INNOVATION MARKETS AND MERGER ENFORCEMENT: CURRENT PRACTICE IN PERSPECTIVE

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I. INTRODUCTION

This article describes the history and current role of “innovation markets” in U.S.1 antitrust merger enforcement. Part I introduces the concept. Part II gives a brief history, and an account of the current status of “innovation market” enforcement, with due attention to the relatively sparse case law, statutory developments, agency guidelines, and agency enforcement practice. Part III provides an analytical overview of economic and legal issues.

A. An Unsettled Doctrine

We must begin by asking: What in the world is an “innovation market”? “Innovation market” is a semantically confused, unhappy term, and anything but self-defining. To claim that “antitrust should be concerned with innovation markets” is to assert, in a shorthand way, two things:

• First, that antitrust ought to be concerned about agreements and transactions that are likely to result in a reduction in resources devoted to research and development in definable lines of research, or in the elimination of one or more parallel research tracks, when such a reduction of resources, or elimination of a line of research, is likely to have an adverse effect on price or nonprice competition in a product market at some time in the future (whether or not the

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product market in question exists or does not exist at the time when enforcement action is taken); and

- Second, that the doctrine of potential competition does not suffice to address the adverse competitive effects of many agreements and transactions that reduce competition in innovation.

Conversely, to deny that “antitrust should be concerned with innovation markets” is a shorthand way of claiming that the doctrine of potential competition, together with other, conventional tools of antitrust analysis, does suffice to address antitrust concerns about agreements and transactions that may suppress innovation.

Some who oppose the “innovation market” construct believe that there is a conceptual, statutory bar against antitrust concern with “markets” in which no products exist and no one buys or sells property, be it tangible or intangible. Others argue that, whether or not there is any such absolute statutory bar to “innovation market” analysis, such analysis is inevitably far too speculative to justify litigation, and enforcement in pure “innovation market” situations is as likely to harm as to enhance the competitive process. One observer sees the differences among commentators as boiling down to a dispute about whether the facts about future anticompetitive effects are ascertainable.

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2 The doctrine of potential competition appears to require, among other things, (a) a current relevant U.S. market that is monopolized or otherwise performing noncompetitively, and (b) likely entry into that market (either in reality, or in the perception of incumbents, as the case may be) of a party to the challenged transaction. See ABA Section of Antitrust Law, Antitrust Law Developments 354–61 (5th ed. 2002) (explaining two variations of the potential competition doctrine—actual potential entry and perceived potential entry).

By contrast, the concept of “innovation markets” addresses a situation where either there is no current U.S. market at all for the products in question, or a party to the transaction is not a potential entrant, and yet the transaction, agreement, or conduct still threatens innovation that would be beneficial to U.S. consumers.

Some have claimed that most of the recent “innovation market” cases could have been brought under potential competition theory. M. Howard Morse, The Limits of Innovation Markets, at 7–8, available at http://www.dbr.com. See also John E. Kwoka, Non-Incumbent Competition: Mergers Involving Constraining and Prospective Competitors, 52 Case W. Res. L. Rev. 173 (2001) (arguing that advances in economic theory and other considerations demonstrate that there is more vitality in potential competition doctrine than courts and agencies have perceived).


Relevant case law is very sparse and highly inconclusive. Commentators are divided, pretty much down the middle. Meanwhile, the two federal agencies have had an active enforcement program in “innovation market” cases. Their record in securing settlements is good; there is almost no track record in the courts; and commentators are divided as to whether these enforcement actions have been beneficial to the public interest.

B. Four Areas of Agreement

Although the state of the law on “innovation markets” is highly unsettled, there are in fact important areas of general consensus. Commentators who reach different conclusions about the proper role of “innovation markets” are, for the most part, drawing differing conclusions from the same common premises, which may be summarized as follows.

1. A “Market,” Not a Market

An “innovation market” is not a product market. In an “innovation market” no one buys or sells physical products, like ships or shoes or sealing wax. Nor is it a service market; in an “innovation market” no one buys or sells services, like those offered by tinkers, tailors, soldiers, and spies. And an “innovation market” is not a technology market; in an “innovation market” no one buys or sells intellectual property, like patent licenses.6

In an “innovation market” no one buys or sells anything; rather, one prepares to sell innovative products7 at some future time. Trying to make better products in order to achieve success in future competitive rivalry is, of course, one among any number of ways in which a firm may take present steps to enhance its future competitive position. These include finding ways to cut production costs, negotiating favorable supply contracts, investing in new capacity, discovering creative ways to bundle (or to unbundle) products to make them more attractive, and investing in advertising to build a brand image.8


7 They may be completely new products, performing functions not performed by any existing product at the time the “innovation market” analysis is performed, or they may be products that perform old functions in some significantly better way than any existing product. The distinction, of course, is not hard and fast, nor is it particularly relevant to any antitrust issue.

8 See Hoerner, supra note 3, at 51.
Attempting to perform these and other functions better than one’s rivals is an important part of competing. Accordingly, antitrust’s concerns extend beyond the moment of competitive rivalry when one is trying to sell an existing product to a customer and thus to win business from a rival. Antitrust issues may be triggered by improper limitations on competitive rivalry at the stage when the firm is merely preparing to sell a product. For example, an acquisition of stock in a competitor that threatens the target’s efforts to cut costs may be an antitrust problem.9 Even so, one would not speak of a “cutting production costs market” or an “investment in brand image market.” An “innovation market,” however, is no more a true market than these two examples are markets. All involve rivalrous behavior, in the nature of preparation to compete effectively, rather than rivalry at the point of immediate sale.

To make the claim that antitrust ought to be concerned with innovation markets is to assert that innovative activity is so uniquely important and socially valuable that antitrust ought to pay very special attention to it.10 To make that assertion using “market” terminology is awkward and potentially confusing, but does little harm so long as we all know what we are talking about.

2. An Antitrust Anomaly: Maximizing Input Rather than Output

A principal goal of antitrust is to maximize allocative efficiency by preventing artificial increases in price or, what amounts to the same thing, artificial limitations of output.11 Antitrust also aims to promote productive efficiency; in other words, for any given level of output, the less input, the better.12 Seen in that context, an enforcement program intended to protect “innovation markets” is an apparent anomaly, in that such a program focuses on input rather than output, and prefers more input to less input—that is, more parallel lines of research to fewer

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Despite the signal importance of innovation, it might plausibly be argued that public policy should be equally concerned with any conduct that harms a company’s ability to prepare to compete, be it the ability to innovate, or to cut costs, or to invest in brand image, or anything else. It is not the purpose of this article to take a position on that debate, nor is the phrase “innovation market” of my invention. My purpose at this point is simply to explain the concepts that underlie that rather confusing term.

11 See, e.g., U.S. Dep’t of Justice & Federal Trade Comm’n, Horizontal Merger Guidelines § 0.1 (1992) [hereinafter 1992 Merger Guidelines] (“The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise.”).
12 See, e.g., id. § 4.
lines of research, and more resources devoted to R&D rather than fewer resources—at least within some range.

3. Problematic Relation Between Market Structure and R&D Levels

Conventional antitrust merger enforcement rests on a rough consensus about the relation of market structure to market performance. By contrast, while “innovation market” enforcement aims to regulate the structure of innovation markets so as to enhance the level of resources devoted to research and development, “[t]here is not yet a universally accepted consensus as to the kind of market structure that best facilitates innovation, although many believe that a moderately concentrated structure—with the top four firms holding perhaps a fifty percent aggregate market share—is likely to be the most fertile ground for innovation.” Richard Rapp makes a similar point, finding the “innovation market” approach to be “a leap into the unknown, with a potential for harm to economic welfare as great as any potential benefit.” “When the enforcement agencies require merging firms with overlapping research projects to license or divest, they cannot know whether their actions will help or hinder innovation,” Rapp asserts.

One must be careful, however, not to exaggerate the differences between “innovation market” analysis and conventional analysis, involving present competitors and a focus on price competition. Technological change is so important a part of today’s economy that even conventional enforcement may require agencies and judges to try to predict the inherently unpredictable course of future technology.

4. Optimal Level of R&D Hard to Determine

Even if one knew what market structures were reliably associated with what level of R&D, one would still not know what level of R&D in any particular product area would be socially optimal. The point is further discussed in Part III, below.

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5. Same Premises, Opposing Conclusions

For the reasons outlined above, everyone agrees that “innovation markets” enforcement is no sport for dullards. Many, in fact, urge that the complexities and imponderables are so great that any enforcement is as likely to do harm as good, and that the exercise is therefore best left undone. Others, particularly at the two federal agencies, claim that prudent enforcement can reliably promote innovative efficiency and thus serve the public interest.

The debate is far from resolution.

II. INNOVATION MARKET ANALYSIS:
BRIEF HISTORY AND CURRENT STATUS

A. Early Cases

Stretching just a bit, proponents of “innovation market” analysis draw comfort from several classic antitrust cases—and strain to distinguish or downplay another. In the Second Circuit’s 1945 Alcoa monopolization opinion Judge Learned Hand explicitly recognized, as a value promoted by antitrust, that “rivalry is a stimulant to industrial progress.”

If antitrust aims to promote not only price competition and output maximization of existing products but also “industrial progress”—that is, better products—then an agreement among rivals to limit such progress is an antitrust problem. In 1969, a California district court approved an Antitrust Division consent decree in a case alleging that automobile manufacturers had engaged in an unlawful “conspiracy to eliminate competition in research, manufacture and installation of motor vehicle air pollution control equipment.” And in General Motors the FTC approved a GM/Toyota joint venture because, among other things, of its perceived positive impact on new manufacturing techniques in U.S. auto production.

“Innovation market” proponents also see the General Dynamics merger case as a significant development. Although the case had nothing to do with product innovation, it did emphasize that merger analysis is to be dynamic (i.e., forward looking), not static (based only on facts that

16 United States v. Aluminum Co. of Am., 148 F.2d 416, 427 (2d Cir. 1945).
exist at or prior to the time of the challenged merger). Thus, in Babcock & Wilcox the court was willing to assume “a market for research and development of power generation equipment,” but found that the plaintiff had not shown that the challenged transaction threatened competition in such a market.

Despite the signs and portents supporting innovation market analysis in these cases, innovation market skeptics draw comfort from the Second Circuit’s 1981 decision in SCM v. Xerox. There SCM tried to force Xerox to license patent rights, claiming that Xerox, as a monopolist, had a legal duty to license and that, in any event, the patents in question were unlawfully acquired from the patentee. SCM’s rather adventuresome theory was that, even though the patent acquisitions occurred many years before the existence of the relevant market defined in the complaint, Xerox knew when it acquired the patents that they would ultimately afford monopoly power, and hence its acquisition of monopoly power was willful.

The court saw the case as turning on the legality of the patent acquisitions at the time they occurred, and rejected the plaintiff’s theory that Xerox’s right to refuse to license should be abridged merely because it was not the original patentee:

In scrutinizing acquisitions of patents under § 2 of the Sherman Act, the focus should be upon the market power that will be conferred by the patent in relation to the market position then occupied by the acquiring party. . . . Whether limitations should be imposed on the patent rights of an acquiring party should be dictated by the extent of the power already possessed by that party in the relevant market into which the products embodying the patented art enter. . . . Therefore, that Xerox acquired the patents . . . at least eight years prior to the appearance of the relevant product market and submarket over which those patents eventually afforded it monopoly power would seem to dispose entirely of SCM’s 1969 exclusion claim under § 2.

The court reached the right result but for the wrong reason: whether or not a “relevant market” existed at the time of Xerox’s patent

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20 See Dahdouh & Mongoven, supra note 4.
22 SCM Corp. v. Xerox Corp., 645 F.2d 1195 (2d Cir. 1981). For example, Hoerner, supra note 3, at 50–55, takes a different view than that expressed here about SCM in particular and the validity of “innovation markets” as a legal construct. He emphasizes a passage in SCM in which the court asserts, uncontroversially, that if the acquisition of a patent is lawful, the continued holding of the patent cannot be unlawful, even if circumstances change. But that does not answer the question whether the acquisition of patents may sometimes be unlawful even though no relevant goods market yet exists.
23 SCM v. Xerox, 645 F.2d at 1208 (internal citations omitted).
acquisitions was not legally pertinent to its duty (or lack of duty) to license. Opponents of “innovation market” analysis would compound this error—that is, the SCM court’s mistake in thinking that “when the relevant market came into existence” was germane to the duty to license—by allowing a firm to acquire a portfolio of IP rights from multiple unrelated parties, sufficient to create a future economic monopoly, exempt from any antitrust liability, so long as no “relevant market” for goods or services has come into being. There is, however, no reason to conclude that the SCM court had such a circumstance in mind or would have meant to include it within the dictum quoted above. In short, read fairly, SCM does not tell us anything about the legal validity of the “innovation market” idea.

B. LEGISLATIVE AND AGENCY DEVELOPMENTS

The National Cooperative Research Act of 1984 provides that joint research and development ventures within the terms of the statute are to be judged under the rule of reason, taking into account inter alia “effects on competition in properly defined, relevant research and development markets.” The statute was intended to provide mental solace to those who feared that joint ventures might be deemed per se unlawful, and may well have provided such balm, but the courts have found almost no occasion to cite it.

The legislative history of the 1984 statute shows an intent to include in the relevant R&D market all firms with the ability and incentive to

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24 Even if the original patentee had nurtured its nascent monopoly into a real economic monopoly and then sold its rights to a firm in an unrelated market, there would be no antitrust objection to the transfer of a monopoly position from one firm to another. (Or, at least, there would be no antitrust objection to such a transfer of monopoly power, without more—i.e., without some arguably unfair competition for the monopoly.) Thus, contrary to the court’s reasoning as set forth in the quotation, the time when Xerox acquired the patents, in relation to the time when the relevant market came into existence, was not a legally relevant fact. SCM lost because there was no legal reason to diminish Xerox’s patent rights merely because it was not the original patentee.

25 Two other cases of roughly the same vintage also cast doubt on the validity of innovation markets as an antitrust concept. In American Medicorp, Inc. v. Humana, Inc., 445 F. Supp. 589, 599–600 (E.D. Pa. 1977), the court took the view that a relevant antitrust market must have buyers and sellers (and thus rejected a market for hospital development). See also T.V. Signal Co. v. AT&T, 465 F. Supp. 1084, 1088 (D.S.D. 1979) (citing Humana for the need for commercial transactions to define a relevant market in the context of rejecting the claim that phone companies and cable TV companies “compete” in a “communications market”), vacated on other grounds, 617 F.2d 1302 (8th Cir. 1980).

26 Pub. L. No. 98-462, 15 U.S.C. §§ 4301–4306. (The statute was amended in 1993 to become the National Cooperative Research and Production Act. The language quoted in the text, found in § 4302, was changed in 1993 to read “effects on competition in properly defined, relevant research, development, product, process, and service markets.”)
do relevant research—apparently without regard to whether they are actually doing such research or not.27 In other words, Congress used the concept of an R&D market to admonish courts to look broadly at potential entrants rather than condemning an R&D collaboration out of hand because few other firms were actually engaged in the type of research involved in the collaboration. Compare the Antitrust Division’s 1980 guide on research joint ventures,28 which discussed the legality of research collaborations without the concept of R&D “markets.” Consistent with the 1984 statute, the now-superseded 1988 International Operations Guidelines similarly employed the concept of a “relevant R&D market” as a tool to analyze the legality of a joint venture in R&D.29

Missing, however, was any reference to “innovation markets” in the 1984 and 1992 Merger Guidelines.30 In a 1993 article, then-FTC Commissioner Dennis Yao and Susan DeSanti analyzed the “gap in how to apply [the Merger Guidelines’] framework to nonprice issues, . . . particularly for issues relating to competition in the arena of innovation.”31 They did not, however, make any explicit reference to “innovation markets.”

In a later article, Richard Gilbert and Steven Sunshine (at the time, Deputy AAG for Economics and Deputy AAG for Mergers, respectively, in the Antitrust Division) argued that “delineating innovation markets can be a valuable instrument for evaluating the effects of merger-induced structural changes on the incentives for research and development and the resulting pace of industrial innovation.”32 Like Yao and DeSanti, they emphasized the importance of innovation to overall economic welfare. They also demonstrated how, at least in theory, a merger that does not injure actual or potential competition in any relevant product market may nevertheless harm consumers by reducing competition in innovation.33 Gilbert and Sunshine discussed a wide variety of factors that make

30 The 1992 version of the Guidelines does, however, add this footnote: “Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.” 1992 Merger Guidelines, supra note 11, § 0.1 n.6.
31 Yao & DeSanti, supra note 10. Among other things, this article helpfully summarizes relevant legal and economic commentary on innovation issues in merger enforcement up to 1993.
33 Id. at 583–85. George Hay has quarreled with the assumptions about incentives to suppress innovation in the example Gilbert and Sunshine use to prove their point. George A. Hay, Innovations in Antitrust Enforcement, 64 Antitrust L.J. 7, 14–16 (1995).
the relationship between market structure and innovation problematic, but nevertheless urged that merger enforcement should incorporate innovation market analysis in order to assess the ability of a merged firm to reduced total R&D, its incentive to do so, and the consequences of a merger for the efficiency of research and development.

The agencies’ first formal recognition or “innovation markets” as an enforcement tool came in the 1995 IP Guidelines. Enunciating a tripartite distinction among goods (and service) markets, technology markets, and “innovation markets,” Section 3.2.3 said in pertinent part:

If a licensing arrangement may adversely affect competition to develop new or improved goods or processes, the Agencies will analyze such an impact either as a separate competitive effect in relevant goods or technology markets, or as a competitive effect in a separate innovation market. A licensing arrangement may have competitive effects on innovation that cannot be adequately addressed through the analysis of goods or technology markets. For example, the arrangement may affect the development of goods that do not yet exist. Alternatively, the arrangement may affect the development of new or improved goods or processes in geographic markets where there is no actual or likely potential competition in the relevant goods.

An innovation market consists of the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development. The close substitutes are research and development efforts, technologies, and goods that significantly constrain the exercise of market power with respect to the relevant research and development, for example by limiting the ability and incentive of a hypothetical monopolist to retard the pace of research and development. The Agencies will delineate an innovation market only when the capabilities to engage in the relevant research and development can be associated with specialized assets or characteristics of specific firms.

Section 4.3 set forth the relevant safe harbor test:

Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in an innovation market if (1) the restraint is not facially anticompetitive and (2) four or more independently controlled entities in addition to the parties to the licensing arrangement possess the required specialized assets or characteristics and the incentive to engage in research and development that is a close substitute of the

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34 Gilbert & Sunshine, supra note 32, at 576–81.
35 See also then-FTC Commissioner Varney’s succinct but comprehensive analysis. Christine A. Varney, Innovation Markets in Merger Review Analysis, ANTITRUST, Summer 1995, at 16.
37 Id. § 3.2.3 (footnotes omitted).
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research and development activities of the parties to the licensing agreement.\footnote{Id. § 4.3 (footnote omitted).}

In Chapter 7 ("Innovation and the Assessment of Competitive Effects") of its report on the 1995 FTC hearings on global competition,\footnote{1 Federal Trade Comm’n, Office of Policy Planning, Anticipating the 21st Century: Competition Policy in the New High-Tech Global Marketplace (1996), available at http://www.ftc.gov/opp/hitech/global.htm.} the FTC staff described innovation markets enforcement efforts to date, summarized key points made in the hearings, endeavored to refute critics of innovation markets enforcement, and advocated extending the IP Guidelines’ five-firm safe harbor, which applies to IP licensing, to mergers as well.\footnote{Id. at 201 (proposed safe harbor). Compare Richard J. Gilbert, The 1995 Antitrust Guidelines for the Licensing of Intellectual Property: New Signposts for the Intersection of Intellectual Property and the Antitrust Laws, Remarks Before the ABA Antitrust Section Spring Meeting (Apr. 6, 1995), available at http://www.usdoj.gov/atr/public/speeches/050406rg.htm (draft IP Guidelines were amended in the final version “to clarify that the Agencies’ Merger Guidelines are the operative guidelines for antitrust analysis of acquisitions, including transfers of intellectual property rights”). See also Constance K. Robinson, Director of Operations and Merger Enforcement, Antitrust Div., Leap-Frog and Other Forms of Innovation: Protecting the Future for High-Tech and Emerging Industries Through Merger Enforcement, Remarks Before the ABA (June 10, 1999), available at http://www.usdoj.gov/atr/public/speeches/2482.htm (recognizing that innovation markets may sometimes be appropriate to analyze the competitive effects of mergers, and outlining factors considered by the Antitrust Division in looking at the effects of a merger on innovation).} Despite this suggestion, neither the FTC nor the Antitrust Division has set forth a formal “safe harbor” or other similar policy on mergers involving innovation markets.\footnote{4 Id. in their Guidelines for competitor collaborations, issued in 2000, the two agencies stated, Absent extraordinary circumstances, the Agencies do not challenge a competitor collaboration on the basis of effects on competition in an innovation market where three or more independently controlled research efforts in addition to those of the collaboration possess the required specialized assets or characteristics and the incentive to engage in R&D that is a close substitute for the R&D activities of the collaboration. U.S. Dep’t of Justice & Federal Trade Comm’n, Antitrust Guidelines for Collaborations Among Competitors § 4.3 (2000) (footnotes omitted). But, the Guidelines continued, the “antitrust safety zone does not apply to . . . competitor collaborations to which a merger analysis is applied.” Id. A footnote referred back to § 1.3, which directs that “merger-like” long-lasting “collaborations” will be treated as mergers. If the Collaborations Guidelines’}

C. Enforcement Actions

1. Antitrust Division

In addition to the Automobile Manufacturers Association proceeding, discussed above, Antitrust Division enforcement actions involving
“innovation markets” or similar concepts have included the cases discussed below.42

a. GM/ZF

In 1993 the Division challenged General Motors’ attempt to sell its Allison Division to ZF Friedrichshafen A.G.43 The two companies were the main worldwide producers of automatic transmissions for buses and large trucks. Each had substantial European sales, but ZF sold in the United States only for two specialized applications. The Antitrust Division challenged the deal on the basis of injury to current competition in those two alleged product markets and also on the basis of a worldwide innovation market for improvements in automatic transmissions for bus and large truck applications. Its theory was that U.S. consumers would be injured by the loss of innovation competition even as to product applications where, but for the deal, ZF was neither a present nor a prospective U.S. seller.

b. Lockheed Martin/Northrop Grumman

In March 1998 the Department of Justice sued to block Lockheed Martin’s proposed acquisition of Northrop Grumman.44 “Although the complaint alleged substantial price effects [in numerous aircraft and electronic systems product markets where both firms competed], the cornerstone of the challenge was concern that the acquisition would substantially lessen innovation in various products and services for defense applications.”45 The Antitrust Division acted out of a perceived safe harbor does not apply to merger-like arrangements, then presumably it does not apply to real mergers either.

42 Other helpful attempts to get a handle on the level of “innovation market” enforcement activity include Morse, supra note 2; Hoerner, supra note 3, at 70–73; Richard J. Gilbert & Willard K. Tom, Is Innovation King at the Antitrust Agencies: The Intellectual Property Guidelines Five Years Later, 69 Antitrust L.J. 43, 48 (2001); and Federal Trade Comm’n, Bureau of Competition, Health Care Services and Products Div., FTC Antitrust Actions in Health Care Services and Products (2002). These sources provide more information than will be found in this article concerning enforcement actions where there was present horizontal competition and/or a strong case on potential competition grounds and where “innovation markets” were alleged, seemingly, as a tagalong. This article focuses primarily, though not quote exclusively, on cases where the “innovation market” claim was primary or exclusive.


45 Daniel L. Rubinfeld & John Hoven, Innovation and Antitrust Enforcement, in Dynamic Competition and Public Policy: Technology, Innovation, and Antitrust Issues 65, 86 (Jerry Ellig ed., 2001). Rubinfeld was chief economist for the Antitrust Division at the time of the Lockheed challenge and Hoven was an economist with the Division.
“need to preserve a larger number of firms in industries where the best innovation strategy is unpredictable,” and was concerned that “that the merged entity would foster an industry-wide trend to keep innovative activities within vertically integrated chains rather than collaborate with outsiders.”

c. Halliburton/Dresser

Like Lockheed/Northrop, this was a deal with substantial and serious horizontal overlap in an existing product market (the logging-while-drilling-too market). Those concerns were exacerbated, however, by the Antitrust Division’s perception that the big four in the industry, including the two merging parties, had been the sources of significant innovation in the industry, and those concerns about innovation were said to have substantially influenced the scope of required divestiture.

d. Monsanto/DEKALB Genetics

The antitrust issues in this deal would perhaps best be characterized as relating to technology markets, with “innovation markets” overtones. DeKalb was alleged to hold patents in the leading method of “corn transformation,” while Monsanto’s IP related to “the emerging agrobacterium method” of accomplishing the same genetic transformation. Monsanto spun off the overlapping technology. In addition, the government’s concerns about the firms’ overlap in corn germplasm were solved by Monsanto’s licensing of its germplasm to numerous seed companies. There was no formal consent decree.

e. Other Antitrust Division Enforcement Actions

In a 2001 article Richard Gilbert and Willard Tom identified eleven Antitrust Division merger challenges during the 1995–1999 fiscal years in which innovation effects were mentioned (out of a total of 121 merger challenges), but none in which a case would probably not have been

46 Id. at 75. One commentator, taking note of an Antitrust Division official’s statement that the two firms had different innovation strategies, has criticized the enforcement decision, urging that “innovation market” cases are most appropriate where the two innovation tracks are close substitutes for one another. Morse, supra note 2, at 11.
47 Rubinfeld & Hoven, supra note 45, at 76; see also id. at 85–90 for a more detailed explanation of this merger challenge.
49 Id. at 82.
51 Gilbert & Tom, supra note 42, at 48.
brought, and the same relief probably obtained, either on the basis of price effects in ordinary product markets or on the basis of injury to potential competition in a product market. A review of the subsequent public record discloses that, while the Antitrust Division continues to be concerned about deals that endanger competition in innovation, not just competition in price, no enforcement action appears to have been based exclusively or principally on innovation concerns.

2. Federal Trade Commission

At the FTC, as at the Antitrust Division, most enforcement actions involving innovation market concerns also involve serious horizontal overlaps in traditional product markets, or would, at least, be legally vulnerable under a conventional potential competition theory. They are, in other words, cases where the enforcement decision and the outcome may be explained by concerns other than pure loss of competition in innovation and by analytical constructs other than “innovation markets.”

That said, the FTC’s enforcement record, unlike that of the Antitrust Division, shows a non-trivial number of cases where concern over innovation effects may have been the key factor in the enforcement decision. A major reason for this difference lies in the fact that the FTC is the agency charged with responsibility for pharmaceutical company deals. Food and Drug Administration regulatory requirements create hurdles to entry in pharmaceutical R&D, and the FDA’s cooperation provides the FTC with extensive information on “the status, approach, and likely effect of each innovation effort . . . that might have been difficult to obtain otherwise.”

52 Id. at 51. (The eight cases identified in which injury to innovation markets probably was central to the enforcement actions were all FTC proceedings. Of these, most involved the pharmaceutical industry, where transactions are reviewed by the FTC rather than the Antitrust Division.) Gilbert and Tom discussed a number of Antitrust Division actions outside the merger area in which innovation concerns were highly significant—notably, of course, the Microsoft case—but in which the question of “innovation markets” as such did not arise.

53 See, e.g., United States v. 3D Sys., 2002-2 Trade Cas. (CCH) ¶ 73,738 (D.D.C. 2002) (consent decree and competitive impact statement in challenge to deal alleged to threaten innovation as well as price competition in rapid prototyping systems).

54 Anticipating the 21st Century, supra note 39, at 174. Joseph Kattan has observed that in many high-tech industries, a key focus of competition is with a company’s own installed base of products (e.g., competition by a software producer to convince users to upgrade from a previous version); he attributes the prominence of the pharmaceutical industry as a target of “innovation market” challenges to the fact that the industry is not subject to such installed base competition. Joseph Kattan, After the IP Guidelines: Trends in Intellectual Property Antitrust Enforcement, Antitrust, Summer 1997, at 26, 28.
Key FTC innovation markets enforcement actions include the following:\footnote{Not included here are actions such as Hoechst AG, FTC Docket No. C-3629, 5 Trade Reg. Rep. (CCH) ¶ 23,895 (1995), where one party was presently selling the pharmaceuticals in question and the other party was said to be a potential entrant by reason of the position of its developmental drugs in the FDA pipeline.}

\textit{a. Roche/Genentech}

In this “innovation market” precursor enforcement action, injury to potential competition was alleged in two markets, and injury to innovation alleged in “CD-4 based therapeutics for use in the treatment of AIDS/HIV”—an area where the two combining companies were said to be among a small number engaged in R&D. The agreed remedy was mandatory licensing of Roche’s CD-4 patent portfolio.\footnote{Roche Holding Ltd., 113 F.T.C. 1086 (1990). The enforcers at the time were said to have termed their theory “double potential competition”—a phrase that would apply to a number of subsequent proceedings as well. See Morse, supra note 2, at 2.}

\textit{b. American Home Products/American Cyanamid}

The parties were alleged to be two of the three companies with vaccines for rotavirus, which causes diarrhea, at or near the clinical trial stage. AHP agreed to license Cyanamid’s research to an FTC-approved licensee.\footnote{American Home Prods. Corp., FTC Docket No. C-3557 (1995). Morse, supra note 2, at 9, notes that the complaint literally alleges injury to potential competition in the relevant R&D market. That was presumably a slip of the pen.}

\textit{c. Sensormatic/Knogo}

The two parties, participants in the antishoplifting equipment business, were both doing R&D aimed at developing labels that could be implanted in protected goods at the manufacturing or distribution level. The consent agreement forbade the acquiring party to acquire the relevant U.S. and Canadian patent rights, but did permit it to take a non-exclusive license to those rights.\footnote{Sensormatic Elec. Corp., FTC Docket No. C-3572 (1995).}

\textit{d. Glaxo/Burroughs Wellcome}

The parties were said to be the two companies furthest along in developing an oral treatment for migraine headaches. The consent decree required divestiture of relevant Burroughs Wellcome assets.\footnote{Glaxo PLC, 119 F.T.C. 815 (1995).}

\textit{e. Upjohn/Pharmacia}

Upjohn was said to be closest to market with a “topoisomerase I inhibitor for the treatment of colorectal cancer,” and Pharmacia was a few
years back in the R&D process. Others were even further behind. To remedy concerns that the combination would reduce or eliminate incentives to continue Pharmacia’s research program in this area, the consent order required the relevant Pharmacia assets to be divested.60

f. Ciba-Geigy/Sandoz

The Commission alleged that the two firms would enjoy a combined dominant position in overall gene therapy, through a dominant patent portfolio, and in four more specific gene therapy areas—in none of which were products expected to be on the market sooner than three years following the combination. The consent order required the combined firm, Novartis, to grant non-exclusive licenses.61

g. Baxter/Immuno

The two firms were said to be the two most advanced in the FDA process—and the only two likely entrants in the next two years—in the market for fibrin sealants, used to control bleeding in surgery. The consent order required Baxter to license its prospective product.62

h. Pfizer/Warner-Lambert

In addition to other antitrust concerns, the Commission challenged the proposed combination of the two companies’ respective EGFr-tk inhibitor R&D programs (to develop drugs for treatment of solid tumor cancers). The two firms were said to be the most advanced in the FDA approval process. The consent order required Pfizer to divest its interest in the relevant research program to its partner, OSI.63

i. Hoechst/Rhone-Poulenc

In addition to an unrelated horizontal overlap, the FTC was concerned about elimination of potential competition in direct thrombin inhibitors, used to treat blood clotting. Hoechst had an existing product, and its merger partner was close behind, with a product almost through the FDA pipeline. As in Ciba/Sandoz, the Commission was also concerned about a combination of patent portfolios (in this case, in the blood clotting area).64

60 The Upjohn Co., 121 F.T.C. 44 (1996).
In addition to concern over overlaps in various conventional product markets, the FTC was concerned about R&D related to irritable bowel syndrome, solid tumors, migraine headaches, and herpes vaccine. A consent order settled those concerns.65

Amgen had the only IL-1 inhibitor, used to treat rheumatoid arthritis, on the U.S. market at the time of the deal. Immunex and one other firm, Regeneron, were the only other companies with IL-1 inhibitors in U.S. clinical trials. The FTC was concerned that the combination would not only eliminate potential competition but also reduce R&D competition for related new products. The Commission also feared that the combination of the two patent portfolios might enhance the possibility of blocking entry by Regeneron. The consent order required licensing of certain patents to Regeneron. The agreement also dealt with a potential competition issue in TNF inhibitors, used to treat inflammation.66

The Commission focused on actual competition and potential competition, rather than “innovation markets” as such. The complaint, however, alleged a “market for the research, development, manufacture, and sale” of several different products.67

One might have thought that some of these enforcement actions would be vulnerable to severe judicial scrutiny if tested in the context of a preliminary injunction hearing.68 To date, however, the enforcement targets have elected to settle rather than fight, presumably, (a) because

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68 See Morse, supra note 2, at 1 (arguing that “innovation market” challenges are vulnerable to judicial rejection in situations where the merging firms’ R&D efforts are not close substitutes and remaining competitors are strong. “While all of the government’s innovation market challenges to date have been resolved through consent agreements, the government could undermine a valuable concept by being forced into court . . . , and should accordingly rein in the use of innovation markets.”). It should be noted, however, that “close substitutes” is itself an ambiguous term.
the agencies’ challenges have, by and large, not involved businesses that were vital to the transactions under investigation, and (b) because the executives making the decision on whether to fight or settle are just as uncertain as everyone else about where their R&D programs will ultimately lead.

For these reasons and others, we are left at present with extraordinarily little judicial guidance regarding the matters addressed in this article. The “closest” judicial learning we possess remains the Second Circuit’s 1981 opinion in SCM—which, as we have seen, may legitimately be cited as questioning the validity of antitrust concern over future product markets, but in a highly distinguishable context, not involving a combination of two R&D competitors.

Also of some tangential relevance is the Federal Circuit’s 1999 decision in Intergraph v. Intel. There, in response to Intergraph’s strained argument that it was Intel’s “competitor,” the court held, “Firms do not compete in the same market unless, because of the reasonable interchangeability of their products, they have the actual or potential ability to take significant business away from each other.” Read literally and out of context, this sentence would foreclose “innovation market” analysis. But, of course, Intergraph was not arguing that it had an R&D program parallel to Intel’s, that accordingly the two firms were “competitors,” and there would thus be some antitrust concern about a merger of the two: those were not the issues in the case, nor were they the issues that the court was addressing. Accordingly, Intel offers no guidance on “innovation markets.”

Other judicial pickings are slim indeed. A 1998 district court case implicitly accepted one party’s contentions about the existence of an “innovation market,” but found no violation in that market. In Sony v.

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Soundview,\textsuperscript{73} the counterclaim-plaintiff alleged buyer price fixing with respect to patent license fees. The conduct alleged was per se illegal, and it should have been easy for the court to reject the counterclaim-defendants’ motion to dismiss, but, in reaching that decision, the court seemed to take comfort in an expert’s affidavit that painfully elucidated the obvious: that licensee price fixing could harm competition in technology and innovation markets.

Finally, in \textit{In re Microsoft} Judge Motz momentarily entertained the thought that indirect purchasing plaintiffs might be on to something when they claimed that Microsoft’s alleged antitrust violations deprived them of the fruits of innovation they would have enjoyed but for the illegality, but he quickly concluded, on proximate cause grounds, that plaintiffs lacked standing to pursue the claim.\textsuperscript{74}

\section*{III. ANALYTICAL ISSUES: ECONOMIC, LEGAL, PRUDENTIAL}

\subsection*{A. A Rough Consensus}

Although bench, bar, and commentators remain divided on the use of “innovation markets” as a merger enforcement tool, there are, in fact, a number of propositions on which there is consensus or near-consensus.

(1) As a matter of theory, it is possible for a merger to threaten consumer injury by reason of a decrease in innovation, even though there is no threat to competition in any existing U.S. relevant market for goods or services, or any basis for challenge under a theory of potential competition.

Various scenarios fit within this general statement. In one such scenario, there is an existing U.S. product market (a) which may or may not be monopolized, or otherwise performing inadequately, in which incumbents are not threatened by new entry, but where (b) a merger threatens to injure innovation on a worldwide basis—innovation that would inure to the benefit of U.S consumers.

In a second scenario, both merging parties are among the few—perhaps the only—likely potential entrants into a product market that does not exist at the time of the merger.

(2) The theoretical possibility outlined in point (1) above does occur in real life, but rather rarely.

\textsuperscript{73} \textit{Sony Elecs., Inc. v. Soundview Tech., Inc.}, 157 F. Supp. 2d 189 (D. Conn. 2001).
\textsuperscript{74} \textit{In re Microsoft Antitrust Litig.}, 127 F. Supp. 2d 702, 710–12 (D. Md. 2001).
(3) It is difficult for enforcers to obtain reliable information to detect deals that fit within the scenarios under discussion, especially outside the pharmaceutical arena (where the FTC is aided by the nature of FDA regulation and by access to the FDA’s knowledge base), and especially where the issue relates to products in the early stages of research as contrasted with the later stages of development.

(4) As discussed in Part I.A. above, market structure may be at least a weak predictor of market conduct and performance, but the relation of market structure to market conduct and performance in innovation is far more problematic than in the case of price competition.

(5) The optimal level of R&D in a given product area is hard—perhaps impossible—to determine. One commentator who is critical of the “innovation market” approach has complained that, because of the focus on resource input levels rather than innovative output, “innovation markets” analysis affirmatively promotes inefficiency.75 But that criticism misses the mark. “Innovation markets” proponents claim that their goal is not to maximize R&D inputs without end and in all circumstances, but rather to promote a third kind of efficiency, namely “innovation efficiency” (over and above the more familiar allocative and productive efficiency).76 “Innovation efficiency” is the name of a laudable goal—and a phrase that comes trippingly off the tongue. Regrettably, however, even if we knew exactly what kind of innovative product outcome would be optimal in a given market, there is no systematic way of determining how many resources, or how many overlapping research lines, would be needed to achieve that outcome.

Further complicating the analysis is the observation that, if a merger leads to shutting down an overlapping research line, the upshot may well not be fewer resources devoted to R&D but rather a transfer of resources from one product area to another. Who can tell whether such a transfer makes society better or worse off? “It is . . . recognized that there are often benefits to a reduction in R&D competition in the form of the elimination of costly duplication of parallel research paths. We do not have a good handle on just how many independent research

75 “By attributing innovation market power to firms with the greatest R&D expenditures, the enforcement agencies effectively equate market power with inefficiency.” Alvin R. Chin, The Misapplication of Innovation Market Analysis to Biotechnology Mergers, 3 B.U. J. Sci. & Tech. 6, 25 (1997).

76 Some commentators have suggested adding “innovative efficiency” to the traditional antitrust concerns with allocative efficiency and productive efficiency. Jonathan M. Barnett, Cultivating the Genetic Commons: Imperfect Patent Protection and the Network Model of Innovation, 37 San Diego L. Rev. 987 (2000). Regrettably, the concept of “innovative efficiency” has not yet been backed up by any economic theory explaining what circumstances promote it.
paths we need to promote research and development competition, and the answer is likely to vary significantly from market to market anyway.”

Innovative efficiency, in short, is an elusive goal.

B. BEYOND CONSENSUS: THE BIG QUESTIONS

1. Is the Game Worth the Candle?

Biggest of all is the bottom-line question: whether, in view of all the problematic issues raised immediately above, the “innovation market” enforcement game is worth the candle, or whether the whole enterprise should be abandoned as a failed idea.

Some say, yes, the “innovation market” concept should be laid to rest. Others argue, in essence, that the theoretical case against “innovation markets,” as an abstract discussion looks much stronger than any valid objection to the actual cases that have been brought—in other words, the agencies should proceed with great caution, but they should proceed.

Assuming, for the sake of the discussion, an affirmative answer to that bottom-line question, a number of more specific analytical issues occur.

2. Does Legal Doctrine Bar Consideration of Future Markets or of “Innovation Markets”?

A perennial source of error in antitrust law is the notion that antitrust cares only for price competition but cares not a whit for nonprice competition, including innovation. This article’s Introduction briefly discussed why antitrust does care, and should care, above innovation.

It is logically possible, however, to grant that innovation competition is within the scope of antitrust’s concerns and yet to argue that enforcement actions based on future markets should be barred “as a matter of law” because it is so difficult to predict competitive conditions in markets that do not yet exist—and, accordingly, so hard to be confident that enforcement does more good than harm. Such an argument would

77 Kattan, supra note 13, at 117–18.
78 See Rapp, supra note 14, at 33–36 (forcefully arguing against “innovation market” enforcement, in view of the lack of connection between R&D input and innovation output).
79 See Dahdouh & Mongoven, supra note 4, at 436–37 (collecting citations to opposing commentators).
80 In his testimony at the FTC global competition hearings Dennis Carlton set forth the premise for such an argument:

As a matter of logic, antitrust policy could be used to prevent mergers that would harm consumers by concentrating an “innovation” or “R & D” market. However, in practice, the ability of antitrust authorities to identify such instances is likely to be very low. This unreliability is in contrast to the greater reliability of using the Merger Guidelines to identify and prevent mergers that would result in higher

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bear an analogy to the Supreme Court’s reasoning in Illinois Brick and Utilicorp:81 yes, indirect purchasers are likely to suffer actual damages; and yes, an important purpose of the private antitrust remedy is compensation; but it is simply too difficult for courts to determine the amount of such injury, and any judicial attempt to do so is likely to be highly inefficient; therefore, indirect purchaser claims must be excluded as a matter of law.

Whether predicting the future of innovation in a given market is so difficult that a court should bar consideration of “innovation markets” “as a matter of law” is an interesting question of antitrust policy. Regrettably, as discussed in Part II.A. and D., above, current case law throws essentially no light on the issue.

3. Is There an Antitrust Touchstone for Promoting Innovation?

Conventional antitrust merger enforcement aims to detect and prevent mergers likely to raise price and reduce output through the exercise of market power.82 Is there an analogous touchstone for merger enforcement directed at preserving competition in innovation? For example, given that an “innovation market” is comprised of firms making a certain type of input rather than a certain type of output, is more input—more resources devoted to innovation—always to be preferred to fewer resources devoted to innovation? The answer must surely be no: some research programs are more efficient than others. To enforce the antitrust laws so as to maximize input for its own sake would be to promote inefficiency.

If resources devoted to innovation is not the touchstone, may we fall back on the proposition that more innovators are always to be preferred

prices for existing products. However reliable one believes our current capabilities are, I believe a movement toward relying on the concept of innovation markets could easily lead to a vast decline in the predictability of enforcement policy and in the reliability of enforcement in improving welfare. The reason is simple. Current policy has focused mostly on the competitive harms that a merger would cause in the near future. A policy relying on potential competition in the far future in certain products or potential competition in the far future in yet unspecified and unknown products requires the analyst to predict the far future. But the far future is much harder to predict than the near future and any active antitrust policy which foregoes efficiency gains in the near future to achieve speculative competitive gains in the far future is likely to harm not help consumers.


82 See 1992 Merger Guidelines, supra note 11.
to fewer innovators? Not on the basis of current economic knowledge; as we have seen, the relation between market structure and innovation conduct and performance is presently undetermined.

If sweeping statements about innovation market structure and performance are unreliable, can we at least say with confidence that it is always better to have two innovators—that is, two parallel research tracks—than only one? Intuition says yes, but is intuition right? As M. Howard Morse has cogently observed,

> If the merged firm’s development efforts are close substitutes, it might make sense to drop the slower project. Otherwise, it would seem to make sense to drop a project only if it is substantially behind and would not offer advantages to consumers. After all, the merged firm’s analysis ought to be the same as [that] proposed by DOJ, that “the more attempts there are, the greater the chance that [it] will get it right.” If the merged firm were to decide to drop one project because it determines that project is substantially behind, and its research dollars are better spent on other projects, that is likely to benefit consumers rather than cause consumer harm. That is true even if the dropped project would have been pursued by the firms independently without information about the status of other drugs under development. The goal of antitrust should be to maximize innovation and consumer welfare, and not to maximize R&D expenditures.83

> When the focus of antitrust enforcement is on price and output alone, the goal is clear, even if the way to get there may be debatable. But “innovation market” enforcement may raise tough questions about the value to society of more price competition in one market versus more innovation in another market. What if the alternative to having two parallel research tracks for dread disease A is two single tracks, one for disease A and one for disease B? Is society better off with a low-priced cure for A, when both parallel tracks turn out successfully and price competition ensues, or with two monopolized but medically effective new treatments for both A and B? How would one even begin to answer such a question?

Of course, this sort of theoretical difficulty tends to lessen when we are dealing not with scientific research at the beginning of the R&D continuum but rather with two merging parties, both with products far along in the development stage, in circumstances where, but for legal intervention, the merged firm would probably abandon one of the products. In such a case the R&D costs are already sunk, and preserving both products, through compelled divestiture of one of them, is unlikely to switch resources away from some alternative and potentially valuable

83 Morse, supra note 2, at 12–13.
research endeavor. In this latter scenario, where market entry is near, those who argue that common sense clearly indicates what outcome is both competitive and socially desirable, and that theoretical concerns over “innovation markets” become merely academic in the bad sense, have a strong point to make.

4. Are “Innovation Markets” Always Worldwide?

Certainly, the logical, default position would be yes: innovation markets should be worldwide, absent some unusual circumstance, such as U.S. or foreign regulation limiting practical sources of research to the United States. In Sensormatic then-Commissioner Azcuenaga criticized the Commission for alleging an R&D market limited to the United States and Canada.84 Judy Whalley has urged that such markets should be presumed to be worldwide.85 Her suggestion is sound.

5. What Is the Best Way to Identify Participants in a Given “Innovation Market”?

The IP Guidelines call for identification of the participants in a given “innovation market” by trying to find those firms that possess the needed specialized assets. But, “[w]hat are specialized assets?” David Roll has asked.

The agencies say they are special labs or facilities, specialized knowledge possessed by employees, or something similar. Whatever they are, they must be unique to the merging firms so that no one else could pick up the slack if the merged firm slowed down its R&D efforts.

How likely is it that two firms without any sales could assemble assets that cannot be duplicated by anyone else? The answer is, highly unlikely. Labs and equipment can be bought, sold and replicated. Scientists, engineers and other R&D personnel have legs. They can and do walk.86 Rapp puts the same point even more bluntly: “The capacity to innovate is hard to monopolize.”87 Even Willard Tom and Joshua Newberg, who are much more in tune with the “innovation markets” approach than Roll or Rapp, agree that “[t]he combination of two firms that compete

87 Rapp, supra note 14, at 36.
in innovation raises few concerns if any lost competition is readily replaced by the nearest garage inventor.” But, they hasten to add, “Often . . . there are specific barriers that would prevent such entry.”  

As the product development continuum proceeds from the early stages of research to the later stages of development, participants in the relevant “innovation market” become easier to identify, and Roll’s rhetorical questions and Rapp’s point about the difficulty of “monopolizing innovation” tend to become less salient. Yet, some commentators argue, antitrust may have a legitimate interest in protecting competition even at the early stages of research, where identifying the market participants is difficult.  

6. Is Coordinated Interaction an Issue in “Innovation Market” Enforcement?

“Innovation markets” enforcement is concerned mainly with unilateral effects—specifically, that a merger might give the combined firm both the incentive and the ability to make unilateral decisions harmful to innovation, such as shutting down one of two parallel research tracks. By contrast, conventional merger enforcement is more often based on a theory of coordinated interaction, i.e., concern that increasing market concentration may make it easier for firms to collude tacitly on price and output. Query, then, whether there might be a similar concern that increased market concentration could lead to anticompetitive coordinated interaction on R&D? There is no definitive response, but in general, the answer seems to be, probably not.

Reaching terms of coordination on the direction or pace of R&D with its multiple dimensions seems difficult, other than through a market division or a decision not to conduct any R&D. Moreover, the incentive to cheat is high, given the rewards to successful innovation. The ability to cheat undetected is also high since innovation is often conducted in secret, at least in the absence of facilitating devices such as licenses serving as reporting mechanisms.

7. What Rules of Thumb/Safe Harbors Should Apply to “Innovation Market” Cases?

Should the agencies apply the five-firm safe harbor of the IP Guidelines or the four-firm safe harbor of the Competitor Collaboration Guidelines?


89 In principle, that is, they become easier to identify, but one still needs access to the relevant information.


91 Morse, supra note 2, at 8 (footnote omitted). See also Dahdouh & Mongoven, supra note 4, at 427 (“[W]e should expect nonprice coordination over innovation to break down
Even if there are only four or five competitors, should the agencies give a pass to a merger among two of these four or five companies where there are significant differences between their research programs, as some have argued?

Are guidelines, rules of thumb, and safe harbors indeed of any special value in the “innovation market” enforcement arena? And if there are no reliable rules of thumb, does that in itself argue forcefully against the “innovation market” approach.92 The jury remains out.

8. What Remedies Best Preserve Innovation Competition?

Licensing (either outlicensing or, sometimes, inlicensing) and divestiture are the mainstays of “innovation market” enforcement.93 Divestiture is the more complete remedy, but the respondent may hold out for licensing so that it can continue to use the technology. Some are critical of enforcement decisions that resolve cases through licensing:

[Licensing, as distinguished from divestiture] can be counterproductive by diminishing the licensor’s incentives to continue the product’s development. It’s a fair comment that many cases would be better off if not brought at all than settled with a licensing decree. To me, the agencies’ frequent imposition of licensing relief is the one aspect of present enforcement policy that most requires further thought.94

9. Should Antitrust Recognize an “Innovation Defense” to an Otherwise Anticompetitive Merger?

And one last conundrum. We have already seen how an “innovation market” enforcer might find himself or herself in the position of choosing between price competition in future market A and nonprice innovation in future market B. But might a similar question arise in the course of conventional merger enforcement, intended to preserve price competition in existing product markets? And what would the answer be? “By examining a merger’s impact on future innovation, the antitrust agencies

more easily than over price or quality attributes of current goods,” and hence such worries arise only at very high levels of market concentration.).

91 See Rapp, supra note 14, at 36 (arguing that an “innovation market” enforcement policy of “we will know it when we see it” is the worst sort of public policy).

92 See Bryan R. Dunlap, A Practical Guide to Innovation Markets, Antitrust, Summer 1995, at 21, 26. On occasion, commitments to preserve firewalls and/or ensure continued technological compatibility with competitors’ products may be required. Id.

can assess whether it would be a mistake to act to block a merger because of potential anticompetitive price effects when the merger likely would have generated even greater procompetitive innovation efficiencies.”

IV. CONCLUSION

These are yet early days in “innovation market” enforcement. On their face, some of the government’s enforcement actions appear to be justified—and thus to call into question the strident rhetoric of the severest critics of “innovation markets.” Looking only at these cases, one forms the impression that the case against “innovation market” enforcement is much stronger in theory than in actual practice. But in other cases one does wonder, with Rapp96 and others of like mind, whether enforcement intervention has made things better or worse.

The judiciary, meanwhile, has not yet had occasion to weigh in on the issue. These days courts no longer see it as their function to rubber stamp the agencies’ enforcement decisions, and one may well imagine a close “innovation markets” case drawing a high level of judicial skepticism. That prudential factor, along with the grave theoretical concerns we have discussed above, counsel administrative caution—and appear, by and large, to have produced administrative caution. Especially in the current Bush Administration we have heard relatively little, and seen relatively little, about “innovation markets.”

But the issue of competition in R&D will not go away, nor will those pesky theoretical worries about the efficacy of intervention. Time will tell, or, as President Eisenhower once put it so well, “The future lies ahead.”

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95 Dahdouh & Mongoven, supra note 4, at 406.
96 Supra note 14 and accompanying text.