Mergers Involving Nascent Competition

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MERGERS INVOLVING NASCENT COMPETITION

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Overview

Mergers involving nascent competition are a hot topic in antitrust circles, especially in light of the pending Federal Trade Commission case against Facebook Inc., but the thinking about the topic is nascent, too. This chapter is intended to contribute to that thinking and to discuss a variety of questions that have not previously been discussed together.

The chapter focuses on acquisitions by dominant firms of small or early-stage start-up firms that, if not acquired, could threaten the acquiring firm's dominance. It explains that, while the vast majority of such mergers are likely to be benign or procompetitive, some might be very harmful to competition and economic welfare. If the potential harms from a merger are great enough, the expected value of the merger—taking into account both the likelihood and the magnitude of possible harms and benefits—might be harmful even if the merger is more likely to be benign than harmful.

The chapter argues that mergers that are in this sense expected to be harmful can in principle be prohibited under both Section 7 of the Clayton Antitrust Act of 1914 and, perhaps more readily, under Section 2 of the Sherman Antitrust Act of 1890. It suggests criteria for identifying anticompetitive mergers involving nascent competition and addresses policy concerns about merger efficiencies, error costs, the impact of heighted scrutiny of such mergers on venture capital investment, multiple acquisitions by a single dominant firm, and post-acquisition challenges to such mergers.

Defining the problem

The acquired firm in a merger involving nascent competition is a firm, or substantial assets of a firm, that is acquired early in the firm's life, when its commercial prospects are uncertain. For present purposes, that firm can be called a "nascent competitor."

Because of the uncertainty about the future prospects of the nascent competitor, the competitive significance of the acquisition must be assessed on the basis of predictions about possible future changes in the firm and markets in which it does business. Past performance and tools used to measure that performance, such as revenues, market shares, the Herfindahl-Hirschman Index (HHI), profits, price-cost margins, and bidding histories, are of little or no help. Assessment of the competitive significance of the acquisition is therefore likely to be especially uncertain.

In their important paper, "Nascent Competitors," Scott Hemphill and Tim Wu include "prospective innovation" as a central attribute of nascent competitors.[1] It is, to be sure, a

defining characteristic of a problematic merger involving nascent competition that the merger eliminates the possibility that the acquired firm will become something that both is very different from what it is at the time of the acquisition and significantly enhances competition by diminishing the market power of the acquiring firm and perhaps displacing it. Future innovation will often be important, perhaps essential, to the acquired firm's developing in that way, and some scholars have suggested that the effects of innovation might be the most important benefits and harms from mergers involving nascent competition.[2]

Nevertheless, adding some notion of innovation to the definition of a nascent competitor seems unnecessary. In the first place, one can imagine competitive effects stories that do not depend on future innovation. Moreover, innovation can be part of the factual assessment in any event, without making it a definitional element; and making it part of the definition would needlessly complicate the analysis by adding an additional, difficult, and ambiguous element.[3]

The acquisitions of nascent competitors on which this chapter is focused are acquisitions by a firm that is well-established and has substantial market power that might be threatened by the acquired nascent competitor.[4] These acquisitions can injure competition if their effect is to maintain market power of the acquiring firms that would otherwise be dissipated by competition.

By contrast, acquisitions by firms lacking such an existing presence would be problematic, if at all, only if they were likely to create or increase the firms' market power. Such acquisitions would thus raise competition concerns that are beyond the scope of this paper and that can be assessed within existing frameworks for analyzing the competitive effects of mergers.

The economic welfare implications of acquisitions of nascent competitors can be very substantial. Established, enduring monopolies are displaced by significant new competitive alternatives that are often the result of valuable innovation. That displacement process both diminishes welfare-reducing market power and reflects the flourishing of important new and often welfare-enhancing business alternatives. It is, in Joseph Schumpeter's paradigmatic term, "creative destruction."[5] Acquisitions that extinguish those possibilities can be very damaging to economic welfare.

They can be damaging to economic welfare for an additional reason as well. In winner-take-all (or most) markets, an acquisition that eliminates a nascent competitive threat to a firm with substantial market power can nudge the market toward "tipping" to become a market in which network effects and economies of scale make entry by new rivals in the future more costly and less likely.[6]

Nascent competitors might threaten the market power of the acquiring firm by expanding their existing businesses or by evolving into some other or additional businesses. They might do so on their own or after being acquired by another firm, including perhaps a smaller competitor of the acquiring firm. Where the competitive threat requires evolution into a different business, the nascent competitor might be regarded as a "potential competitor," rather than as an actual, early-stage competitor. In that case, a firm that is a nascent competitor with respect to the markets relevant to the market power of the acquiring firm might be a reasonably mature

competitor in other markets.

Nascent competitors might threaten the acquiring firm either horizontally – if the nascent competitor might itself become an important competitor of the acquiring firm – or vertically – if the nascent competitor might become an important input or complement to a competitor of the acquiring firm.[7] By eliminating that threat, the acquisition might be thought to harm competition on either a horizontal theory or a vertical theory. The horizontal theory could be an ordinary collusion story, in which the merging firm agrees to share the preserved monopoly rents, or an exclusion story, in which the acquiring firm uses anticompetitive conduct or threats thereof to coerce the nascent competitor to sell to it. The vertical theories relevant to this chapter involve protecting the acquiring firm's existing market power; they do not include harm to competition in a different, vertically related market.

Acquisitions of nascent competitors might be especially problematic if they undermine the innovation process.[8] To be sure, such acquisitions might make innovation more likely if they increase the ability of the merging parties to innovate by enabling the combination of scarce research-and-development assets or if they increase the incentive of the merging parties to innovate by increasing the likelihood that the innovator will be able to appropriate the benefits of its innovations. But there is a real risk that acquisition of a nascent competitor will reduce the likelihood of innovation in the markets in which the acquiring firm has market power. The nascent competitor's incentive to innovate in those markets depends on the prospect of displacing the acquiring firm in whole or in part. The incentive of the dominant acquiring firm to innovate in those markets is, on one hand, diminished by the prospect of cannibalizing its current profits in those markets and, on the other hand, motivated by a desire to prevent cannibalization of those revenues by others.[9] The merger of the two firms both diminishes the incentives of both of them to innovate and internalizes to the acquired firm the acquiring firm's disincentive to innovate.

So-called "killer acquisitions," in which the acquiring firm in effect shuts down the threatening nascent competitor after acquiring it, are included among the acquisitions with which this chapter is concerned.[10] But the chapter is also concerned with acquisitions in which the acquiring firm continues to operate the acquired firm as a complement to or differentiated alternative of its established business but does so for its benefit rather than in the potentially more welfare-enhancing way in which the nascent competitor might be operated if not controlled by an incumbent monopoly that is reluctant to cannibalize its existing profits. Facebook Inc.'s acquisition of Instagram, which at the time was a small, differentiated, and growing social network alternative to Facebook, might have been such an acquisition.

In brief, then, a merger involving nascent competition can be defined as follows: (i) the acquisition, (ii) by a firm with substantial market power, (iii) of a firm (or its assets) that has the potential for substantial growth and development (iv) which, if realized, could materially undermine the market power of or perhaps even supplant the acquiring firm.

Legal basis for antitrust intervention

The lawfulness of mergers involving nascent competition can be assessed under Section 7 of

the Clayton Act, 15 U.S.C. § 18, which prohibits mergers in certain circumstances, and under Section 2 of the Sherman Act, 15 U.S.C. § 15, which prohibits some kinds of conduct that creates or preserves monopoly power.

Section 7 of the Clayton Act

The competitive significance of mergers is ordinarily assessed under Section 7 of the Clayton Act, which prohibits mergers the effect of which "may be substantially to lessen competition, or to tend to create a monopoly." By its terms, the statute is plainly applicable to mergers involving nascent competition, and there is a well-developed procedural and substantive jurisprudence for analyzing all sorts of mergers.

Section 7 is, however, an imperfect tool for assessing such mergers. Notwithstanding its potentially far-reaching language, Section 7 has been construed by courts and the two federal antitrust enforcement agencies—the Federal Trade Commission and the Antitrust Division of the U.S. Department of Justice—largely in the context of mergers of mature firms and in ways that seem ill-suited for assessment of acquisitions of nascent competitors. Although the law is not entirely clear, several cases and commentators have suggested that a merger can violate Section 7 only if harm to competition is more likely than not.[11] Some commentators have thus argued that mergers involving nascent competition should be illegal only if they are found to be more likely than not to injure competition.[12]

Whatever might be the appropriateness of a more-likely-than-not standard for mergers involving mature firms and markets, for which reasonably reliable predictions can be made, it seems very inappropriate for mergers involving nascent competition. In the first place, any such standard would make antitrust challenges to acquisitions of nascent competitors almost impossible because neither the courts nor even the merging parties can be confident about the future of the nascent competitor and the odds are overwhelming that most such acquisitions would be benign.

Moreover, a more-likely-than-not standard makes no sense as a conceptual matter.[13] The problem with mergers involving nascent competition is not that, but-for the acquisition, the nascent competitor is likely to become a significant competitor. Rather, it is that if the nascent competitor becomes a significant competitor, it could greatly enhance economic welfare by ameliorating the market power of the entrenched acquiring firm and, if it implements important innovation, it might if not acquired by the intrenched incumbent become the "next big thing" or otherwise change the market paradigm. The latter is especially likely in digital technology markets characterized by winner-take-all (or most) competition and competition among differentiated firms.[14]

The focus with respect to mergers involving nascent competition should thus be on acquisitions that are on balance likely to harm competition and thus economic welfare, taking account of both the likelihood of harm and the magnitude of harm. In effect, as Hemphill and Wu put it, the focus ought to be on the expected value of the acquisition comparing the likelihood and

magnitude of efficiency benefits from the acquisition with the likelihood and magnitude of benefits to competition and welfare in its absence.[15]

The expected value of merger enforcement cannot be measured or even approximated with precision, especially in the case of mergers involving nascent competition. The objective, therefore, is to develop suitable proxies that will help identify those mergers that are most likely to have a negative expected impact on competition and economic welfare compared to the but-for world without the merger. The following would seem to be a suitable initial set of proxies:

- As noted above, the acquiring firm must have substantial existing market power; and its market position must —absent the threat posed by the acquired firm—seem secure in light of its resources, the nature of competition in the market, network effects and other entry barriers, and similar considerations. Absent those conditions, there is little reason to think that the acquisition might have the purpose or effect of perpetuating a significant market power problem.

- There must be a reasonable possibility—more than *di minimis* but not necessarily more likely than not—that the acquired firm will, but-for the acquisition, develop into a substantial competitor of the acquiring firm or provide a uniquely valuable complement to such a competitor.

- By contrast to naked exclusionary conduct that provides no efficiency or welfare-enhancing benefits, acquisitions of a nascent competitor almost always have the potential to create merger-specific efficiencies by combining complementary assets. Therefore, such acquisitions should be prohibited only if the acquired firm is the only firm, or one of only a small number of firms, that has a reasonable possibility of becoming or enabling a substantial competitor of the acquiring firm. Demonstrating such relative uniqueness will usually require proof that the acquired firm has some important assets or a unique, differentiated path to promoting significant new competition that is not available to other firms.[16] If there are many firms that are equally likely to promote competition within a roughly similar time period, then there is little reason to think that acquisition of one of them will preserve the acquired firm's market power and thus little reason to run the risk of sacrificing merger-specific efficiencies.[17]

- Antitrust enforcement agencies and courts might be especially vigilant in reviewing acquisitions by a firm that has engaged in a series of acquisitions of nascent competitors that seem to pose an unusual competitive risk. The multiplicity of such acquisitions might shed light on the motives of the acquiring firm. Experience with prior acquisitions might shed light on the likelihood that the acquiring firm actually expects or is able to realize important efficiencies from subsequent acquisitions. And prior acquisitions might leave fewer competitive threats and thus increase the potential competitive harm from later acquisitions. Special vigilance is also warranted where

there is evidence that the merging parties understood that the merger would extinguish a meaningful competitive threat to the acquiring firm.

Section 2 of the Sherman Antitrust Act

Mergers involving nascent competition might be better assessed under Section 2 of the Sherman Act, which makes it unlawful to "monopolize" a relevant antitrust market. Section 2 prohibits both creation of new monopoly power and maintenance of existing monopoly power by conduct that reduces or extinguishes the threat of future competition that might erode that power.[18] It is thus well-suited to assess allegedly anticompetitive conduct by firms that already have substantial market power. It has been clear for more than 100 years that anticompetitive acquisitions can violate Section 2.[19]

Conduct that is alleged to violate Section 2 is usually assessed by a so-called Rule of Reason. Although various articulations of the Rule of Reason differ in detail, all entail in substance the following steps:

- First, the plaintiff must prove that the conduct has harmed or threatens to harm competition. In this context, the harm would be the elimination of the competitive threat posed by the nascent competitor to the acquiring firm.
- Second, if the plaintiff succeeds, then the defendant may rebut that showing by proving that the conduct will generate substantial efficiencies.
- Third, if the defendant proves such efficiencies, then the plaintiff may prove that the efficiencies could be achieved by means less harmful to competition.[20]
- Fourth, if at this point the court believes that the acquisition will both harm competition and generate important merger-specific efficiencies, then the court must balance the two to determine which is more important.

Section 2 is well-suited for assessing mergers involving nascent competition because its well-developed jurisprudence provides for the consideration of both harms and benefits by a sensible burden-shifting approach that puts the burden of proving the various elements on the party most likely to have access to relevant evidence and avoids requiring either party to prove a negative. Just as antitrust analysis commonly uses proxies, such as market definition and market shares to estimate market power, and HHIs to predict harm from mergers, so it could develop and use proxies, like those summarized above, to estimate likely expected values of mergers involving nascent competition.

Section 2 has two other advantages as well. First, it is better suited than Section 7 of the Clayton Act for assessing the efficiencies that might be created by the acquisition of a nascent competitor. Section 7 law is based in part on an implicit assumption that most mergers have procompetitive benefits and thus requires plaintiffs to prove a likelihood of substantial harm. Once that proof is made, efficiency defenses are rarely successful. Section 2 jurisprudence

embodies no such presumption and thus permits the decisionmaker to assess harms and efficiencies with no a priori presumption as to which is more important or more likely.

Second, "monopoly maintenance" cases under Section 2 concern conduct by incumbent monopolies that is alleged to reduce the likelihood or significance of future competition. Monopoly maintenance cases are sensitive to the particular risks to competition from aggressive conduct by firms with substantial market power. Those firms often have more ability than others to injure competition; because firms with substantial market power have more at stake and can reap a larger portion of the anticompetitive benefits of nipping a nascent competitive threat in the bud, they are more likely to be motivated to do so; and incremental barriers to competition can be especially harmful in markets already characterized by monopoly power. Section 2 jurisprudence is not burdened by the jurisprudence developed for more general application in merger cases under Section 7 and, in particular, is not constrained by any expectation that courts may find acquisitions to be unlawful only when they are more likely than not to harm competition.

Two commentators have suggested that Section 2 may not properly be construed to prohibit acquisitions that would pass muster under Section 7 because, they argue, Congress intended Section 7 to be more restrictive than Section 2.[21] But the legislative history and Supreme Court opinion on which they rely concerned the scope of Section 7, not Section 2.[22] While they might therefore support an argument that Section 7 should be construed more broadly in order not to be narrower than Section 2, they do not support an argument for failing to apply existing Section 2 standards to acquisitions of nascent competitors.

In addition, the legislative history on which these commentators rely focused on the need for Section 7 to address "monopolistic tendencies in their incipiency, and well before they have attained such effects as would justify a Sherman Act proceeding [as the Sherman Act was then construed]."[23] That concern provides no basis for declining to construe the Sherman Act to prohibit acquisitions of nascent competitors that threaten incipient harm to competition.

Moreover, it is widely understood that the antitrust laws evolve in a common law-like process.[24] Thus, even if the Clayton Act was intended in 1914 to be more aggressive than the Sherman Act as it had been construed by the courts before then, the meaning of the Sherman Act might well have evolved since then to be more far-reaching in some respects than the Clayton Act. And, even if the Clayton Act treats mergers more aggressively than the Sherman Act in general, the Sherman Act might be more aggressive with respect to acquisitions used as part of a scheme to maintain monopoly power.

The *Microsoft* Case

The basic theory for challenging a merger involving nascent competition is that the acquisition extinguished a small but realistic possibility that, but-for the acquisition, the acquired firm would have developed into an important competitor of, or an important complement to competitors of, the acquiring firm and thus eroded its monopoly power. The principal legal authority under Section 2 is the D.C. Circuit Court's unanimous *en banc* decision in *United*

States v. Microsoft Corp.[25] The court held in that case that Microsoft violated Section 2 by a course of conduct that harmed Netscape's browser application and thus extinguished a small but realistic possibility that the browser would evolve into, or become a key complement for, a competing computer operating system that would reduce Microsoft's monopoly in the operating system market.

Even though there was only an uncertain, multi-step connection between the harm to competing browsers and the maintenance of Microsoft's operating system monopoly, that connection was sufficient because Microsoft's conduct "reasonably appear[ed] capable of making a significant contribution to … maintaining [its] monopoly power."[26] The requisite causal connection between the conduct at issue and harm to competition can be inferred "when exclusionary conduct is aimed at producers of nascent competitive technologies as well as when it is aimed at producers of established substitutes."[27]

The court held in the *Microsoft* case that a monopolist can violate Section 2 when it engages in anticompetitive conduct that reduces the likelihood that its monopoly power will be reduced, regardless of whether a reduction in its market power absent the conduct was more likely than not. That principle would seem to mean that a monopolist may not acquire a nascent competitor that poses a small but realistic threat to its monopoly power unless:

- The acquired firm is one of several potential competitors and the acquisition will thus not materially reduce the likelihood that the acquiring firm's monopoly power will be reduced

  or

- There are substantial merger-specific efficiencies sufficient to offset the possible reduction in competition

Commentators, however, have suggested that the *Microsoft* case should not be read to support antitrust challenges to nascent acquisitions. Their arguments have focused on two issues, injury to competition and the conduct of the defendant.

Injury to competition

Ginsburg and Wong-Ervin make two related arguments about injury to competition. They note that the court found the conduct at issue in the *Microsoft* case foreclosed Netscape from market opportunities, prevented it from gaining a critical mass of users, and thus reduced the likelihood that it would evolve into a viable operating system or to help others to do so.[28] This argument is buttressed by the D.C. Circuit's subsequent decision in *Rambus v. Federal Trade Commission*.[29] Together, these commentators argue, the foreclosure of Netscape and the *Rambus* decision mean that Section 2 is violated only when actual harm to competition in the relevant market is proven and that it is not enough to prove only anticompetitive conduct that had the potential to harm competition.[30]

There are two problems with this argument. First, these commentators have the foreclosure issue backwards. Microsoft's conduct was not found to have driven Netscape out of business or

to have eliminated it as a separate entity. While Microsoft's conduct was shown to have *harmed Netscape* in the separate browser market, the court made clear in its later discussion of the attempted monopolization and tying claims that the government had not proven harm to competition in the market as a whole, even in the browser market.[31]

The only *harm to competition* proven in that case was the finding that Microsoft's conduct reduced the likelihood that Netscape would in the future enter, or help others to enter, the operating system market.[32] By contrast, *acquisition* of a nascent competitor completely extinguishes both whatever existing competition exists between the acquired and acquiring firms in the relevant market and the possibility that the nascent competitor will develop in the future into a serious competitive threat to the monopolist in that market.

Second, the *Rambus* case does not call into question the causation or injury to competition principles articulated in the *Microsoft* case. The *Rambus* case involved alleged misrepresentations by a potential entrant that had no market power. The misrepresentation had the potential to distort a specific decision by a standard-setting body many years earlier and thereby to *create* monopoly power for the defendant. The court ruled for the defendant on the ground that the Federal Trade Commission explicitly did not find that the conduct actually distorted the decision of the standard-setting body. In substance, the court declined to adopt the unprecedented principle that ordinary business torts that did not harm competition might be found to violate Section 2 on the ground that the conduct might have harmed competition.

The *Microsoft* case was very different because it involved *maintenance* of an existing monopoly and because the conduct in that case reduced the likelihood that Microsoft's monopoly power would be eroded in the future, including after the antitrust litigation. The court knew in the *Rambus* case that the conduct was not shown to have harmed competition in the past and could not do so in the future. The court could not know that in the *Microsoft* case. Not surprisingly, the court denied the Federal Trade Commission's petition for rehearing of *Rambus,* which was based on the argument that the *Rambus* decision was inconsistent with the *Microsoft* decision.

Acquisitions of nascent competitors are like the conduct at issue in the *Microsoft* case in two critical respects. They involve maintenance of an existing monopoly, and they reduce the likelihood that that monopoly will be eroded in the future.[33]

Conduct of the defendant

Other commentators have suggested that the *Microsoft* case does not support challenges to acquisitions of nascent competitors because the conduct found to be unlawful in the *Microsoft* case provided no procompetitive benefits.[34] Acquisitions of nascent competitors, by contrast, usually combine complementary assets and might therefore often provide at least some merger-specific efficiency benefits.

The problem with this argument is that the *Microsoft* court did not suggest anywhere in its lengthy opinion that its discussion of injury to competition and causation applied only to conduct found to have no benefits at all. And the court made clear elsewhere in the opinion that

conduct can both provide efficiency benefits and be sufficiently undesirable to violate the antitrust laws if the harms outweigh the benefits.[35] In short, while the likelihood or magnitude of possible harm required to show that a merger or other conduct is anticompetitive is less when the conduct provides no efficiency benefits, there is no reason to think that otherwise anticompetitive conduct is in a safe-harbor whenever it can be shown to provide efficiency benefits, no matter how insubstantial they might be.

Policy considerations

Mergers involving nascent competition happen all the time. Amazon, Apple, Facebook, Google, and Microsoft, for example, had themselves made a total of 825 acquisitions by the end of 2020.[36] It seems clear that each of those five firms has substantial market power in some markets, and it is likely that a majority of the acquired firms could be regarded as nascent competitors.

It seems equally clear that only a very small portion of the acquired firms would, but-for the acquisition, have developed into a significant competitor or input supplier sufficient to materially erode the acquiring firm's market power. Most would probably fail or remain insignificant. And even if several had the potential to become a significant competitive force, the success of one or more would surely have reduced the likelihood that the others would materially reduce the acquiring firm's market power. Especially in industries characterized by network effects and scale economies, there is room for only a few significant competitors. Therefore, only a small portion of mergers involving nascent competition are likely to end up harming competition.

Only a small portion of all corporate acquisitions harm competition. What makes acquisitions of nascent competitors especially vexing for antitrust law, however, is that it is especially hard to identify those acquisitions that are actually anticompetitive. Merger enforcement always involves substantial uncertainty because it requires comparing the worlds with and without the merger. Pre-merger review requires predicting the future of the merging parties and the relevant markets both assuming the merger is consummated and assuming it is not consummated. Even *ex post* merger review is burdened with unavoidable uncertainty because being able to observe what happened after the merger tells one very little about what would have happened in the counterfactual world in which the merger did not occur.

The antitrust enforcement agencies and courts have, however, developed a variety of tools for evaluating mergers involving relatively mature firms and markets. While there is a robust debate about whether those tools need to be recalibrated, it seems clear that they are capable of identifying most anticompetitive mergers. There is no comparable set of tools for identifying anticompetitive mergers when the acquired firm is not yet mature and neither its performance as a mature firm nor the nature of the market in the presence of that mature firm can be observed. There is therefore a real risk that antitrust enforcement aimed at mergers involving nascent competition will either be paralyzed by uncertainty or block or deter large numbers of benign mergers while searching for those that might really be anticompetitive.

The basic safeguard against excessive antitrust enforcement entails careful factual investigation and the use of sensible proxies. In cases brought under Section 7 of the Clayton Act, the proxies discussed above should be enough to create a presumption of harm to competition and to shift to the merging parties the burden of producing evidence to rebut that presumption or to justify the merger by proving that it will generate merger-specific efficiencies sufficient to offset the expected harm to competition.[37]

These proxies should also be sufficient to shift the burden in cases brought under Section 2 of the Sherman Act, with one difference. Instead of showing that the acquiring firm has substantial existing market power, the plaintiff in a Section 2 case should be expected to show that the acquiring firm either has monopoly power that is likely to persist, at least in the absence of the competitive threat posed by the acquired firm, or would be likely to obtain such monopoly power as a result of the acquisition.

Even with good proxies, however, one implication of a policy of condemning mergers on the basis of a negative expected value, and not requiring proof that the acquisition is more likely than not to harm competition, is that a majority of the prohibited mergers involving nascent competition will be harmless or maybe even procompetitive. There are several concerns about such a policy that need to be considered.

Error costs

For at least the past 40 years or so, U.S. antitrust law has been informed by the idea that false positives are more damaging than false negatives because the latter are likely to be corrected by market forces while the former are subject to no such market correction. The theory has been widely criticized in general on the grounds that it overstates the ability of the market to correct market power-creating conduct, underestimates the ability of parties to transact around false positives, fails to take into account magnitudes of harms from false positives and false negatives, and has led to underenforcement of the antitrust laws.[38]

Whatever the merits of a policy that tilts in favor of avoiding false positives as a general matter, it seems especially inappropriate with respect to acquisitions of nascent competitors. The error-cost argument for antitrust caution is based on the premise that competition will correct inefficient conduct and ameliorate the consequences of anticompetitive conduct.[39] But in markets protected by entry barriers and dominated by a single large firm, competition depends on new entry and innovation. The premise that competition can be expected to correct false negatives has little application to acquisitions by the dominant firms in such markets that extinguish the possibility of competition from or aided by nascent competitors that are uniquely or unusually likely to erode their market power.[40]

The premise also has little application to acquisitions that increase network effects or other entry barriers protecting a dominant acquirer's market power. The concern about such acquisitions is precisely that they interfere with the corrective market processes on which the error cost argument is based.

Merger efficiencies

Mergers usually have the potential to generate efficiencies by combining complementary assets. In the case of acquisitions of nascent competitors, these benefits are most likely to involve acquisition of intellectual property rights and human capital.[41] Prohibiting mergers that are unlikely to harm competition means that most of the prohibited mergers would have been harmless and that many of those harmless mergers would have generated valuable efficiencies.

This observation is not sufficient to justify a merger involving nascent competition. The proposed policy regarding acquisitions of nascent competitors is based on expected values. The idea is that society foregoes uncertain merger benefits of modest value in order to prevent less likely but much more substantial competitive harm from the merger. And mergers would be prohibited only if they are found to have a negative expected value after taking into account both the uncertain benefits and the uncertain harms. Only a small portion of mergers involving nascent competition are likely to be prohibited under the proposed standard.

The concern about foregone merger efficiencies has more purchase as a practical matter. The inquiry into the overall or expected value of the acquisitions includes assessment of possible merger- specific efficiencies. The burden of proving such efficiencies should be on the merging parties because they have better access to evidence about efficiencies and to avoid requiring the plaintiff to prove the negative—that there would be no such efficiencies. The plaintiff should have the opportunity to prove that the claimed efficiencies could be achieved by alternatives to the acquisition that pose less risk to competition.

This allocation of burdens mirrors that applied to merger enforcement in general.[42] But because efficiency defenses have rarely succeeded in justifying otherwise anticompetitive mergers, there is an understandable concern that they will rarely be found to justify even mergers challenged on the basis of unlikely worst-case scenarios about extinguishing nascent competition.

There are, however, reasons to believe that concerns about lost efficiencies are not sufficient to justify standards that are more permissive of mergers involving nascent competition than the expected value approach proposed here. First, as explained above, while the law applicable to most mergers under Section 7 of the Clayton Act has been inhospitable to affirmative defenses based on claimed efficiencies, Sherman Act jurisprudence is based largely on the Rule of Reason, and defendants have had substantial success in cases litigated under the Rule of Reason.[43]

Second, because acquisitions of nascent competitors could be very damaging to economic welfare, the costs of false negatives in the assessment of such acquisitions can be especially large. The law needs to be sufficiently aggressive to avoid an undue risk of false negatives.

Third, acquisitions of nascent competitors—and "killer acquisitions" in particular—are especially likely to be motivated by a desire to extinguish a competitive threat. Dominant firms have more to lose from new competition or important innovation by rivals, and dominant firms are more motivated than others to engage in anticompetitive acquisitions because they will realize a larger portion of the anticompetitive benefits of the acquisitions than would a firm

with a smaller market share.[44]

More generally, as Nancy Rose and Carl Shapiro explain, "there is no robust body of empirical evidence showing that most mergers realize cognizable efficiencies."[45] To the contrary, Rose and Jonathan Sallet note that numerous studies "cast significant doubt on the assumption of widespread prevalence of merger-related efficiencies sufficient to overcome the adverse effects of increased market power."[46] These studies show, in particular, little evidence that firms realize predicted cost savings or revenue synergies.

The cited studies do not purport to measure directly more speculative efficiencies, such as increased likelihood of innovation as a result of aggregation of intellectual property or human capital. The studies do, however, demonstrate that acquiring firms either are overoptimistic about anticipated, measurable efficiencies or overstate the anticipated efficiencies for some other reason. There is no a priori reason to expect more intangible anticipated efficiencies to be free from such biases.

Moreover, many efficiencies are not merger specific.[47] This is especially likely to be the case with respect to benefits from the acquisition of intellectual property, which will often require no more than a non-exclusive license, and human capital, which is most often acquired apart from the acquisition of entire firms or the bulk of their assets.[48]

There is, however, some reason for caution in drawing from these studies inferences about acquisitions of nascent competitors. Most of the studied mergers were not recent, and the studies were based largely on mergers of mature firms and thus might say little about claimed efficiencies in the form of combining the size and marketing acumen of the acquiring firm with the novel software or business model of a nascent competitor. As UC-Berkeley economist Steve Tadelis put it, with a presumably intended pun, "[u]nlike pharma, where acquisitions can lead to killing competition, in tech they often lead to large scale execution, something start-ups almost always fail at."[49] The question in acquisitions of nascent competitors will often be whether the acquired firm or assets would have contributed as much to competition had they been owned by someone other than the acquired firm.

There is another reason for caution with respect to these studies. Even if there were compelling data that mergers are unlikely to, or even that they rarely, generate merger-specific efficiencies, some mergers surely do. And if expected-value analysis, rather than more-likely-than-not analysis, is appropriate for assessing harm from acquisitions of nascent competitors, then expected-value analysis should also be appropriate for assessing merger efficiencies. The relevant question should then be how to account for the possibility that the merger might result in substantial efficiencies even if that result is unlikely.

There is no consensus about how courts should determine whether merger-specific efficiencies proven by the merging parties outweigh the risk of harm to competition from the acquisition.[50] Courts usually avoid that question by finding either no harm or no benefit. Where they find both, a useful starting point might be to inquire whether the anticipated, merger-specific benefits are sufficient to justify the purchase price. If the benefits seem insufficient to justify the purchase price, it can be inferred that the acquisition would make no sense for the acquiring

party but-for its potential to extinguish new competition or innovation.[51]

Beyond that, courts should decide as best they can whether, on balance, the expected impact of the merger on economic welfare is negative or positive in light of the possibility that the merger will extinguish an important competitive threat and the possibility that it will enable realization of efficiencies otherwise not obtainable.[52]

The impact of heighted scrutiny of such mergers on venture capital investments

The efficiencies discussed in the prior section might be thought of as ex post efficiencies -- efficiencies that might be realized after the merger is consummated from combining the acquired and acquiring firms in an acquisition. Concerns about *ex post* efficiencies can potentially arise in any corporate acquisition, and they can be assessed when the acquisition is being assessed.

Proposals for more aggressive antitrust enforcement regarding mergers involving nascent competition have given rise to a different concern—that blocking acquisitions of nascent competitors might deter investments by venture capital (VC) firms in new start-up companies in the future.[53] Without such investment, there would be far fewer start-ups and, presumably therefore, less innovation and less disruptive new entry. One might characterize this as a concern about ex ante efficiencies. It is a concern about how antitrust rules might affect investment, and it needs to be assessed when the rules are chosen.

The logic of the concern is something like this. VC and other early-stage, high-risk investments in start-ups are generally made in anticipation of being liquidated within a few years. Because most start-up firms fail or are sold for modest sums, the investment strategy entails investing in a portfolio of start-ups in the anticipation that some of them will be very successful. The portfolio strategy and the expectation of investors in VC funds generally require liquidation of, or exit from, earlier investments to create funds for future investments. Because non-controlling interests in privately-held start-ups can be sold, if at all, only at a substantial discount, liquidation of the investment usually requires sale of the start-up entity (or the bulk of its assets). Confidence in the availability of such liquidation or exit opportunities is central to VC and other investments in start-ups.

Fewer than 10 percent of start-up firms are sold through an Initial Public Offering (IPO). Many simply fail, but a substantial portion—maybe a substantial majority—are sold to larger firms.[54] The concern is that heightened scrutiny of acquisitions of nascent competitors by dominant firms might deter such acquisitions and, by diminishing the interest of dominant firms in such acquisitions, might reduce buyer competition in the markets in which startups are acquired and, thus, the purchase price in acquisitions of nascent competitors even by firms that are not dominant.[55]

If venture capital investors and other early-stage investors anticipate such effects, investment in start-ups might decline. But the risk of such a decline would be offset at least to some extent by the prospect of increased investment in startups if heightened antitrust scrutiny increases competition in, and reduces entry barriers to, markets otherwise dominated by monopolies[56]

and by the preservation of competition from startups that would otherwise be acquired by incumbent monopolies.

There is not yet meaningful empirical evidence about the practical importance for future VC investment of these two competing conjectures. One recent, large study found a statistically significant increase in VC investment in industry segments in which large technology firms had acquired start-ups.[57] Notably, however, the study found no significant effects in the "highly dynamic" United States,[58] and the positive effects of start-up acquisitions on VC investment that the study did find "persist for a few months only and thus do not seem to have lasting impacts on the innovation incentives in the start-up ecosystem."[59]

Moreover, the study does not compare VC investment in the existing world in which large technology platforms make large numbers of acquisitions with that in a hypothetical alternative world in which more aggressive antitrust policies have resulted in more competitive tech markets or reduced barriers to entry in those markets.[60] Nor does it address the question whether the increased investment in the observed segments reflected an increase in total VC investment or simply a reallocation of investments from one segment to another.[61] Other studies are also equivocal.[62] And a recent theoretical study suggests that acquisitions of startups by dominant technology platforms are likely to be followed by a decline in investments in startups in the same commercial space as that occupied by the acquired startups.[63]

In the absence of strong empirical evidence, the theoretical concern about VC investment seems to provide an insufficient basis for rejecting the kind of antitrust policy toward acquisitions of nascent competitors proposed here. In the first place, there is an abundance of investment in startups that reflects a variety of economic forces that are unlikely to be affected by the kinds of marginal changes in antitrust rules discussed in this paper.[64] The issue raised by the approach discussed in this paper is not whether most or all acquisitions of nascent competitors should be prohibited. It is, instead, whether a small percentage of such acquisitions that are found to be anticompetitive after investigation of their competitive effects and efficiency benefits should be prohibited. That kind of targeted antitrust enforcement is very unlikely to deter investment in startups that are not expected at the outset to be unusually attractive acquisition targets of monopoly tech platform. Tiago Prado and Johannes Bauer studied more than 32,000 VC deals from 2010 to 2020.[65] During that period, the five largest tech firms made fewer than 825 acquisitions. In other words, fewer than 3 percent of VC deals culminated in an acquisition by one of the largest tech firms.

Moreover, data collected by the Federal Trade Commission in its study of acquisitions by the large tech firms show that "most of the acquisitions are valued at below $15 million (and 38.6 percent are valued below $10 million); include a handful of employees [most between 1 and 10]; and involve companies that are five years or older" and have thus already had a reasonable opportunity to test their disruptive potential.[66] Only a small fraction of acquisitions like those are likely to be problematic, and even fewer are likely to be prohibited by a more aggressive but targeted antitrust enforcement program.

It is hard to imagine that the very small reduction in the expected value of a venture capital

firm's portfolio implied by those numbers would materially reduce VC investment in startups.[67] And if it did reduce VC investment, it is likely to affect the most marginal portfolio opportunities, which overall are the least likely to have real social value.

Although the analysis is more complex, the conclusion seems to be the same, even for investment in startups made with a specific expectation that, if successful, the startup would be an attractive acquisition target for the dominant tech firms. This is so for several reasons.

First, most such acquisitions would be permitted under the standard proposed here, either because the startup poses no unique threat to an incumbent monopoly or because the acquisition is expected to generate important merger-specific efficiencies. It is not clear that a marginal reduction in the likelihood of antitrust clearance would deter VC investment.

Second, acquisition of a nascent competitor can injure competition only if it prevents the acquired firm from developing into an important competitive threat to the acquiring firm, and that can happen only if the acquired firm has a viable, promising alternative path without the acquisition. Antitrust enforcement will thus interfere with acquisitions only of those startups that are most likely to have good alternatives. The alternatives might be as a standalone business or as a party to a merger that does not raise serious competitive concerns. In other words, the prohibited acquisitions are those for which attractive alternative exit paths are most likely.[68]

The VC investor might of course find selling a portfolio company to an incumbent monopoly to be more profitable than pursuing alternative exit options. In many cases, the higher profits available from an anticompetitive acquisition by an incumbent monopoly are likely to include a share of the increased or perpetuated monopoly profits expected as a result of the acquisition.[69] But no antitrust interest would be furthered by permitting the startup to be acquired by an incumbent monopoly, instead of pursuing viable and more benign alternatives, in order to obtain a premium for preserving the acquiring firm's monopoly.

Third, the acquisitions most likely to be prohibited, and thus the kinds of investments most likely to be deterred, by targeted antitrust scrutiny are likely to be of modest social value. One reason is that acquisitions that are likely to provide substantial efficiency benefits are unlikely to be prohibited.

Some or maybe most of the start-up companies intended at the outset to be attractive to a dominant incumbent firm will be focused on products or services that are complements to the dominant firm's business. Acquisitions of these startup are unlikely to harm competition, will often provide efficiency benefits, and will thus rarely be prohibited. Sai Krishna Kamepelli and co-authors suggest that the prospect of such acquisitions can deter customers and app developers from engaging with the startups and thereby reduce their value and thus the amount the incumbent will pay to acquire them, with the result being the creation of "kill zones" in which future investment is diminished.[70]

Investments in such complements will in any event often be of modest social value, in part because the prospect of acquisition by a dominant firm might divert venture capital from

investments that are more socially valuable toward incremental improvements that might help the dominant firm increase its dominance.[71] Moreover, making acquisitions of complements by dominant firms more difficult might result in increased R&D by the dominant firms themselves.[72]

To be sure, some complements might be an important competitive threat to the acquiring firm, either by developing into a substantial competitor of the acquiring firm or, as was feared in the *Microsoft* case, by providing a uniquely valuable complement that enables substantial competition against the acquiring firm. The courts and enforcement agencies ought to take that possibility into account. But those cases are likely to be very uncommon. Most complements will just be complements.

Acquisitions of startups that compete with dominant firms are more likely to be prohibited by the standards proposed in this chapter, especially those involving startups that are differentiated from the dominant firms. The prospect of acquisition by a dominant firm, unconstrained by antitrust scrutiny, can diminish the social value of investments in startups intended to compete against the incumbent firm by creating incentives to imitate the incumbent inefficiently, instead of offering a more differentiated alternative.[73]

In addition, the prospect of such acquisitions is likely to induce otherwise inefficient investments made for the purpose of attracting acquisition interest by creating a competitive threat.[74] These investments are likely to be of little social value, especially if they are intended to result in "killer acquisitions," in which the startup is acquired and shut down, and even if the startup continues to be operated after its acquisition by the dominant firm.

Fourth, most harmful would be a reduction in investments in startups that pose a competitive threat to the monopoly and would flourish if they were not acquired by the monopoly firm. Paradoxically, however, a lax antitrust policy is likely to result in many of those startups being acquired by the monopoly, which will often have an incentive to pay a monopoly premium to acquire them.[75] It seems unlikely that antitrust interests would be served by permitting anticompetitive acquisitions of nascent competitors in the hope that doing so will induce future VC investments that will end up having substantial social value only if the startup flourishes and the threatened monopoly, even though free from antitrust constraint, does not acquire the startup.

Multiple acquisitions by the same firm

Multiple acquisitions, each of which has only a small likelihood of injuring competition, might in aggregate have a substantial risk of harming competition. Four acquisitions by an incumbent firm, for example—each of which has an independent 10 percent chance of harming competition—would in aggregate have almost a 35 percent chance of harming competition. It is tempting to think that, if the aggregate likelihood of harm is big enough, the group of acquisitions should be unlawful.

Antitrust violations require anticompetitive conduct. Courts have long made clear that multiple

instances of aggressive but procompetitive conduct do not violate the antitrust laws, even if their cumulative effect is to drive less effective rivals from the market, because the aggregation does not change the character of the conduct and thus cannot justify deeming any of the conduct to be anticompetitive.[76]

That principle would seem to require assessing the lawfulness of a series of acquisitions by determining, separately for each one, whether the acquisition is anticompetitive. If so, while the other acquisitions might provide relevant evidence that sheds light on the acquirer's intent, the likelihood of merger-specific efficiencies, or competitive alternatives in the relevant markets, the fact that the acquisition was part of a series would be immaterial.

There are, however, two ways in which a series of acquisitions might appropriately change the outcome other than just by creating additional evidence. First, the earlier acquisitions might change the market circumstances by, for example, reducing the number of possible new entrants or by affecting the evolution of the monopoly firm's business and thus the commercial opportunities available to others. Those changes might make a later acquisition more likely to harm competition than if it had not been preceded by the others.[77]

Second, and more fundamentally, the principle that aggregation of multiple instances of lawful conduct does not make any of the conduct unlawful makes sense when the conduct is thought to be lawful because it is procompetitive. It is not clear that principle should apply to an acquisition that is thought to be lawful, not because it is expected to create procompetitive benefits, but rather because the risk of harm from the acquisition is thought to be too small. Thus, if a dominant firm makes a series of acquisitions involving nascent competition that provide no efficiency benefits, it might be appropriate to find a violation when the aggregate risk of harm from the acquisitions becomes great enough.

There are, however, arguments for not finding a violation in that situation on the basis of the aggregate risk of harm. Antitrust law requires predictability so that firms can know in real-time whether their conduct will be lawful or unlawful. That objective is undermined if firms have to imagine how a creative antitrust plaintiff might combine the pending acquisition with lawful acquisitions in the past or those contemplated for the future to argue that the combination is unlawful.

Aggregation of multiple acquisitions would also create other complexities. It would seem inappropriate to find all the acquisitions to be illegal because the last one caused the aggregate harm of the combined acquisitions to be great enough to support finding a violation. Yet prohibiting only the last acquisition would enable the monopolist to sequence its acquisitions in order to make the least problematic acquisitions the most likely to be found to be unlawful. This problem could be addressed by finding the set of acquisitions to be unlawful but restricting the remedies for the set of acquisitions to those appropriate to compensate for the harms caused by the particular acquisition (or acquisitions) that pushed the set across the line to illegality.

The issue of timing of antitrust challenges to mergers

Application of antitrust principles to pending mergers is often difficult because it requires

predicting two different future states, the world with and without the merger. "Prediction is very difficult," the late Nobel prize-winning physicist Niels Bohr famously observed, "especially if it's about the future."

One way to reduce the uncertainty would be to assess mergers involving nascent competition years after they have been consummated, with the benefit of knowledge about how the acquiring and acquired firms evolved in the interim. That knowledge might shed light on both the competitive importance of the acquired firm and any efficiencies generated by the merger.

There is no legal bar to antitrust challenges to previously consummated mergers. There have been several successful challenges to such mergers under both Section 2 and Section 7 both before and after passage of the Hart-Scott-Rodino Antitrust Improvements Act of 1976,[78] 15 U.S.C. § 18a, which authorized the antitrust enforcement agencies to review large proposed mergers before they are consummated.[79] As a practical matter, a court would probably want to know why the government waited to challenge the acquisition and, especially if it was subject to pre-merger review, what has changed to justify the later challenge.[80] But there is no basis for a court to reject a post-closing challenge to a merger as matter of law.

There are, however, policy reasons why the enforcement agencies should be reluctant to defer merger challenges until long after consummation.[81] For one thing, merger remedies are much less likely to be effective when mergers are challenged after they have been consummated. The acquired firm might cease to exist, and its assets might have been dissipated or widely distributed throughout the acquired firm. Even if the firm exists within the acquiring firm, its ability to be a significant competitive threat to the acquiring firm is likely to be greatly diminished by the passage of time, market developments, and defensive actions taken by the acquired firm. And a divestiture remedy long after consummation of the merger is likely in any event to be very disruptive.[82]

There are other problems, too. The prospect of a post-merger challenge denies the merging parties the certainty that pre-merger review was intended to create and might chill its investment in efficiency-enhancing exploitation or integration of the acquired firm that would not be profitable if the merger were subsequently unwound. More serious might be perverse incentive effects from the prospect of post-merger challenges. The acquiring firm might suppress the acquired firm to avoid creating evidence of what a big competitive threat it might have become absent the merger, or it might inefficiently "scramble the eggs" to make divestiture less feasible and less likely. Either course would both inhibit the realization of merger-related efficiencies and reduce the likelihood of a successful post-consummation challenge to the merger.

Post-merger challenges will no doubt be appropriate in some cases. They might be a uniquely valuable means of establishing an important antitrust precedent.[83] They might be prompted by facts not appreciated or provable before the closing that demonstrate the likely anticompetitive consequences of the merger or an optimal merger remedy.[84] But such challenges should be rare. Antitrust functions best when it provides clear *ex ante* signals about the line between lawful and unlawful conduct and does not chill or distort incentives for efficient competition by the specter

of ex post intervention.

Conclusion

Only a small portion of acquisitions involving nascent competition are likely to harm competition and reduce economic welfare. The rest will be either benign or procompetitive. But those that are harmful could be very harmful because they could extinguish uniquely valuable opportunities to reduce monopoly power of incumbent firms or innovative startups that might, if not owned by a firm motivated to protect its existing monopoly profits, contribute enormously to economic welfare by disrupting existing markets and spurring a process of creative destruction.

To prevent such harmful acquisitions, antitrust law must be prepared to prohibit acquisitions that are expected on balance to diminish economic welfare even if harm is less likely than not and even if the acquisitions would be likely to generate some merger-specific efficiencies. Existing antitrust doctrine, especially under Section 2 of the Sherman Act, is sufficient to permit prohibiting mergers under these circumstances.

But antitrust law should be applied with great care in these circumstances. Only a small portion of mergers affecting nascent competition—those that pose an unusual risk to competition—should be prohibited. Such mergers should be prohibited only after careful assessment of both possible harms and possible merger-specific efficiencies. In almost all cases, mergers involving nascent competition should be challenged, if at all, only before (or, in the case of mergers not subject to pre-merger notification, shortly after) they are consummated. Later challenges to such mergers are appropriate only in unusual cases.

ENDNOTES

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[1] C. Scott Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PENN. L. REV. 1879, 1883 (2020), available at https://scholarship.law.columbia.edu/faculty_scholarship/2661/.

[2] See, e.g., Jay Ezrielev, *An Economic Framework for Assessment of Innovation Effects of NascentCompetitor Acquisitions* (2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3810486.

[3] For a discussion of the difficulties of predicting innovation, see Richard J. Gilbert & A. Douglas Melamed, *Innovation under Section 2 of the Sherman Act,* 84 ANTITRUST L.J. 1 (2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3818303.

[4] For this purpose, the acquiring firm is identified by looking at the economic substance of the transaction. The parties cannot avoid having their transaction regarded as an acquisition of a nascent competitor by structuring the deal as a reverse merger, in which the nascent competitor winds up being the nominal acquiring firm.

[5] Joseph A. Schumpeter, CAPITALISM, SOCIALISM AND DEMOCRACY 82 (1942).

[6] "Network effects" are a phenomenon by which the value of a product or services increases as the number of users of the product or service increases . "Economies of scale" are reductions in the average per unit costs of output that are often associated with increased output by the firm.

[7] In some situations, the threat might be both horizontal and vertical. In the *Microsoft* case, for example, Microsoft Corp., used anticompetitive conduct to weaken Netscape in the browser market. The conduct was found to have harmed competition in the computer operating system market by reducing the likelihood that Netscape would either evolve into a competitor in that market or increase its presence in the browser market and become an important complement for other operating system competitors. *United States v. Microsoft Corp.,* 253 U.S. 34 (D.C.

Cir.2001) (en banc). An acquisition of Netscape by Microsoft would have been somewhat more likely to cause the same competitive harm because it would have eliminated Netscape as an independent threat instead of just weakening it.

[8] See generally, Richard J, Gilbert & A. Douglas Melamed, Innovat*ion: A Bridge to the New Brandeisians,* COMPETITION POLICY INTERNATIONAL (February 21, 2022), available at https://www.competitionpolicyinternational.com/innovation-a-bridge-to-the-new-brandeisians/.

[9] See Nancy L. Rose and Carl Shapiro, *What's Next for Horizontal Merger Guidelines,* ANTITRUST MAGAZINE (forthcoming 2022).

[10] See generally, Colleen Cunningham, Florian Ederer, and Song Ma, *Killer Acquisitions*, 129 J. POL. ECON. 649 (2021), available at https://www.journals.uchicago.edu/doi/10.1086/712506.

[11] See, e.g*., United States v. Marine Bancorp.*, 418 U.S. 602, 633 (1974) (there must be "substantial likelihood" that acquired potential entrant would have entered the market, "ultimately producing deconcentration"); *Tenneco, Inc. v. FTC*, 689 F.2d 346, 352 (2d Cir. 1982)(potential entrant "would likely have entered"); *FTC v. Steris Corp*., 133 F. Supp. 3d 962, 978 (N.D. Ohio 2015) (potential entrant "probably would have entered"); *FTC v. Arch Coal, Inc*., 329 F. Supp. 2d 109, 115 (D.D.C. 2004) (acquisition of existing competitor must be "likely substantially to lessen competition"); see also Hemphill & Wu, *supra* note 2, at 1895-96 (lower court cases under Section 7 require "probable" entry with procompetitive effects). But see *United States v. General Dynamics Corp.*, 415 U.S. 486, 505 (1974) (Section 7 "deals in probabilities, not certainties").

[12] Timothy J. Muris and Jonathan E. Nuechterlein, *First Principles for Review of Long- Consummated Mergers*, Criterion J. on Innovation 29, 30 (2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3486469; see also Jonathan Jacobson and Christopher Mufarrige, *Acquisitions of Nascent Competitors,* Antitrust Source 1, 14 (August 2020), available at https://www.wsgr.com/a/web/28843/jacobson-0820.pdf (only if harm is more likely than not or if the evidence shows a risk of harm "so severe that it cannot be risked").

[13] See Douglas H. Ginsburg and Jacob Philipoom, *A Certain Harm Overlooked: The Case of Nascent Competitors Revisited,* CONCURRENTIALISTE (April 2021), available at https://www.networklawreview.org/ginsburg-philipoom-nascent-competitors/.

[14] In *United States v. Philadelphia National Bank*, 374 U.S. 321, 364 (1963), the Supreme Court said that a combined post-merger market share of 30 percent or more "threaten[s] undue concentration." That statement has given rise to the so-called "Philadelphia National Bank presumption" that a merger that results in a post-merger share of more than 30 percent should be presumed to be illegal. One commentator has suggested that a nascent acquisition by an incumbent monopoly is therefore presumed to be unlawful under Section 7. See Technology Policy Institute, *Big Tech Antitrust Reform Proposals: Good Policy or Counterproductive?* (Dec. 8, 2021), available at YouTube. But the Philadelphia National Bank presumption should not be construed to apply to nascent acquisitions. The case involved a merger of direct competitors, so it is inapplicable to acquisitions of startups that do not presently compete against the incumbent monopoly. Moreover, the acquired and acquiring firms in that case were the second and third largest firms in the market, and the merger would have increased the combined share of the two largest firms in the market from 44 percent to 59 percent. The court summarized its conclusion as follows: "Specifically, we think that a merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects." 374 U.S. at 363 (emphasis added). The case is thus best understood as describing circumstances in which a merger of mature existing competitors is likely to injure competition, rather than as describing a market share number that would condemn even acquisitions of small firms that are unlikely to harm competition.

[15] Hemphill & Wu, *supra* note 2, at 891; see also Luis Cabral, *Big Tech Acquisitions* (June 2022) (manuscript on file with author) (economic model showing that "balance of harms" approach to assessing nascent acquisitions leads to an increase in welfare compared to "balance of probabilities" and, even more so, compared to complete ban on such mergers).

[16] This will ordinarily require proof of unusual intellectual property, human capital, or business strategy assets. A first-mover advantage that is material to the likely competitive significance of the acquired firm could be such an asset if the acquiring firm is expected to continue to operate the acquired firm and exploit its first mover advantage. An acquired firm's first mover advantage could also be such an asset, even if the acquisition would

remove the first mover impediment to other rivals, if the acquisition would materially delay the competitive threat to the acquiring firm.

[17] Jacobson and Mufarrige, *supra* note, 12, would require the acquired firm to have some special attributes, but they explicitly reject the suggestion in early potential competition cases under Section 7 that there should be no more than 2 or 3 potential entrants.

[18] See, e.g., *United States v. Microsoft*, *supra* note 7, at 79.

[19] See, e.g., *United States v. Grinnell Corp.*, 384 U.S. 563 (1966); *United States v. Standard Oil Co. of New Jersey,*221 U.S. 1 (1911).

[20] In a merger context, the plaintiff would be given the opportunity to show that the efficiencies were not merger-specific because they could have been achieved without a merger or acquisition. For example, the plaintiff might show that efficiencies based on the acquisition of intellectual property could have been achieved by acquisition of only a nonexclusive license to the intellectual property.

[21] Douglas H. Ginsburg and Koren Wong-Ervin, *Challenging Consummated Mergers Under Section 2*, CPI (2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3590703.

[22] *Brown Shoe Co. v. United States*, 370 U.S. 294, 328-29 (1962).

[23] *Id.* at 318 n.32 (quoting S. Rep. No. 81-1775, at 4296).

[24] See, e.g., *Leegin Creative Leather Prods., Inc. v. PSKS, Inc*., 551 U.S. 877, 899 (2007) ("from the beginning, the Court has treated the Sherman Act as a common law statute"); *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 688 (1978).

[25] *United States v. Microsoft*, *supra* note, 7.

[26] *Id.* at 79.

[27] *Id.* For a more extended discussion of this aspect of the *Microsoft* case, see Hemphill and Wu, *supra* note 2, at 1897-98.

[28] Ginsburg and Wong-Ervin, *supra* note, 21.

[29] 522 F.3d 456 (D.C. Cir. 2008).

[30] Ginsburg and Wong-Ervin, *supra* note, 21.

[31] *United States v. Microsoft*, *supra* note, 7 at 81-84 (attempted monopolization), 95 (tying).

[32] See *id.* at 61 (finding that the conduct at issue "protects Microsoft's monopoly from the competition that middleware *might otherwise present*") (emphasis added).

[33] As discussed below, acquisitions of nascent competitors might be challenged long after they are consummated. It is possible that the court would conclude in such an *ex post* review on the basis of evidence not previously available that the acquisition did not eliminate a realistic threat to the acquiring firm's monopoly power. The acquisition should in that event be found not to be unlawful, just as an acquisition of a nascent competitor should be found not to be unlawful if the court finds after an *ex ante* review that the acquisition will not eliminate a realistic threat to an existing monopoly. Such findings would in no way entail a repudiation of the causation and injury principles articulated in the *Microsoft* case because those principles apply where the threat is realistic and the future competitive impact of the conduct at issue is uncertain.

[34] E.g., Muris and Nuechterlein, *supra* note 12, at 39.

[35] *United States v. Microsoft*, *supra* note 7, at 59.

[36] Geoffrey Parker, Georgios Petropoulos, and Marshall Van Alstyne, *Platform Mergers and Antitrust* at 4-5 (2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3763513.

[37] See section 2 (a), supra.

[38] See, e.g., Herbert Hovenkamp, *Antitrust Error Costs*, Univ. Pa. J. Bus. L. (2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3853282; Jonathan B. Baker, *Taking the Error Out of Error Cost Analysis: What's Wrong with Antitrust's Right*, ANTITRUST L.J. 1(2015), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333736.

[39] Then-professor and now judge Frank Easterbrook, who is generally credited with having first articulated the error cost argument, put it this way: "The fundamental premise of antitrust is the ability of competitive markets to drive firms toward efficient operation. The entire corpus of antitrust doctrine is based on the belief that markets do better than judges or regulators in rewarding practices that create economic benefit and penalizing others." Frank H. Easterbrook, *The Limits of Antitrust*, 65 TEX. L. REV. 1, 15 (1984).

[40] See Kevin Bryan & Erik Hovenkamp, *Startup Acquisitions, Error Costs, and Antitrust Policy*, 87 U. CHI. L.REV. 331 (2020), available at

https://lawreview.uchicago.edu/sites/lawreview.uchicago.edu/files/BryanHovenkamp_StartupAcquisitions_87UCLR331.pdf.

[41] See text at note 66, *infra*.

[42] See, e.g., U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines,* §10 (2010).

[43] See Michael A. Carrier, *The Rule of Reason: An Empirical Update for the 21st Century*, 16 Geo. MASON L. REV. 827 (2009), available at https://lawreview.gmu.edu/wp-content/uploads/2022/01/SSRN-id1480440-1.pdf.

[44] Hemphill & Wu, *supra* note 7, at 1891.

[45] Rose and Shapiro, *supra* note 9.

[46] Nancy L. Rose and Jonathan Sallet, *The Dichotomous of Efficiencies in Horizontal Mergers: Too Much? Too Little? Getting It Right*, 168 U. PENN. L. REV. 1941, 1966 (2020) (summarizing much of the literature), available at https://scholarship.law.upenn.edu/penn_law_review/vol168/iss7/3/.

[47] See, e.g., Louis Kaplow, *Efficiencies in Merger Analysis*, 83 ANTITRUST L.J. 557, 585-586 (2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3811790.

[48] See Herbert Hovenkamp, *Antitrust and Platform Monopoly*, 130 YALE L.J. 1901, 1994-95 (2021), available at https://www.yalelawjournal.org/article/antitrust-and-platform-monopoly.

[49] Steve Tadelis on Twitter (September 15, 2021), available at Steve Tadelis on Twitter: "Unlike pharma, where acquisitions can lead to killing competition (@florianederer's excellent JPE paper), in tech they often lead to large scale execution, something start-ups almost always fail at. Is that distinction too subtle for regulators? https://t.co/c76GvB7arm" / Twitter.

[50] Some of the alternative approaches gleaned from Sherman Act jurisprudence are summarized in A. Douglas Melamed, *Acquisitions of Nascent Competitors under Section 2 of the Sherman Act*, CONCURRENTIALISTE (February 2021) available at: https://leconcurrentialiste.com/melamed-nascent-competitors/.

[51] While easy to summarize conceptually, this approach might have limited usefulness as a practical matter. In the first place, the court's estimate of the value of the efficiencies might differ from the parties.' Perhaps more important, the rationality of the purchase price will depend in part on the acquiring firm's tolerance for risk, and that will often be difficult for the court to assess. In addition, if consummation of the merger depends on a low purchase price, the parties will have an incentive to reduce or conceal the actual purchase price.

[52] In a very thoughtful speech, Federal Trade Commissioner Noah Phillips proposed challenging mergers if there is (i) "compelling evidence that the nascent rival is one of only a few firms with a decent chance of competing against the monopolist" even if (ii) there is also proof that "the merger could generate significant cognizable efficiencies." In other words, Commissioner Phillips would weight speculative harm more heavily than speculative benefit. He would not, however, challenge a merger if the evidence shows actual significant efficiency benefits but only speculative harm to competition. Noah Phillips, *Reasonably Capable: Applying Section 2 to Acquisitions of Nascent Competitors* at 9 (April 29, 2021), available at Prepared Remarks of Commissioner Noah Joshua Phillips: Reasonably Capable? Applying Section 2 to Acquisitions of Nascent Competitors, U.S. FEDERAL TRADE COMMISSION (ftc.gov).

[53] E.g., Gary Dushnitsky and D. Daniel Sokol, *Mergers, Antitrust, and the Interplay of Entrepreneurial Activity and theInvestments That Fund* It (August 5, 2021), available at https://ssrn.com/abstract=3863580 or http://dx.doi.org/10.2139/ssrn.3863580.

[54] See Mark A. Lemley and Andrew McCreary, *Exit Strategy*, 101 B. U. L. REV. 1, 7 n.12 (2021) (9% of VC-funded startups exited by IPO from 2014-18), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3506919.

[55] I am grateful to Joe Grundfest for this insight.

[56] See Vincenzo Denicolo and Michele Polo, *Acquisitions, Innovation and the Entrenchment of Monopoly* (December 20, 2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3988255; see generally Gilbert and Melamed, *supra* note 4, at 31-35 (summarizing studies showing that market concentration and high entry barriers are as a general matter inversely correlated with innovation).

[57] Tiago S. Prado and Johannes M. Bauer, *Big Tech Acquisitions of Start-ups and Venture Capital Funding for Innovation*, 59 Information Economics and Policy 1 (2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3787127. The authors used a dataset consisting of more than 32,000 venture capital deals reported worldwide from 2010 to 2020.

[58] *Id*. at 13. The paper elsewhere notes that, although the confidence intervals are wide, "they provide empirical ground for the claim that acquisitions of U.S.-based start-ups produce positive incentives for" investment in the affected industry segments in the two quarters following the acquisitions." *Id.* at 9.

[59] *Id.* at 14.

[60] *Id*. at 15.
[61] *Id.* at 16.
[62] E.g., Ian Hathaway, *Platform Giants and Venture-Backed Startups* (2018), Platform Giants and Venture-Backed Startups — Ian Hathaway; Oliver Wyman, *Assessing the Impact of Big Tech on Venture Investment* (2018), available at PowerPoint Presentation (oliverwyman.com).
[63] Sai Krishna Kamepalli, Raghuram Rajan, and Luigi Zingales, *Kill Zone*, NBER Working Paper 27146 (February 2021), available at w27146.pdf (nber.org).
[64] *The $900 Billion Cash Pile Inflating Startup Valuations*, Wall Street Journal (December 27, 2021), available at https://www.wsj.com/articles/the-900-billion-cash-pile-inflating-startup-valuations-11640539562.
[65] See *supra* note 57.
[66] John Yun, *Discriminatory Antitrust in the Realm of Potential and Nascent Competition* (February 10,2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4045644.
[67] Dushnitsky and Sokol suggest that smaller first-time funds might be more sensitive to incremental increases in antitrust risk. Dushnitsky and Sokol, *supra* note 53, at 16-17.

[68] See generally, Richard J. Gilbert, INNOVATION MATTERS: COMPETITION POLICY FOR THE HIGH TECHNOLOGY ECONOMY 105 (MIT Press 2020) (while a "prohibition on acquisitions would discourage innovation," prohibiting acquisitions when there are "alternative acquirers that . . . would have much less risk of harm" can "preserve innovation incentives").
[69] It has long been clear that firms with market power have the incentive and ability to outbid others for acquisition partners or inputs, such as exclusive distribution rights, that enable them to preserve their market power. See, e.g., Stephen C. Salop, T*he Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, andthe Flawed Incremental Price-Cost Test*, 81 ANTITRUST L.J. 371, 408 (2017) (maintaining market power is more valuable than maintaining or achieving viability in a competitive market); Richard J. Gilbert and David M.G. Newbery, *Preemptive Patenting and the Persistence of Monopoly*, 72 AM. ECON. REV. 514 (1982).
[70] See Kamepalli, et al., *Kill Zone*, *supra* note 62; see also Koski, Heli, Kasssi, Otto and Braesemann, *Killers on the Roadof Emerging Start-ups – Implications for Market Entry and Venture Capital Financing*, available at ETLA-Working-Papers-81.pdf.
[71] See Kevin Bryan and Erik Hovenkamp, *supra* note 40, at 349-50.
[72] *Id.* (citing Joseph Schumpeter).
[73] See Richard Gilbert and Michael L. Katz, *Dynamic Merger Policy and Pre-Merger Investment: Equilibrium Product Choice by an Entrant* (February 28, 2021), available at https://ssrn.com/abstract=3795782.
[74] One commentator has called these investments "entry for buyout." Eric Rasmussen, *Entry for Buyout*, 36 J.INDUS. ECON. 281 (1988).
[75] See *supra* note 69. Acquisition by the incumbent is likely to provide investors the most valuable exit in most cases, but a startup that offers a drastic innovation that replaces the incumbent will not be more valuable to the incumbent than to other investors or acquirers. See Gilbert & Melamed, *supra* note 4, at 23.
[76] See, e.g., *Abcor Corp. v. AM Intern, Inc.*, 916 F.2d 924, 930-31 (4th Cir. 1990).
[77] See, e.g., *United States v. Microsoft*, *supra* note 7, at 72.
[78] E.g., *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586, 597 (1957) (the government may challenge a merger under Section 7 "at any time that an acquisition may be said with reasonable probability to contain a threat that it may lead to a restraint of commerce or tend to create a monopoly of a line of commerce"); *United States v. Grinnell Corp.* (Section 2), and *United States v. Standard Oil Co. of New Jersey* (Section 2)*, supra* note 19. See also *United States v. ITT Cont'l Baking Co.*, 420 U.S. 223, 241-42 (1975).
[79] See *Steves and Sons v. JELD-WEN, Inc.*, 988 F.3d 690 (4th Cir. 2021); *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1050 (8th Cir. 2000) ("Clayton Act claims are not limited to challenging the initial acquisition of stocks or assets . . . since holding as well as obtaining assets is potentially violative of section 7.").
[80] The court might ask similar questions in deciding whether private post-closing merger challenges should be barred by laches. See, e.g., *State of New York v. Facebook*, Case No. 1:20-cv-03589-JEB (D. D.C. June 28, 2021).
[81] The agencies might be unable to challenge before closing mergers that are not subject to pre-merger review under the Hart-Scott-Rodino Act. The policy considerations discussed in text suggest that the agencies should where possible challenge these mergers promptly after learning of them instead of waiting until long after they are consummated.

[82] While merger remedies, including divesture orders, are less likely to be effective and more likely to be costly if they are implemented after the merger is consummated, such remedies are likely to be appropriate in some cases. See John Kwoka and Tommaso Valletti, *Unscrambling the Eggs: Breaking up Consummated Mergers and Dominant Firms,* 30 Industrial and Corporate Change 1286 (2021), available at https://academic.oup.com/icc/article/30/5/1286/6360491?login=false.

[83] The Federal Trade Commission might view its pending case challenging Facebook's acquisitions of Instagram and What's App as such a case.

[84] For example, the Federal Trade Commission's challenge to Evanston Northwestern Healthcare Corporation's acquisition of Highland Park Hospital was based largely on evidence of substantial price increases shortly after the transaction was consummated. See In the Matter of Evanston Northwestern Healthcare Corporation, FTC Docket No. 9315 (August 6, 2007).