Potential Competition and the Analysis of Wholesale Electricity Markets

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Background

- Paper examines the role of the potential competition doctrine in FERC's analysis of mergers under FPA section 203.
- Potential Competition Doctrine: 2 variants
- Perceived Potential Competitor: A firm whose presence on the fringe of a market tempers the market power of firms in the marketplace
- Actual Potential Competitor: A firm that plans to enter the market, and whose entry would produce significant procompetitive effects in that market.

The Perceived Potential Competitor Doctrine (PPCD): Limit Pricing

- Bain (1949) said that under asymmetric information, a potential entrant's expectation of the stream of future prices would be influenced by the price charges by industry incumbents. He defined the limit price as the highest common price which established sellers believe they can charge without inducing entry.
- Friedman (1979) noted that under complete certainty, a limit-pricing strategy will not deter a rational entrant

PPCD: Strategic Investment

- In *Alcoa,*[1] Judge Learned Hand argued that the defendant had precluded entry by aggressively investing in new capacity
- Modigliani (1958) formulated the concept of "limit output," the minimum output that would deter entry.
- Spence (1977) and Dixit (1980) provided the earliest models of entry-deterring investment.
- Gilbert (1986) argued that the technological characteristics of most industries do not allow firms to commit to $Q \geq$ limit output

[1] U.S. v. Aluminum Co. of America, 148 F.2d 416 (1945)

Supreme Court Jurisprudence, early cases

1. United States v. El Paso Natural Gas Co., 376 U.S. 651 (1964)
2. United States v. Penn-Olin Chemical Co., 378 U.S.158 (1964)
3. FTC v. Procter & Gamble Co. 386 U.S. 568 (1967)

- These cases all included discussion of the restraining effects of a potential competitor on market participants.

Supreme Court Jurisprudence, defining cases

- In *Falstaff,* the Court defined a perceived potential competitor as a firm positioned on the edge of the market that exerted a beneficial influence on market conditions.
- In *Marine Bancorporation,* the Court laid out a three-part test for illegality of a merger based on the perceived potential competitor doctrine.

1. The target market must be substantially concentrated
2. The acquiring firm must have the characteristics, capabilities, and economic incentive to render it a perceived *de novo* entrant
3. The acquiring firm's pre-merger presence on the fringe of the market must have tempered oligopolistic behavior on the part of market participants.

DOJ 1984 Merger Guidelines

- Perceived Potential Competition:

  1. DOJ is unlikely to challenge mergers when entry into a market is easy enough to constrain market power of existing firms

  2. A merger that eliminates a perceived potential competitor could result in an immediate deterioration in market performance

  3. Elimination of a firm with *unique entry advantages* may allow incumbents to exercise market power

  4. DOJ is unlikely to challenge if this advantage is shared by three or more other firms

DOJ 1984 Merger Guidelines, cont.

- Actual Potential Competition

  1. Elimination of an actual potential competitor could result in a lost opportunity for improvement in the market

- DOJ evaluates mergers that raise either type of concern regarding potential competition
- DOJ is unlikely to challenge a potential competition merger unless overall concentration (measured by the HHI) is above 1,800
- DOJ is unlikely to challenge a merger if an entry advantage is shared by three or more firms

1992 DOJ/FTC Merger Guidelines

- The 1992 Guidelines define an uncommitted entrant as a firm that would enter a market rapidly in response to a "small but significant and nontransitory" price increase without incurring significant sunk costs of entry and exit (borrows from contestable markets theory, pioneered by Baumol *et al.* (1982). A firm is an uncommitted entrant if it can enter the market within one year
- When entry requires significant sunk costs, DOJ considers entry timely if achieved within two years time
- For durable goods, entry is timely *iff* it would deter or counteract the competitive effects of concern within the two-year period and subsequently

FERC Merger Review

1. FERC Merger Review

- Section 203 of the Federal Power Act provides that FERC shall approve a proposed merger if it finds the merger to be consistent with the public interest. In determining whether a merger is consistent with the proposed merger, FERC evaluates the effects of the proposed merger on competition, rates, and regulation.

FERC Merger Review, cont.

- FERC uses the DOJ/FTC guidelines

  to evaluate the effect of a merger on competition.

HHI/ΔHHI	50-100	>100
< 1,000	No harm	No harm
1,000-1,800	No harm	Harm possible
> 1,800	Harm possible	Harm presumed

Potential Competition & FERC Merger Review

- PUHCA 1935 states that the SEC shall not approve the acquisition of securities or utility assets of a public-utility or holding company unless it finds that such acquisition will serve the public interest by tending towards the economical and efficient development of an *integrated* public utility system.
- FERC interpreted PUHCA 1935 as requiring applicants to establish a contract path between the merging utilities. Interveners did not challenge mergers based on the potential competitor doctrine as long as the integration requirement held, because all mergers necessarily showed some HHI change, and thus the Commission evaluated the horizontal impact of a merger in accordance with the DOJ/FTC guidelines.

PC & FERC Merger Review, cont.

- After EPAct 2005 removed the integration requirement of PUHCA 1935, interveners started protesting mergers based on the potential competitor doctrine.
- Santee Cooper protested Duke-Cinergy based on the perceived potential competitor doctrine.
- Florida Municipals protested FPL-Constellation based on the actual potential competitor doctrine. Neither of these protests were convincing

PC & FERC Merger Review, cont.

- Question: What is the role of the potential competitor doctrines in FERC merger analysis
- Answer: Similarities between the Court's view of perceived potential competition and that of the Guidelines:

1. The target market must be concentrated (HHI > 1,800).
2. The acquiring firm must have economic incentive to enter the market
3. The acquiring firm's pre-merger presence on the fringe of the market must have tempered oligopolistic behavior on the part of market participants.

STOP

Perceived Potential Competition & FERC Merger Review, cont.

- Is anyone actually tempering oligopolistic behavior on the part of market participants?
- These guys don't think so:
    1. Borenstein et al. (1997), (2000), and (2002)
    2. Bushnell and Saravia (2002)
    3. Bushnell et al. (2004)
    4. Talukdar (2002), Rassenti et al. (2003)
    5. Joskow and Kahn (2002)
    6. Wolfram (1999)
    7. Anything by Lave, Apt, and/or Blumsack

Perceived Potential Competition & FERC Merger Review, cont.

- Traditional (Bilateral) Energy Markets: Vertical foreclosure is a more effective tool than limit pricing in frustrating potential competitors. Limiting a competitor's access to your transmission grid not only buoys a utility's price, but it also allows it to buy distressed assets at "fire-sale" prices (see protest of Occidental Chemical Corporation in EC07-70, April 30, 2007).

Actual Potential Competition and Merger Review

- The Actual Potential Competitor Doctrine's (ACPD) place in FERC merger review depends on one's interpretation of Appendix A analysis

  1. If Appendix A compares the market after the merger with the status quo, then the APCD has no place in FERC merger analysis. A merger cannot be cited under section 203 if it fails to achieve an improvement in market conditions, only if it makes market conditions worse, but

Actual Potential Competition and Merger Review

2. If One interprets the requirement that FERC merger analysis must be forward looking as requiring FERC to compare *future* market conditions (2 years hence) in absence of the merger, with those resulting from the merger, then the ACPD has a place in FERC merger review. One would then gauge the impact of an APC as the amount of capacity the APC has public intentions to build in two years time. One would then compute the effect of removal of the APC as the change in the HHI due to the merger.

Conclusion

- Neither the PPCD nor the ACPD can have much sway in FERC merger review, under present market conditions. With repeal of the integration requirement of PUHCA 1935, interveners will undoubtedly continue protesting cases on the basis of these doctrines, but they will have a hard time prevailing based on these arguments.