U.S. Market Concentration and Import Competition (2024) by Mary Amiti and Sebastian Heise

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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 with Bartik instruments:

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

(1) ΔC_{it}: 5-yr %change in concentration in industry i in time t (1992-2012)[1]
(2) ΔIP_{it}: 5-yr %change in import penetration
(3) Instrument for ΔIP_{it} with the Bartik IV: $Inst_{\Delta IP_{it}} = \sum\limits_{j \neq US} w_{ij,t-5} \tilde{\beta}_{ijt}$ ($\bigstar$)

Contribution. Stable aggregate market concentration (under import competition)

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[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***
N	500	500	500	500

- 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

Two Major Comments

Comment #1: Export Supply Shocks (Bartik IV)

From FE model: $\Delta M_{ijkt} = \frac{M_{ijkt} - M_{ijk,t-5}}{M_{ijk,t-5}} = \alpha_{ikt} + \beta_{ijt} + \varepsilon_{ijkt}$, *(import FE + export FE)*,

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

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):

$$\Rightarrow D_{ijt} \equiv \sum_k \frac{M_{ijkt} - M_{ijk,t-5}}{M_{ijk,t-5}} \frac{M_{ijk,t-5}}{\sum_k M_{ijk,t-5}} = \beta_{ijt} + \sum_k \phi_{ijk,t-5}\alpha_{ikt} \;\;\text{——}\; (\bigstar)$$

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

$$\Rightarrow D_{ikt} \equiv \sum_j \frac{M_{ijkt} - M_{ijk,t-5}}{M_{ijk,t-5}} \frac{M_{ijk,t-5}}{\sum_j M_{ijk,t-5}} = \alpha_{ikt} + \sum_j \psi_{ijk,t-5}\beta_{ijt} \;\;\text{——}\; (\bigstar\bigstar)$$

⊛ Why? Aggregation allows new trading relationships: $D = \frac{\sum M_{ijkt} - \sum M_{ijk,t-5}}{\sum M_{ijk,t-5}}$

③ Have $J + K$ eqns & unknowns $\implies$ unique $\hat{\beta}_{ijt}$ (up to a numéraire for each i) $\square$

Comment #2: Implications

A desirable implication is to infer <u>markups</u> from <u>market concentration</u>:

- 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 $\xrightarrow{?}$ 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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