Global Common Ownership Control and Market Power

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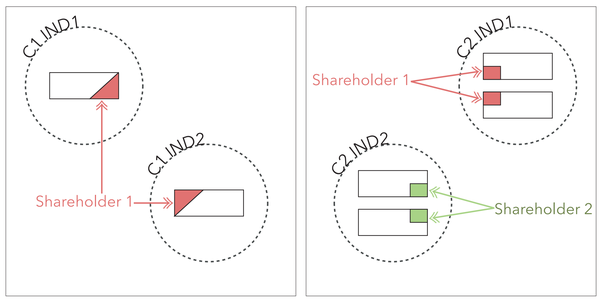
Introduction



Inter-industry common ownership ✓ | Intra-industry common ownership ✗

Inter-industry common ownership ✗ | Intra-industry common ownership ✓

Corporations are connected via equity holders that hold stakes both within the same industry and across industries in the same economy. The implications of such connections on the product market competition have attracted attention from academics and regulators.

To the best of my knowledge, this is the first study to: (i) account for all types of common ownership: by business groups, by asset managers, cross-ownership, (ii) present facts on intra-industry and inter-industry common ownership across ~40k publicly listed companies in 125 countries, (iii) incorporate corporate control, (iv) test the common ownership hypothesis globally.

Methodology

To investigate ownership structure's effect on market power, I borrow the general equilibrium framework of Azar & Vives (2021) where the objective function of a firm is:

$$\underbrace{\frac{\pi_{nj}}{P}}_{\text{own profits}} + \underbrace{\sum_{k\neq j} \lambda^{intra}_{nj,nk} \frac{\pi_{nk}}{P}}_{\text{industry n profits, other firms}} + \underbrace{\sum_{m\neq n} \sum_{k=1}^{J_m} \lambda^{inter}_{nj,mk} \frac{\pi_{mk}}{P}}_{\text{profits, other industries}}$$

where weights λ^{intra} and λ^{inter} measure intra-industry and inter-industry common ownership, respectively.

Testable prediction

In the symmetric case, the equilibrium markup of any given firm increases with λ^{intra} and decreases with λ^{inter}. An equal increase in both reduces the equilibrium markup.

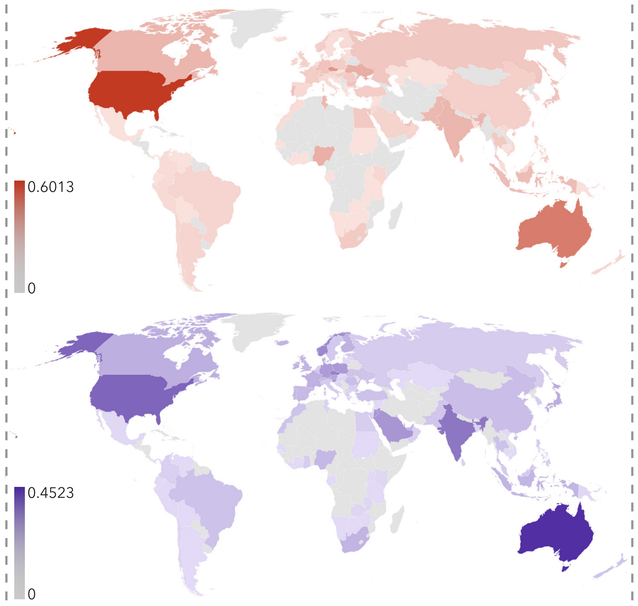
$$markup_{cijt} = \alpha + \beta_1 \cdot \bar{\lambda}^{intra}_{cijt} + \beta_2 \cdot \bar{\lambda}^{inter}_{cijt} + \theta \cdot X_{cijt} + \gamma_c + \delta_t + \varepsilon_{cijt}$$

where c denotes country, i industry, j firm, t year. X denotes firm-level controls: firm size, leverage, Tobin's q. λ^{intra} is the weighted average (sales shares) of firm-pair lambdas of firm *nj* with respect to other firms in the same SIC 4-digit industry. λ^{inter} is the weighted average (sales shares) of firm-pair lambdas of firm nj with respect to other firms in the same economy.

Stylised Facts

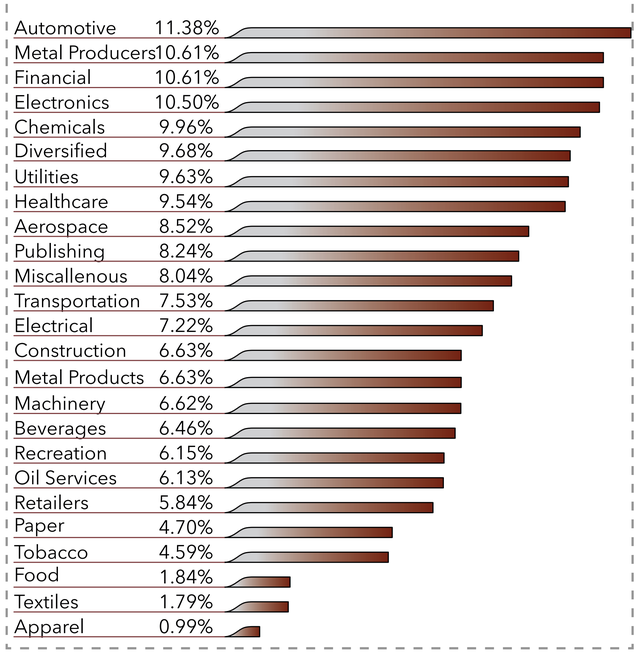
FACT 1

Intra-industry and **inter-industry** common ownership are prevalent across the globe.



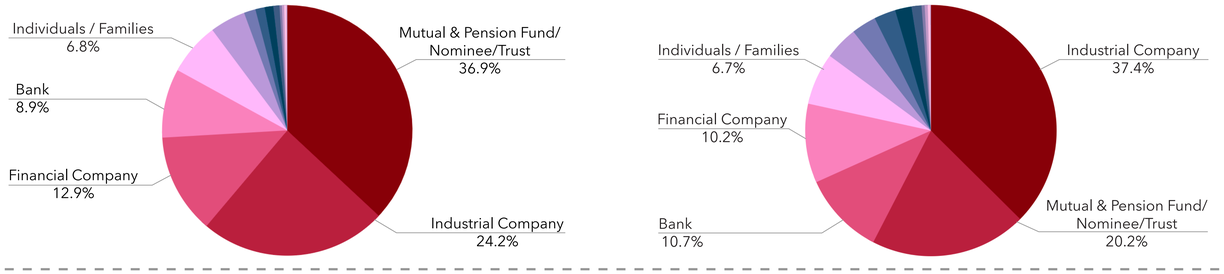
FACT 2

Commonly owned market capitalisation is heterogeneous across major industry groups.



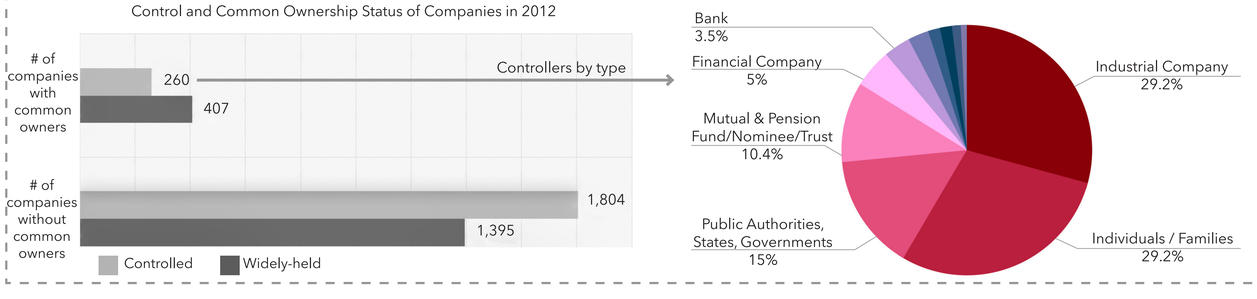
FACT 3

There is heterogeneity in common ownership stakes across different types of common owners. (Distribution of common owners by entity type: any ownership on the left, 10% or more ownership on the right).



FACT 4

Companies with common owners are less likely to have a controlling shareholder. Controllers of companies with common owners are mostly Industrial Companies, Families or the State.



Data

- Ownership: Bureau van Dijk Orbis database, **2000 - 2020**
- Financials: Thomson Reuters Datastream
- Corporate control database: Aminadav & Papaioannou (2020)
- **39,967 publicly listed firms incorporated in 125 countries**

Results

	Log(markup)
$\bar{\lambda}^{intra}$	0.289***
	(0.0385)
$\bar{\lambda}^{inter}$	-0.335***
	(0.0780)
Constant	-2.732***
	(0.110)
Controls	Yes
Year FE	Yes
Country FE	Yes
Observations	918,515
R-squared	0.259

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Pooled sample results suggest a statistically significant positive (negative) relation between intra-industry (inter-industry) common ownership and firm markups.

Takeaways

- Common ownership is prevalent across the globe.
- There is heterogeneity across common ownership in countries, industries, owner types.
- Managers behave anti-competitively when common ownership increases within the same industry, and pro-competitively when common ownership increases across industries and the total effect is pro-competitive. In general equilibrium, when an industry expands, it creates positive externalities for firms in other industries, and therefore inter-industry common ownership increases the incentive for firms to expand, reducing prices in their industry relative to the price level. Empirically, this effect is stronger than the anti-competitive intra-industry effect that common ownership of direct competitors generates.

Next Steps

- Estimate markups using De Loecker, Eechout and Unger (2020) methodology.
- Revisit the market definition: account for global competition.
- Robustness: alternative industry definitions, alternative empirical specifications.