U.S. Market Concentration and Import Competition (2024)

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Summary of Amiti and Heise (2024)

Question. How import competition (ΔIP_{it}) affected production concentration (ΔC_{it}^{P}) and market concentration (ΔC_{it}^{M}) in the U.S. market?

- Why to care? Market concentration ($\approx$ power) $\implies$ Markups
- 2SLS: Instrument for ΔIP_{it} with $Inst_{\Delta IP_{it}} = \sum_{j \neq US} w_{ij,t-5} \tilde{\beta}_{ijt}$ ("Bartik"),

$$\Delta C_{it} = \gamma \underline{\Delta IP_{it}} + \delta_t + \varepsilon_{it}, \tag{1}$$

where ΔC_{it}: 5-yr change in concentration in industry i (t: 1992-2012)[1]

Contribution. Stable aggregate market concentration (theoretical-consistent):

- Domestic U.S. firms: an $\nearrow$ in ΔC_{it}^{P} ("selection"), but a $\searrow$ in ΔC_{it}^{M}
- Foreign firms selling in the U.S.: an $\nearrow$ in ΔC_{it}^{M}

[1] Data: Census of Manufactures & Longitudinal Firm Trade Transactions Database; UN COMTRADE

Key Results: Section 5 Table 1

[2SLS] $\Delta C_{it} = \gamma \underline{\Delta IP_{it}} + \delta_t + \varepsilon_{it}$, where $\Delta IP_{it} = \eta Inst_{\Delta IP_{it}} + \zeta_{it}$

Table 1: Change in Concentrations and Import Competition (Simplified)

	Production Concentration	*Market Concentration*		
	ΔC_{it}^{P}	$\Delta C_{it}^{M,dom}$	$\Delta C_{it}^{M,all}$	$\Delta C_{it}^{M,for}$
ΔIP_{it}	0.209^{**}	-0.289^{***} ↓	0.041 →	0.381^{***} ↑
	(0.089)	(0.083)	(0.074)	(0.053)
First stage	ΔIP_{it}	ΔIP_{it}	ΔIP_{it}	ΔIP_{it}
$Inst_{\Delta IP_{it}}$	0.383^{***}	0.390^{***}	0.390^{***}	0.390^{***}
Predicted effects on ΔC_{it}	0.005	-0.008	0.001	0.010
Actual effects	0.033	-0.016	0.003	0.023
N	500	500	500	500

Note: Regressions for ΔC_{it}^{P} is weighted by industry shipments in 1992; regressions for ΔC_{it}^{M} are weighted by industry absorption in 1992.

Two Major Comments

Comment #1: Export Supply Shocks (Bartik IV)

Starting from FE model: $\Delta M_{ijkt} = \alpha_{ikt} + \beta_{ijt} + \varepsilon_{ijkt}$, ($importFE + exportFE$),

$\Rightarrow$ **Want.** Construct $Inst_{\Delta IP_{it}} = \sum_{j \neq US} w_{ij,t-5} \tilde{\beta}_{ijt}$; shifter $\tilde{\beta}_{ijt} = \hat{\beta}_{ijt} - \text{med}(\hat{\beta}_{it})$

Strategy. Estimate $\hat{\beta}_{ijt}$ (**how?**) $\rightarrow$ compute $\tilde{\beta}_{ijt}$ $\rightarrow$ construct $Inst_{\Delta IP_{it}}$

① Define $D_{ijt} \equiv \sum_k \Delta M_{ijkt}$ (total Δ Exports of j of industry i to k):

$$\Rightarrow \sum_k \alpha_{ikt} + \sum_k \beta_{ijt} + \sum_k \varepsilon_{ijkt} = \sum_k \left(\frac{M_{ijk,t-5} \alpha_{ikt}}{\sum_k M_{ijk,t-5}} \right) + \sum_k \left(\frac{M_{ijk,t-5} \beta_{ijt}}{\sum_k M_{ijk,t-5}} \right)$$

$$\equiv \beta_{ijt} + \sum_k \phi_{ijk,t-5} \alpha_{ikt} \quad \text{——} \quad (\bigstar)$$

② Similarly, define $D_{ikt} \equiv \sum_j \Delta M_{ijkt}$ (total Δ Imports of k of industry i from j):

$$\Rightarrow \sum_j \alpha_{ikt} + \sum_j \beta_{ijt} + \sum_j \varepsilon_{ijkt} = (skip) \equiv \alpha_{ikt} + \sum_j \psi_{ijk,t-5} \beta_{ijt} \quad \text{——} \quad (\bigstar\bigstar)$$

③ By acct $(\bigstar) = (\bigstar\bigstar)$, we have $J + K$ eqns & unknowns $\Longrightarrow$ unique $\hat{\beta}_{ijt}$ $\square$

Comment #2: Implications

The main implication is to infer markups from market concentration

- Amiti and Heise (2024) got half the job done, showing us a stable aggregate market concentration
  - ⊛ The first to study **both** domestic & foreign firms selling in the U.S.
  - ⊛ Identify foreign suppliers by the Manufacturer ID in LFTTD

- What about the markups part? (stable mkt concentration $\overset{?}{\rightarrow}$ stable markups)

- Several prior studies for markups (but domestic firms only):
  - ⊛ How do markups distribute **by industry**? (De Loecker et al., 2016)
  - ⊛ How do markups distribute **spatially**? (Atkin & Donaldson, 2015)
  - ⊛ How do markup distribute via **retail chains**? (DellaVigna & Gentzkow, 2019), (Gopinath et al., 2011), (Atkin et al., 2018)

- I found it particularly interesting to think about trade-associated domestic sales; may be a great mix of Trade/IO/Urban!

References

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