

Do board connections between product market peers impede competition?



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Motivation

- Board connections between product market peers have the potential to impede competition and hurt consumer welfare
- In the US, the Clayton Antitrust Act of 1914 prohibits a person's presence on the boards of two rival companies
- Identifying direct rivals is increasingly difficult, so Clayton might have left some room for board connections that can impede competition
- Information can flow across competitors not only through a common director but also through a broader director network
- We ask the following research questions:
 - How prevalent are board connections between competing firms?
 - Do board connections between product market peers impede competition?

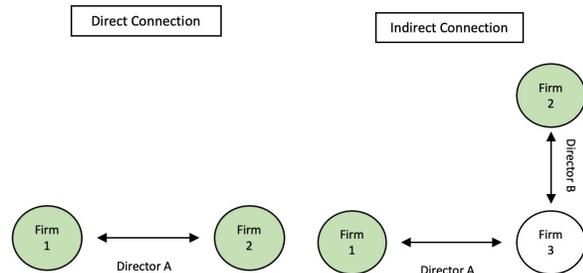


Figure 1. Illustration of Events

Methodology

- Sample: 1998-2018; intersection of Compustat and BoardEx
- Product market peers: Hoberg-Phillips's 10-K Text-based Network Industry Classifications (Hoberg and Phillips, 2010, 2016)
- Main outcome variables: gross margin, operating margin, ROA
- Treatments:
 - A firm forming a new direct board connection to a product market peer
 - A firm forming a new indirect board connection to a product market peer
- We identify 1,493 instances of new direct connections and 4,085 instances of a new indirect connection to a product market peer
- Controls:
 - Firms in the same industry as the treated firm and closest in terms of size, gross margin, and Tobin's Q
- We stack cohorts of Treated and control firms with 7-year window

$$Y_{i,j,c,t} = \alpha_1 \times Post_{c,t} + \alpha_2 \times DirectTreated_{i,c} + \alpha_3 \times IndirectTreated_{i,c} + \beta_1 \times DirectTreated_{i,c} \times Post_{c,t} + \beta_2 \times IndirectTreated_{i,c} \times Post_{c,t} + \theta_i + \theta_{j,t} + \theta_{i,j,c,t}$$

- Challenge to identification: Endogeneity of board connections
 - We tackle this with third-party initiated changes, which we argue to be unrelated to the future prospects of the focal firm

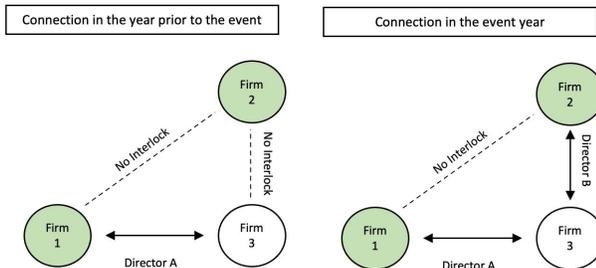


Figure 2. Illustration of Third-Party Initiated Changes

Main Results

- Gross margin, operating margin, and ROA of treated firms increase relative to control in the three years post treatment
 - Effects are in the range of 0.8%-1.4% after direct board connections and 0.4%-0.8% after indirect board connections
 - Using third-party initiated changes yields similar results

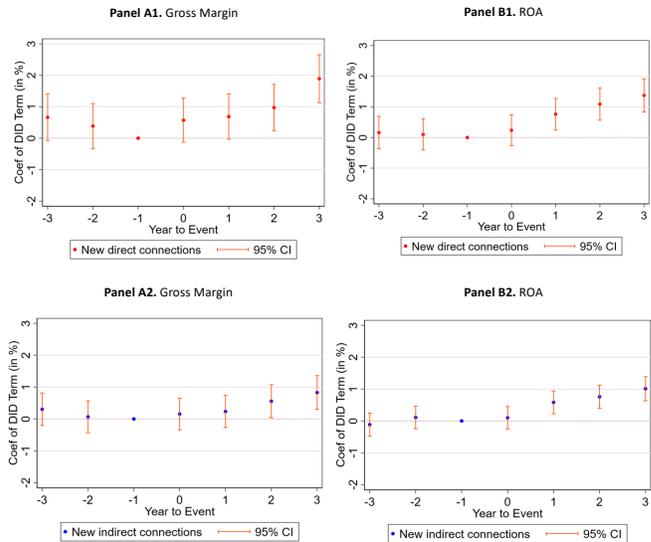


Figure 3. Dynamics of Profit Margin and ROA for Treated Firms Relative to Control

Mechanism

- The effects are stronger when
 - Firms share major corporate customers
 - Firms have more similar business descriptions
 - Firms are located closer to each other
 - Firms are in more concentrated industries
 - The connections involve directors who are also executives

No evidence of reduction in SG&A costs or increase in R&D or CAPEX

Board connections have positive spillover effects on the closest common rivals of newly connected peers

Discussion & Conclusions

- We acknowledge the possibility of a wide variety of anti-competitive practices
 - Price-fixing or market segmentation
 - Information exchange or building of trust
- Our results are consistent with the anti-competitive rather than the efficiency-enhancing mechanism (Bouwman, 2011)
- The effects of board connections are robust to controlling for within-industry common ownership, suggesting that it is a stand-alone channel (Azar et al., 2018; Gilje et al., 2020)
- We estimate the effects of incremental board connections to product market peers rather than effects of the stock of board connections, which can be much greater
- Our results provide support for the current ban of interlocking directorates between competing firms

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