Cross Ownership by Institutional Investors

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*The views expressed herein are my own and do not necessarily represent the views of the U.S. Federal Trade Commission.
In standard merger analysis, we typically do not distinguish owners from firms.
Typical Horizontal Merger
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Merging Companies

Firm A

Firm B
Typical Horizontal Merger

Merging Companies

Firm A

Firm B
Typical Horizontal Merger

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  ‣ Owners’ interests are aligned pre- and post-merger.
  ‣ We can ignore the complexities of ownership and control and use established techniques to analyze the merger.
Merger/Partial Merger Via Cross Ownership

Owner/Investors

Ownership & Control

Merging Companies

Firm A

Firm B

I₁ I₂

I₃ I₄
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- We do not know very well how to measure control.
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- How does this work?
Blackrock/Barclays Merger Example

Owner/Investors

Ownership & Control

Merging Companies

Minority Shareholders

Blackrock

Barclays

Minority Shareholders

United

American
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- Institutional investors Blackrock and Barclays merge
Initially no cross ownership

Institutional investors Blackrock and Barclays merge

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- How control works is critical.
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- There is no reason to believe that it is the right control assumption.
Importance of the Control Assumption

Owner/Investors

- Minority Shareholders
- Blackrock
- Barclays
- American

Ownership & Control

Merging Companies

- Minority Shareholders
- United
Importance of the Control Assumption

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- Suppose there are thousands of minority shareholders, and their shareholdings are very small.
- Under proportional control, a combined Blackrock/Barclays would have virtually complete control of United and American post-merger.
- The outcome would be nearly perfect collusion by United and American.
- Do we believe this outcome?
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Owner/Investors

Ownership & Control

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Blackrock

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- A minority shareholder of United has different incentives than the institutional investor.
  - Institutional investor wants to maximize joint profits.
  - Minority shareholder wants to maximize United’s profits.

Q. Do United’s minority shareholders have an incentive to file a shareholder suit to wrest control from the institutional investor?
The Role of Fiduciary Obligation

Owner/Investors

Ownership & Control

Merging Companies

Minority Shareholders

Diffuse

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5%

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The Role of Fiduciary Obligation

The Shareholder Lawsuit Game

Owner/Investors

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The Shareholder Lawsuit Game

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  - American’s best response would be to contract its output.
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  - Total profits would fall, but United’s share would rise enough to make the minority shareholder better off.
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  - United would expand output.
  - American’s best response would be to contract its output.
  - Total profits would fall, but United’s share would rise enough to make the minority shareholder better off.

- However, if minority shareholders of both United and American filed suits and won, the minority shareholders of both would be worse off.
Summary

• The competitive effects of cross ownership, by institutional investors or others, depend critically on the nature of control.

• Given an understanding of control, we know how to analyze these effects.

• However, we currently do not have good theories about how ownership translates into control.

• There are different mechanisms for gaining and exercising control. With that, I’ll turn it over to David.
Importance of Control

Key Equation for Analysis:  \( \text{MHHI} = \text{HHI} + \Delta\text{MHHI} \)

Example 1: Silent financial interest

- Five equally-sized firms are initially diffusely held with no cross-ownership.
- A shareholder of firm 1 purchases a 20% share of firm 2.
- If the large shareholder has no control over firm 1 or two, \( \Delta\text{MHHI} = 0 \).
- The investment has no competitive effect.
Importance of Control

Example 2: Total control of firm 1; Silent financial interest in firm 2

- Now suppose the large shareholder holds 100% of firm 1 and acquires 20% of firm 2.
- The delta MHHI is $\Delta MHHI = \alpha s_1 s_2$ where $\alpha$ is the acquired financial interest and $s_1$ and $s_2$ are market shares.
- Here, $\Delta MHHI = (.2)(20)(20) = 80$, a smallish effect.
Importance of Control

Example 3: Total control of firm 1; Proportional control of firm 2

• Now suppose the large shareholder with 100% of firm 1 acquires 20% of firm 2 and gains proportional control.

• The $\Delta \text{MHHI} = \alpha + \alpha /[(1-\alpha)^2 + \alpha^2]s_1s_2$ where $\alpha$ is the acquired financial interest and $s_1$ and $s_2$ are market shares.

• Here, $\Delta \text{MHHI} = (0.2 + 0.2/[(1 - 0.2)^2 + (0.2)^2])(20)(20) = 198$, a much larger effect.
Importance of Control

Example 4: Total control of firm 1; Total control of firm 2

• Now suppose the large shareholder with 100% of firm 1 acquires 20% of firm 2 and gains total control.

• The $\Delta MHHI = (\alpha + 1/\alpha)s_1s_2$ where $\alpha$ is the acquired financial interest and $s_1$ and $s_2$ are market shares.

• Here, $\Delta MHHI = (0.2 + 1/0.2)(20)(20) = 2080$, a very large effect.
The Empirical Analysis of Azar et al.

- Uses regression analysis to relate price to the HHI and $\Delta$MHHI, based on the condition $\text{MHHI} = \text{HHI} + \Delta\text{MHHI}$

- Concentration provides only a *rough gauge* of the likely harm from a merger.
  - Suitable for safe harbors, but not the end of the analysis (far from it)

- There are conceptual problems in using regression analysis to relate price to concentration.
  - A transaction that raises price may raise or lower concentration.

- Economic theory does not imply a particular relationship between price and concentration except under limited circumstances.
Benefits of Institutional Investment

• Mutual funds reduce the transaction costs of portfolio diversification by retail investors.

• True diversification may require positions in stocks of more than one firm in an industry.

• The ability to diversify through a single transaction —by investing in a mutual fund that owns multiple firms in an industry—may have significant benefits.