2.6: Mergers and Acquisitions

Business evaluation of mergers: Does the market value of the new combined entity exceed the sum of the pre-merger market values of the separate firms?

Numerous academic studies seem to indicate that by this standard, most mergers are unsuccessful.

Mergers and Acquisitions

Success and Failure

For a "successful" merger…

Market Value Of Combined Firm A and Firm B > Market Value Of Firm A + Market Value Of Firm B

Typically estimated as:

X Common Shares Outstanding Current Share Price

By this standard, many mergers are unsuccessful…

…many studies of mergers stretching back to the last century have shown that, despite some successes, the overall record is decidedly unimpressive.
The Economist, **"The Trouble With Mergers," September 10, 1994**

[Mergers] are, like second marriages, a triumph of hope over experience. A stream of studies has shown that corporate mergers have even higher failure rates than the liaisons of Hollywood stars. One report by KPMG, a consultancy, concluded that over half of them had destroyed shareholder value, and a further third had made no difference.
The Economist, **"How Mergers Go Wrong," July 20, 2000**

Why are most mergers unsuccessful?

- Roll's "hubris hypothesis"
- The "merger paradox"

Mergers and Acquisitions

Roll's "Hubris Hypothesis"

On average, decision makers in acquiring firms pay too much for their targets. Managerial hubris explains why managers persist in offering takeover bids that represent overly optimistic valuations of the assets they are acquiring.
Richard Roll, "The Hubris Hypothesis of Corporate Takeovers," *The Journal of Business* 59:2 (April 1986): 197–216.

Government evaluation of mergers (for competitive implications):

- Proceeds in a straightforward SCP approach using DOJ Guidelines as a first filter
- Attempts to balance efficiency gains against anti-competitive concerns

Department of Justice Horizontal Merger Guidelines

Department of Justice Horizontal Merger Guidelines (1997)
Clarified intent and implementation of antitrust law related to oligopolies and mergers.

In evaluating horizontal mergers, the Agency will consider both the post-merger market concentration and the increase in concentration resulting from the merger. The general standards for horizontal mergers are as follows:

a) Post-Merger HHI Below 1000. The Agency regards markets in this region to be unconcentrated.

b) Post-Merger HHI Between 1000 and 1800. The Agency regards markets in this region to be moderately concentrated. Mergers producing an increase in the HHI of less than 100 points in moderately concentrated markets post-merger are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 100 points in moderately concentrated markets post-merger potentially raise significant competitive concerns…

c) Post-Merger HHI Above 1800. The Agency regards markets in this region to be highly concentrated. Mergers producing an increase in the HHI of less than 50 points, even in highly concentrated markets post-merger, are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 50 points in highly concentrated markets post-merger potentially raise significant competitive concerns, depending on the factors set forth in Sections 2-5 of the Guidelines. Where the post-merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise.

The "merger paradox" refers to both empirical evidence and theoretical analysis that only mergers that create extreme market power are likely to be successful in terms of generating increases in value for owners.

Mergers and Acquisitions

The Merger Paradox

Consider a Cournot oligopoly with n firms.

$$\pi^c = \left(\frac{n}{(n+1)^2}\right)\left(\frac{(a-c)^2}{b}\right) - \eta f = n\left(\frac{(a-c)^2}{b(n+1)^2}\right) - \eta f$$

Suppose that $n>2$ and some number, m ($2 \le m < n$), of the firms merge. Then there are $n-m+1$ firms in the post-merger industry, and

$$q_i^* = \left(\frac{a-c}{b(n-m+2)}\right) \qquad \pi_i^* = \left(\frac{(a-c)^2}{b(n-m+2)^2}\right)$$

Notice the following … For a merger to "make sense", the post-merger profit of the merged firm must be greater than the combined profits of the merging firms prior to the merger:

$$\frac{(a-c)^2}{b(n-m+2)^2} > m\frac{(a-c)^2}{b(n+1)^2}$$
$$\frac{1}{b(n-m+2)^2} > \frac{m}{b(n+1)^2}$$
$$bm(n-m+2)^2 < b(n+1)^2$$
$$m(n-m+2)^2 < (n+1)^2$$

Relevant exercises: Problem Set 2, exercise 10.