The Path to Profitability: Reinvigorating the Neglected Phase of Merger Analysis

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INTRODUCTION

The U.S. Department of Justice ("Justice Department") and the Federal Trade Commission ("FTC") devote approximately half their antitrust budgets each year to reviewing and challenging proposed mergers and acquisitions. Between them, the agencies examine one to two thousand transactions annually and their top officials routinely tout their success in halting the deals they deem anticompetitive. Under the new administration, moreover, merger enforcement is likely to increase, both because President Obama promised to take a more aggressive approach and because the current financial crisis threatens to touch off a new round of acquisitions.

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2 See id. at 3 fig.3.

3 See, e.g., Tom Barnett, Message from the AAG, U.S. DEP’T OF JUST. ANTITRUST DIV. UPDATE (U.S. Dep’t of Justice, Washington, D.C.), Spring 2008, at 1, 1, available at http://www.usdoj.gov/atr/public/231424.pdf ("Division staff also excel in their review of and challenges to mergers and other transactions. Where our investigators discover evidence of an anticompetitive transaction, they pursue the relief necessary to protect consumer welfare, as they did in 28 transactions during the last two fiscal years and 10 during the first half of this fiscal year."); Deborah Platt Majoras, FTC Chairman, Keynote Address at the ABA Section of Antitrust Law 7th Annual Fall Forum: Maintaining Our Focus at the FTC: Recent Developments and Future Challenges in Protecting Consumers and Competition, 2 n.2 (Nov. 15, 2007), available at http://www.ftc.gov/speeches/majoras/071115fall.pdf ("Taking a longer look back at the past three fiscal years, the FTC’s competition work has produced 52 merger enforcement actions or withdrawals of mergers . . . .").

4 See Jacqueline Bell, Obama to Take Aggressive Stance on Antitrust, COMPETITION LAW360, Nov. 4, 2008, para. 5, http://competition.law360.com (subscription required). In accord with President Obama’s promise, the new Assistant Attorney General in charge of the Antitrust Division has declared
With merger enforcement on the rise, it is especially important that courts and enforcement agencies correctly appraise which mergers and acquisitions are likely to reduce competition. While some combinations of competitors are likely to increase prices, reduce choice, or retard innovation, others are likely to enhance the welfare of consumers and society by lowering costs, improving quality, or stimulating innovation. In making this assessment, one issue that is frequently critical is the ease of entry. A merger cannot create market power—and enable the merged firm to raise prices to consumers—if the attempt to exercise such power would promptly cause new firms to enter the market and drive prices back to the competitive level. But if entry is impeded, the merged firm may be able to exploit its customers for a considerable period of time.

Courts, however, have long neglected this critical issue. While they devote considerable effort to the first phase of merger analysis—defining markets, measuring market shares, and predicting whether the merged firm would raise prices—most courts have paid inadequate attention to the second phase—whether new entrants would reignite competition if the merged firm did raise prices. In the 1960s, the Supreme Court ignored entry conditions altogether, invalidating mergers without determining whether new entry will be more active than her predecessor. See Christine A. Varney, Assistant Att'y Gen., U.S. Dep't of Justice, Antitrust Div., Remarks as Prepared for the U.S. Chamber of Commerce: Vigorous Antitrust Enforcement in This Challenging Era 20-21 (May 12, 2009), available at http://www.usdoj.gov/atr/public/speeches/245777.pdf ("We are faced with market conditions that force us to engage in a critical analysis of previous enforcement approaches. That analysis makes clear that passive monitoring of market participants is not an option.").

See Joe Nocera, So When Will Banks Give Loans?, N.Y. TIMES, Oct. 25, 2008, at B1 (noting that an executive of JPMorgan Chase indicated it would use its capital from the Treasury to be "more active on the acquisition side" and that "Treasury wants banks to acquire each other and is using its power to inject capital to force a new and wrenching round of bank consolidation"); see also Erin Coe, Financial Woes to Spur M&A in Oil Industry: Report, COMPETITION LAW360, Oct. 24, 2008, para. 1, http://competition.law360.com (subscription required) ("The financial crisis will trigger more mergers and acquisitions for major oil firms and utilities . . . .").

6 See AM. ANTITRUST INST., THE NEXT ANTITRUST AGENDA: THE AMERICAN ANTITRUST INSTITUTE'S Transition Report on Competition Policy to the 44th President of the United States 139 (Albert A. Foer ed., 2008), available at http://www.antitrustinstitute.org/archives/files/Mergers%20Chapter%20from%20%20AAI%20Transition%20Report_100520082108.pdf ("The problem for antitrust enforcement agencies and courts is to distinguish the harmful mergers from the more common procompetitive or benign ones.").

7 Id. (stating that mergers can cause "higher prices, higher costs, lost opportunities for mutually beneficial trades, lower quality, a lower rate of development of new and better products, and a reduction in product variety and consumer choice").

8 See, e.g., id. ("Mergers can benefit the economy, allowing firms to reduce costs, improve products and reduce prices.").

9 Likewise, if entry is difficult, a merger of competing buyers may create monopsony power and allow the merged firm to exploit its suppliers for a significant period of time.
entry would promptly cure any competitive problem. In the 1980s, as the courts adopted an economic approach to antitrust, entry became a routine part of merger cases and many contested mergers were allowed on the ground that barriers to entry were low. Even then, however, judicial analysis of the entry issue was often crude and sometimes openly hostile to the government. In response, the federal enforcement agencies laid out a more detailed and sophisticated approach to the entry issue in the April 1992 revision of their Merger Guidelines. This approach, which established the criteria of timeliness, likelihood, and sufficiency, improved the quality of judicial analysis. As we show in this Article, however, most judges still devote relatively little effort to entry and typically decide the most difficult aspect—the likelihood of entry—without asking the necessary economic questions.

We base this conclusion on a review of every decision issued since April 1992 in which a merger challenge litigated by the federal government was resolved. In this Article, we focus on two fundamental questions: (1)
whether the courts have adopted the three criteria laid out in the 1992 Guidelines and (2) whether judicial analysis of the most difficult of those criteria—likelihood—has been economically sound. In addressing the second question, we rely principally on economic theory rather than empirical evidence, since there are no empirical studies of the likelihood of entry in response to an anticompetitive postmerger price increase.16

We found that no court disagreed in principle with any of the Guidelines criteria. None of the thirty-five decisions suggest that any of the criteria are wrong in concept, and only a few cases appear to ignore or completely misunderstand one of them. The three criteria have not, however, become the accepted framework for judicial analysis. Only one of the thirty-five decisions analyzed entry by addressing each of the Guidelines criteria. Instead, the courts almost always resolved the entry issue by asking whether the relevant market was protected by entry barriers. The Guidelines, in contrast, do not even mention entry barriers.

Only one of the thirty-five decisions defined an entry barrier. The rest appeared to conceive of an entry barrier as any obstacle that reduces the speed, likelihood, or impact of entry. While that notion meshes with the Guidelines' approach to entry and one of the leading economic definitions of an entry barrier, it is not adequate by itself to resolve the entry issue. Without determining the magnitude of such an obstacle, it is not possible to determine whether it would impede entry so much that entry would actually be unlikely or untimely or insufficient. Large capital requirements, for example, are an entry barrier under the courts' approach, because they reduce the number of potential entrants and thus the overall probability of entry. These requirements need not make entry unlikely, however, for a large firm could find it quite profitable to enter despite the amount of capital required.

This lack of rigor in appraising the entry issue often showed up in other ways as well. The courts almost never analyzed the entry issue in depth. To the contrary, their discussions of entry were usually brief and sometimes cursory, typically occupying a page or a paragraph—or just a few sentences—in a much longer opinion. In addition, several courts overlooked or completely misunderstood one of the Guidelines' criteria. A few decisions, for example, concluded that entry was unlikely simply because it was costly—without asking whether it was profitable to incur those costs. This apparent lack of concern with the profitability of entry was quite widespread. None of the thirty-five decisions determined how much business an

16 We look briefly at the empirical literature that does exist because it is helpful in identifying the features of market structure that are likely to impede entry. See infra Part I.B.2.
entrant would need to be profitable, and only a small number assessed the likely reactions of customers and established firms, even though those reactions are critical to an entrant’s success. Finally, almost no case asked whether the prospects of new entry would be reduced if the merger created the efficiencies the merging parties claimed it would.

Despite these shortcomings, no court at either the trial or the appellate level was ever reversed on the entry issue. As a result, judges have generally become comfortable with a quick look at entry conditions, in which barriers are likely to be identified but their height is not determined, and the economic questions necessary to determine the likelihood of entry are not raised or resolved.17

This reluctance to analyze the entry issue in depth may reflect a misunderstanding of the purpose of entry analysis. Many courts may not understand that although precedent allows them to do so, their job is not simply to identify the existence of entry barriers, but to determine whether they are large enough to prevent entry from eroding an anticompetitive price increase. More important, we believe, is the difficulty of evaluating the likelihood of new entry, particularly for generalist judges.18 Indeed, Areeda, Hovenkamp, and Solow maintain that the uncertainties are so great that the courts are probably not competent to handle the entry issue, except in cases of “clearly negligible barriers.”19 We disagree.

In our view, it is premature to conclude that the entry issue is beyond the capacity of the courts. As the opinions in FTC v. CCC Holdings Inc.,20 FTC v. Swedish Match,21 and FTC v. Staples, Inc.22 demonstrate, some judges already analyze the likelihood of new entry with considerable sophistication.23 Moreover, entry is not the only question in merger analysis that requires careful economic analysis. Market definition, coordinated effects, and efficiencies also call for it, and in several recent opinions, courts have shown that they can produce detailed, economically sensitive analyses

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17 Professor Waller suggested to us that the courts have been conducting a “drive by” analysis of entry. Professor Carstensen commented that the courts simply “touch this base” on their way to a conclusion.
18 See Memorandum from Jonathan B. Baker & M. Howard Morse, Co-Chairs, Econ. Evidence Task Force of the ABA Section of Antitrust Law on the Effectiveness of Economic Evidence in Antitrust Proceedings to Officers and Council 3-4 (Aug. 1, 2006), available at http://www.abanet.org/antitrust/at-reports/01-e-ii.pdf (stating that most judges “have little background in economics or antitrust” and “rarely see antitrust cases”).
19 4 PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 941e, at 196 (2d ed. 2006) [hereinafter 4 AREEDA-HOVENKAMP].
23 See also Chi. Bridge & Iron Co. v. FTC, 534 F.3d 410, 427-39 (5th Cir. 2008) (including an extensive and thoughtful discussion of entry, although focused on sufficiency, not likelihood).
of these issues. Finally, it is not possible to tell whether most judges can handle a more rigorous approach to entry until a straightforward and practical approach is laid out for them, as we do in this Article.

Under our approach, the litigation of the entry question would be broken into two steps. First, if defendants contend that new entry would solve the merger’s competitive problems, they would have to identify a “path to profitability”—a business strategy that is likely to enable a new entrant (1) to attain enough sales to make its investment in the market profitable and (2) to grow at a sufficient rate that its output would drive prices and other terms of sale back to the premerger level reasonably quickly. Second, if the defendants introduce substantial evidence of a path to profitability, the government could nevertheless prevail by demonstrating that the path is not viable: barriers to entering the relevant market are so high that new entry would not in fact satisfy all the Guidelines’ criteria. This new approach would improve the quality of entry analysis without rendering it unworkable. In summing up the state of antitrust law, Posner observed: “The antitrust laws are here to stay, and the practical question is how to administer them better—more rationally, more accurately, more expeditiously, more efficiently.” Our proposal would advance that goal.

In Part I, we summarize the entry section of the 1992 Merger Guidelines and two important features of the economic literature on entry: the debate over the definition of an entry barrier and the empirical evidence on


25 The 1992 Guidelines contain the essential economic theory, but they are terse and do not provide a concrete guide to applying the relevant economic principles to the most difficult entry issue—likelihood. In 2006, the enforcement agencies issued a lengthy commentary on the Guidelines. See U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, COMMENTARY ON THE HORIZONTAL MERGER GUIDELINES (March 2006), available at http://www.ftc.gov/os/2006/03/CommentaryontheHorizontalMergerGuidelinesMarch2006.pdf [hereinafter COMMENTARY]. While this document makes it easier to use the Guidelines, its aim is to provide “an explication of how the Agencies apply the Guidelines in particular investigations,” not to propose a methodology for litigating the entry issue in court. See Deborah Platt Majo- ras & Thomas O. Barnett, Forward to id. at v.

26 To illustrate the level of detail required, we set forth a hypothetical example of a path to profitability in Appendix B infra. See also Salop, supra note 15, at 567-69 (calculating an entrant’s minimum viable scale); Malcolm B. Coate, Theory Meets Practice: Barriers to Entry in Merger Analysis, 4 REV. L. & ECON. 183, 209 (2008), available at http://www.bepress.com/rle/vol4/iss1/art10 (expressing surprise that FTC economists have not modeled the profitability of entry more often, since “entry is simply an investment decision,” all the steps involved in the decision can be modeled, and if “entry appears profitable under a range of assumptions, economically it is likely to occur”).

27 In accord with United States v. Baker Hughes, Inc., 908 F.2d 981 (D.C. Cir. 1990), the government would retain the ultimate burden of proof on the entry issue. See id. at 989-92.

28 RICHARD A. POSNER, ANTITRUST LAW, at x (2d ed. 2001).
entry barriers. In Part II, we turn to judicial analysis of entry since the 1992 Guidelines, presenting a statistical summary of the thirty-five decisions issued since April 1992 and an evaluation of the courts' substantive reasoning. In Part III, we explain our proposal for structuring entry analysis in future cases.

I. ENTRY ANALYSIS IN THE GUIDELINES AND THE ECONOMIC LITERATURE

The analytical tools for analyzing the entry issue can be found in the 1992 Guidelines and the economics literature. In this Part of the Article, we review the entry section of the 1992 Guidelines and two central features of the economics literature on entry—the scholarly debate over the proper definition of an entry barrier and the empirical evidence on entry. We discuss other insights from the economics literature as we address specific entry questions.

A. 1992 Merger Guidelines

The enforcement agencies drafted the 1992 Guidelines in the wake of two appellate decisions that dismissed Justice Department merger challenges on the ground that entry was easy—United States v. Baker Hughes, Inc. and United States v. Syufy Enterprises. In each case, the court chided the Justice Department for failing to follow the entry analysis in its 1984 Guidelines. In part, the criticism was valid: the Justice Department had refined its approach to entry since the 1984 Guidelines but had not revised the Guidelines to reflect this new approach. The 1984 Guidelines devoted only two paragraphs to entry and enunciated only a single, overarching test: "if entry into a market is so easy that existing competitors could not succeed in raising price for any significant period of time, the Department is

29 For extended discussions of entry in the legal literature, see 2B PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶¶ 420-23 (3d ed. 2007) [hereinafter 2B AREEDA-HOVENKAMP]; 4 AREEDA-HOVENKAMP, supra note 19, ¶ 441; ABA SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK: COMPETITION LAW AND ECONOMIC FOUNDATIONS 119-39 (2005) [hereinafter ABA SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK].
31 903 F.2d 659, 664-69 (9th Cir. 1990).
32 See Baker, supra note 15, at 190-91 ("Both appellate courts had sharply criticized the Justice Department's entry arguments and the Department's seeming lack of fidelity to the 1984 Merger Guidelines, which were then in force.").
unlikely to challenge mergers in that market.” In a footnote, the 1984 Guidelines identified four factors that affect the ease of entry: sunk costs, market growth, specialized resources, and economies of scale. But the 1984 Guidelines did not explain what the Department later came to believe—that entry would not solve the competitive problem posed by a merger unless it met three distinct criteria: timeliness, likelihood, and sufficiency.

The agencies incorporated these new criteria into the Guidelines issued in April 1992. As a result, the 1992 Guidelines contained a much longer discussion of entry than the 1984 Guidelines—thirteen paragraphs rather than two. The 1992 Guidelines also advanced the analysis of entry by distinguishing between “uncommitted” entry and “committed” entry. Uncommitted entry “must be likely to occur within one year and without the expenditure of significant sunk costs of entry and exit.” Firms that are likely to enter the relevant market in less than a year without incurring significant sunk costs are treated as participants in the market. In contrast, committed entry requires the “expenditure of significant sunk costs of entry and exit.” Firms that need to incur significant sunk costs in order to enter the relevant market are treated as potential entrants. In order to determine whether committed entry is so easy that an otherwise anticompetitive merger should not be challenged, the 1992 Guidelines stated that entry must pass the tests of timeliness, likelihood, and sufficiency.

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34 Id. ¶ III(B) n.34.
35 See id. ¶ III(B); see also supra notes 13-14 and accompanying text. In addition, the 1984 Guidelines did not describe how to apply the factors they did list. Writing in 1986, Professor Salop commented: “In fact, what is surprising is how little attention the DOJ Guidelines now pay to either measurement of entry barriers or gradations in ease of entry.” Salop, supra note 15, at 553 n.2.
36 See MERGER GUIDELINES, supra note 13, §§ 1.32, 3.0.
37 Id. § 1.32.
38 Id.
39 Id. § 3.0.
40 See id. §§ 3.0-1. Under the 1992 Guidelines, therefore, only committed entry is addressed in the second or entry phase of merger analysis. Uncommitted entry is considered in the first phase: after the market is defined, uncommitted entry is examined in deciding which firms are likely to be participants in this market. It might be more efficient and less confusing to address both issues in the entry phase.
41 Id. § 3.0 (“In markets where entry is that easy (i.e., where entry passes these tests of timeliness, likelihood, and sufficiency), the merger raises no antitrust concern and ordinarily requires no further analysis.”).
1. Timeliness

The timeliness test asks whether new entry would eliminate the merger's anticompetitive effects within a reasonably short period of time. According to the 1992 Guidelines, the government generally considers two years to be an acceptably short period of time: "The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact."

2. Likelihood

The likelihood test asks whether entry is probable. The Guidelines assume that entry is probable if it would be profitable. In particular, they state that committed entry (i.e., entry that requires significant sunk costs) is likely to occur if it would be profitable at "premerger market prices over the long-term." Premerger market prices are the appropriate benchmark because if entry is not significant enough to drive prices back to the premerger level, it would not meet the Guidelines' test of sufficiency. Profitability
must be evaluated over the long term because only "committed entrants" are considered in the entry section of the Guidelines and the Guidelines assume that their "assets will be committed to the market until they are economically depreciated." 47

The Guidelines recognize that the profitability of entry depends not only on the prices the entrant can charge but on the volume of business it can capture. In their overview to the entry section, the Guidelines state that the "likely sales opportunities available to entrants" include the "output reduction caused by the merger." 48 In fact, the merged firm or another incumbent could respond aggressively to entry, promptly eliminating much or all of the merger-induced output reduction and preventing the entrant from capturing it. In their later discussion of the likelihood criterion, the Guidelines acknowledge this possibility, noting that one factor that may reduce the sales opportunities of an entrant is "any anticipated sales expansion by incumbents in reaction to entry." 49

The Guidelines also recognize that the scale of entry matters. The entrant may enter at such a large scale that it depresses the market price below the premerger level, rendering the entry attempt unprofitable. 50 To address this issue, as well as articulate a general test for the likelihood of entry, the Guidelines use the concept of "minimum viable scale"—the "smallest average annual level of sales that the committed entrant must persistently achieve for profitability at premerger prices." 51 Under the Guidelines, "entry is unlikely if the minimum viable scale is larger than the likely sales opportunity available to entrants." 52 Conversely, entry is likely to occur if

criteria as separate tests. See, e.g., id. ("Entry may not be sufficient, even though timely and likely . . . ."). In their recent commentary on the Guidelines, the agencies follow a superior approach by combining all three criteria into a single, unified test. In evaluating the likelihood of entry, the agencies state that they "do not assess merely whether firms could commit incremental resources to the relevant market, but more importantly whether the proposed merger would be likely to induce firms to do so in a timely fashion and in a sufficient magnitude to deter or counteract the merger's anticompetitive effects." COMMENTARY, supra note 25, at 38.

47 MERGER GUIDELINES, supra note 13, § 3.0.
48 Id.
49 Id. § 3.3.
50 Id. ("The committed entrant will be unable to secure prices at premerger levels if its output is too large for the market to absorb without depressing prices further."). Professors Baker and Shapiro describe this effect as "the basis for the entry 'likelihood' analysis in the 1992 Horizontal Merger Guidelines." Jonathan B. Baker & Carl Shapiro, Reinvigorating Horizontal Merger Enforcement, in HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST 235, 270 n.37 (Robert Pitofsky ed., 2008).
51 MERGER GUIDELINES, supra note 13, § 3.3.
52 Id. The concept of minimum viable scale was developed by Professor Salop. See Salop, supra note 15, at 563. His version of it, however, assumed that prices in the relevant market would remain 5 percent above the premerger level. That is, he calculated the minimum volume of sales that would be profitable for the entrant assuming that prices would not fall in response to entry. See id. Under that assumption, though, entry would be insufficient to eliminate the merger's anticompetitive effects. As a
the entrant is likely to capture enough sales to achieve minimum viable scale.

In order to assess the likelihood of entry, therefore, the Guidelines compare the entrant’s minimum viable scale to its probable sales opportunities. At this point, however, the utility of the Guidelines diminishes. They list several factors that may influence an entrant’s likely sales opportunities, but do not articulate a methodology for measuring those factors in a particular case. For example, the Guidelines note that an entrant’s business prospects depend in part on its “ability securely to divert sales from incumbents.” They do not explain, though, how to determine an entrant’s ability to divert sales to itself in a specific market. Although they identify strategies an entrant could use to capture business (“vertical integration or . . . forward contracting”), they do not provide criteria for assessing the probable success of those strategies. Similarly, the Guidelines indicate that an entrant’s sales opportunities depend on the reactions of incumbents to entry: the entrant’s sales will be larger if there is a “contraction in incumbents’ output in response to entry,” and they will be smaller if there is a “sales expansion by incumbents in reaction to entry.” The Guidelines do not describe, however, how to determine whether incumbents are more likely to expand or contract output after entry.

3. Sufficiency

The sufficiency test asks whether new entry would be adequate to eliminate the merger’s anticompetitive effects. To determine this, the Guidelines indicate that sufficiency must be evaluated along three dimensions: “magnitude, character and scope.” Entry would be insufficient in magnitude if the entrant would not achieve enough sales to “return market prices to their premerger levels.” Entry would be insufficient in character and scope if the entrant’s products are not similar enough to the merged firm’s products to prevent the merged firm from imposing a significant anticompetitive price increase. The Guidelines add that whenever entry is

result, the Guidelines determine minimum viable scale at “premerger prices.” MERGER GUIDELINES, supra note 13, § 3.3.

53 MERGER GUIDELINES, supra note 13, § 3.3.
54 Id.
55 Id.
56 Id. § 3.0.
57 Id.
58 See id.
59 See MERGER GUIDELINES, supra note 13, § 3.4 (“[E]ntry, in order to be sufficient, must involve a product so close to the products of the merging firms that the merged firm will be unable to internalize enough of the sales loss due to the price rise, rendering the price increase unprofitable.”).
likely, it will usually be sufficient because “multiple entry generally is possible and individual entrants may flexibly choose their scale.”

The Guidelines analyze the timeliness, likelihood, and sufficiency of entry without ever referring to entry barriers, the concept the courts always use in assessing the difficulty of entry. Professor Baker, who was heavily involved in drafting the 1992 Guidelines, indicates that this omission was deliberate. By 1992, he notes, the “game theory revolution in microeconomics was well underway, and economists had begun to look at entry deterrence in strategic terms, rather than in terms of barriers with height that could be assessed in the abstract.” As a result, the Guidelines view the entry process as a game or contest between the entrant and the incumbents, in which the success of the entrant—its profitability—depends on its behavior, the reactions of the incumbents, and the responses of customers.

While this strategic approach does not eliminate the need to address the obstacles an entrant faces, it has several advantages: it makes clear that the profitability of entry depends on the entrant’s interactions with incumbents and customers; it focuses the inquiry on the ultimate issue, the profitability of entry; and it allows the government to discuss entry in the Guidelines without resolving the debate, discussed below, over the proper definition of an entry barrier.

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60 Id. The Guidelines may well be correct that if any entry is likely, sufficient entry is likely. If it is profitable for one small firm to enter the relevant market, for example, it may well be profitable for other small firms to enter, and that may remain the case until enough firms have entered the market to drive prices back to the premerger level. It would not be correct, however, to say that the typical entrant is a sufficient entrant, large enough to affect market prices. After reviewing the empirical literature, Geroski concludes that most entrants are small and disappear quickly: “Perhaps the most striking thing that we know about entry is that small-scale, de novo entry seems to be relatively common in most industries, but that small-scale, de novo entrants generally have a rather short life expectancy.” P.A. Geroski, *What Do We Know About Entry?*, 13 INT’L J. INDUS. ORG. 421, 435 (1995); see also Tor, *supra* note 44, at 491 (“These findings of high mortality and low penetration also suggest that most entrants simply displace preceding ones rather than diminish the market share of incumbents . . . .”). As a result, most entrants do not provoke a response from incumbents. Geroski, *supra*, at 432, 436; accord Tor, *supra* note 44, at 548 (“Most startups, and small entrants generally, pose no short-term competitive threat to incumbents.”); id. at 555 n.300 (“The empirical data on incumbents’ responses to entry are mixed, suggesting that they tend to ignore entry on most occasions, but may engage in various entry deterring strategies—most notably by increasing advertising and typically not by lowering prices—in specific cases.”). The typical entrant, in short, is too small and exits too rapidly to have a significant impact on market prices.


62 See id. at 195 (“The economic logic of strategic entry deterrence lies behind the Guidelines’ analysis of the ‘likelihood’ of entry.”).
B. Economic Literature

Had the courts looked to the economic literature for tools to analyze the entry issue, they would have found competing definitions of an entry barrier and limited empirical evidence on entry. Although the leading economic definitions of an entry barrier were formulated almost forty years ago, they remain controversial to this day. While most economists appear to prefer George J. Stigler’s definition, the enforcement agencies and the courts have not endorsed any definition and take an approach that more closely follows Joe S. Bain’s definition than Stigler’s. The empirical literature on entry is of limited utility. Although it does identify market features such as product differentiation that are likely to impede substantial entry, it does not directly examine the responsiveness of entry to a postmerger price increase and does not yield concrete criteria that courts could use to predict the likelihood of effective entry.

1. The Debate Over the Definition of an Entry Barrier

In 1956, Bain wrote that the “condition of entry” could be “evaluated roughly by the advantages of established sellers in an industry over potential entrant sellers, these advantages being reflected in the extent to which established sellers can persistently raise their prices above a competitive level without attracting new firms to enter the industry.” Under this definition, an entry barrier has two attributes: (1) it is an advantage possessed by established sellers over potential entrants, and (2) it enables the established sellers to persistently charge prices above the competitive level. Subsequent commentary has largely, if not completely, dropped the first component, turning Bain’s definition into a simple performance test. Under this test, any feature of the market that would block entry for a significant period of time and allow incumbents to engage in supracompetitive pricing during that period is an entry barrier, even if that feature would not give incumbents a cost advantage over entrants. Following this shortened version, the Areeda-Hovenkamp treatise defines an entry barrier as “any factor that permits firms already in the market to earn returns above the competitive level while deterring outsiders from entering.”

In contrast to this performance test, Stigler created a cost advantage test by eliminating the second component of Bain’s definition and sharpening the first. Under Stigler’s definition, an entry barrier is “a cost of producing (at some or every rate of output) which must be borne by a firm which

63 JOE S. BAIN, BARRIERS TO NEW COMPETITION: THEIR CHARACTER AND CONSEQUENCES IN MANUFACTURING INDUSTRIES 3 (1956) (emphasis omitted).
64 2B AREEDA-HOVENKAMP, supra note 29, ¶ 420a, at 71 (citing BAIN, supra note 63).
seeks to enter an industry but is not borne by firms already in the industry.”

This cost advantage test has considerable appeal because it provides a straightforward explanation of how an established firm could charge supra-competitive prices for an extended period of time. If the established firm has lower costs than potential entrants, it can price above its costs with little or no risk of inducing entry simply by pricing below the costs of potential entrants. Many economists believe, moreover, that a significant cost advantage is not only sufficient to deter entry, but necessary. If that view is correct, then no barrier to entry would satisfy Bain’s test unless it also met Stigler’s test. The leading antitrust economics textbook endorses this view and advocates a Stiglerian definition of a long-run barrier to entry: “Because long-run profits can only persist if a firm has an advantage over potential entrants, a logical definition of a long-run barrier to entry is a cost that must be incurred by a new entrant that incumbents do not (or have not had to) bear.”

66 In this situation, a rational, profit-maximizing potential entrant is highly unlikely to enter the market, even though the established firm is exercising market power, because (1) the potential entrant could not recover its costs at the price the established firm is charging and (2) even if the established firm were to raise its price in order to accommodate entry (an unlikely scenario given the established firm’s cost advantage), the entrant could be driven out of the market whenever the established firm decided to compete aggressively.

67 In this Article, we do not attempt to determine whether that view is correct. Two possible exceptions are large economies of scale and deep price cutting. Both might conceivably deter entry in the case of an anticompetitive price increase even if the incumbent has no cost advantage over the entrant in producing products, attracting customers, or obtaining financing. Resolving this issue, however, would require mathematical modeling or game-theoretic simulation that is beyond the scope of this Article. Moreover, the issue need not be resolved in order to implement our proposed approach. Under it, the government would remain free to prove, if it could, that the relevant market is protected by a barrier that satisfies Bain’s definition but not Stigler’s.

68 Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization 77 (4th ed. 2005) (emphasis omitted). Dennis W. Carlton and Jeffrey M. Perloff define a short run barrier to entry as “anything that prevents an entrepreneur from instantaneously creating a new firm in a market.” See id. at 76, 780. McAfee, Mialon, and Williams also distinguish between barriers that delay entry, which they call “antitrust” barriers, and those that permit longer-term economic harm, which they call “economic” barriers. Like Carlton and Perloff, they define a longer-term or “economic” barrier in Stiglerian terms. After reviewing the shortcomings and inconsistencies of prior definitions, they state:

To clear up the confusion, we offer the following new classification of entry barriers.... An economic barrier to entry is a cost that must be incurred by a new entrant and that incumbents do not or have not had to incur. .... An antitrust barrier to entry is a cost that delays entry and thereby reduces social welfare relative to immediate but equally costly entry.


Both sets of economists distinguish short-run from long-run barriers to entry because it takes time to create a new firm. During the time an entrant is setting up, the incumbents may be able to charge supra-competitive prices even though they could not do so in the long run. As Carlton notes,

[i]t is usual discussions of barriers to entry typically focus on the long run and ignore adjustment costs. ... But as a practical matter, the long run may be of little if any interest. It may take so long to get there that the persistence of supra-competitive profits ... turns out to be
In the antitrust community as a whole, however, Bain’s definition of an entry barrier seems to be prevailing over Stigler’s test. A recent monograph of the American Bar Association’s Antitrust Section (“Antitrust Section”) stated: “The courts, antitrust agencies, and most economists use a definition that aligns more closely with Bain than with Stigler.” Our research indicates that this assessment is probably two-thirds correct: it is accurate for the courts and the federal agencies, but not for many economists. Although only one of the decisions we reviewed contains a definition of an entry barrier, neither that definition nor any other decision implies that only a cost advantage would create an entry barrier. Rather, as noted above, the courts generally view an entry barrier as any market characteristic that reduces the speed, probability, or impact of entry—a concept that accords most closely with Bain’s view. Likewise, while the Guidelines do not refer to entry barriers, the enforcement agencies have not indicated that only a cost advantage will obstruct entry, either in their Guidelines or their recent commentary on the Guidelines. In contrast, many economists have not adopted Bain’s definition. As mentioned earlier, both the leading industrial organization text and a major recent article on entry barriers advocate Stiglerian definitions of a long-run barrier. The economics article also declares that there is no general consensus among economists on the proper definition. It appears, therefore, that the controversy still lingers in the economics profession. It is also reflected in the Areeda-Hovenkamp treatise. In its discussion of basic antitrust economics, the treatise defines an entry barrier citing Bain. In its discussion of horizontal mergers, however, it offers a narrower definition that requires either blockaded entry or a

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the fact of practical importance, not that these excess profits ... will be eliminated in some far-off future year.

Dennis W. Carlton, Barriers to Entry, in 1 ISSUES IN COMPETITION LAW AND POLICY 601, 605 (2008) [hereinafter Carlton, Barriers to Entry]. Another reason for the distinction is that in the short run, the sunk costs incurred by incumbents for capital assets such as plants and advertising would not affect their profit-maximizing response to new entry. Since these costs are already committed, they would be irrelevant to whether an aggressive reaction such as a deep price cut made sense. In the long run, however, firms can vary their capital investments. As a result, the ability of a firm to build plants or create other assets at lower costs than entrants would influence its ability to exercise market power over the long run.

69 ABA SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK, supra note 29, at 123.

70 See infra text accompanying notes 182-83 (quoting the court’s definition and explaining that it allows either Stigler’s approach or Bain’s approach to be used in identifying an entry barrier).

71 Their commentary notes that a cost advantage may be sufficient to deter entry: “A merger may lead to price increases but not attract entry because entrants would suffer a significant cost disadvantage relative to incumbents.” COMMENTARY, supra note 25, at 45. The agencies never assert, however, that a cost advantage is necessary to deter entry.

72 See supra notes 65-68 and accompanying text.

73 McAfee, Mialon & Williams, supra note 68, at 465 (“Unfortunately, economists have not yet been able to reach broad consensus over the definition of an entry barrier ...”); accord Coate, supra note 26, at 183 (“[A] consensus definition has eluded economists.”).

74 See supra note 64.
Stiglerian cost asymmetry: “Entry barriers are any factors that either block entry altogether or raise new entrants’ costs above those of existing efficient firms.”

Our proposed approach would employ the courts’ concept of an entry barrier. Any market characteristic would count as an entry barrier if it would lessen the likelihood that new entry would promptly counteract an anticompetitive postmerger price increase. Of course, if defendants claim that entry is easy, the government could not prevail on the entry issue merely by identifying such a barrier, since the barrier might make entry less likely without making it unlikely. The government would also have to show that the barrier or barriers that protect the relevant market are high enough that new entry would be unlikely to defeat a significant anticompetitive price in a reasonably short period of time. While the government could make such a showing most easily by identifying a substantial Stiglerian barrier, if the government was able to prove that some other obstacle would satisfy the test just described, it could rely on such a barrier.

2. Empirical Studies

It might be possible to decide which of these competing approaches to the entry issue is correct—the courts’ simple approach, the Guidelines’ more sophisticated approach, or Bain’s or Stigler’s definition—if there were empirical evidence on point, but it appears there is not. We could not find any empirical study of the responsiveness of entry to an anticompetitive postmerger price increase. Instead, the empirical literature examines

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75 Areeda-Hovenkamp, supra note 19, ¶ 941a, at 189.
76 Carlton argues that in many antitrust and regulatory proceedings, analysts should not focus on either Bain’s or Stigler’s definition of an entry barrier, since both definitions are concerned with long-run equilibrium, but on the likely behavior of the industry over the next few years:

[Entry barriers are concerned with the long run, yet the long run may not be relevant for antitrust or regulatory proceedings. What often matters for antitrust and regulation is not what might happen in some year far off in the future, but what will actually happen now and in the relatively near future. Rather than focusing on whether an entry barrier exists according to some definition, analysts should explain how the industry will behave over the next several years.
Carlton, Barriers to Entry, supra note 68, at 615. Our approach, like that of the Guidelines and the courts, is consistent with Carlton’s recommendation because it asks whether new entry is likely to eliminate a merger’s anticompetitive effects in the near future, not the long run.
77 There is a similar and puzzling gap in the price fixing area. Professor Stucke points out that “many industries . . . were . . . susceptible to price-fixing, such as: turtles; low-priced carpets sold throughout the United States; . . . chain link fences; . . . and residential roofing work,” even though these industries “appear on the surface to have moderate or low entry barriers.” Stucke, supra note 44, at 565-66 (footnotes omitted). It is not easy to explain why entry did not occur in response to the collusive pricing in these cases, since as Professor Stucke notes, “there have not been any extensive studies of the characteristics of these industries.” Id. at 578. In some instances, of course, the answer may be simple: the price increases were too small to be noticed or too short-lived to warrant an investment in entry. But
entry more generally. One segment of this literature—the structure-performance segment—identifies industries with persistently high profits and asks which structural characteristics of those industries prevented new entry from eroding the high profits. The other segment of the empirical literature—the entry and exit pattern literature—looks at actual instances of entry and exit and asks such questions as how often is entry successful and what industry features encourage or discourage it.

Bain made the first major contribution to the structure-performance literature on entry. After a detailed investigation of twenty industries, Bain concluded that high profits were more likely to persist in industries that were both highly concentrated and protected by certain structural features that he called entry barriers. The most important of these barriers, according to Bain, were economies of scale, product differentiation, and capital requirements. The Areeda-Hovenkamp treatise states that Bain’s work and later studies showed that high barriers to entry permit firms in highly concentrated industries to earn higher profits: “Profits are higher for highly concentrated industries with very high entry barriers than for highly concentrated industries with relatively low entry barriers.” Although many of these studies have subsequently been criticized, it is probably still true that the structure-performance literature supports the view that high profits in an

where the collusion was significant and sustained, the puzzle cannot be resolved without more information. Professor Stucke has called for the gathering of such information as part of a broad effort to improve the empirical basis of antitrust enforcement. See Maurice E. Stucke, New Antitrust Realism, GLOBAL COMPETITION POL’Y, Jan. 2009, at 2, available at http://papers.ssm.com/sol3/papers.cfm?abstract_id=1323815. In the merger area, he would require the federal agencies to conduct retrospective evaluations of transactions that were allowed to occur even though second requests had been issued. See Stucke, supra note 44, at 579-82; see also Stucke, supra, at 6-11 (calling for retrospective reviews of certain mergers in order to test whether the biases identified by behavioral economics impeded entry, such as an irrational aversion to risk or organizational behavior that slows decision-making). Such retrospective evaluations could make a substantial contribution to our understanding of entry barriers.

78 See infra notes 80-84 and accompanying text.
79 See infra notes 85-100 and accompanying text.
80 Bain, supra note 63, at 201 (finding that profit rates are higher in highly concentrated industries with very high barriers).
81 Id. at 168-69 (summarizing the heights of the barriers in the industries studied). Bain also considered a fourth type of entry barrier—absolute cost advantages—but concluded that those advantages were “slight” in seventeen of the twenty industries studied. Id. at 168, 169 tbl.XIV. Bain’s definition of an absolute cost advantage corresponds fairly closely to Stigler’s general definition of an entry barrier. See id. at 144 (“An absolute cost advantage exists if the prospective unit costs of production of potential entrant firms are generally, and more or less at any common scale of operations, higher than those of established firms.”).
82 4 AREEDA-HOVENKAMP, supra note 19, ¶ 941a, at 189-90.
83 See, e.g., F.M. SCHEFER & DAVID ROSS, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 430 (3d ed. 1990) (“The positive association found in most studies between industry profitability and seller concentration, at least for the United States, appears to have been spurious, a construct of aggregating from the line of business to the industry level.”).
industry are more likely to endure when barriers such as scale economies, production differentiation, and capital requirements are very high.\footnote{Despite their critique of the concentration-profitability studies, Scherer and Ross conclude: "Statistical studies reveal that substantial differences in the profitability of firms exist both within and between industries. These differences tend to persist for long periods of time, particularly where barriers to entry are high." \textit{Id.} at 446 (emphasis added).}

The other segment of the literature—the segment that focuses on actual entry—is less clear, largely because scale economies, product differentiation, and capital requirements appear to have little effect on the frequency of \textit{small scale} entry. As we discuss in the following sections, however, the entry and exit pattern literature does seem to suggest that each of these structural characteristics tends to discourage large, profit-eroding entry.\footnote{Our discussion of the entry and exit pattern literature is based on three recent reviews of this literature: Geroski, \textit{supra} note 60; John J. Siegfried & Laurie Beth Evans, \textit{Empirical Studies of Entry and Exit: A Survey of the Evidence}, 9 \textit{REV. INDUS. ORG.} 121 (1994); and Tor, \textit{supra} note 44. For convenience, we contrast "small-scale" and "large-scale" entry, although what really matters, as the Guidelines make clear, is whether an entrant can rather quickly achieve enough scale to attain profitability and erode the prices of incumbents. Based on his review of the empirical literature, Richard Caves suggests that entry barriers also impede this dynamic process, making it difficult for firms that have entered small to expand enough to be profitable. See Richard E. Caves, \textit{Industrial Organization and New Findings on the Turnover and Mobility of Firms}, 36 \textit{J. ECON. LITERATURE} 1947, 1961 (1998).}

\paragraph{Scale Economies}

According to P.A. Geroski, a significant number of empirical studies indicate that "scale economies inhibit entry in small, shrinking markets."\footnote{Geroski, \textit{supra} note 60, at 429.} After reviewing "[o]ver 70 empirical studies of entry and exit patterns,"\footnote{Siegfried & Evans, \textit{supra} note 85, at 121.} John J. Siegfried and Laurie Beth Evans reach a more qualified conclusion: "Overall the evidence on scale economies as a barrier to entry is quite confusing. If any judgment can be drawn, it may be that scale economies have little effect on entry, but do deter the large scale entry that is more likely to enhance competition."\footnote{\textit{Id.} at 133-34 (footnote omitted).} While the conclusion that scale economies do not deter small scale entry may seem surprising, as Professor Avishalom Tor points out, there are "numerous studies indicating that small entrants enter at suboptimal scale."\footnote{Tor, \textit{supra} note 44, at 496 n.55 (citing the collection of studies referenced in David B. Audretsch & Michael Fritsch, \textit{Creative Destruction: Turbulence and Economic Growth in Germany}, in \textit{BEHAVIORAL NORMS, TECHNOLOGICAL PROGRESS, AND ECONOMIC DYNAMICS: STUDIES IN SCHUMPETERIAN ECONOMICS} 137, 139-40 & n.2 (Ernst Helmstadter & Mark Perlman eds., 1996)).} Since these entrants have to expand in order to sur-
vive, most of them fail. Siegfried and Evans’ other conclusion is consistent with Bain’s finding: scale economies probably do discourage the large scale entry that is most likely to force incumbents to become more competitive.

b. Product Differentiation

The evidence on one major aspect of product differentiation—heavy advertising—is broadly consistent with the evidence on scale economies. Geroski concludes that there is significant empirical support for the view that heavy advertising constitutes an “important” barrier to entry. He declares that “there seems to be little doubt that heavy advertising makes entry more difficult for many new firms. It is certainly the case that advertising can inflate the fixed costs faced by entrants or second movers . . . .”

Again, Siegfried and Evans offer a more nuanced conclusion, writing that the “empirical results relating advertising intensity to entry” are “ambiguous,” since advertising can also help entrants penetrate a market. They qualify this conclusion, however, in two significant ways. First, they note: “Marketing executives admit that the creation of product loyalty through advertising is the strategy most frequently used to deter entry.” Second, they state: “Heavy advertising seems to deter large scale entry, as reflected by entrant market shares.” As with scale economies, therefore, the evidence may well support the proposition that heavy advertising by incumbents tends to make large scale, price-depressing entry less likely.

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90 See supra note 56. Geroski suggests, therefore, that we think of entry barriers not as barriers to “entry,” but as barriers to “surviving long in a market.” Geroski, supra note 60, at 436; accord Caves, supra note 85, at 1961 (“[S]tructural factors long thought to limit entry to an industry now seem more to limit successful entry . . . .”).

91 See Geroski, supra note 60, at 429.
92 Id. at 434.
93 Siegfried & Evans, supra note 85, at 140.
94 Id. at 138 (citation omitted).
95 Id. at 140 (citation omitted).
96 One way in which heavy advertising by an established manufacturer may impede entry is by inducing more retailers to carry and feature the manufacturer’s brand. With more retailers competing to sell the product, their margins are likely to be lower. In contrast, an entrant, whose product is less well known, may not be able to advertise as effectively as an established firm, fewer retailers are likely to carry its product, and those that do are likely to feel less pressure to discount it. Their gross margins, in short, are likely to be larger. As a result, the entrant’s costs of distribution—the gross margins of its retailers—will be higher than those of the established firm. This is just one example of how an incumbent may possess a cost advantage over an entrant because the incumbent can induce its suppliers or dealers to operate on lower margins than can an entrant. For a more general analysis of the impact of “vertical competition” on horizontal market power, see Robert L. Steiner, Vertical Competition, Horizontal Competition, and Market Power, 53 ANTITRUST BULL. 251 (2008).
A second major source of product differentiation is brand loyalty, the preference of customers for a product they know over one they have never tried. Both Geroski and Siegfried and Evans agree that the evidence indicates that brand loyalty is an entry barrier, even under Stigler's restrictive definition.\(^9\) Citing Geroski's own work, Siegfried and Evans write that "[a] number of case studies . . . suggest that the order of entry affects equilibrium market share, and that the first entrant can develop product loyalty at lower cost than subsequent entrants."\(^9\) It appears, then, that many entrants may face higher promotional and advertising costs than incumbents had to incur when they entered, a cost asymmetry that could slow entry or defeat it altogether.

c. Capital Requirements

The evidence on capital requirements appears to be less ambiguous. As with advertising, Geroski states that a number of studies indicate that "capital raising requirements" are an "important barrier[] to entry."\(^9\) Siegfried and Evans concur: "The evidence suggests that if more capital were required to build an efficient scale plant, entry would be slower."\(^1\) Neither review explains why this is so, nor do they identify specific circumstances in which capital requirements would make entry not only less likely, but unlikely, despite supracompetitive pricing by incumbents.

Indeed, it appears that neither the entry and exit pattern literature nor the structure-performance literature has yet identified bright-line tests for determining when any of the three barriers would prevent entry from satisfying the Guidelines' criteria of timeliness, likelihood, or sufficiency. Although both segments of the literature suggest that substantial scale economies, product differentiation, and capital requirements tend to impede market-power-eroding entry, the likelihood that they would do so in a particular case appears to depend on the facts of that case. Thus, the case-by-case approach that the courts have taken to the entry issue appears to be consistent with the empirical literature.

In general, however, the courts have not utilized the sophisticated analytical tools developed by the enforcement agencies and economists. Although some decisions cite the Guidelines, no court determined the likelihood of entry by employing the Guidelines' methodology for assessing the profitability of entry. No court, moreover, quoted Bain's or Stigler's definition of an entry barrier nor referred to any of the empirical literature on entry. As a result, while the courts' analysis of the timeliness and suffi-

\(^9\) See Geroski, supra note 60, at 437; Siegfried & Evans, supra note 85, at 137.
\(^9\) Siegfried & Evans, supra note 85, at 151 n.25.
\(^9\) Geroski, supra note 60, at 429.
\(^1\) Siegfried & Evans, supra note 85, at 132.
ciency of entry has usually been good, they have frequently failed to pro-
vide a rigorous or convincing analysis of the most difficult issue—the like-
lihood of entry.

II. ENTRY ANALYSIS IN COURT DECISIONS SINCE THE 1992 GUIDELINES

This Part begins with a statistical summary of the decisions we re-
viewed and then examines the substantive analysis of entry in these deci-
sions. We ask first whether the courts agreed in principle with the Guide-
lines criteria and then whether the courts correctly applied each of them.

A. Statistical Summary of Decisions

This summary specifies exactly which decisions we looked at and tal-
lies their results, noting how often the government won the case, how often
it prevailed on the entry issue, and how often district court findings on the
entry issue were overturned.

1. Description of Cases Reviewed

We examined every judicial decision since the 1992 Guidelines that
resolved a merger challenge litigated by the federal government. In particu-
lar, we reviewed all published opinions since April 1992 in which a court
decided whether or not to enjoin, preliminarily or permanently, a merger or
acquisition that was challenged by the Justice Department or the FTC but
not resolved by consent decree. As of this writing, there are thirty-five such
opinions involving twenty-eight contested merger challenges.101

2. Quantitative Results

The courts ultimately concluded that only thirteen out of the twenty-
eight challenged mergers were sufficiently likely to be anticompetitive that

101 In seven cases, a merger challenge produced both a district court and an appellate court opinion:
2001); FTC v. Tenet Healthcare Corp., 17 F. Supp. 2d 937 (E.D. Mo. 1998), rev’d, 186 F.3d 1045 (8th
Cir. 1999); United States v. Engelhard Corp., 970 F. Supp. 1463 (M.D. Ga. 1997), aff’d, 126 F.3d 1302
(11th Cir. 1997); FTC v. Freeman Hosp., 911 F. Supp. 1213 (W.D. Mo. 1995), aff’d, 69 F.3d 260 (8th
Cir. 1995); and Dr Pepper/Seven-Up Cos. v. FTC, 798 F. Supp. 762 (D.D.C. 1992), aff’d in part, rev’d
in part, 991 F.2d 859 (D.C. Cir. 1993). See infra App’x A (summarizing the results of all thirty-five
decisions).
an injunction, preliminary or permanent, was warranted. In virtually all of these cases, either the courts found or the parties conceded that new entry would not deter or counteract the merger’s anticompetitive effects. In a fourteenth case, an appellate court reversed a summary judgment for the defendants, and a consent decree requiring the divestiture of the acquired dairy was eventually entered. Counting this case as a government victory, the government prevailed in fourteen out of the twenty-eight challenges or 50 percent of the time. Since April 1992, therefore, the government has lost half its merger challenges, sometimes in a dispiriting string of defeats.

In the fourteen unsuccessful cases, ease of entry was never the predominant reason for the government’s failure. Although many government challenges were rejected in the prior decade on that ground, in the period since the 1992 Guidelines the courts have never excused an otherwise anticompetitive merger on the ground that entry was easy. Instead, in all fourteen cases the courts concluded that another consideration—frequently market definition, sometimes anticompetitive effect—indicated that the merger was not anticompetitive, and that consideration was invariably explored at significantly greater length than the entry issue. In all fourteen cases, then, the entry analysis, to the extent it existed at all, was dicta. In

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102 In one of the thirteen, Whole Foods, the appellate court overturned the denial of a preliminary injunction without addressing the entry issue. See Whole Foods, 548 F.3d at 1032; see also id. at 1051 (Kavanaugh, J., dissenting) (explaining that the determinative issue in the case was market definition).


106 See United States v. Baker Hughes Inc., 908 F.2d 981, 988-89 (D.C. Cir. 1990); United States v. Syufy Enters., 903 F.2d 659, 666-68 (9th Cir. 1990); United States v. Waste Mgmt., Inc., 743 F.2d 976, 982-83 (2d Cir. 1984), rev’d, 743 F.2d 976 (2d Cir. 1984). See also supra note 9 and accompanying text.

107 Baker, supra note 15, at 201 (stating that after the 1992 Guidelines, the “enforcement agencies no longer habitually los[t] merger challenges on grounds of ease of entry”).
In contrast to its overall success rate, the government’s success rate on the entry issue was high. Courts resolved the entry issue in twenty-two of the twenty-eight challenges, and the government prevailed in seventeen, a success rate of 77 percent. The government was successful on the entry issue in the twelve cases in which the courts both resolved the issue and concluded that the merger was likely to be anticompetitive. In five other cases, moreover, the district court agreed that entry was difficult.¹⁰⁸ District court decisions were appealed in only seven of the twenty-eight merger challenges, and in all five in which the district court resolved the entry issue, its resolution was sustained, sometimes without comment but never with reservations. In recent years, therefore, the appellate courts have created no incentive for the district courts to expend greater effort on entry analysis.¹⁰⁹

The government’s impressive success rate on the entry issue since April 1992 may have been due in part to the quality of the 1992 Guidelines. Their revised analysis of entry is both sophisticated and sensible, and as we note below, no court disagreed in principle with any of the criteria they announced. Nevertheless, relatively few courts mentioned the Guidelines’ criteria in their discussion of entry and no judge actually followed the Guidelines’ method for determining the likelihood of entry.

B. Judicial Application of the Guidelines Approach

In this section, we reach the core of the first Part of this Article, the courts’ substantive evaluation of entry since April 1992.

1. Agreement with the Three Criteria

Unlike Baker Hughes, judicial decisions since the 1992 Guidelines have not criticized the government’s tests for evaluating entry. None of the thirty-five opinions expressed disagreement with any of the three new criteria. No court, for example, disputed the proposition that entry cannot absolve an otherwise anticompetitive acquisition unless it is likely to occur within a reasonably short period of time. While the courts did not endorse

¹⁰⁸ See infra App’x A (including the following cases: Arch Coal, H.J. Heinz, Butterworth Health, Freeman Hosp., and Dr Pepper/Seven-Up). In these five, the appellate courts did not register any disagreement, either because there was no appeal or because they did not discuss entry.

¹⁰⁹ Nor has the Supreme Court, which has not issued a merits-based decision in a merger case since 1974. See HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION 208, 345 n.2 (2005) (citing United States v. General Dynamics Corp., 415 U.S. 486 (1974)).
the Guidelines' presumptive measure of timeliness—two years—no judge asserted that the speed of entry was irrelevant. Similarly, no opinion asserted that the likelihood of entry did not matter or that its sufficiency—its ability to drive prices back to the premerger level—was beside the point.

Despite this broad agreement, the courts rarely analyzed the entry issue by invoking the Guidelines' criteria. Of the thirty-five opinions reviewed for this Article, only one evaluated ease of entry by expressly examining each of the Guidelines' tests.110 Every other opinion that addressed entry did so by asking whether the relevant market was protected by entry barriers. In emphasizing barriers, rather than the Guidelines criteria, the courts echoed the Areeda-Hovenkamp treatise, which analyzes the entry issue in merger cases in terms of barriers, not the Guidelines criteria.111 In one respect, however, the courts departed from the Areeda-Hovenkamp treatise. Every case that dealt with entry appeared to regard easy entry as a complete defense, even if the transaction would create a highly concentrated market. In contrast, the Areeda-Hovenkamp treatise strongly suggests that low barriers should not justify "mergers converting unconcentrated to highly concentrated markets."112

The courts' broad agreement with the Guidelines' criteria extended to their application of the timeliness test. While only four decisions evaluated the speed of entry, they concurred with the Guidelines that timeliness is a critical issue. In two other cases, the courts voiced no disagreement with the criterion but neglected to apply it.

2. Judicial Analysis of Timeliness

Of the four decisions that determined the timeliness of entry, only one adopted the Guidelines' two-year test. In United States v. Franklin Electric Co.,113 the court found: "The various barriers to entry would enable [the joint venture that would result from the merger] to control production and sale for at least three years, if not longer."114 Although the reference to three years is consistent with the Guidelines' two-year test, the court did not endorse that test.115 Instead, it cited the Areeda-Hovenkamp treatise, not the

111 See 4 AREEDA-HOVENKAMP, supra note 19, ¶ 941, at 189-215.
112 Id. ¶ 941b, at 191. Later, the treatise adds an efficiencies qualification, stating that low barriers should not be a defense when:
(a) the postmerger concentration is well above the indicated threshold of illegality; and (b) the merger is not justified by qualifying efficiencies. In that case, all that can be said of the merger is that, while producing little social good, its anticompetitive pricing effects will likely be dissipated by new entry within two years.

113 ld. ¶ 941c, at 193 (footnote omitted).
114 130 F. Supp. 2d 1025 (W.D. Wis. 2000).
115 ld. at 1035.
116 See id.
Guidelines, and articulated the standard for timely entry in general terms: "Certainly, defendants have not shown that entry is so easy that [the joint venture] could not sustain monopolist profits for some period of time." Likewise, the court in FTC v. Cardinal Health, Inc. reached a decision that was consistent with the Guidelines' test but did not adopt it. The court simply found that "a leased distribution center could open within as little as 90 days" and that many distribution centers would be "immediately available" after the merger because the parties planned to close many of their existing warehouses when they consolidated their operations. In United States v. UPM-Kymmene Oyj, the court diverged from the Guidelines in a different way: it ruled that entry would be untimely because it would not occur for at least a year. The court cited no authority, however, for the view that one year is the proper period for measuring the speed of entry. In contrast, in CCC Holdings Judge Collyer quoted the Guidelines' two-year test and applied it.

Two decisions overlooked the timeliness of entry. They found that entry would occur in response to a postmerger price increase, but did not ask how long it would take to accomplish, even though there was evidence that it might require a substantial period of time. In United States v. Oracle Corp., the court found that Microsoft would enter the government's asserted market if the merged firm raised price. The court called such entry "repositioning," since Microsoft already licensed software with similar but less extensive functionality, and concluded that Microsoft would in fact reposition in response to a price increase. The court did not ask, however, how much time it would take Microsoft to plan, write, and debug the more elaborate software required, even though another firm had devoted ap-
proximately ten years to an unsuccessful effort to penetrate the market.\footnote{See id. at 1135-44. While Microsoft might have been able to develop the necessary functionality in substantially less than a decade, the court did not address whether Microsoft could do so in the reasonably short period of time required by the timeliness criterion. See id. at 1144.} Similarly, in \textit{United States v. Gillette Co.},\footnote{828 F. Supp. 78 (D.D.C. 1993).} the judge found that “there are new entrants . . . which are able to check increases in price.”\footnote{Id. at 85.} He did not determine, however, how long it would take them to enter or grow large enough to affect market prices, even though he had noted earlier in his opinion that “it may take a significant investment of time . . . to build market share.”\footnote{Id. in \textit{FTC v. Whole Foods Market, Inc.}, 502 F. Supp. 2d 1 (D.D.C. 2007), rev'd, 548 F.3d 1028 (D.C. Cir. 2008), the court cited evidence that new entry would take at least three years to accomplish. Id. at 42-43. However, the court did not resolve the timeliness issue, apparently because the court was virtually certain the government had misdefined the relevant market. See id. at 49-50 (“There is no substantial likelihood that the FTC can prove its asserted product market . . . .”)}

These two opinions aside, judicial analysis of the timeliness issue broadly accorded with the Guidelines and economic theory. In contrast, judicial evaluation of the likelihood of new entry—the most difficult entry issue—typically failed to come to grips with the central questions posed by the Guidelines and economic theory.

3. Judicial Analysis of Likelihood

In some cases, the courts did not address the likelihood issue at all. Generally, they dealt with it relatively briefly and summarily, disposing of it simply by identifying the existence of entry barriers without recognizing that all markets have some barriers and the real question is their height. This fundamental problem could have been avoided by following the Guidelines approach, which focuses not on the existence of barriers, but on the sales volume required for profitable entry, a focus that is integral to our proposed approach to entry analysis. No court, however, attempted to determine this volume and few decisions examined the profitability of entry.

a. Failure to Address the Issue

Three opinions ignored the likelihood issue altogether. Two of the three found that entry barriers were low because new firms could enter the relevant market without asking whether they would do so. The third observed that the acquisition would increase barriers to entry, without determining whether the increased barriers would render entry unlikely. In addition, several other decisions effectively failed to address the likelihood is-
sue, either because they gave no reasons for their conclusion or because they mistakenly thought that entry would be unlikely simply because it would be costly.

i. Issue Missed

In *United States v. Mercy Health Services*,\(^\text{129}\) the court devoted just one paragraph to entry, concluding that regional hospitals located outside the government's proposed geographic market had the ability to enter it by opening outreach clinics.\(^\text{130}\) The court failed to address, however, whether they were *likely* to do so.\(^\text{131}\) Likewise, in another one-paragraph analysis, the court in *Gillette* concluded that "there are new entrants into the fountain pen market which are *able* to check increases in price."\(^\text{132}\) Although the court acknowledged that an entrant may have to make "a significant investment of time and money to build market share,"\(^\text{133}\) it did not examine whether such an investment was likely to be profitable.\(^\text{134}\) In *Dr Pepper/Seven-Up Cos. v. FTC*,\(^\text{135}\) the judge failed to address the likelihood issue for a different reason. He disposed of the entire entry question in a single sentence by observing that "the acquisition of the Seven-Up bottling franchise by the Pepsi bottler would *increase the barriers to entry* to new bottlers . . . ."\(^\text{136}\) He did not address whether the increased barriers would render entry unprofitable.

ii. No Reasons for Conclusion

In *FTC v. Butterworth Health Corp.*,\(^\text{137}\) the court's analysis of the only likelihood issue in dispute was conclusory. The FTC challenged the merger of the two largest hospitals in Grand Rapids, Michigan, and the usual likelihood issue was uncontested: because of the state's "certificate of need" laws, the defendants conceded that no new hospital was likely to be built in

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\(^{129}\) 902 F. Supp. 968 (N.D. Iowa 1995), *vacated as moot*, 107 F.3d 632 (8th Cir. 1997).

\(^{130}\) *Id.* at 986; *see infra* text accompanying note 255 (quoting the paragraph in full).

\(^{131}\) *Id.*

\(^{132}\) *Gillette*, 828 F. Supp. at 85 (emphasis added).

\(^{133}\) *Id.*

\(^{134}\) See *id.*; accord, *Baker, supra* note 12, at 371 ("The *Gillette* court treated entry in much the way the D.C. Circuit did in *Baker Hughes*: it noted instances of actual entry, declared the technological, legal, and regulatory barriers low, and allowed the merger. The court acknowledged that a significant investment of time and money may have been required to build market share, but did not evaluate entry likelihood in light of that observation.").


\(^{136}\) *Id.* at 778 (emphasis added).

The defendants argued, however, that the merged hospital would still be unable to raise prices because if it did so, the two smaller hospitals in the area, St. Mary’s and Metropolitan, would respond by expanding the range and quality of the services they offered, thereby undercutting any increase. In concluding that such expansion was unlikely, the court dismissed the issue in a single sentence:

Considering the record as a whole, however, the Court finds that, due to the greater range of services and the perceived higher quality of care available at defendant hospitals, St. Mary’s and Metropolitan’s ability to compete with the merged entity and defeat a small but significant price increase would be limited, especially for the foreseeable future.

While this finding may be correct, the judge did not support it. He did not explain why the smaller hospitals’ ability to compete would be limited “for the foreseeable future,” even if the merged firm raised prices. In that event, their incentive to invest in a greater range of services and a higher quality of care would be enhanced.

iii. Entry Unlikely Simply Because Costly

In three cases, courts failed to apply the likelihood criterion correctly because they ruled that entry was unlikely simply because it was costly. As a matter of economic theory, this is a mistake. Incumbents also have to incur costs, and if they try to charge prices above those costs, they create an incentive for entry. Unless there is a real barrier, an entrant can incur those same costs and make profits by charging a price below that of the incumbents but above its own costs. The mere fact that entry is costly, therefore, would not make it unlikely.

This mistake occurred in FTC v. Arch Coal, Inc., FTC v. H.J. Heinz Co., and FTC v. Freeman Hospital. In Arch Coal, the district court relied on a government expert to conclude that entry barriers existed, but in explaining why the expert’s testimony was credible, it offered only the following reason: “Certainly there are appreciable start-up costs associated

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138 Id. at 1297.
139 Id. at 1297-98.
140 Id.
141 Whether the smaller hospitals would make these investments is an expansion issue rather than an entry issue, since the smaller hospitals were already in the relevant market. We mention the case, however, because expansion and entry are analytically similar when expansion would require the commitment of significant sunk costs.
144 911 F. Supp. 1213 (W.D. Mo. 1995), aff’d, 69 F.3d 260 (8th Cir. 1995).
with becoming a [Southern Powder River Basin] coal producer."

In Heinz, the lower court made essentially the same argument: "The parties are in agreement that the cost of entry is significant making entry difficult and improbable." In Freeman Hospital, the court stated that one of the entry barriers facing potential entrants was the "high costs of constructing new or refurbished medical facilities." In all three cases, however, an entrant might have been able to recover the costs in question if the incumbents' prices were high enough. If the merged firm's prices significantly exceed an entrant's average total costs, including the costs of entry, there may be a profit opportunity, not a barrier.

These decisions moved too quickly from the fact that entry is costly to the conclusion that it is unlikely. As we discussed earlier, though, there is evidence that when the costs of entry are high, its speed, impact, or probability may be reduced. The empirical literature indicates, for example, that large capital requirements tend to reduce the number of firms willing to attempt entry. As we also noted, however, this literature has not generated any bright-line criteria for determining when the costs of entry are so high that entry is unlikely to occur in response to an anticompetitive price increase. As a result, it is not possible to resolve the likelihood issue simply by observing that entry is "costly." To determine whether entry sufficient to restore premerger prices would be likely, it is usually necessary to assess whether it would be profitable.

b. Common Shortcomings

Most opinions do not make the basic mistakes just described. Instead, their discussions of the likelihood of entry generally identify true barriers as courts understand the term—that is, obstacles that tend to make entry less likely. They do not, however, typically measure the height of these obstacles or otherwise ask enough of the right economic questions to determine the profitability of entry.

i. No In-Depth Discussion

Most recent merger decisions do not devote much attention to the entry issue. While judges often write opinions of twenty pages or more—

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145 Arch Coal, 329 F. Supp. 2d at 138.
146 H.J. Heinz, 116 F. Supp. 2d at 196.
147 Freeman Hosp., 911 F. Supp. at 1223.
148 See supra Part I.B.2.c.
149 See id.; see also infra note 183 (indicating that high capital costs do not deter entry by large diversified firms).
sometimes much more—in order to resolve a government merger challenge, they usually dispose of the entry issue in a page or less. In Arch Coal, for example, the court issued a forty-seven-page decision denying the FTC’s motion for a preliminary injunction. The court devoted four pages to market definition, most of its attention to the likelihood of coordinated interaction, and only two sentences to entry, even though defendants had apparently contested the issue. In FTC v. Libbey, Inc., the court dispatched the entry issue in two paragraphs of an eighteen-page decision. In Community Publishers, Inc. v. Donrey Corp., the court took thirty-one pages to analyze the case as a whole and three sentences to analyze entry. In both FTC v. Tenet Healthcare Corp. and Mercy Health, the disputed entry issue was resolved in a single paragraph. In a third hospital merger case, United States v. Long Island Jewish Medical Center, the judge reached an unusual conclusion—that new hospitals were likely to enter the government’s proposed market—but devoted only two paragraphs to the question.

In contrast, some opinions provided a more detailed, though still relatively brief discussion of entry. In Oracle, the court devoted almost four pages to the central entry issue in the case: whether Microsoft would enter the government’s proposed market by repositioning its software. This discussion, however, is only a small part of the court’s unusually lengthy opinion, which runs for almost seventy-seven pages and contains a thirty-eight-page analysis of the relevant product market. Judge Hogan’s much more sophisticated evaluations of entry conditions are comparatively short, occupying a little more than a page of his twenty-one-page Swedish Match opinion and two pages of his twenty-five-page Staples decision. The only exceptions, in which the entry discussion represents a substantial proportion of the opinion, are CCC Holdings and Chicago Bridge & Iron Co.

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150 See Arch Coal, 329 F. Supp. 2d at 114, 160.
151 Id. at 138, 140.
153 See id. at 40, 48.
155 Id. at 1168-69. The Eighth Circuit noted but did not discuss the district court’s finding of high barriers. See 139 F.3d at 1184.
159 See id. at 149.
161 See id. at 1123-61.
v. FTC. In CCC Holdings, Judge Collyer's analysis of entry consumes almost 30 percent of her decision. In Chicago Bridge, the Fifth Circuit's opinion is largely devoted to entry. This decision is unique among those we reviewed, however, because on appeal the defendant not only accepted the FTC's definition of the relevant markets but failed to advance an efficiencies defense, leaving entry as the only major issue for the court to resolve.

In a few cases, the court's analysis was brief because the entry issue was easy to resolve. In Heinz, the district court devoted just one paragraph to entry because the merging parties had agreed that entry would be "difficult and improbable." In Olin Corp. v. FTC, the Ninth Circuit never analyzed the issue because the parties had apparently not appealed the FTC's findings on entry. In Tenet Healthcare, entry was almost certainly precluded by the "state regulatory process," which required a showing of need "before opening a new hospital or increasing the bed capacity of an existing hospital." The court said "it is clear that no need exists for additional hospital services or beds in the Poplar Bluff area," since both of the merging hospitals were licensed to operate many more beds than they normally filled. In Community Publishers, the judge spent only three sentences on entry because barriers to entry in major newspaper markets "are universally recognized as formidable, as is supported by the fact that in the entire nation every major city newspaper market is a monopoly except for approximately eight."

More commonly, however, the entry issue in a merger case is not easy to resolve. As much of this Article indicates, it is usually difficult to predict whether a new entrant can both make a profit and promptly defeat a price increase. Several other commentators have also emphasized the difficulty of the entry issue. The Areeda-Hovenkamp treatise declares: "Determining the

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165 See CCC Holdings, 605 F. Supp 2d at 46-60 (fourteen pages of a forty-seven-page opinion).
167 See id. at 421-22.
169 986 F.2d 1295 (9th Cir. 1993).
170 See id. at 1297.
172 Id. at 947.
173 Id.
174 See id. at 939-40. If the merger did cause a price increase, moreover, fewer patients would use the merged hospitals, which would increase their excess capacity and further diminish the "need" for a new hospital.
existence, 'height' and effects of entry barriers are beset with some theoretical difficulties and with empirical problems of seemingly formidable proportions." More than twenty years ago, Professor Richard Schmalensee offered the “depressing” conclusion that “economists do not have a single, precise, reliable way of measuring ease of entry in particular markets.” Recently, the Antitrust Section's monograph on market power indicated that Schmalensee's conclusion is still correct: “[T]here remains significant disagreement over both the definition of entry barriers, and the best method of evaluating the ease or difficulty with which a new competitor will be able to enter a market.” The 1992 Guidelines, moreover, have not eliminated these difficulties. While two of their criteria are relatively easy to apply (timeliness and sufficiency), the third (likelihood) remains a challenge, in part because the Guidelines’ discussion of this test is terse, identifying economically relevant factors but not describing how to apply them. Even the FTC staff, which routinely applies the Guidelines in their merger investigations, has frequently had trouble with the likelihood issue.

In addition, the entry discussion is often dicta. In many cases, as noted, district courts conclude that they can resolve the case against the government on another ground, most often market definition. When that is so, it is understandable that they do not want to invest much effort in the challenging questions of entry analysis. But that posture makes judicial review more difficult—and the entry decision less reliable—whenever an appellate

176 4 AREEDA-HOVENKAMP, supra note 19, ¶941b, at 191.
177 Richard Schmalensee, Ease of Entry: Has the Concept Been Applied Too Readily?, 56 ANTITRUST L.J. 41, 42 (1987). He added: "There is some agreement on what relevant factors one ought to consider. But there is much less agreement about how to assess those factors, and even less about how to combine them into an overall measure of the difficulty of entry.” Id.
178 ABA SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK, supra note 29, at 121.
179 See MERGER GUIDELINES, supra note 13, § 3.3. The relevant section of the Guidelines is just three paragraphs long and contains no concrete examples. See id. The first paragraph briefly explains the Guidelines’ approach to determining the profitability of entry (compare the entrant’s minimum viable scale with its likely sales opportunities), the second briefly defines and describes minimum viable scale, and the third lists factors affecting the entrant’s sales opportunities. See id. One of the factors listed is "any anticipated sales expansion by incumbents in reaction to entry.” Id. As Professor Baker pointed out, “the Guidelines offer no guide for thinking about how to adjust sales opportunities for the likely output response of incumbents in reaction to merger and entry.” Baker, supra note 15, at 205. As discussed, this is equally true of the other factors listed. Id. at 205 n.80; see also supra Part I.A.2. The agencies’ recent commentary on the Guidelines, however, should make them less difficult to apply. See COMMENTARY, supra note 25.
180 Malcolm Coate reviewed 138 merger investigations conducted by the FTC staff between 1993 and 2005 and found that “the likelihood findings are less likely to exhibit a solid foundation.” Coate, supra note 26, at 197, 184. Coate judged that in half the investigations in which the staff concluded that entry was unlikely, “the conclusion that entry would not pass the [Guidelines’ minimum viable scale] test was not supported in sufficient detail.” Id. at 201.
181 See supra Part II.A.2.
court decides that the principal ground was erroneous. It would be preferable if judges had a process that would make it easier for them to engage in rigorous and reliable entry analysis.

ii. No Definition of Entry Barrier

Although every decision since April 1992 that analyzed the entry issue asked whether the relevant market was protected by entry barriers, only one court defined an entry barrier. In Chicago Bridge, the Fifth Circuit stated in a footnote that entry barriers are "'additional long-run costs that were not incurred by incumbent firms but must be incurred by new entrants,' or 'factors in the market that deter entry while permitting incumbent firms to earn monopoly returns.'" This definition, which allows either Stigler's test or Bain's test to be used in identifying an entry barrier, was not mentioned by any other decision we reviewed. Instead, it appears that every other court had a simpler concept in mind: a barrier is a feature of the market that reduces the likelihood, speed, or impact of entry. We employ this concept in our proposed framework because most courts use it and it meshes with the Guidelines' approach and Bain's definition. As we indicated earlier, however, it is not adequate by itself to resolve the entry issue. As Chicago Bridge recognized, unless the height of such a barrier is assessed, it is not possible to conclude that the barrier is likely to prevent new entry from quickly eliminating the merger's anticompetitive effects.182

iii. No Assessment of Height of Barriers

Despite the importance of the issue, few courts since April 1992 have assessed the size or durability of the barriers they identified.184 In Libbey,
for example, the court identified a product differentiation barrier, noting that a new entrant would "have to persuade distributors and other consumers, most of which have already established relationships with an existing food service glassware provider, to conduct business with it," and to accomplish this, the entrant "would probably have to undercut the current competitors in the market by selling its glassware at lower prices." The court did not determine, however, the size of the price reduction a new entrant would have to offer or how long the price cut would have to remain in effect in order to induce enough consumers to switch to make the entrant viable. New entry might have been profitable if the required price cut were small or could be offered for a short period of time.

In *Cardinal Health*, the judge identified two barriers to the expansion of regional drug wholesalers: the economies of scale enjoyed by the national drug wholesalers and their "strength of reputation." He did not measure the height of either barrier, however, relying instead on the fact that the regional wholesalers' expansion to date had been "insignificant on a national scale." But the failure of the regional wholesalers to achieve significant national expansion was not dispositive, since they had been at-

In some cases, entry may be so costly that it would be beyond the reach of most firms. If the capital requirements of entry are very large, in other words, the number of potential entrants may be small. That may not mean, however, that new entry is unlikely, as McAfee, Mialon, and Williams point out:

Capital-market imperfections favor wealthier and more experienced firms over entrepreneurs without track records, but the former are not necessarily the incumbents. Some entrants are large diversified firms that build new plants in an industry... In industries where the primary potential entrants are large diversified firms, large capital costs are not entry barriers.

McAfee, Mialon & Williams, *supra* note 68, at 464.

186 Id.
187 A similar shortcoming appeared in *United States v. Franklin Electric Co.*, 130 F. Supp. 2d 1025 (W.D. Wis. 2000), where the court also found a product differentiation barrier, noting that the merging firms' brands are "recognized names in the submersible turbine pump market," that customers "know their reputation for product quality," and that product quality is important because a malfunction "stops the dispensing of an entire grade of gasoline" and could even cause a "catastrophic explosion." *Id.* at 1031. Again, however, the court did not appraise the height of this barrier, even though there was evidence that it was modest. See *id.* at 1031-32. One of the merging firms was started by a former employee of the other, who was bored during retirement and decided to enter the business on his own. *Id.* at 1027. Despite the incumbent firm's superior reputation, the new firm "made its first million dollar sale of submersible pumps within its second full year of sales, at a time when its market share was almost too small to measure." *Id.* at 1033.

Likewise, in *Chicago Bridge* the Fifth Circuit did not determine whether the reputation and experience barriers it identified would render entry unprofitable. See *Chi. Bridge*, 534 F.3d at 437-38. In particular, the court did not ask whether an entrant could profitably overcome these barriers by offering a temporary promotional discount that significantly undercut the supracompetitive prices charged by the merged firm. See *Id.* On the whole, however, *Chicago Bridge* is an exceptionally good opinion on entry, containing much evidence and analysis indicating that new entry would not eliminate the merger's anticompetitive effects.

189 *Id.*
tempting to expand during a period in which prices in the industry were competitive. The question that should have been resolved is whether, if prices increased to anticompetitive levels after the challenged mergers, the regional wholesalers would still find it unprofitable to expand.

In Staples, Judge Hogan relied on a single barrier to entry—economies of scale. He noted that an entrant “would need to open a large number of stores nationally in order to achieve the purchasing and distribution economies of scale enjoyed by the three existing firms.” He also referred to “[e]conomies of scale at the local level, such as in the costs of advertising and distribution.” Judge Hogan did not quantify these economies, however, and thus did not actually calculate whether they were large enough to render entry unlikely despite a significant anticompetitive price increase. He did not determine (1) the volume of business an entrant would need to attain in order to realize these economies, (2) the cost penalty it would incur if it operated at a smaller scale, and (3) the likelihood that it would attain the necessary volume, despite the cost penalty, by inducing a sufficient number of customers to switch from the existing firms to the entrant.

The same problem occurred in two cases in which the courts concluded that new entry was likely to defeat a postmerger price increase. In Gillette, the court found that entry was easy even though “it may take a significant investment of time and money to build market share.” The court did not determine, however, how much time or money it would take to enter. In Oracle, the court cited testimony that entry into the government’s product market would entail considerable expense and risk, yet concluded that entry would occur in response to a significant postmerger price increase. The court did not examine whether these costs and risks were so great that entry would be unprofitable.

iv. No Estimate of Sales Volume Required for Profitable Entry

It is possible, of course, to evaluate the profitability of entry directly. The Guidelines do this by estimating the entrant’s minimum viable scale and then determining whether the entrant’s sales volume is likely to exceed this minimum. Despite the availability of this methodology, none of the

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190 Id.; see infra text accompanying notes 226-28.
192 Id.
193 See id. at 1086-88. Nevertheless, by citing an array of less quantitative evidence, Judge Hogan made an impressive case that new entry was unlikely to undo the merger’s anticompetitive effects. See id. For additional discussion of Staples, see infra text accompanying notes 223-25, 240-42, and 307-09.
196 See id. at 1160; see infra text accompanying notes 199-208.
197 See MERGER GUIDELINES, supra note 13, § 3.3.
thirty-five opinions issued since the 1992 Guidelines estimated the minimum amount of business an entrant would need to be profitable.

*Oracle* is a particularly good example because the court discussed entry at unusual length without determining the volume of sales the most likely entrant (Microsoft) would need to be profitable. The case involved a challenge to Oracle's acquisition of PeopleSoft, which the judge rejected principally because he found that the government's proposed product and geographic markets were too narrow. In his entry analysis, he also concluded that even if the government had correctly defined the relevant market, Microsoft would enter it if the merged firm raised prices significantly. In reaching this conclusion, the judge had to overcome substantial contrary evidence. A senior executive from Microsoft had testified that the company would not enter the government's market, not only because "that is not a segment we are targeting" but also because it would not be a prudent use of the company's funds:

Burgum was asked why Microsoft didn't "just spend a bunch of money" to redevelop the code and the salesforce in order to compete for larger accounts. Burgum stated that [the] undertaking would "be a formidable task" and would "take more money than I would be willing to recommend that Microsoft spend.

Moreover, another software firm had devoted many years and a great deal of money to an unsuccessful effort to enter the government's proposed market, as a former vice president of that firm testified: "[W]e came to the conclusion that after about a decade involved in the effort, hundreds of millions of dollars of investment, we didn't have the products, services, and ultimately the reputation necessary to satisfy the requirements that up-market customers have." Thus, both the most likely potential entrant and

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198 In some cases, the profitability of entry can be determined without estimating minimum viable scale. For example, if the court found a large Stiglerian barrier (i.e., a large cost disadvantage), it could conclude that entry would be unprofitable simply because an entrant could not survive at the premerger price level. Similarly, if government regulation would preclude entry altogether, or delay it beyond any reasonable period, it would not be necessary to calculate minimum viable scale. These exceptions, however, do not account for most of the cases in which the courts did not address the issue.

199 *See Oracle*, 331 F. Supp. 2d at 1108.

200 Id. at 1160 ("Accordingly, the court finds that Microsoft will be a viable substitute for a significant number of consumers should a post-merger Oracle impose a SSNIP in its pricing of ERP software."). As noted in our earlier discussion of *Oracle*, the court called such entry "repositioning" since Microsoft already offered software that performed a number of the functions required for participation in the government's proposed product market. Id. at 1109; *see supra* notes 123-25 and accompanying text. The issue was whether Microsoft would develop the additional functionality required for full participation in the market if Oracle imposed a "SSNIP" (a small but significant and nontransitory increase in price). *See Oracle*, 331 F. Supp. 2d at 1160.

201 *Oracle*, 331 F. Supp. 2d at 1143.

202 Id. (citations omitted).

203 Id. at 1144 (referring to the government's market as the "up-market").
an unsuccessful entrant had examined the issue (one at great cost) and de-

The court rejected the testimony of both firms because it was con-

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dicted that entry into the “up-market” was unlikely to be profitable.

an unsuccessful entrant had examined the issue (one at great cost) and de-

cided that entry into the “up-market” was unlikely to be profitable.

The court rejected the testimony of both firms because it was con-

204 The intent evidence the judge relied on, however, was ambiguous. For example, while Microsoft had embarked on an advertising campaign stressing that its software could handle “multiple languages, currencies and businesses,”

205 this feature would appeal to potential customers in its existing segment as well as to up-market customers. If Microsoft had been targeting the “up-market,” moreover, it was not evident to up-market customers. Twelve up-market customers testified at the hearing, ten for the government and two for Ora-

206 cle, and not one said that Microsoft would soon be an option for them. Ability, however, is not the same as willingness. The question was not whether Microsoft could enter but whether it would enter. The court never addressed whether it would be profitable for Micro-

207 soft to enter the government’s market. It did not estimate the minimum amount of business Microsoft would need to be profitable nor whether Mi-

208 crosoft could attain that volume quickly and cheaply enough to make the effort worthwhile.

In Franklin Electric, the court concluded that entry was unlikely to de-

209 feat a postmerger price increase within a few years, in part because the “costs of entry are high in relation to the size of the market and realizable profits.” This suggests that the relevant market is protected by a scale economy barrier: if the costs of entry are high in relation to the size of the market, an entrant cannot be profitable unless it attains a substantial market share, which may be difficult. To determine whether such a barrier is likely to deter entry, though, it is necessary to estimate the entrant’s minimum viable scale and the volume of sales it is likely to capture. The Franklin Electric court did not attempt to determine the magnitude of either variable.

204 Id. at 1160.
205 See id. at 1144 (“Subsequent to trial, BearingPoint announced that the new Microsoft Business Solutions Axapta was ‘a compelling ERP solution’ which ‘provides functionality across all key areas of the business . . .’”).
206 See id. at 1125-33 (summarizing the testimony of the customer witnesses).
207 Oracle, 331 F. Supp. 2d at 1160.
208 Ironically, the judge had previously rejected the testimony of the government’s customer wit-

209 nesses because they did not back up their conclusions with “serious analysis” of “what they would or could do . . . to avoid a price increase from a postmerger Oracle.” Id. at 1131. Yet in concluding that Microsoft would enter the government’s market, the judge himself did not offer a “serious analysis” of “what [Microsoft] would . . . do” in response to a postmerger price increase. See id.
v. No Prediction of Reactions of Incumbents or Customers

The reactions of incumbents and customers affect how high a price the entrant can charge and how much business it is likely to capture. Yet few court decisions since April 1992 have tried to determine the likely reactions of either incumbents or customers to new entry, let alone both factors.

(a) Incumbents

Incumbents can reduce the profitability of entry by cutting their prices or expanding their promotional spending as the entrant tries to become established, forcing it to respond in kind. Incumbents may also react to entry by accommodating it rather than attacking it, maintaining their pre-entry price levels or even reducing their pre-entry output. The choice among these strategies depends on a complex collection of strategic factors, since the issue is similar to the question of whether an incumbent should attempt to drive out an entrant through predatory pricing. If, for example, the entrant is growing but needs to make further investments in plant, promotion, or distribution in order to attain minimum viable scale, the incumbents may find it profitable to respond aggressively in hopes of deterring such investments. If, on the other hand, the entrant has already made the requisite investments in the market, and those investments are sunk, the incumbents may find it optimal to accommodate rather than attack the entrant. An entrant’s need to make a series of investments in the market, rather than...
being able to commit itself all at once, may thus affect the incumbents’ reactions. ²¹²

However the incumbents react, their reactions—and the entrant’s reaction to their reactions—influence the amount of business the entrant is likely to win. The more, for example, that incumbents cut prices or expand output in response to entry and the less the entrant adjusts its own prices in response, the less business the entrant will capture. If price levels fall, moreover, the entrant must capture a greater percentage of sales to attain profitability. Professor Salop explains: “If prices are cut, that will reduce the entrant’s margin over variable costs, and thus will raise the sales level it must achieve in order to break even.” ²¹³

The opinions we reviewed, however, almost never addressed the potential reactions of incumbents to entry. One exception was Judge Hogan’s thoughtful analysis in Swedish Match, where he observed that because existing producers had excess capacity, they “could simply increase production as an effective competitive response to new entrants.” ²¹⁴ Even Judge Hogan, however, did not get to the root of the issue, which was not whether incumbents had the ability to increase production in response to entry, but whether they were likely to do so. ²¹⁵

(b) Customers

Like the reactions of incumbents, the reactions of customers affect the profitability of entry because they influence how much business the entrant is likely to obtain. The entrant’s success depends crucially on how many customers are willing to switch from the incumbents to the new entrant. Where entry occurs in response to a postmerger price increase, this willingness to switch is subject to conflicting impulses. On the one hand, customers would like to purchase from the entrant because they are presumably upset with the incumbents for raising prices, the entrant is offering a lower price, and if the entrant succeeds, it will restore the premerger price level.

²¹² Patrick Bolton, Joseph F. Brodley, and Michael H. Riordan single out this factor in explaining why a supplier of television service might prefer to enter a local market by building a microwave system based on one transmitter rather than a cable system constructed in stages:

The main advantage of entry by microwave may simply have been that it was less susceptible to predation. A microwave system required only one transmitter, and once that investment was sunk, the entrant would have the incentive to remain in the market so long as price exceeded incremental cost for the entire system. By contrast, the sequential nature of the sunk cost investment in building a cable system made it especially vulnerable to predation.


²¹³ Salop, supra note 15, at 563.


²¹⁵ See, e.g., Siegfried & Evans, supra note 85, at 124 (“Expectations of future profits . . . depend on potential entrants’ conjectures about how established firms will react to entry.”) (emphasis added).
On the other hand, switching to the entrant presents an array of problems. First, customers have had no experience with the entrant in this market and perhaps in any market, and thus cannot be certain about the quality of its product, its service, and its commitment to the market. Second, if a customer shifts a significant amount of its business to the entrant, it will strain its relationships with its incumbent suppliers. Third, if the entrant fails, the customer may be unable to reestablish these relationships on the same terms as before, placing it at a competitive disadvantage compared to those customers who never switched. Moreover, these conflicts not only make a decision to patronize the entrant difficult, they also create a prisoner’s dilemma. All customers would be better off if the entrant succeeds, but each would be better off if its rivals took the risks necessary to support the new entrant.216

No court identified all these conflicting impulses, nor did any court, after weighing them all, try to predict the overall customer response to new entry. A few courts did give some weight to the most readily understood customer impulse—customers’ reluctance to switch from an established product, which they know, to an entrant’s product, which they have never tried before. In Swedish Match, Judge Hogan identified “brand loyalty” as one of the barriers to entering the relevant market, observed that the defendants spent a substantial amount annually on sales and promotion, noted that new brand introductions by smaller firms have had little success, and concluded: “New entrants therefore face a significant disincentive because of high costs and little hope of gaining market share.”217 Two other opinions alluded to this same dynamic but did not evaluate its significance. They simply pointed out that the incumbents enjoyed a reputation for quality; they did not ask whether new entrants could duplicate this reputation quickly and cheaply.218

Apart from these references to brand loyalty, the courts did not assess the likely reactions of customers to entry, even when evaluating whether economies of scale constituted a barrier to entering the relevant market. While economies of scale can place an entrant at a disadvantage relative to

216 See Richard O. Zerbe, Jr. & Donald S. Cooper, An Empirical and Theoretical Comparison of Alternative Predation Rules, 61 Tex. L. Rev. 655, 697 (1982) (discussing a similar collective action in the context of predatory pricing; noting that if customers try to defeat a predation attempt by banding together and executing long-term supply contracts with the entrant, they “may involve considerable private costs” and the success of their effort is “improbable”).

217 Swedish Match, 131 F. Supp. 2d at 171. For the evidence supporting this conclusion, see id. at 170-71.

incumbents, the extent of this disadvantage depends critically on the willingness of customers to switch from the incumbents to the entrant. Even if an entrant needs to attain a large scale to be profitable at the premerger price, the entrant can easily attain this scale if the incumbents’ customers promptly shift their business to the entrant. Because of this fact, R. Preston McAfee, Hugo M. Mialon, and Michael A. Williams maintain that scale economies are not a “primary” entry barrier at all.\(^{219}\) Rather, scale economies do not deter entry in their view unless some factor such as brand loyalty prevents buyers from switching from the incumbents to the entrant.\(^{220}\) This position overlooks another factor, however, that is likely to prevent buyers from switching to the entrant—an aggressive response by the incumbents. If incumbents respond aggressively to entry, promptly matching or even undercutting the entrant’s price, few customers are likely to switch. Because this possibility is quite real when scale economies are large relative to the size of the market, very large scale economies may be a major barrier even without significant brand loyalty.\(^{221}\) But whatever the potential impediment to switching—brand loyalty or an aggressive response by the incumbents—it is necessary to assess customers’ willingness to shift business in order to determine the extent to which scale economies would impede entry.

Even sophisticated authorities can miss this point. In illustrating how scale economies deter entry, the Areeda-Hovenkamp treatise provides an example that ignores the customer shifting issue.\(^{222}\) The example portrays an entrant who cannot make a profit at the premerger price unless it attains a large volume, but the example does not explain why the entrant cannot capture this volume. It simply assumes that the incumbents lose no sales to the entrant. Similarly, Judge Hogan overlooked the customer switching issue in *Staples* when he concluded that new entrants were unlikely to achieve the scale economies they needed because many local office superstore markets were already “saturated”:

\(^{219}\) McAfee, Mialon & Williams, *supra* note 68, at 464.

\(^{220}\) *Id.* ("Customers may be loyal to an existing brand because continuing to buy it involves less risk than trying a new one. Therefore, scale economies deter entry only if customers are sufficiently loyal to the incumbent’s brand. Hence, scale economies are ancillary entry barriers that reinforce primary entry barriers such as brand loyalty.").

\(^{221}\) When scale economies are very large, an entrant is unlikely to attain profitability unless it takes a considerable amount of business from the incumbents, which makes it likely they will respond quickly and aggressively. *See* Salop, *supra* note 15, at 561. Put differently, when scale economies are large relative to the size of the market, entry at efficient scale would place substantial new capacity on the market, the incumbents are likely to react vigorously, and the market price may drop sharply, rendering the entry attempt unprofitable. The Guidelines emphasize this phenomenon. *See* MERGER GUIDELINES, *supra* note 13, § 3.0.

\(^{222}\) *See* 2B AREEDA-HOVENKAMP, *supra* note 29, ¶ 421a, at 80 n.2.
Economies of scale at the local level, such as in the costs of advertising and distribution, would also be difficult for a new superstore entrant to achieve since the three existing firms have saturated many important local markets. For example, according to the defendants’ own saturation analyses, Staples estimates that there is room for less than two additional superstores in the Washington, D.C. area and Office Depot estimates that there is room for only two more superstores in Tampa, Florida.\footnote{FTC v. Staples, Inc., 970 F. Supp. 1066, 1087 (D.D.C. 1997).} The defendants’ saturation analyses, however, were conducted before the challenged merger was proposed, when prices in these markets were at the premerger level.\footnote{See Staples, 970 F. Supp. at 1076, 1087.} If the merger occurred and prices in these markets were raised to supracompetitive levels, the markets may no longer be saturated. At that point, in other words, consumers might be quite willing to switch to a lower-priced entrant. Of course, their willingness to do so would depend on their loyalty to the incumbents’ brands, their irritation at the price increase, and the speed and extent of the incumbents’ response to entry, but Judge Hogan did not evaluate these factors.\footnote{Another relevant factor is the rate at which the market is growing. See infra Part III.B.2.a. In Staples, the saturated markets were probably not growing rapidly. That factor, coupled with significant scale economies and existing store density, would have contributed to the difficulty of entering the saturated markets. The degree of difficulty cannot be determined, however, without assessing the willingness of customers to switch to the entrant.}

Judge Sporkin’s analysis of entry in \textit{Cardinal Health} displayed an unusual, but ultimately incomplete, sensitivity to customer reactions to entry. His opinion was the only one that recognized that customers are likely to be upset by an anticompetitive postmerger price increase. He declared: “Defendants could not easily engage in anti-competitive pricing practices after the mergers without incurring the wrath of [their] customers.”\footnote{FTC v. Cardinal Health, Inc., 12 F. Supp. 2d 34, 60 (D.D.C. 1998).} He also recognized that customers might translate this wrath into an effective response by sponsoring new entry. He found that “local customers can sponsor the entry of regional wholesalers into a new region with relative ease and limited capital expenditure.”\footnote{Id. at 67 n.18; see also id. at 60 (“Sponsored entry of a smaller wholesaler or outside company into a new region of the market is also a viable alternative to the Defendants for institutional GPOs [group purchasing organizations].”}). Judge Sporkin never explained, however, why the prospect of customer-sponsored entry did not invalidate his earlier conclusion that the challenged mergers would be anticompetitive in the relevant regional markets.\footnote{Judge Sporkin held that the relevant geographic markets consisted of a national market and three regional markets. See id. at 50-51. He also held that the challenged mergers would leave customers}
The best analysis of customer reactions to entry, one that explicitly addressed whether the difficulty of attracting customers might undermine the profitability of entry, appeared in *CCC Holdings*. In this case, one of the relevant product markets was software that enables insurance companies and repair shops to calculate the cost of fixing a damaged vehicle. In order to perform the necessary calculations, such software must have access to a large database of parts and labor costs. One of the merging firms (CCC) licensed its database from a third party (Hearst); the other merging firm (Mitchell) and the other major firm in the market (Audatex) created and maintained their own databases. To counter the claim that a new entrant could not possibly create an adequate database in a timely manner, CCC announced that “upon consummation of the merger, it will relinquish its exclusive rights to license Hearst’s Motor database, allowing any competitor or entrant . . . to obtain immediate access to a comprehensive, fully updated database of parts and services.” The court questioned, however, whether a new entrant could profitably license this database, given the difficulty of winning customers from the large incumbents, whose differentiated products gave them market power:

CCC currently pays $[text redacted] million per year for its exclusive license of the Motor database. While a new entrant might be expected to pay significantly less for a non-exclusive license, that negotiated price remains unknown and unknowable. A price that approached the $[text redacted] million range that Mitchell and Audatex spend annually to maintain their databases may be prohibitively expensive for new entrants who also must offer lower prices to attract customers. Because this is a low-growth industry with few new customers, new entrants would have to win business from incumbents to generate sufficient revenues to remain a going concern for any length of time. It is unclear whether they could do so profitably, or if the projected profits would be sufficient to entice new entrants, given the market power that would be held by CCC/Mitchell and Audatex. See Merger Guidelines § 3.3 (entry considered in the regional markets vulnerable to a price increase: “After the mergers, only two national wholesale distributors would exist, leaving no choice for customers in certain regions . . . .” *ld. at 58; see also id. at 51 (“The uncontested evidence shows that the Los Angeles, San Francisco, and Seattle regions are particularly concentrated and would be vulnerable to anti-competitive practices should the injunction be denied.”). He concluded that customers in these regions would have “no choice,” even though two national wholesalers would remain, because most customers want both a primary and a secondary wholesaler. *ld. at 41, 58. In order to have competition for both positions, they would need three alternative suppliers. In his analysis of entry, Judge Sporkin found that new entry was unlikely to produce the necessary third wholesaler. See *id.* at 54-58. Later in his opinion, however, he found that customers in these regions could sponsor new entry with “relative ease and limited capital expenditure.” *ld.* at 67 n.18. He never reconciled these inconsistent findings.

231 *ld.* at 32.
232 *ld.*
233 *ld.* at 51.
"likely" if it would be profitable at premerger prices, and if such prices could be secured by the entrant.234

In many respects, this discussion is commendable. It recognizes that the likelihood of new entry depends on its profitability and that this depends on the entrant's expected revenues. It also recognizes that the entrant's revenues depend on its ability to lure customers away from the incumbents, a consideration that is especially important in a low-growth industry. Finally, it appreciates that an entrant cannot lure customers from the incumbents without offering them a reason to switch, and that this reason—typically a lower price—makes it more difficult for an entrant to achieve profitability.

Despite its sophistication, this discussion falls short of a rigorous analysis in two ways. First, it did not actually determine the likelihood of new entry. While it identified many of the relevant economic issues, it did not resolve them, probably because the parties did not present sufficient information to decide whether an entrant in these circumstances would likely make money. Second, the court brushed aside a key advantage an entrant would have: it would be entering in response to a significant anticompetitive price increase imposed by the merged firm. As Judge Sporkin emphasized,235 such an increase is likely to anger customers and make them more willing to switch to the entrant. The court disregarded this factor in CCC Holdings because the Merger Guidelines indicate that entry must be profitable at "premerger prices."236 But that misreads the Guidelines. They do not insist that entry must be so quick and effective that prices never rise above the premerger level. To the contrary, they plainly contemplate that the merger may produce a significant anticompetitive price increase and that, in response, entry may "cause prices to fall to their premerger levels or lower."237

4. No Utilization of Efficiencies Evidence

In all the cases we reviewed, the defendants offered an efficiencies defense, arguing that the challenged transaction would reduce their costs or

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234 Id. at 51-52 (citations to the record omitted).
236 See CCC Holdings, 605 F. Supp. 2d at 52.
237 MERGER GUIDELINES, supra note 13, § 3.0. As noted above, entry meets the Guidelines tests of timeliness, likelihood, and sufficiency so long as it forces prices back to premerger levels within two years and they remain there. In the short run, in other words, prices may rise above premerger levels; in the long run, they cannot. The Guidelines make clear that the premerger price level constraint applies to the long run, not the short run, in the following passage: "Entry that is sufficient to counteract the competitive effects of concern will cause prices to fall to their premerger levels or lower. Thus, the profitability of such committed entry must be determined on the basis of premerger market prices over the long-term." Id.
otherwise improve their performance. In only one decision, however, did the court use the evidence generated on the efficiencies issue to improve its assessment of the likelihood of entry. In every other case, the court did not connect these two parts of merger analysis, failing to recognize that if a merger creates efficiencies, it is likely to change entry conditions, sometimes making them more difficult and sometimes making them easier.\(^2\)\(^3\)

In the typical case, the merging parties assert that the transaction would enable them to avoid redundant expenses, lowering their operating costs. If this claim were correct, it would tend to make postmerger entry more difficult for two reasons. First, it would increase the merged firm's ability to reduce price below the premerger level without pricing below cost. In turn, the merged firm could respond more aggressively to entry without violating the tests for predatory pricing established in *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*\(^2\)\(^3\)\(^9\) Second, a merger-

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\(^2\)\(^3\)\(^8\) Neither the Merger Guidelines nor the agencies' recent commentary on the Guidelines notes the connection between efficiencies and entry. See *id.* § 3; COMMENTARY, supra note 25, at 37-47. In the commentary, however, it is possible to trace the connection, since the commentary indicates that economies of scale are both an entry barrier and an efficiency. See *id.* at 45 ("A merger may lead to price increases but not attract entry because entrants would suffer a significant cost disadvantage relative to incumbents. The most common reason for a cost disadvantage is the presence of significant economies of scale . . ."); *id.* at 51 ("Merging parties . . . may claim cost savings from . . . realizing economies of scale.").

Greg Werden and Luke Froeb identify another link between efficiencies and entry barriers. They note that if a merger would not create significant efficiencies, the merging parties must expect that it would generate market power, because otherwise the merger would not be profitable. As a result, Werden and Froeb contend that if the parties cannot demonstrate efficiencies, entry barriers can be presumed:

If . . . firms are rational and informed, they merge only if they expect significant efficiency gains generated from merger, or they perceive substantial entry obstacles such as sunk costs. Consequently, the entry issue in merger cases can be collapsed into efficiency considerations, and in the absence of strong evidence that an otherwise anticompetitive merger generates significant efficiency gains, there is a sound basis for presuming that entry obstacles will prevent entry in response. Thus, the best way for courts to treat entry in many merger cases may be not to consider it at all.

Gregory J. Werden & Luke M. Froeb, *The Entry-Inducing Effects of Horizontal Mergers: An Exploratory Analysis*, 46 J. INDUS. ECON. 525, 541 (1998) (footnote omitted). This principle would enable courts to avoid an analysis of entry in any case in which the government establishes a presumption of anticompetitive effects and the parties cannot establish any significant merger-specific efficiencies. It is not clear, though, whether such cases would often occur.

\(^2\)\(^3\)\(^9\) 509 U.S. 209, 222-23 (1993). In *Brooke Group*, the Supreme Court ruled that a plaintiff cannot prevail in a predatory pricing case unless it shows that the defendant priced below cost. While the Court did not decide the appropriate cost test, it left no doubt that above-cost pricing was not predatory. See *id.* at 222 ("[A] plaintiff seeking to establish competitive injury resulting from a rival's low prices must prove that the prices complained of are below an appropriate measure of its rival's costs."); *id.* at 223 ("[T]he reasoning in [two prior] opinions suggests that only below-cost prices should suffice, and we have rejected elsewhere the notion that above-cost prices that are below general market levels or the costs of a firm's competitors inflict injury to competition cognizable under the antitrust laws."). After *Brooke Group*, the lower courts have been most concerned about pricing below average variable costs. See Elhauge, supra note 211, at 693, 696 & n.49 (finding that the federal courts are divided as to
induced reduction in costs may raise the scale required for entry. In order to compete against a more efficient rival, especially a rival that is likely to respond vigorously to entry, a new entrant may have to enter at a larger scale in order to lower its own costs. But entering at a larger scale is likely to raise the costs and risks of entry, diminishing its attractiveness.

In contrast, some merger-specific synergies may make entry easier. Suppose that two manufacturers propose to merge and consolidate their operations in a single plant, putting their other plant up for sale. If that plant has limited uses outside the relevant market, an entrant may be able to acquire it at a price below its replacement cost, lowering the capital costs of entry. Indeed, whenever merging firms avoid redundant costs by disposing of facilities or laying off personnel and those resources become available at a price below the price that previously prevailed for comparable resources, the efficiencies of the merger would reduce the investment required for entry.

Both possibilities were present in Staples, although Judge Hogan did not mention them. The defendants in Staples asserted that their merger would produce a variety of efficiencies, including better prices from vendors and reduced distribution costs. While Judge Hogan identified numerous flaws in this defense and concluded that it did not rebut the presumption of anticompetitive effect, he did not find that the merger would create no significant efficiencies. It is likely, therefore, that the merger would have increased the ability of a combined Staples and Office Depot to respond to entry by dropping prices below premerger levels without engaging in predatory pricing. At the same time, Judge Hogan found that the merger would result in the closing of forty to seventy Office Depot and Staples stores, the elimination of unnecessary distribution facilities, and the termination of many of Office Depot’s key personnel. The availability of these stores, warehouses, and personnel may have reduced the costs of an entry attempt.

In Dr Pepper/Seven-Up, in contrast, Judge Revercomb recognized the connection between efficiencies and entry conditions. He found that a merger-induced increase in economies of scale would both reduce costs and raise entry barriers. He agreed with the plaintiffs that the transaction would benefit both the merging parties (a Pepsi Cola bottler and a Seven-Up bottler) and one of their suppliers (Dr. Pepper/Seven-Up) because it

\[\text{whether pricing above average variable costs but below average total costs can be predatory); see also supra note 211.}\]

241 \textit{Id.}
242 \textit{Id.} at 1091.
244 \textit{See id.}
would create a bottler with greater scale and lower average costs.\textsuperscript{245} He also recognized, though, that once the Pepsi bottler had acquired the Seven-Up bottler, it would be more difficult for a new entrant to attain cost parity with the Pepsi bottler: "[T]he acquisition of the Seven-Up bottling franchise by the Pepsi bottler would increase the barriers to entry to new bottlers, because Seven-Up would be unavailable to bottlers seeking to build up the requisite market share to compete effectively with Coke and Pepsi products."\textsuperscript{246}

Unlike the courts' analysis of likelihood, their assessment of sufficiency has not been marred by widespread deficiencies. To the contrary, only a few opinions directly addressed the subject and their language generally accorded with the Guidelines and economic theory.

5. Judicial Analysis of Sufficiency

Three decisions since April 1992 found that entry would be insufficient to remedy the competitive problems posed by challenged mergers. In \textit{Cardinal Health}, Judge Sporkin sustained the FTC's attack on two proposed combinations of national prescription drug wholesalers.\textsuperscript{247} He acknowledged that if the combined firms raised prices in certain geographic markets, regional wholesalers from other markets would enter those markets and "certainly win more business away from the Defendants."\textsuperscript{248} He concluded, however, that their expansion would be insufficient to replace the competition lost through the mergers.\textsuperscript{249} In \textit{Swedish Match}, Judge Hogan found that entry into the loose leaf chewing tobacco market was extremely unlikely because of numerous barriers.\textsuperscript{250} He also noted that even if entry occurred in the form of new product introductions by existing producers, it would be insufficient to defeat a postmerger price increase: "No historical evidence of new brand introduction has demonstrated success in restraining

\textsuperscript{245} \textit{Id.} at 777 ("[P]laintiffs—especially DPSU [Dr Pepper/Seven-Up]—repeatedly pointed out to the FTC the cost advantages that would accrue from allowing a small concentrate manufacturer (like DPSU) to 'piggyback' on the distribution network of a local bottler of one of the two major brands (Coke and Pepsi) . . . . Third bottlers are usually much smaller operators who do not enjoy the same economies of scale as Coke or Pepsi distributors . . . . The Court finds merit in plaintiffs' argument . . . ."). In this case, the acquiring firm and Dr Pepper/Seven-Up were plaintiffs because the FTC had refused to approve the acquisition. The acquiring firm had previously signed a consent order with the FTC that prohibited the acquisition without prior Commission approval. \textit{See id.} at 765.

\textsuperscript{246} \textit{Id.} at 778.


\textsuperscript{248} \textit{Id.} at 58.

\textsuperscript{249} \textit{Id.} (finding that regional wholesalers "would not sufficiently expand to compete with the nationals"). As noted above, however, the judge relied on evidence that was inadequate to support his conclusion. \textit{See supra} text accompanying notes 188-90.

\textsuperscript{250} FTC v. \textit{Swedish Match}, 131 F. Supp. 2d 151, 170 (D.D.C. 2000) (multiple barriers "will prevent new entry into this market").
prices. In fact, the evidence shows that brands introduced by competitors such [as] Conwood and Swisher have had at best marginal success and nominal effect on constraining the prices of existing brands of loose leaf.”

Finally, in Chicago Bridge, a case that focused on the sufficiency of entry, the Fifth Circuit noted that there had been one successful entrant after the acquisition but concluded that its impact was “marginal at best.”

One decision, however, overlooked a significant sufficiency issue. In Mercy Health, the judge rejected a challenge to the merger of the only two general acute care hospitals in Dubuque, Iowa, largely on geographic market grounds. He also found, however, that entry into the government’s proposed market would be easy. While he concluded that “regional hospitals” could not enter the government’s market by building new hospitals, he decided they could enter by opening “outreach clinics,” clinics that would refer patients needing hospitalization to the regional hospital. He did not ask, though, whether entry by outreach clinics would be sufficient to eliminate the merger’s anticompetitive effects. He had previously noted that individual outreach clinics had “dramatically altered” referral patterns in several communities. But even if that were true for each clinic, it would not undermine a price increase unless the regional hospitals opened enough outreach clinics to cause the merged hospital to suffer a total loss in patient volume sufficient to make the price increase unprofitable. The court did not evaluate this issue. On the contrary, it acknowledged that the “effect of

251 Id. at 171.
252 Chi. Bridge & Iron Co. v. FTC, 534 F.3d 410, 435-36 (5th Cir. 2008). In CCC Holdings, the court observed that it could not tell whether one form of entry—web-based entry by a firm called “Web-Est”—would satisfy the Guidelines’ test of sufficiency because there was no evidence regarding whether customers would consider Web-Est’s product a close substitute for the merged firm’s product. See FTC v. CCC Holdings Inc., 605 F. Supp. 2d 26, 59 (D.D.C. 2009) (“From this record, it is simply unknown how many insurance companies and DRP repair facilities will find Web-Est’s communicating Estimatics product to be up to par . . . .”)
254 Id. at 986.
255 Id. at 974-75, 986. The entire discussion of the entry issue was as follows:

The court also wishes to note that other hospital merger cases have not considered the impact of outreach clinics in their discussions of barriers to entry into the relevant geographic market. Most hospital cases have stated the inability to build new hospitals as a strong barrier to entry. The parties to this dispute have stipulated that no new hospital would be built in the tri-state area within the relevant time frame. However, entry would not necessitate the building of a new hospital, but merely requires that another entity be able to enter a market it was not previously servicing. The regional hospitals are able to do this through the establishment of outreach clinics.

Id. at 986 (citation omitted).
256 Id. at 979.
257 As noted above, the court did not even address whether regional hospitals were likely to open additional outreach clinics in the event of a postmerger price increase. It simply found that “regional hospitals are able to do this.” Id. at 986.
the outreach clinics has not been quantified.\textsuperscript{258} Many issues in merger analysis, however, are inescapably quantitative, including the profitability and sufficiency of new entry.

Our review of litigated government merger challenges since April 1992 indicates, in short, that judicial analysis of the entry issue has frequently been inadequate, particularly in assessing the likelihood of new entry. To improve the analysis in future cases, we propose a new approach to the issue, one that combines the courts’ focus on entry barriers with the Guidelines’ emphasis on the profitability of entry. This approach would make it easier for the courts to reach economically sound resolutions of the entry question without rendering the litigation unmanageable.\textsuperscript{259}

III. LITIGATING THE ENTRY ISSUE IN FUTURE CASES

Our proposed approach to litigating the entry issue in merger cases would reduce the problems that have plagued past judicial analysis. In Section A, we outline the approach, specifying its allocation of the burdens of production and proof and noting that these assignments are consistent with \textit{Baker Hughes}. We also explain why we would not follow the very different approach advocated by the Areeda-Hovenkamp treatise. Parts III.B and III.C describe our framework in more detail. In Part III.B, we set forth the defendants’ burden of production on the entry issue, encapsulated in the obligation to introduce substantial evidence of a “path to profitability.” In Part III.C, we make clear that the ultimate burden of proof on the entry issue would fall on the government and that it could not discharge this burden without addressing the height of the entry barriers that assertedly protect the relevant market. These two sections also discuss the types of evidence each party could introduce to support its case. In Part III.D, we describe other categories of evidence either side could submit.

\textsuperscript{258} \textit{Id.}

\textsuperscript{259} The Antitrust Section’s recent monograph on market power asserts that the entry issue requires a comprehensive, fact-specific inquiry:

\textit{The likelihood of entry is a fact-specific inquiry that, like market power and relevant market analysis, requires a comprehensive assessment of the structural and behavioral characteristics of the market and firms at issue. No single test exists for whether entry will be likely, timely or successful. Rather, the analysis must consider a wide range of evidence. ABA \textit{SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK}, supra note 29, at 139. We agree with the Section that there is “no single test” and that a “wide range of evidence” is relevant. Given the courts’ record to date, however, we doubt they would undertake a comprehensive economic analysis of the likelihood of entry unless they are given a workable process for doing so. For that reason, we propose a structured approach that assigns specific burdens to each of the parties and describes the kinds of evidence that could satisfy each party’s burden. See infra Part III.}
A. Overview

Under our approach, the obligation of raising the entry issue and supporting it with enough evidence to make out a prima facie case of easy entry would rest on the defendants. If defendants contend, in other words, that new entry would promptly eliminate—or deter altogether—the merger’s asserted anticompetitive effects, they would have to introduce substantial evidence that entry would meet all three of the Guidelines’ criteria—timeliness, likelihood, and sufficiency. Defendants could not make out such a prima facie case, moreover, without demonstrating a “path to profitability”—a business strategy that is likely to enable a firm to achieve entry that is both profitable and adequate in scope and speed to restore prices and other terms to premerger levels within a reasonably short period of time.

If the defendants carry this burden of production, the government would have the opportunity to show that the defendants’ path to profitability is flawed and that new entry would not in fact satisfy all the Guidelines’ tests. To do so, the government would have to establish that the relevant market is protected by one or more barriers of sufficient height that entry is unlikely to be timely, profitable, and sufficient. The ultimate burden of proof on the entry issue would rest with the government.

This approach is consistent with the oft-cited formulation of the parties’ burdens in Baker Hughes:

By showing that a transaction will lead to undue concentration in the market for a particular product in a particular geographic area, the government establishes a presumption that the transaction will substantially lessen competition. The burden of producing evidence to rebut this presumption then shifts to the defendant. If the defendant successfully rebuts the presumption, the burden of producing additional evidence of anticompetitive effect shifts to the government, and merges with the ultimate burden of persuasion, which remains with the government at all times.260

In contrast, the Areeda-Hovenkamp treatise proposes a sharply different approach, one that would largely remove the entry issue from merger litigation. Under their approach, the burden of proof on the entry issue would be shifted to the defendants in three classes of cases that present especially significant competitive risks.261 In such cases, moreover, the defendants could satisfy their burden only by showing frequent recent entries or an

261 See 4 AREEDA-HOVENKAMP, supra note 19, ¶ 941h, at 212 (“Three classes of situations present very strong claims for reassignment of the burden with respect to entry barriers: (1) mergers to monopoly, (2) the monopolist’s or dominant firm’s acquisition of a nascent rival, and (3) mergers meeting the highest anticompetitive standard for potentially collusive or oligopoly behavior—namely, where the postmerger HHI exceeds 1800 and the merger itself augments the HHI by at least 100 points.”).
otherwise "clear case" of easy entry. In effect, then, the treatise would tilt the resolution of the entry issue against defendants in these cases, in part because they create a "sufficiently strong inference of anticompetitive consequences," and in part because the entry issue is "so intractable."

This approach appears to be undesirable for several reasons. First, the government virtually never takes a merger case to court unless it falls into one of these categories. As a result, the treatise would largely resolve the entry issue against the defendants in almost every case the government litigates. Second, to our knowledge there is no substantive basis for presuming that entry would typically be difficult whenever postmerger Herfindahl-Hirschman Index ("HHI") concentration exceeds 1800. To the contrary, in several well-known decisions the courts ruled that entry was easy even though postmerger concentration was substantially above that level. Because of these decisions, the courts are unlikely to adopt a presumption that entry is blocked whenever the government establishes that the postmerger market would be highly concentrated. Finally, the courts do not find the entry issue intractable now; they deal with it relatively easily, if not well. Our approach would enable them to address it more rigorously while still keeping the litigation manageable. We believe, in short, that our approach is both substantively superior and more likely to be adopted than the Areeda-Hovenkamp approach.

B. Defendants' Burden of Production: A Path to Profitability

If the defendants contend that easy entry rebuts the presumption of anticompetitive effects established by the government, they must introduce substantial evidence that new entry would satisfy all three of the Guide-

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262 Id. ¶ 941f, at 207 ("[D]efendants should be allowed to defend a prima facie illegal merger on easy entry grounds only by showing a clear case or by showing 'frequent' new entries within a defined recent period.").

263 Id. ¶ 941h, at 212.

264 Id. ¶ 941f, at 207.

265 Out of the twenty-seven merger challenges we reviewed, the courts noted the market shares or concentration in the government's principal market in nineteen. In all nineteen, the postmerger HHI concentration was above 1800 and the change in concentration was likely to exceed 100. In the other eight, we saw no reason to doubt that these concentration thresholds were also surpassed.

266 To be sure, there may well be an association between concentration and entry barriers, since markets may be concentrated because they are difficult to enter. However, a market may become concentrated because a large merger occurs in that market, and when that is so, there appears to be no reason to presume that the market is protected by high entry barriers.

267 See United States v. Baker Hughes Inc., 908 F.2d 981, 983 n.3 (D.C. Cir. 1990) (postmerger HHI 4303); United States v. Syufy Enters., 903 F.2d 659, 666 (9th Cir. 1990) (calculating the HHI based on the information provided by the court indicates a postmerger HHI above 8600); United States v. Waste Mgmt., Inc., 743 F.2d 976, 980-81 (2d Cir. 1984) (the market percentages determined by the court yield a postmerger HHI above 2380), rev'd, 743 F.2d 976 (2d Cir. 1984).
lines' tests. In order to do that, defendants would have to identify a "path to profitability"—a business strategy that would likely result in entry that is profitable, timely, and effective. To help the court reach an economically sound result, in other words, defendants would have to lay out a concrete description of how successful entry into the government's market is likely to happen, based on information available to an entrant. This description—a business plan for the entrant—would entail the following showings. 268

1. Necessary Sales
   a. To Achieve Profitability

   First, defendants would have to establish the amount of business an entrant must capture in order to be profitable. The path to profitability must result in this sales volume, if not more. This figure is critical because, as the Guidelines emphasize, entry is unlikely to occur unless the entrant can secure enough business to be profitable at premerger prices. 269 Although no court since 1992 has insisted that the government or the merging parties establish this sales volume, 270 an analysis of the profitability of entry cannot normally be conducted without it. 271 By making it the first step in the path to profitability, our approach would give it the emphasis it deserves, reinforcing the central position it occupies in the Guidelines' analysis.

   b. To Promptly Restore Premerger Prices

   The defendants would also have to show that this business strategy would return prices and other terms to the premerger level within a reasonably short period of time. 272 The profitability question is not merely

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268 For simplicity, we refer to the components of the defendants' burden—the elements of a path to profitability—as what the defendants must show. In fact, the defendants need only introduce sufficient evidence of a path to profitability to rebut the presumption of anticompetitive effects created by the government's concentration statistics. In making their prima facie case, moreover, the defendants would have no duty to divulge confidential information or otherwise facilitate entry. Their obligation, if they claim that entry is easy, is simply to back up this claim by explaining how a new firm (or an existing firm in another market) is likely to be able, given the information at its disposal, to accomplish timely, sufficient, and profitable entry. In Appendix B, we illustrate our approach by providing a hypothetical example of a path to profitability.

269 See MERGER GUIDELINES, supra note 13, § 3.3 ("An entry alternative is likely if it would be profitable at premerger prices . . . .").

270 See supra Part II.B.3.b.iv.

271 For exceptions, see supra note 197.

272 Like the Guidelines, we would use two years as the standard measure of this period, though the parties could introduce evidence that a longer or shorter period would be more appropriate. Moreover,
whether new entry would be remunerative, but whether new entry that is both timely and sufficient would be remunerative. Given the timeliness and sufficiency criteria, moreover, the defendants' profitability analysis must assume that the entrant would only receive elevated prices for a reasonably short period of time.

This is an important constraint. In most instances, an entrant will not be as efficient as the incumbents when it first enters the market. It may have higher promotional and advertising costs for a time because consumers are unfamiliar with its product. Its operating costs may be higher because it has not achieved the same scale or operating experience as the incumbents. Its capital costs may be higher because its risk of failure is perceived, at least initially, as greater. If any of these barriers are present, its investment in entry will not be profitable unless it can somehow recover those higher costs.

There are three principal ways it could do so. First, it could quickly win over a significant fraction of the incumbents' customers by offering them a price that is below the postmerger level but above the premerger level. This elevated price, if it is high enough and lasts long enough, could enable the entrant to recover its higher initial costs. Second, the entrant could simply charge the premerger price if that price had enabled the incumbents to earn above normal profits. That might be the case if the incumbents had been exercising market power or if market conditions had driven prices significantly above the incumbents' average total costs. In either case, the premerger price could be high enough to permit the entrant to recover its higher initial costs. Third, if production of the relevant product exhibited economies of scale, the entrant could capture a sufficiently large sales volume that its unit production costs were lowered enough to compensate for its higher initial costs. In all events, the defendants would have to show how the entrant could recover any higher costs it must temporarily incur to enter the relevant market.

2. Ability to Attain the Necessary Sales

The defendants' second major task is to show that an entrant following the path to profitability would likely achieve the sales it needs to make money and eliminate the merger's anticompetitive effects. To help resolve

the premerger price level should be understood not as the actual price level that prevailed prior to the merger, but as the price level that would have prevailed absent the merger (the "but for" price level). If demand for the relevant product is growing, for example, the "but for" price level may be higher than the price level on the date of the proposed merger.

273 Unless the entrant's product was superior to the incumbents' products, its price could not normally exceed the postmerger price and typically would have to be at least somewhat below it.

274 See Salop, supra note 15, app. at 567-70 (facing economies of scale, an entrant can recover its initial promotional expenses and discounts by achieving a greater sales volume).
that issue, the Guidelines identify several factors that affect the volume of sales an entrant is likely to make.\textsuperscript{275} In the following sections, we describe these and other factors in more detail.\textsuperscript{276}

### a. Future Market Growth or Decline

An entrant’s ability to make money depends on its ability to capture business and that in turn depends on the total amount of business available. If that total is likely to grow in the future, the entrant’s prospects are plainly better than if the relevant market is likely to decline. Indeed, market growth is one of the few theoretical factors that is strongly supported by empirical evidence. According to Siegfried and Evans, “[m]arket growth is generally measured by a historical rate of growth of industry sales revenue and has been found by numerous researchers to have a positive effect on net entry.”\textsuperscript{277} In \textit{Swedish Match}, Judge Hogan noted this factor, observing that demand was “declining at a rate of two to three percent per year, a trend which is expected to continue,” and concluding, “[t]hus, there are fewer sales opportunities for new entrants.”\textsuperscript{278} In their path to profitability, therefore, the defendants would have to forecast the trend of demand in the relevant market for a reasonable period in the future, such as the five-year period common in business plans.\textsuperscript{279}

\textsuperscript{275} See \textit{Merger Guidelines}, \textit{supra} note 13, § 3.3.

\textsuperscript{276} In these sections, we focus for simplicity on the quantity of sales an entrant can expect to make. As we made clear earlier, however, what matters for the success and sufficiency of entry is not only the number of units the entrant sells but the price at which it sells these units. The defendants’ path to profitability would have to specify both.

\textsuperscript{277} Siegfried & Evans, \textit{supra} note 85, at 128; \textit{see also id.} at 129 (“Overall, there seems to be strong support for the idea that market growth encourages entry.”); \textit{accord John E. Kwoka, Non-Incumbent Competition: Mergers Involving Constraining and Prospective Competitors, 52 CASE W. RES. L. REV. 173, 191 (2001)} (“Entry into markets responds to larger expected profits and to rapid market growth.”).


\textsuperscript{279} If there is substantial uncertainty about the future course of demand, it may be necessary to address not only the expected trend in demand but the variability of that demand. The government may be able to show, for example, that new entry is unlikely to occur even though demand is growing now and is expected to continue to grow, because there is a material risk that demand would fall sharply in a few years, causing the entrant to lose a significant sunk investment. \textit{See Carlton, Barriers to Entry, supra note 68, at 607 (“[U]ncertainty and sunk costs influence the decision of whether to enter.”); id. at 612 (stating that in the presence of uncertainty and sunk costs, firms “will be hesitant to enter an industry even when price is currently high because price could subsequently fall”). Conversely, firms may enter some markets even though demand is currently stagnant because there is a considerable chance that demand will rise. \textit{See Barry C. Harris, Stuart Gurrea & Allison Ivory, Imperfect Information, Entry, and the Merger Guidelines, in 2 ISSUES IN COMPETITION LAW AND POLICY 1589, 1609 (2008)} (reporting that “rational entrants that . . . focus on variability of profits” may be “willing to enter despite low average profits”).
b. **Cost Structures**

The entrant’s costs affect the entrant’s sales prospects in several ways. If the entrant’s costs are higher than the postmerger price, even for a time, it will have to price below those costs in order to win business from the incumbents. It will also have to recoup those losses in some way in order to make an adequate return on its investment. If the entrant’s costs are higher than the incumbents’ costs—in particular, if the entrant’s avoidable costs are higher than the incumbents’ avoidable costs—the entrant is more likely to experience an aggressive response by the incumbents, diminishing the sales it is likely to make (or raising the costs of preserving the sales it would have made).²⁸⁰

To reflect these cost factors, the defendant’s path to profitability must compare the entrant’s costs, initially and over time, with market prices and the costs of the most significant incumbents, including themselves. In comparing their own costs to those of the entrant, they must ensure that their cost representations are consistent with their efficiencies defense. If they assert, for example, that the merger would enable them to reduce their average total costs by 10 percent, they would have to reflect this cost savings in their description of their postmerger costs. Moreover, they would have to reconcile the costs they assign the entrant with the cost levels they are incurring prior to the merger.

c. **Reactions of Other Market Participants**

i. **Customers**

An entrant’s sales prospects depend directly on the willingness of customers to shift their purchases from the incumbents to the entrant. In some instances, moreover, one or more customers may be willing to sponsor new entry, by providing financing or by making long-term commitments to pur-

²⁸⁰ An incumbent’s avoidable costs are the costs it would have to incur to increase output in response to the entrant. Since an entrant may have to make additional investments to survive in the market, an entrant’s avoidable costs are the costs it would have to incur to continue to produce output in the market despite the incumbents’ response.

As Harris, Gurrea, and Ivory stress, an entrant’s information about the incumbents’ costs is an important ingredient in its decision to enter: “Our brief review of the economics literature finds that a firm’s decision to enter can be significantly affected by the quality and completeness of its knowledge about its competitors, especially information about its competitors’ cost structure.” Harris, Gurrea & Ivory, *supra* note 279, at 1609. If the entrant believes, for example, that its own costs are lower than those of the incumbents, it may “decide that it has the ability to out-compete incumbents or earn rents in any postentry competition.” *Id.* at 1602-03.
chase significant quantities from the entrant. Entry sponsorship is likely to be relatively rare, however, because of the collective action problem discussed above. In brief, where customers are numerous and no single customer purchases enough of the relevant product to make it worthwhile to incur the costs of sponsoring entry, entry sponsorship will not occur unless a critical mass of customers acts collectively. That is difficult to organize, however, because each customer would prefer to free ride on the organizing efforts of other customers. Entry sponsorship is most likely, therefore, when individual customers are large enough to sponsor entry by themselves; that is, when the input price reductions or other benefits they would enjoy as a result of new entry exceed the costs they would incur in locating and supporting a new entrant. Entry sponsorship may also occur when individual customers solve their collective action problem and form a substantial group purchasing organization. In *Cardinal Health*, Judge Sporkin found that in two instances, group purchasing organizations created by retail pharmacies had sponsored the entry of new wholesalers into their regions.

More often, a new entrant will have to acquire the business it needs by inducing customers to switch their purchases from the incumbents. Its ability to do so depends in part on the reactions of incumbents, discussed below. It also depends on the strength of customer loyalty to the incumbents' products, which affects how much the entrant will have to spend (in advertising, price cuts, or other promotional efforts) to induce switching and the pace at which switching is likely to occur. To estimate these values, the defendants will have to examine past marketing campaigns in the relevant market and similar markets, consult with marketing experts, and obtain the views of customers, through surveys or testimony. In *Swedish Match*, Judge Hogan looked at the historical record in the relevant market and concluded that smaller firms “have had marginal success” in inducing consumers to switch to new brands they introduced.

### ii. Incumbents

The reactions of incumbents influence both the number of sales the entrant is likely to make and the price at which it can make them. The princi-

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281 The agencies have suggested that both customer willingness to shift and customer sponsorship of entry are more likely when customers are industrial purchasers rather than individual consumers: “Although many purchasers of differentiated consumer products are reluctant to switch from brands they know and trust, purchasers of industrial commodities may be more likely to switch and be willing to sponsor entry when they perceive a lack of competition.” Commentaries, supra note 25, at 42.

282 See supra text accompanying note 216.


284 FTC v. Swedish Match, 131 F. Supp. 2d 151, 170 (D.D.C. 2000). There was no evidence, though, that these campaigns had followed a significant price increase by rivals. When that occurs, an entrant should find it easier to induce customer switching. See supra Part II.B.3.b.v.(b).
pal factor affecting all three variables (the entrant's unit sales, its price, and the reactions of incumbents) is the elasticity of market demand. The more elastic it is, the more units the entrant can sell without taking sales from the incumbents, and the less market price will fall if the incumbents simply maintain their unit sales. With more elastic demand, therefore, the impact of entry on the incumbents' total revenues is likely to be smaller, making an aggressive reaction by incumbents less likely. By contrast, with highly inelastic demand, the entrant must take all its sales from the incumbents or price will fall drastically, making a sharp reaction by the incumbents much more likely. The elasticity of demand, in short, is a measure of how disruptive entry will be for the incumbents. In most cases, both the defendants and the government should be able to produce reasonably reliable estimates of demand elasticity.

Another relevant and relatively easy to measure factor is the extent of the incumbents' excess capacity. Incumbents are more likely to respond aggressively to entry when they have significant excess capacity. In that condition, their marginal costs are lower than when their capacity is fully utilized, enabling them to expand output more cheaply. In Swedish Match, Judge Hogan stated that because of their excess capacity, "existing loose leaf producers could simply increase production as an effective competitive response to new entrants." More generally, the lower the marginal costs of the incumbents, the more profitable it is for them to respond aggressively to entry.

A potentially relevant factor is the need to incur substantial sunk costs in order to participate in the market. McAfee, Mialon, and Williams argue that such costs increase the credibility of an incumbent's threat to respond aggressively, since they increase the losses the incumbent would incur if it chose to exit rather than compete. As many commentators have noted, however, substantial sunk costs also make exit more costly for the entrant,

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285 As Professor Carstensen emphasized to us, another significant measure is the likely course of future demand, discussed above. If demand is growing substantially, entry is less disruptive because an entrant can more easily gain the business it needs from entirely new customers rather than from customers of the incumbents. The disruptiveness of entry is also a function of its scale. As we noted earlier, the larger the entrant's minimum viable scale, the greater the threat to the incumbents' revenues. As a result, "established competitors are more likely to respond to large-scale entry with price cuts." Salop, supra note 15, at 561; see also id. at 563-64 (finding an incumbent response more likely "when the market structure . . . in the industry makes pricing coordination after entry more difficult").

286 Swedish Match, 131 F. Supp. 2d at 170.

287 McAfee, Mialon & Williams, supra note 68, at 463. The authors state:

Sunk costs generate earnings that would be lost if a firm exits the market; in this sense, sunk costs are exit barriers. Exit barriers can affect entry by influencing the incentives of incumbents. If incumbents cannot exit without considerable losses, then their threats of aggressive post-entry behavior are more credible, which deters entry and earns them higher profit.

Id. The three economists also note that "sunk costs increase an entrant's losses in the event that entry fails, which makes the incumbent's threats of aggressive post-entry behavior more frightening." Id.
increasing its willingness to remain in the market. Once entry has occurred, therefore, and both the entrant and the incumbents have incurred substantial sunk costs, the presence of these costs should not influence the likelihood of an aggressive incumbent reaction. Indeed, because these costs are sunk, they would not enter into the incumbent’s calculation of the profit-maximizing response to entry. Instead of focusing on sunk costs, it seems more useful to examine the characteristics of post-entry competition between the entrant and the incumbents. As we noted earlier, if the entrant needs to make additional investments in order to attain minimum viable scale, incumbents may react aggressively in order to deter those investments. An aggressive reaction may also make sense if it would create a reputation for aggression that would deter future entry in the relevant market or related markets. Incumbents may also react sharply if they know that the entrant cannot survive without additional capital from outside sources and that these sources might not supply it if they cannot easily determine whether the reaction is likely to persist. As these possibilities suggest, predicting the reactions of incumbents is similar to determining whether an incumbent is likely to engage in predatory pricing. Since there is now a considerable literature on the profitability of predation, it should be possible for the parties and ultimately the court to make a reasonable prediction of the incumbents’ response to entry, based on the obvious factors noted above (demand elasticity, demand growth or decline, incumbents’ excess capacity, and entrant’s minimum viable scale) as well as the considerations identified in the predation literature.

C. The Government’s Burden of Proof: High Entry Barriers

If the defendants establish a prima facie case of easy entry, the government would have the opportunity to rebut that case and, in accord with Baker Hughes, would bear the ultimate burden of proof on the issue. In order to carry this burden, the government would have to identify the bar-

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288 See, e.g., Baker, supra note 12, at 357 (“Committed entrants, in contrast, are in for the long haul. Once they enter, they expect to stay because to abandon the market would mean walking away from a substantial sunk investment.”).

289 See Bolton, Brodley & Riordan, supra note 212, at 2285-2328 (summarizing theories of rational predation validated by the recent economic literature, including “Financial Market Predation” and “Reputation Effect Predation”).

290 The empirical literature on entry appears to be less helpful. According to Geroski as well as Siegfried and Evans, it shows that incumbents are more likely to respond to entry by stepping up advertising than by cutting prices. Neither suggests, however, that the literature has produced bright-line criteria for determining when an aggressive response is likely. See Geroski, supra note 60, at 433-34; Siegfried & Evans, supra note 85, at 134-36.

291 United States v. Baker Hughes Inc., 908 F.2d 981, 982-83 (D.C. Cir. 1990); see also supra Part III.A (quoting the Baker Hughes test).
rier or barriers that would make new entry untimely, unlikely, or insufficient. With respect to each barrier or combination of barriers, moreover, the government would have to explain why it would render entry inadequate to solve the merger’s competitive problems. As the courts do now, therefore, the government would have to identify the existence of entry barriers, but unlike most judicial analysis, the government would also have to show— with economically valid theories and a preponderance of the evidence—that these barriers are sufficiently large and long lasting that they would fore- stall reasonably prompt elimination of the merger’s anticompetitive ef- fects.292

In some cases, showing such difficult entry would be straightforward, as when a statute precludes new entry or technological factors make it impossible to accomplish within a few years. In other cases, though, the government will have to combine several barriers, such as scale economies, brand loyalty, and aggressive pricing by incumbents, to make out an economically valid case of entry deterrence. For example, the government’s economic expert might testify that, because of scale economies, an entrant cannot be profitable at the premerger price level unless it captures 10 percent of the relevant market. Because of loyalty to the incumbents’ brands, however, an entrant cannot win that much business unless it can offer a price significantly below the incumbents’ prices for at least a year. Finally, because of incumbents’ past responses to entry, there is no basis for believing that an entrant could price below them for a year. To the contrary, whenever an entrant has experienced significant sales growth, the incumbents have matched its prices within six months of its entry. If the government could support such testimony with convincing evidence, it could establish that new entry was unlikely.

D. Other Probative Evidence

As in the example just described, the parties would attempt to carry their respective burdens with direct evidence of the existence and height of entry barriers and the profitability of entry. In addition, they could introduce indirect evidence such as the history of entry, the plans of potential

292 In our framework we use the term “barriers to entry” as the courts have used the term—to refer to an obstacle that makes entry less timely, less likely, or less effective, not as an obstacle that necessarily and by itself renders entry untimely, unlikely, or insufficient. In order to prove that entry is difficult, therefore, the government would not only have to identify entry barriers as we define the term but also establish their height. As the Guidelines indicate, moreover, new entry would not deter or counteract the merger’s anticompetitive effects if it failed any of the three tests of timeliness, likelihood, and sufficiency. See MERGER GUIDELINES, supra note 13, § 3.0 (explaining that entry is not easy unless it passes all three tests). The government would carry its burden of proof, therefore, if it shows that entry barriers are high enough to render entry inadequate on any of these dimensions.
entrants, and the defendants’ own evaluations of the difficulty of entry. In this section, we discuss the proper interpretation of such indirect evidence.

1. History of Entry

Past attempts to enter the relevant market may help a court evaluate the claim that entry is likely to occur in the future if the merged firm imposes a significant anticompetitive price increase.

a. Past Successful Entry

If several firms have entered the relevant market in the past and survived, it is tempting to conclude that the relevant market has no entry barriers. In fact, this may not establish that future entry would promptly counteract a postmerger price increase. Past entry may have taken considerable time to accomplish, or the entrants may have remained too small to cause the incumbents to lower their prices or improve their other terms. For that reason, Professor Schmalensee states: “In general, a clear signal of low barriers is provided only by effective, viable entry that takes a nontrivial market share.” Moreover, past entry may have occurred under quite different market conditions. As a result, the Areeda-Hovenkamp treatise declares: “The only truly reliable evidence of low barriers is repeated past entry in circumstances similar to current conditions.”

Determining whether market conditions are similar is a relatively easy task. To facilitate it, the Antitrust Section’s monograph on market power contains a checklist of ten items, covering such factors as whether past entrants were “particularly well-positioned to enter the market because they had access to a scarce asset necessary for entry (which future entrants may not have)” and whether “the previous entrants caused industry capacity to grow to the point where additional entry would lead to substantial excess capacity, making future entry substantially more risky and less likely than was previously the case.” Determining whether past entry occurred under circumstances similar to current conditions is useful not only because it establishes the precedential value of past entry, but also because it improves the assessment of current entry conditions. As Professor Baker points out, a

293 Schmalensee, supra note 177, at 45. Professor Schmalensee’s evidentiary standard focuses on the sufficiency of past entry. The timeliness of past entry must also be assessed.
294 2B AREEDA-HOVENKAMP, supra note 29, ¶420b, at 74. The treatise goes on to state: “Indeed, repeated entry during a period of competitive prices makes entry even more likely in response to future attempts at monopoly pricing.” Id. That may not be true, however, since the factors that encouraged entry to occur “during a period of competitive prices” (e.g., rapid demand growth and a fragmented market) may not be present after the merger.
295 ABA SECTION OF ANTITRUST LAW, MARKET POWER HANDBOOK, supra note 29, at 137-38.
careful analysis of past entry inevitably turns into an analysis of the likelihood of current entry.\textsuperscript{296}

b. Absence of Previous Entry

The absence of past entry does not, by itself, indicate that the market is protected by high barriers to entry. Entry may not have occurred in the past because the firms in the market were charging competitive prices and earning normal profits. In \textit{Heinz}, the district court overlooked this. It concluded that entry was "difficult and improbable,"\textsuperscript{297} in part because there "have been no significant entries into the baby food market in decades,"\textsuperscript{298} but it did not determine whether two of the incumbents, Heinz and Beech-Nut, had merely been earning competitive returns during this period. These incumbents were critical because the baby food market was divided between a dominant firm, Gerber, whose products supermarkets invariably carried, and two firms, Heinz and Beech-Nut, who often competed for the right to occupy the "second shelf" position in the baby food section.\textsuperscript{299} The real entry issue in the case was whether there would be new entry into the "second shelf" segment if Heinz and Beech-Nut merged and raised prices.\textsuperscript{300} The absence of past entry into this segment would not be determinative if the segment had been intensely competitive, as might have been the case. The court of appeals indicated that the segment was currently quite competitive.\textsuperscript{301}

\textsuperscript{296} Baker, supra note 15, at 205. He states:

Can entrants today employ the same approaches as had been successful in the past? Can they do so as cheaply as did the earlier entrants? Would entrants today reasonably expect to receive as high a price as did their predecessors, who may have entered when there was less post-entry competition or the market was larger? As these questions suggest, careful analysis of the probative value of past examples of committed entry will quickly turn into an entry likelihood analysis . . . .

\textit{Id.} Because a few examples of past entry would not, without more, resolve the entry issue, Professors Baker and Shapiro declare:

But the mere presence of some examples of entry, in which the entrants have not (yet) exited the market, should not form a basis for embracing the view that entry will solve any competitive problems caused by the merger, especially when the shares of the merging firms are large and those of the entrants are small.

Baker & Shapiro, supra note 50, at 255; see also id. ("In markets with differentiated products, the fact that entry has proven possible in one segment, such as the low-price segment, does not imply that entry would be profitable in another segment.").


\textsuperscript{298} Id.

\textsuperscript{299} Id. at 192-93.

\textsuperscript{300} See id.

\textsuperscript{301} Heinz, 246 F.3d at 718-19 ("Competition between Heinz and Beech-Nut to gain accounts at the wholesale level is fierce with each contest concluding in a winner-take-all result."). The district court's
The absence of past entry was entitled to greater weight in *Swedish Match* because Judge Hogan found that the incumbents had been charging supracompetitive prices and earning above-normal profits.\(^{302}\) Even in these circumstances, however, the lack of past entry was not decisive because the government was challenging the merger on the ground that it would raise prices *above existing levels*.\(^ {303}\) Although past entry had not eroded existing prices, future entry might still prevent an *increase* in those prices.

In *Cardinal Health*, Judge Sporkin’s analysis of the significance of the lack of past entry was spotty. At one point, he correctly recognized that the absence of historical entry had no bearing on the height of current barriers because the industry’s past behavior had been competitive.\(^ {304}\) At other points, however, he ignored this principle. He stated that several regional wholesalers had failed to achieve significant expansion on the national level because of the “economies of scale and strength of reputation” of the merging parties.\(^ {305}\) Yet if he was correct that the defendants had been pricing competitively in the past, their performance, not barriers to expansion, could explain the wholesalers’ failure to expand. He also concluded that certain distributors of related products were unlikely to enter the relevant market because they had declined an offer to supply a large HMO with pharmaceuticals.\(^ {306}\) That offer was made, however, when market prices were competitive. If the challenged mergers caused prices to rise, the distributors’ incentive to enter the market would increase.

c. *Past Exits*

Judge Hogan’s opinion in *Staples* provides an excellent illustration of the role of previous exits in establishing the likelihood of postmerger entry. After noting that “all office superstore entrants have entered within the last 11 years,”\(^ {307}\) he stressed that the vast majority of them had failed:

> [T]he recent trend for office superstores has actually been toward exiting the market rather than entering. Over the past few years, the number of office superstore chains has dramati-
cally dropped from twenty-three to three. All but Staples, Office Depot, and OfficeMax have either closed or been acquired. The failed office superstore entrants include very large, well-known retail establishments such as Kmart, Montgomery Ward, Ames, and Zayres.  

This shakeout was significant. Whether these firms failed because they chose a retail format or product selection that consumers regarded as inferior, or because they were undercapitalized, poorly managed, or operated at too small a scale, the widespread failures suggested that entry was difficult.

Although Judge Hogan did not identify the reasons why most entrants failed, he pinpointed the causes of Office 1’s failure:

By the end of 1994, Office 1 had 17 stores, and grew to 35 stores operating in 11 Midwestern states as of October 11, 1996. As of that date, Office 1 was the fourth largest office supply superstore chain in the United States. Unfortunately, also as of that date, Office 1 filed for Chapter 11 bankruptcy protection. Brad Zenner, President of Office 1, testified through declaration, that Office 1 failed because it was severely undercapitalized in comparison with the industry leaders, Staples, Office Depot, and OfficeMax. In addition, Mr. Zenner testified that when the three leaders ultimately expanded into the smaller markets where Office 1 stores were located, they seriously undercut Office 1’s retail prices and profit margins. Because Office 1 lacked the capitalization of the three leaders and lacked the economies of scale enjoyed by those competitors, Office 1 could not remain profitable.

Neither of these deficiencies—lack of capital and lack of scale—would necessarily make future entry unsuccessful. In the event of a significant, anticompetitive, postmerger price increase, a firm with the requisite capital might be able to acquire the necessary scale soon enough to be profitable. Narrowly, therefore, all Office 1’s failure indicates is that profitable entry requires greater capital and greater scale than Office 1 possessed. More broadly, however, the failure of so many entrants, even large, well-known entrants, surely casts doubt on the likelihood of postmerger entry.

2. Most Likely Potential Entrants

Some firms may be better positioned than others to enter the relevant market. They may, for example, already manufacture similar products, enabling them to expand their production facilities with less capital than a startup needs to produce the relevant product from scratch.  

Moreover, when

308 Id.
309 Id.
310 For other characteristics of relatively well-positioned entrants, see Kwoka, supra note 277, at 193-94, 201. For another, more extensive discussion of the potential competition doctrine, see Darren Bush & Salvatore Massa, Rethinking the Potential Competition Doctrine, 2004 Wis. L. Rev. 1035. Bush and Massa point out that a firm is not only particularly well-positioned to enter a market but likely to do so if it has taken substantial steps toward entry: “Sunk cost investments for entry, customer contracts, bids, entry plans, and other firm documents, such as e-mails, memos or consultant reports discussing entry, are all strong evidence of entry.” Id. at 1143. These investments—in physical capital,
an existing firm enters a new market by building a new plant, the empirical literature indicates that it tends to enter at a larger scale, grow more quickly, and survive more often than a start up. On average, therefore, the most effective entrants appear to be existing firms who diversify into new markets by erecting new plants. Not all existing firms, however, are probable entrants. The most likely entrants are firms whose products or production methods would enable them to enter more cheaply or otherwise more successfully than other firms.

When such firms can be identified, evidence about them is particularly relevant to the entry question. First, their internal evaluations of the feasibility or profitability of entry may be entitled to significant weight, at least if they were prepared prior to learning of the proposed merger. Second, the testimony of their executives may also be helpful, although it may be distorted by an interest in the outcome of the litigation. For example, if a firm produces a somewhat substitutable product, its executives may exaggerate their willingness to enter the relevant market in hopes of inducing the court to allow a merger that would raise prices and increase demand for their own product. Conversely, firms may falsely claim they would not enter the relevant market because they fear that the challenged merger would increase competition and make their subsequent entry less successful. In both Oracle and Cardinal Health, the testimony of executives of potential entrants was considered without noting such possible bias. Finally, when the defendants can identify one or more potential entrants, their path to profitability would normally be based on the characteristics of these firms.

customer relations, and business strategy—increase the likelihood of entry because they make it less expensive and less risky. They may also indicate that the firm has decided to enter.

See Siegfried & Evans, supra note 85, at 122 (citing Timothy Dunne, Mark J. Roberts & Larry Samuelson, Patterns of Firm Entry and Exit in U.S. Manufacturing Industries, 19 RAND J. ECON. 495 (1988)); see also Tor, supra note 44, at 494-96 (reviewing other evidence).

If a firm has not only considered entry, but decided on it, its plans may be especially informative. In that case, however, the Guidelines would count the firm as a participant in the relevant market, not as a potential entrant. See MERGER GUIDELINES, supra note 13, § 3.2 n.27 ("Firms which have committed to entering the market prior to the merger generally will be included in the measurement of the market."). In United States v. Long Island Jewish Medical Center, 983 F. Supp. 121 (E.D.N.Y 1997), Judge Spatt did not follow this aspect of the Guidelines. He treated two hospitals as entrants into the government’s market, not as participants, even though they were planning to enter that market whether or not the merger took place. See id. at 149 ("[T]he Court foresees a new and emerging ‘entry’ in the relevant product and geographic markets, namely, New York Hospital Queens . . . . If not already, it will shortly be a meaningful presence in Queens County, a major part of the relevant geographic market."). When a firm’s entry plans are clear, it seems better to include that firm in the market, rather than consider it in the entry section of the case, since the likelihood of its entry does not have to be determined.

3. Defendants’ Assessments

In FTC v. Alliant Techsystems Inc., the court noted that “Alliant itself has assessed the probability of new entry after the merger at only 5 percent.” Although such an assessment is likely to be rare—Alliant is the only decision we reviewed that refers to one—it could be highly probative. If a defendant predicts that entry would not occur even though the merger would have anticompetitive consequences, its assessment is likely to be genuine. Similarly, Judge Sporkin found it “compelling” in Cardinal Health that two of the defendants’ chief executives had indicated that consolidation of the industry would lead to more “rational pricing,” an adverse effect that could not persist unless entry was impeded. At the same time, an assertion that entry is unlikely should not be decisive where the defendant did not claim that the merger would produce higher prices or other anticompetitive consequences.

CONCLUSION

Antitrust law would have little purpose if barriers to entry did not exist, since even monopolists could not exploit their customers if new entrants would immediately lure them away. Judges now realize this and would not enjoin a merger of competitors without finding that the relevant market has entry barriers. Judicial analysis of the entry issue, however, has lagged behind developments in economics and the Merger Guidelines. These developments have identified the basic questions that need to be asked in assessing whether new entry is likely to eliminate a merger’s anticompetitive effects, but judges typically do not ask these questions. Since the entry section of the Guidelines was revised in 1992, for example, there have been thirty-five decisions in litigated merger cases, and none of them determined the minimum amount of business an entrant needs to be profitable at the premerger price level.

Instead of addressing the profitability of entry, most courts try to resolve the entry question by asking whether barriers to entry exist. This ap-
proach is often inadequate, however, because the courts view an entry barrier as any obstacle that makes entry less likely, less quick, or less effective. Even if such an obstacle is significant, it may not be enough, alone or in combination with other obstacles, to render entry unlikely or untimely or insufficient. High capital requirements, for instance, may make entry less likely without making it unlikely. To be sure, the courts’ focus on entry barriers does work when they correctly determine that there are no significant obstacles to entry, for in that circumstance, an anticompetitive post-merger price increase is likely to induce quick and effective entry. Even here, however, there were problems: some decisions concluded that there were no barriers to entry simply because certain firms had the ability to enter the market. The proper question, though, is not whether these firms could enter the market but whether they would do so, a question that normally cannot be answered without examining the profitability of entry.

Courts are reluctant to address the profitability of entry directly because, as many commentators have recognized, the issue is difficult for them. Unlike the Areeda-Hovenkamp treatise, however, we do not believe the issue is beyond the capacity of generalist judges—if they are given a practical method of resolving it. This Article provides such a method, combining the Guidelines’ emphasis on the profitability of entry with the courts’ focus on entry barriers. Under our approach, if the defendants contend that entry is easy, they would have the burden of producing substantial evidence that entry would meet all three of the Guidelines’ criteria—timeliness, likelihood, and sufficiency. In order to discharge this burden, moreover, they would have to identify a “path to profitability”—a business strategy that is likely to enable an entrant both to achieve profitability and to grow quickly enough to drive prices and other terms back to the premerger level in a reasonably short period of time. If the defendants supply such evidence, the government would have the ultimate burden of proof on the entry issue and would have to show not only that the relevant market is protected by one or more entry barriers but that these barriers are large enough—in size and duration—to prevent new entry from satisfying all the Guidelines’ criteria.

By adopting this framework, courts are likely to improve the rigor and reliability of entry analysis without rendering it unmanageable. This approach would focus the parties and the court on the correct economic questions and require the parties to supply better evidence on these questions. At the same time, the process is likely to be workable. It is easy to understand, it is concrete and structured, it assigns the parties distinct but complimentary burdens, and it draws on well-established principles of economics that are reflected in the Guidelines and explained in this Article. While the superiority of this approach cannot be definitively established without trying it, the current approach, which is too frequently cursory, too poorly linked to economic theory, and too likely to be inaccurate, should be reformed.
## APPENDIX A: RESULTS OF FEDERAL GOVERNMENT MERGER CASES SINCE THE 1992 GUIDELINES

<table>
<thead>
<tr>
<th>Case</th>
<th>Anticompetitive</th>
<th>Not Anticompetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTC v. Whole Foods Mkt., Inc., 548 F.3d 1028 (D.C. Cir. 2008)</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Chi. Bridge &amp; Iron Co. v. FTC, 534 F.3d 410 (5th Cir. 2008)</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>FTC v. Foster, No. CIV 07-352 JBACT, 2007 WL 1793441 (D.N.M. May 29, 2007)</td>
<td></td>
<td>FTC’s product market rejected • Entry and expansion easy</td>
</tr>
<tr>
<td>Case</td>
<td>Result</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>FTC v. H.J. Heinz Co., 246 F.3d 708 (D.C. Cir. 2001).</td>
<td>✓</td>
<td>Entry not discussed</td>
</tr>
<tr>
<td>FTC v. Tenet Health Care Corp., 186 F.3d 1045 (8th Cir. 1999).</td>
<td>✓</td>
<td>FTC’s geographic market rejected</td>
</tr>
<tr>
<td>FTC v. Tenet Health Care Corp., 186 F.3d 1045 (8th Cir. 1999).</td>
<td>✓</td>
<td>Entry not discussed (district court determined it was unlikely)</td>
</tr>
<tr>
<td>Case Study</td>
<td>Decision</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>United States v. Engelhard Corp., 126 F.3d 1302 (11th Cir. 1997).</td>
<td>DOJ’s product market rejected</td>
<td>Entry not discussed</td>
</tr>
<tr>
<td>Coca-Cola Bottling Co. v. FTC, 85 F.3d 1139 (5th Cir. 1996).</td>
<td>Competitive issues not reached; Soft Drink Interbrand Act should have been applied</td>
<td>Entry not discussed</td>
</tr>
<tr>
<td>FTC v. Freeman Hosp., 69 F.3d 260 (8th Cir. 1995).</td>
<td>FTC’s geographic market rejected</td>
<td>Entry not discussed</td>
</tr>
<tr>
<td>United States v. Mercy Health Servs., 902 F. Supp. 968 (N.D. Iowa 1995), vacated as moot, 107 F.3d 632 (8th Cir. 1997).</td>
<td>DOJ’s geographic market rejected</td>
<td>Entry easy</td>
</tr>
<tr>
<td>Dr Pepper/Seven-Up Cos., Inc. v. FTC, 991 F.2d 859 (D.C. Cir. 1993).</td>
<td>FTC improperly rejected failing company defense</td>
<td></td>
</tr>
<tr>
<td>Case</td>
<td>Result</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Olin Corp. v. FTC, 986 F.2d 1295 (9th Cir. 1993).</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

- Entry not discussed (district court determined entry would be more difficult after the merger)
APPENDIX B: THE PATH TO PROFITABILITY—A HYPOTHETICAL EXAMPLE

In a contested merger the defense can rebut the government’s case by showing that entry would be profitable and on a sufficient scale to drive prices to the premerger level within a reasonably short period of time. Under our proposed approach, the defense would have to make this showing by identifying a “path to profitability,” a business strategy that is likely to make entry both profitable for the entrant and effective in promptly eliminating the merger’s anticompetitive effects. In this Appendix, we provide a hypothetical illustration of a path to profitability.

As we have discussed, this path would be determined by the following four elements:

(1) necessary sales;
(2) future market growth or decline;
(3) the cost structure; and
(4) reactions of incumbents and customers.

Information to determine the path can be obtained in part from industry history that would include past success or failure of entry, the reaction of incumbents to entry, and the minimum necessary scale for survival. Information may be obtained from examining previous price data and from models of industry behavior.

We make the assumption that there would be no imports in response to any price increase. In the simplest case, however, the defense might be able to show that such importation would be profitable for foreign firms after a 5% or greater increase in price. The defense might furnish affidavits or testimony from one or more foreign firms that their shipments would be sufficient to bring back the price of widgets to the premerger level.

INTRODUCTION

The Federal Trade Commission ("FTC") challenges the merger of two widget companies, DEF and KLM. The FTC contends this merger would result in a substantial increase in the Herfindahl-Hirschman Index ("HHI") and a sustained price increase that new entry would not defeat. Entry is unlikely to occur according to the FTC because (1) capital requirements are large, (2) consumers are reluctant to switch to the products of new firms as reliability is important to them, and (3) it is time consuming to design a new competing widget. We agree that capital requirements are large and that
reliability is important. We do not agree that it is time consuming to design a new widget. Previous experience within the industry has shown that expense can be substituted for time so that by incurring extra expense a new and viable design can be rather quickly produced. We show here that the profits to be gained from entry are adequate to induce timely and sufficient entry in spite of the barriers to entering the widget market. In particular, entry would occur on a scale such that the postmerger price would be approximately equal to the premerger price in the second year after the merger. By the beginning of the third year, the market price would return to the premerger level. To show this, we demonstrate a path to profitability that forecasts prices and market shares as well as the profits to be made by a new entrant.

The premerger market shares of the industry firms along with the HHI index are shown in Table 1.

Table 1
PREMERGER MARKET SHARES, REVENUES, AND HHI

<table>
<thead>
<tr>
<th>Firm</th>
<th>Market Share</th>
<th>Revenues</th>
<th>HHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC</td>
<td>28%</td>
<td>215.6</td>
<td>784</td>
</tr>
<tr>
<td>DEF</td>
<td>25%</td>
<td>192.5</td>
<td>625</td>
</tr>
<tr>
<td>HIJ</td>
<td>14%</td>
<td>107.8</td>
<td>196</td>
</tr>
<tr>
<td>KLM</td>
<td>10%</td>
<td>77.0</td>
<td>100</td>
</tr>
<tr>
<td>NOP</td>
<td>8%</td>
<td>61.6</td>
<td>64</td>
</tr>
<tr>
<td>RST</td>
<td>8%</td>
<td>61.6</td>
<td>64</td>
</tr>
<tr>
<td>XYZ</td>
<td>7%</td>
<td>53.9</td>
<td>49</td>
</tr>
<tr>
<td>Sum</td>
<td>100%</td>
<td>770</td>
<td>1882</td>
</tr>
</tbody>
</table>

The FTC’s calculations of market share and the HHI index after the merger are shown in Table 2. The merger of the second and fourth largest firm would, taken alone, create an HHI of 2382, an increase of 500 points. These statistics exceed the Guidelines’ thresholds both as regards the post-merger concentration and the increase in the HHI.
Table 2
MARKET SHARES, REVENUES, AND HHI IMMEDIATELY AFTER MERGER

<table>
<thead>
<tr>
<th>Firm</th>
<th>Market Share</th>
<th>Revenues</th>
<th>HHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC</td>
<td>28%</td>
<td>215.6</td>
<td>784</td>
</tr>
<tr>
<td>DEF</td>
<td>35%</td>
<td>269.5</td>
<td>1225</td>
</tr>
<tr>
<td>HIJ</td>
<td>14%</td>
<td>107.8</td>
<td>196</td>
</tr>
<tr>
<td>KLM</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NOP</td>
<td>8%</td>
<td>61.6</td>
<td>64</td>
</tr>
<tr>
<td>RST</td>
<td>8%</td>
<td>61.6</td>
<td>64</td>
</tr>
<tr>
<td>XYZ</td>
<td>7%</td>
<td>53.9</td>
<td>49</td>
</tr>
<tr>
<td>Sum</td>
<td>100%</td>
<td>770</td>
<td>2382</td>
</tr>
</tbody>
</table>

EFFECTS ON PRICE

In this analysis, we assume the FTC has correctly predicted changes in price and costs for the first year following the merger. A simple price-concentration relationship, derived from past data, suggests that the percentage price increase would correspond to the percentage increase in the HHI raised to the 0.3 power over the likely range. This yields results similar to those of the FTC. The current price for widgets is around $1.00 each, with variation for quality differences. In the price analysis we use the price for the median quality widget. The price increase after the merger as estimated by the FTC and by our model would be 7%.

This price increase, however, is only the immediate effect of the merger. The FTC calculations fail to take into account the effects of industry growth on the revenues of existing firms and the effect of entry on the predicted price increase. By the end of two years, entry pursuant to the path to profitability we identify would bring the HHI to just over the premerger figure and would cause prices to fall to the premerger level.

THE MINIMUM VIABLE SCALE

A new entrant would be viable only if it enters at the minimum viable scale ("MVS") or grows to that scale within a few years. The MVS is 10% of premerger industry revenues. This is $77 million calculated as follows. Total industry revenues are $770 million. The entrant must cover capital costs of $20 million (which includes the extra cost of widget design) plus $3 million in normal profit (15% of capital costs) for fixed costs of $23 million on an annualized basis. Variable costs would run 70% of gross revenues. Thus, the operating profit would be 30% and total revenues
would need to be at least $77 million (30% of $77 million = $23 million) to cover fixed and variable costs.

Our forecasts indicate that industry sales in two years would be $1,023 million. This amounts to an increase of 15.3% per year. This is the rate predicted by the Widget Industry Trade Association. The three smaller existing firms have counted on industry growth (as well as an increase in market share in the case of XYZ) to reach an efficient scale.

**BUSINESS PLAN**

The five year business plan for the new entrant is shown in Table 3. In order to attract new business, the entrant QG would offer customers a 15% discount for the first two years. After that QG would be able to command the average price charged by the incumbents. We forecast that sales for QG would grow at 5% during the second year of its operation and at 6% in the years thereafter. This is significantly less than the industry growth rate, which is about 15% for the first two years and 10% thereafter. Thus, we assume that the growth in sales for QG is less than the average for the industry. Variable costs for QG increase at just over 5% per year. We regard these as conservative assumptions. We project that while QG would lose money over the first two years, it would have a net profit of $5 million over the five-year planning period after covering capital costs (including a normal return) and that its profit would be $2 million in net present value terms, using a discount rate of 15%, which is generally regarded as the hurdle rate for firms in this industry.
Table 3
FIVE YEAR BUSINESS PLAN FOR THE ENTRANT

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>1.00</td>
<td>1.07</td>
<td>1.01</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Revenue Required For MVS</td>
<td>no entry</td>
<td>77.00</td>
<td>77.00</td>
<td>77.00</td>
<td>77.00</td>
<td>77.00</td>
</tr>
<tr>
<td>Forecast Sales</td>
<td>no entry</td>
<td>70.68</td>
<td>74.21</td>
<td>78.67</td>
<td>83.39</td>
<td>87.56</td>
</tr>
<tr>
<td>Capital Cost Annualized</td>
<td>no entry</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Variable Costs</td>
<td>no entry</td>
<td>49.48</td>
<td>51.95</td>
<td>54.55</td>
<td>57.82</td>
<td>60.71</td>
</tr>
<tr>
<td>Total Costs</td>
<td>no entry</td>
<td>69.48</td>
<td>71.95</td>
<td>74.55</td>
<td>77.82</td>
<td>80.71</td>
</tr>
<tr>
<td>Operating Profit</td>
<td>no entry</td>
<td>21.20</td>
<td>22.26</td>
<td>24.12</td>
<td>25.57</td>
<td>26.84</td>
</tr>
<tr>
<td>Accounting Profit or Loss</td>
<td>no entry</td>
<td>1.20</td>
<td>2.26</td>
<td>4.12</td>
<td>5.57</td>
<td>6.84</td>
</tr>
<tr>
<td>Profit Required for Competitive Return:</td>
<td>no entry</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Economic Profit or Loss</td>
<td>no entry</td>
<td>-1.80</td>
<td>-0.74</td>
<td>1.12</td>
<td>2.57</td>
<td>3.84</td>
</tr>
<tr>
<td>Present Value of Economic Profit (discounted at 15%)</td>
<td>NPV Over 5 Years:</td>
<td>2.00</td>
<td>-1.56</td>
<td>-0.56</td>
<td>0.74</td>
<td>1.47</td>
</tr>
<tr>
<td>Industry Revenues</td>
<td>770.00</td>
<td>888.58</td>
<td>1023.64</td>
<td>1126.01</td>
<td>1238.61</td>
<td>1362.4</td>
</tr>
</tbody>
</table>

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SUFFICIENCY OF ENTRY

The business plan shows that entry is profitable over a five-year planning period. The price increase after the merger is that predicted by the FTC, which is consistent with our model. That model predicts that the entry of QG would result in a price decrease to nearly the premerger level in the second year after the merger. The effect of the entry of QG on the industry in year two is shown in Table 4.

Table 4
MARKET SHARES, REVENUES, AND HHI IN THE SECOND YEAR AFTER THE MERGER

<table>
<thead>
<tr>
<th>Firm</th>
<th>Market Share*</th>
<th>Revenues</th>
<th>HHI</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC</td>
<td>20%</td>
<td>204.73</td>
<td>400</td>
<td>1.01</td>
</tr>
<tr>
<td>DEF</td>
<td>33%</td>
<td>337.80</td>
<td>1089</td>
<td>1.01</td>
</tr>
<tr>
<td>HIJ</td>
<td>15%</td>
<td>153.55</td>
<td>225</td>
<td>1.01</td>
</tr>
<tr>
<td>KLM</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>1.01</td>
</tr>
<tr>
<td>NOP</td>
<td>8%</td>
<td>76.77</td>
<td>64</td>
<td>1.01</td>
</tr>
<tr>
<td>RST</td>
<td>8%</td>
<td>81.89</td>
<td>64</td>
<td>1.01</td>
</tr>
<tr>
<td>XYZ</td>
<td>9%</td>
<td>92.13</td>
<td>81</td>
<td>1.01</td>
</tr>
<tr>
<td>QG</td>
<td>7%</td>
<td>74.21</td>
<td>49</td>
<td>0.86</td>
</tr>
<tr>
<td>Sum</td>
<td>100%</td>
<td>1023.64</td>
<td>1972</td>
<td></td>
</tr>
</tbody>
</table>

*The numbers in this column are rounded off so that revenues do not correspond exactly to market shares.

These market share predictions take into account entry, industry growth, and the relative expansion and contraction of the existing firms. All firms except the new entrant would have reached the MVS. By the following year, QG would have reached this scale. The largest firm, ABC, has the oldest equipment and is likely to lose market share over the next two years, as it has done in recent years. HIJ, the most recent previous entrant with the most modern equipment, has been the fastest growing firm and should be able to maintain or expand market share. These predictions accord with the testimony of industry experts. Full efficiencies from upgraded equipment and the merger should be felt after two years and would exert additional downward pressure on price, reducing it to the premerger level by the start of year three.
LIKELIHOOD OF ENTRY

*Profits Are Attractive for Entry*

Even without the merger, the existing firms with greater than 10% of current revenue appear to make excess profits. Their profit rates are slightly greater than firms with less than 10% of revenues and greater than firms in other related industries with similar risk characteristics. The larger firms ABC and DEF currently make 16% on equity as reported in their annual reports. This is greater than the 14% made by firms in other industries that are in the same risk class. HIJ, the newest firm, is currently making 18% on equity. The smaller firms, with the exception of XYZ, are making 14% on equity.

With the predicted price increase, profits would increase. Our model predicts that profits would grow for all firms at about the percentage determined by the natural log of the price increase. With a price increase of 6%, then, profits would increase by about 1.8%. The new profit figures for the various firms would be as shown in Table 5.

<table>
<thead>
<tr>
<th>Current Profit Rate*</th>
<th>Predicted Profit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>19.8</td>
</tr>
<tr>
<td>16</td>
<td>17.8</td>
</tr>
<tr>
<td>14</td>
<td>15.8</td>
</tr>
</tbody>
</table>

* Derived from annual reports and SEC filings of all listed companies

Since the current profit rates also existed at the time of the entry of HIJ and since the industry is growing, entry is likely to occur even without the merger. With the merger, profit rates for all firms increase and are substantially above comparable rates for firms of similar risk characteristics. Entry at about the scale of HIJ would be able, at a minimum, to repeat the experience of HIJ.

*The Merged Firm Would Have Lower Costs and This Would Put Downward Pressure on Price*

The FTC agrees that there are operating economies that would be achieved from the merger. This would reduce the effect of greater market power, as it would put downward pressure on price. The FTC’s calculations
(and ours) show that this would reduce the postmerger price increase from 7% to 6% by the end of year one. This price decline would by no means deter entry. By the beginning of year three, the full achievement of the merger’s efficiencies and the growth of QG would depress price to the premerger level.

The Reaction of Incumbents

The reaction of incumbents to other entry, including the entry of HIJ, did not result in price drops sufficient to reduce these firms to unprofitability. The two largest firms would be unlikely to act very aggressively, moreover, as their variable costs appear to be somewhat higher than most of the other firms. In addition, aggressive pricing is unlikely to cause the rapid withdrawal of the new entrant since it should be able to secure substantial funding resources. This is based on testimony from bankers in response to questions concerning our projected scenario. Thus, once a firm has entered, it would take considerable time to dislodge. Finally, the industry is expected to grow significantly in coming years, allowing QG to become established without cutting into the revenues the incumbents earned prior to the merger. This, too, would make an aggressive reaction less likely.

The Reaction of Customers

QG should be able to induce customers to try its widgets by offering a promotional discount of 15% for two years. As industry experts testified, HIJ was able to gain significant business by offering a comparable discount for its first two years. Customers should be even more interested in placing some of their business with QG if QG enters in the wake of a 7% price increase by DEF and KLM.

Timeliness of Entry

We reject the FTC’s claim that design difficulties would prevent timely entry. The experience of HIJ shows that the commitment of resources can reduce the time needed to design a new widget. Because entry would be timely, price would fall to a level slightly above the premerger level in year two and would return to the premerger level at the beginning of year three.
CONCLUSION

This analysis shows that although the proposed merger would result in a substantial increase in concentration, entry is likely to occur if the merged firm raised prices significantly. In addition, such entry would reduce both concentration and price in the market for widgets in a manner that is sufficient and timely. As a result, even if the FTC has established a presumption of anticompetitive effects, it has been rebutted.