

# Cross Ownership by Institutional Investors

Dan O'Brien\*

U.S. Federal Trade Commission (Until July 15)

Bates White (Starting July 25th)

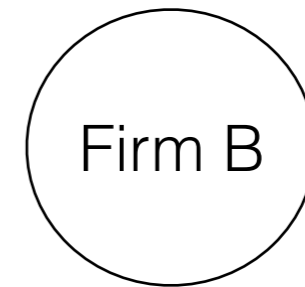
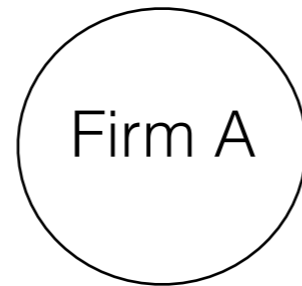
\*The views expressed herein are my own and do not necessarily represent the views of the U.S. Federal Trade Commission.

In standard merger analysis, we typically do not distinguish owners from firms.

# Typical Horizontal Merger

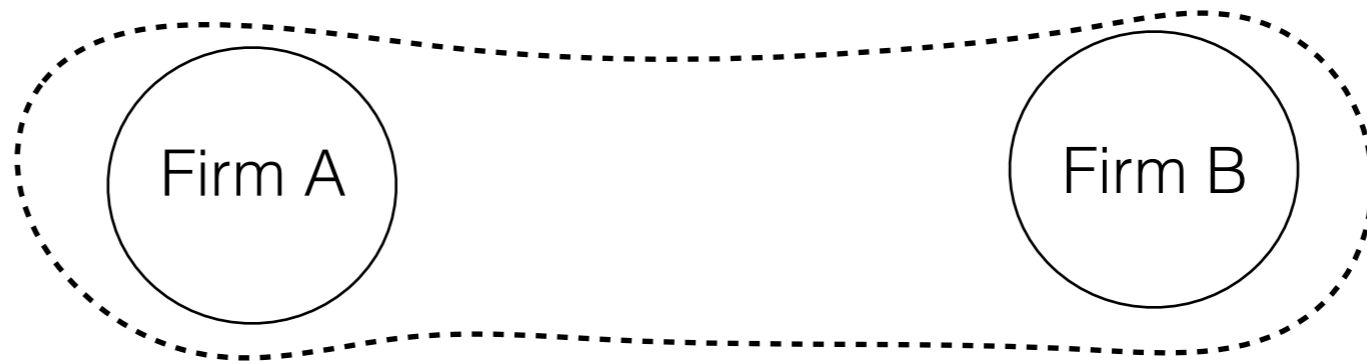
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Merging  
Companies



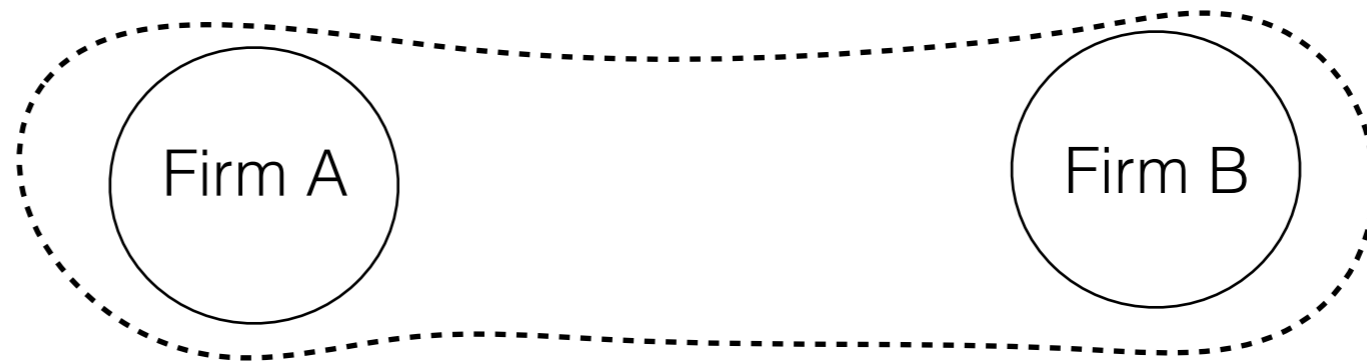
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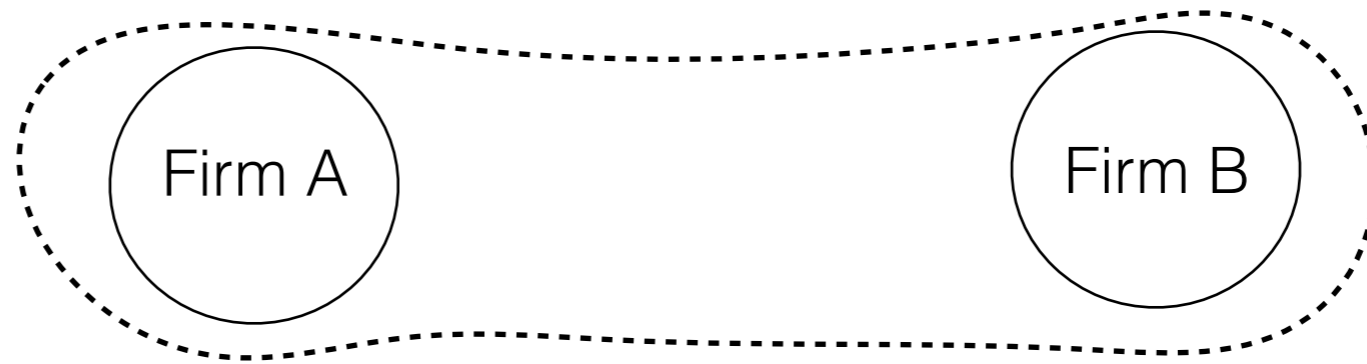
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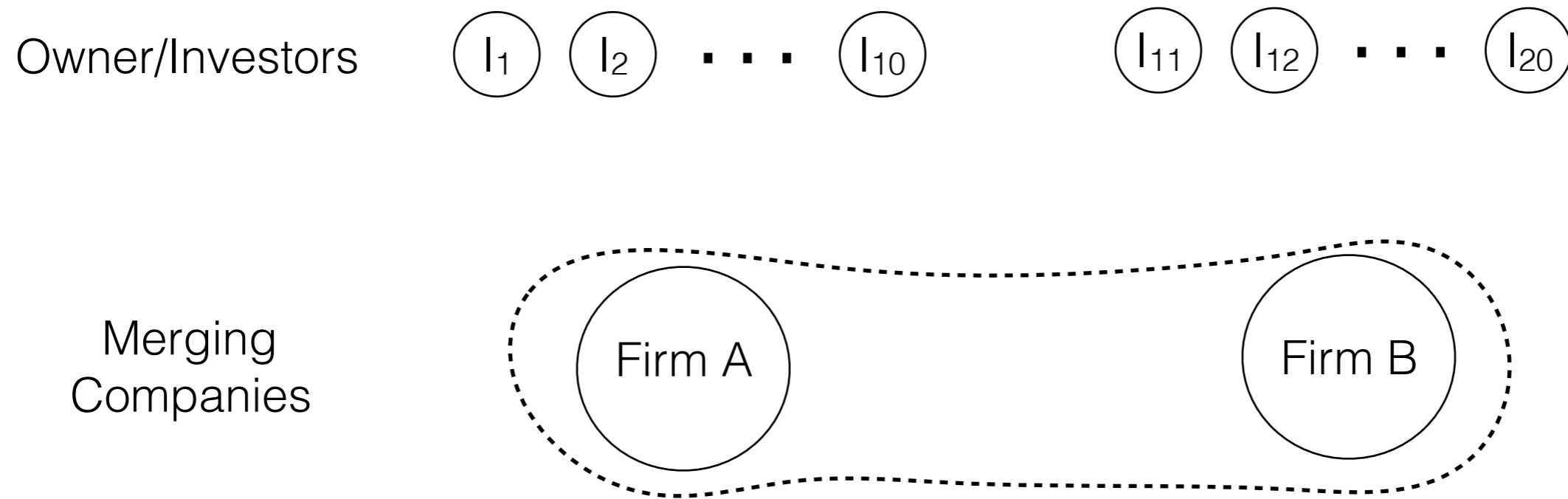
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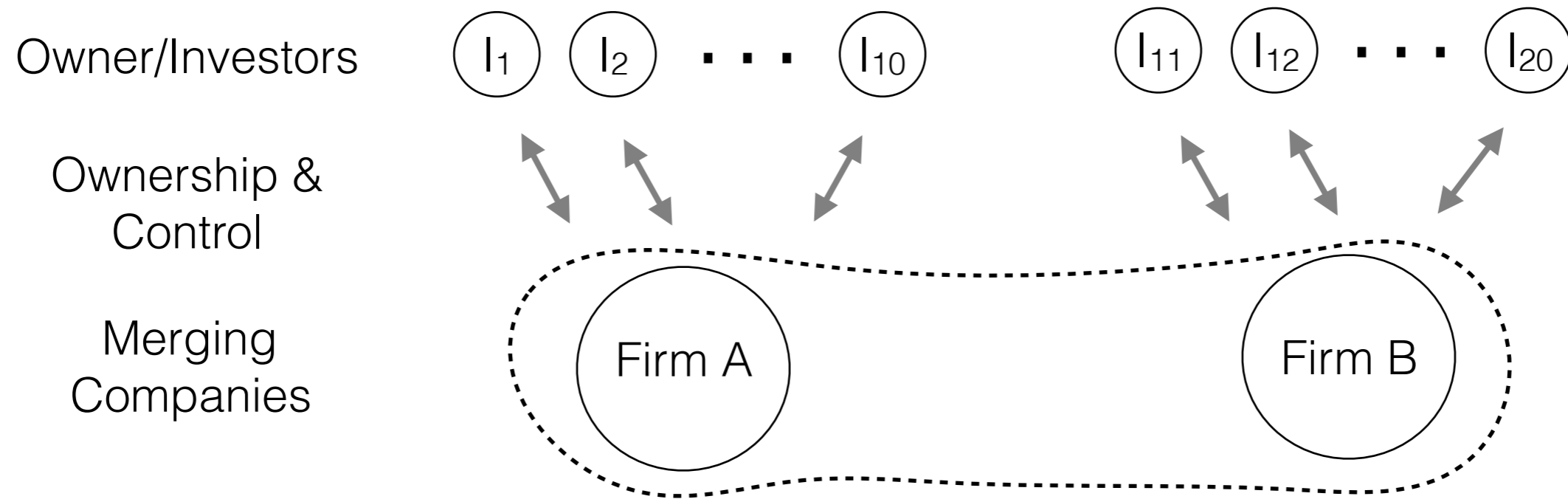
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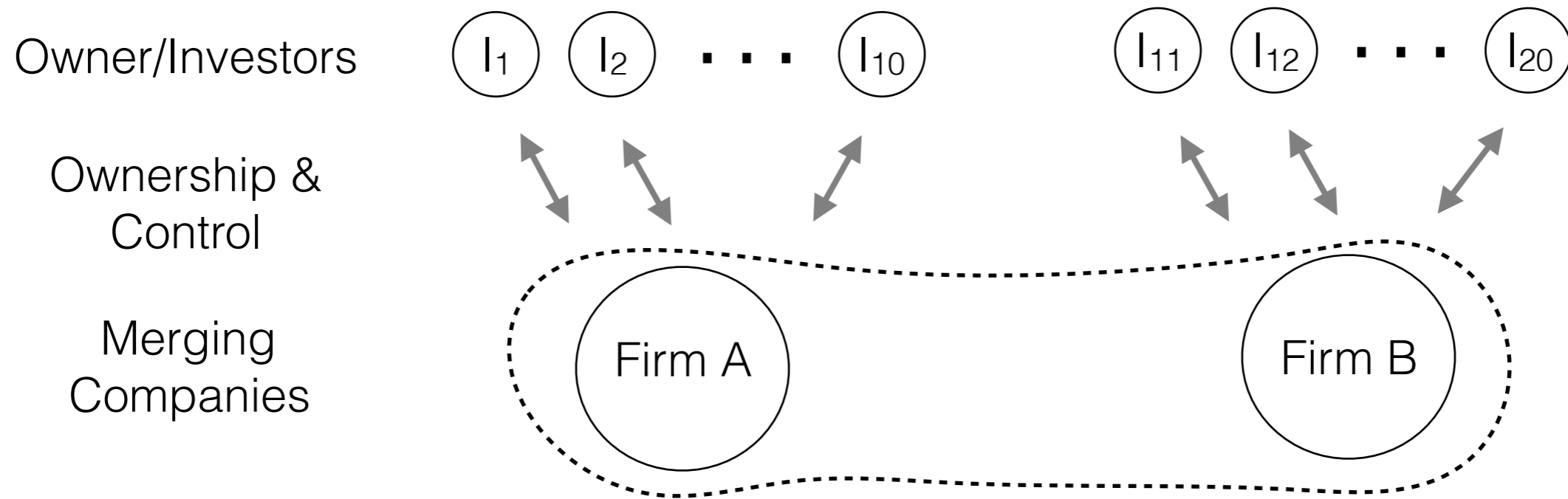


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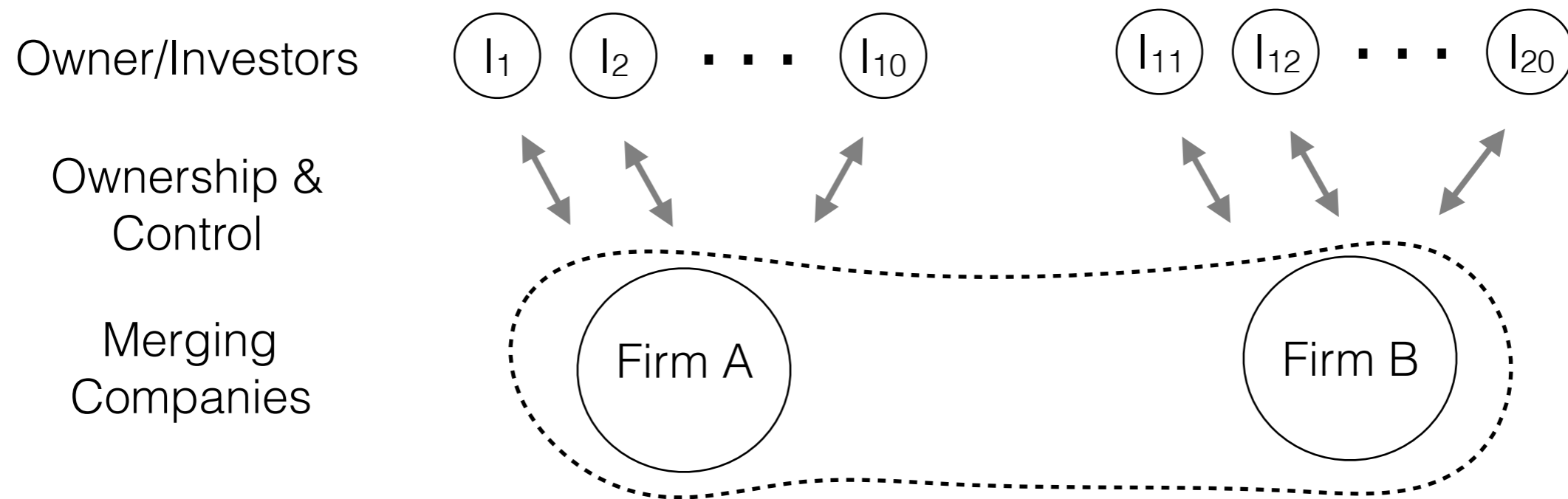
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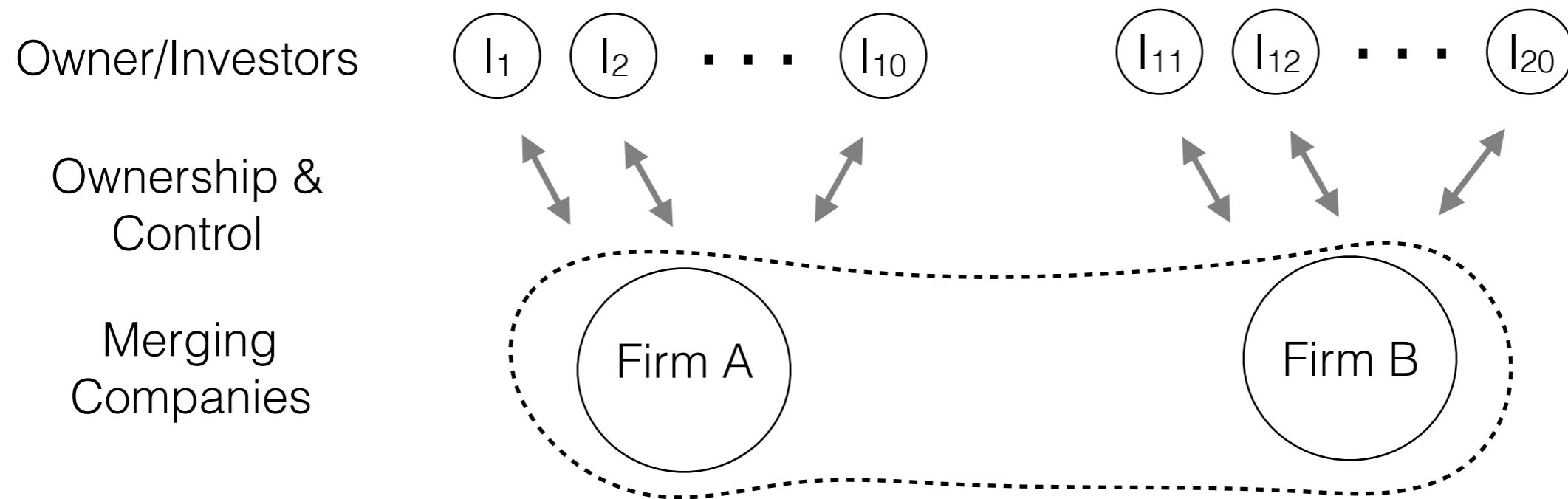
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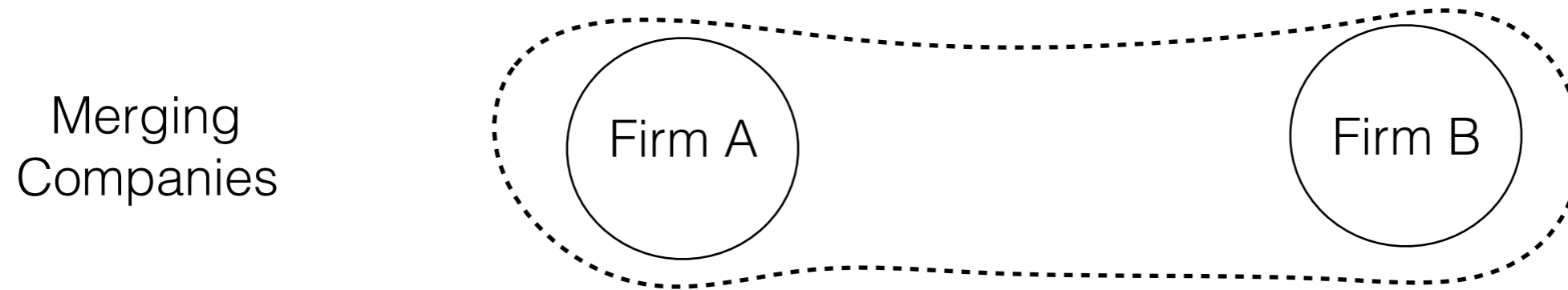
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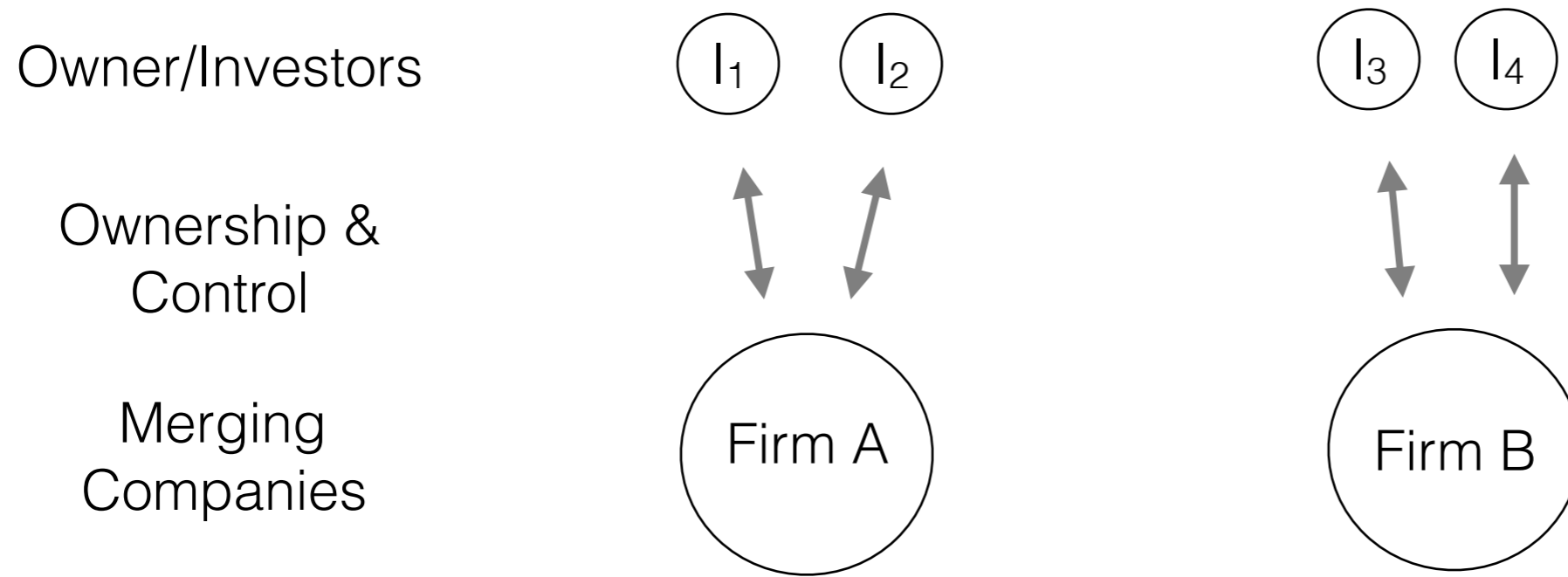
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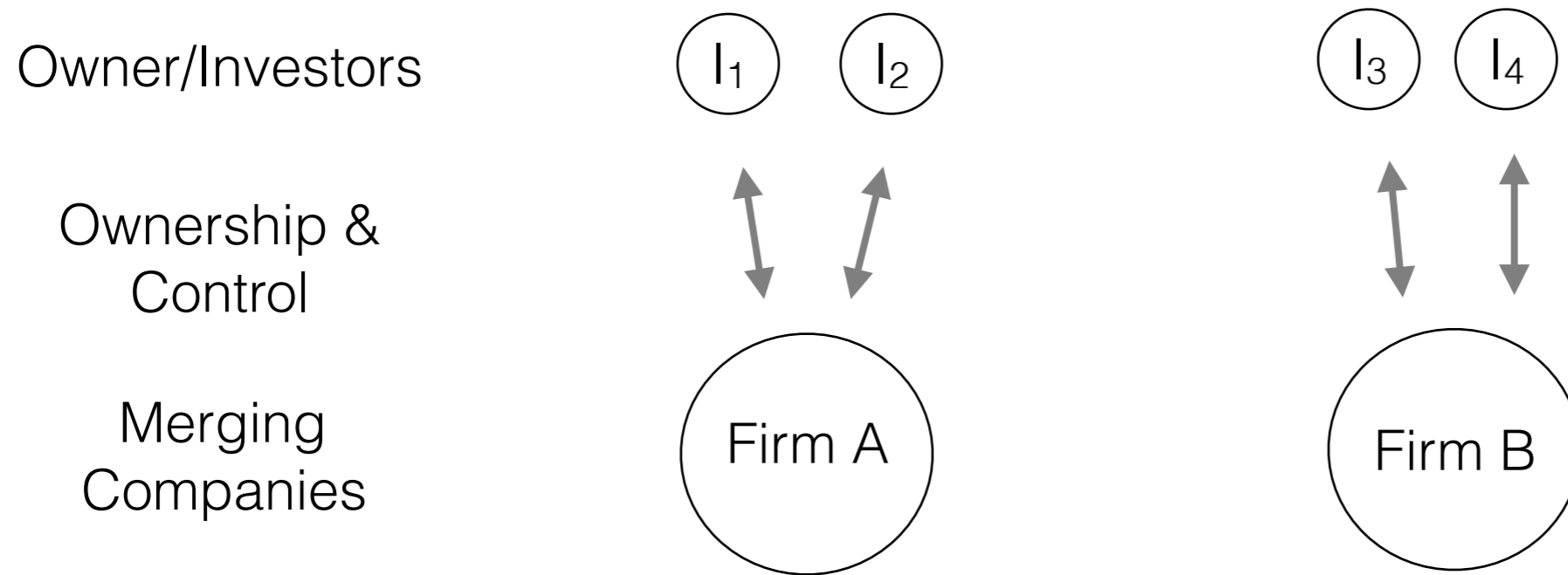


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  - We can ignore the complexities of ownership and control and use established techniques to analyze the merger.

# Merger/Partial Merger Via Cross Ownership

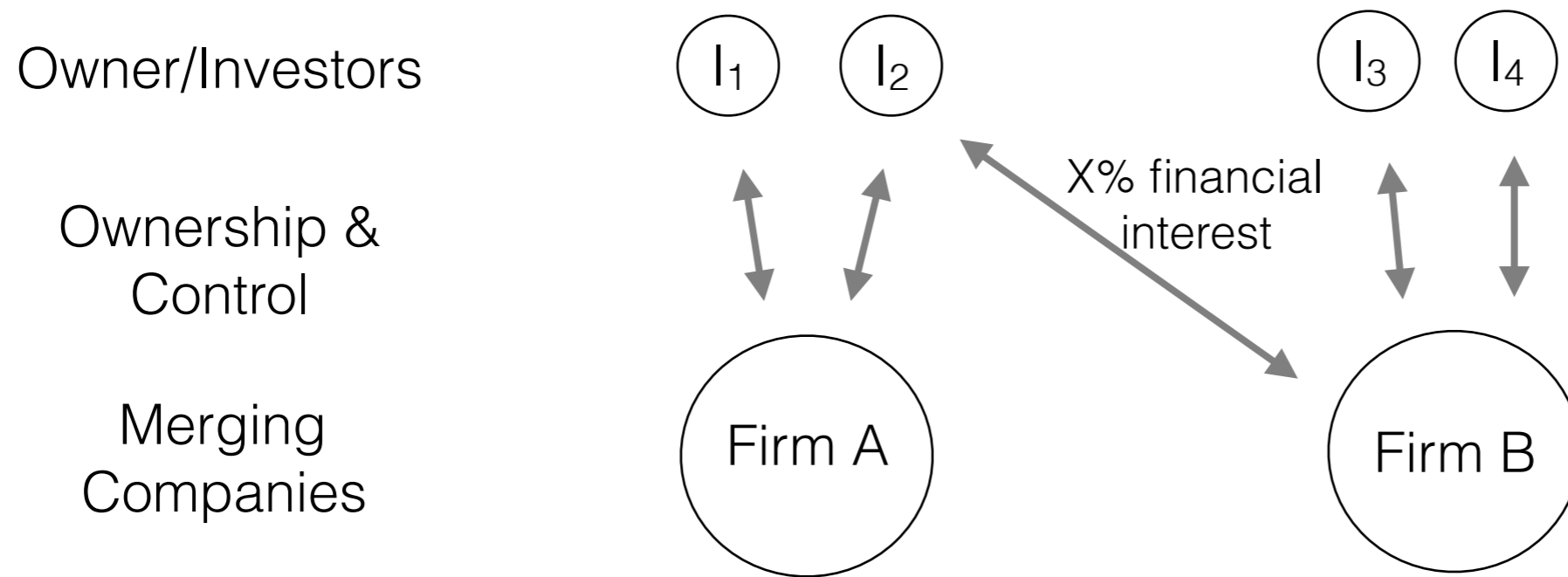


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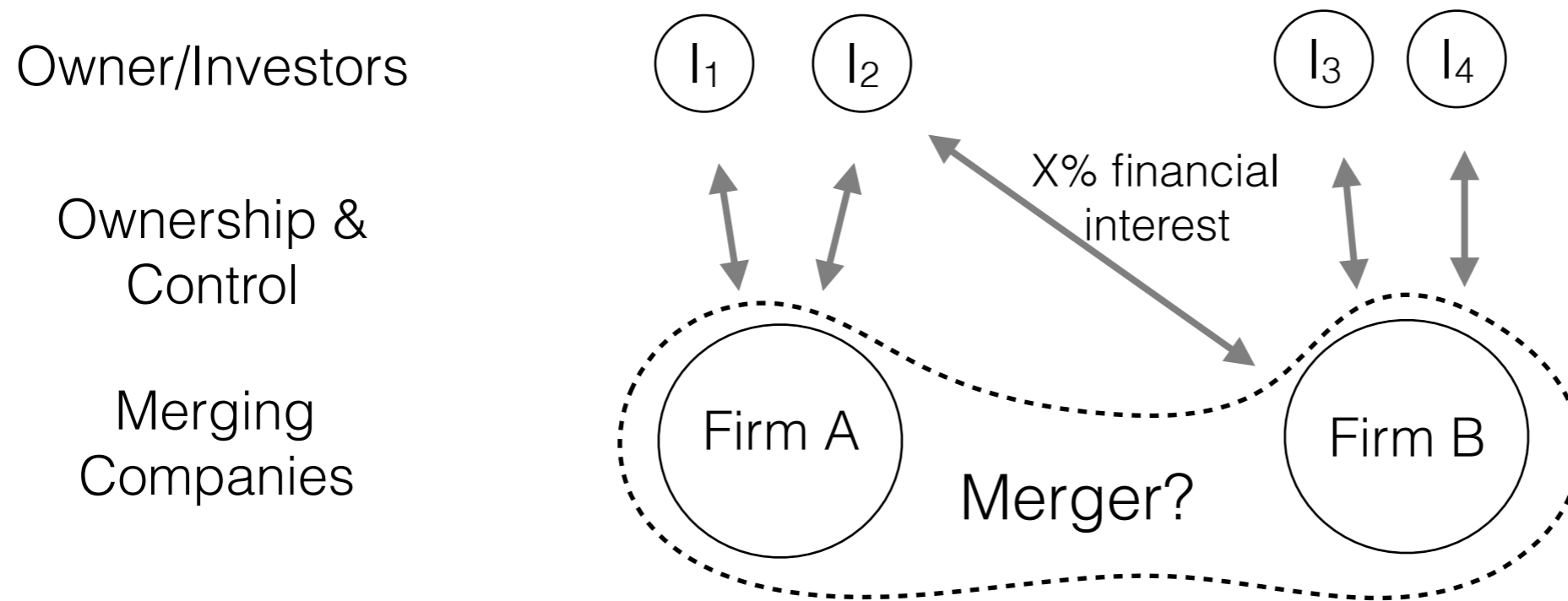
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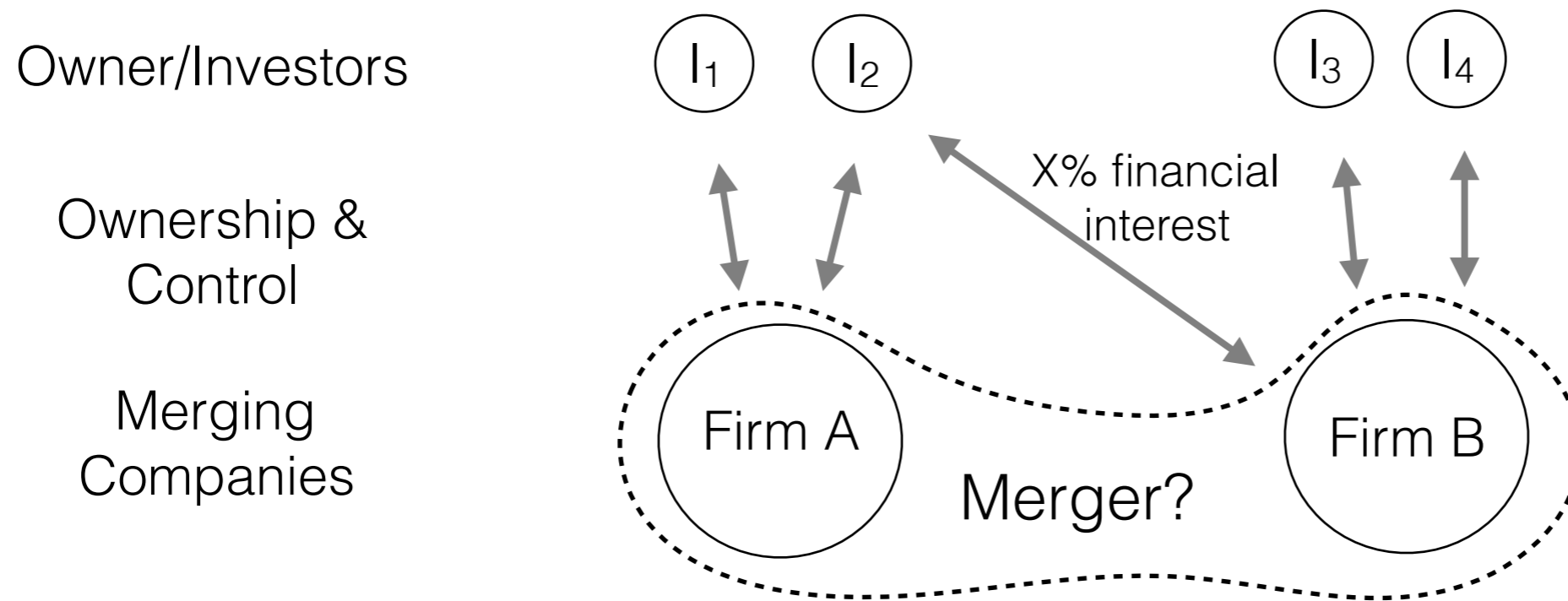


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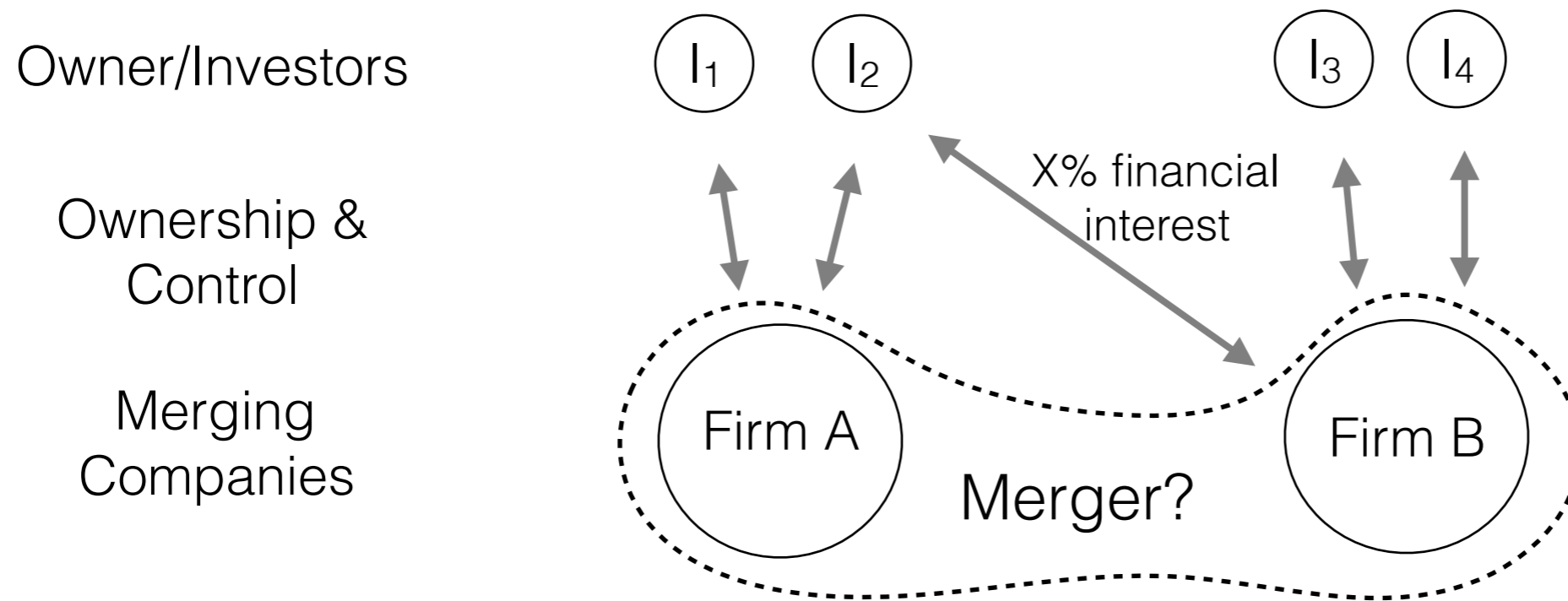
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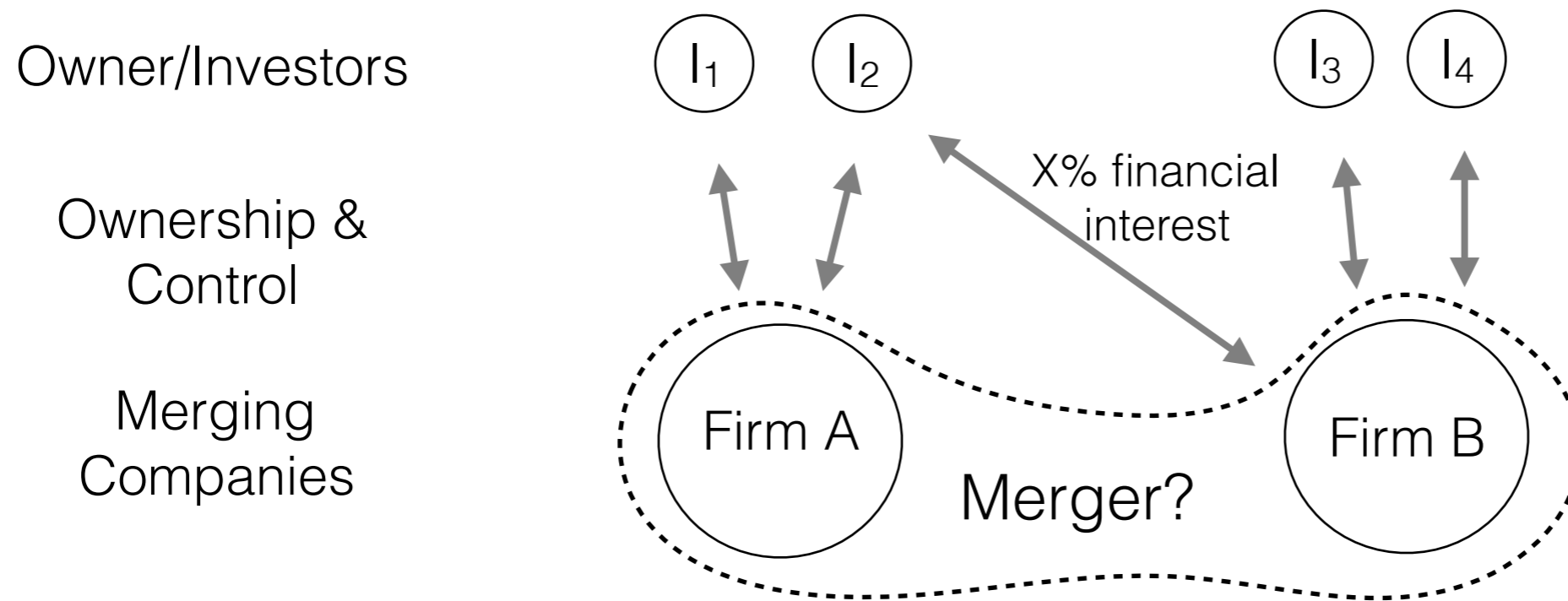
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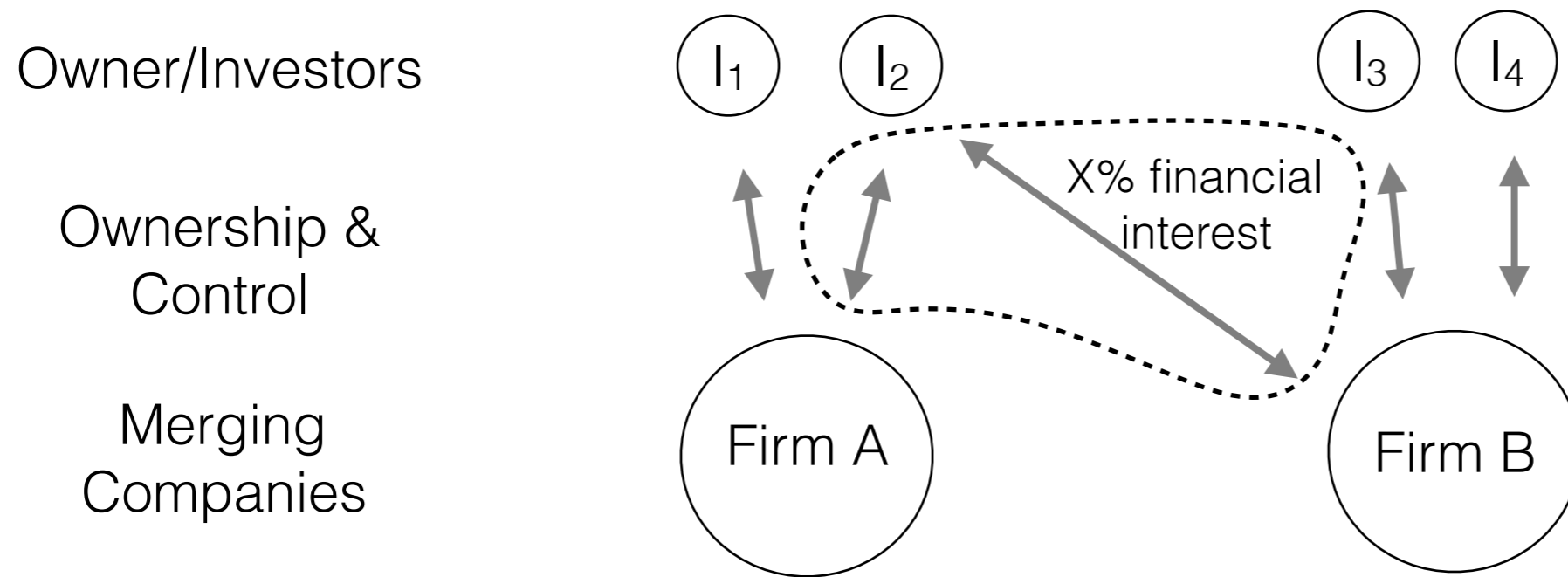
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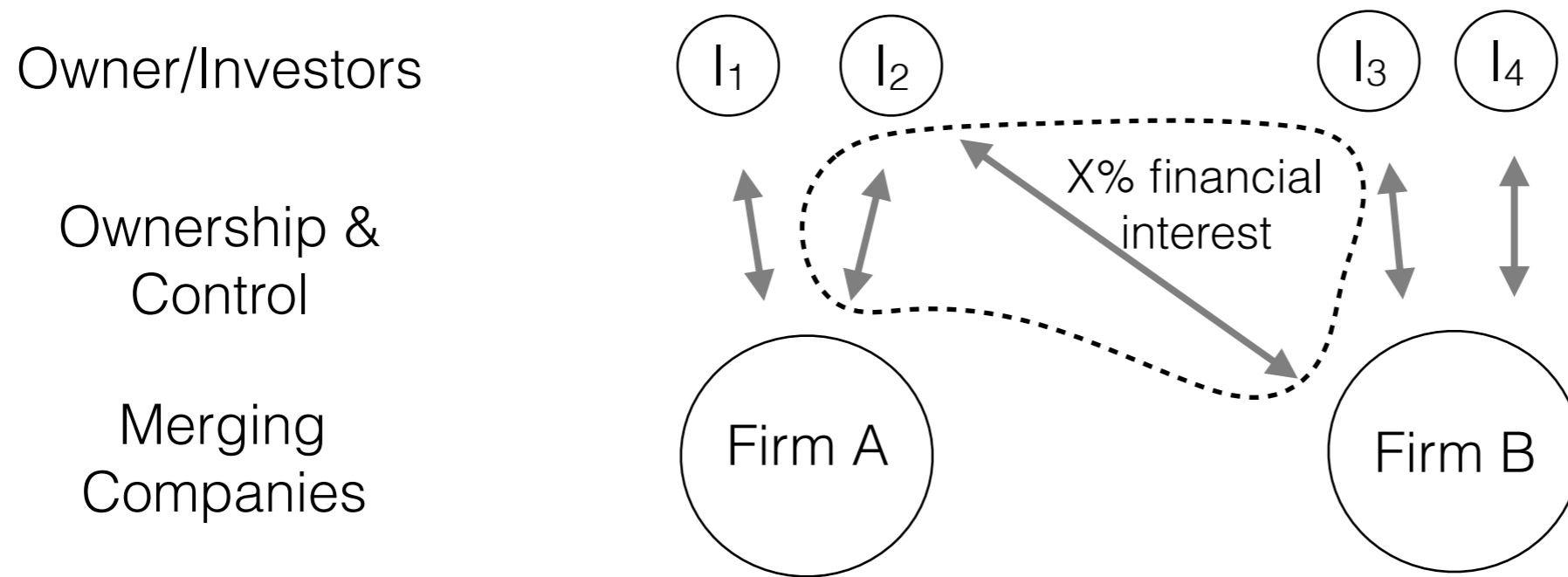
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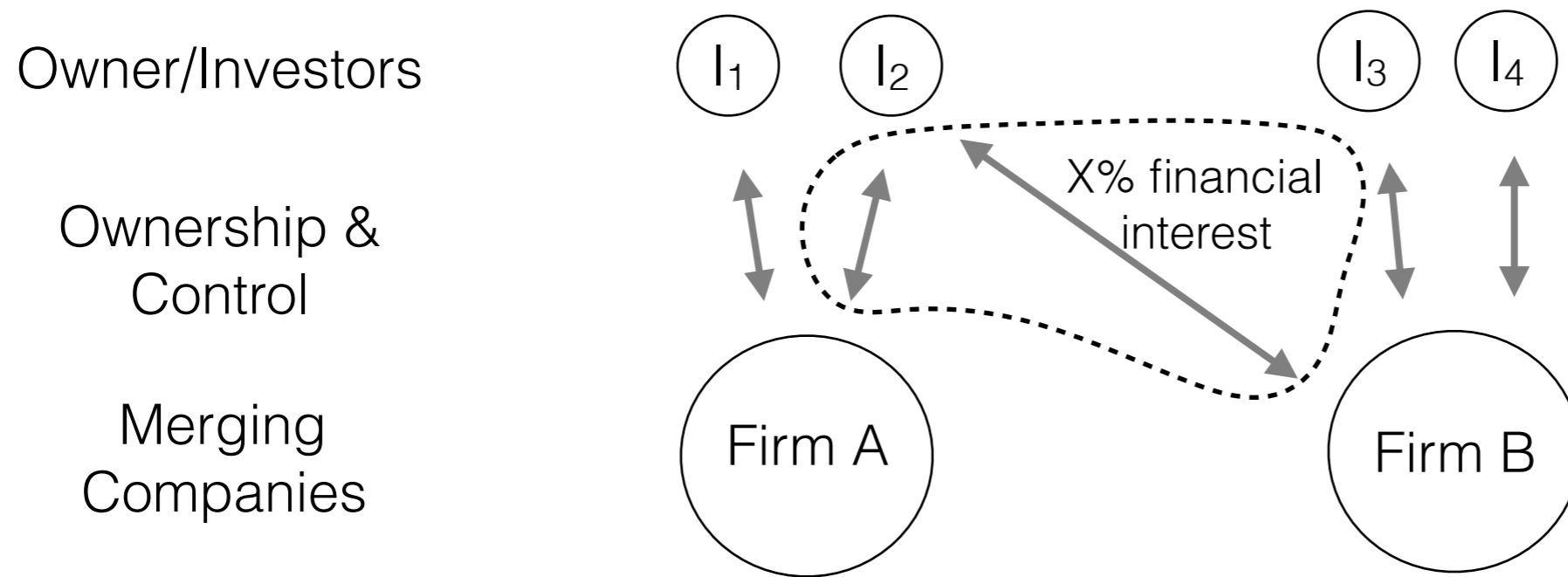
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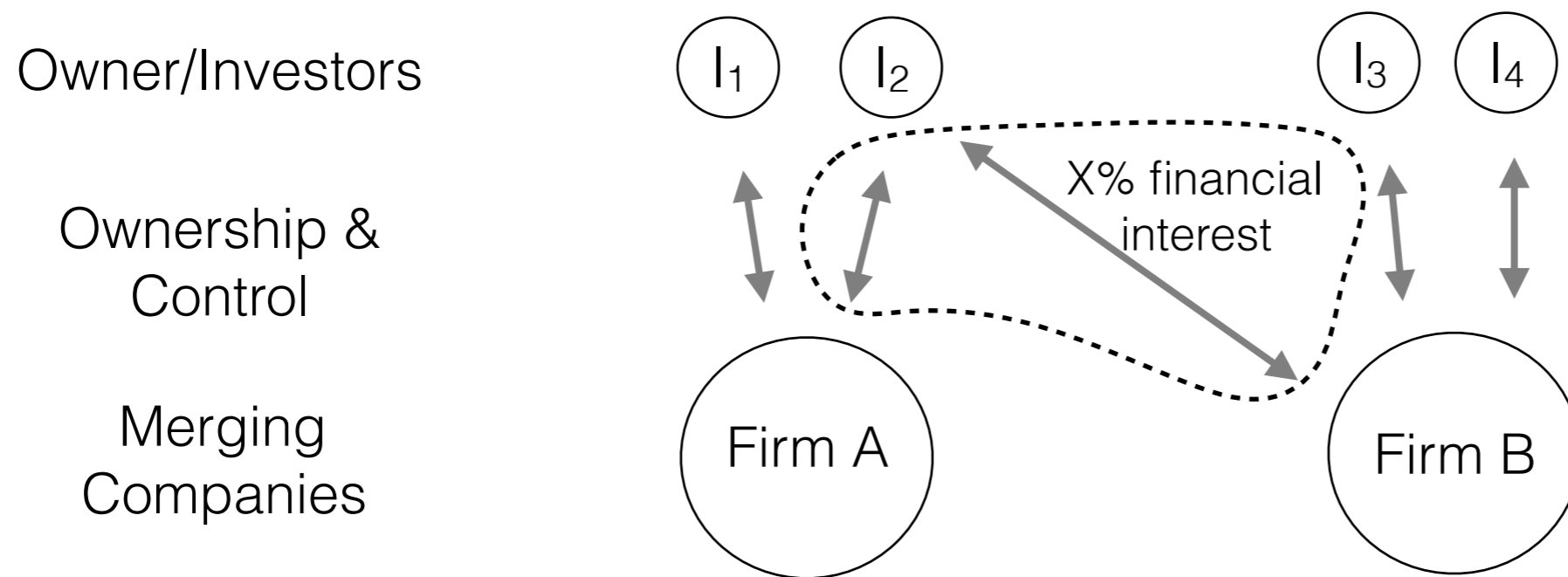
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- We do not know very well how to measure control.



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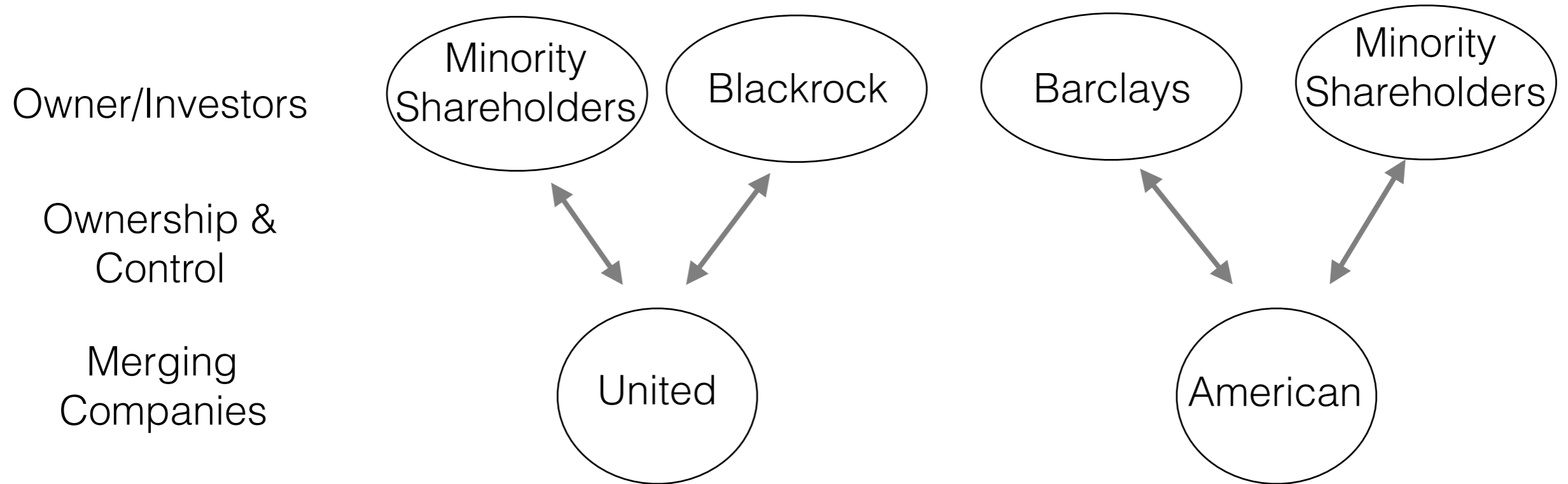
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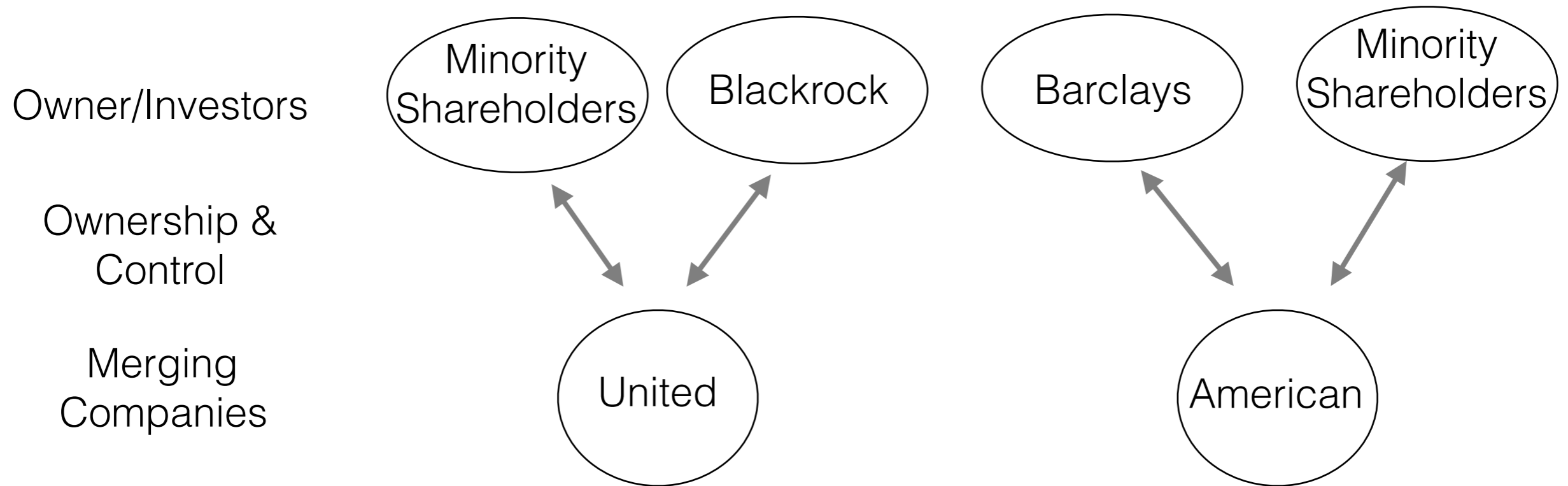
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- How does this work?

# Blackrock/Barclays Merger Example



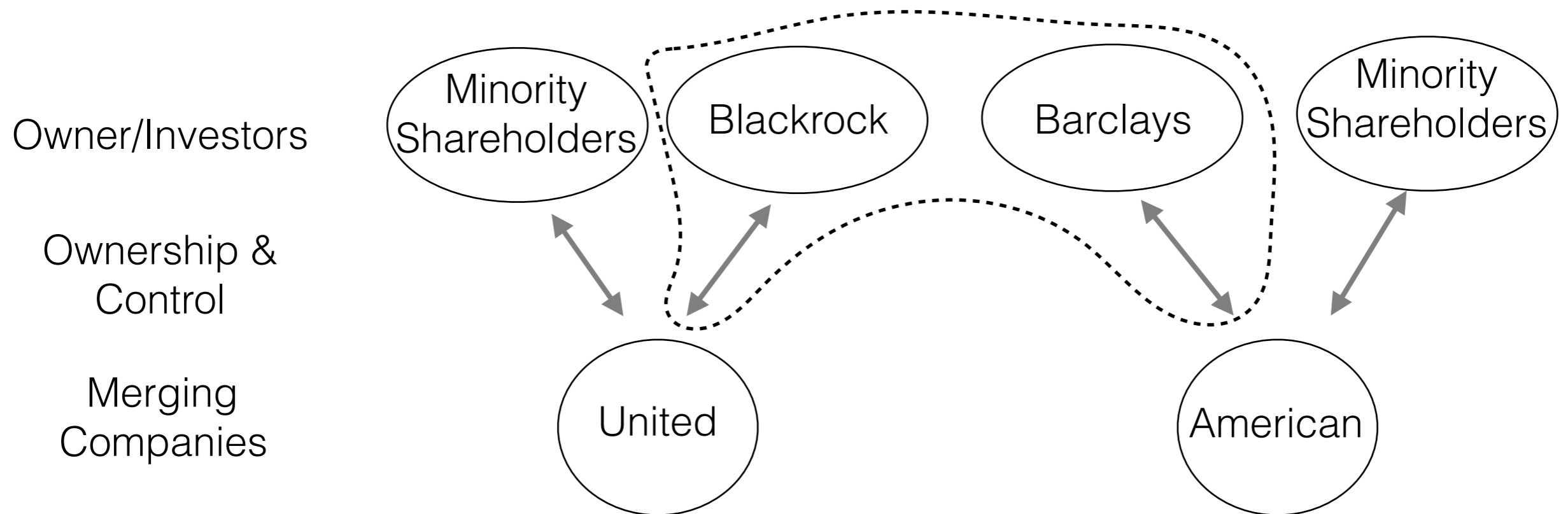
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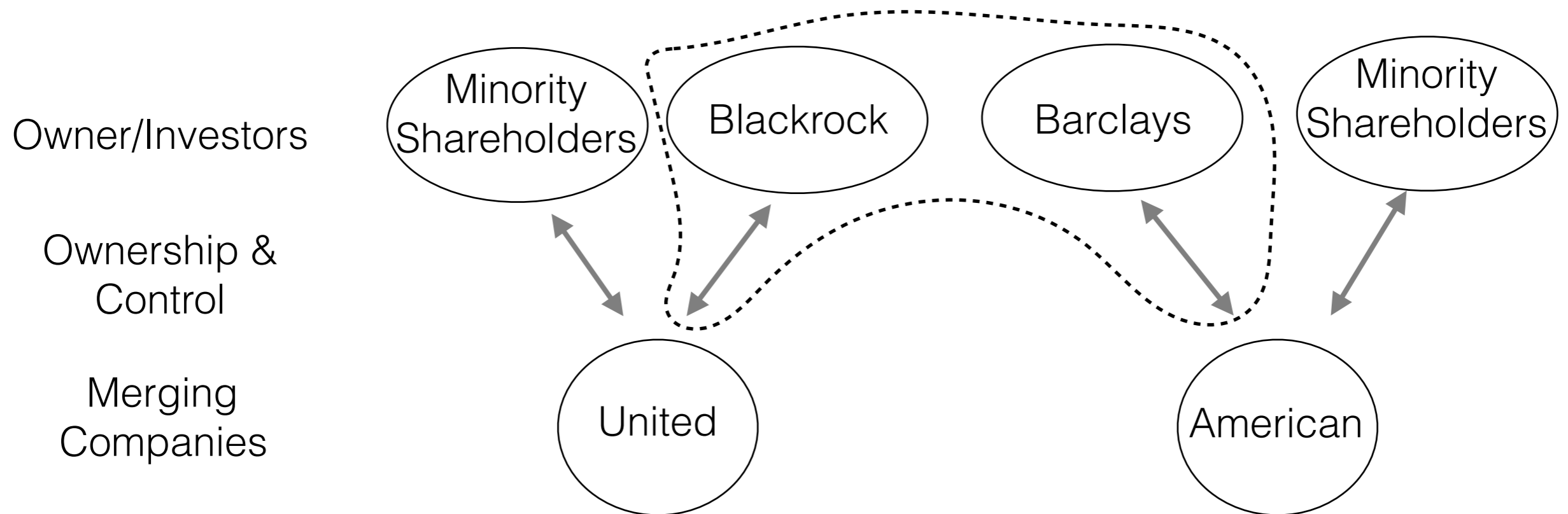


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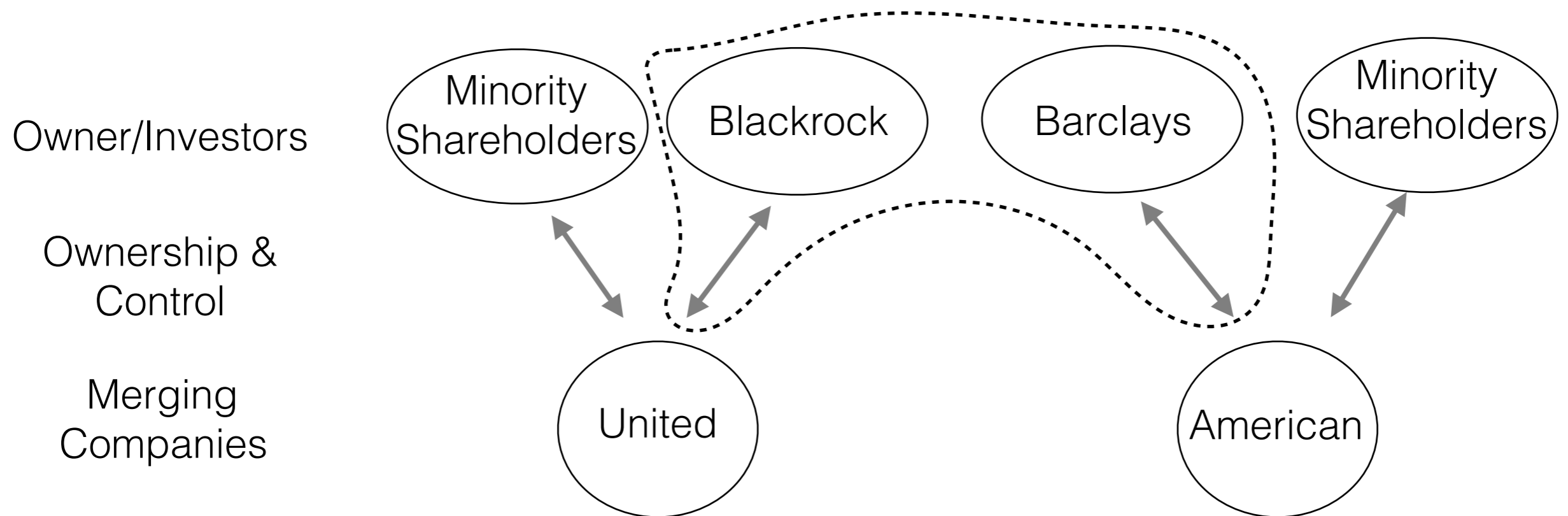
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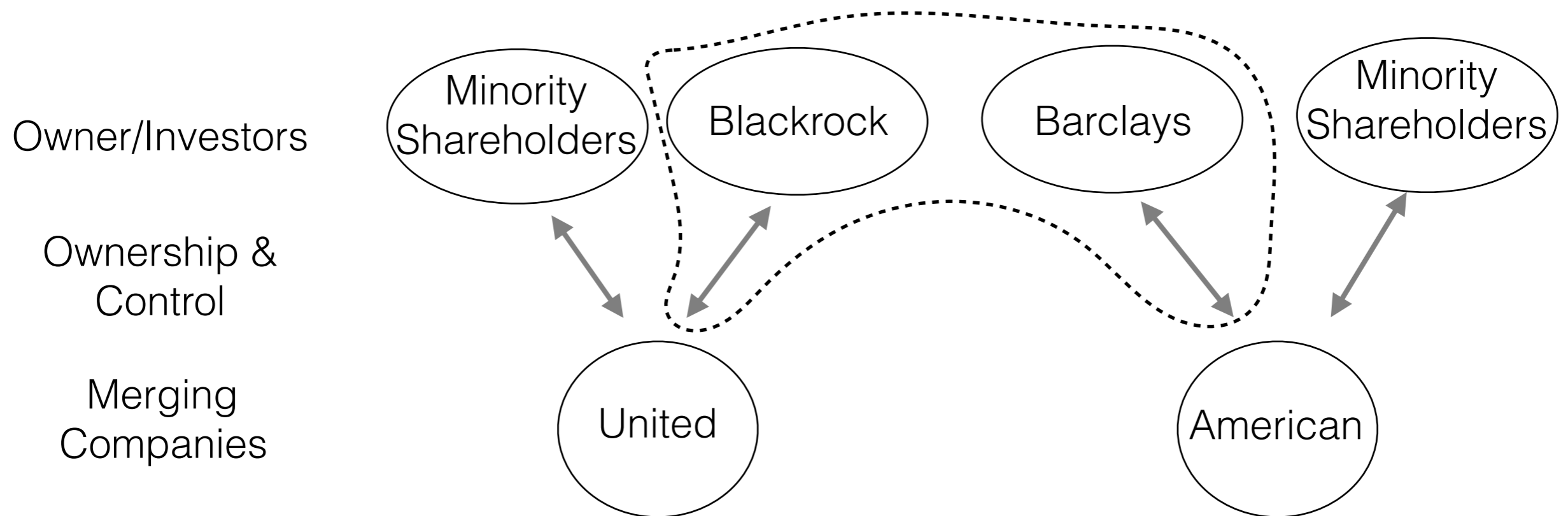
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- How control works is critical.

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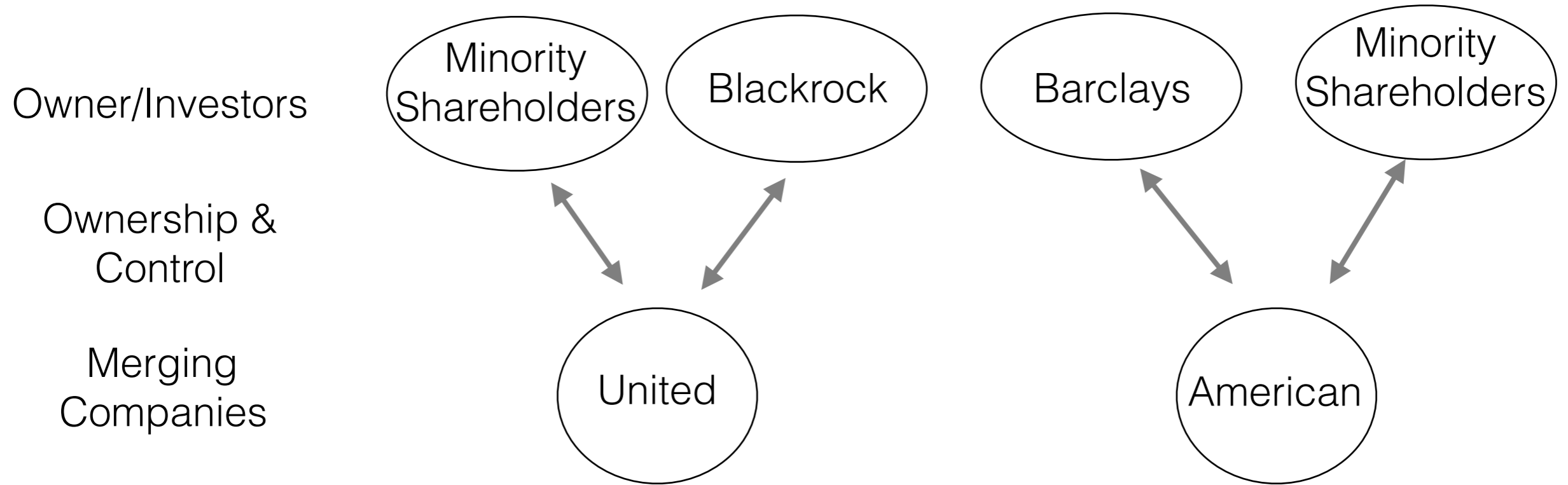
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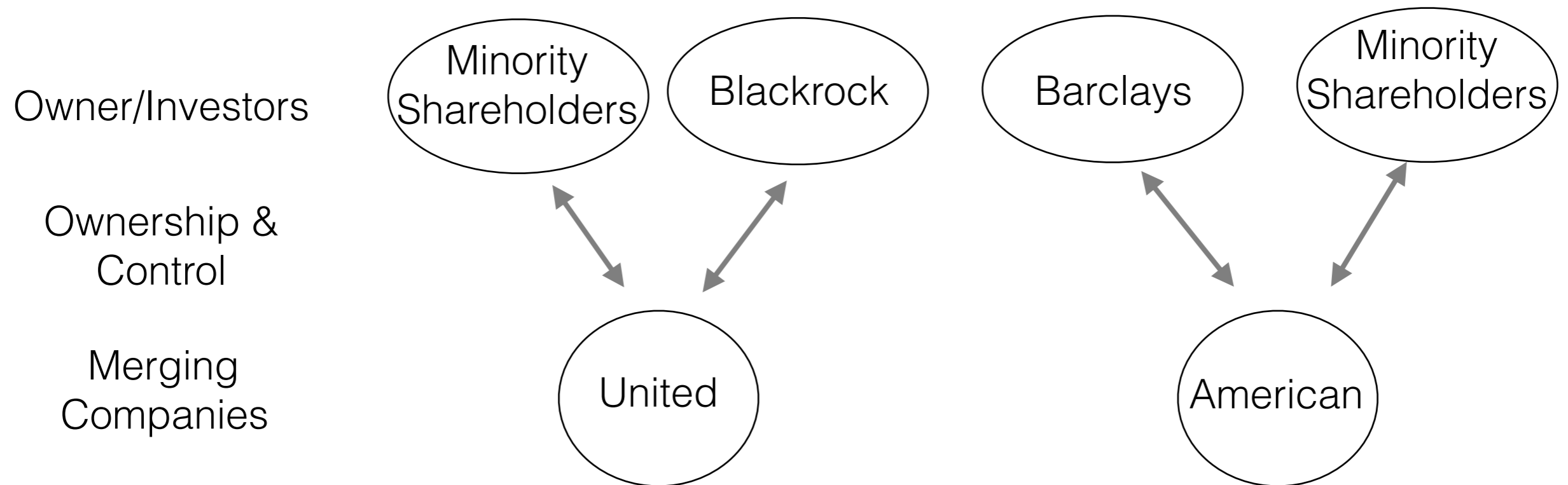
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- Proportional control was one of several special cases analyzed in O’Brien and Salop.
- There is no reason to believe that it is the right control assumption.

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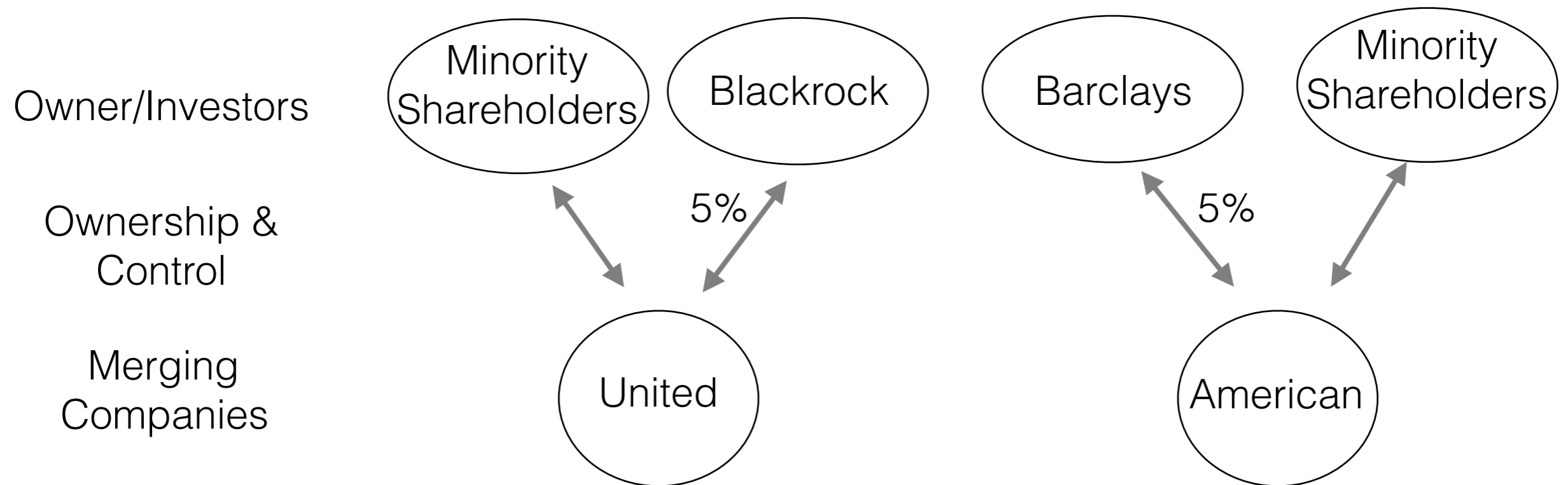


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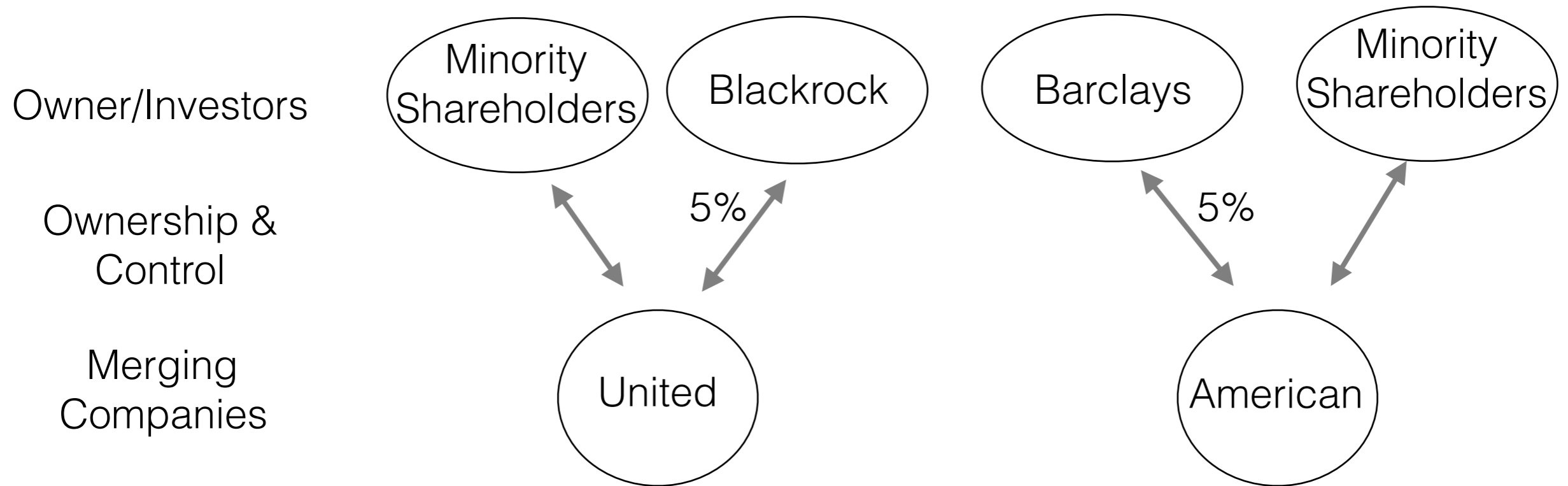
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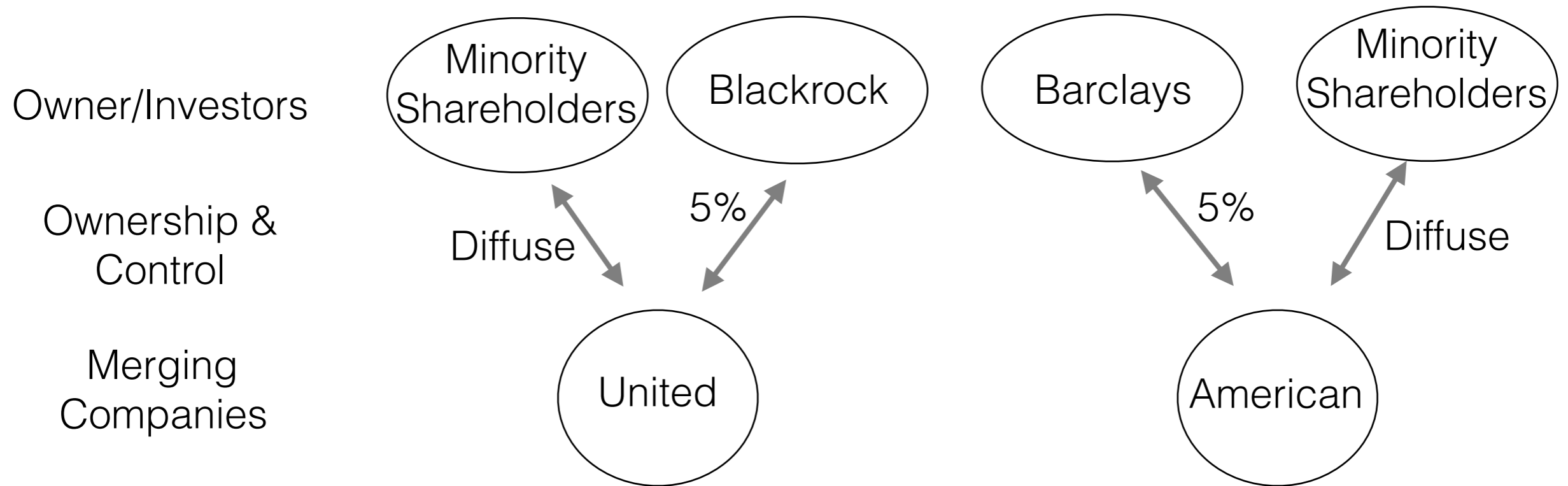
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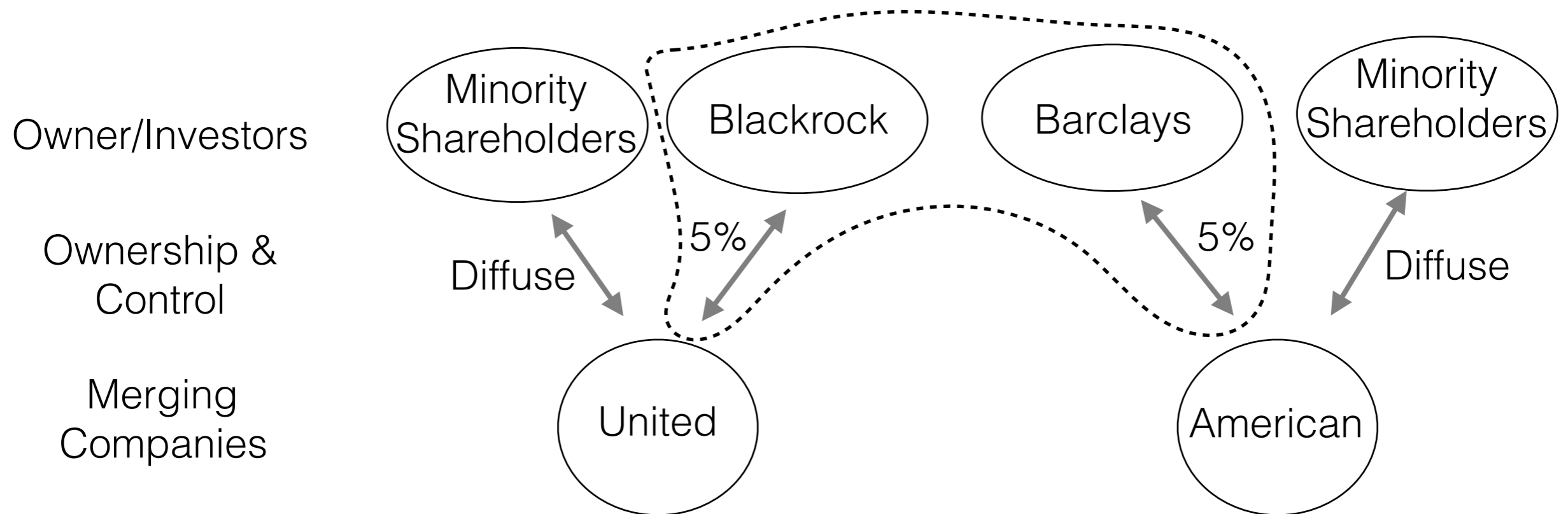


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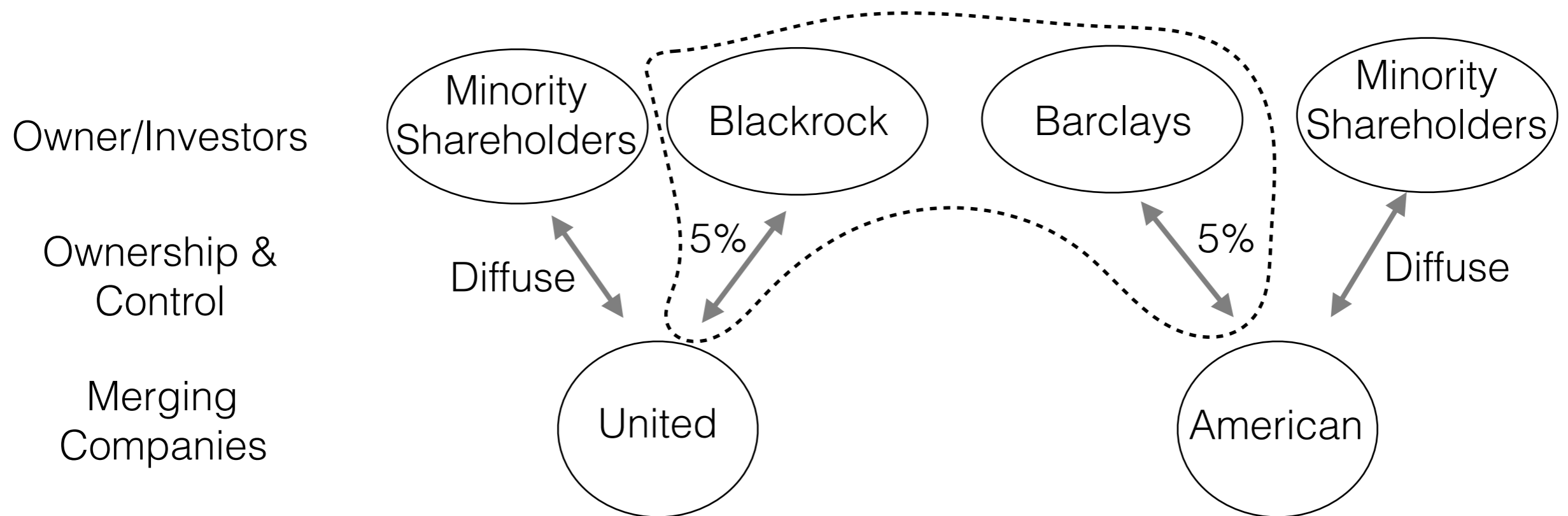
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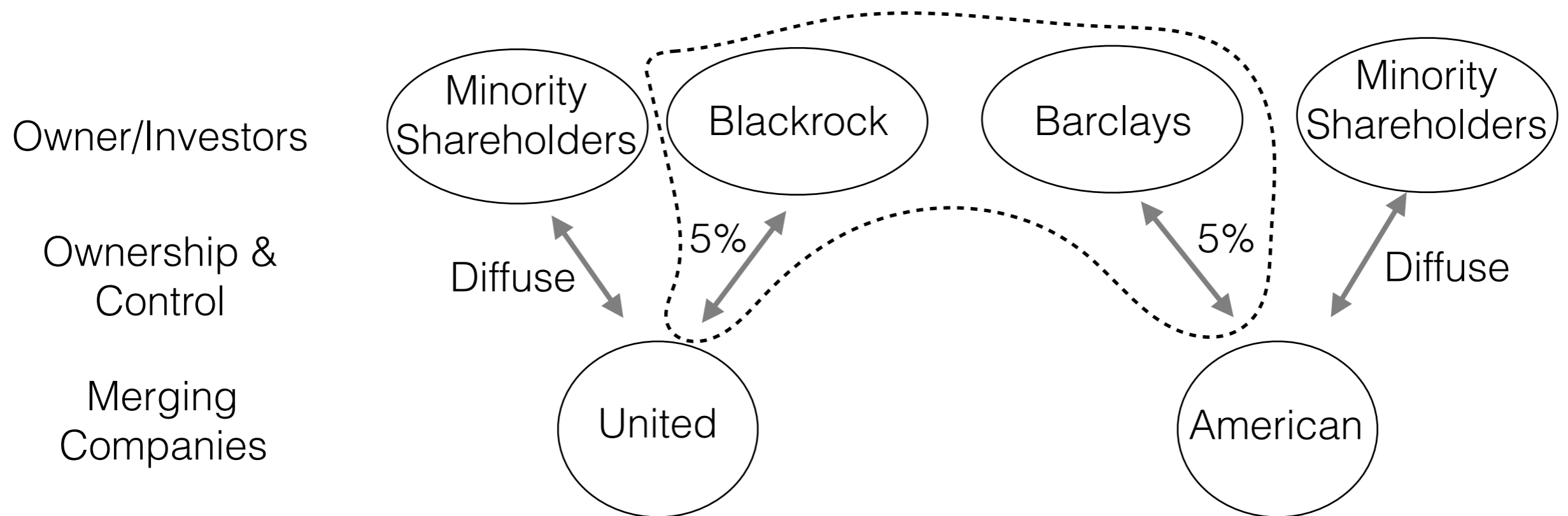
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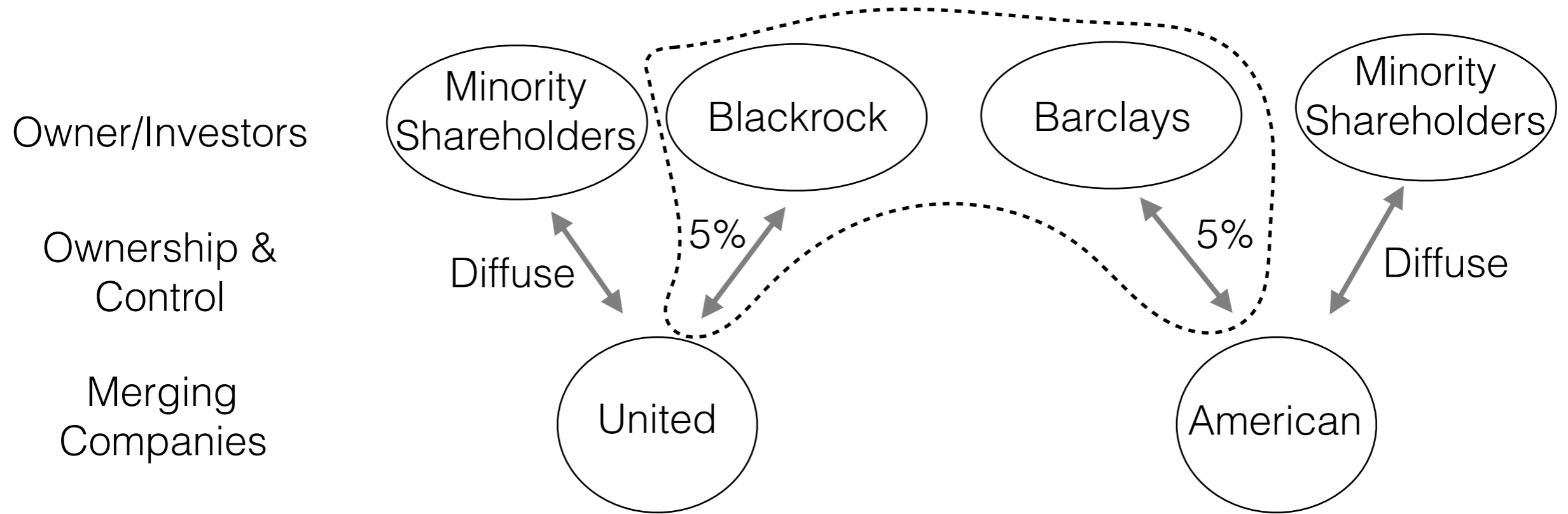
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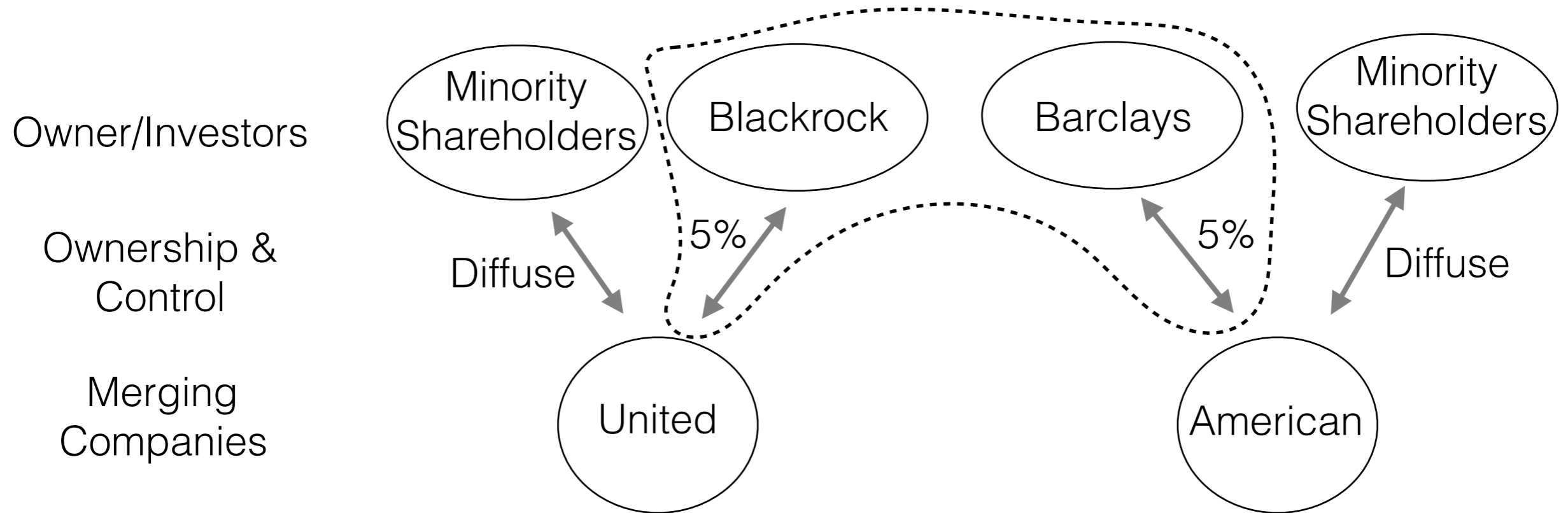


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- Do we believe this outcome?

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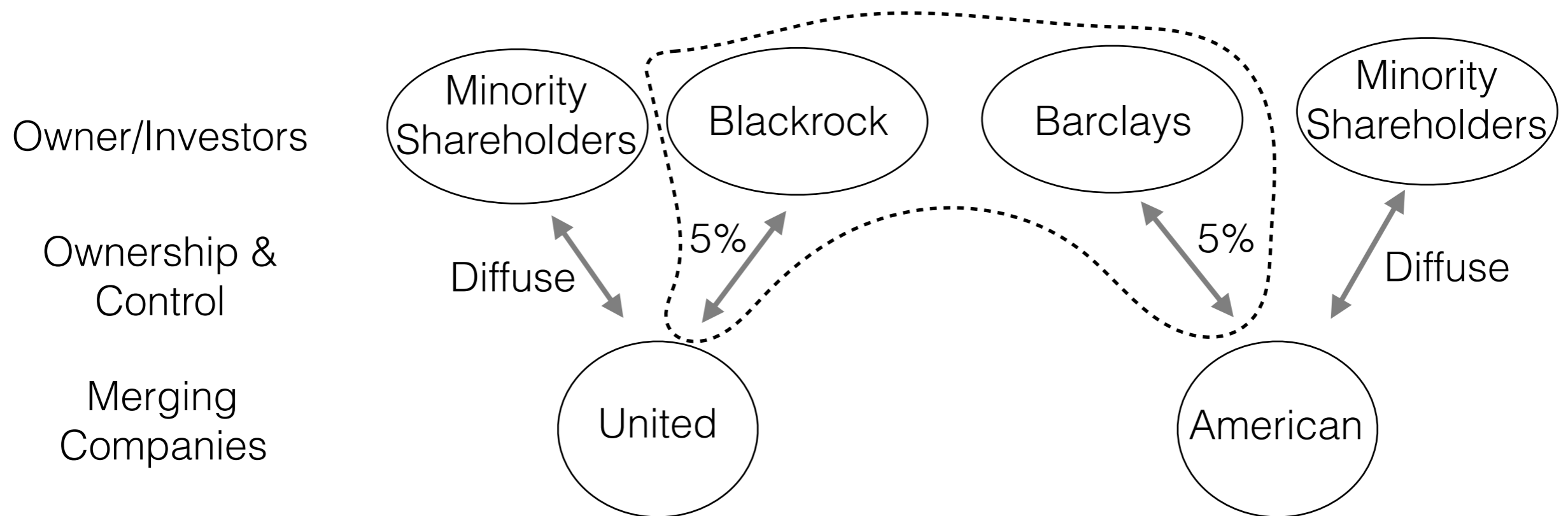


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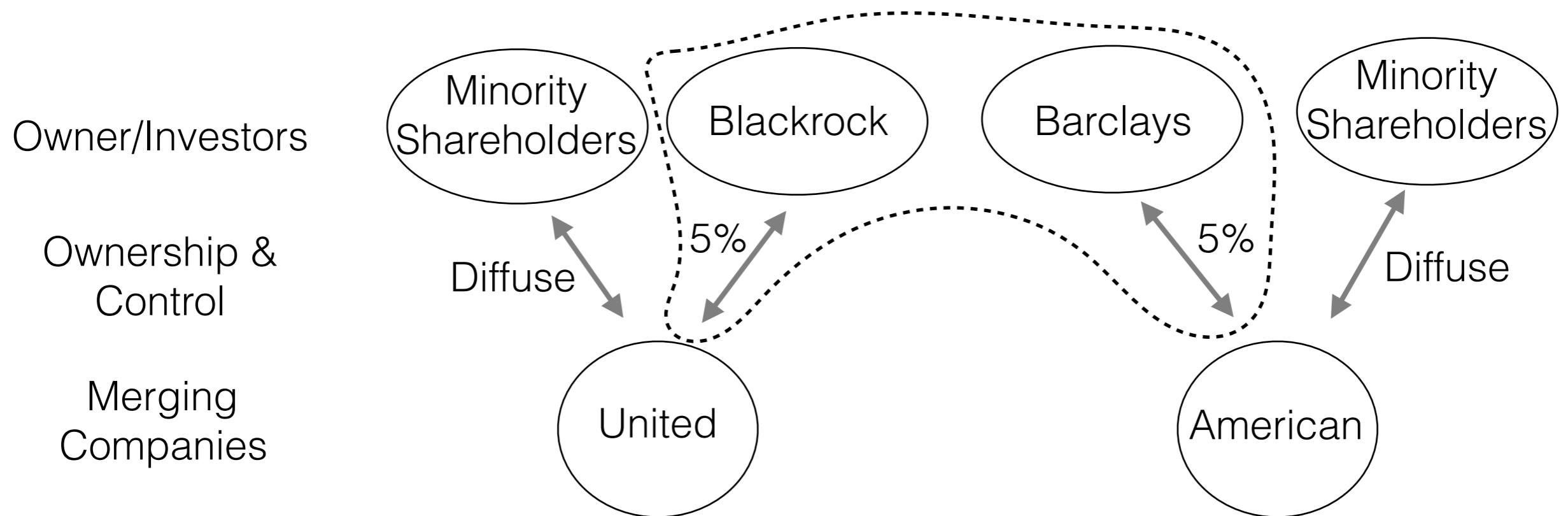
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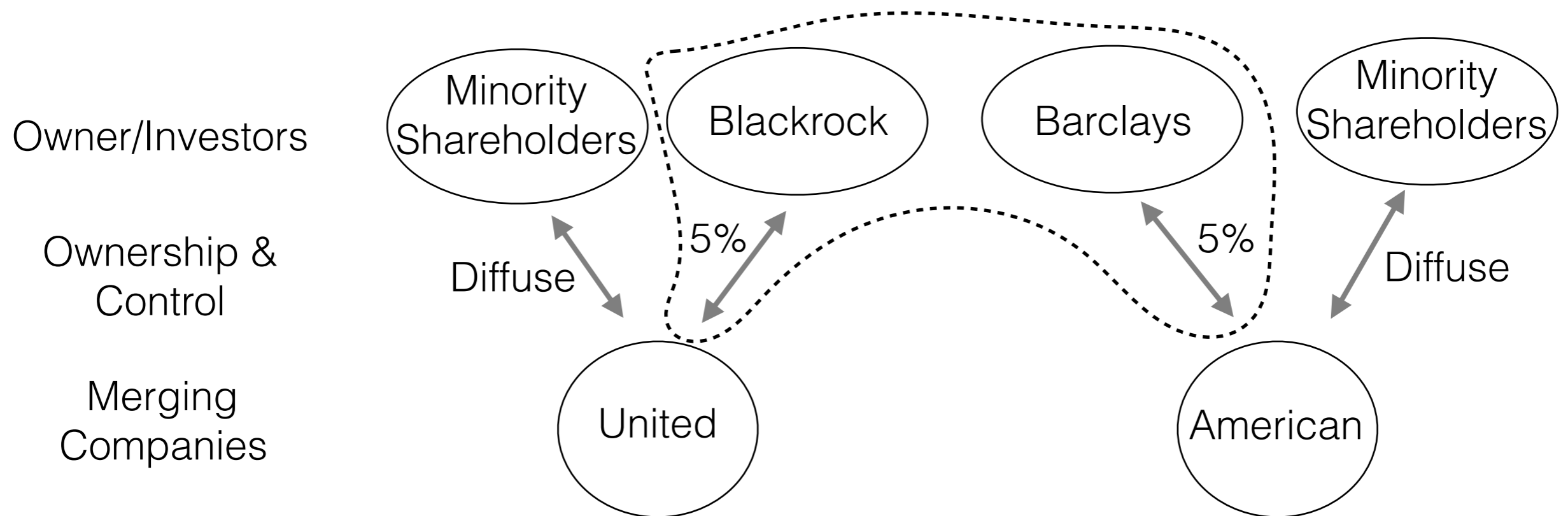
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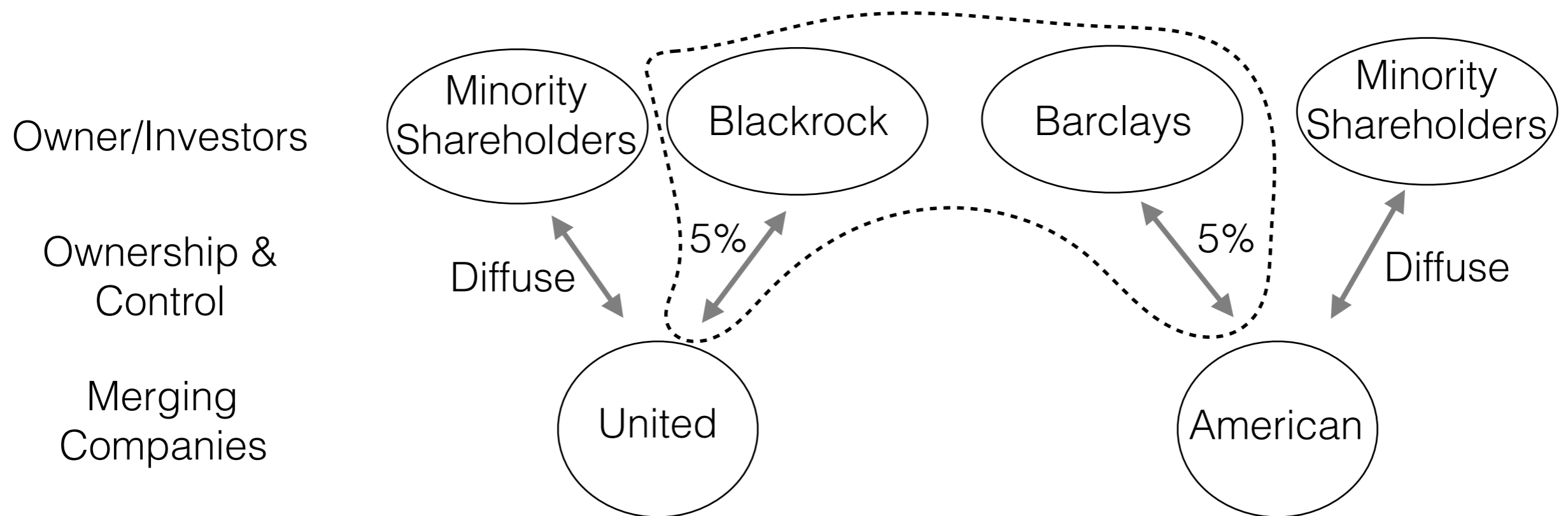


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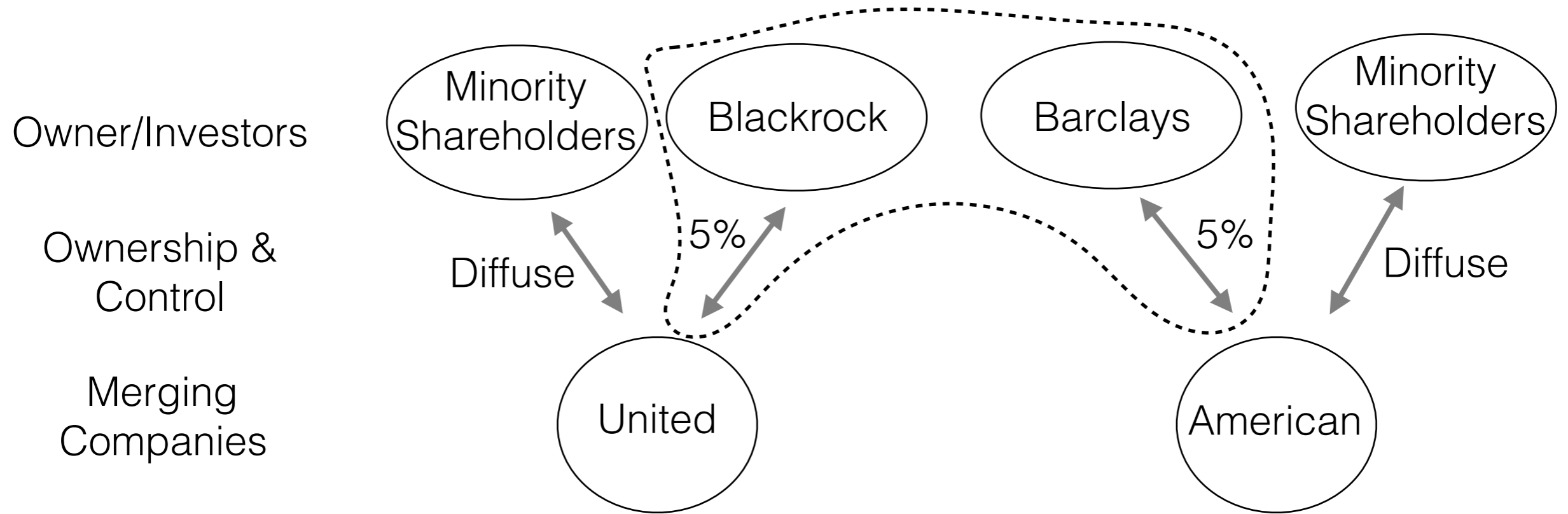
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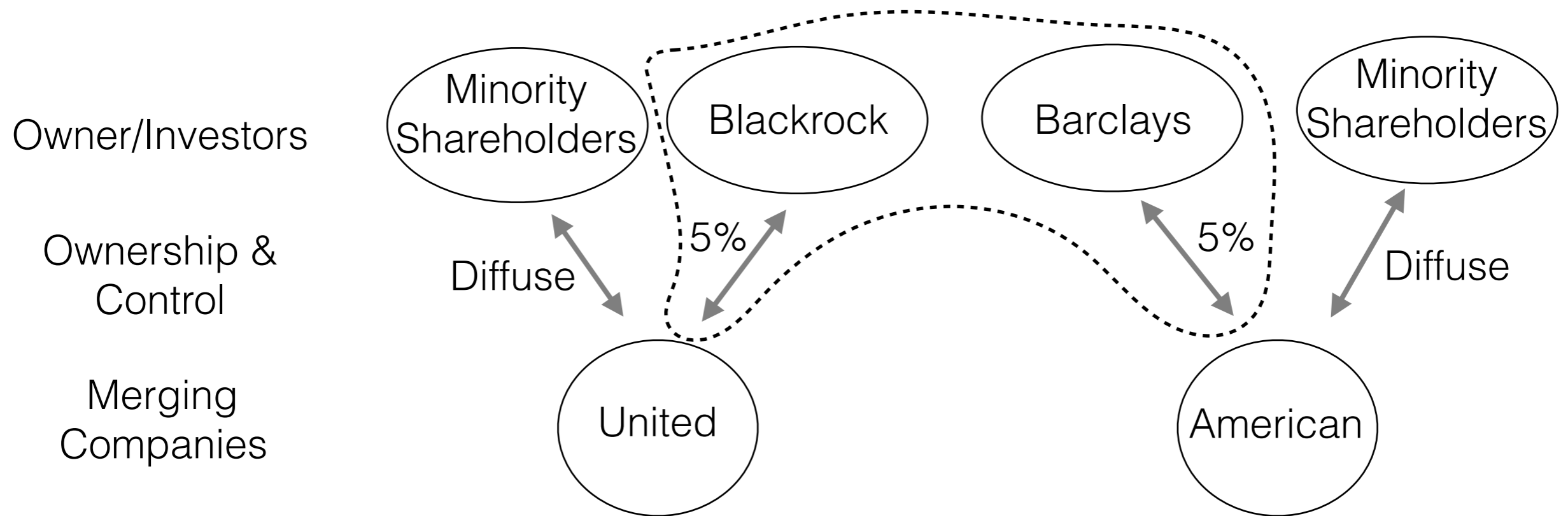
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Q. Do United's minority shareholders have an incentive to file a shareholder suit to wrest control from the institutional investor?

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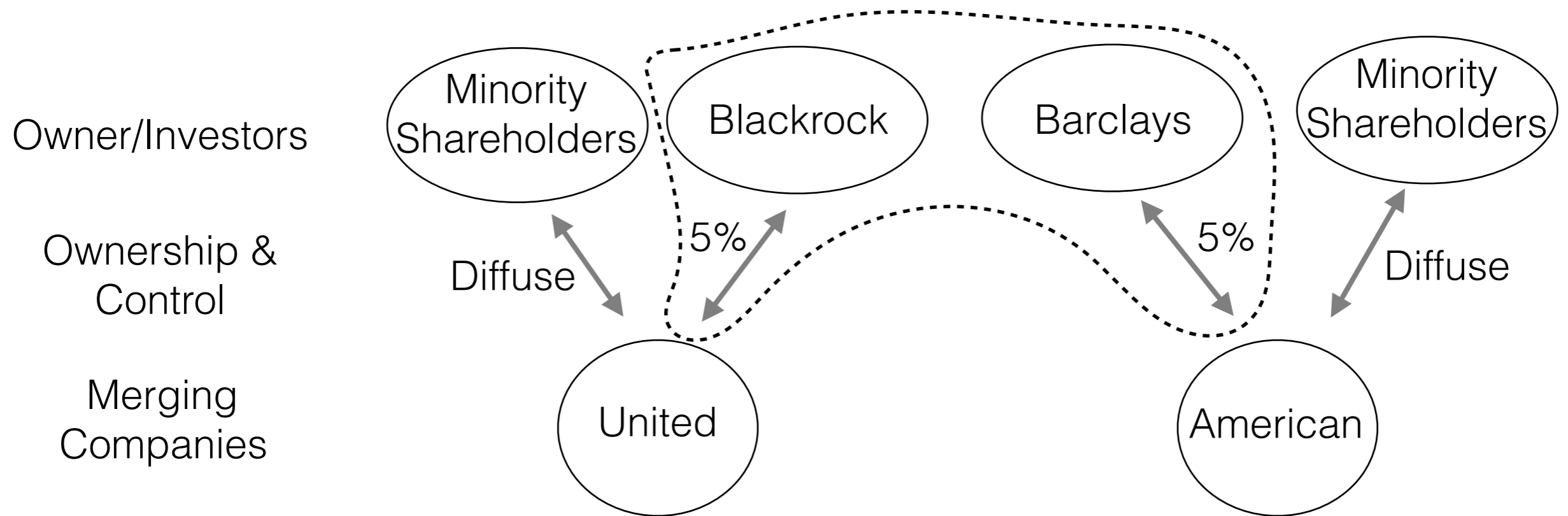


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The Shareholder Lawsuit Game

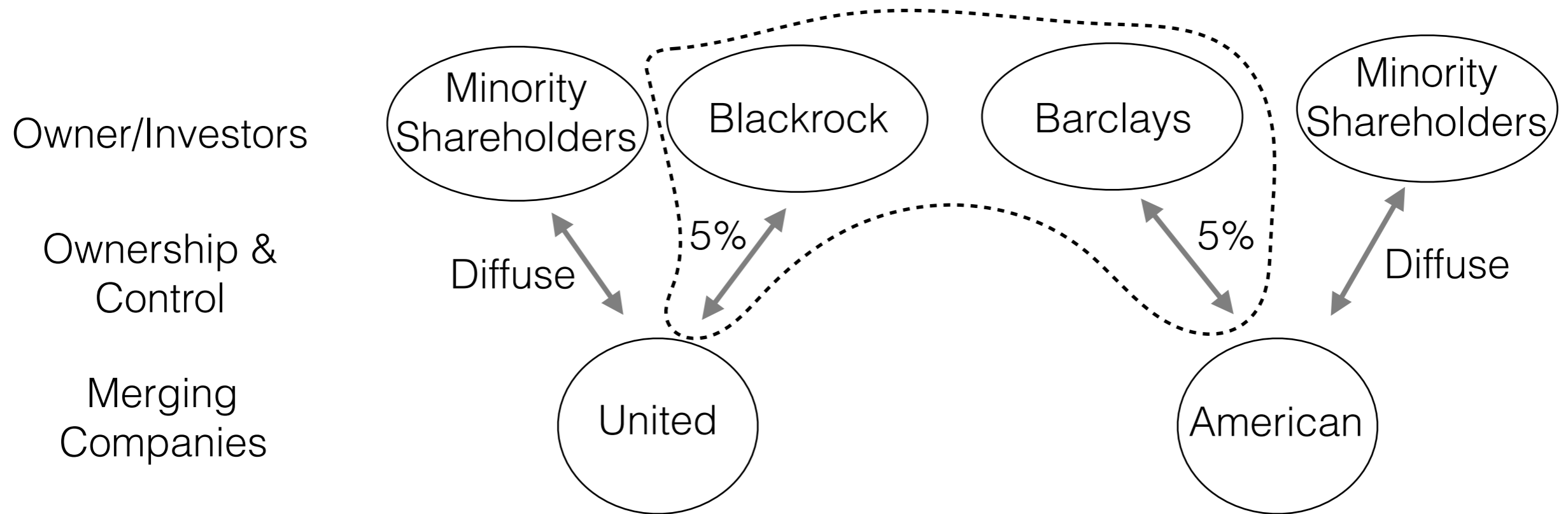
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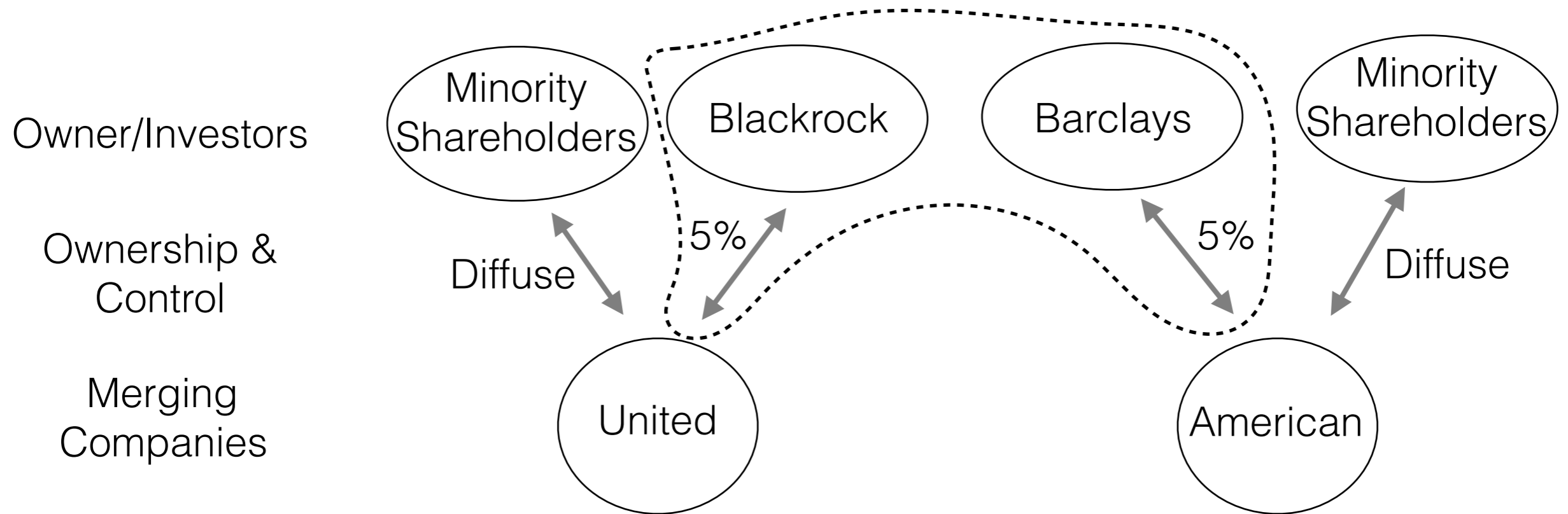
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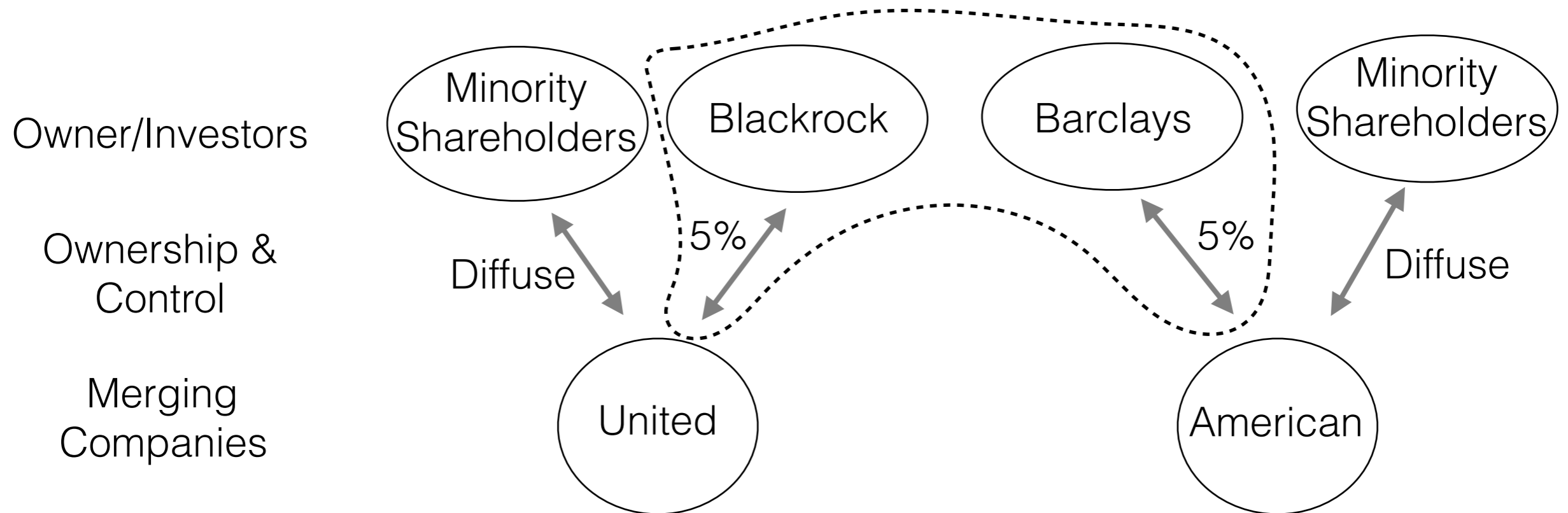
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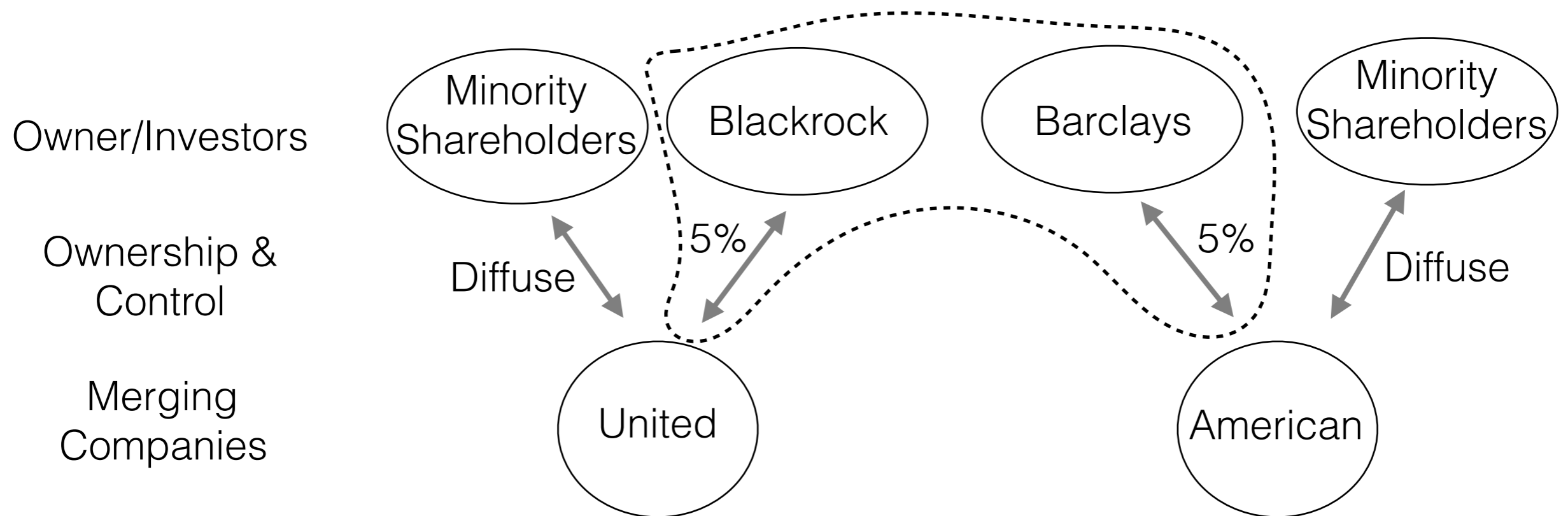


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  - Total profits would fall, but United's share would rise enough to make the minority shareholder better off.



# The Role of Fiduciary Obligation



## The Shareholder Lawsuit Game

- In this example, a United shareholder would gain from a successful lawsuit.
  - 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:  $MHHI = HHI + \Delta MHHI$

*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,  $\Delta MHHI = 0$ .
- 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  $\Delta\text{MHHI} = \alpha s_1 s_2$  where  $\alpha$  is the acquired financial interest and  $s_1$  and  $s_2$  are market shares.
- Here,  $\Delta\text{MHHI} = (.2)(20)(20) = 80$ , 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  $\Delta\text{MHHI} = \alpha + \alpha / [(1-\alpha)^2 + \alpha^2] s_1 s_2$  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  $\Delta\text{MHHI} = (\alpha + 1/\alpha)s_1s_2$  where  $\alpha$  is the acquired financial interest and  $s_1$  and  $s_2$  are market shares.
- Here,  $\Delta\text{MHHI} = (0.2 + 1/0.2)(20)(20) = 2080$ , a very large effect.

# The Empirical Analysis of Azar et al.

- Uses regression analysis to relate price to the HHI and  $\Delta\text{MHHI}$ , 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.