



April 17, 2020

Via Email

The Honorable David Cicilline
Chairman
Subcommittee on Antitrust, Commercial, and Administrative Law
Committee on the Judiciary
U.S. House of Representatives

The Honorable F. James Sensenbrenner, Jr.
Ranking Member
Subcommittee on Antitrust, Commercial, and Administrative Law
Committee on the Judiciary
U.S. House of Representatives

Re: Requested Statement on Antitrust in Digital Markets

Chairman Cicilline, Ranking Member Sensenbrenner, and Members of the Judiciary Committee:

Thank you for your invitation to submit my views to the Committee regarding the adequacy of existing antitrust laws and the institutional structure of antitrust enforcement in digital markets. Because your questions are interrelated, I have not attempted to answer them one by one. Instead, this submission challenges some of the most important misconceptions that animate the contemporary concerns regarding the adequacy of our antitrust laws in digital markets, and which have been promoted in both the popular media as well as the academy.

Underlying much of the contemporary antitrust debate are two visions of how an economy should work. One vision, which tends to favor more intervention and regulation than the status quo, sees the economy and society as being constructed from above by laws and courts. In this view, suspect business behavior must be justified to be permitted, and can be modified by judges or legislators at will to pursue whatever their goals happen to be at the moment. A focus on “bigness” and market structure often stems from this vision, because it implies that the optimal composition of markets can be known and can be designed by well-intentioned judges and legislators.

On the other hand, there is the view of individual and company behavior as emerging from each person’s actions within a framework of property rights and the rule of law. This view sees the economy as a messy discovery process, with business behavior often being experimental in nature.

This second conception often sees government intervention as risky, because it assumes a level of knowledge about the dynamics of markets that is impossible to obtain.

Without such knowledge, many interventions that may, on the surface, appear to be desirable will often end up eliminating beneficial behavior that the intervening body simply does not understand. Because of this inherent uncertainty, this vision of governance is skeptical about attempts to impose “better” outcomes from the top, especially when they are done on the basis of weak or incomplete evidence.

This does not imply that legislatures and courts are powerless or that they should do nothing. There are ways that antitrust law can be improved to better optimize the implicit and explicit cost-benefit calculations that enforcers and courts are asked to perform under this condition of uncertainty. Nor does it mean that the only appropriate reforms are those that necessarily *reduce* the role of antitrust law. Last year, for instance, I published an article in the Nebraska Law Review explaining that courts should *expand* standing and antitrust injury doctrines to better conform them with the economic realities of two-sided business models.¹

But the allegations of the insufficiency of the modern antitrust regime that I wish to address in this statement are of a different character. In particular, they take as a given that there is *something wrong* with antitrust doctrine or its enforcement, and cast about for policy “corrections.” As I discuss below, however, the common flaw with all of these arguments is that they are not grounded in robust empirical or theoretical support. Rather, they are little more than hunches that *something* must be wrong, conscripted to serve a presumptively interventionist agenda. Because they are merely hypotheses about things that could go wrong, they do not determine—and rarely even ask—if heightened antitrust scrutiny and increased antitrust enforcement are actually called for in the first place.

Of course, it is *possible* that there are harms being missed and for which enforcers should be better equipped. Advocates of reform have yet to adequately explain much of what we need to know to make such a determination, however, and even more so to craft the right approach to it if we did. Laws should be formulated on more than an intuition that surely, *somewhere*, there must be anticompetitive conduct. Antitrust law should be refined on the basis of an empirical demonstration of harms, as well as a careful weighing of those harms against the losses to social welfare that would arise if *procompetitive* conduct were deterred alongside anticompetitive.

To achieve this, antitrust law and enforcement policy should, above all, continue to adhere to the error-cost framework, which informs antitrust decision-making by considering the relative costs of mistaken intervention compared with mistaken non-intervention.² Specific cases should be addressed as they come, with an implicit understanding that, especially in digital markets, precious few generalizable presumptions can be inferred from the previous case. The overall stance should be

¹ Geoffrey A. Manne & Kristian Stout, *The Evolution of Antitrust Doctrine After Ohio v. Amex and the Apple v. Pepper Decision That Should Have Been*, 98 NEB. L. REV. 425 (2019).

² See generally Frank H. Easterbrook, *Limits of Antitrust*, 63 TEX. L. REV. 1, 14-15 (1984). See also Geoffrey A. Manne & Joshua D. Wright, *Innovation and the Limits of Antitrust*, 6 J. COMP. L. & ECON. 153 (2010).

one of restraint, reflecting the state of our knowledge.³ We may well be able to identify anticompetitive harm in certain cases, and when we do, we should enforce the current laws. But dramatic new statutes that undo decades of antitrust jurisprudence or reallocate burdens of proof with the stroke of a pen are unjustified.

As I discuss below, and contrary to the conventional wisdom, enforcers are hardly asleep at the switch and courts are hardly blindly deferential to conduct undertaken by large firms in the digital economy. But it is impossible to infer from the general “state of the world,” or from perceived “wrong” judicial decisions, that the current antitrust regime has failed.

To the extent that Congress chooses to act, it should do so by encouraging the antitrust agencies to elicit and expose more and better information.⁴ For example, Congress might require (and fund) agencies to coordinate the collection and analysis of data and significant economic research. The combination of the agencies’ expertise and enforcement-related knowledge with high-quality research could significantly improve the state of our knowledge and the agencies’ ability to make more informed enforcement decisions. Congress could also require the agencies to better elucidate and justify the reasoning underlying their enforcement decisions—including their decisions *not* to bring an enforcement action. This would serve as a useful roadmap for firms to better understand which conduct and mergers are considered violations of competition laws, and which are not. Such an approach should also inspire greater public confidence in the system and help to alleviate concerns that lobbying or political maneuvering was leading to underenforcement.

I urge the Members of this Committee to consider whether the assumption that something is wrong, and that something must be done to overturn the long-held presumptions upholding the current antitrust regime, are well supported. This Committee should look skeptically at the flawed theories being offered to support increased antitrust intervention, and tread carefully before upending what is, despite the limits of our knowledge, a generally stable and economically well-informed body of law that has evolved over the course of more than a century.⁵

In what follows I will address several common misperceptions that seem to be fueling the current drive for new and invigorated antitrust laws. These misperceptions are that:

1. We can infer that antitrust enforcement is lax by looking at the number of cases enforcers bring;

³ See Robert W. Crandall & Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*, 17 J. ECON. PERSP. 3, 4 (2003) (“[T]he economics profession should conclude that until it can provide some hard evidence that identifies where the antitrust authorities are significantly improving consumer welfare and can explain why some enforcement actions and remedies are helpful and others are not, those authorities would be well advised to prosecute only the most egregious anticompetitive violations.”).

⁴ Notably, this simple proposal is not new, although it has never been adopted. See Crandall & Winston, *id.* at 23 (“The Department of Justice and the FTC could help advance our knowledge of the effects of antitrust policy by making more data generated by cases available to researchers.”).

⁵ For a quick treatment of the evolution of antitrust and the continued importance of the consumer welfare standard, see Elyse Dorsey, et al., *Consumer Welfare & the Rule of Law: The Case Against the New Populist Antitrust*, PEPPERDINE L. R. 5-9 (2020) (forthcoming), available at <https://regproject.org/wp-content/uploads/RTP-Antitrust-and-Consumer-Protection-Populist-Antitrust.pdf>.

2. Concentration is rising across the economy, and, as a result of this trend, competition is declining;
3. Digital markets must be uncompetitive because of the size of many large digital platforms;
4. Vertical integration by dominant digital platforms is presumptively harmful;
5. Digital platforms anticompetitively self-preference to the detriment of competition and consumers;
6. Dominant tech platforms engage in so-called “killer acquisitions” to stave off potential competitors before they grow too large; and
7. Access to user data confers a competitive advantage on incumbents and creates an important barrier to entry.

Thank you again for inviting me to comment on the Committee’s ongoing investigation. Please feel free to reach out with further questions or requests for clarification as you see fit.

Respectfully Submitted,

/s/Geoffrey A. Manne

President and founder,
International Center for Law & Economics

Executive Summary

I. Antitrust enforcement has not been lax

The oft-repeated popular narrative has it that lax antitrust enforcement has led to substantially increased concentration, strangling the economy, harming workers, and saddling consumers with greater markups in the process. Thus, much of the contemporary dissatisfaction with antitrust arises from a suspicion that overly lax enforcement of existing laws has led to record levels of concentration and a concomitant decline in competition. But both beliefs—lax enforcement and increased anticompetitive concentration—wither under more than cursory scrutiny.

Reviews of the literature reveal that the claim of lax enforcement is weak and unconvincing on its own terms. As the FTC's Michael Vita and David Osinski demonstrate in a thorough review of the merger enforcement literature:

[O]f the seven mergers in the 2000s [offered as evidence for the claim], four exhibited no increase in post-merger (or post-remedy) prices []; one had disputed results []; one represented a successful challenge to a consummated merger []; leaving only one (Whirlpool/ Maytag) indicative of potentially lax enforcement.⁶

Similarly, another recent study looking at FTC and DOJ enforcement data between 1979 and 2017 finds that:

[C]ontrary to the popular narrative, regulators have become *more* likely to challenge proposed mergers Indeed, controlling for the number of merger proposals submitted under HSR, *the likelihood of a merger challenge has more than doubled over this period.*⁷

The number of Sherman Act cases brought by the federal antitrust agencies, meanwhile, has been relatively stable in recent years, but several recent blockbuster cases have been brought by the agencies and private litigants, and there has been no shortage of federal and state investigations. The vast majority of Section 2 cases dismissed on the basis of the plaintiff's failure to show anticompetitive effect were brought by private plaintiffs pursuing treble damages; given the incentives to bring weak cases, it cannot be inferred from such outcomes that antitrust law is ineffective.

But, in any case, it is highly misleading to count the number of antitrust cases and, using that number alone, to make conclusions about how effective antitrust law is. Firms act in the shadow of the law, and deploy significant legal resources to make sure they *avoid* activity that would lead to enforcement

⁶ Michael Vita & David F. Osinski, *John Kwoka's Mergers, Merger Control, and Remedies: A Critical Review*, 82 ANTITRUST L.J. 361, 385 (2018).

⁷ Jeffrey T. Macher & John W. Mayo, *The Evolution of Merger Enforcement Intensity: What Do the Data Show?*, GEO. CTR. FOR BUS. & PUB. POL'Y (Nov. 2019) (emphasis added), available at <https://www.dropbox.com/s/69xqogvda9g5ehj/The%20Evolution%20of%20Merger%20Enforcement%20Intensity%20No%20v.%20%2719.pdf>.

actions. Thus, any given number of cases brought could be just as consistent with a well-functioning enforcement regime as with an ill-functioning one.

2. *Rising national concentration is not a sign of weaker competition.*

The assertion that increased market concentration has been driven by anticompetitive conduct (fueled by lax antitrust enforcement) and that it has, in turn, resulted in economic harm is not supported by the evidence or empirical research.

Competition rarely takes place in national markets; it takes place in local markets. And although it appears that national-level firm concentration is growing, this is actually driving *increased* competition and *decreased* concentration at the local level, which is typically what matters for consumers. The rise in national concentration is predominantly a function of more efficient firms competing in more—and more localized—markets, so rising national concentration, where it is observed, is a result of increased productivity and competition that weed out less-efficient producers.

Similar results hold for labor market effects. According to one recent study, while the labor market power of firms appears to have increased, “labor market power has not contributed to the declining labor share because, despite an overall increase in national concentration, we find that . . . local labor market concentration has declined over the last 35 years.”⁸

This means it is inappropriate to draw conclusions about the strength of competition from national concentration measures. This view is shared by many economists across the political spectrum. Carl Shapiro (former Deputy Assistant Attorney General for Economics in the Antitrust Division of the U.S. Department of Justice under President Clinton) for example, raises these concerns regarding the national concentration data:

[S]imply as a matter of measurement, the Economic Census data that are being used to measure trends in concentration do not allow one to measure concentration in relevant antitrust markets, i.e., for the products and locations over which competition actually occurs. As a result, it is far from clear that the reported changes in concentration over time are informative regarding changes in competition over time.⁹

The most recent Annual Report from President Trump’s Council of Economic Advisors sounds a similar note. After critically examining similar alarms about rising concentration, it concludes they are lacking, and that:

The assessment of the competitive health of the economy should be based on studies of properly defined markets, together with conceptual and empirical methods and data that

⁸ David Berger, Kyle Herkenhoff & Simon Mongey, *Labor Market Power*, IZA—Institute of Labor Economics Working Paper (April 2019) at 1, available at <http://ftp.iza.org/dp12276.pdf>.

⁹ Gregory J. Werden & Luke M. Froeb, *Don’t Panic: A Guide to Claims of Increasing Concentration*, 33 ANTITRUST 74, 74 (2018).

are sufficient to distinguish between alternative explanations for rising concentration and markups.¹⁰

In general, competition is *increasing*, not decreasing, whether it is accompanied by an increase in concentration or not.

3. *Properly defined, digital markets are extremely competitive*

It is similarly a mistake to assess the extent of competition among digital platforms with reference to the superficial product markets in which they appear to operate. Google and Amazon are direct competitors in search, for example—it makes no difference that one is nominally a “general search engine” and the other an “online retailer.” Indeed, today, over two-thirds of all product searches occur on Amazon, not Google. Here as in other nominal product markets, the reality is that the large platforms—as well as many other companies—are increasingly and significantly in direct competition with each other for users and advertisers.

Market definition is inherently retrospective—systematically minimizing where competition is going, and locking even fast-evolving digital competitors into the past. And traditional market definition analysis that infers future substitution possibilities from existing or past market conditions will systematically lead to overly narrow markets and an increased likelihood of erroneous market power determinations. Because these products and services are constantly evolving, such firms can only be viewed as “dominant” (if at all) if we use economically meaningless market definitions, superficially defined by legacy products that do not reflect the actual behavior of users or businesses.

Assumptions that yesterday’s (or even today’s) market contours are indicative of future competition in digital markets is simply unmerited. The key for competition analysis is to assess all of the sources from which a company may feel competitive pressure, in order to truly determine whether that company possesses market power or rather just a fragile hold on its users. Thus, reliance on these relatively static market definitions regularly leads to the misidentification of competitively beneficial innovation or other procompetitive conduct as *anticompetitive*, and a systematic underappreciation of the actual extent of competition.

4. *Vertical integration is good for consumers*

There is longstanding and strong empirical evidence to support the view that vertical integration is procompetitive or competitively benign. Professors Francine Lafontaine (former Director, FTC Bureau of Economics under President Obama) and Margaret Slade catalogued and analyzed this literature, and they assess its meaning for antitrust policy:

As to what the data reveal in relation to public policy, . . . the weight of the evidence . . . says that, under most circumstances, profit-maximizing vertical integration decisions are efficient, not just from the firms’ but also from the consumers’ points of view. . . . [E]ven in industries that are highly concentrated . . . , the net effect of vertical integration appears to be positive in many instances. We therefore conclude that, faced with a

¹⁰ EXECUTIVE OFFICE OF THE PRESIDENT, COUNCIL OF ECONOMIC ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 215 (Feb. 2020).

vertical arrangement, the burden of evidence should be placed on competition authorities to demonstrate that that arrangement is harmful before the practice is attacked.¹¹

From a theoretical standpoint, the potential efficiencies associated with vertical integration are significant. Vertical integration may help firms to internalize transaction costs, prevent holdup or moral hazard, reduce double marginalization, and create pro-consumer product innovations integrating products and features efficiently. All of these ultimately benefit consumers. And these findings hold true in the digital economy: as the empirical evidence demonstrates, vertically integrated platforms tend to offer significant consumer benefits even when their conduct might lead to less consumer use of specific downstream competitors. The fact that consumers purchased far fewer CDs after Apple vertically integrated iTunes and the iPod was, thankfully, never a reason to block Apple's historic innovation.

Because of the efficiency gains that vertical mergers can produce, behavioral remedies should generally be seen as preferable to interventions that block vertical mergers altogether. If an agency can properly identify what would be the harmful conduct to emerge from a merger, then the appropriate response is not to reject the merger; it is to prohibit the problematic conduct and allow the merger to proceed in order to realize any efficiency gains (while limiting or removing the risk of foreclosure).

5. *Self-preferencing by platforms does not harm innovation*

The notion that platform competition with complementors or "edge providers" is harmful to innovation is speculative and contrary to a range of studies showing that the opposite is likely true. Moreover, it is flatly contrary to a range of studies showing that the opposite is likely true. Platform competition is more complicated than simple theories of vertical discrimination would have it, and there is certainly no basis for a *presumption* of harm.

The notion that platforms should be forced to allow complementors to compete on their own terms, free of constraints or competition from platforms comes from the idea that platforms are most socially valuable when they are treated as "essential facilities." But mandating such an approach is not without costs, most importantly in terms of the effective operation of the platform and its own incentives for innovation.

Platforms have an incentive to optimize openness and to assure complementors of sufficient returns on their platform-specific investments. This doesn't mean that treating platforms as essential facilities is optimal, however; in fact, typically a well-managed platform will exert some control where doing so is most important, and openness where control is least meaningful.

A complementor that makes itself dependent upon a platform for distribution of its content takes a calculated risk. Firms occupy specialized positions in supply chains throughout the economy, and they make risky, asset-specific investments all the time. Protecting complementors from the inherent

¹¹ Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LIT. 629, 680 (2007).

risk in a business model in which they are entirely dependent upon another company with which they have no contractual relationship is at least as likely to encourage *excessive* risk taking and inefficient over-investment as it is to ensure that investment and innovation aren't too low.

6. *Killer acquisitions are uncommon in digital markets and difficult to identify ex ante*

Concerns are often raised about the possibility of incumbent firms engaging in so-called “killer acquisitions”—the acquisition of nascent or potential competitors in order to thwart any competitive effect these rivals may exert before it grows too large.

These fears are often rooted in hindsight bias. Most small acquisitions either fail outright or have a negligible impact on the acquirer's business. In the small minority of cases where the acquisition becomes hugely successful, it is almost impossible to know whether the acquired company could have achieved the same level of success in the counterfactual scenario. For example, Instagram arguably lacked a meaningful revenue-building business model before its acquisition, so it is not obvious that the company would have succeeded without Facebook's advertising expertise. Asserting that enforcers may have missed one or two anticompetitive mergers in the tech market is entirely speculative, and insufficient evidence for severely altering the doctrinal balance of the current system.

An enhanced potential competition merger doctrine would entail thinking that deterring mergers, on balance, would deter more of these harmful mergers than procompetitive ones. But if we think this is true, then we also must think there is *far more* competition and entry in digital markets than is credited by critics—thus undermining durable market power assumptions in the first place.

If, as is often claimed, Instagram's product represented a future or potential constraint on Facebook when Facebook purchased it in 2012, then, as John Yun notes, “what makes other differentiated social networks such as LinkedIn, Pinterest, Snapchat, Twitter, TikTok, and YouTube different from Instagram? They must also be considered actual, potential, or nascent competitors to Facebook.”¹² Yet this is clearly not what is meant when critics declare that Facebook faces no competitive constraints. The two positions are mutually exclusive, however.

Without sufficient evidence, proposals to ban large technology companies from acquiring nascent or potential competitors could do much more harm than good, resulting in significantly lower levels of innovation and consumer welfare, including deterring start-up activity. In addition to halting welfare-enhancing integrations and potentially leaving many small companies to fail in the long run, regulatory intervention that reduces the likelihood of reaching a profitable exit could reduce the incentive for venture capitalists to invest in startups and may inhibit new business formation. A research paper analyzing venture capital investments and M&A activity found that “the number of [VC] deals scaled by the number of public firms . . . declines by about 27% in . . . states that enact

¹² Prepared Statement of John M. Yun, Associate Professor Antonin Scalia Law School at Geo. Mason U., Before the U.S. Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Hearing on “Competition in Digital Technology Markets: Examining Acquisitions of Nascent or Potential Competitors by Digital Platforms” 9 (Sep. 24, 2019).

an antitakeover law.”¹³ As the authors conclude, “an active M&A market is important for encouraging venture capital investments, entrepreneurship and growth.”¹⁴

7. *Access to data is not an anticompetitive barrier to entry*

Access to large amounts of data does not, by itself, constitute an anticompetitive barrier to entry. Data is simply one of many inputs necessary for a firm to compete effectively.

As with other economic inputs (e.g., capital, labor, intellectual property, etc.), access to data may represent a significant cost of doing business. But this does not render it special. And such costs are (properly) never treated as antitrust barriers to entry. The crucial question is whether the cost of accessing data reduces social welfare by *artificially* limiting entry; the presence of a cost borne by *all* entrants is not an artificial limitation.

Some assume that because incumbents generate and use big data, challengers must do so as well. But the reality is that incumbents entered without data and produced it subsequent to entry, sometimes creating entirely new businesses and business models around it. Facebook is an obvious example of this dynamic, but so are Uber, Google, and many others. These companies entered and became successful by creating new innovative approaches, *despite* the significant amounts of data held by incumbents.

Moreover, it is rare that access to the relevant data is unavailable because of an incumbent’s own data holdings. Data is not like oil; it is not a scarce resource. Information about people and their preferences is available from myriad sources, and one firm’s use of such data does not in any way reduce its availability for another’s use.

¹³ Gordon M. Phillips & Alexei Zhdanov, *Venture Capital Investments and Merger and Acquisition Activity Around the World*, Tuck Sch. of Bus. Working Paper 27 (2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3072665.

¹⁴ *Id.* at 32.

I. **Misconception: Lax antitrust enforcement has led to problematic levels of anticompetitive concentration and reduced competition**

The oft-repeated popular narrative has it that lax antitrust enforcement has led to substantially increased concentration,¹⁵ strangling the economy,¹⁶ harming workers,¹⁷ and saddling consumers with greater markups¹⁸ in the process. Thus, much of the contemporary dissatisfaction with antitrust arises from a suspicion that overly lax enforcement of existing laws has led to record levels of concentration and a concomitant decline in competition.¹⁹ But both beliefs—lax enforcement and increased anticompetitive concentration—wither under more than cursory scrutiny.

A. **Antitrust enforcement has not been lax**

As the FTC's Michael Vita and David Osinski demonstrate in a thorough review of the critical literature, the claim of lax enforcement is weak and unconvincing on its own terms.²⁰ Although their study considered only merger enforcement, it is merger enforcement, of course, that is most relevant to claims of increasing concentration. Furthermore, the study's results offer an important cautionary tale regarding the validity of claims of lax enforcement generally. Thus, Vita & Osinski's thorough assessment of the evidence offered for the claim that "recent merger control has not been sufficiently aggressive"²¹ finds, to the contrary, that:

[O]f the seven mergers in the 2000s [offered as evidence for the claim], four exhibited no increase in post-merger (or post-remedy) prices []; one had disputed results []; one represented a successful challenge to a consummated merger []; leaving only one (Whirlpool/ Maytag) indicative of potentially lax enforcement.²²

¹⁵ The narrative has its fullest, and perhaps most influential, discussion in THOMAS PHILIPPON, *THE GREAT REVERSAL: HOW AMERICA GAVE UP ON FREE MARKETS* (Harvard University Press, 2019).

¹⁶ David Wessel, *Is Lack of Competition Strangling the U.S. Economy?*, HARV. BUS. REV. (Apr. 2018), <https://hbr.org/2018/03/is-lack-of-competition-strangling-the-us-economy>.

¹⁷ Adil Abdela & Marshall Steinbaum, *The United States Has a Market Concentration Problem*, ROOSEVELT INSTITUTE 8 (2018), available at <https://rooseveltinstitute.org/wp-content/uploads/2018/09/The-United-States-has-a-market-concentration-problem-brief-final.pdf#page=8>.

¹⁸ Jan De Loecker, Jan Eeckhout & Gabriel Unger, *The Rise of Market Power and the Macroeconomic Implications*, 135 Q. J. ECON. 561 (2020).

¹⁹ See, e.g. Press Release: House Judiciary Committee Launches Bipartisan Investigation into Competition in Digital Markets (Jun. 3, 2019), available at <https://judiciary.house.gov/news/documentsingle.aspx?DocumentID=2051> ("Given the growing tide of concentration and consolidation across our economy, it is vital that we investigate the current state of competition in digital markets and the health of the antitrust laws"); see also MARSHALL STEINBAUM & MAURICE E. STUCKE, *THE EFFECTIVE COMPETITION STANDARD: A NEW STANDARD FOR ANTITRUST 1* (2018), available at <https://rooseveltinstitute.org/wp-content/uploads/2018/09/The-Effective-Competition-Standard-FINAL-1.pdf>.

²⁰ See Michael Vita & David F. Osinski, *John Kwoka's Mergers, Merger Control, and Remedies: A Critical Review*, 82 ANTITRUST L.J. 361 (2018). See also Michael Vita, *Kwoka's Mergers, Merger Control, and Remedies: Rejoinder to Kwoka*, 28 RESEARCH IN L. & ECON. 433 (2018).

²¹ JOHN KWOKA, *MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY* 158 (2015).

²² Vita & Osinski, *A Critical Review*, *supra* note 20, at 385.

Similarly, another recent study looking at FTC and DOJ enforcement data between 1979 and 2017 finds that:

[C]ontrary to the popular narrative, regulators have become *more* likely to challenge proposed mergers Indeed, controlling for the number of merger proposals submitted under HSR, *the likelihood of a merger challenge has more than doubled over this period.*²³

The number of Sherman Act cases brought by the federal antitrust agencies, meanwhile, has been relatively stable in recent years, but several recent blockbuster cases have been brought by the agencies²⁴ and private litigants,²⁵ and there has been no shortage of federal and state investigations. But all of this is beside the point: for reasons discussed below, it is highly misleading to count the number of antitrust cases and, using that number alone, make conclusions about how effective antitrust law is.

Complaints about current antitrust enforcement—particularly against digital platforms—based on the alleged failure to achieve an idealized state of competition end up amounting to an arbitrary, one-way ratcheting preference for more enforcement per se. Inevitably, such claims rest on assumptions of market power and anticompetitive conduct rooted in casual, idealized, overly narrow market definitions. These conceptions pinch the scope of analysis and create unwarranted suspicion for conduct that falls outside of this narrow view. Critics thus fall prey to the Nirvana fallacy because they assess perceived flaws in digital markets against an idealized competitive benchmark, rather than the likely real-world results of antitrust intervention.²⁶

But both common sense and empirical evidence show that digital markets are currently providing enormous consumer surplus to users, intuitions to the contrary notwithstanding.²⁷ Although critics may quibble about the exact amount of consumer surplus generated by digital goods, it is undeniably the case that such surplus exists, and its existence is inconsistent with a belief that vast anticompetitive concentration has been permitted by enforcers.

²³ Jeffrey T. Macher & John W. Mayo, *The Evolution of Merger Enforcement Intensity: What Do the Data Show?*, GEO. CTR. FOR BUS. & PUB. POL'Y (Nov. 2019) (emphasis added), available at <https://www.dropbox.com/s/69xqogvda9g5ehj/The%20Evolution%20of%20Merger%20Enforcement%20Intensity%20Nov.%202019.pdf>.

²⁴ Among many others, see, for example, Fed. Trade Comm'n v. Surescripts, LLC, Civil Action No. 19-1080-JDB (D.D.C. filed Apr. 17, 2019); Fed. Trade Comm'n v. Qualcomm Inc., No. 17-CV-00220-LHK (N.D. Cal. June 26, 2017); United States v. American Express Co., 88 F.Supp.3d 143 (E.D.N.Y.2015); Fed. Trade Comm'n v. Actavis, Inc., 570 U.S. 136 (2013); In the Matter of Intel Corp., Fed. Trade Comm'n Docket No. 9341 (Oct. 29, 2010); United States v. Dentsply International, Inc., 399 F.3d 181 (3d Cir. 2005); U.S. v. Visa U.S.A., Inc., 344 F.3d 229 (2d Cir. 2003); United States v. Microsoft Corp. 253 F.3d 34 (D.C. Cir. 2001).

²⁵ Private civil actions are too numerous to count. Among significant recent cases, see, for example, Apple, Inc. v. Pepper, 139 S. Ct. 1514 (2019); In re Qualcomm Antitrust Litig., 328 F.R.D. 280 (N.D. Cal. 2018); O'Bannon v. Nat'l Collegiate Athletic Ass'n, 802 F.3d 1049 (9th Cir. 2015); American Needle, Inc. v. Nat'l Football League, 560 U.S. 183 (2010).

²⁶ See Harold Demsetz, *Information and Efficiency*, 12 J. L. & ECON. 14, 27 (1969).

²⁷ See, e.g., Erik Brynjolfsson, Avinash Collis & Felix Eggers, *Using Massive Online Choice Experiments to Measure Changes in Well-being*, 116 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 7252 (2019); see also Peter Cohen, Robert Hahn, Jonathan Hall, Steven Levitt & Robert Metcalfe, *Using Big Data to Estimate Consumer Surplus: The Case of Uber*, NBER WORKING PAPER NO. W22627 (2016), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2837639.

As the world faces an ongoing pandemic, this truth could not be made any clearer. The large digital platforms have made COVID-19 lockdowns and social distancing more bearable, as well as enabling the US economy to continue functioning as much as possible throughout the quarantine.²⁸ Although the contributions of digital platforms are just a small part of a much wider battle, they suggest that the world is drastically better situated to deal with COVID-19 than it would have been twenty years ago—and this is in no small part thanks to numerous innovations from these firms.

It is critical to understand that the critics' primary complaint—that there are not enough cases brought and won—is, on its own, just as consistent with a belief that the regime is functioning well as it is with a belief that it is functioning poorly. The antitrust laws have evolved over the course of a century, and in that time have developed a coherent body of doctrine to guide firms, courts, and enforcers.²⁹ It is entirely predictable that firms would, for the most part, be accurately guided in their affairs by the law and would largely avoid offending well-established competition principles:

For a given level of enforcement *effort*, the number of enforcement *actions* (and litigation generally) will be related to the extent of uncertainties and ambiguities about legal outcomes perceived by defendants. . . . If the number [of enforcement actions] is low, the reason could be lax enforcement or it could be clear legal standards and a reputation for vigorous enforcement. . . . Accordingly, in the absence of more information, counts of legal actions by themselves ought not to carry much weight.³⁰

Further, in such a mature regime, one would expect relatively fewer marginal cases that present truly novel problems. Thus it is not remotely “staggering” (as Hal Singer characterizes it in his statement to this Committee) that courts may have dismissed some 97 percent of Section 2 cases based on the plaintiff's failure to show anticompetitive effect,³¹ the vast majority of which were brought by private plaintiffs pursuing treble damages. Such an outcome is in fact at least as consistent with an antitrust litigation regime that decisively deters harmful conduct, while overly encouraging plaintiffs to attempt to extract payouts. In sum, a lack of cases and plaintiff's victories cannot, on their own, justify condemnation of the current antitrust regime.

Moreover, assessing the economic consequences of our antitrust laws by considering only the effects of those enforcement actions actually undertaken is enormously misleading. As Douglas Melamed (former Acting Assistant Attorney General of the DOJ Antitrust Division under President Clinton) puts it:

²⁸ See, e.g., Dirk Auer, *What Has Big Tech Ever Done for Us? Part I*, TRUTH ON THE MARKET (Mar. 17, 2020), <https://truthonthemarket.com/2020/03/17/what-has-big-tech-ever-done-for-us-imagine-if-covid-19-had-occurred-20-years-ago/>; see also Dirk Auer, *What Has Big Tech Ever Done for Us? Part II*, TRUTH ON THE MARKET (Mar. 25, 2020), <https://truthonthemarket.com/2020/03/25/what-has-big-tech-ever-done-for-us-part-two/>.

²⁹ See Elyse Dorsey et al., *supra* note 5, at 5-9.

³⁰ Lawrence J. White, *Antitrust Activities During the Clinton Administration*, in HIGH STAKES ANTITRUST—THE LAST HURRAH? 11, 12-13 (Robert W. Hahn ed., 2003).

³¹ Hal Singer, *Submission of Hal Singer to House Judiciary Antitrust Subcommittee Investigation of Digital Platforms* (Apr. 2020) at 2, available at <https://www.econone.com/wp-content/uploads/2020/03/Singer-Letter-to-Chairman-Cicilline-and-Ranking-Member-Sensenbrenner.pdf>.

Antitrust law [] has a widespread effect on business conduct throughout the economy. Its principal value is found, not in the big litigated cases, but in the multitude of anticompetitive actions that do not occur because they are deterred by the antitrust laws, and in the multitude of efficiency-enhancing actions that are not deterred by an overbroad or ambiguous antitrust law.³²

This conclusion is in no way altered by the fact that, as Spencer Weber Waller argues, US antitrust law has become an outlier of global antitrust enforcement, compared to the EU's more "consensual" approach.³³ What matters is a policy's actual results, not whether it is widely adopted; the world is full of debunked beliefs that were once widely shared.

For this same reason it is far from certain that the widespread adoption of the EU model is in any way indicative of superior results. It is equally (or even more) plausible that this model has proliferated because it naturally accommodates politically useful populist narratives and politically valuable and newsworthy enforcement decisions (whether they actually improve consumer welfare or not) that are constrained by the US's more evidence-based and rational antitrust decision-making. America's apparent isolation might thus be a testament to its *success* rather than an emblem of its failure.

In their much-lauded review of the state of antitrust law in 2004—*Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*³⁴—Robert Crandall and Clifford Winston found "little empirical evidence that past interventions have provided much direct benefit to consumers or significantly deterred anticompetitive behavior."³⁵ Theirs is not a condemnation of the overall level of enforcement, but a studied conclusion that the enforcement actions that *were* undertaken did not obviously further the goals of the antitrust laws.

Erroneous enforcement must be taken as given, and any effort to improve antitrust law must acknowledge that any increase in enforcement would likely increase *both* beneficial enforcement decisions and judicial outcomes as well as deleterious ones. Without assurance that the former outweighs the latter, invigorated enforcement cannot be said to improve antitrust law, but to undermine it. By the same token, any claimed justification of increased enforcement that assumes that *more* enforcement is necessarily an improvement is simply unjustifiable.

B. The US is not suffering from a pandemic of anticompetitive concentration

Of course, it is also possible that enforcement of existing laws is *not* insufficient, but the laws themselves are failing to constrain problematic concentration. Yet the assertion that increased

³² A. Douglas Melamed, *Antitrust Law and Its Critics*, 83 ANTITRUST L.J. 16 (forthcoming).

³³ See Spencer Weber Waller, *The Omega Man or The Isolation of U.S. Antitrust Law* 1 (Dec. 4, 2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3295988.

³⁴ Crandall & Winston, *supra* note 3.

³⁵ *Id.* at 4.

market concentration has been driven by anticompetitive conduct and that it has, in turn, resulted in economic harm is not supported by the evidence or empirical research.

The popular narrative derives from a widely reported literature which has documented increasing *national* product market concentration.³⁶ That same literature has also promoted the arguments that increased concentration has had harmful effects, including increased markups and increased market power,³⁷ declining labor share,³⁸ and declining entry and dynamism.³⁹

There are good reasons to be skeptical of the national concentration and market power data on their face in the first place.⁴⁰ But even more important, the narrative that purports to find a causal relationship between these data and the depredations mentioned above is almost certainly incorrect.

To begin with, the assumption that “too much” concentration is harmful assumes both that the structure of a market is what determines economic outcomes, and that anyone knows what the “right” amount of concentration is. But, as economists have understood since at least the 1970s (and despite an extremely vigorous, but futile, effort to show otherwise), market structure is *not* outcome determinative.⁴¹

Once perfect knowledge of technology and price is abandoned, [competitive intensity] may increase, decrease, or remain unchanged as the number of firms in the market is increased. . . . [I]t is presumptuous to conclude . . . that markets populated by fewer firms perform less well or offer competition that is less intense.⁴²

³⁶ See, e.g., Germán Gutiérrez and Thomas Philippon, *Declining Competition and Investment in the U.S.*, NBER Working Paper No. 23583 (2017), available at <https://www.nber.org/papers/w23583>; Simcha Barkai, *Declining Labor and Capital Shares*, J. FIN. (2019) (forthcoming), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3489965.

³⁷ See De Loecker, et al., *supra*, note 18, at 2.

³⁸ See David Autor, et al., *The Fall of the Labor Share and the Rise of Superstar Firms*, Q. J. ECON. 4 (forthcoming), available at <https://economics.mit.edu/files/12979>.

³⁹ Ryan A. Decker, John Haltiwanger, Ron S. Jarmin & Javier Miranda, *Where Has All the Skewness Gone? The Decline in High-Growth (Young) Firms in the U.S.*, 86 EUR. ECON. R. 4, 5 (2016) available at <https://www.sciencedirect.com/science/article/pii/S0014292116300125?via%3Dihub>.

⁴⁰ A number of papers simply do not find that the accepted story—built in significant part around the famous De Loecker and Eeckhout study, see De Loecker, et al., *supra* note 18—regarding the vast size of markups and market power is accurate. Among other things, the claimed markups due to increased concentration are likely not nearly as substantial as commonly assumed. See, e.g., James Traina, *Is Aggregate Market Power Increasing? Production Trends Using Financial Statements*, Stigler Center Working Paper (Feb. 2018), available at <https://pdfs.semanticscholar.org/8059/7e4e80edebd66d3eef57e28d324623ad9ee0.pdf>; see also WORLD ECONOMIC OUTLOOK, APRIL 2019 GROWTH SLOWDOWN, PRECARIOUS RECOVERY, INTERNATIONAL MONETARY FUND (Apr. 2019), available at <https://www.imf.org/en/Publications/WEO/Issues/2019/03/28/world-economic-outlook-april-2019>. Another study finds that profits have increased, but are still within their historical range. See Loukas Karabarounis & Brent Neiman, *Accounting for Factorless Income*, NBER Working Paper No. 24404 (June 2018), available at <https://www.nber.org/papers/w24404>. And still another shows decreased wages in concentrated markets but also that local concentration has been *decreasing* over the relevant time period. See Kevin Rinz, *Labor Market Concentration, Earnings Inequality, and Earnings Mobility*, U.S. Census Bureau Working Paper 2018-10 (Sep. 2018), available at <https://www.census.gov/content/dam/Census/library/working-papers/2018/adrm/carra-wp-2018-10.pdf>.

⁴¹ See Harold Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 J. L. & ECON. 1 (1973).

⁴² Harold Demsetz, *The Intensity and Dimensionality of Competition*, in HAROLD DEMSETZ, *THE ECONOMICS OF THE BUSINESS FIRM: SEVEN CRITICAL COMMENTARIES* 137, 140-41 (1995).

This view is not an aberration, and it is held by scholars across the political spectrum. To take one prominent, recent example, professors Fiona Scott Morton (Deputy Assistant Attorney General for Economics in the DOJ Antitrust Division under President Obama), Martin Gaynor (former Director of the FTC Bureau of Economics under President Obama), and Steven Berry surveyed the industrial organization literature and found that presumptions based on measures of concentration are unlikely to provide sound guidance for public policy:

In short, there is no well-defined “causal effect of concentration on price,” but rather a set of hypotheses that can explain observed correlations of the joint outcomes of price, measured markups, market share, and concentration. . . .

Our own view, based on the well-established mainstream wisdom in the field of industrial organization for several decades, is that *regressions of market outcomes on measures of industry structure like the Herfindahl-Hirschman Index should be given little weight in policy debates.*⁴³

Furthermore, the national concentration statistics that are used to justify invigorated antitrust law and enhanced antitrust enforcement are generally derived from available data based on industry classifications and market definitions that have limited relevance to antitrust. As Luke Froeb (former Deputy Assistant Attorney General for Economics in the DOJ Antitrust Division under President Trump; former Director of the FTC Bureau of Economics under President Bush) and Greg Werden (former Economic Counsel in the DOJ Antitrust Division from 1977-2019) note:

[T]he data are apt to mask any actual changes in the concentration of markets, which can remain the same or decline despite increasing concentration for broad aggregations of economic activity. Reliable data on trends in market concentration are available for only a few sectors of the economy, and for several, market concentration has not increased despite substantial merger activity.⁴⁴

This critique is made by economists across the political spectrum. Thus, as Carl Shapiro (former Deputy Assistant Attorney General for Economics in the DOJ Antitrust Division under President Clinton) explains:

[S]imply as a matter of measurement, the Economic Census data that are being used to measure trends in concentration do not allow one to measure concentration in relevant antitrust markets, i.e., for the products and locations over which competition actually occurs. As a result, it is far from clear that the reported changes in concentration over time are informative regarding changes in competition over time.⁴⁵

⁴³ Steven Berry, Martin Gaynor & Fiona Scott Morton, *Do Increasing Markups Matter? Lessons from Empirical Industrial Organization*, Working Paper (Jun. 2019) at 5-6 (emphasis added), available at <https://www.researchgate.net/publication/333966085> (emphasis added). See also Jonathan Baker & Timothy F. Bresnahan, *Economic Evidence in Antitrust: Defining Markets and Measuring Market Power*, John M. Olin Program in L. & Econ., Stanford Law Sch. Working Paper 24 (Sep. 2006) (“The Chicago identification argument has carried the day, and structure-conduct-performance empirical methods have largely been discarded in economics.”).

⁴⁴ Gregory J. Werden & Luke M. Froeb, *Don’t Panic: A Guide to Claims of Increasing Concentration*, 33 ANTITRUST 74, 74 (2018).

⁴⁵ Carl Shapiro, *Antitrust in the Time of Populism*, 61 INT’L J. OF INDUS. ORG. 714, 727-28 (2018).

The most recent Annual Report from President Trump’s Council of Economic Advisors sounds a similar note. After critically examining similar alarms about rising concentration, it concludes that:

The assessment of the competitive health of the economy should be based on studies of properly defined markets, together with conceptual and empirical methods and data that are sufficient to distinguish between alternative explanations for rising concentration and markups.⁴⁶

Most importantly, these criticisms of the assumed relationship between concentration and economic outcomes are borne out by a host of recent empirical research studies.

The absence of a correlation between increased concentration and both anticompetitive causes and deleterious economic effects is demonstrated by a recent, influential empirical paper by Sharat Ganapati. Ganapati finds that the increase in industry concentration in non-manufacturing sectors in the US between 1972 and 2012 is “related to an offsetting and positive force—these oligopolies are likely due to technical innovation or scale economies. [The] data suggests that national oligopolies are strongly correlated with innovations in productivity.”⁴⁷ The result is that increased concentration results from a beneficial growth in firm size in productive industries that “expand[s] real output and hold[s] down prices, raising consumer welfare, while maintaining or reducing [these firms’] workforces.”⁴⁸

A number of other recent papers looking at the data on concentration in detail and attempting to identify the likely cause for the observed data demonstrate clearly that measures of increased national concentration cannot justify increased antitrust intervention. In fact, as these papers show, the reason for increased concentration in the US in recent years appears to be technological, not anticompetitive. And, as might be expected from that cause, its effects seem to be *beneficial*.

More to the point, the assertions based on national concentration are incorrect mostly for a simple reason: *competition rarely takes place in national markets; it takes place in local markets*.

By way of illustration, it hardly matters to a shopper in, say, Portland, OR, that there may be fewer grocery store chains nationally if she has *more* stores to choose from within a short walk or drive from her home. If you’re trying to connect the competitiveness of a market and the level of concentration, the relevant market to consider is *local*.

Moreover, because many of the large firms driving the national concentration data operate across multiple product markets that do not offer substitutes for each other, the relevant *product* market definition is also narrower. In other words, it implies virtually nothing about competition in, for example, the produce market that Walmart dominates in “retail” or even “discount retail.” In the real world, Walmart competes for consumers’ produce dollars with other large retailers,

⁴⁶ EXECUTIVE OFFICE OF THE PRESIDENT, COUNCIL OF ECONOMIC ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 215 (Feb. 2020).

⁴⁷ Sharat Ganapati, *Growing Oligopolies, Prices, Output, and Productivity*, Working Paper (Oct. 6, 2018) at 13 (*forthcoming* in AM. ECON. J.: MICROECONOMICS), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3030966.

⁴⁸ *Id.* at 1.

supermarkets, smaller local grocers, and local produce markets. It also competes in the gasoline market with other large retailers, some supermarkets, and local gas stations. It competes in the electronics market with other large retailers, large electronic stores, small local electronics stores, and a plethora of online sellers large and small—and so forth.

This conclusion is not merely a supposition: In fact, recent empirical work demonstrates that national measures of concentration do not reflect market structures at the local level.

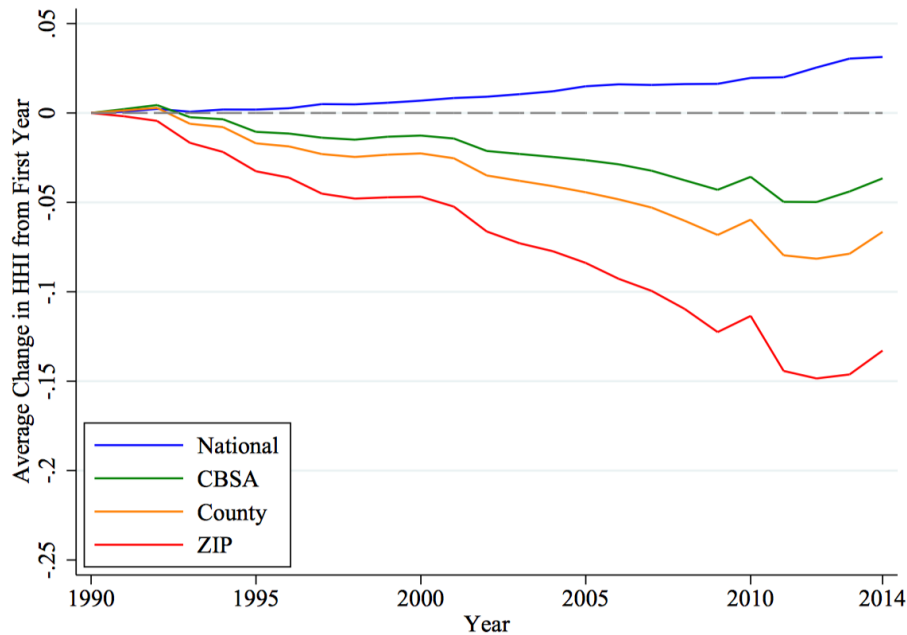
In a recent paper,⁴⁹ the authors look at both the national and local concentration trends between 1990 and 2014 and find that:

1. Overall and for all major sectors, concentration is increasing nationally but decreasing locally.
2. Industries with diverging national/local trends are pervasive and account for a large share of employment and sales.
3. Among diverging industries, the top firms have increased concentration nationally, but *decreased* it locally.
4. Among diverging industries, opening of a plant from a top firm is associated with a long-lasting decrease in local concentration.⁵⁰

⁴⁹ Esteban Rossi-Hansberg, Pierre-Daniel Sarte & Nicholas Trachter, *Diverging Trends in National and Local Concentration*, in NBER MACROECONOMICS ANNUAL 2020, VOLUME 35 (Martin Eichenbaum & Erik Hurst, eds., forthcoming 2020), preliminary draft available at <https://www.nber.org/chapters/c14475>.

⁵⁰ Rossi-Hansberg, et al., *Presentation: Diverging Trends in National and Local Concentration*, slide 3, available at https://conference.nber.org/conf_papers/f132587/f132587.slides.pdf.

Figure 1: Diverging economy-wide national and local concentration trends



Source: Rossi-Hansberg, et al. (2020)⁵¹

Nor is it possible to connect increased concentration to changes in labor market share; all of the above apply not only to product markets, but to *labor* markets, as well:

The proportion of aggregate U.S. employment located in all SIC 8 industries with increasing national market concentration and decreasing ZIP code level market concentration is 43 percent. Thus, given that some industries have also had declining concentration at both the national and ZIP code level, 78 percent (or over 3/4) of U.S. employment resides in industries with declining local market concentration.⁵²

What is perhaps most remarkable about this data is the unique role of large firms in driving the *reduction* in concentration at the local level:

[T]he increase in market concentration observed at the national level over the last 25 years is being shaped by enterprises expanding into new local markets. This expansion into local markets is accompanied by a fall in local concentration as firms open establishments in new locations. *These observations are suggestive of more, rather than less, competitive markets.*⁵³

⁵¹ Rossi-Hansberg, et al, *supra* note 49, at 9.

⁵² *Id.* at 14 (emphasis added).

⁵³ *Id.* at 27 (emphasis added).

A related paper explores this phenomenon in greater detail.⁵⁴ It shows that new technology has enabled large firms to scale production over a larger number of establishments across a wider geographic space. As a result, these large, national firms have grown by increasing the number of local markets they serve, and in which they are actually relatively *smaller* players.⁵⁵

What appears to be happening is that national-level growth in *concentration* is actually being driven by increased *competition* in certain industries at the local level.⁵⁶ The net effect is a *decrease* in the power of top firms relative to the economy as a whole, as the largest firms specialize more, and are dominant in fewer industries.⁵⁷

These results turn the commonly accepted narrative on its head:

- First, rising concentration, where it is observed, is a result of increased productivity and competition that weed out less-efficient producers. This is emphatically a *good* thing.
- Second, the rise in concentration is predominantly a function of more efficient firms competing in more—and more localized—markets. This means that competition is *increasing*, not decreasing, whether it is accompanied by an increase in concentration or not.

The same results hold for labor market effects. Another paper takes a similar approach to analyzing the effect of increased firm size on labor market share.⁵⁸ In a complete refutation of the popular narrative, the paper finds that, while the labor market power of firms appears to have increased, “labor market power has not contributed to the declining labor share because, despite an overall increase in national concentration, we find that . . . local labor market concentration has declined over the last 35 years.”⁵⁹ Moreover, the authors find that, “[a]s large firms become larger, concentration rises even though the labor market is more competitive. *Competition, output, wages and welfare all increase at the same time as markets become more concentrated.*”⁶⁰

Further studies have corroborated these findings, noting that, on an industry-by-industry basis, the explanatory power of increasing concentration (or increasing firm size) is extremely weak. For example, while Autor, et al. (2017) attribute the purported decline in the labor share of the US economy to the rise of “superstar” firms,⁶¹ Stanford economist, Robert Hall, shows that the data is far more nuanced. Thus, comparing the employment shares of firms with 10,000 or more workers in the 19 NAICS sectors between 1998 and 2015, Hall finds that:

⁵⁴ Chang-Tai Hsieh & Esteban Rossi-Hansberg, *The Industrial Revolution in Services*, Working Paper (Mar. 17, 2020), available at <https://www.princeton.edu/~erossi/IRS.pdf>.

⁵⁵ *Id.* at 4 (“[R]ising [national] concentration in these sectors is entirely driven by an increase [in] the number of local markets served by the top firms”).

⁵⁶ *Id.* at 13.

⁵⁷ *Id.* at 17.

⁵⁸ David Berger, Kyle Herkenhoff & Simon Mongey, *Labor Market Power*, IZA—Institute of Labor Economics Working Paper (April 2019), available at <http://ftp.iza.org/dp12276.pdf>.

⁵⁹ *Id.* at 1.

⁶⁰ *Id.* at 39 (emphasis added).

⁶¹ See Autor, et al., *supra* note 38.

- “In four of the 19 sectors, very high-employment firms declined in importance over the 17-year span of the data. The weighted-average increase across all sectors was only 1.8 percentage points, from 25.3 percent to 27.1 percent. *Thus it seems unlikely that rising concentration played much of a role in the general increase in market power. . . .*”; and
- “[T]here is essentially no systematic relation between the mega-firm employment ratio . . . and the ratio of price to marginal cost. . . . Over the wide range of variation in the employment ratio, sectors with low market power and with high market power are found, with essentially the same average values. *There is no cross-sectional support for the hypothesis of higher markup ratios in sectors with more very large firms and thus more concentration in the product markets contained in those sectors.*”⁶²

Economists have been studying the relationship between concentration and various potential indicia of anticompetitive effects—price, markup, profits, rate of return, etc.—for decades. There are, in fact, hundreds of empirical studies addressing this topic. Contrary to the claims of some, however, taken as a whole this literature is singularly unhelpful in resolving our fundamental ignorance about the functional relationship between structure and performance: “Inter-industry research has taught us much about how markets *look*... even if it has not shown us exactly how markets *work*.”⁶³

Though some studies have plausibly shown that an increase in concentration in a particular case led to higher prices (although this is true in only a minority share of the relevant literature), assuming the same result from an increase in concentration in other industries or other contexts is simply not justified: “The most plausible competitive or efficiency theory of any particular industry’s structure and business practices is as likely to be idiosyncratic to that industry as the most plausible strategic theory with market power.”⁶⁴

C. The state of competition and concentration among digital platforms is not captured by superficial product market statistics

It is similarly a mistake to assess the extent of competition among digital platforms with reference to the superficial product markets in which they appear to operate. Google and Amazon are direct competitors in search, for example—it makes no difference that one is nominally a “general search engine” and the other an “online retailer.” Indeed, today, over two-thirds of all product searches occur on Amazon, not Google.⁶⁵ Here as in other nominal product markets, the reality is that the

⁶² Robert E. Hall, *New Evidence on the Markup of Prices Over Marginal Costs and the Role of Mega-Firms in the US Economy*, Working Paper 16 (April 27, 2018) (emphasis added), available at <https://web.stanford.edu/~rehall/Evidence%20on%20markup%202018>.

⁶³ Richard Schmalensee, *Inter-Industry Studies of Structure and Performance*, in 2 HANDBOOK OF INDUSTRIAL ORGANIZATION 951, 1000 (Richard Schmalensee & Robert Willig eds., 1989). See also Timothy F. Bresnahan, *Empirical Studies of Industries with Market Power*, in 2 HANDBOOK OF INDUSTRIAL ORGANIZATION 1011, 1053-54 (Richard Schmalensee & Robert Willig eds., 1989) (“[A]lthough the [most advanced empirical literature] has had a great deal to say about measuring market power, it has had very little, as yet, to say about the causes of market power.”); Frank H. Easterbrook, *Workable Antitrust Policy*, 84 MICH. L. REV. 1696, 1698 (1986) (“Today it is hard to find an economist who believes the old structure-conduct-performance paradigm.”).

⁶⁴ Baker & Bresnahan, *supra* note 43, at 26.

⁶⁵ See Greg Magana, *Amazon Rules the Product Search Process*, BUSINESS INSIDER (Mar. 20, 2019), <https://www.businessinsider.com/online-shoppers-rely-heavily-on-amazon-2019-3>.

large platforms—as well as many other companies—are increasingly and significantly in direct competition with each other for users and advertisers.

Market definition is inherently retrospective—systematically minimizing where competition is going, and locking even fast-evolving digital competitors into the past. And traditional market definition analysis that infers future substitution possibilities from existing or past market conditions will systematically lead to overly narrow markets and an increased likelihood of erroneous market power determinations. Because these products and services are constantly evolving, such firms can only be viewed as “dominant” (if at all) if we use economically meaningless market definitions, superficially defined by legacy products that do not reflect the actual behavior of users or businesses.

In digital markets it is not unusual for one or a few large, innovative firms to arise in perfectly healthy, competitive markets. And this is so for good reason: Unlike firms in more traditional industries, competition among technology firms typically turns on *product performance* rather than price.⁶⁶ Instead of competing on price to capture each sliver of a static market, online competitors develop new products and services that often simply supplant the alternatives. As a result, online and similar high-tech markets exhibit extremely high levels of R&D, continual product evolution, frequent entry, almost as frequent exit—and economies of scale. And in the process, they create new markets that, inevitably, encroach on each other’s turf.

Moreover, many criticisms of digital platforms for being “too big” misunderstand entirely that having a large number of users is the whole point of platforms, from the users’ point of view. The more other sellers and buyers there are on a marketplace, for example, the more likely an individual user is to find the product they want. The benefits of these network effects and increasing returns to scale imply that market concentration may be more, not less, desirable from a social welfare standpoint.

In reality, digital platforms compete vigorously in a different and more competitive market—the “market for eyeballs,” perhaps—and arguably none is truly dominant, at least not for long. At the same time, the competition for users’ attention is constantly evolving. Today the battle rages over digital assistants and smart-home devices—a sector characterized by intense competition among Google’s Assistant, Amazon’s Alexa, and Apple’s Siri, as well as failed or flailing combatants like Facebook’s M, Microsoft’s Cortana, and Samsung’s Bixby. Surely this is not the last stage of competition among these firms, nor the last time that the relevant market(s) in which they compete will shift.

High-tech industries are often marked by frequent disruptions or paradigm shifts rather than horizontal market share contests; and spending on innovation and investment are important signals of competition, which comes from the continual threat of new entry down the road—often from competitors who, though they may start with relatively small market share, or may arise in completely different markets, can rapidly and unexpectedly come to overtake incumbents. They may not even

⁶⁶ See, e.g., Thomas M. Jorde and David J. Teece, *Antitrust Policy and Innovation: Taking Account of Performance, Competition, and Competitor Cooperation*, 147 J. INST’L. & THEORETICAL ECON. 118 (1991).

exist yet, but as long as markets are contestable, the possibility that they *may soon* exist is sufficient to drive competitive outcomes.⁶⁷

Thus these companies face the unwavering threat of new entry and new competition—both from large incumbents in neighboring markets and startups with superior products or business models. During the ongoing pandemic, for example, the startup video conferencing app, Zoom, has emerged as a powerful competitor to the already competitive set of such offerings from large incumbents like Google, Cisco, and Microsoft. Notably, none of these large companies started out in the video conferencing space; at one time, surely none of them would have been described as competitors in this market. And yet each has emerged as a significant challenger to the others and to the incumbents that were already there. And this same dynamic has played out countless times.

Nor does the entry of one of these giants into a new market inevitably spell doom for other players there. When Google’s purchase of ITA was approved (with conditions) by the DOJ in 2010,⁶⁸ for example, the conventional wisdom among tech journalists, advocates, and commentators—fueled by claims made by competitors—was that it spelled the end of online travel agencies and fare search sites like Kayak and Expedia.⁶⁹ Several years later, the actual outcome was an increase in competition and a strengthening of those competitors, which were forced by competition from Google to improve their own products:

Google Flight Search, loved by some and ignored by others, hasn’t turned into the competition-crushing Web site that its critics predicted it would be. Rather, it quietly evolved into a useful site for air travelers. . . .

When Google bought ITA and used its technology to create Flight Search, competitors were worried that it would quickly put them out of business. But four years later, the companies that had misgivings are still here. Four online agencies—Expedia, Orbitz, Priceline (which owns Kayak.com) and Travelocity—have a virtual lock on the American online travel industry, with a 95 percent market share.⁷⁰

Today Google has improved its travel search and booking services even more and has improved its competitive position. And there has been consolidation among other players in the industry, further tightening the competitive landscape. Amazon is notionally nowhere to be found. And yet:

“Amazon in a significant way was determined to be the more significant threat long term, even though it’s not present in hospitality today and Google is,” says Price. “Amazon is

⁶⁷ See generally William J. Baumol, *Contestable Markets: An Uprising Theory of Industry Structure*, 72 AM. ECON. REV. 1 (1982).

⁶⁸ See Final Judgment, *U.S. v. Google Inc. and ITA Software*, Case: 1:11-cv-00688 (RLW) (D.D.C. Oct. 5, 2011).

⁶⁹ See, e.g., Brett Synder, *Google Acquires ITA Software, and the Likes of Kayak and Bing Cry a Little*, CBS NEWS (July 2, 2020), <https://www.cbsnews.com/news/google-acquires-ita-software-and-the-likes-of-kayak-and-bing-cry-a-little/>; see also Margot Williams, *Expedia is Worried About Google/ITA Deal*, INSIDEGOOGLE.COM (July 12, 2010), <http://insidegoogle.com/2010/07/expedia-is-worried-about-googleita-deal/>.

⁷⁰ Christopher Elliott, *Google Flight Search, Four Years In: Not the Competition-Killer Critics Feared*, WASH. POST (Oct. 2, 2014), https://www.washingtonpost.com/lifestyle/travel/google-flight-search-four-years-in-success-or-not/2014/10/02/bfb69036-45ab-11e4-9a15-137aa0153527_story.html.

such an efficient and effective digital retailer that it is, by its nature, a primary potential competitor.”⁷¹

Assumptions that yesterday’s (or even today’s) market contours are indicative of future competition in digital markets is simply unmerited. The key for competition analysis is to assess all of the sources from which a company may feel competitive pressure, in order to truly determine whether that company possesses market power or rather just a fragile hold on its users. Thus, reliance on these relatively static market definitions regularly leads to the misidentification of competitively beneficial innovation or other procompetitive conduct as *anticompetitive*, and a systematic underappreciation of the actual extent of competition.

One can appreciate the desire to reduce incomprehensibly complex systems like the market to the predictable effects of a very few, readily quantified variables—or a single variable, as so many seem to want to do with market concentration or superficial market share. But just because such oversimplification is easier to comprehend does not mean it is correct.

II. Misconception: Vertical integration by dominant digital platforms is harmful

Vertical behavior of digital firms—both through merger as well as through contract and unilateral action—frequently arouses the ire of critics of the current antitrust regime. Most such critics point to a few recent studies that cast some doubt on the ubiquity of benefits from vertical integration. But the findings of these few studies are regularly overstated, and, even taken at face value, they represent a miniscule fraction of the collected evidence supporting vertical integration.

There is longstanding and strong empirical evidence to support the view that vertical integration is competitively benign. Professors Francine Lafontaine (former Director, Bureau of Economics of the Federal Trade Commission under President Obama) and Margaret Slade famously catalogued and analyzed this literature, and they assess its meaning for antitrust policy:

As to what the data reveal in relation to public policy, . . . [w]e are . . . somewhat surprised at what the weight of the evidence is telling us. It says that, under most circumstances, profit-maximizing vertical integration decisions are efficient, not just from the firms’ but also from the consumers’ points of view. Although there are isolated studies that contradict this claim, the vast majority support it. Moreover, even in industries that are highly concentrated so that horizontal considerations assume substantial importance, the net effect of vertical integration appears to be positive in many instances. *We therefore conclude that, faced with a vertical arrangement, the burden of evidence should be placed on competition authorities to demonstrate that that arrangement is harmful before the practice is attacked.*⁷²

⁷¹ Suzanne Rowan Kelleher, *Google and Amazon’s Disruption of the Online Travel Industry is Looking Inevitable*, FORBES (June 30, 2019), <https://www.forbes.com/sites/suzannerowan-kelleher/2019/06/30/google-and-amazons-disruption-of-the-online-travel-industry-is-looking-inevitable/#3b3312448e0f>.

⁷² Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LIT. 629, 680 (2007) (emphasis added); see also James C. Cooper et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT’L J. INDUS.

Recently, both Lafontaine and Slade have reiterated the relevance of their studies to vertical merger policy. Professor Lafontaine noted at one of last year's FTC hearings that, despite some evidentiary limitations, "the empirical literature reveals consistent evidence of efficiencies associated with the use of vertical restraints (when chosen by market participants) and, similarly, with vertical integration decisions."⁷³ And Professor Slade noted in June 2019 at the OECD, that, even in light of further studies, "[t]he empirical evidence leads one to conclude that most vertical mergers are efficient."⁷⁴

In response, critics often dismiss the longstanding evidence as irrelevant or insufficient,⁷⁵ and point instead to a few newer studies, claiming they demonstrate that vertical mergers tend to be harmful in "oligopoly" markets (like those in which digital platforms operate).⁷⁶ "Surveys of earlier economic studies, relied upon by commenters who propose a procompetitive presumption, reference studies of vertical mergers in which the researchers sometimes identified competitive harm and sometimes did not. However, recent empirical work using the most advanced empirical toolkit often finds evidence of anticompetitive effects."⁷⁷

But the reality is that the longstanding studies still constitute the overwhelming majority of the evidence we have—and many, if not most, of the papers they canvas are perfectly well done, even by modern standards. Moreover, "often finds evidence of anticompetitive effects" is a disingenuous characterization, implying that the balance of evidence taken from these studies tips the scales against a presumption of benefits from vertical mergers. In reality, the newer literature is no different than the old in finding widely procompetitive results overall, intermixed with relatively few, and relatively narrow, seemingly harmful effects. As scholars at the Global Antitrust Institute have noted in a thorough canvassing of the most recent literature:

In sum, these papers from 2009-2018 continue to support the conclusions from Lafontaine & Slade (2007) and Cooper et al. (2005) that consumers mostly benefit from vertical integration.

ORG. 639, 648, n. 25 (2005); see also Margaret E. Slade, *The Effects of Vertical Restraints: An Evidence Based Approach*, in REPORT: THE PROS AND CONS OF VERTICAL RESTRAINTS 12, 22 (2008) ("[Table 1 in this paper] indicates that voluntarily adopted restraints are associated with lower costs, greater consumption, higher stock returns, and better chances of survival.").

⁷³ *Competition and Consumer Protection in the 21st Century: FTC Hearing #5: Vertical Merger Analysis and the Role of the Consumer Welfare Standard in U.S. Antitrust Law*, Before the FTC, FTC Transcript 93 (Nov. 1, 2018) (statement of Francine Lafontaine, Professor, Michigan-Ross) https://www.ftc.gov/system/files/documents/public_events/1415284/ftc_hearings_session_5_transcript_11-1-18.pdf.

⁷⁴ Margaret E. Slade, *Vertical Integration and Mergers: Empirical Evidence and Evaluation Methods*, Organization for Econ. Cooperation & Dev. 9 (Jun. 7, 2019), [https://one.oecd.org/document/DAF/COMP/WD\(2019\)68/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2019)68/en/pdf).

⁷⁵ See, e.g., *Competition and Consumer Protection in the 21st Century: FTC Hearing #5: Vertical Merger Analysis and the Role of the Consumer Welfare Standard in U.S. Antitrust Law*, Presentation Slides at 25 (Nov. 1, 2018), available at https://www.ftc.gov/system/files/documents/public_events/1415284/ftc_hearings_5_georgetown_slides.pdf [hereinafter "Vertical Merger Slides"].

⁷⁶ See, e.g., Jonathan B. Baker, Nancy L. Rose, Steven C. Salop, and Fiona Scott Morton, *Five Principles for Vertical Merger Enforcement Policy*, Georgetown Law Working Paper (Apr. 5, 2019) at 13, available at <https://scholarship.law.georgetown.edu/facpub/2148>; see also James C. Cooper, et al., *supra*, note 72 at 642–48 (discussing such "post-Chicago" scholarship).

⁷⁷ Baker, et al., *id.* at 14.

While vertical integration can certainly foreclose rivals in theory, there is only limited empirical evidence supporting that finding in real markets.⁷⁸

Moreover, as Professor Slade noted in her recent OECD remarks, reliably forecasting the likely effects of vertical mergers using tools from the “advanced empirical toolkit”—e.g., assessment of vertical upward pricing pressure—is actually a *more* fraught and unreliable endeavor.⁷⁹

From a more theoretical standpoint, the potential efficiencies associated with vertical integration (even with the potential elimination of downstream rivals) are significant. Vertical integration may help firms to internalize transaction costs,⁸⁰ prevent holdup⁸¹ or moral hazard,⁸² reduce double marginalization,⁸³ and create pro-consumer product innovations integrating products and features efficiently.⁸⁴ All of these ultimately benefit consumers. And these findings hold true in the digital economy: as the empirical evidence in the next section demonstrates, vertically integrated platforms tend to offer significant consumer benefits even when their conduct might lead to less consumer use of specific downstream competitors.⁸⁵ The fact that consumers purchased far fewer CDs after Apple vertically integrated iTunes and the iPod was, thankfully, never a reason to block Apple’s historic innovation.

In short, there is a substantial body of both empirical and theoretical research showing that vertical integration (and the potential vertical discrimination and exclusion to which it might give rise) is generally beneficial to consumers. It is possible that vertical mergers *could* cause harm at times, but it is incumbent on critics of the current enforcement regime to empirically demonstrate when this actually occurs in light of the overwhelming evidence to the contrary. Under no legitimate interpretation of the literature is there any basis for imposing a presumption *against* vertical mergers.

Further, it is—or should be—unavailing to point to a platform’s *intent* to foreclose competitors, where that might actually arise as evidence to justify enforcement.⁸⁶ Businesses act under conditions of uncertainty. This means that, even when they might *hope* that their actions will harm competitors (whether anticompetitively or not), there is frequently a tenuous connection (if any at all) between a firm’s intent and the actual consequences of their actions. For antitrust analysis, all that matters is

⁷⁸ Tad Lipsky et al., The Federal Trade Commission’s Hearings on Competition and Consumer Protection in the 21st Century, the Consumer Welfare Standard in Antitrust Law, Comment of the Global Antitrust Institute, Antonin Scalia Law School, George Mason U. 8 (Sep. 7, 2018), available at <https://gai.gmu.edu/wp-content/uploads/sites/27/2018/09/GAI-Comment-on-Vertical-Mergers.pdf> (emphasis added).

⁷⁹ Slade, *supra* note 72, at 9–13.

⁸⁰ See Ronald H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386 (1937).

⁸¹ See Benjamin Klein, Robert G. Crawford & Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 *J. L. & ECON.* 297 (1978); Benjamin Klein, *Vertical Integration as Organizational Ownership: The Fisher Body-General Motors Relationship Revisited*, 4 *J. L. ECON. & ORG.* 199 (1988).

⁸² See, e.g., Lafontaine & Slade, *supra* note 72, at 633.

⁸³ See, e.g., Nicholas Economides, *Quality Choice and Vertical Integration*, 17 *INT’L J. INDUS. ORG.* 903 (1999).

⁸⁴ See, e.g., Lafontaine & Slade, *supra* note 72, at 666.

⁸⁵ See *infra* Section III, especially notes 92–96, and accompanying text.

⁸⁶ See generally Geoffrey A. Manne & E. Marcellus Williamson, *Hot Docs vs. Cold Economics: The Use and Misuse of Business Documents in Antitrust Enforcement and Adjudication*, 47 *ARIZ. L. REV.* 609 (2005).

the latter. Because the same economic activity can have desirable or undesirable consequences depending on the economic circumstances, by its nature antitrust analysis is constrained to outlaw not specific conduct, but rather conduct that has specific *economic characteristics*.

It is undoubtedly easier to “discover” anticompetitive behavior and relevant markets by inferences from business language than it is to deduce it from rigorous economic analysis. But typically this type of business rhetoric bears little relationship to economic reality. An “intention to limit competition will not make illegal conduct that we know to be pro-competitive or otherwise immune from antitrust control. . . . [I]ndications of intent do not help us ‘predict [the] consequences [of a defendant’s acts]’ and are therefore of no value . . . where the court’s ultimate role is to determine the net effects of those acts.”⁸⁷

Finally, there is a strong argument that we need not stop potentially problematic vertical mergers (and thus lose out on any efficiency benefits that may accompany even mergers that have some anticompetitive risk); rather, the problems can be readily addressed through the use of narrow conditions and standard vertical conduct (Section 2) enforcement.

Much of the literature on vertical mergers actually supports the imposition of behavioral conditions. Although some scholars believe that behavioral remedies are difficult to monitor and enforce,⁸⁸ the reality is that the costs of monitoring and enforcing behavioral remedies should be no higher than those required under the law anyway, if the agencies undertake enforcement and monitoring with the objective of deterring or halting anticompetitive conduct. Indeed, the enforcement of behavioral remedies should be *easier*, because, in that case the problematic conduct is defined in advance and direct reporting obligations are typically in place. By contrast, the generalized enforcement against exclusionary conduct of the sort behavioral remedies are aimed at is relatively more amorphous and costly. It doesn’t matter that enforcing behavioral remedies is costlier than enforcing structural remedies (at least not if the alternative is to reject a merger). Rather, the imposition of behavioral conditions makes the agencies’ job easier relative to the *appropriate* baseline of ongoing monitoring and enforcement against the now-non-merging firms.

Put simply, if an agency can properly identify what would be the harmful conduct to emerge from a merger, then the appropriate response is not to reject the merger; it is to prohibit the problematic conduct and allow the merger to proceed in order to realize any efficiency gains (while limiting or removing the risk of foreclosure). In this sense, vertical merger review would become something like an SEC no-action letter in which the parties effectively ask the agencies if a particular post-merger behavior is acceptable, and the agency either says “yes” (*i.e.*, approves the merger without conditions), or “no” (*i.e.*, prohibits the specific conduct at issue, and approves the merger with conditions). Under this approach, specific, harmful forms of conduct can be policed *ex post* with behavioral remedies and procompetitive transactions can proceed.

⁸⁷ Cal. Dental Ass’n v. FTC, 224 F.3d 942, 948 (9th Cir. 2000) (citations omitted).

⁸⁸ See, e.g., *Vertical Merger Slides*, *supra* note 75, at 40.

III. Misconception: Digital platforms inappropriately self-preference to the detriment of competition and consumers

Over the past several years, a number of critics have argued that big tech platforms harm competition by favoring their own content over that of their complementors. According to this line of argument, complementors are “at the mercy” of tech platforms.⁸⁹ By discriminating in favor of their own content and against independent “edge providers,” tech platforms cause “the rewards for edge innovation [to be] dampened by runaway appropriation,” leading to “dismal” prospects “for independents in the internet economy—and edge innovation generally.”⁹⁰

The problem, however, is that the claims of presumptive harm from vertical discrimination are based neither on sound economics nor evidence.

The notion that platform entry into competition with edge providers is harmful to innovation is entirely speculative. Moreover, it is flatly contrary to a range of studies showing that the opposite is likely true. Platform competition is more complicated than simple theories of vertical discrimination would have it,⁹¹ and there is certainly no basis for a *presumption* of harm. Consider a few examples from the empirical literature:

- Li and Agarwal (2017)⁹² finds that Facebook’s integration of Instagram led to a significant increase in user demand for Instagram—and for the entire category of photography apps. The integration of Instagram increased consumer awareness of photography apps on Facebook, which benefited independent developers, as well as Facebook.
- Foerderer, et al. (2018)⁹³ finds that Google’s 2015 entry into the market for photography apps on Android created additional user attention and demand for such apps generally. This had a positive spillover effect on complementors. Following Google’s entry, complementors were more likely to innovate their photography apps and to release new apps in other categories, as well.
- Cennamo, et al. (2018)⁹⁴ finds that video games offered by console firms often become blockbusters and expand the installed base of the consoles. As a result, these games increase the potential for all

⁸⁹ Sally Hubbard, Testimony Before the Senate Judiciary Committee Subcommittee on Antitrust, Competition Policy and Consumer Rights on “Competition in Digital Technology Markets: Examining Self-Preferencing by Digital Platforms” (Mar. 10, 2020) at 4, <https://www.judiciary.senate.gov/download/hubbard-testimony>.

⁹⁰ Hal Singer, *How Big Tech Threatens Economic Liberty*, AM. CONSERV. (May 7, 2019), <https://www.theamericanconservative.com/articles/how-big-tech-threatens-economic-liberty/>.

⁹¹ Virtually none of which address the relevant and copious strategy literature on the complexity of platform dynamics. See, e.g., Jonathan M. Barnett, *The Host’s Dilemma: Strategic Forfeiture in Platform Markets for Informational Goods*, 124 HARV. L. REV. 1861 (2011); David J. Teece, *Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy*, 15 RES. POL’Y 285 (1986); Andrei Hagiu & Kevin Boudreau, *Platform Rules: Multi-Sided Platforms As Regulators*, in PLATFORMS, MARKETS AND INNOVATION (Annabelle Gawer, ed. 2009); Kevin Boudreau, *Open Platform Strategies and Innovation: Granting Access vs. Devolving Control*, 56 MGMT. SCI. 1849 (2010).

⁹² Zhuoxin Li & Ashish Agarwal, *Platform Integration and Demand Spillovers in Complementary Markets: Evidence from Facebook’s Integration of Instagram*, 63 MGMT. SCI. 3438 (2017).

⁹³ Jens Foerderer, et al., *Does Platform Owner’s Entry Crowd Out Innovation? Evidence from Google Photos*, 29 INFO. SYS. RES. 444 (2018).

⁹⁴ Carmelo Cennamo, et al., *Value Co-Creation and Capture in the Creative Industry: The U.S. Home Video Game Market*, Working Paper (2016), http://questromworld.bu.edu/platformstrategy/files/2017/06/PlatStrat_2017_paper_21.pdf.

independent game developers to profit from their games, even in the face of competition from first-party games.

- Finally, even though Zhu and Liu (2018)⁹⁵ is held up by vertical discrimination presumption proponents as demonstrating harm from Amazon’s competition with third-party sellers on its platform, its findings are actually far from clear-cut. As one of the authors notes elsewhere: “[I]f Amazon’s entries attract more consumers, the expanded customer base could incentivize more third-party sellers to join the platform. As a result, the long-term effects for consumers of Amazon’s entry are not clear.”⁹⁶

None of this should be surprising. The theory of vertical discrimination harm is at odds not only with this platform-specific empirical evidence, it is also contrary to the longstanding evidence on the welfare effects of vertical restraints more broadly.⁹⁷

Proponents of the vertical discrimination presumption do sometimes begrudgingly acknowledge that only anecdotal evidence, at best, supports their claims.⁹⁸ But these begrudging acknowledgements don’t dissuade them from proposing regulatory policies that would favor edge innovation over platform control, ostensibly rooted in “innovation literature [that] suggests that ‘external’ innovation is more valuable.”⁹⁹ In fact, as suggested above, this is not what the literature holds. Rather, the relationship between platform control and edge innovation is far more nuanced.¹⁰⁰

Critics are mistaken when they suggest that platforms fail to attend to their ecosystems and work to harm complementors through self-preferencing behavior.¹⁰¹ The reality is that this behavior is perfectly consistent with platform *optimization*—for the benefit of the platform, complementors, and users alike.

The notion that platforms should be forced to allow complementors to compete on their preferred terms, free of constraints or competition from platforms, is a species of the idea that platforms are most socially valuable when they are treated as “essential facilities.” But such an approach is not without costs, most importantly in terms of the effective operation of the platform and its own incentives for innovation. Platforms have an incentive to optimize openness and to assure complementors of sufficient returns on their platform-specific investments. This doesn’t mean that

⁹⁵ Feng Zhu & Quihong Liu, *Competing With Complementors: An Empirical Look at Amazon.com*, 39 STRAT. MGMT. J. 2618 (2018).

⁹⁶ Feng Zhu, *Friends or Foes? Examining Platform Owners’ Entry Into Complementors’ Spaces*, 28 J. ECON. & MGMT. STRAT. 23, 26 (2019) (emphasis added).

⁹⁷ See Lafontaine & Slade, *supra* note 72; James C. Cooper et al., *supra*, note 72.

⁹⁸ See, e.g., Kevin Caves & Hal Singer, *When the Econometrician Shrugged: Identifying and Plugging Gaps in the Consumer-Welfare Standard*, 26 GEO. MASON L. REV. 395, 402 (2018).

⁹⁹ Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 1086 (2019) (citing Tim Wu, *Taking Innovation Seriously: Antitrust Enforcement if Innovation Mattered Most*, 78 ANTITRUST L. J. 313, 318 (2012)).

¹⁰⁰ See, e.g., Kevin Boudreau, *Platform Boundary Choices and Governance: “Opening-Up” while Still Coordinating and Orchestrating*, in *ADVANCES IN STRATEGIC MANAGEMENT: ENTREPRENEURSHIP, INNOVATION, AND PLATFORMS* 227, 323 (Jason Furman, et al., eds. 2017).

¹⁰¹ See, e.g., Singer, *supra* note 31, at 2.

maximum openness is optimal, however; in fact, typically a well-managed platform will exert some where doing so is most important, and openness where control is least meaningful.¹⁰²

This is the state of affairs that leads to the indeterminate and complex structure of platform enterprises. Consider the big online platforms like Google and Facebook, for example. These entities elicit participation from users and complementors by making access to their platforms freely available for a wide range of uses, exerting control over access only in limited ways to ensure high quality and performance. At the same time, however, these platform operators also offer proprietary services in competition with complementors, or offer portions of the platform for sale or use only under more restrictive terms that facilitate a financial return to the platform. Thus, for example, Google makes Android freely available to device makers, but imposes contractual terms that require installation of certain Google services in order to ensure that it realizes a return sufficient to justify the maintenance and continued development of Android in the first place.

Or consider Apple. Apple operates an App Store to provide third-party services on its operating system and designs its operating system to enable these apps to perform a wide range of functions. At the same time, Apple invests in app and operating system development to provide its own services that compete with third parties, and it charges third-party developers a nominal fee for App Store access. In order to ensure security, privacy, and functionality on its devices, Apple institutes rules for the App Store that preclude access for some apps and impose limited constraints on others, but it ultimately decides whether and on what terms to provide access to other apps based upon its desire to maximize the value of its devices. Similarly, Apple regularly chooses to offer its own apps or to build services into its operating system in order to improve the product for users and sell more hardware. Often these apps and services compete with third-party apps; often the third-party apps are more successful than Apple's own offerings. But it would be absurd to claim that Apple's decisions decrease the value of its devices for consumers, even (or especially) when they increase competition for particular independent app developers.

To be sure, edge providers will invest less in their businesses if their returns will be diminished by platform expropriation. But the massive size and enormous success of such platforms should allay any fears that this is actually happening. The number of apps on Apple's App Store has grown from some 800 in July 2008 to over 2 million in January 2017, for example.¹⁰³ Why would so many complementors continue to develop businesses in reliance on platforms like Apple's if doing so entails a substantial risk of foreclosure and financial ruin? It can hardly be the case that a few competition policy advocates and scholars have divined the "true" business realities of app development or online retailing that were otherwise invisible to the businesses, consultants, and analysts steeped in the industry.

¹⁰² See generally, Hagiu & Boudreau, *Platform Rules: Multi-Sided Platforms As Regulators*, *supra* note 91; Barnett, *The Host's Dilemma*, *supra* note 91.

¹⁰³ See J. Clement, *Number of Available Apps in the Apple App Store from July 2008 to January 2017*, STATISTA (Sep. 12, 2018), <https://www.statista.com/statistics/263795/number-of-available-apps-in-the-apple-app-store/>. The cumulative downloads of App Store apps has grown from an estimated 10 million in July 2008 to 180 billion in June 2017. See J. Clement, *Cumulative Number of Apps Downloaded from the Apple App Store from July 2008 to June 2017*, STATISTA (Feb 7, 2019), <https://www.statista.com/statistics/263794/number-of-downloads-from-the-apple-app-store/>.

This does not mean there is *no* risk that a platform will choose to compete with an edge provider and capture some of its return (just as there is always a risk that effective and well-funded third parties may do so). But unless the argument is that independent complementors and their investors are improbably ignorant or repeatedly deceived, it must be the case that they develop their businesses models and operate their businesses in recognition of the risk involved. This implies either that the risk is not as substantial as critics contend (either because platforms are not likely to expropriate value or because complementors can protect themselves from it) or else that complementors are sufficiently compensated for it. In either case, the fact that platform ecosystems are so vast suggests that we should hesitate before assuming that incentives to invest are inefficiently reduced by foreclosure or expropriation risks.

A complementor that makes itself dependent upon a platform for distribution of its content does take a risk. Although it may benefit from greater access to users, it places itself at the mercy of the other—or at least faces great difficulty (and great cost) adapting to unanticipated platform changes over which it has no control. This is a species of the “asset specificity” problem that animates much of the Transaction Cost Economics literature.¹⁰⁴

But the risk may be a calculated one. Firms occupy specialized positions in supply chains throughout the economy, and they make risky, asset-specific investments all the time. In most circumstances, firms use contracts to allocate both risk and responsibility in a way that makes the relationship viable.¹⁰⁵ When it is too difficult to manage risk by contract, firms may vertically integrate (thus aligning their incentives) or simply go their separate ways.¹⁰⁶

In some cases, however—as for Google and the sites linked in its organic results—the parties don’t have a direct commercial relationship. This means that contractual risk allocation or compensation is unavailable.

This latter state of affairs is the one at issue in the European Commission’s *Google Shopping* case. In its decision, the Commission asserts that Google’s prioritization of its own shopping results harms competition because it reduces traffic to comparison shopping sites, potentially foreclosing them from minimum viable scale and causing them to under-innovate.¹⁰⁷ The decision does not identify actual consumer harm; it *infers* it from the reduction in traffic to comparison shopping sites, constituting an alleged impairment of an “effective competition structure.”¹⁰⁸

But the fact that Google creates an opportunity for complementors to rely upon it doesn’t mean that a firm’s decision to do so—and to do so without a viable contingency plan—makes good business sense. In the case of comparison shopping sites, it was entirely predictable that Google’s algorithm

¹⁰⁴ See Oliver E. Williamson, *The Vertical Integration of Production: Market Failure Considerations*, 61 AM. ECON. REV. 112 (1971); Benjamin Klein, *Asset Specificity and Holdups* in THE ELGAR COMPANION TO TRANSACTION COST ECONOMICS 120-26 (Peter G. Klein & Michael Sykuta, eds., 2010).

¹⁰⁵ Klein, *id.* at 121.

¹⁰⁶ *Id.* at 123-24.

¹⁰⁷ Commission Decision No. AT.39740 (*Google Search (Shopping)*) at ¶¶ 591-607.

¹⁰⁸ *Id.* at ¶ 332.

would change over time. It was also entirely predictable that it would change in ways that could diminish or even eviscerate their traffic. As one online marketing/SEO expert put it: “counting on search engine traffic as your primary traffic source is a bit foolish to say the least. . . .”¹⁰⁹

The problem with the superficial analysis that assumes harm from the diminution of traffic to independent competitors is this: Protecting complementors from the inherent risk in a business model in which they are entirely dependent upon another company with which they have no contractual relationship is at least as likely to encourage *excessive* risk taking and inefficient *over*-investment as it is to ensure that investment and innovation aren’t too low.

That any given complementor succeeded in the past is no reason to assume it “should” succeed in the future, especially against competition from a platform’s own, integrated product. Nor is it any reason to assume that, freed from the constraints of platform self-preferencing, it would provide any measure of innovation in the future. Indeed, the argument contains the seeds of its own demise: If platform discrimination is rampant, the fact that a complementor previously succeeded under *different* discriminatory conditions offers no reason to think that there was an “effective competition structure” in the first place and thus that its *previous* success was in any way “merited.” Rather, under the terms of this argument, a complementor’s previous success was just a byproduct of the platform’s previous efforts to structure its ecosystem to advantage itself, and there is no basis for inferring a loss of competition simply because previously successful edge providers under one set of platform rules are later harmed under another.

What critics of so-called “self-preferencing” miss is that, while constraints on complementors’ access and use may look restrictive compared to an imaginary world where such restrictions were not allowed, *in such a world the platform would not be built in the first place* because it would not ensure enough revenue. Similarly, if platforms ever operated at the other extreme—full appropriation—the platform *also* would not be built because it would attract no complementors. Thus, platforms operate in a delicate middle ground in which some edge appropriation is, in fact, desirable. As Jonathan Barnett aptly sums it up:

The [platform] therefore faces a basic trade-off. On the one hand, it must forfeit control over a portion of the platform in order to elicit user adoption. On the other hand, it must exert control over some other portion of the platform, or some set of complementary goods or services, in order to accrue revenues to cover development and maintenance costs (and, in the case of a for-profit entity, in order to capture any remaining profits).¹¹⁰

Thus, for example, Amazon’s access to third-party seller data—which may be useful information for finding product categories characterized by supranormal returns—is contingent on Amazon maintaining a healthy pool of competitive third-party sellers from which to derive this data. If third-party sellers cease to serve as an effective information discovery tool, Amazon loses this competitive

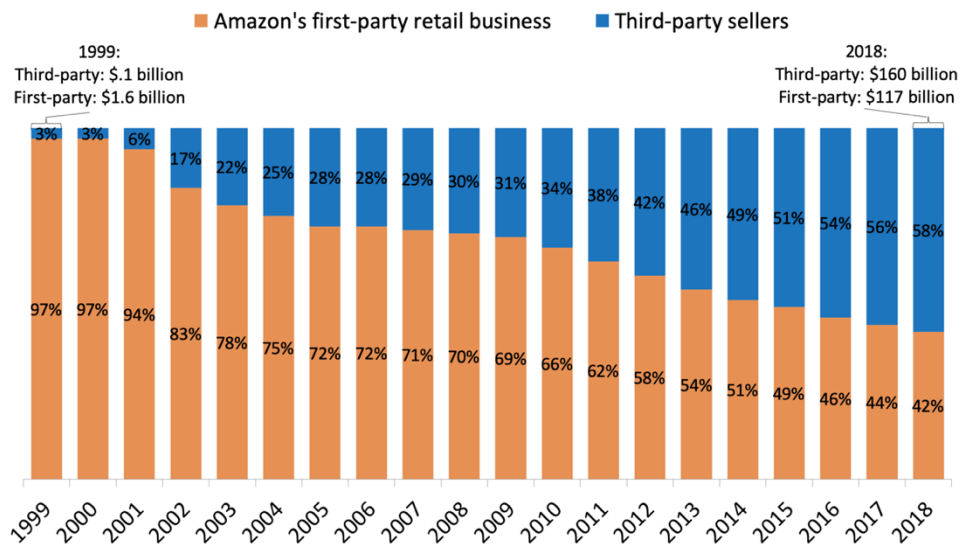
¹⁰⁹ Ana Hoffman, *Where Does Website Traffic Come From: Search Engine and Referral Traffic*, TRAFFIC GENERATION CAFÉ (Mar. 12, 2018), available at <https://trafficgenerationcafe.com/website-traffic-source-search-engine-referral/>.

¹¹⁰ Barnett, *The Host’s Dilemma*, *supra* note 9191, at 1890.

advantage. Thus, in order to attract and keep quality third-party sellers, Amazon must refrain from appropriating value beyond what would be available to them elsewhere.

Again, the truly telling piece of information that undermines the strength of the self-preferencing claims lies in the immense growth and success of the platform’s third-party users. Between 1999 and 2019 the share of Amazon’s gross revenue attributable to third-party sellers increased by 55 percentage points.¹¹¹ Put differently, third-party sales revenues increased from \$.1 billion in 1999 to \$160 billion in 2018, a 1600-fold increase; over the same period Amazon’s first party sales revenues increased from \$1.6 billion to \$117 billion, only a 73-fold increase. It is hard to square this growth with the claim that Amazon is simultaneously working to stifle third-party competitors on its platform.

Share Of Physical Gross Merchandise Sales On Amazon



Source: Amazon, 2019

BUSINESS INSIDER INTELLIGENCE

Source: Business Insider¹¹²

Indeed, Amazon likely must offer third parties some of the advantages Amazon itself derives from its platform. And so it does: While there may be some difference between the data that Amazon itself has access to and the data it makes available to third-parties sellers, Amazon does, in fact, make data available to third parties both gratis and (in even greater detail) for a fee.¹¹³ Meanwhile, last year

¹¹¹ See Daniel Keyes, *3rd-party Sellers are Thriving on Amazon*, BUSINESS INSIDER (May 13, 2019), <https://www.businessinsider.com/amazon-third-party-sellers-record-high-sales-2019-5>.

¹¹² *Id.*

¹¹³ See *What is Amazon Retail Analytics Premium?*, AMZ BLOG (Apr. 26, 2017), <https://amzadvisers.com/amazon-retail-analytics-premium/>. Among other things, the premium tool apparently allows sellers to:

- Track category performance in general or per title and over time
- See your share of each category and its subcategories and track growth

alone, Amazon invested \$15 billion in 150 different tools and services aimed at enhancing sales by third-party sellers.¹¹⁴ And all of these sellers benefit from the massive reach and large pool of shoppers Amazon's platform provides them, transforming many small, local businesses otherwise at the mercy of shifting local fortunes into international retailers.

Whether or not Amazon relies on third-party sales data to plan its own retail strategy, the relationship with third-party sellers remains a significant benefit for both parties. As Amazon seeks new products to bring into one of its private label brands, into its FBA program, or to purchase directly at wholesale, it may make it harder for some, specific third-party merchants. But more importantly, in doing so, Amazon confers significant benefit on *manufacturers*, encouraging and facilitating more product innovation, more efficient (scale) production, more product familiarity and marketing, and more output overall. These, in turn, benefit all third-party sellers. Whether the result is a net negative for any particular third-party seller is unclear. But what is not unclear is that such activities benefit third-party sellers as a whole as well as consumers.

Finally, concerns about platform appropriation of edge innovations (or other advantages) like those offered by Hal Singer in his statement to this Committee,¹¹⁵ simply discount to zero the benefits of *platform* innovation. But the consequence of policy based on such arguments would almost certainly be a reduction in overall innovation of the ecosystem, much to the cost of consumers and edge providers alike.

It is important to note that the appropriation of edge innovation and its incorporation into the platform (a commonly decried form of platform self-preferencing) greatly enhances the innovation's value by sharing it more broadly, ensuring its coherence with the platform, incentivizing optimal marketing and promotion, and the like. Consumers benefit when platforms innovate, at least as much as they benefit from edge innovation. And when a platform implements a new technology or business process, those benefits are conferred on *all* platform users; when an edge company does so the benefits are conferred only on the subset of platform users who interact with the particular edge provider. In other words, even if there is a cost in terms of reduced edge innovation, the immediate consumer welfare gains from platform appropriation may well outweigh those (speculative) losses.

Consider the familiar refrain that Facebook appropriates Snapchat's best innovations, undermining its ability to compete to the detriment of consumers.¹¹⁶ If Snapchat implements a feature it potentially reaches 382 million users; when Facebook implements the same feature it potentially

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- Compare your products' rank and unit growth against Amazon's fastest selling products
 - Spot growing categories that you can leverage
 - See your top 100 products per category by sales and units
 - Track the products that drive performance
 - Analyze marketing campaigns from performance data over time.

¹¹⁴ Press Release: Amazon Announces 150 New Tools and Services Have Launched in 2019 to Help Small and Medium-Sized Businesses Grow Their Online Sales (Aug. 22, 2019), available at <https://press.aboutamazon.com/news-releases/news-release-details/amazon-announces-150-new-tools-and-services-have-launched-2019>.

¹¹⁵ See, e.g., Singer, *supra*, note 101 at 2.

¹¹⁶ See, e.g., Rani Molla, *Microsoft Might Crush Slack like Facebook Crushed Snapchat*, VOX.COM (Jul. 9, 2019), <https://www.vox.com/2019/7/9/20686206/microsoft-teams-slack-facebook-snapchat-copy>.

reaches 2.5 billion users.¹¹⁷ Facebook is therefore capable of immediately reaching over 2 billion more users, thus leading to a significantly larger immediate increase in social welfare.

This does not mean that Facebook should be immune from antitrust laws, or that its behavior with respect to all smaller competitors is necessarily procompetitive. It does mean, however, that its “appropriation” has immediate and substantial procompetitive benefits, and these must be weighed against the alleged, speculative, future harms. Ultimately, without evidence or even rigorous theory demonstrating that the latter is substantially greater than the former (and neither has ever been offered), there is no valid basis for adopting an inhospitable stance toward such conduct.

IV. Misconception: Dominant tech platforms engage in “killer acquisitions” to stave off potential competitors before they grow too large

Concerns are often raised about the possibility of incumbent firms engaging in so-called “killer acquisitions”—the acquisition of nascent or potential competitors in order to thwart any competitive effect these rivals may exert before it grows too large.¹¹⁸ The stated concern is that such mergers are difficult, if not impossible, to address under current antitrust laws, and that this failure leads to significant competitive harm. A number of critics have proposed expanding merger review standards in order to make all mergers by large incumbent firms more difficult in order to increase the ability of enforcers to stop these costly “killer acquisitions.”¹¹⁹ Most recently, an article in the New York Times suggested that Covidien’s 2008 purchase of Newport Medical was such an acquisition, the effect of which was to curtail the supply of mechanical ventilators sufficient to deal with the current Covid-19 pandemic.¹²⁰

But, as with the Covidien/Newport merger,¹²¹ there is virtually no empirical basis to believe that killer acquisitions are a significant problem, or that, even if they are, they would be effectively thwarted by enhanced merger standards.

Potential competition is always an important consideration in antitrust analysis. But an enhanced nascent or potential competition merger doctrine would entail thinking that deterring mergers, on balance, would thwart more of these harmful mergers than procompetitive ones. But if this is the argument, and there is a systematic problem with large tech firms routinely purchasing future rivals, then the inconvenient implication is that there is actually *far more* competition and potential entry

¹¹⁷ J. Clement, *Most Popular Social Networks Worldwide as of January 2020, Ranked by Number of Active Users*, STATISTA (Feb. 14, 2020), <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.

¹¹⁸ See, e.g., Shapiro, *Antitrust in the Time of Populism*, *supra* note 45.

¹¹⁹ See, e.g., *id.* at 740 (advocating tougher merger enforcement standards in order to avoid the “loss of future competition” when “a large incumbent firm acquires a highly capable firm operating in an adjacent space”).

¹²⁰ See Nicholas Kulish, Sarah Kliff & Jessica Silver-Greenberg, *The U.S. Tried to Build a New Fleet of Ventilators. The Mission Failed*, NEW YORK TIMES (Mar. 29, 2020), <https://www.nytimes.com/2020/03/29/business/coronavirus-us-ventilator-shortage.html>.

¹²¹ For a thorough rebuttal of the claim, see Geoffrey A. Manne & Dirk Auer, *The Covidien/Newport Merger: Killer Acquisition or Just a Killer Story?*, TRUTH ON THE MARKET (Apr. 3, 2020), <https://truthonthemarket.com/2020/04/03/the-covidien-newport-merger-killer-acquisition-or-just-a-killer-story/>.

in digital markets than is credited by critics—thus undermining the assumption of market power that would be required to bring an action in the first place.

Indeed, if, as is often claimed, Instagram’s product represented a future or potential constraint on Facebook when Facebook purchased it in 2012, “then what makes other differentiated social networks such as LinkedIn, Pinterest, Snapchat, Twitter, TikTok, and YouTube different from Instagram? They must also be considered actual, potential, or nascent competitors to Facebook.”¹²² Yet this is not what is meant when critics declare that Facebook faces no competitive constraints.¹²³ The two positions are mutually exclusive, however.

Furthermore, the argument is even more problematic for the basic claim of dominance that underlies all arguments for stepped up antitrust in digital markets. For the mere threat of potential competition to restrain an incumbent, not even a single actual firm need be identified, or acquired, of course. The theory that underpins the killer acquisition story is inherently one of easily contestable markets, which, it is well-known, act as a powerful constraint on superficially dominant firms.¹²⁴ On the other hand, the *benefit* a firm in such a market realizes from removing any one such identified potential competitor is potentially trivial: there will, by implication, be another new entrant around the corner.

The upshot of all of which is that the killer acquisition theory actually does more to suggest that markets are *competitive*, than that they are anticompetitive

Frequently, fears about killer acquisitions are rooted in hindsight bias. Most small acquisitions either fail outright or have a negligible impact on the acquirer’s business. In the small minority of cases where the acquisition becomes hugely successful, it is almost impossible to know whether the acquired company could have achieved the same level of success in the counterfactual scenario. For example, Instagram arguably lacked a meaningful revenue-building business model before its acquisition, so it is not obvious that the company would have succeeded without Facebook’s advertising expertise. Asserting that enforcers have missed one or two anticompetitive mergers in the tech market is insufficient evidence for severely altering the doctrinal balance of the current system.

For example, according to Carl Shapiro, “Google’s acquisition of YouTube in 2006 and DoubleClick in 2007, Facebook’s acquisition of Instagram in 2012 and of the virtual reality firm Oculus VR in 2014, and Microsoft’s acquisition of LinkedIn in 2016”¹²⁵ were all potentially anticompetitive acquisitions.

¹²² Prepared Statement of John M. Yun, Associate Professor Antonin Scalia Law School at Geo. Mason U., Before the U.S. Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Hearing on “Competition in Digital Technology Markets: Examining Acquisitions of Nascent or Potential Competitors by Digital Platforms” 9 (Sep. 24, 2019).

¹²³ See Dina Srinivasan, *The Antitrust Case Against Facebook: A Monopolist’s Journey Towards Pervasive Surveillance in Spite of Consumers’ Preference for Privacy*, 16 BERKELEY BUS. L. J. 39, 81-89 (2019).

¹²⁴ See generally Baumol, *supra*, note 67.

¹²⁵ Shapiro, *Antitrust in the Time of Populism*, *supra* note 45, at 740.

But consider Google’s YouTube acquisition. How would anyone in 2006 have seen video streaming as competitively adjacent to web searches? If anything, Google popularized the concept of stored and easily searchable videos, and only later included that material in its own search engine. It seems obvious from our contemporary perspective that web searches and online video are natural complements—but that’s only because of Google’s work in developing a generalized approach to information retrieval. It is by no means clear that forcing YouTube to remain independent of Google would have increased the extent of competition.

Other versions of this theory are even more speculative and even less reliably identifiable. Lina Khan, for example, has opined that sometimes when a large platform merely acquires relevant knowledge about a market opportunity, although not directly affecting actual competition, it is cause for concern about potential competition:

[T]here may be acquisitions that don’t significantly undermine competition in the relevant market but that do structurally position the incumbent to detect nascent rivals much earlier, information that they can then go out and use to make early acquisitions. And so I think these acquisitions that don’t affect the relevant market but do structurally improve the position of an incumbent to make early acquisitions is something that should also be relevant to the agencies.¹²⁶

Of course, it would be virtually impossible to accurately identify such indirect, “informational” mergers when they happen.

The real test for regulators is whether they could identify, for example, the two potentially anticompetitive mergers out of Google’s 270 acquisitions and, under an error cost analysis,¹²⁷ do less harm to consumers with false positives than false negatives. If the anticompetitive mergers are such a tiny percentage of the total mergers—and identifying them *a priori* is difficult—then a precautionary principle strategy that results in many false positives for enforcement would likely not merit the benefits from blocking one or two anticompetitive mergers. Furthermore, but for Google and Facebook’s investments in YouTube and Instagram, it is far from clear that a mere “video-hosting service” or “photo-sharing app” would have grown into the competitor that advocates assume.

Proponents of the “killer acquisition” argument generally cite to a single paper to support their claims: Cunningham, Ederer, and Ma’s *Killer Acquisitions*, first posted as a working paper in 2018.¹²⁸

But that research—focused on particular sorts of acquisitions in the *pharmaceutical* industry—is arguably inapplicable to digital platforms. Some of the top-line findings in the Cunningham, et al. paper do seem alarming: “[W]e find projects acquired by an incumbent with an overlapping drug

¹²⁶ *Competition and Consumer Protection in the 21st Century: FTC Hearing #3 Day 3: Multi-Sided Platforms, Labor Markets, and Potential Competition*; *Before the FTC*, FTC Transcript 208 (Oct. 17, 2018) (statement of Lina M. Khan).

¹²⁷ See Easterbrook, *The Limits of Antitrust*, *supra* note 2.

¹²⁸ Colleen Cunningham, Florian Ederer & Song Ma, *Killer Acquisitions*, Working Paper (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241707.

are 28.6% less likely to be continued in the development process compared to drugs that are not acquired.”¹²⁹

However, the study’s industry-specific methodology means it is not a useful guide to understand tech platforms. Drug patent protections may incentivise acquisition strategies that are not viable in other markets. As the paper demonstrates, decreases in development rates are a feature of acquisitions where the acquiring company holds a patent for a similar product that is far from expiry, and the closer a patent is to expiry, the less likely an associated “killer acquisition” is. But patent protections are usually not a feature of the acquisitions pointed to as examples of “killer acquisitions” in digital markets.

It’s also often straightforward to identify substitute products in drug markets. “Drug development is highly regulated, standardized, documented, with set milestones. . . . Additionally, for drugs, it is relatively straightforward to determine market substitutes based on functionality—which is not a luxury for digital markets where products are generally highly differentiated.”¹³⁰ Again: how straightforward would it have been in 2006 to identify YouTube as a competitor to Google Search?

And even in the Cunningham, et al. paper, the authors were able to identify only a small share—six percent—of pharmaceutical industry transactions as “killer acquisitions,” and that was with the benefit of hindsight. Enhancing merger enforcement presupposes that enforcers can identify which digital industry mergers constitute that six percent *ex ante*. Shifting the burden of proof for enjoining such mergers (as has been proposed) would do more harm than good unless regulators (and courts) could reliably identify the tiny fraction of problematic mergers from among the vast number neutral or procompetitive ones. This is extremely unlikely in even the easiest cases, but *especially* in digital markets.

In fact, as the EC study on digital markets concludes, in digital markets this is “not the typical scenario.” Rather, “[f]requently, the project of the bought-up start-up is integrated into the ‘ecosystem’ of the acquirer or into one of their existing products. Such acquisitions are different from killer acquisitions as the integration of innovative complementary services often has a plausible efficiency rationale.”¹³¹

Even where an acquired innovation is *not* incorporated into the acquirer’s “ecosystem,” it is impossible to conclude that the merger was a “killer acquisition” because we do not know the direction of causation. Was R&D discontinued after a more knowledgeable purchaser made a more reliable prediction of negative return on investment in a research steam—an efficient and desirable outcome—or was a company purchased in the first place in order to stop a reliably positive competing

¹²⁹ *Id.* at 3.

¹³⁰ Yun, *supra* note 122, at 9.

¹³¹ JACQUES CRÉMER, YVES-ALEXANDRE DE MONTJOYE & HEIKE SCHWEITZER, EUROPEAN COMMISSION: COMPETITION POLICY FOR THE DIGITAL AGE 118 (2019), *available at* <http://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>.

stream of research? At the margin, the former seems far more likely than the latter, given that the decision made *after* purchase would be inherently better informed than the decision made *beforehand*.

Assertions that more mergers by digital platforms should be stopped ignore these efficiencies. And to the extent they are based on a single study of the pharmaceutical industry, they are not based on reliable countervailing evidence of potential harms. This is the case in the UK's Furman Report, for example, which cites the Cunningham, et al. paper as the sole basis for its conclusion that "killer acquisitions" are a problem in digital markets. That paper goes on to recommend reforms that would make it significantly more difficult for mergers to take place in digital markets, on the basis of a study that, as discussed above, is only tangentially relevant to digital markets.¹³²

As for public policy implications, even the authors of *Killer Acquisitions* are reluctant to draw any firm conclusions: "[T]he overall effect on social welfare is ambiguous because these acquisitions may also increase ex-ante incentives for the creation of new drug projects."¹³³

But at least one unfortunate implication of enhanced antitrust enforcement against purchases of startups by large firms is likely: the curtailment of the a key source of liquidity and exit for start-ups. "[L]arge players play a significant role as acquirers of venture-backed startup companies, which is an important part of the overall health of the venture ecosystem."¹³⁴ Curtailing that dynamic could significantly deter startup investment. As one prominent investor and serial entrepreneur notes, "[i]f the DOJ starts going after tech companies for making acquisitions, venture investors will be much less likely to invest in new startups, thereby reducing competition in a far more harmful way."¹³⁵

Regulatory intervention that reduces the likelihood of reaching a profitable exit could reduce the incentive for venture capitalists to invest in startups and may inhibit new business formation. A research paper by Gordon Phillips and Alexei Zhdanov analyzed data on venture capital investments and mergers and acquisitions activity to study this relationship rigorously. They found that "the number of [VC] deals scaled by the number of public firms . . . declines by about 27% in . . . states that enact an antitakeover law relative to those that do not enact such a law."¹³⁶ As the authors conclude, "an active M&A market is important for encouraging venture capital investments, entrepreneurship and growth."¹³⁷

¹³² JASON FURMAN, ET AL., UNLOCKING DIGITAL COMPETITION: REPORT OF THE DIGITAL COMPETITION EXPERT PANEL 49 (2019), available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf.

¹³³ Cunningham, et al., *supra* note 128, at 6.

¹³⁴ *Competition and Consumer Protection in the 21st Century: FTC Hearing #3 Day 1: Multi-Sided Platforms, Labor Markets, and Potential Competition; Before the FTC*, FTC Transcript 183 (Oct. 15, 2018) (statement of Scott Kupor, Managing Partner, Andreessen Horowitz).

¹³⁵ Leonard Speiser (@leonardspeiser), Twitter (Jun. 11, 2019, 2:59 PM), <https://twitter.com/leonardspeiser/status/1138566502250999809>.

¹³⁶ Gordon M. Phillips & Alexei Zhdanov, *Venture Capital Investments and Merger and Acquisition Activity Around the World*, Tuck Sch. of Bus. Working Paper 27 (2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3072665.

¹³⁷ *Id.* at 32.

In recent years, about 60 percent of all IPOs were VC-backed companies.¹³⁸ A research paper from Stanford University found “public companies with venture capital backing employ four million people and account for one-fifth of the market capitalization and 44% of the research and development spending of U.S. public companies.”¹³⁹ Changing competition standards with the intention of reducing the number of tech acquisitions would therefore risk disabling the mechanism that currently provides roughly two-thirds of the liquidity for startups and one-fifth of GDP. *Perhaps* some other set of market conditions might provide a more optimal set of incentives for entrepreneurs, but the burden should certainly be on the advocates to compellingly demonstrate why their preferred vision for the economy is superior to the status quo.

V. Misconception: Access to user data confers a competitive advantage on incumbents and creates an important barrier to entry

Claims that data creates special concerns meriting enhanced antitrust rules and enforcement are equally dubious. Among other things, critics have argued that “big data” inevitably constitutes a barrier to entry, that mergers should be scrutinized for their effects on agglomerations of data, and, generally, that large data holdings can cause antitrust-relevant harms.

Properly considered, access to large amounts of data does not, by itself, constitute an anticompetitive barrier to entry. Data is simply one input in a panoply of inputs necessary for a firm to compete effectively.¹⁴⁰ “[B]ig data does not represent a barrier to entry but rather a factor of production much like any other input. It should therefore be treated as such.”¹⁴¹

Of course, as with all economic inputs (e.g., capital, labor, intellectual property, etc.), access to data may represent a significant cost of doing business. But this does not render it special. And such costs are (properly) never treated as antitrust barriers to entry. The crucial question is whether the cost of accessing data reduces social welfare by *artificially* limiting entry; the presence of a cost borne by *all* entrants is not an artificial limitation.¹⁴²

The case for data as a barrier to entry (and as a cause of concern generally) is extremely thin, and wildly disproportionate to the amount of popular hand-wringing over the issue.¹⁴³ It is, of course, difficult to know whether there are innovations or new entrants we haven’t seen because of a data

¹³⁸ Jay R. Ritter, *Initial Public Offerings: Technology Stock IPOs* (Dec. 31, 2018), available at <https://site.warrington.ufl.edu/ritter/files/2019/04/IPOs2018Tech-Stock.pdf>.

¹³⁹ Will Gornall & Ilya A. Strebulaev, *The Economic Impact of Venture Capital: Evidence from Public Companies*, Stan. U. Grad. Sch. Of Bus. Research Paper No. 15-55 (2015), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2681841.

¹⁴⁰ See Geoffrey Manne & Ben Sperry, *The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework*, CPI ANTITRUST CHRONICLE 9 (May 2015), available at <https://ssrn.com/abstract=2617685>.

¹⁴¹ *Comment of the Global Antitrust Institute, Antonin Scalia Law School, George Mason University, The Federal Trade Commission’s Hearings on Competition and Consumer Protection in the 21st Century, Privacy, Big Data, and Competition* 7-9 (Nov. 5, 2018).

¹⁴² See GEORGE STIGLER, *THE ORGANIZATION OF INDUSTRY* 67 (1968).

¹⁴³ See, e.g., Natasha Lomas, *Don’t Break Up Big Tech – Regulate Data Access, Says EU Antitrust Chief*, TECHCRUNCH (Mar. 11, 2019), <https://techcrunch.com/2019/03/11/dont-break-up-big-tech-regulate-data-access-says-eu-antitrust-chief/>.

barrier. But what we do know is that entry (and success) in data-intensive markets is rampant, among startups and established companies alike.

There are many well-known cases where new entrants have broken into markets where big data was supposed to have created an impenetrable moat, including WhatsApp in the communications market, King Digital Entertainment in the online gaming market, and Tinder in the online dating market.¹⁴⁴ Even Google itself is a prime example. As Joshua Gans noted at a recent FTC hearing:

So just to put this in a historical context, we've had already a situation of significant entry by a startup into the search space starting from no data or market share, and that was Google. Google did it. And it did it because it scraped the web itself for information and was able to, you know, through page rank and other means, contextualize it.¹⁴⁵

Indeed, data is typically generated by companies *after* they enter markets, as a by-product (or intended consequence) of their operations, or else in some case it is purchased beforehand.¹⁴⁶

It cannot be the case that doing so in the abstract creates an entry barrier, or else every market would be marked by entry barriers and the risk of antitrust liability for incumbents—including offline markets. By definition, data produced as a consequence of ongoing market operations is something only incumbents will have—and incumbents will *always* have. Defining the possession of data in this context as an entry barrier would be tantamount to inviting antitrust challenges on the basis of a company's mere existence (and even more so, success).

Data in this respect is like reputation. Nearly all new entrants suffer reputational disadvantages. And yet new entry happens all the time. Likewise, the more successful the incumbent—the larger its network, the stronger its reputation, the better its product—the more difficult is new entry. And yet this is competition.¹⁴⁷

A key aspect of the mistake here is a sort of availability heuristic: It is often assumed that the successful way something has been done, and is done today, is the only way to do it, or the only way new entrants can do it and be competitive. Thus it is assumed that because incumbents generate and use big data, challengers must do so, as well. But the reality is that incumbents entered without data and produced it subsequent to entry, sometimes creating entirely new businesses and business models around it. Facebook is an obvious example of this dynamic, but so are Uber and Google and many others.

¹⁴⁴ *FTC Hearing #3 Day 1*, *supra* note 126 at 65 (statement of Rohit Chopra, Comm'r, FTC).

¹⁴⁵ *Competition and Consumer Protection in the 21st Century: FTC Hearing #7 Day 1: Competition and Consumer Protection Issues of Algorithms, Artificial Intelligence and Predictive Analytics; Before the FTC*, FTC Transcript 159 (Nov. 13, 2018) (statement of Joshua Gans, Professor, University of Toronto).

¹⁴⁶ See, e.g., Daniel L. Rubinfeld & Michal S. Gal, *Access Barriers to Big Data*, 59 ARIZ. L. REV. 339, 357 (2017) ("More commonly, data are collected as a (valuable) side-effect of other productive activities.").

¹⁴⁷ US courts have consistently rejected the idea that reputation operates as a barrier to entry. See, e.g., *Omega Environmental, Inc. v. Gilbarco, Inc.*, 127 F.3d 1157, 1164 (9th Cir. 1997) ("We agree with the unremarkable proposition that a competitor with a proven product and strong reputation is likely to enjoy success in the marketplace, but reject the notion that this is anticompetitive. It is the essence of competition.").

Facebook uses a very different method and different data than does Google to match advertisers and users—and yet it entered the online advertising/matchmaking market and became enormously successful without adopting Google’s model (and without obtaining Google’s (or anyone else’s) existing data). Uber entered the transportation network market with a business model that didn’t require capital outlay on a large fleet of vehicles. Digital cameras made film irrelevant and didn’t need to rely on suppliers of film to enter. Fax machines went through a series of improvements—until email and cloud services completely replaced them.

The examples are endless. But they are key to understanding the non-essentiality of data: For some entrants—those adopting incumbents’ business models, minimizing their own innovations, or even piggy-backing on incumbents—it *seems* indispensable. But innovation has never required implementation of the same business model as incumbents, and especially not access to the particular, proprietary inputs incumbents have created. It would be harmful to adopt policies that assumed otherwise.

And to the extent that data is an essential input for a new entrant challenging an incumbent in digital markets, it is rare that access to the relevant data is unavailable because of an incumbent’s own data holdings. Data is not like oil; it is not a scarce resource. Information about people and their preferences is available from myriad sources, and one firm’s use of such data does not in any way reduce its availability for another’s use. In most markets—even those characterized by network effects—consumers can and do regularly provide data to alternative services and new competitors: multi-homing is a rampant reality for online services.

Notably, many online and digital markets are, in relevant part, advertising markets. And it is surely the case that a successful incumbent that has amassed advertising-relevant data may be able to offer a better advertising product than a start-up competitor. But it is also the case that the underlying information relevant to advertising—consumer preferences—is ascertainable from a plethora of sources. As noted, Facebook and Google both vie for the same advertising dollars, and both are hugely successful—and yet neither relies on the other’s data in order to power its advertising service. Amazon, meanwhile, has enormous potential for advertising success because it has access to still another source of data regarding people’s preferences—and it is arguably the most valuable: consumer’s actual consumption history.

But, of course, that data is also held by myriad payment card networks, retailers, data brokers, and the like, as well. And still other relevant sources of data abound. Furthermore, just as not having access to user data does not prevent businesses from succeeding, having access to it does not guarantee success, either—what matters is how the data is used. It is difficult to distinguish between lack of access to “essential” data that might impede new entry and harm competition, and entry with an insufficiently innovative or low-quality product that would not succeed regardless of the data.

Finally, it must be noted that arguments that “we pay for online services with our data” and that large platforms impose supracompetitive “prices” on us by taking so much of our data, are faulty. In truth, much of the information we share is shared because it is only by doing so that its value can be realized. Indeed, much of the data we share with platforms does not even exist (or is not known) separately from our interactions with these platforms. In this sense it is not *data* that is the “price”

users pay for platform services; it is *platform services* that are the “price” platforms pay for data. Looked at this way, it seems unsupportable to argue that the services we receive in exchange for our data are of anticompetitively low quality or in anticompetitively low supply—i.e., that we receive anticompetitively low compensation for the data we share. There is, in other words, no harm in the first place.

It is similarly unhelpful to try to generalize from this to argue that large agglomerations of data are concerning in and of themselves. Even if it were true that large online platforms collect “too much” data from each individual, the aggregation of those data do not inherently render them *more* problematic. This applies to concerns over data mergers, as well.

Just because something (data, or privacy) is a characteristic of a product doesn’t mean that less of it (or more, if it’s a “bad” thing) is a problem for consumers, or for antitrust. Consider the manufacturer who exercises market power by skimping on quality in order to increase profits. Profits increase when an automobile manufacturer uses low quality paint or parts, for example, because, all else equal, inferior inputs tend to cost less. This reduction in quality (assuming price is held constant) is equivalent to an increase in price for consumers. Contrast this with an Internet platform that decides to collect and use additional consumer data. The platform does not profit automatically by reducing consumer privacy because collecting, storing, and analyzing data is an additional cost, not a cost reduction. Moreover, the platform hopes to better compete by using the additional data to improve the quality of its content and by selling more finely targeted ads. The net effect may, ultimately, be increased profits, but these would come, if they do at all, not as a direct result of the increase in data collected, but as a result of more effective competition enabled by the data.

Some consumers may prefer not to share more data, but that is actually an implicit way of saying that the free service offered in exchange isn’t valuable enough to the consumer to do so. But this isn’t an antitrust problem. And, for consumers overall, if they do share more data and the data do enable the product to be improved, there is an *increase* in consumer welfare.

Unlike a merger that creates market power exercised through higher prices that harm all consumers, the decision to collect more consumer data comes with both benefits and costs. And these vary among consumers depending on their idiosyncratic preferences. “More” privacy is not something all consumers want: many prefer a better algorithm for search and social networks, and targeted ads with free content, for instance. The research in this area suggests both that many consumers *say* they want more privacy, but in practice give it up for a trivial payment,¹⁴⁸ and also that there is a huge variation across people, context, type of data, and use of data with respect to their privacy preferences.¹⁴⁹

But, notably, this is not the same for price: Everyone prefers to pay as little as possible. But because data translates into higher quality products (or, in some cases, because of simple indifference), many

¹⁴⁸ See generally Patricia A. Norberg, Daniel R. Horne & David A. Horne, *The Privacy Paradox: Personal Information Disclosure Intentions Versus Behaviors*, 41 J. CONSUMER AFFAIRS 100 (2007).

¹⁴⁹ See generally Spyros Kokolakis, *Privacy Attitudes and Privacy Behaviour: A Review of Current Research on the Privacy Paradox Phenomenon*, 64 COMPUTERS & SECURITY 122 (2017).

consumers are willing to “pay” more data. And not only is each consumer’s valuation of privacy totally subjective, but so is the assessment of harm. Giving data to a company isn’t itself a unitary “harm.” Data may either be immediately destroyed, anonymized and used only internally, saved for a very long time on an unprotected server, published, sold to others, or anything else. The risk of these imposes different levels of expected harm on different consumers, in different situations—even simultaneously.

Of course, this does mean that an important implication is that certain *uses* of data (regardless of the amount) may be problematic. But that is a consumer protection concern, not an antitrust problem, and it does not turn on the exercise of market power: For the same reason suggested above, a firm’s collection and use of the data of a multitude of *other* people (because of its size or dominance) does not obviously affect its ability to impose harms on any particular user.

Conclusion

Thank you again for the opportunity to offer my thoughts on this critical investigation. I urge the Subcommittee to take seriously the fundamental lack of evidentiary support for calls to upend the stable body of antitrust laws in the US. Not only are many of the premises of the pro-intervention camp wrongheaded, the remedies they favor are likely to be counterproductive:

1. Increases in national-level firm concentration are being driven by more intensive competition at the local level as larger chains compete with each other. This increased competition and choice is good for consumers.
2. Large digital platforms compete directly for advertising spending, which is often their main source of revenue, and indirectly for the user attention that allows them to sell advertising. They are increasingly in *direct* competition for users as well, as they expand into new markets.
3. Vertical integration is generally good for consumers, because it helps firms to internalize transaction costs, prevent holdup or moral hazard, reduce double marginalization, and might allow the vertically integrated firm to efficiently price discriminate.
4. Platforms competing with edge providers is often good for the edge providers as well as consumers, and platforms have strong incentives not to strangle edge providers that use their services.
5. There is little evidence for “killer acquisitions” in digital markets, and it would be nearly impossible to identify which acquisitions are “killer” before the fact. Acquisitions are often investors’ and founders’ “exit strategy,” and the evidence suggests that deterring acquisitions in tech would chill investment in startups and harm innovation.
6. Access to data is not a barrier to entry. Valuable user data is widely held and new entrants can acquire it as they can acquire any other factor of production. There are numerous examples of businesses successfully entering new markets without access to the same data as incumbents because they are offering a superior product.

These and the other arguments made in this document should be cause to reject many of the claims made by supporters of a more interventionist antitrust. There are surely changes to be made to improve doctrine, but tailoring the regime to the unfounded criticisms of a narrow few would be an act of economic self-harm.