Do Mergers and Acquisitions Improve Efficiency? Evidence from Power Plants

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Overview

Do mergers of power plants improve effiency?

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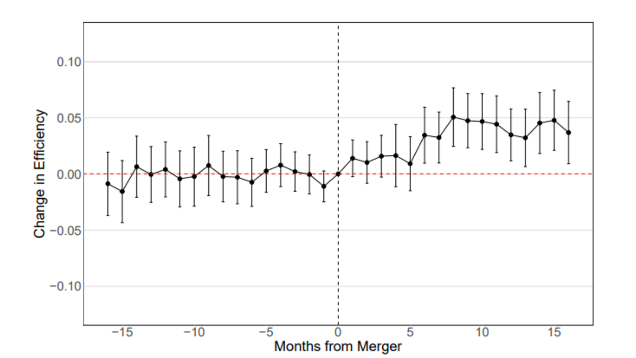
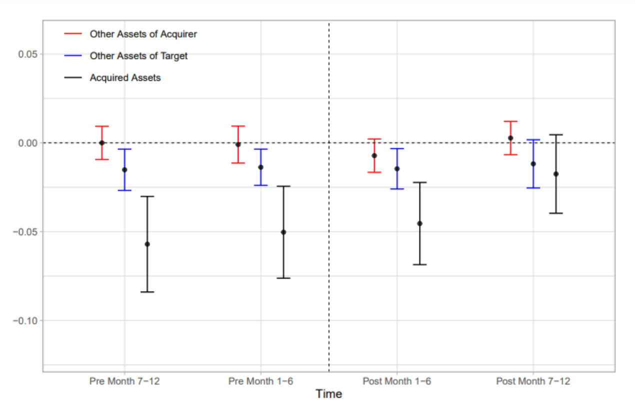


Yes (on average). Especially so when the acquirer is large or is a serial acquirer.

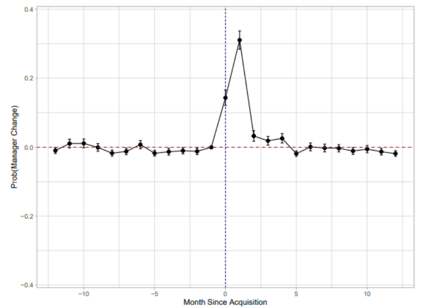
Which assets improve productivity?



Productive acquirers buy the unproductive assets of less productive targets, and improve their productivity within approximately a year

Why does productivity increase?

1. Improvements in efficiency ($\sim$75%)
2. Managing variation in production within-generator ($\sim$12.5%)
3. Allocative production across generators more efficiency ($\sim$12.5%)



Potential mechanism seems to be through management changes $\leftarrow$ more on this would be interesting!

Some context

Some studies find little effect of M&A on productivity

- Blonigen and Pierce (2016) on manufacturing plans in US; Bushnell and Wolfram (2005) on electricity; Schmitt (2017) on hospitals

But others find some gains in efficiency

- Kulick (2017) on ready-mix concrete; Ashenfelter, Hosken, and Weinberg (2015) on MillerCoors; **Braguinsky et al. (2015)** on Japanese cotton spinning

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Braguinsky et al. (2015) is an especially similar setting, where gains are attributed to managerial improvements

- But the gain due to the merger seems to be attributed to better access to supplier networks, or access to scarce engineering talent

Do we need the merger to realize these gains?

The data seems to suggest “yes.”

- Managerial changes **without a merger** have no impact on productivity
- Minority ownership changes have no effect.

- Merged entity likely has no new economic incentive to increase investment.

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But at the same time, hard to square with the fact that there are entire conferences devoted to improving heat rate

What does this mean for antitrust?

1. Productivity gains are credible.
2. Perhaps they are more credible in industries with larger documented, persistent dispersion in productivity
3. But gains do not seem to be tied to merger-specific changes in market structure $\implies$ room for more creative solutions?
    - Can an antitrust agency mandate that management must change?
    - Can they mandate divestiture at a later date?