



## **The Impact of Consolidation and Monopoly Power on American Innovation**

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**Before the United States Senate, Committee on the Judiciary  
Subcommittee on Antitrust, Competition and Consumer Rights**

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Thank you Chairman Klobuchar, Ranking Member Lee, and Members of the Subcommittee. It is an honor to be here today to lend the American Antitrust Institute's (AAI's) perspective to the issue of innovation and competition. AAI is an independent, nonprofit organization devoted to promoting competition that protects consumers, businesses, and society.<sup>1</sup> We serve the public through research, education, and advocacy on the benefits of competition and the use of antitrust enforcement as a vital component of national and international competition policy. As the leading progressive organization dedicated to promoting competition, AAI applauds Senate lawmakers for turning their attention to the question of how consolidation and monopoly power affect American innovation. My testimony addresses the following major topics:

- **Overwhelming economic and business evidence shows that competition spurs innovation. And because innovation drives economic productivity, competition is therefore essential for realizing economic growth in the U.S.**
- **Innovation competition is diminished by anticompetitive conduct and harmful consolidation, making antitrust enforcement and competition policy vital tools for promoting innovation.**
- **Weak antitrust enforcement and outdated standards put innovation competition at risk in a number of key areas, including: digital technology, pharmaceuticals, agricultural biotechnology, healthcare, and content and media.**
- **Policy priorities include: more standalone innovation competition cases, increasing the probability of success of such cases by discounting weak, longer-term efficiencies claims in harmful mergers, and stronger standards for blocking harmful acquisitions of disruptive, innovative rivals.**

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<sup>1</sup> For more information, please see <https://www.antitrustinstitute.org>.

## I. Innovation is a Driver of U.S. Economic Productivity and Growth

Innovation has long been known to be a primary driver of economic productivity and growth. But it is a fluid and sometimes elusive concept that is not fully understood, with complex roots in both the public and private sectors. World Bank data for 2020 indicate that the U.S. ranks 3<sup>rd</sup> globally in innovation in the high-income country group based on both innovation “inputs” and “outputs.”<sup>2</sup> Innovation inputs include factors such as entrepreneurship, R&D spending, and intangible assets. Innovation outputs, or the results of innovative effort, range from numbers of registered patents and scientific publications, levels of high-tech manufacturing, new business creation, and development of creative goods and services.

Innovation in the U.S., however, is at an inflection point. For example, U.S. investment in science increased over the 40-year period from 1970 to 2010 but total factor productivity, a common measure of economic growth, stalled beginning in the 1970s.<sup>3</sup> Business R&D expenditures in the U.S. fell from about 30% in 1985 to below 20% in 2015.<sup>4</sup> A number of reasons might account for these changes. One is the financial community’s focus on shareholder returns, which has likely diverted attention away from growing the value of corporations through longer-term R&D investment and toward bottom-line, short-term profits.

Beginning in the 1980s, investors pushed large firms to “stick to their knitting” by divesting unrelated businesses.<sup>5</sup> As one source noted of business survey results: “Over 80 percent indicated that they would decrease discretionary spending in areas such as R&D, advertising, maintenance, and hiring in order to meet short-term earnings targets.”<sup>6</sup> The rise of activist investors has accelerated this process, as one source notes: “[t]he 10-year average life of hedge funds dictates that activists must pursue relatively short-term gains, which typically come at the expense of long-term investments... companies with substantial R&D investment would seem to provide low-hanging fruit: cut R&D, immediately increase profits.”<sup>7</sup>

Second, the innovation ecosystem in the U.S. has changed fundamentally since the 1970s. The rise of global trade and outsourcing, and the greater ease with which companies can tap into external sources of knowledge and technology has played a role in the decline in

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<sup>2</sup> Therese Wood, *Global Stars: The Most Innovative Countries, Ranked by Income Group*, VISUALCAPITALIST.COM., Jan. 28, 2021, <https://www.visualcapitalist.com/national-innovation-the-most-innovative-countries-by-income/>

<sup>3</sup> Ashish Arora, Sharon Belezon, Andrea Pataconi, and Jungkyu Suh, *Why the U.S. Innovation Ecosystem Is Slowing Down*, HARVARD BUS. REV., Nov. 26, 2019, <https://hbr.org/2019/11/why-the-u-s-innovation-ecosystem-is-slowing-down>.

<sup>4</sup> Ashish Arora, Sharon Belezon, Andrea Pataconi, and Jungkyu Suh, *The Changing Structure of American Innovation: Some Cautionary Remarks for Economic Growth*, 20 INNOVATION POLICY AND THE ECONOMY (2020), <https://www.journals.uchicago.edu/doi/full/10.1086/705638>.

<sup>5</sup> Arora, et al., *supra* note 3.

<sup>6</sup> Robert D. Atkinson, *Understanding the U.S. National Innovation System, 2020*, ITIF.ORG, Nov. 2, 2020, <https://itif.org/publications/2020/11/02/understanding-us-national-innovation-system-2020>.

<sup>7</sup> Ann Marie Knott, *When Activist Investors Should Slash R&D — and When They Shouldn’t*, HARVARD BUS. REV., Aug. 19, 2021, <https://hbr.org/2021/08/when-activist-investors-should-slash-rd-and-when-they-shouldnt>.

corporate R&D spending.<sup>8</sup> Since the 1980s, the corporate-academic innovation partnership that defined the U.S. innovation system for the first half of the 1900s has weakened. Universities are specializing more in the “R” component of R&D while businesses are specializing more in “D.” This means more business focus on commercialization, spin-offs, and start-ups, including through the influx of venture-capital (VC) funding, at least in some sectors. The post-1980s innovation ecosystem therefore features a division of labor between the public and private sectors, with an expansion of independent markets for innovation.

Third, changes in the vigor of antitrust enforcement cannot be discounted in explaining changes in innovation. Before 1980, when antitrust enforcement was more vigorous, firms likely engaged in more internal R&D due to greater constraints on acquisitions of complementary assets. The more relaxed post-1980s antitrust environment, however, changed how corporations acquired know-how. Growth through acquisition became a more viable alternative to internal R&D.<sup>9</sup> The “growth through acquisition” model and rising levels of concentration, however, now pose a significant threat to innovation. Competition enforcement and policy should recognize these changes and adapt accordingly.

## II. Innovation Competition is Diminished by Anticompetitive Conduct and Harmful Consolidation

The antitrust laws were originally passed to protect the competitive process in an era marked by the amassing and exercise of market power through harmful mergers, schemes to drive smaller rivals from the market, and anticompetitive agreements. Arguably, the last 40 years of relatively lax antitrust enforcement has fostered a *new* generation of dominant firms and domestic oligopolies in critical sectors such as in media, healthcare, and food and agriculture. This raises grave concerns over the detrimental effects on consumers through higher prices and lower quality. However, the adverse effects of risking concentration on innovation should garner much more attention, particularly given evidence showing that competition spurs innovation. And because innovation fosters economic productivity, competition is therefore a major driver of economic growth.

Proponents of consolidation have long argued that high levels of concentration are necessary to maintain or generate higher levels of innovation. Policymakers should be deeply skeptical of this argument. Dominant firms and tight oligopolies have far weaker incentives to invest in R&D that produces socially optimally levels of innovation. This is because there is less fear of losing to an innovative rival’s new product when there is less competition, thus dampening incentives to stay ahead of the innovation curve. The 2010 Horizontal Merger Guidelines (HMGs) take seriously the potential adverse effect of a merger on R&D rivalry, noting that competition “often spurs firms to innovate.”<sup>10</sup> And experts have established through theory and empirical evidence that innovation incentives are stronger when a dominant firm faces competition.<sup>11</sup>

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<sup>8</sup> Arora, et al., *supra* note 3.

<sup>9</sup> *Id.*

<sup>10</sup> U.S. Dep’t of Justice & Federal Trade Comm’n, Horizontal Merger Guidelines (2010) at § 6.4.

<sup>11</sup> See, e.g., Steven C. Salop, *Dominant Digital Platforms: Is Antitrust Up to the Task?* 130 YALE LAW J. FORUM, at 569 (citing Carl Shapiro, *Competition and Innovation: Did Arrow Hit the Bull’s Eye?*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 361 (Josh Lerner & Scott Stern, eds., 2012) and Jonathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 ANTI-TRUST L.J. (2007), at 575.

The exercise of market power has tangible, adverse effects on innovation. For example, firms that are able to charge supra-competitive prices will seek to preserve those prices by exercising market power to limit innovation spending.<sup>12</sup> There are also stronger incentives for a dominant firm to suppress innovation by foreclosing disruptive rivals.<sup>13</sup> And with tight oligopolies in R&D markets, there may be stronger incentives for firms to engage in anticompetitive coordination, such as dividing markets and fixing the terms and conditions of technology cross-licensing.<sup>14</sup>

Sector-specific studies raise the same concerns. Research by the U.S. Department of Agriculture's Economic Research Service shows that horizontal mergers can stifle incentives to innovate or lead to lower quality innovation.<sup>15</sup> And others have noted that in pharmaceutical R&D, "[t]echnological progress is best achieved...when there is widespread dispersion of R&D initiatives both across companies and within them through the exploration of *multiple* technical paths."<sup>16</sup>

The limited innovation that is produced by dominant firms and oligopolies is fundamentally different than what would be produced through the competitive process. For example, with more competition, firms engage in new product development to steal sales from rivals. In contrast, with fewer rivals, new product development can increase the risk that the dominant firm cannibalizes its own sales of existing products.<sup>17</sup> Dominant firms also have strong incentives to exploit their intellectual property protections to engage in conduct to control or shape competition in ways that is outside the scope of their patents or copyrights.

Finally, research reveals that the symbiotic nature of the large digital business ecosystems and the VC-backed start-up funding model that fuels their expansion creates incentives for disruptors to distort their R&D portfolios toward projects that increase their

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<sup>12</sup> *Considering non-price effects in merger control – Background note by the Secretariat*, Directorate for Financial and Enterprise Affairs Competition Committee, OECD.org, Jun. 6, 2018, at 6, [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf).

<sup>13</sup> Giulio Federio, Fiona Scott Morton, and Carl Shapiro, *Antitrust and Innovation: Welcoming and Protecting Disruption*, 20 INNOVATION POLICY AND THE ECONOMY (2020), <https://www.journals.uchicago.edu/doi/full/10.1086/705642?af=R>.

<sup>14</sup> American Antitrust Institute, Food & Water Watch, and National Farmers Union, Letter to U.S. Dep't. of Justice Antitrust Division, re: Proposed Merger of Monsanto and Bayer, Jul. 26, 2017, at 13, [https://www.antitrustinstitute.org/wp-content/uploads/2018/08/White-Paper\\_Monsanto-Bayer\\_7.26.17\\_0.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2018/08/White-Paper_Monsanto-Bayer_7.26.17_0.pdf).

<sup>15</sup> See Keith O. Fuglie et al., *Research Investments and Market Structure in the Food Processing, Agricultural Input, and Biofuel Industries Worldwide*, U.S. Dep't. of Agriculture, Econ. Research Serv., Report No. 130, 2011, [https://www.ers.usda.gov/webdocs/publications/44951/11777\\_err130\\_1\\_.pdf?v=41499](https://www.ers.usda.gov/webdocs/publications/44951/11777_err130_1_.pdf?v=41499). See also, James M. MacDonald, *Mergers and Competition in Seed and Agricultural Chemical Markets*, AMBER WAVES (Apr. 3, 2017), <https://www.ers.usda.gov/amber-waves/2017/april/mergers-and-competition-in-seed-and-agricultural-chemical-markets/>.

<sup>16</sup> William S. Comanor & F.M. Scherer, *Mergers and innovation in the pharmaceutical industry*, 32 J. HEALTH ECON. 106, 107 (2013).

<sup>17</sup> Mark A. Lemley, *Industry-Specific Antitrust Policy for Innovation*, 2011 COLUMBIA BUSINESS LAW REVIEW 637 (2011).

profits from being acquired.<sup>18</sup> The foregoing examples reveal ways in which a lack of competition can affect the direction of innovation in non-socially optimal ways. More robust innovation competition, supported by strong enforcement and policymaking, will restore dynamic competition, or rivalry “for” the market. This competition features disruptive firms that can displace entrenched firms with new business models, cost-lowering technologies, and superior products and services.<sup>19</sup>

Antitrust enforcers should therefore aggressively pursue mergers and strategic conduct by dominant firms and oligopolies with incentives to neutralize threats from disruptive firms and more innovative conventional rivals.<sup>20</sup> The role of Congress in once again stepping in to help invigorate, strengthen, and modernize the antitrust laws is critical.

### **III. Key Examples Illustrate Why Enforcers and Congress Should Make Innovation Competition a Priority**

#### **A. Dominant Digital Business Ecosystems Restrain Innovation Competition Through Acquisitions and Discriminatory Conduct**

Innovation competition features prominently in the digital business ecosystems. For example, these firms are uniquely characterized by a “growth by acquisition” model that centers on acquisitions of disruptive, innovative rivals. Such acquisitions are pursued for the express purpose of building out or fortifying a central platform, expanding the cloud infrastructure that is essential for harnessing the value of user data, and expanding the ecosystem to include more applications such as in healthtech, fintech, and others.

Examples of acquisitions that eliminated disruptive, innovative rivals include Google’s acquisition of Looker, a leading innovative cloud technology startup and Facebook’s acquisition of Instagram.<sup>21</sup> AAI research, which was some of the first empirical work to examine trends in merger enforcement in digital technology, indicates an extraordinarily weak record of merger control involving acquisitions by the five largest firms—Google, Facebook, Apple, Amazon, and Microsoft.<sup>22</sup> Many of these deals were so-called “killer acquisitions,” which neutralized disruptive, innovative rivals, thus furthering the maintenance of an digital ecosystem’s dominant position.<sup>23</sup>

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<sup>18</sup> Esmée Dijk, José Luis Moraga-González, and Evgenia Motchenkova, *How Do Start-up Acquisitions Affect the Direction of Innovation?* Tinbergen Institute Discussion Paper 2021-065/VII, Jun. 25, 2021, <https://ssrn.com/abstract=3889450>.

<sup>19</sup> Ioannis Kokkoris and Tommaso Valletti, *Innovation Considerations in Horizontal Merger Control*, 16 J. OF ANTITRUST ENFORCEMENT (2020); <https://ssrn.com/abstract=3954246>.

<sup>20</sup> See, e.g., Tim Wu, *Taking Innovation Seriously: Antitrust Enforcement If Innovation Mattered Most*, 78 ANTITRUST L. J. 313 (2012), [https://scholarship.law.columbia.edu/faculty\\_scholarship/1767](https://scholarship.law.columbia.edu/faculty_scholarship/1767).

<sup>21</sup> American Antitrust Institute, Letter to U.S. Dep’t. of Justice re: Antitrust Review of Google’s Acquisition of Data Analytics and Business Intelligence Startup Looker, Jul. 8, 2019, [https://www.antitrustinstitute.org/wp-content/uploads/2019/07/AAI-Ltr-to-DOJ\\_Google-Looker\\_7.8.19.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2019/07/AAI-Ltr-to-DOJ_Google-Looker_7.8.19.pdf).

<sup>22</sup> Diana L. Moss, *The Record of Weak U.S. Merger Enforcement in Big Tech*, AMERICAN ANTITRUST INST., Jul. 8, 2019, [https://www.antitrustinstitute.org/wp-content/uploads/2019/07/Merger-Enforcement\\_Big-Tech\\_7.8.19.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2019/07/Merger-Enforcement_Big-Tech_7.8.19.pdf).

<sup>23</sup> See, e.g., Colleen Cunningham, Florian Ederer, and Song Ma, *Killer Acquisitions*, 129 J. POLITICAL ECONOMY (2021), <https://ssrn.com/abstract=3241707>.

Innovation competition also suffers when third party rivals cannot interoperate on a digital platform. Whether in search, social media, or ecommerce, dominant platforms create strong incentives to “self-preference,” or steer users to proprietary or contractually preferred products or services.<sup>24</sup> This is accomplished through interoperability constraints or algorithmic preference-shaping, the harms from which may be difficult for antitrust enforcers to detect.

Moreover, small, third-party rivals often fear retaliation from dominant firms if they complain to public or private enforcers. This growing phenomenon constrains antitrust enforcement because small third-party rivals can play an important reporting and evidentiary role in the antitrust process. The problem of “fear and retaliation” thus has a direct effect on innovation competition.<sup>25</sup> Given the rate of growth in the digital sector, and its contribution to the economy, harm to innovation competition will become a bigger problem unless policymakers take steps to elevate its importance.

## **B. Merger Policy in the Pharmaceutical Sector Has Likely Diminished Innovation Competition**

The Federal Trade Commission’s (FTC’s) merger enforcement policy in the pharmaceutical sector highlights the importance of innovation competition. Between 1994 and 2021, the Commission allowed almost \$1 trillion in branded and generic pharmaceutical mergers to proceed. The Commission moved to block only one of 67 mergers, and negotiated targeted asset divestitures in the remaining cases. AAI analysis of the relevant markets defined by the agency in challenged pharmaceutical mergers reveals that 60% occurred in highly concentrated markets in which the merger reduced competition from 3-2 rivals and 2-1 rivals.<sup>26</sup>

Given the highly concentrative nature of pharmaceutical mergers, the FTC’s policy puts enormous pressure on divestitures to fully restore competition on price, quality, and innovation. Moreover, of the 80 total buyers of divestiture assets, many were parties to other challenged mergers *and* also purchased multiple divestiture assets. This has led to drug assets “changing hands” within a shrinking group of drug makers, some of which were absorbed into other mergers shortly after divested assets were acquired. Finally, many firms that were most active on the M&A front, and as purchasers of divestiture assets were, or are, defendants in private, state, and federal non-merger antitrust litigations and in federal criminal price-fixing indictments.

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<sup>24</sup> See, Diana L. Moss, Gregory Gundlach, and Riley, Krotz, Market Power and *Digital Business Ecosystems: Assessing the Impact of Economic and Business Complexity on Competition Analysis and Remedies*, AMERICAN ANTITRUST INST., Jun. 1, 2021, [https://www.antitrustinstitute.org/wp-content/uploads/2021/06/aai\\_digital-ecosystems\\_finalv5.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2021/06/aai_digital-ecosystems_finalv5.pdf). See also, Randy M. Stutz, *Antitrust, Dominant Firms, and Public Policy Problems: A Framework for Maximizing Success By Minimizing Uncertainty*, AMERICAN ANTITRUST INST., Jun. 28, 2021, <https://www.antitrustinstitute.org/wp-content/uploads/2021/06/aai-knight-paper-1-final.pdf>.

<sup>25</sup> See American Antitrust Institute, *Competition Roundtable: The Darkest Side of Rising Concentration — Fear and Retaliation in Antitrust*, Virtual: Oct. 20, 2021, <https://www.antitrustinstitute.org/event/competition-roundtable-the-darkest-side-of-rising-concentration-fear-and-retaliation-in-antitrust/>.

<sup>26</sup> See, Diana L. Moss, *From Competition to Conspiracy: Assessing the Federal Trade Commission’s Merger Policy in the Pharmaceutical Sector*, AMERICAN ANTITRUST INST., Sept. 3, 2020, [https://www.antitrustinstitute.org/wp-content/uploads/2020/09/AAI\\_PharmaReport2020\\_9-11-20.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2020/09/AAI_PharmaReport2020_9-11-20.pdf).

The results of the FTC's policy have important implications for innovation competition. For example, research shows that the market-wide probability of invention increases with the number of competing firms.<sup>27</sup> With massive consolidation in the pharmaceutical sector, the probability of invention is therefore falling, not rising. Other research indicates that most R&D projects terminate after a merger or acquisition, especially within the pharmaceutical industry.<sup>28</sup>

Anti-competitive pay-for-delay agreements between branded and generic drugs makers, and exclusionary, product-hopping strategies also work to keep generics out of the market, depriving consumers of innovation and lower-cost drugs. Moreover, generic drug companies cannot be entirely dismissed as non-innovators. They have developed innovative skills to circumvent the defense patents of originator branded drug companies by moving into the "supergeneric" space.<sup>29</sup> Consolidation among generic firms will likely reduce this form of innovation and the benefits it delivers to consumers and economic growth.

### **C. Mega-Mergers Frustrate Entry by Smaller, Innovative Rivals and Rarely Produce the Promised Innovation Benefits That Often Justifies Them**

Multiple sectors have been home to extensive levels of horizontal and vertical integration and the higher barriers to entry that accompany it. Three notable mergers either combined multiple levels in a supply chain or strengthened a firm's market position at one or more levels. For example, Bayer-Monsanto now controls a tightly integrated system of R&D in genetic crop traits, traited crop-seed, agrochemicals, and digital farming. The merged CVS-Aetna controls pharmacy benefit management (PBM) services that are essential to the provision of prescription drug programs and closely related commercial health insurance. AT&T-Time Warner controls production of content and its distribution via digital broadcast satellite and internet broadband. The first two mergers were settled subject to divestitures but the AT&T-Time Warner merger was challenged in federal court.<sup>30</sup>

Government complaints in all three of the aforementioned cases highlight, to varying degrees, the anticompetitive impact of the mergers on innovative activity, either as a result of eliminating an actual rival (e.g., Bayer-Monsanto) or frustrating innovation from smaller firms (e.g., AT&T-Time Warner). While rightly recognizing the effects of large mergers on innovation, the cases largely ignored key concerns. One is their effect on raising barriers to

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<sup>27</sup> Frank P. Maier-Rigaud, Robert Lauer and Laura Robles, *Innovation Incentives in the Pharmaceutical Sector: Rethinking Competition and Public Policy?* 44 *WORLD COMPETITION - LAW AND ECON. REV.* (2021), <https://ssrn.com/abstract=3845568>.

<sup>28</sup> Catrina M. Jones, Danny N. Bellenger, and Wesley J. Johnston, *The Influence of Mergers and Acquisitions on R&D Managerial Decision Making: A Multiple-Case Study of Pharmaceutical Firms*, 6th International Engaged Management Scholarship Conference, 2016, Sept. 10, 2016, <https://ssrn.com/abstract=2866957>.

<sup>29</sup> Malcom S. F. Ross, *Innovation strategies for generic drug companies: moving into supergenerics*, 4 *IDRUGS* (2010), <https://pubmed.ncbi.nlm.nih.gov/20373253/>.

<sup>30</sup> American Antitrust Institute and Public Knowledge Letter to the U.S. Dep't. of Justice, Antitrust Division re: Strategic Consolidation, Market Power, and Efficiencies in the Media/Entertainment and Distribution Markets: Implications for Antitrust Reviews of Proposed Mergers, Sept. 2, 2021, [https://www.antitrustinstitute.org/wp-content/uploads/2021/09/AAI\\_PK-Ltr-on-Warner-Media-Disc\\_9.2.21.pdf](https://www.antitrustinstitute.org/wp-content/uploads/2021/09/AAI_PK-Ltr-on-Warner-Media-Disc_9.2.21.pdf).

entry for smaller, innovative rivals when the “wingspan” of a dominant firm extends across multiple, adjacent markets. For example, a smaller innovative PBM would likely find it harder to enter or gain a foothold in the market when faced with three large vertically integrated systems (i.e., CVS-Aetna, Express Scripts-Cigna, and Optum-United Healthcare). A second problem is the engineering of proprietary, vertically integrated “systems” to be non-operable with competing systems. For example, Monsanto’s traits-seeds-chemicals systems do not interoperate with elements of rival systems, limiting farmer choice and locking them into one system. Both of these effects directly impact innovation competition.

#### **IV. Innovation Competition Priorities for Competition Enforcement and Policy**

##### **A. The Antitrust Agencies Should Bring More Standalone Cases That Allege Harm to Innovation Competition**

Despite the ongoing debate over the consumer welfare standard, it provides flexibility to address alleged harms in a variety of markets in which the competitive process is impaired by anticompetitive mergers and conduct. The standard recognizes the price and non-price dimensions of competition, such as quality and innovation. Much like price effects, harms in one market do not need to translate to an adverse effect in an output market to support a finding of antitrust injury.

Despite this, antitrust remains somewhat cautious about harm to innovation competition, either because of controversy over what exactly an innovation “market” is, the process through which innovation competition is harmed by anticompetitive mergers or conduct, or a lack of economic tools for evaluating it. Enforcers are therefore far more likely to identify the adverse effects of harmful consolidation and exclusionary conduct on short-term price effects than on innovation.

To be sure, competition enforcers have identified innovation competition issues in a number of cases. These include the state and federal monopolization cases against Facebook and Google, where harmful consolidation and conduct in “zero-price” markets that feature user attention and information as the currency of exchange are likely to be revealed in a loss of innovation. Innovation competition has also been identified in merger cases, including: the development of next-generation semiconductor equipment (Applied Materials-Tokyo Electron), payments platforms (Visa-Plaid)high-speed precision planting technology (John Deere-Precision Planting), central processing unit designs and architectures (Nvidia-ARM), and next generation drilling and related technologies (Baker Hughes-Halliburton).<sup>31</sup>

Enforcers should bring more cases like these, particularly where innovation competition is a central or standalone theory of harm, not simply ancillary to adverse price effects. This will better identify innovation competition as a policy goal, supported by agency guidance that better connects the innovative process (the “R”) with commercialization (the “D”) in

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<sup>31</sup> The foregoing examples focus largely on product markets. But we should not forget that innovation competition is also a critical issue in labor markets where no-poaching agreements that are designed to limit competition also lock up specialized labor in the hands of powerful firms, to the detriment of innovation. See *United States of America v. Adobe Systems, Inc., et al.*, Civil Case No. 1:10-CV-01629 (D.D.C. filed Sept. 24, 2010).



product and service markets, where antitrust enforcement typically focuses. More innovation competition cases would also induce the courts and perhaps Congress to grapple with the evidentiary and other litigation challenges.

**B. The Success of Innovation Competition Cases Would be Enhanced by Discounting Weak, Longer-Term Efficiencies Claims, Especially in Mega-Mergers**

Enforcers may be more reluctant to bring cases alleging harm to innovation competition than to prices, on the theory that the courts may be more skeptical of the former. This risk would be significantly reduced if enforcers and courts put less emphasis on defendants' claims that mergers and conduct will generate hard-to-quantify, less probable, longer-term dynamic innovation efficiencies. This deference is particularly troubling in light of established case law that makes clear the more harmful a merger, the higher should be the bar on defendants to show merger-specific and cognizable efficiencies, as has already been proposed.<sup>32</sup> The imperative to discount ambiguous, longer-term dynamic efficiencies, especially in mega-mergers, is supported by growing evidence that mergers fail to realize such benefits.

For example, consider AT&T's spin-off of Warner Media to Discovery shortly after the companies prevailed in a litigated merger proceeding. Less than three years is far too short a period of time to realize the benefits of longer-term innovation that the parties claimed at the outset, and the diminutive value of those amorphous benefits is clear, in retrospect, in the spin-off decision. To be sure, merger-specific synergies such as an increase in the productivity of R&D may offset the adverse effect of a merger on innovation. But mounting evidence, especially in vertical mergers, shows these benefits to be speculative and/or poorly substantiated by the merging parties, and not merger-related or cognizable.

Strategic management experts find that "most buyers routinely overvalue the synergies to be had from acquisitions," finding that almost 70% of the mergers in the database studied failed to achieve expected synergies related to obtaining access to a target's customers, channels, and geographies.<sup>33</sup> Indeed, managers have the difficult task of integrating business models and corporate cultures, while making good on promises to deliver cost savings and innovation improvements, and adjusting to changed profit incentives and relationships between affiliates. All of this affects post-merger conduct and strategy, potentially in ways that reduce or eliminate claimed efficiencies, strongly suggesting that longer-term innovation efficiencies be discounted in merger reviews.

Additional guidance is needed to clarify agency skepticism about dynamic efficiencies. Ideally, this would be coupled with legislative support for a much higher bar for defendants

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<sup>32</sup> *Cf.* *United States v. Anthem, Inc.*, 855 F.3d 345, 364 (D.C. Cir. 2017) ("[T]he district court reasonably determined that Anthem failed to show the kind of 'extraordinary efficiencies' that would be needed to constrain price increases in this highly concentrated market, and to mitigate the threatened loss of innovation.").

<sup>33</sup> Scott A. Christofferson, Robert S. McNish & Diane L. Sias, *Where Mergers Go Wrong*, MCKINSEY QUARTERLY, May 2004, <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/where-mergers-gowrong>.

to show efficiencies in harmful mergers, and mandated efficiencies “retrospectives” on consummated deals.

### **C. Acquisitions of Smaller Rivals Designed to Extinguish Innovative Threats to Dominant Firm Necessitate Different, Stronger Standards**

One of the most troubled areas of antitrust law is potential competition. Acquisitions of smaller or nascent, disruptive rivals are cognizable under antitrust law but largely unreachable due to overly burdensome evidentiary standards.<sup>34</sup> Current approaches erect a tough and misplaced hurdle to demonstrate that a potential rival would have entered a market, but for a merger or exclusionary conduct. To address this problem, experts have suggested using the Section 2 causation standard in the Section 7 context, or prohibiting acquisitions that are reasonably capable of contributing significantly to the maintenance of market power, regardless of finding of monopoly power.<sup>35</sup> This addresses the concern that antitrust may not be fast or nimble enough to prove monopoly power before a dominant firm engages in conduct that solidifies its market power.

A second problem is that little attention is paid in potential competition doctrine to the strategic motivation of dominant firms for acquiring or foreclosing disruptive rivals. While a number of cases have advanced the importance of evidence that supports such anticompetitive “intent,” or the imminency and potency of entry by a potential rival, this type of evidence should become more commonplace.<sup>36</sup> It includes, among other factors, evidence of management’s intent to eliminate potential rivals through serial acquisitions, dismantling acquirees shortly after acquisition, and constraining the mobility of the acquiree’s top managers or founding innovators post-acquisition.

Legislative proposals that strengthen the ability of enforcers to block harmful acquisitions of innovative firms might include: setting HSR thresholds lower for acquisitions by digital players, which grow primarily through acquisition, new standards for assessing competitive harm from acquisitions of potential rivals; and protections for smaller firms that fear retaliation by powerful market players.

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<sup>34</sup> See, e.g., Carl Shapiro, *Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets*, (Jun. 12, 2019), at 30. <http://faculty.haas.berkeley.edu/shapiro/protectingcompetition.pdf>.

<sup>35</sup> See, Tim Wu and C. Scott Hemphill, *Nascent Competitors*, NYU LAW AND ECONOMICS RESEARCH PAPER NO. 20-50 (Jun. 19, 2020) and UNIV. PENN. L. R. (forthcoming), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3624058](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3624058). The authors argue that if “an acquirer’s management team holds the considered view that, but for its purchase, the target would pose a future competitive threat, why should the government be required to prove that the threat was even clearer and stronger than management believed?” See also, Marin L. Lao, *Reimagining Merger Analysis to Include Intent*, 71 EMORY LAW J. (2022) (Forthcoming), <https://ssrn.com/abstract=3916317>.

<sup>36</sup> Wu and Hemphill, *supra* note 33.