

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 with Bartik instruments:

$$\Delta C_{it} = \gamma \Delta IP_{it} + \delta_t + \varepsilon_{it}, \quad (1)$$

- 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: $Inst_{\Delta IP_{it}} = \sum_{j \neq US} w_{ij,t-5} \tilde{\beta}_{ijt}$ (★)

Contribution. Stable aggregate market concentration (under import competition)

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

Key Results: Section 5 Table 1

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

Table 1: CHANGE IN CONCENTRATIONS AND IMPORT COMPETITION (SIMPLIFIED)

	<i>Production Concentration</i>	<i>Market Concentration</i>		
	ΔC_{it}^P	$\Delta C_{it}^{M,dom}$	$\Delta C_{it}^{M,all}$	$\Delta C_{it}^{M,for}$
ΔIP_{it}	0.209** (0.089)	-0.289*** ↓ (0.083)	0.041 → (0.074)	0.381*** ↑ (0.053)
First stage	ΔIP_{it}	ΔIP_{it}	ΔIP_{it}	ΔIP_{it}
$Inst_{\Delta IP_{it}}$	0.383***	0.390***	0.390***	0.390***
<i>N</i>	500	500	500	500

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

Two Major Comments

Comment #1: Export Supply Shocks (Bartik IV)

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

$$\begin{aligned} \Rightarrow \sum_k \alpha_{ikt} + \sum_k \beta_{ijt} + \sum_k \varepsilon_{ijkt} &= \sum_k \left(\frac{M_{ijk,t-5} \alpha_{ikt}}{\sum_k M_{ijk,t-5}} \right) + \sum_k \left(\frac{\cancel{M_{ijk,t-5}} \beta_{ijt}}{\sum_k \cancel{M_{ijk,t-5}}} \right) \\ &\equiv \beta_{ijt} + \sum_k \phi_{ijk,t-5} \alpha_{ikt} \text{ — (★)} \end{aligned}$$

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

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

③ By acct (★) = (★★), we have $J + K$ eqns & unknowns \Rightarrow 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 $\xrightarrow{?}$ 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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