

Figure 2: Production Network Corresponding to U.S. Input-Output Data



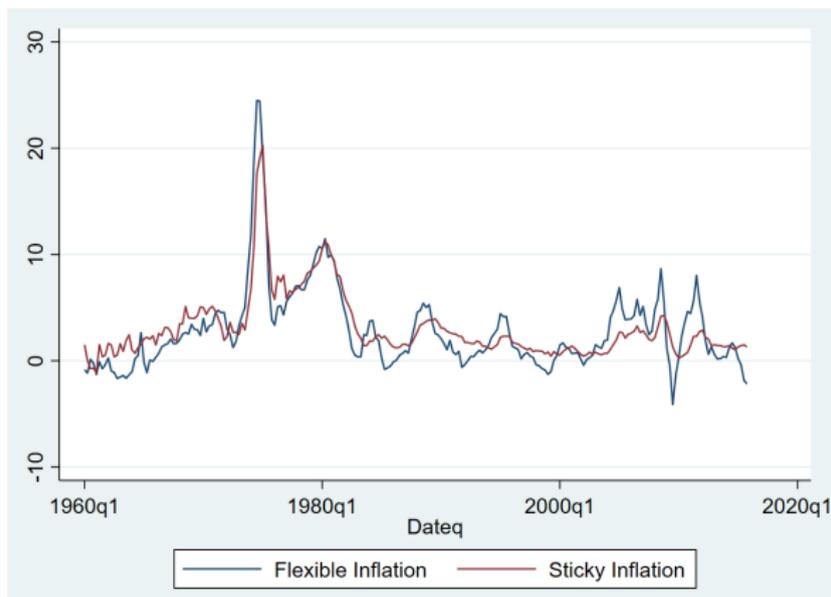
Source: Ozdagli and Weber (2022):
“Monetary Policy Through Production Networks”

- Large asymmetry of sectors as suppliers to other sectors
- Large component of within sector consumption

Direkt versus Indirect Effects

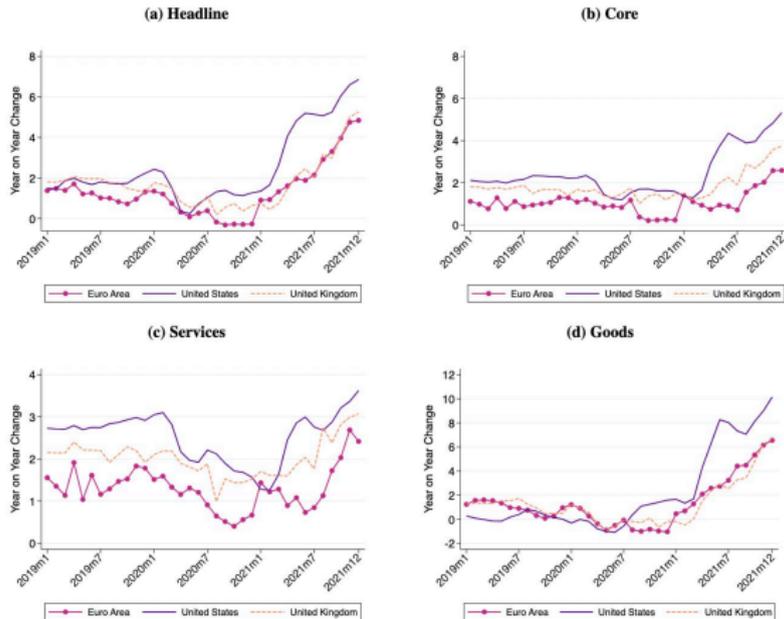
- Preference shock has direct effect on inflation due to hiring costs
- But, output of firms also input into production of other firms
- Possible scope to decompose overall effect into direct and network effect?
- Direct effect should be more important far away from end-consumers
Ozdagli and Weber (2022)
- Interesting interaction here: upstream sectors more flexible
- Implications for monetary policy? Target more flexible-price inflation?

Sticky vs Flexible PPI Inflation



- Use frequencies of price adjustment at 6-digit NAICS level from Pasten et al (2020)
- Merge to sectoral PPI price indexes from BLS
- Flexible inflation more volatile consistent with energy inflation

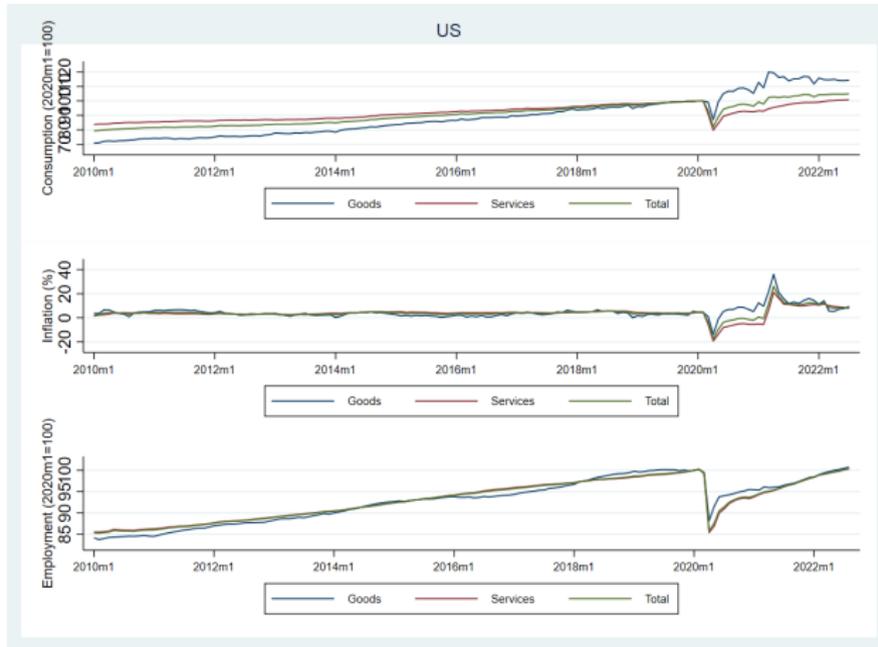
US vs Europe



Source: di Giovanni, Kalemli-Oezcan, Silva, and Yildirim (2022):
“Global Supply Chain Pressures, International Trade, and Inflation”

- Qualitatively similar movements in inflation dynamics

USA Update



- Updated sample
- No return in in consumption
- But harmonization in inflation and employment dynamics
- “Out-of-sample” evidence for model

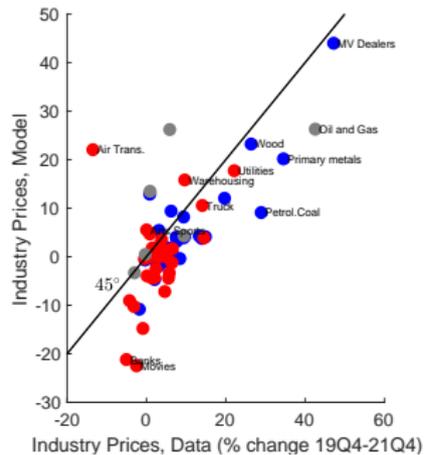
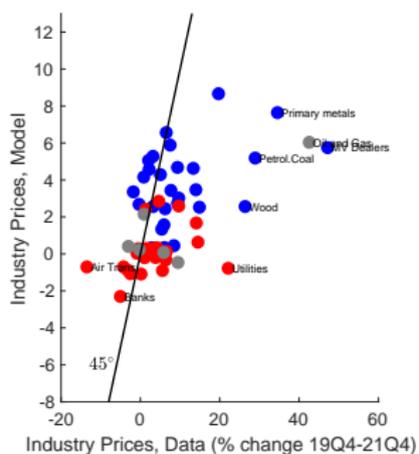
US versus Europe, Today versus Past

- Europe saw similar increase in inflation but less demand reallocation
- Historically, similar demand reallocation but less increase in inflation
- Are reallocation costs now higher than they used to / higher than in Europe?
- Are they stand in for something else?
- Are they dependent on the tightness of the labor market?
- Could be interesting to tell these things apart in future work

Drivers of Demand Reallocation

- Drop in service demand b/c of avoidance of personal interaction?
- Then similar drop in demand in contact intense goods sectors?
- And similar effects around the globe?
- Or driven by large increase in savings, due to stimulus and lack of opportunities?

Cross-Sectional Fit I



- Left panel: price response in model versus data, absent sectoral shocks
- Right panel: with sectoral TFP shocks

Cross-Sectional Fit II

- Sectoral shocks important for XS fit
- Matters less for aggregate dynamics
- Discuss more why cross-sectional dispersion matters for macro
- Discuss more construction of sectoral TFP to alleviate concern of “fudge factor”

Random Rants

- Random question that should not make it to the paper:
 - How would different monetary policies fare?
 - Scope for targeted fiscal policies?
 - Can subsidies offset hiring costs?

Conclusion

- Complete paper everyone should read!
- Paper provides convincing evidence for spike in inflation
- Few minor quibbles to address empirically