1992

Entry Analysis under the 1992 Horizontal Merger Guidelines

Jonathan Baker

ENTRY ANALYSIS UNDER THE 1992 HORIZONTAL MERGER GUIDELINES

JANUSZ A. ORDOVER*
JONATHAN B. BAKER*

The Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, released April 2, 1992,[1] devote substantially more attention to the analysis of entry than did the 1984 Department of Justice Merger Guidelines they updated. The 1984 Guidelines allocated two brief paragraphs to this important aspect of merger assessment and relegated the economic analysis to two rather dense footnotes. The heightened role for entry in the 1992 Guidelines reflects the growing significance and sophistication of entry analysis in judicial decisions and enforcement agency practice. This article describes the way the economic analysis of the role of entry in the 1992 Merger Guidelines modifies and extends that of the 1984 Guidelines.

I. UNCOMMITTED VS. COMMITTED ENTRY

The new Guidelines structure the analysis of entry by distinguishing between two types of supply responses, which are termed "uncommitted" and "committed" entry. Uncommitted entrants can engage in "hit and run" entry. These are firms that would respond to a short-term profit opportunity by producing in the relevant market, even were that profit opportunity likely to disappear shortly after their entry. Committed entrants, in contrast, enter for the long haul. These firms are concerned with long-run profit opportunities; they do not envision exiting the market once they have entered, although their analysis of profitability of entry does reflect their expectations about post-entry competition.[2]

* Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, Department of Justice and Special Assistant to the Deputy Assistant Attorney General, respectively. The views expressed in this article are those of the authors and do not necessarily reflect the views of the Department of Justice or the Antitrust Division. This paper extends the remarks of Janusz A. Ordover before the ABA Section of Antitrust Law, April 2, 1992, Washington, D.C.

[1] *Reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,104 [hereinafter 1992 Guidelines].

[2] For a more technical discussion of this distinction and other issues relating to entry, see Robert D. Willig, *Merger Analysis, Industrial Organization Theory, and Merger Guidelines*, in BROOKINGS PAPERS ON ECONOMIC ACTIVITY—MICROECONOMICS 1991 at 281.

The terminology chosen by the Guidelines to distinguish between the two types of supply responses emphasizes that a committed entrant makes a long-term commitment to the relevant market in order to participate in it. In contrast, an uncommitted entrant can quickly and reasonably costlessly enter and exit; such a firm is not committed to the relevant market. For this reason the two categories of entrants are demarcated according to the irreversible investments (sunk expenditure) they must make in order to sell in the relevant market, the time they will require to produce and sell their output, and the costs they would bear in the event of an exit. In particular, if the prospective entrants' sunk costs could not be recouped within one year of the commencement of its supply response, assuming a "small but significant and nontransitory" (SSNIP) price increase above the currently prevailing price(s) in the relevant market, hit-and-run entry is unlikely to be profitable and the firm would not be considered an uncommitted entrant.[3]

II. UNCOMMITTED ENTRY

The concept of an uncommitted entrant, new to the 1992 Guidelines, generalizes the idea of "production substitution" from the 1984 Guidelines. Uncommitted entry includes traditional production substitutors—firms that shift the use of existing assets to the relevant market from the production of some other goods.[4] For example, if a firm currently manufacturing metal mailboxes could quickly and cheaply switch its metal stamping equipment to the production of hubcaps, the firm would be treated as an uncommitted entrant into the hubcap product market.

The concept of uncommitted entry extends beyond production substitution in two respects, however. First, uncommitted entry incorporates the possibility that existing assets could be extended rapidly and cheaply to the relevant market of concern.[5] In some branded consumer products industries, for example, the primary sunk expenditure facing a new entrant could be creating a brand name and an associated reputation for quality. In such a case, a firm able to extend an existing brand to a new product would be an uncommitted entrant. In addition, the concept of uncommitted entry incorporates the possibility that "de novo" entry could be accomplished quickly with little sunk cost.[6] If the assets required to

[3] 1992 Guidelines § 1.32. As a rough rule of thumb, if sunk costs of entry exceed 5% of an entrant's likely annual revenues, this definitional test will not be met and the supply response will be treated as committed.

[4] 1992 Guidelines § 1.321.

[5] *Id.*

[6] 1992 Guidelines § 1.322.

do so are available to any number of entrepreneurs, entry is truly easy and approximates the "contestable market" benchmark.[7]

The two types of supply responses distinguished in the 1992 Guidelines, uncommitted and committed entry, enter the analysis of an acquisition's likely effects on competition in distinct ways. Uncommitted entrants are treated as market participants because they constrain current industry pricing.[8] Once these firms are identified, they are assigned market shares. An uncommitted entrant would normally be assigned a share based upon the capacity it would devote to the relevant market were price to increase by a SSNIP.[9] For a production substitutor, this calculation requires an analysis of the profitability of uncommitted entry, taking into account the forgone profit (opportunity cost) from diverting capacity away from its prior use.[10] The production substitutor's market share thus turns on its divertible capacity, which could be less than the capacity physically available for production substitution when it would not be profitable to reallocate capacity across markets in the event of a SSNIP. Because uncommitted entrants are assigned market shares, their competitive significance is taken into account in the first instance through their effect on industry concentration, and in addition, later in the analysis, through the analysis of their market conduct in the overall assessment of the likely competitive effects of an acquisition.[11]

III. COMMITTED ENTRY

Committed entrants are treated differently by the Guidelines because such firms are too far removed from actual entry to be assigned reasonable market shares. The Guidelines instead adopt an analytical approach that assesses whether committed entry would counteract or deter any competitive problem that would otherwise be raised by the transaction. A three-part test is employed: the supply-side force of committed entry will ensure that market power could not result from a merger if and only if that entry is timely, likely, and sufficient in its magnitude, character, and scope.[12] Although the 1984 Guidelines mentioned many of the fac-

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[7] *See* William J. Baumol, John Panzar & Robert D. Willig, *Contestable Markets: An Uprising in the Theory of Industry Structure: Reply*, 73 AM. ECON. REV. 491 (1983).

[8] Other analytical approaches to merger analysis would take production substitution into account in market definition. The Guidelines place the focus of market definition on demand substitution, while accounting for supply responses in later steps of the analysis. *See* 1992 Guidelines § 1.321 n.14.

[9] *See* 1992 Guidelines § 1.41.

[10] This analysis will commonly be facilitated by the fact that the firms have existing production operations, from which their costs and capacities can be determined.

[11] 1992 Guidelines § 2.0.

[12] *Id.* § 3.0.

tors relevant to determining whether this test is satisfied, the earlier document did not provide either a fully articulated framework for understanding the relevance of these factors or a logically consistent explanation of the way entry might solve a competitive problem resulting from merger.

In general, entry will be considered timely only if significant market impact can be achieved within two years of initial planning;[13] the two year period is unchanged from the requirement of the 1984 Guidelines. This horizon is not a tolerance level for short-term anticompetitive price increases. Rather, the Guidelines recognize that entry that would take effect in the distant future in response to the exercise of market power is unlikely to deter an anticompetitive merger or deter the exercise of that market power in the first instance. The 1992 Guidelines note one exception to this rule of thumb: in a durable goods market in which buyers may make investments to extend the useful life of existing products, this intertemporal substitution opportunity may imply that entry in the more distant future would be sufficiently timely to deter competitive harm.

Committed entry is considered likely under the 1992 Merger Guidelines if entry would be profitable in the post-merger environment. This analysis is performed at premerger prices, thereby correcting a logical inconsistency in the approach to entry of the 1984 Merger Guidelines. The older document evaluated entry profitability assuming a SSNIP lasting for a substantial period of time. This assumption failed to recognize that an entrant who plans to remain in the relevant market evaluates the profitability of entry at the long-run post-entry price, not at an elevated price that might occur through the short-term exercise of market power before entry competes away that market power. In addition, the earlier assumption failed to recognize that the entrant would consider the effect of its entry, and the concomitant addition to industry output, on the market price.

The 1992 Merger Guidelines instead look to the premerger price in evaluating the likelihood of entry. This focus recognizes first, that entry will successfully solve a competitive problem resulting from merger only if it returns the market price to the premerger level or below, and second, that the committed entrant in for the long haul cares only about the long-run price likely to prevail. Accordingly, committed entry is relevant to merger analysis only if it would be profitable in the post-merger economic environment assuming that the entrant would receive no more than the premerger price.

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[13] *Id.* § 3.2.

Entry can be profitable at the premerger price in the post-entry economic environment even if it was not profitable at the same price in the pre-entry merger environment; this change in incentives is the focus of likelihood analysis. If the merger has the feared anticompetitive effect, industry output will decline, thereby creating additional potential sales for an entrant beyond what had previously been available.[14] The result is to make entry more attractive than it had previously been. In short, the change in market structure resulting from the acquisition creates a gap in sales, raising the revenue potential for an entrant and softening the competitive environment facing the prospective new competitor. The Guidelines summarize this point by noting that a merger can create an additional "sales opportunity" for an entrant.[15]

The likelihood of committed entry is assessed by analyzing whether the sales opportunities available to an entrant are sufficiently large as to make entry profitable. To make this comparison, the Guidelines introduce a concept termed "minimum viable scale" (MVS).[16] The MVS is the smallest level of annual sales, made year after year, that would allow the entrant to break even at premerger prices.[17] In other words, MVS is the smallest scale of production at which average costs equal the premerger price.[18] MVS will usually be expressed as a percentage of total sales in the relevant market.

MVS will differ depending upon the production and distribution technology the entrant chooses to adopt. If the fixed costs of entry are large, or the marginal costs of production are high at low levels of output, for example, MVS will be relatively large.[19] For this reason, MVS must be determined with reference to some "entry alternative," defined in the

[14] If industry demand were perfectly inelastic, the additional sales opportunities created by the competitive effect of concern would result entirely from the desire of customers to buy at a lower price, and not from the fact that some customers would go unserved at the higher price.

[15] 1992 Guidelines § 3.3.

[16] *Id.*

[17] Minimum viable scale is not the same thing as minimum efficient scale. Minimum efficient scale, defined as the smallest scale at which average costs are minimized, is affected only by the way costs change with output. Minimum viable scale, in contrast, depends upon the premerger price as well as on cost. (Both concepts may also depend on demand, moreover, to the extent the time pattern of sales affects costs.)

[18] 1992 Guidelines § 3.3 n.29.

[19] *Id.* § 3.3 n.31. Thus, the MVS will be relatively high, and entry less likely, to the extent the entrant's costs of variable inputs exceed the costs to incumbents because of difficulties in obtaining inputs in short supply. If the entrant's cost disadvantage would make incumbents respond aggressively to entry, that factor may reduce the available sales opportunities. To the extent this cost disadvantage raises a foreclosure problem, moreover, it is also addressed by the sufficiency analysis.

Guidelines as the means a potential entrant would practically employ in order to participate in the market.[20] The Guidelines suggest that recent examples of entry, whether successful or unsuccessful, might provide a model from which the characteristics of a plausible entry alternative could be identified.[21] Because MVS depends upon firm average costs, its calculation must take into account the opportunity cost of capital to the firm. For a given probability of business failure, that opportunity cost will be higher the greater the fraction of fixed costs that are sunk, causing the loss of the sunk investments.

The likelihood of entry is determined by comparing the MVS—the minimum fraction of the market an entrant must receive to break even at premerger prices—with the sales opportunities available in the post-merger environment. Those sales opportunities are set initially with reference to the feared output reduction should the competitive effect of concern come to pass; the Guidelines instruct that this figure will typically be estimated as 5 percent of total market sales. But this figure can be adjusted upward to reflect long-term market growth, the entrant's ability to divert sales securely from incumbents through long-term contracts with buyers, or any anticipated accommodation of entry by incumbents. It can be adjusted downward as well, to reflect long-term market decline, foreclosure of the entrant from a portion of the market by long-term contracts between buyers and incumbent sellers, or the expectation of an aggressive response by incumbents to entry.

If the minimum viable scale of entry exceeds the sales opportunities available to an entrant, entry will not be likely. Under such circumstances, the entrant will not enter because it cannot find a profitable scale. If it enters at a small scale, no greater than the available sales opportunities, its costs will exceed the premerger price. But if it enters at a large scale, sufficient to break even at the premerger price, its output will exceed the available sales opportunities, thereby depressing the price to a level below the premerger level and making it impossible for the entrant to break even.

Although the concepts of minimum viable scale and sales opportunities are defined with care, the Guidelines do not contemplate that the govern-

[20] 1992 Guidelines § 3.1.

[21] *Id.* Although past examples of entry are relevant to the computation of the MVS, MVS cannot always be inferred from the minimum market share of successful past entrants; the MVS is not a "survivorship test." Only by coincidence would past entrants, at the time they made their entry decisions, anticipate receiving the premerger price as the long-run price (other than in the unlikely circumstance of an industry characterized both by perfectly competitive behavior and constant returns to scale). Moreover, past entrants may have adopted entry alternatives that are no longer available or are more expensive today.

ment or the merging parties attempt to estimate with mathematical precision the effect of factors that are unquantifiable. The Guidelines methodology seeks to structure the analysis of entry profitability in order to highlight the key factors on which the likelihood analysis depends. A spreadsheet analysis of MVS, for example, may show that the calculation is sensitive to the level of fixed expenditures required to create a viable brand name, and not sensitive to the assumed rate of return on capital. But MVS can also be estimated, and compared with sales opportunities, through the testimony of knowledgeable industry experts. Industry witnesses who believe an entrant would need a minimum market share to break even post-merger can be asked to explain why that share is so low or high. Such witnesses can also discuss the extent of the price depression that could be expected to follow entry at a particular scale. Whether the evidence employed is quantitative or qualitative, the likelihood analysis of the Merger Guidelines will organize that evidence in order to focus the analysis of entry profitability on those factors on which profitability most depends.

Finally, the Guidelines require that committed entry be sufficient.[22] Even if entry would occur quickly and would be profitable, it need not be sufficient to cure the potential competitive problem raised by the merger. For example, only one entrant may be able to employ an entry alternative that has an MVS less than the available sales opportunities. Unless that entrant would, following entry, find it profitable to expand output beyond its minimum viable scale, entry may not be sufficient to ensure that the post-entry price does not rise above the premerger price. Such a situation could arise when incumbents control many of the assets required for entry. A sufficiency question may also arise when the competitive effect of concern is localized within the market, for example when a merger between two sellers of differentiated products is thought likely to lead to a unilateral increase in the price of one of the firm's products. For entry to cure or deter this exercise of market power, the entrant must introduce a product similar or close to the product whose price, it is feared, will rise.[23]

IV. CONCLUSION

The 1992 Merger Guidelines create an articulated economic framework for analyzing the role of entry in merger analysis. The new analysis

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Similarly, MVS cannot be inferred from premerger information on profits or price-cost margins.

[22] 1992 Guidelines § 3.4.

[23] As a matter of theory, the timeliness requirement can be thought of as an intertemporal sufficiency requirement; entry will not be sufficient if it is delayed.

calls for no facts that were not relevant to the analysis of ease of entry under the 1984 Merger Guidelines. But the new framework provides a logically consistent explanation of the way the prospect of entry may deter or counteract possible harmful competitive effects of mergers, and it organizes those facts in order to facilitate the analysis. In these respects, the 1992 Guidelines advance beyond their predecessor.