

**ELIMINATING POTENTIAL COMPETITION:**  
**Mergers Involving Constraining and Prospective Competitors**

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Gratitude is expressed to Dale Collins and Larry White for comments on outlines and drafts of this paper, and to Evgenia Shumilkina for excellent research assistance. I also wish to acknowledge Luke Froeb and Randy Tritell of the Federal Trade Commission for their helpful suggestions, as well as the following individuals who provided information on competition policy in their countries: Andreas Bardong (Germany), Terence Stechysin (Canada), Geoff Thorn (New Zealand), and Tetsuji Yokote (Japan). All opinions and remaining errors in this paper are the sole responsibility of the author.

## I. Introduction

The importance of potential competition as a constraint on market power has been recognized in the industrial organization literature at least since work by Bain.<sup>1</sup> Subsequent economic theory has formalized the relationship between firms not currently producing in an industry and market performance, and considerable empirical evidence confirms the role of such firms. Indeed, current U.S. merger policy has elevated entry conditions to co-equal status with concentration among incumbent firms as factors determining competitive effects and likely policy: A merger or acquisition between firms in a concentrated market may well be permitted if the prospects for entry into the industry can be shown to be timely, likely, and sufficient to restore the pre-merger degree of competition.

In light of this heightened recognition of the effect of potential competitors, it is ironic that under current policy a merger between an incumbent firm and the same potential competitor that imposes such a constraint is now *more* likely to be approved than ever before. At present mergers are not challenged on the basis of potential competition. Rather, this doctrine survives, at best, as a secondary issue raised in challenges that focus on other concerns. Given current economic understanding of the effects of potential competition, its relegation to such a status raises some obvious questions about what has caused this policy shift and whether it warrants reconsideration.

This article addresses the current status of the doctrine of potential competition. We begin by evaluating the economic basis for this doctrine, distinguishing two distinct threads that follow from the underlying economics, and then explain the events that have caused it to fade in policy importance. We will note the contrast between the ever more persuasive economics of potential

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<sup>1</sup> Joe Bain, *Barriers to New Competition*, Harvard University Press (1956).

competition and the ever less persuaded judiciary in the U.S. We also note the much greater importance of this doctrine in other countries and conclude with some observations about the appropriate role of potential competition considerations in merger control.

## II. A Primer on the Economics of Potential Competition

This section provides insights from economics into the circumstances under which the elimination of a potential competitor by merger or acquisition<sup>2</sup> raises competitive concerns. We first review theoretical models of pricing and entry for their implications regarding the competitive effect of potential competitors, and then examine empirical evidence on the actual effects of potential entry on market performance. Throughout we seek operational guidance for policy.

We should note at the outset two quite different versions of the doctrine of potential competition. The first involves the case where the non-incumbent is *perceived* to be a possible entrant and, as such, it constrains the behavior of incumbent firms. The elimination of that potential competitor therefore confers greater pricing discretion on incumbents, and does so whether or not the firm actually would or might enter.. The second version of this doctrine entails a firm that *objectively is* likely to enter the market, even if not so perceived. Its elimination by merger prevents future entry that would have led to deconcentration of the market and the strengthening of competition.

For obvious reasons, the firm described by the former case has traditionally been called a

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<sup>2</sup> The terms merger, acquisition, and elimination should be interpreted interchangeably, since the policy significance does not depend upon the exact mechanism by which the firm is eliminated.

“perceived potential competitor,” the latter an “actual potential competitor.” The awkward nature of these labels has led to two suggested alternatives that focus on the effect of the potential competitor on the market. Thus, the case in which the firm is perceived to be a constraint has been termed a “constraining competitor” while a firm that would have entered is a “prospective competitor.”<sup>3</sup> We will use both sets of terms, the latter primarily in discussing the economics of potential competition, and the more traditional labels in discussing antitrust enforcement.

Economic foundations for both types of potential competition can be found in the theoretical and empirical literatures, as we shall now see.

#### A. The Theoretical Role of Potential Competitors

Most of the models of price/output determination and entry deterrence reviewed here are familiar, although our use of them is not: From each we are interested in implications regarding the circumstances under which the elimination of a potential competitor by merger or acquisition adversely affects market operation. We begin with the Bertrand and Cournot models and then consider models of entry deterrence.<sup>4</sup>

In the basic Bertrand model, two or more firms sell a homogeneous product that is produced with constant and identical marginal cost. Competition in prices results in equilibrium price at marginal cost so long as there are at least two firms. In this case incumbent competition is

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<sup>3</sup> John Kwoka, *Non-Incumbent Competition: Mergers Involving Constraining and Prospective Competitors*, 52 CASE WESTERN RESERVE LAW REVIEW, Fall 2001

<sup>4</sup> Good discussions of these and related models can be found in Jeffrey Church and Roger Ware, *Industrial Organization: A Strategic Approach*, Irwin (2000).

sufficiently strong that the existence of one or more potential entrants with the same unit cost<sup>5</sup> is irrelevant to price determination. Thus we have the following proposition, which holds not only in Bertrand competition, but quite generally:

Proposition 1: If incumbent competition is sufficiently strong, potential entrants with the same costs do not constrain price determination. Accordingly, the elimination of any one or more such potential competitors by merger raises no competitive concern, *cet. par.*

Several variations on this model deserve attention. Suppose, first, that incumbent firms face binding capacity constraints, in which case market price is determined by their aggregate capacity and market demand. Now a potential competitor cannot alter current market price, since that price reflects scarcity rents but not monopoly markup, but it will alter equilibrium price at the point it does enter. This scenario suggests the following:

Proposition 2: In the case of Bertrand competition, if price determination is subject to binding capacities, the elimination of a non-incumbent alters equilibrium price by eliminating a capacity-increasing entrant.

Another variation on Bertrand competition supposes that the incumbents have different marginal costs. Suppose these are given by the following ordered series:  $c_1 < c_2, c_3, \dots < c_n$ . In equilibrium, firm 1, with the lowest unit cost, chooses  $P_1 = c_2 - \epsilon$ , that is, a price just slightly less than the next higher cost, which price forces firm 2 and all others from the market. Firm 1 remains constrained by the threat of entry and renewed production by firm 2, so that a merger between those two firms would have the effect of permitting the merged entity to raise price to  $P_1 = c_3 - \epsilon$ , that is, within epsilon of the marginal cost of the next lowest-cost firm.<sup>6</sup> The potential

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<sup>5</sup> If the potential entrant has lower costs than the incumbent firms, perhaps due to a new technology, then this proposition does not hold.

<sup>6</sup> This conclusion holds even more strongly if the potential competitor has lower costs, perhaps as a result of new technology.

competitor now significantly affects market performance, and its elimination creates competitive harm. We therefore establish the following:

Proposition 3: In Bertrand competition with cost differences, the elimination of a non-incumbent matters if that firm has the next lowest cost (or yet lower costs) relative to the incumbent. If, however, there are two or more incumbent firms with the same costs, or two or more potential competitors with the same next-lowest cost, the loss of a potential competitor does not relax any constraint.

A final, and common, variation on Bertrand pricing concerns differentiated products.

Now the effect of a potential entrant depends upon parameters of the relevant demand functions, in particular, on that product's prospective cross-elasticities with existing products.<sup>7</sup> To the extent these cross-elasticities are strong, the demand curves perceived by incumbent firms are more elastic and their pricing discretion less. The elimination of a prospectively strongly-cross-elastic potential competitor will therefore significantly affect market performance, leading to the following:

Proposition 4: With differentiated-product Bertrand competition, the elimination of a potential competitor by merger with an incumbent will relax the competitive constraint on incumbent behavior. This effect is greater to the extent that the cross-elasticity with particular respect to the merging incumbent firm is strong, costs are symmetric, and firm numbers small.

The Bertrand model is most appropriate for markets where competition focuses on price and where products are differentiated. The other standard model in the economic literature—that due to Cournot—supposes in its simplest form a homogeneous product, constant and identical marginal cost, and quantity competition among some number of incumbents. Market output, price,

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<sup>7</sup> Simulation methods are now often used to predict the effects of merger among incumbent producers. See, for example, Gregory Werden and Luke Froeb, "The Effects of Mergers in Differentiated Products Industries: Logit Demand and Merger Policy," 10 JOURNAL OF LAW, ECONOMICS AND ORGANIZATION 2 (1994).

and total profit fall between the monopoly and competitive levels. Since profit is positive, entry in principle will occur, expanding output and lowering price and profitability. Thus, the elimination of the non-incumbent Cournot firm via merger prevents a pro-competitive change from occurring:<sup>8</sup>

Proposition 5: In Cournot quantity competition, the elimination of an identical potential competitor by merger with an existing firm causes competitive harm by preventing prospective entry that would increase output. This effect is similar to the merger of two existing Cournot competitors.

An important variation on the basic Cournot model arises when there are cost differences among the firms. Such cost differences affect equilibrium outputs of all firms, but unlike the case of Bertrand competition, not generally their viability. The effect of a merger between an incumbent and a potential competitor now depends upon the particular configuration of their costs and even includes the possibility of some efficiency gains from reorganizing production. The broad outlines of the effects can be stated as follows:

Proposition 6: Where Cournot firms have different costs, the merger of a potential competitor and an incumbent firm involves the elimination of prospective competition as outlined in Proposition 5, but also the possible displacement of high-cost production with low-cost output.<sup>9</sup>

To this point the discussion has assumed the absence of uncertainty and the absence of

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<sup>8</sup> It is important to recognize that the private profitability of Cournot mergers is not assured. See Stephen Salant, Sheldon Switzer, and Robert Reynolds, "Losses from Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium," 98 *QUARTERLY JOURNAL OF ECONOMICS* (1983) and, for some possible resolutions, John Kwoka, "The Private Profitability of Horizontal Mergers with Non-Cournot and Maverick Behavior," 7 *INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION* (1989), and Joseph Farrell and Carl Shapiro, "Horizontal Mergers: An Equilibrium Analysis," 80 *AMERICAN ECONOMIC REVIEW* 1 (1989). It is also the case that with multiple non-incumbents, the elimination of any single non-incumbent may have only modest anticompetitive effects.

<sup>9</sup> Whether such a merger would be privately beneficial remains an issue. See note 8.

fixed costs. Relaxation of either may change certain implications. For example, in Bertrand models, if the survivorship of one of two equally low-cost Bertrand competitors is in doubt, the elimination of a next-lowest-cost potential competitor through merger with the incumbent that is most likely to survive may have anticompetitive effects. The same holds in the circumstance where one of two equally and next-lowest-cost potential entrants is uncertain to survive and the other is eliminated by merger with the sole incumbent firm. In Cournot, all firms matter to some degree, and so the introduction of uncertainty does not so much reverse any conclusions as it alters the relative importance of certain competition-eliminating mergers. For example, if the rival that is acquired and shut down has uncertain long-term prospects even in the absence of the merger, the acquisition has correspondingly more modest expected effects.<sup>10</sup> Accordingly, the following generalization applies:

Proposition 7: Where there is uncertainty about the viability or persistence of either the incumbent firms or the potential competitors, previous results change in degree but not in their general thrust. These changes are most likely in the case of Bertrand competition.

Incorporating fixed costs adds realism to the modeling and has the analytical benefit of endogenously limiting the number of potential entrants, but it may alter some previous conclusions in the process. In a Cournot environment, for example, fixed costs limit the number of viable incumbents, so that in symmetric equilibrium a potential competitor is not in a position to credibly threaten to enter. Hence, competitive risk from elimination of a potential competitor arises primarily in the circumstance when costs or technology changes so as to permit additional entry. On the other hand, Bertrand competition with fixed costs still results in a single firm, but

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<sup>10</sup> In this case, of course, the presence of the non-incumbent had more modest competition-strengthening effects.

price now must cover those fixed costs. The implications for entry and the consequences of the elimination of a potential entrant are largely unchanged. Thus we have:

Proposition 8: With fixed costs and Bertrand competition, price differs but the same propositions regarding potential competition apply. In Cournot quantity competition, fixed costs limit the number of firms so that a potential competitor is significant only if it has cost or technology advantages.

Numerous other models of price and output determination exist in the literature, including modern game theoretic formulations that analyze equilibria in a dynamic context. Since none of these directly contemplates the existence of a potential entrant, we shift focus to an examination of models of explicit entry deterrence, that is, where the incumbent takes action specifically to forestall or limit threatened entry. As before, we are interested in the competitive implications of these models in the case of a merger between an incumbent firm and a potential competitor. The implications might be expected to differ since these involve prior—and presumably costly—acts by the incumbent designed to forestall entry, which (by assumption) is nonetheless threatened.

The issues are best addressed in the context of specific models. As is now well understood, the traditional Bain-Sylos-Modigliani model of entry deterrence is logically flawed since it posits a strategy of holding output constant that is not rational for the incumbent in the face of actual entry. The incumbent's profit is typically larger when it accommodates the new competitor by reducing its own (and hence industry) output. Knowing this, of course, the potential competitor will in fact not be deterred by the (non-credible) threat of price/output maintenance, in which case the rational incumbent will not pursue such a strategy in the first place.<sup>11</sup> Despite this, the traditional limit price/output model offers insights not limited to its

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<sup>11</sup> In the vernacular, the entry game must be subgame perfect. That is, each of its component shorter games must involve Nash equilibrium strategies as well. See Church and

particular assumptions:

Proposition 9: In the presence of scale economies and output-based entry deterrence by the incumbent, merger with the sole potential entrant may eliminate a competitive constraint. If there are multiple identical potential competitors, the elimination of any single one will not raise competitive concerns.

Modern approaches to entry deterrence focus exclusively on credible strategies, where credibility requires use of a strategic variable that is irreversible due to sunkness of some costs. Appropriately sunk costs make it irrational for the incumbent to reverse its behavior and accommodate post-entry. Strategic investments in product variants, location, R&D expenditures, and capacity have much stronger irreversibility properties than do price and output. Models involving all of these and other strategies have been developed, but since the essence of most models are similar, we here outline a version of Dixit's early model demonstrating the use of capacity as a credible entry-detering strategy.<sup>12</sup>

The Dixit model assumes a single incumbent firm facing possible entry from a potential competitor. The incumbent moves first. Its strategic weapon is capacity investment that lowers its marginal cost of output expansion, making credible the threat of post-entry output expansion, or at least output maintenance, since it is no longer profit-maximizing to contract. While the incumbent incurs some added costs from such capacity expansion, the non-incumbent will now decide not to enter, in which case the incumbent has freed itself from the constraint imposed by the potential entrant in the first place. In this context a merger between the incumbent firm and the potential competitor clearly removes a competitive constraint and so raises the usual concerns

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Ware, *op. cit.*

<sup>12</sup> Avinash Dixit, "The Role of Investment in Entry Deterrence," 90 ECONOMIC JOURNAL (1980).

outlined above. But merger also avoids the need to undertake entry deterring actions, which themselves were costly without conferring commensurate social benefits.<sup>13</sup> The possibility of some “efficiencies” therefore arises, leading to the following:

Proposition 10: In Dixit-like models of strategic entry deterrence, the elimination of the potential competitor by merger with the incumbent relaxes the competitive restraint that the potential entrant poses, but otherwise has ambiguous effects on market efficiency. Anticompetitive effects are likely to dominate when the fixed costs are smaller (since less is saved by eliminating the potential entrant) and when the incumbent’s output increase in the capacity-altered state is small.

We may summarize the propositions set forth in this review as follows: Except when incumbent competition is strong or potential competitors are numerous, the elimination of potential competitors by merger is likely to relax the competitive constraint and thereby permit greater pricing discretion by incumbents, or to prevent the entry of a prospective competitor and thereby prevent prospective entry and deconcentration of the industry from taking place. Either outcome entails competitive harms. These statements may require some qualification in cases where there is uncertainty and when costs differ among firms, although most cases continue to suggest competitive concerns.

#### B. Evidence on the Role of Potential Competition

The effect of potential competition on incumbent firm behavior and performance has also been examined in the empirical literature, though in a rather particular way. None of these studies examines actual mergers between such firms.<sup>14</sup> None captures prospective entry, which by

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<sup>13</sup> The social benefits are not commensurate with their costs, since otherwise they would have been undertaken even in the absence of threatened entry.

<sup>14</sup> Indeed, there are very few systematic studies of the effects of merger between incumbent firms.

definition has no current market effects. Rather, the methodology involves measurement of the constraining effect of potential competitors on market performance, and therefore by implication presumably the effect of their elimination. This implication is limited by two factors:

- The inherent difficulty of identifying potential competitors and characterizing their strength. As we shall see, however, there are circumstances in which this problem can be surmounted.

- The imperfect analogy between presence or absence of a potential competitor and its elimination by merger with an incumbent. In the latter case assets are likely to remain in the industry, helping to sustain production. By contrast, the complete absence of potential competitors in a market might involve a different counterfactual involving smaller capacity and production.

Despite these limitations, there is much to be learned from empirical research on non-incumbent competition.<sup>15</sup> Present discussion is facilitated by the availability of two recent

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<sup>15</sup> We note several related issues that will not be discussed here, notably:

- the competitive effects of mergers between incumbents (which presumably represents an upper bound on the effects of a merger involving a non-incumbent, *cet. par.*)
- the determinants of the decision by non-incumbents actually to enter (which addresses the importance of various factors stressed in theory)
- the actual responses by incumbents to entry (which casts light on the accuracy of non-incumbents' expectations), and
- the effects of actual entry on competition in markets (which necessarily examines cases where entry deterrence was either not attempted or not successful).

For illustrative studies and summaries on these questions, see Paul Geroski, "What Do We Know About Entry," 13 *INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION* 421 (1995); Marvin Lieberman, "Excess Capacity as a Barrier to Entry," 35 *JOURNAL OF INDUSTRIAL ECONOMICS* (1987); Fiona Scott Morton, "Barriers to Entry, Brand Advertising and Generic Entry in the U.S. Pharmaceutical Industry," 18 *INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION* (2000); and John Siegfried and Laurie Evans, "Empirical Studies of Entry and Exit: A Survey of the Evidence," 9 *REVIEW OF INDUSTRIAL ORGANIZATION* (1994.).

summaries of the relevant empirical literature. Kwoka<sup>16</sup> focuses on numerous studies of potential competition in the airline and rail industries, while Bergman<sup>17</sup> reviews those in pharmaceuticals. As described in those reviews, empirical testing of the effect of potential competition generally involves adaptations of fairly standard models of price determination, for example:

$$\text{PRICE} = f(\text{PC}, \text{CONC}, \text{X})$$

In this expression, PC is the measure of potential competition, as discussed below. CONC captures concentration among incumbent firms, typically as the Herfindahl index or its numbers equivalent transformation,<sup>18</sup> and X is a vector of control variables such as entry and demand conditions.

In airlines, identification of potential competitor is more straightforward than in most other industries. While contestable market theory suggests that all carriers not presently serving a city-pair market might instantaneously enter,<sup>19</sup> in practice feed traffic and route-specific knowledge and infrastructure (such as gates) are crucial in making entry into a route likely. Potential entrants are therefore usually defined as those that, while not operating on the route, are serving either

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<sup>16</sup> Kwoka, *op. cit.*

<sup>17</sup> Mats Bergman, *Potential Competition: Theory, Empirical Evidence, and Legal Practice*, working paper, Swedish Competition Authority, Stockholm. (2002).

<sup>18</sup> The numbers-equivalent is the reciprocal of the Herfindahl index. It gives the number of equal size firms that would result in the same numerical value for the index. It might be noted that the empirical modeling does not reflect the theoretical consideration that potential competition should matter only if incumbent concentration itself is high enough to create market power. This suggests a specification with an interaction term between CONC and PC. Failure to include this presumably biases downward the effect as estimated simply on PC.

<sup>19</sup> For a discussion of contestability and its relevance to potential competition, see Richard Gilbert, "The Role of Potential Competition in Industrial Organization," 3 JOURNAL OF ECONOMIC PERSPECTIVES 3 (1989).

endpoint.<sup>20</sup> Since by definition such firms do not produce in the relevant market, they are usually measured by a simple count of their number, or sometimes a count of those over some small size threshold.

In Kwoka's review of twelve studies of airlines, the results corroborate the theoretical prediction that potential competition is likely to affect the behavior and performance of the market. The coefficients on the potential competition variable are statistically significant in all but two of the studies, and their magnitudes suggest a non-trivial effect. Typical results are illustrated by the study by Morrison and Winston.<sup>21</sup> They examine 769 city-pair airline markets in 1983 and find that each additional potential competitor lowers current price by a statistically significant amount, approximately one-third as much as that due to one additional actual competitor. Collectively these studies of airlines form the basis for:

Finding 1: In airlines, most studies find a substantial and significant effect on fares from the existence of one or more other carriers positioned to enter.

In railroads, potential competition is defined in terms of carriers offering interline service, that is, carriers serving one portion of a monopoly route and that are therefore in a position to enter full service most quickly and cheaply—though with far higher cost and time delay than in airlines. Two studies find as follows:

Finding 2: In railroads, studies find a substantial and significant effect on rates along an entire route from the existence of another carrier offering partial service and therefore positioned to enter.

Most of the studies in Bergman's review examine the effects of actual entry, rather than of

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<sup>20</sup> There are minor variations on this definition in some studies.

<sup>21</sup> Steven Morrison and Clifford Winston, *Empirical Implications and Tests of the Contestability Hypothesis*, 30 JOURNAL OF LAW & ECONOMICS 53 (1987).

constraining or prospective entry, and hence do not directly cast light on potential competition. He does, however, note some relevant findings from the pharmaceutical industry where potential competition has been captured in either of two ways. First, Cool, et al,<sup>22</sup> use characteristics of non-incumbents to measure their “closeness” to the drug market in question. That study finds a significant negative effect of potential competition on drug firm profit.

Alternatively, Ellison and Ellison<sup>23</sup> and Bergman and Rudholm<sup>24</sup> rely on the timing of patent expiration to identify periods where potential competition is likely. No actual competition is possible prior to expiration of a patent, of course, but the patent holder knows that it will face such competition at a future date certain. Its actions just prior to that date can be interpreted as conditioned by imminent constraining and prospective competition. These studies find that the companies actually raise the price of their branded drugs prior to patent expiration as the firms prepare to cede the elastic portion of the market to generics and extract additional profit by raising price to the brand-conscious segment.<sup>25</sup> Ellison and Ellison also find that post-patent prices often decline for drugs where entry is more likely, while continuing to increase where it is not. These studies provide the basis for the following:

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<sup>22</sup> Karel Cool, Lars-Hendrik Roller, and Benoit Leleux, “The Relative Impact of Actual and Potential Rivalry on Firm Profitability in the Pharmaceutical Industry”, 20 STRATEGIC MANAGEMENT JOURNAL 1 (1999).

<sup>23</sup> Glenn Ellison and Sara Fisher Ellison, “Strategic Entry Deterrence and the Behavior of Pharmaceutical Incumbents Prior to Patent Expiration,” MIT working paper (2000)

<sup>24</sup> Mats Bergman and Niklas Rudholm, “The Relative Importance of Actual and Potential Competition: Empirical Evidence From the Pharmaceutical Market,” JOURNAL OF INDUSTRIAL ECONOMICS (2003)

<sup>25</sup> This has been found to be precisely what many drug companies do when faced with actual generic entry, corroborating this interpretation of behavior prior to patent expiration.

Finding 3: In pharmaceuticals, the existence of potential competitors lowers current price. The threat of entry immediately prior to patent expiration causes the companies to hasten their market segmentation strategies. Both effects confirm the impact of potential competition.

In summary, despite methodological challenges, a modest number of empirical studies of the effect of potential competitors on incumbent competition exist. These confirm this effect and imply that it is quantitatively important. There is, in short, good reason for policy concern with the elimination of such firms through merger with or acquisition by incumbent firms.

### **III. Merger Policy and Potential Competition**

Merger policy with respect to potential competition has been articulated in series of benchmark actions by the judiciary and the enforcement agencies over a period of forty years. Here we shall highlight those principles, drawing a contrast where appropriate with the underlying economics. We first discuss the leading U.S. Supreme Court cases, agency actions, and policy statements regarding potential competition. We then offer some observations about its rather different role in competition policy in other countries and jurisdictions.<sup>26</sup>

#### A. Potential Competition in the Courts, Enforcement Agencies, and Guidelines

The doctrine of potential competition was first articulated and refined in a flurry of Supreme Court cases during the 1960s, but soon thereafter the Court made clear its diminished enthusiasm for such arguments. The first of these cases involved an acquisition by El Paso Natural Gas, which supplied gas to customers in California, of a producer of natural gas outside

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<sup>26</sup> This section draws on two reviews of similar issues: Kwoka, *op. cit.* (2001) and Darren Bush and Salvatore Massa, *Rethinking the Potential Competition Doctrine*, 2004 WISCONSIN LAW REVIEW 4 (2004).. The latter offers a very comprehensive summary of cases brought under the doctrine of potential competition.

California. The outside producer, Pacific Northwest, had periodically bid to supply utilities in California but had not secured any contracts. There was, however, evidence that its bidding had altered the incumbent firm's pricing. The Supreme Court upheld the government's challenge to the acquisition on the grounds that "unsuccessful bidders are no less competitors than successful ones", specifically noting that Pacific Northwest's actions had had "a powerful influence on El Paso's business attitudes within the state."<sup>27</sup>

Pacific Northwest played a dual role in this proceeding, representing a prospective competitor, since it was known to have contemplated actual entry, but also a constraining competitor--a firm perceived to be a possible entrant and whose elimination would widen the pricing discretion of the incumbent. It was evidence on the latter issue that ultimately convinced the court. Constraining competition also mattered in other cases of the era,<sup>28</sup> but prospective entry by itself proved decisive in some instances. The latter were illustrated by the FTC's challenges to the Penn-Olin joint venture and to Proctor & Gamble's acquisition of Clorox bleach, both reviewed by the Supreme Court. In the former, the Court argued that separate entry by either party to the venture plus the possibility that the second firm remained "waiting in the wings" was competitively preferable to joint venture entry since the latter resulted in one new producer but

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<sup>27</sup> *U.S. v. El Paso Natural Gas Co.* 376 U.S. 651 (1964)

<sup>28</sup> Notably, *Falstaff Brewing*, in which the court upheld a challenge to its acquisition of another brewer despite the fact there was no indication whatsoever that Falstaff might enter the market served by the acquired firm. The court stated the issue to be simply "whether, given its financial capabilities and conditions in the ... market, it would be reasonable to consider it a potential entrant into that market." *U.S. v. Falstaff Brewing*, 410 U.S. 526 (1973)

eliminated the second possible entrant in the process.<sup>29</sup> In the Proctor & Gamble case, despite the absence of any indication that it intended to enter the liquid bleach market, the FTC argued that Proctor was objectively the most likely firm to do so. The Supreme Court concurred, noting that as a result “Clorox’s dominant position would have been eroded and the concentration of the industry reduced.”—a clear statement of the concept of a prospective entrant.<sup>30</sup>

These decisions validated the doctrine of potential competition in both its forms and gave rise to other proceedings at this time. The Court appears soon to have had misgivings about the criteria for such cases, however, substantially revising the evidentiary burden in the Marine Bancorporation case in 1972.<sup>31</sup> This matter involved the attempted acquisition of a bank in Spokane by a large Seattle bank, which was challenged by the Justice Department. Since state banking laws at the time virtually prohibited entry into other markets, the Court rejected the government’s challenge and offered its views of both actual and perceived potential competition. Regarding the former, it stated that “[u]nequivocal proof that an acquiring firm actually would have entered *de novo* but for a merger is rarely available.”<sup>32</sup> This pronouncement left little doubt as to the prospects of success of such cases.

As for mergers involving constraining competitors, the Court appeared more willing to accept the possibility of anticompetitive effects, but it here, too, it set forth a new and

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<sup>29</sup> *U.S. v. Penn-Olin Chemical Co.*, 217 F. Supp 110, 131-131 (D. Del. 1963), vacated by 378 U.S. 158 (1964)

<sup>30</sup> *FTC v. Proctor & Gamble Co.* 386 U.S. 526 (1973)

<sup>31</sup> *U.S. v. Marine Bancorporation*, 418 U.S. 602 (1974)

<sup>32</sup> *Id.*

considerably tougher standard. Such a merger, it stated,

may be unlawful if the target market is substantially concentrated, if the acquiring firm has the characteristics, capability, and economic incentive to render it a perceived potential *de novo* entrant, and if the acquiring firm's premerger presence on the fringe of the market in fact tempered oligopolistic behavior on the part of existing participants in the market.<sup>33</sup>

The crucial element of this three-part test has been that the potential competitor must be shown "*in fact* [to have] tempered oligopolistic behavior"<sup>34</sup> (emphasis added) among incumbent firms. This standard is quite high, considerably higher in fact than that employed for analyses of mergers between existing firms. The result of the Marine Bancorporation decision has been that potential competition cases are substantially more difficult to establish and hence much less frequent in actual enforcement practice.

Policy concern with mergers involving potential competitors, however, did not entirely disappear. Over the past thirty years, some enforcement actions have continued to raise these concerns, but largely as a corollary or secondary issue. A number of these actions have been brought by the Federal Trade Commission: its investigation of the GM-Toyota joint venture,<sup>35</sup> the challenge to the Staples-Office Depot merger,<sup>36</sup> and claims made in other retail consolidations and in certain pharmaceutical and medical services markets.<sup>37</sup> In most of these the FTC has secured consent orders resolving the matters without the need for (and risk of) adjudication of the claims

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<sup>33</sup> *Id.*, at 624-625.

<sup>34</sup> *Id.*

<sup>35</sup> General Motors Corp., 103 F.T.C. 374 (1984) (consent decree).

<sup>36</sup> *FTC v. Staples, Inc.*, 970 F. Supp. 1066 (D.D.C. 1997)

<sup>37</sup> Kwoka, *op. cit.* (2001)

involving potential competition. The Justice Department has raised similar issues in cases involving airlines and cable TV operators.<sup>38</sup> It, too, has sought settlements through modification or divestiture rather than court review.

A considerable number of mergers and acquisitions that come before various regulatory agencies also involve potential competition. Recent examples include the mergers of Bell Atlantic and NYNEX,<sup>39</sup> Ameritech and SBC,<sup>40</sup> Union Pacific and Southern Pacific,<sup>41</sup> and numerous examples in the electric power and natural gas sectors. These transactions are analyzed by the Federal Communications Commission, the Surface Transportation Board, and the Federal Energy Regulatory Commission in accordance with a “public interest” standard, one aspect of which is their effects on competition. While the agencies look to the FTC, DOJ, and the courts for guidance in matters of competition policy, with respect to potential competition in particular they have often taken more assertive stances. For example, evaluations of mergers among electric power producers routinely recognize that plants that are not presently serving a load (demand) area may quickly do so, thereby constraining incumbent producers and requiring that such parties to merger be considered competitively significant.<sup>42</sup>

For some twenty-five years, the key statement of merger policy in the U.S. has been the

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<sup>38</sup> *Id.*

<sup>39</sup> FCC File No. NSD-L-96-10 (Aug. 14, 1999)

<sup>40</sup> FCC CC Dkt.No. 98-141 (Oct. 8, 1999)

<sup>41</sup> Surface Transportation Board, Decision No. 44, Finance Docket No. 32760 (Aug. 6, 1996)

<sup>42</sup> Identification of potential competitors in electric power is facilitated by models of electricity transport that measure the cost disadvantage of more distant supply.

DOJ/FTC *Merger Guidelines*. In the initial versions of these *Guidelines* –those in 1982 and the first revision in 1984<sup>43</sup>–potential competition issues were addressed explicitly. They distinguished perceived and actual potential competition, stated that any such mergers would be evaluated using a “single structural analysis analogous to that applied to horizontal mergers,” and set out criteria for evaluation. Consistent with underlying economic principles, for example, the *Guidelines* indicated that no challenge would occur in markets where entry was easy or where a comparable advantage was shared by more than three potential competitors.

Despite this initial treatment of potential competition, later revisions of the *Merger Guidelines* deleted all specific reference to the doctrine. The only subsequent reference was a statement accompanying release of the 1992 revision to the effect that “[n]either agency has changed its policy with respect to non-horizontal mergers,”<sup>44</sup> a category that previously included potential competition. Nonetheless, such concerns had clearly been relegated to secondary status.<sup>45</sup> This shift was ironic in that policy at the same time was attributing greater importance to potential entry as an affirmative defense to mergers among incumbents. Thus, mergers were more often being permitted on the grounds of ease of entry by potential competitors, the rationale being that

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<sup>43</sup> DEP’T OF JUSTICE, MERGER GUIDELINES (1982) reprinted in 4 Trade Reg. Rep (CCH) para. 13,102, at 20,531 (June 14, 1982). DEP’T OF JUSTICE, MERGER GUIDELINES (1984) reprinted in 4 Trade Reg. Rep. (CCH) para. 13,102 at 20,564-65 (June 14, 1984)

<sup>44</sup> See ABA ANTITRUST SECTION, THE 1992 HORIZONTAL MERGER GUIDELINES: COMMENTARY AND TEXT 21 (1992)

<sup>45</sup> Indeed, a recent chief economist at the Antitrust Division described enforcement as “so rare as to make the whole notion virtually absent from antitrust.” Andrew Joskow, *Potential Competition: The Bell Atlantic-NYNEX Merger*, 16 REV. INDUS. ORG. 185, 189 (2000)

they represented constraints on incumbents' exercise of market power.<sup>46</sup> Yet a merger eliminating that very non-incumbent--and therefore presumably relaxing the constraint on incumbent behavior--now seemingly triggered less concern.<sup>47</sup>

This more permissive approach presumably reflected changing judicial attitudes toward potential competition mergers, but it diverged from economic understanding, as has been documented, and also from practice in other countries. As we shall now see, competition policy elsewhere scrutinizes mergers involving prospective or constraining competitors in a fashion more analogous to mergers between incumbents.

#### B. Potential Competition and Merger Control in Other Countries

While many countries have looked to the U.S. statutes, guidelines, and enforcement practices for guidance for their competition policy, such has not been the case with respect to the issue of potential competition. There is continued, in some instances increased, attention to potential competition elsewhere, in sharp contrast to its diminished status in U.S. antitrust policy. Here we discuss the relevant EU policy and then more briefly review policies in various countries.

In the European Union, policy toward mergers was first set out in the 1989 Merger Control Regulation.<sup>48</sup> While potential competition was not mentioned explicitly, one provision of that Regulation noted the possibility of adverse "indirect effects" of mergers. Indirect effects were

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<sup>46</sup> Most notably, *U.S. v. Baker-Hughes, Inc.*, 908 F.2d 981

<sup>47</sup> We have noted that in practice the antitrust agencies have not altogether ignored potential competition considerations.

<sup>48</sup> Council Regulation (EEC) No. 4064/89 (21 Dec. 1989). Prior to that regulation EU merger policy rested on Article 82 of the Treaty of Rome, which prohibited abuse of dominant market position. This was interpreted to reach mergers, but there enforcement in general and certainly with respect to potential competition was nascent.

interpreted by the Commission as encompassing potential competition mergers (a) that involved a dominant firm and a potential competitor and (b) where the latter was in some sense uniquely positioned to enter. This led to an analytical approach involving a comparison of the relative position of the non-incumbent party to the merger to that of all other potential entrants, to determine whether any of the latter exerted similar competitive pressure. Then, if the party to the merger was uniquely positioned to enter and thereby constrained incumbents, the merger could be challenged.

A number of merger cases were brought under this standard. These included major Commission challenges to the mergers of Telia and Telenor,<sup>49</sup> Air Liquide and BOC,<sup>50</sup> and EDP and ENI.<sup>51</sup> The Air Liquide-BOC undertaking was typical: The two companies produced a variety of industrial gases in many countries, but with significant differences in their product-country profiles. After examination of other potential entrants, the Commission found that Air Liquide was objectively the most likely competitor to BOC in the UK, and that BOC was the most likely entrant into Air Liquide's home market of France. Accordingly, the merger was prohibited, although divestitures offered by the parties ultimately remedied the concerns.

Other EU cases, not limited to mergers, have raised potential competition concerns. Most notable among these is the case alleging that Microsoft's bundling practices represent abuses of its

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<sup>49</sup> Case No. IV/M 1439 Telia/Telenor, Commission decision as of 13 Oct. 1999.

<sup>50</sup> Case No. COMP/M.1630 Air Liquide/BOC, Commission Decision as of 18 Jan. 2000.

<sup>51</sup> Case No COMP/M.3440 EDP/ENI/GDP, Commission Decision as of Sept. 12 2004.

dominant position, preempting potential competitors in operating systems.<sup>52</sup> The EU's proposed remedy would require Microsoft to unbundle its media player from Windows, thereby restoring the potential for competition in that and other products that the company is striving to integrate into its operating system. As this case makes clear, a potential competitor can be eliminated by methods other than merger, methods that raise somewhat different economic issues and legal standards.

The EU's approach toward potential competition mergers has been a potent policy tool with significant impact. In light of that, it is notable that the 2004 EC Merger Regulation appears to expand its reach. The new Regulation asserts that a merger involving a potential competitor may be challenged if "there should not be a sufficient number of other potential competitors, which could exert the same competitive pressure as the merging potential competitor."<sup>53</sup> Rather than uniqueness of the merging party, this standard requires that there be some number (unspecified, but presumably greater than one) of equally capable non-incumbents before the elimination of the one potential competitor is judged harmless. This language, plus the deletion of the earlier requirement that one of the parties be dominant, seems to many observers to substantially narrow the safe harbor for mergers involving potential competitors in the EU.

Member nations of the EU have their own competition policies, not all of which mention or enforce standards regarding potential competition. There are, however, some noteworthy examples of explicit reference to potential competition. The 2002 Enterprise Act in the UK, for example,

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<sup>52</sup> Case No.COMP/37.792 Microsoft, Commission Decision as of 24 March 2004. See also Ian Ayres and Barry Nalebuff, "Going Soft on Microsoft: The EU's Antitrust Case and Remedy," 2 *The Economists' Voice* 2 (2005). The U.S. case against Microsoft did not raise potential competition issues as clearly as that brought by the EU.

<sup>53</sup> Council Regulation (EC) No. 139/2004 of 20 Jan. 2004, para. 73.

discusses possible harms from merger and the role of entry. It then goes on as follows:

The effect of a merger on the possibility and/or likelihood of new entry might itself contribute to a substantial lessening of competition where a merger increases barriers to entry or otherwise reduces/eliminates the competitive constraint represented by new entry. This might arise, for example, where the acquired entity was one of the most likely entrants or was genuinely perceived as such by those already in the market...<sup>54</sup>

While the first sentence appears to focus on the elimination of a constraining competitor, the second accurately states the relevant economic propositions with respect to both constraining and prospective competitors.

In Germany, the Principles of Interpretation of merger control include an explicit definition of what constitutes potential competitors, specifically:

*inter alia* firms which clearly intend to enter the market, firms which already produce or purchase the goods or services concerned for their own needs, which supply to geographically close markets, or which have capacities that can be quickly adapted, or are active in upstream or downstream markets.<sup>55</sup>

The Principles then state the competitive concern as follows: “If the scope of action of an established powerful firm is very significantly controlled by a potential competitor, a merger with this competitor may lead to the established firm gaining a paramount market position...”<sup>56</sup> As with the UK guidance, this language is readily understood in light of the economic propositions and findings that we have previously reviewed.

The new Canadian Merger Enforcement Guidelines (2004) are equally explicit. The harm termed “prevention of competition” is described as occurring when “a merger enables the merged

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<sup>54</sup> ENTERPRISE ACT 2002, May 2003, para. 4.25.

<sup>55</sup> PRINCIPLES OF INTERPRETATION, Bundeskartellamt, Oct. 2000, para. 5.5.

<sup>56</sup> *Id.*

entity...to sustain higher prices...by hindering the development of future competition.”<sup>57</sup> Among five examples of the prevention of competition that are given, the following are particularly relevant:

- the acquisition of an increasingly vigorous competitor or a potential entrant
- the acquisition of an existing business by a firm that would likely have entered the market in the absence of the merger
- an acquisition that prevents expansion into new geographic markets<sup>58</sup>

Enforcement of this and similar provisions in earlier Canadian guidelines has resulted in several cases against proposed mergers involving potential competition.

Neither the Australian nor New Zealand guidelines for mergers and acquisitions explicitly discuss mergers involving incumbents and potential competitors. Both, however, contain extensive discussion of entry conditions, the risks to competitive constraints from certain types of mergers, and an analysis of import competition in terms that are suggestive of potential competition concerns.<sup>59</sup> It is presumably through these factors and associated reasoning that they address such mergers.

Finally, the new Japanese Guidelines to Application of the Antimonopoly Act discuss the factors that will be considered in the process of merger evaluation. With respect to potential competition, the Guidelines provides as follows: “It is also considered that the business combinations will eliminate the possibility of new entries if a part of the parties are the potential

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<sup>57</sup> MERGER ENFORCEMENT GUIDELINES, Competition Bureau, Canada (Sept. 2004), para. 2.10.

<sup>58</sup> *Id.*, para. 2.12.

<sup>59</sup> MERGER GUIDELINES, Australian Competition and Consumer Commission, June 1999. Mergers and Acquisitions Guidelines, New Zealand Commerce Commission, 1 Jan. 2004.

competitors to the other part of the parties.”<sup>60</sup> It would seem evident from this passage that mergers that eliminate potential competitors are treated as threats to competition.

There is obviously considerable variation in the manner in which merger control in other countries addresses potential competition concerns. In most jurisdictions, however, that doctrine is an explicit part of their guidelines and enforcement, and in at least one instance the provisions have recently been strengthened.

#### **IV. Policy Implications**

It seems nearly tautological that the elimination of a constraining potential competitor will have adverse effects on market performance. It is equally clear that the elimination of a prospective competitor will result in higher concentration than otherwise would be the case. The magnitude of these effects will differ from case to case, but empirical evidence suggests it may well be nontrivial. All of these propositions are straightforward extensions of the underlying economics, and for the most part have been accepted in principle by the U.S. courts. The difficulty appears to have been in making these propositions convincingly operational--identifying defining characteristics of constraining and prospective competitors so that their merger with an incumbent firm can account for the effect of their elimination. The courts appear to be acutely concerned with the possibility that a non-incumbent firm that is not a potential entrant might be incorrectly judged to be one, with the effect of preventing a competitively harmless merger.

The sole method of preventing all such Type II errors--that is, making the mistake of

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<sup>60</sup> GUIDELINES TO APPLICATION OF THE ANTIMONOPOLY ACT CONCERNING REVIEW OF BUSINESS COMBINATION, Japan Fair Trade Commission, 31 May 2004.

preventing a harmless merger—is to set the standard of proof very high. This has been the effect of the *Marine Bancorporation* decision. This policy has caused the Justice Department and Federal Trade Commission to stop bringing cases on potential competition grounds. Instead, they have been forced to find other grounds for challenging such mergers, or settle cases on less favorable terms, or in the limit simply permit mergers despite concerns about the elimination of potential competition.

Given the convergence of economics and antitrust with respect to most issues, their disconnect in the case of potential competition is unfortunate, and perhaps unnecessary. Recently, however, there have been efforts to restate the doctrine with more precise definitions and tests in the hope of satisfying judicial standards. As one example, here we outline the two-step approach proposed in Kwoka:<sup>61</sup>

The first step is simply to determine whether the market consisting of current producers is at least moderately concentrated, since it is only such a market that would be affected by potential competitors. The second step differs between prospective competitors and constraining competitors. For the former case, a merger eliminating the prospective competitor would be challenged that competitor (1) can enter within two years, (2) would find entry profitable at the current price, and (3) can enter at a sufficient scale to reduce that price, together with (4) that it is one of no more than five equally well-positioned prospective entrants or is significantly better positioned than any other possible entrant.

The first three of these conditions are precisely those set forth in the *Merger Guidelines* for

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<sup>61</sup> Kwoka, *op. cit.* (2001). See also Joseph Brodley, *Potential Competition Mergers: A Structural Synthesis*, 87 YALE L.J. 1 (1977); and Bush and Massa, *op. cit.*

determination of whether a non-incumbent firm is a “committed entrant”—that is, whether it is capable of quick and effective entry. The reasoning behind their use here is that any firm satisfying these criteria also must logically matter to market equilibrium if it is eliminated by merger or acquisition by an incumbent. The fourth criterion is not to be found in the *Guidelines*, but instead represents a judgment based on empirical evidence concerning the frequency of actual entry and hence the need for multiple potential competitors.<sup>62</sup>

In the case of a constraining competitor, the test would be “convincing evidence that the firm represented an effective and significant constraint on competition among incumbents.”<sup>63</sup> The evidence could take the form of documents demonstrating that incumbent firms monitored and responded to the non-incumbent, or alternatively market data and statistical analysis establishing the responsiveness of incumbents to the non-incumbent’s actual actions. There is now considerable experience in developing both kinds of evidence in merger cases.<sup>64</sup>

While not without its limitations, this approach would seem to be no less accurate and operational than the *Guidelines* provisions with respect to mergers among incumbents on which it is based. That is, it is no more likely to err than is the process for identifying a committed entrant, which constitutes an integral part of the accepted *Guidelines* criteria for assessing conditions of entry as a defense to an otherwise problematic merger. Accordingly, this approach would seem to merit consideration as a basis for re-invigorating the potential competition doctrine in the U.S.

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<sup>62</sup> Geroski, *op. cit.*

<sup>63</sup> Kwoka, *op. cit.* (2001) at 200.

<sup>64</sup> This is vividly illustrated by *FTC v. Staples, Inc.*, 970 F. Supp. 1066 (D.D.C. 1997)

## V. Conclusions

Over the past thirty years the doctrine of potential competition has nearly disappeared from active antitrust policy in the U.S. This has occurred despite the fact that economic theory has drawn a strong connection between potential competitors and market performance, despite the fact that empirical evidence confirms the impact of such competitors and by implication of their loss, and despite the fact that the elimination of a potential competitor remains a concern of competition policy in most other countries. There is inherent ambiguity in the process for identifying a potential competitor and measuring its effect, but that ambiguity seems no greater or more troublesome than other parts of the widely accepted *Merger Guidelines* approach to evaluating mergers. These considerations suggest that policy toward the elimination of potential competition may benefit from further examination of theory, empirical evidence, and policy elsewhere. Out of this process may emerge a clearer and more acceptable statement of the conditions necessary for evaluating mergers that eliminate constraining and prospective competitors.