Entrepreneurship, Innovation, and Antitrust*

Against the background of a relatively sluggish recovery from one of the worst recessions of the post-War era, the future of the U.S. economy looks unusually cloudy. The growth of labor productivity, the engine of growth of living standards, has averaged less than 1 percent annually since 2010, far less than the nearly 3 percent pace of the first 25 years of the post-World War II era and its rejuvenated pace through much of the 1990s. While the government's official long-term economic forecaster, the Congressional Budget Office, projects a pickup of productivity growth to 1.5 percent over the next several decades, even that pace is disappointing to those of us who enjoyed and grew accustomed to the much earlier, higher growth rates.

Slow productivity growth reflects a slow pace of innovation. Arguably one of the most important sources of innovation is startup activity, since entrepreneurs have commercialized a disproportionate number of the truly disruptive innovations that have driven productivity growth: the telephone, the automobile, the airplane, computers and much computer software, air conditioning, and internet search, to name just a few. For this reason, the thirty year secular decline in the "startup rate"—the share of all firms represented by firms one year old or less—is disturbing. So are the disappointing statistics about the success of so-called "high-growth" firms, despite the pickup in recent years of venture capital-backed (mostly tech) startups.² The disappointing startup trends are also consistent with a more economy-wide backing away from the widespread culture of experimentation and risk-taking that propelled the rapid productivity growth that many took for granted in the 1990s and several

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¹ Timothy Aeppel, U.S. Productivity: Missing or in Hiding, WALL ST. J., July 17, 2015, http://www.wsj.com/articles/silicon-valley-doesnt-believe-u-s-productivity-is-down-1437100700. Labor productivity is defined as "real output per labor hour," i.e. the amount of goods and services workers produce in a given hour. Shawn Sprague, What can labor productivity tell us about the U.S. economy?, Beyond the Numbers: Productivity, vol. 3, no. 12 (U.S. Bureau of Labor Statistics, May 2014), http://www.bls.gov/opub/btn/volume-3/what-can-labor-productivity-tell-us-about-the-us-economy.htm.

² Robert E. Litan, *How the United States Can Regain Its Entrepreneurial Edge*, FOREIGN AFF. (Jan./Feb. 2015), *available at* https://www.foreignaffairs.com/articles/americas/2014-12-15/start-slowdown.

decades before then.³ If the more recent trends continue, they foreshadow a future of slow economy-wide growth, a clearly undesirable outcome.

Antitrust policy is one of many policies that affect the future course of innovation and growth. Much of the analysis of antitrust in the economic and legal literature focuses on its "static effect," how certain practices or activities affect current economic efficiency. The focus in this chapter instead will be on the impact of antitrust policy on *dynamic efficiency*, or growth. If we must err it should be on the side of promoting growth—startups in particular—especially given the worrisome trends in startup activity.

We focus on and offer specific action recommendations in several areas of antitrust law where vigilant enforcement is especially important: merger policy, anti-monopolization (especially in the context of new platform technologies on which many startups depend), patent licensing, standards governing standards-setting bodies and joint ventures, and statutory preemptions of antitrust (especially in the securities area). We also discuss certain procedural improvements that Congress, judges, and government litigators can implement to speed up antitrust litigation and thus make antitrust enforcement an even more effective deterrent force than it is now.

MAJOR RECOMMENDATIONS

In order to better facilitate innovation through startups in particular, the government enforcement agencies during the next administration should:

- Devote greater scrutiny to claims of efficiencies or synergies between merging parties (but be mindful of counter-incentive effects where startups are being bought by larger competitors).
- Implement, through legislation or through judicial action, various procedural reforms that promise to speed up antitrust litigation, Section 2 monopolization cases in particular. Restoring legislation allowing for expedited Supreme Court review of

³ Edmund Phelps, Mass Flourishing: How Grassroots Innovation Created Jobs, Challenge, and Change (2013).

Section 2 cases should be considered, and judges and government litigators should explore the expanded use of certain expediting procedures used in the *Microsoft* case.

- Pursue more rigorous enforcement of the 1995 Antitrust Guidelines for the Licensing
 of Intellectual Property in light of recent cases involving alleged abuse of intellectual
 property rights, particularly patents.
- Offer a more systematic approach to the review of FRAND licensing, drawing on recent cases proposing methodologies to deal with determination of royalties and avoidance of royalty stacking in the implementation of private industry standards that incorporate patents.
- Utilize antitrust enforcement to prevent private interference by patent owners to block regulation that promotes welfare-enhancing innovation.
- Re-assert antitrust primacy or at least eliminate preemption of the antitrust laws in areas where other regulatory schemes may be prevalent (such as in the securities arena), and more widely with respect to all other activities that may be overseen by federal regulatory agencies.
- Assess the effectiveness of the "full blown" rule of reason as the standard for scrutinizing vertical contractual restraints that ostensibly promote non-price competition along quality dimensions but may tend more frequently to adversely affect consumers.

I. Merger Policy

Given the apparent economy-wide negative relationship between startup activity and local concentration,⁴ stricter merger enforcement is warranted. In particular, we make the case here for

⁴ ROBERT E. LITAN & IAN HATHWAY, BROOKINGS INST., WHAT'S DRIVING THE DECLINE IN THE FIRM FORMATION RATE? A PARTIAL EXPLANATION (Nov. 2014), available at http://www.brookings.edu/~/media/research/files/papers/2014/11/driving-decline-firm-formation-rate-hathaway_litan/driving_decline_firm_formation_rate_hathaway_litan.pdf.

more skepticism against economies in mergers in general and, where mergers are not blocked or remedied with divestitures, for ensuring that mergers are conditioned on enforceable anti-discrimination provisions (as in content-cable mergers).

As a preliminary matter, antitrust merger enforcement can promote innovation in several ways. First, it can reduce market concentration and barriers to entry so new firms can bring new products or services to consumers or supply consumers with already existing products and services at lower prices and with improved quality. Second, it can create a level playing field for pioneer firms to introduce new products and to challenge existing business models. These benefits can arise from ensuring competition in secondary markets, such as venture capital, banking, or credit markets, which support the innovative process. Third, merger enforcement can promote technology transfer and diffusion by creating healthy and vibrant input markets that arise through pro-competitive licensing practices and other distributions of productivity enhancing technologies.

Merger enforcement is accomplished through injunctions, structural remedies, or conduct remedies, which attempt to prevent discrimination by the combined entity using rules of behavior. Although parties often justify increased concentration through economies of scale that allow firms to potentially reduce average costs and generate returns that can finance innovation, potential economies of scale can be offset by diseconomies that arise from increased costs of communication and management within the combined entity. The benefits of vertical integration in reducing within-firm costs can be offset by, among other things, increased costs for competitors through the creation of bottlenecks and concentration in factor supply markets.⁵

The failed merger of Time Warner Cable and AOL, approved in 2000 but undone a few years later, illustrates the failure of promised economies of scale from integration. Instead of the promised synergies from the merger, this transaction demonstrates the complexities of coordinating new media and information markets and the development of new platforms. Similar failed promises of economies mark questionable mergers in the automobile, energy, and airline sectors. The Chrysler-Daimler Benz

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⁵ See Thomas Greaney, Not for Import: Why the EU Should Not Adopt the American Efficiency Defense for Analyzing Mergers and Joint Ventures, 44 ST. LOUIS U. L.J. 871, 882-83 (2000); see also Steven C. Salop & Daniel P. Culley, Revising the U.S. Vertical Merger Guidelines: Policy Issues and an Interim Guide for Practitioners, J. ANTITRUST ENFORCEMENT (forthcoming 2016) (describing exclusionary effects, unilateral effects, coordinated effects, evading regulation, and facilitating harmful price discrimination as ways in which vertical mergers can harm consumers and competition).

merger, approved because of promised efficiencies and synergies, was undone by the parties several years later because of the difficulty in reconciling U.S. and German management practices. Similarly, the Tosco-Unocal merger of oil refineries did not produce synergies but rather was part of the process of Unocal selling off its assets leading to its eventual acquisition by Chevron. Finally, airline mergers approved in part because of promised gains in efficiencies, such as Delta-Northwest in 2009 and US Airways-American Airlines in 2014, even with conditions, have produced a highly concentrated market that has seen airline fares rise by roughly 20 percent since 2010, after being more or less constant in nominal terms for more than a decade.⁶

Claims of benefits made in merger enforcement proceedings should survive only if supported with specific and concrete evidence of economies of scale that outweigh potential diseconomies.⁷ Part of this proposal echoes the recommendations of Professor Robert Pitofsky, that mergers be conditionally granted with the proviso that the merger be undone if promised efficiencies are not shown within three years.⁸

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Data MIT Airlines Data Project, System the Passenger http://web.mit.edu/airlinedata/www/2014%2012%20Month%20Documents/Revenue%20and%20Related/Passenger %20Revenue/System%20Passenger%20Yield.htm (last visited Mar. 9, 2015); see also Diana L. Moss, Am. Antitrust Inst., Delivering Benefits: Airline Mergers and Efficiencies (2013),http://www.antitrustinstitute.org/sites/default/files/AAI_USAir-AA_Efficiencies.pdf. According to media reports during the summer of 2015, the Antitrust Division of the Department of Justice (DOJ) launched an investigation into whether the four major airlines that now control over 80 percent of U.S. domestic airlines traffic have coordinated on limiting capacity, which has artificially inflated fares. See, e.g., Drew Harwell et al., Justice Dept. Investigating Potential Airline Price Collusion, WASH. POST, July 1, 2015, http://www.washingtonpost.com/business/economy/doj-investigatingpotential-airline-collusion/2015/07/01/42d99102-201c-11e5-aeb9-a411a84c9d55_story.html. Numerous private class action lawsuits were filed against these airlines in the wake of these reports.

⁷ See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES 30-31 (2010), available at http://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf. For further discussion of efficiencies claims in the context of merger enforcement, see Chapter 3 of this Transition Report.

⁸ Robert Pitofsky, Proposals for Revised United States Merger Enforcement in A Global Economy, 81 GEO. L.J. 195, 223 (1992); see Robert Pitofsky, Chairman, Fed. Trade Comm'n, Subsequent Review: A Slightly Different Approach to Antitrust Enforcement, Address to the Antitrust Section of the American Bar Association (Aug. 7, 1995), available at https://www.ftc.gov/public-statements/1995/08/subsequent-review-slightly-different-approach-antitrust-enforcement (noting advantages in that "parties are allowed to complete the transaction, and achieve claimed efficiencies, and the Commission has an opportunity to observe whether anticompetitive effects actually emerge," and "indirect and more subtle possible advantages" where "parties claiming efficiencies or brushing off the possibility of anticompetitive practices may be induced in the years following the merger to pursue more aggressively the efficiencies or avoid more carefully anticompetitive effects," and "lawyers, economists and others defending transactions may be a little more cautious in submitting extravagant claims if they know they will be called to account at a later date"); see also Robert Pitofsky, Efficiencies in Defense of Mergers: Two Years After, 7 GEO. MASON L. REV. 485 (1999).

Greater scrutiny of synergies among firms as procompetitive justifications also would be desirable. Such scrutiny would demand examination of the feasibility of opening new markets or product lines and promoting technological innovation. Any claims for synergies, however, should be balanced against impediments to start-up development in high technology industries. Acquisitions of start-up companies by dominant firms may be cause for some scrutiny, particularly if there is evidence of technology suppression. But such scrutiny should keep in mind potential desirable incentive effects for start-up companies from acquisitions by established dominant firms.

II. Section 2 Enforcement

General purpose or platform technologies—such as electricity, computer operating systems, telecommunications, and the internet—have long played a critical role in enabling many other technologies, industries, and firms to launch and build their businesses. In this way, platform technologies generate positive spillovers to the rest of the economy.

But these spillovers will not be maximized unless the new platforms are open to all comers, without discrimination. When the platform is a natural monopoly, such as an electricity provider, or AT&T before it was broken up and mobile phones and cable television became viable competitors, equal, non-discriminatory access is ensured by regulation. In other contexts, such as desktop operating systems, antitrust enforcement has been called upon to police a level playing field, especially where the platform provider also owns applications or services that compete with independent providers (e.g., Microsoft's operating system and Internet Explorer). In the current internet retail economy, various platforms are or will be important hosts to startup activity, and some have taken actions that already have attracted the attention of antitrust authorities in the United States or other countries (e.g., Google's search platform and its Android mobile operating system and Apple's e-book and music retailing platforms). Other platforms for the sale of goods and crafts (e.g., Etsy), and various kinds of labor services (e.g., TaskRabbit and Github) also are sure to be important in the 21st century economy.

The new platforms are of interest to antitrust authorities where they acquire market power, even short of monopoly, and they are of special interest where they not only own the platform but also offer

⁹ See Orley Ashenfelter et al., Did Robert Bork Understate the Competitive Impact of Mergers? Evidence from Consummated Mergers, 57 J.L. & ECON. S67, S69 (2014).

services on it. In such cases, conditions to mergers are likely to be required to ensure equal access to the platform by other competitors (such as the anti-discrimination conditions imposed on Comcast when it acquired NBCU, for example).

But preventing merging firms from leveraging their market power from a platform into an application is relatively easy from a procedural point of view when the extension is proposed to be accomplished by merger (which the authorities can block or remedy before the fact). Trying to stop a firm that may already be abusing its market power from doing so is comparatively more difficult. In the latter case, government enforcers or private parties must bring suit under Section 2 of the Sherman Act, which prohibits the willful acquisition or maintenanace of monopoly power but not its legitimate exploitation where monopoly is lawfully gained through a combination of innovation and luck. Although simple to state, this principle is difficult to apply, and Section 2 claims take a long time and a great deal of effort and money. The roughly decade of prosecutorial effort that went into the Justice Department's Microsoft and AT&T investigations are good examples of these difficulties.

Are there any ways of significantly reducing delay and expense—for both sides—without compromising due process? The question is important because in the event defendants are guilty of Section 2 offenses, the longer it takes to halt those acts, the more unlawful "rents" the defendants will earn (which the federal government may have difficulty disgorging and private victims may have difficulty recovering, either because of hurdles in assembling a class that can be certified or in proving damages). Furthermore, delay enables the monopolist that is abusing its dominance to entrench its market power, thereby discouraging new entrants, especially those with potentially disruptive and useful alternatives, from coming to market or growing their market footprints. These benefits from delay provide incentives for defendants in Section 2 cases to stretch out their cases as long as possible as a way of collecting those additional rents while hoping for a change in enforcement policy through election outcomes (a strategy from which Microsoft clearly benefitted in the late 1990s and early 2000s). Nonetheless, in certain instances, monopolists charged with violating Section 2 could welcome speedy resolution of those allegations, in order to clear their names, limit the diversion of personnel and resources devoted to resisting the litigation, and more quickly lifting any clouds of uncertainty that such cases may be imposing on their stock prices.

We focus here on ways of speeding antitrust litigation, especially where the government is the plaintiff, and especially in Section 2 cases, where the rules of competition can be especially important for startups needing access to the platforms that may be subject to legal challenge.

A. Special Rules of Procedure

The most aggressive option would be for Congress to enact specialized, expedited procedural rules either for antitrust cases in general (a difficult lift), or specifically for monopolization (and possibly attempted monopolization) cases arising under Section 2 of the Sherman Act, where the incentives for delay on the part of defendants can be especially strong. Possible expediting reforms could include limitations on interlocutory relief, or returning to the pre-1974 rule that allowed automatic appeals of district court antitrust decisions to the Supreme Court.¹⁰ If the latter alternative were deemed too broad or politically difficult, the expedited appeals provisions could be limited to Section 2 cases. The standard since 1974 has been discretionary and applies only where proof exists that "immediate consideration" would be "of general public importance in the administration of justice."¹¹ The Supreme Court decided, incorrectly in our view, that the district court's ruling in *Microsoft* did not meet this standard.¹² A new statute restoring expedited appeals in Section 2 cases in particular would prevent such an outcome from recurring.

Critics of giving any special procedural status to antitrust cases no doubt will argue that there is no good reason to put government-initiated litigation ahead of the line, at least for civil matters. One broad response to that line of argument is that ensuring competitive markets is an essential foundation for all economic activity, and therefore deserves primacy. We reassert this claim later in this chapter when discussing whether and to what extent other statutory schemes should preempt the federal antitrust laws. Meanwhile, a narrow justification for singling out Section 2 cases in particular for special treatment is that they often, if not typically, involve platforms that host or affect many startup firms, which as we noted in the introduction are disproportionately responsible for disruptive, and highly socially beneficial, innovation.

¹⁰ Antitrust Expediting Act, Pub. L. No. 03-82, § 2, 32 Stat. 823 (1903) (codified at 15 U.S.C. § 28) (amended in 1974 by the Antitrust Procedures and Penalties Act, *infra*).

¹¹ Antitrust Procedures and Penalties Act (Tunney Act), Pub. L. No. 93-528, § 5, 88 Stat. 1706, 1709 (1974).

¹² Microsoft Corp. v. United States, 530 U.S. 1301 (2000) (denying direct appeal without explanation).

B. Judge-Imposed Rules

In the absence of legislation, there is much that individual judges can do to shorten at least the trial phase of Section 2 litigation in particular. For example, prosecutors and judges can learn lessons from the expedited procedures used in *Microsoft*¹³ to speed up all antitrust cases.

Specifically, whatever views one may hold of Judge Jackson's actions that ultimately caused an appellate court to remove him from the case, Judge Jackson used some innovative procedural methods that greatly accelerated the Microsoft trial in 1998, which other antitrust courts could usefully apply in their proceedings. These include putting a sharp limit on the number of trial witnesses for each side and permitting oral witness testimony only for purposes of cross examination, with direct testimony submitted in writing. In addition, where it is possible and relevant, prosecutors should seek a preliminary injunction to halt the distribution of an updated platform. But judges should think long and hard about tying a PI motion to a hearing on the merits, as Judge Jackson did. Although it expedited the full case, it allowed Microsoft to continue dominating the PC market for operating systems with its then-new Windows release.

Adopting procedural rules more favorable to antitrust enforcement would be consistent with important substantive developments in the law that have facilitated the appropriate application of antitrust law beyond narrow contours. Principal areas of development include antitrust scrutiny of patent licensing and standard setting organizations, and review of private efforts to forestall innovation, inducing government regulation. We turn next to each of these substantive developments to emphasize the importance of procedural rules that are supportive of antitrust enforcement.

II. Antitrust and Patent Licensing Practices

The Supreme Court's 2013 decision in Fed. Trade Comm'n v. Actavis¹⁵ is an example of judicial reform that facilitates Section 2 enforcement against patent settlements. In allowing a Federal Trade Commission (FTC) enforcement action on antitrust grounds against a settlement between a patent owner and a generic drug manufacturer, the Court also removed certain implied immunities for patents

¹³ United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

 $^{^{14}}$ See Andrew I. Gavil & Harry First, The Microsoft Antitrust Cases: Competition Policy for the Twenty-First Century (2014).

^{15 133} S. Ct. 2223 (2013).

from antitrust scrutiny. Specifically, the Court expanded antitrust review of patents beyond the traditional areas of fraud on the patent office and sham litigation. While the 1995 Antitrust Guidelines for the Licensing of Intellectual Property¹⁶ potentially allowed for greater antitrust review of patent licensing practices in the courts, the narrow cabining of antitrust claims against patent owners to cases of fraud and sham litigation weakened the Guidelines' reach in this regard. The *Actavis* decision may signal a new era of antitrust scrutiny of intellectual property licensing in the courts.

One particularly troubling area of licensing behavior stems from settlements in the form of covenants not to sue granted by intellectual property owners that may make it impossible to challenge the validity of patents or trademarks. The Supreme Court decision in *Already v. Nike*¹⁷ illustrates how the grant of a covenant not to sue by a trademark owner cuts off the ability of a competitor to challenge the validity of a trademark. Similar practices can be identified in cases involving patent validity, both within the USPTO and in the courts.

There is a strong argument against antitrust scrutiny of all settlements under a generalized rule of reason standard, since an excessively broad rule would deter many useful settlements. The challenge, therefore, is identifying what settlements should give rise to antitrust challenge. One possible approach is to subject settlements that insulate patents, trademarks, or copyrights—all various forms of intellectual property—from validity challenges to heightened antitrust review, under the policies of *Actavis* and *Lear v. Adkins.*¹⁸ This is because questionable patents, trademarks, and copyrights that cannot be challenged by virtue of a settlement may inhibit start-up firms and inventors from entering markets dominated by these intellectual property owners. Future government antitrust efforts should pay especially close attention to potentially abusive exercises of patent and other intellectual property rights.

¹⁶ U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY (1995), *available at* https://www.justice.gov/sites/default/files/atr/legacy/2006/04/27/0558.pdf.

¹⁷ Already, LLC v. Nike, Inc., 133 S. Ct. 721 (2013).

¹⁸ Lear, Inc. v. Adkins, 395 U.S. 653 (1969).

The Supreme Court's 2015 ruling in *Kimble v Marvel*¹⁹ is consistent with greater antitrust scrutiny of patents in particular.²⁰ Upholding its 1964 precedent in *Brulotte v. Thys*, which invalidated a patent license that extended beyond the term of the patent,²¹ the Court affirmed the need to police intellectual property rights. While the *Brulotte* precedent has been questioned by scholars and practitioners as interfering with the contractual rights of patent owners,²² the Court rejected these arguments, holding that *Brulotte's* per se rule prevented overreach by patent owners through licensing obligations that continued once a patent had expired.²³ In the process, the *Kimble* Court also affirmed the role of antitrust law, specifically the rule of reason, as an important tool to combat the dominance of patent owners.²⁴

The concerns with dominance recognize the possibility of patent abuse. One area, beyond the examples of this section, where patent abuse is likely is that of standard setting organizations, the second area where especially rigorous antitrust review is necessary.

III. Standard Setting and Joint Ventures

Section 1 enforcement is critical to ensure that standards-making bodies do not artificially prevent new and potentially disruptive entrants, such as in online education (which college accrediting bodies, at least in principle, are in a position to thwart or slow down). In light of the 2015 Supreme Court decision in *North Carolina State Board of Dental Examiners v. Fed. Trade Comm'n*,²⁵ antitrust enforcers should provide greater scrutiny to trade and professional associations that may impose barriers to entry for start-up companies. In its *Dental Examiners* decision, the Court denied *Parker* state action immunity to a state licensing body because the state had delegated its authority without supervision to

¹⁹ Kimble v. Marvel Entm't, LLC, 135 S. Ct. 2401 (2015).

²⁰ For further discussion of competition issues at the intersection of patent and antitrust law, including with regard to standard-setting bodies, discussed *infra*, see Chapter 5 of this Transition Report.

²¹ Brulotte v. Thys Co., 379 U.S. 29 (1964).

²² See, e.g., Sean Gates & Jeny Maier, Brulotte's Continuing Shadow Over Patent Licensing, 4 OXFORD J. INTELL. PROP. L. & PRAC. 181 (2009).

²³ Kimble, 135 S. Ct. at 2412-14.

²⁴ See id.

²⁵ N.C. State Bd. of Dental Exam'rs v. Fed. Trade Comm'n, 135 S. Ct. 1101 (2015).

an entity controlled by self-interested private market participants.²⁶ State regulation was a mask for what was effectively a private cartel entrusted with the licensing of new entrants. Antitrust law should scrutinize such private licensing arrangements that may be disguised by rules of a standard setting body.

In light of concerns over private industry cartels, Congress and enforcement entities also should review judicial standards for enforcing "fair, reasonable, and non-discriminatory" (FRAND) licensing terms and standard essential patents. Heightened review would support the propagation of new technologies and help avoid royalty stacking and burdensome licensing terms with little procompetitive benefits.

One model for judicial standards that balances the benefits of standard setting for innovation and the costs of cartel activity is found in the National Cooperative Research Act of 1984,²⁷ which regulates joint ventures. The Act and subsequent court rulings impose a rule of reason for antitrust scrutiny of such ventures. A rule of reason should allow for joint ventures that truly promote start-up and collaborative innovation. But the rule of reason approach also allows for the careful balancing of costs and benefits necessary for effective review of standard setting bodies in their practices of standards implementation and licensing, practices which can inhibit entry, especially by competitors offering disruptive products, services, or technologies.

Judicial rulings from 2012 and 2013 involving FRAND licensing in the information technology sector illustrate the fact-intensive inquiries required for effective policing of standard setting bodies. Decisions involving Microsoft²⁸ and Innovatio²⁹ invite intensive review of the underlying patents, the innovative technology, and licensing terms in order to fashion remedies that accurately measure the requisite amount of royalties necessary to compensate patent owners without burdening licensees with duplicative payment obligations (referred to as royalty stacking). The need for such broad and deep

²⁶ Id. at 1110.

²⁷ National Cooperative Research Act of 1984, Pub. L. No. 98-462, 98 Stat. 1815 (codified at 15 U.S.C. §§ 15, 26, 4301–4306).

²⁸ Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023 (W.D. Wash. 2012).

²⁹ In re Innovatio IP Ventures, LLC Patent Litig., 921 F. Supp. 2d 903, 906 (N.D. Ill. 2013).

scrutiny may seemingly conflict with the recommendations for streamlined antitrust litigation procedures discussed earlier in this chapter. But there are some key distinctions to keep in mind.

One response is that review of FRAND licensing practices typically involves a highly specialized and narrow set of cases that would not meaningfully increase the burden on enforcement authorities. Another factor is the imperative of greater enforcement oversight to discover information from Standard Setting Organization (SSO) participants and patent owners regarding technology and licensing practices. More formalized rules about royalty rates based on industry practice and the nature of technology may ease any marginal increases in administrative costs from greater scrutiny of SSO's and their business practices.

IV. Antitrust and Regulation

Furthermore, legislation may be required to overturn judicial rulings preempting antitrust enforcement in certain regulatory contexts, such as in the securities arena—where the Supreme Court decided in 2007 in *Credit Suisse v. Billing*³⁰ that federal securities law preempted antitrust law in the absence of a clear legislative statement to the contrary.

To give readers an idea of how important this ruling is, consider one of the most important Justice Department-initiated Section 1 price-fixing cases of the last twenty years: the *NASDAQ* litigation. *NASDAQ* ultimately settled in a consent decree charges that NASDAQ market-makers had colluded to artificially prop up the bid-ask spreads on 100 of the most highly traded stocks then listed on the NASDAQ exchange.³¹ The Department's case was prompted by academic research showing that consistent 25 basis point spreads on these stocks could not be explained away by random chance.³² The Department also worked closely with the Securities and Exchange Commission (SEC) in its investigation, and subsequent to the consent decree the SEC issued new, more transparent order-handling rules, which greatly accelerated electronic trading in equities and brought much greater

³⁰ Credit Suisse Sec. (USA) LLC v. Billing, 551 U.S. 264 (2007).

³¹ Stipulation and Order, United States v. Alex Brown & Sons, 169 F.R.D. 532 (S.D.N.Y. 1996) (No. 96 Civ. 5313), *available at* http://www.justice.gov/file/484146/download; Competitive Impact Statement, United States v. Alex Brown & Sons, 169 F.R.D. 532 (S.D.N.Y. 1996) (No. 96 Civ. 5313), *available at* http://www.justice.gov/file/484141/download.

³² William G. Christie & Paul H. Schultz, Why Do NASDAQ Market Makers Avoid Odd-Eighths Quotes?, 49 J. FIN. 1813 (1994).

competition to the equities trading markets.³³ Here's the punchline, however: had the *Billing* holding then been in effect, DOJ arguably could never have mounted its investigation without the SEC's blessing, which today is no sure thing. Institutional rivalries between agencies often get in the way of sound policy making.³⁴ The joint investigation clearly helped speed up the uncovering of key facts in this case, and facilitated a satisfactory set of remedies from both agencies.

Contrast all of that with the situation post-*Billing*, in which DOJ's independent authority to police securities markets and issuance overseen by the SEC is murky at best. There are competitive problems in the markets for underwriting corporate bonds that, as of this writing, the SEC still has not publicly investigated, and which seemingly call for antitrust inquiry. In particular, except for one modestly sized electronic platform, there is no electronic trading platform for corporate, municipal, or state bonds where the spreads typically are wide.³⁵ Moreover, because the major underwriters have a lock on the primary issuance of these bonds, they are in a position also to prevent the emergence of electronic platforms by handing out their primary bond allocations to their best brokerage (i.e., secondary market) customers. This tying arrangement is precisely the kind of activity that an antitrust enforcement agency like DOJ or even state attorneys general would be well positioned to investigate and potentially remedy. But because bond underwriting and trading activity is overseen by the SEC, *Billings* has discouraged antitrust enforcers from investigative activities that could bring down spreads in corporate bonds in a fashion similar to what they did in equities two decades ago.

More broadly, because of the primacy of competition in all markets noted earlier, DOJ should not be deterred from taking enforcement actions due to threatened preemption in other arenas of economic activity—whether it be transportation, utility markets (gas and electric), or health care, to name a few—where other federal regulatory agencies are involved. One simple congressional response would be to enact a generic statute that in effect could say: "notwithstanding any other provision in federal law, the federal antitrust enforcement agencies are not preempted from enforcing the antitrust laws

³³ ROBERT E. LITAN, TRILLION DOLLAR ECONOMISTS 264–70 (2014).

³⁴ In the opinion of one of the co-authors of this chapter, who was at DOJ's antitrust division in a high level capacity at the time, it was only because DOJ had unquestioned legal authority to proceed with the NASDAQ investigation on its own that SEC's attorneys were willing to be so cooperative (which in turn they were).

³⁵ Fin. Economists Roundtable, Statement on the Structure of Trading in Bond Markets (Apr. 2015), available at http://fic.wharton.upenn.edu/fic/Policy%20page/FERBondStatementwithIntro.5.11.15.pdf.

where activities may be regulated by other federal agencies." Such a provision would not mean that the DOJ and FTC would be able to run roughshod over other regulators, but it would give the agencies the kind of leverage DOJ had with respect to the SEC two decades ago to forge cooperative investigative arrangements that can help multiple agencies and, most importantly, the broader public.

Another issue at the intersection of antitrust and regulation concerns the reach of patent law. While ostensibly granted to promote industry level innovation, patents can interfere with the implementation of technological standards enacted in government regulations aimed at promoting social innovation. One example is the promotion of 911 numbers on mobile technology by the FCC. As Professor Tejas Narechania's research reveals, current FCC regulations require cell phone providers to report location data automatically with 911 calls. ³⁶ Unfortunately, the processing of location information can infringe on existing patents in the telecommunications and information processing fields. The mobile phone industry has requested that FCC regulations mandate a license to use such patents in order to comply with the 911 regulations. Patent owners have questioned whether the FCC has authority to require such licenses. Consequently, the FCC has not acted on the petition from mobile telephone service providers, creating a stalemate in the implementation of the location technology connected with 911 calls. ³⁷ Antitrust enforcers could potentially resolve this regulatory stalemate through scrutiny of the anticompetitive and anti-innovation uses of patents. The EPA demonstrated similar inaction in its failure to require licensing of technology that would clean certain noxious chemical emissions from dry cleaning facilities pursuant to the agency's own regulations.

Antitrust law, through its goal of promoting innovation through competition, also plays a role in limiting attempts to impede procompetitive regulation. The FTC action against Unocal in 2004 is one example of how antitrust enforcement can promote broader pro-consumer and pro-competition regulation.³⁸ In the case of Unocal, the Commission considered the anticompetitive effects of a company supporting state regulatory standards that incorporated its patented technology. While the FCC and EPA examples illustrate the converse example of the use of patented technologies to prevent

³⁶ Tejas N. Narechania, *Patent Conflicts*, 103 GEO. L.J. 1483, 1485 (2015).

³⁷ *Id*.

³⁸ See Decision and Order, In re Union Oil Company of California, FTC Dkt No. 9305 (2005), available at https://www.ftc.gov/sites/default/files/documents/cases/2005/08/050802do.pdf.

implementation of government regulation, similar principles favoring competition and innovation also should apply.

The Supreme Court decision in *Actavis*,³⁹ discussed above, supports such antitrust scrutiny of patents. Furthermore, close scrutiny would be consistent with recent judicial developments in antitrust oversight of standard setting and FRAND licensing. A more careful and thorough examination of antitrust's role in supporting government innovation policy should inform reform proposals.

V. Antitrust Principles and Competition in Quality

Finally, we note one especially important characteristic of competition in information based products and services, or those at the cutting edge of innovation in the 21st century economy. Providers of such products compete on both price and non-price (i.e., quality) dimensions, such as instruction to consumers and ease of use. Often the ability of firms to compete on non-price variables is more important than finding the right price point. Consequently, scale effects may lead to oligopolistic competition as a more accurate characterization of actual market conditions than perfect price competition. Deviation from perfect market competition based solely on price has implications for antitrust scrutiny of product differentiation, especially that arising from use of intellectual property laws such as trademarks and patents. As is well known, trademarks allow firms to compete through slight variations in product quality by establishing brands, and permit increases in consumer prices. Similarly, patent law allows firms to differentiate across versions of products based on perceptions of innovativeness. Where aggressive enforcement of intellectual property rights cross the line into market abuse, such as in settlements of patent lawsuits that impede competition, greater antitrust scrutiny is warranted.

Furthermore, contractual licensing terms cover not only price and quantity, but other variables that deal with the quality dimension of a product or service. Although quality competition is important and beneficial, antitrust scrutiny needs to focus on the potential exclusionary effects of certain quality-related contractual terms. Vertical restraints, particularly territorial restraints imposed on retailers in conjunction with minimum or maximum resale price maintenance (RPM), are examples of such contractual licensing terms. The Supreme Court adopted a rule of reason approach to minimum RPM

³⁹ FTC v. Actavis, Inc., 133 S. Ct. 2223 (2013).

nearly a decade ago in *Leegin v. PSKS*.⁴⁰ Since then, the market has effectively produced a potentially rich source of data on how relaxed scrutiny of such practices has affected market conditions and consumer well-being. Although we do not recommend abrogating the rule of reason for all vertical restraints, it is time to develop alternative approaches to the "full blown" rule of reason in appropriate circumstances, for example through the use of presumptions—as suggested by both the majority and the dissent in *Leegin*.⁴¹

VII. Conclusion

AAI strongly believes vigorous antitrust enforcement is critical to promoting entrepreneurship and innovation. The enforcement challenges posed by the emergence of market-dominant platforms on which the survival of many new companies depend are especially imposing. The potential for abuses of monopoly and market power in such contexts, accordingly, must be closely monitoried. The same is true of mergers which have led to growing consolidation in a number of industries.

We have recommended a menu of procedural reforms that could be adopted by Congress or by judges that would resolve Sherman Act claims more expeditiously, including limitations on interlocutory appeals and possibly allowing direct appeal to the Supreme Court from final district court orders. Such reforms may be the most feasible in Section 2 cases, where they may prove to be the most effective. With respect to Section 1 cases, courts should apply the rule of reason with careful consideration of anticompetitive harms and procompetitive benefits in reviewing licensing and contracting practices by dominant firms. As with synergies in merger review cases, procompetitive benefits should be carefully examined in Section 1 cases. In addition, Congress should assert the primacy of antitrust considerations in regulatory contexts, or void regulatory preementions of antitrust.

We ask the next administration to scrutinize efficiencies defenses to mergers more closely, and to more aggressively enforce the Justice Department's 1995 Antitrust Guidelines for the Licensing of

⁴⁰ Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877 (2007).

⁴¹ See id. at 898 (inviting lower courts to "establish the litigation structure to ensure the rule [of reason] operates to eliminate anticompetitive restraints from the market" and noting that courts can "devise rules over time for offering proof, or even presumptions where justified, to make the rule of reason a fair and efficient way to prohibit anticompetitive restraints and to promote procompetitive ones"); id. at 917–18 (Breyer, J., dissenting) (stating that, if forced to decide now, at most Justice Breyer would retain the per se rule, "slightly modified to allow an exception for the more easily identifiable and temporary condition of 'new entry").

Intellectual Property given more patent abuses that can frustrate or prevent competition from startups. The Supreme Court has ruled on the dangers of reverse payment settlements in patent litigation involving generic drugs. Lower courts have started to confront the competition and contract issues raised by FRAND licensing. These developments invite a more systematic treatment of how courts review issues at the intersection of intellectual property and antitrust laws.

Competition is a driver for innovation. Disappointing rates of startup success reflect in part impediments to competition. More directed and considered antitrust review can be an effective means to remove these impediments. We respectfully recommend to the next administration the many ways presented to restore innovation-promoting competition to our economy.