

Comments of the International Center for Law and Economics

Request for Information on Merger Enforcement

Agencies: Federal Trade Commission and US Department of Justice

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Executive Summary

ICLE Merger Enforcement Comments

(Apr. 21, 2022)

Our comments in response to the agencies' merger guidelines RFI are broken into two parts. The first raises concerns regarding the agencies' ultimate intentions as reflected in the RFI, the authority of the assumptions undergirding it, and the agencies' (mis)understanding of the role of merger guidelines. The second part responds to several of the most pressing and problematic substantive questions raised in the RFI.

With respect to the (for lack of a better term) “process” elements of the agencies' apparent intended course of action, we argue that the RFI is based on several faulty premises which, if left unchecked, will taint any subsequent soft law proposals based thereon:

First, the RFI seems to presuppose a particular, preferred outcome and does not generally read like an objective request for the best information necessary to reach optimal results. Although some of the language is superficially neutral, the overarching tone is (as Doug Melamed put it) “very tendentious”: the RFI seeks information to support a broad invigoration of merger enforcement. While some certainly contend that strengthening merger-enforcement standards is appropriate, merger guidelines that *start* from that position can hardly be relied upon by courts as a source of information to differentiate in difficult cases, if and when that may be warranted.

Indeed, the RFI misconstrues the role of merger guidelines, which is to reflect the state of the art in a certain area of antitrust and not to artificially push the accepted scope of knowledge and practice toward a politically preferred and tenuous frontier. The RFI telegraphs an attempt by the agencies to pronounce as settled what are hotly disputed, sometimes stubbornly unresolved issues among experts, all to fit a preconceived political agenda. This not only overreaches the FTC's and DOJ's powers, but it also risks galvanizing opposition from the courts, thereby undermining the utility of adopting guidelines in the first place.

Second, underlying the RFI and the agencies' apparently intended course of action is the uncritical acceptance of a popular, but highly contentious, narrative positing that there is an inexorable trend toward increased concentration, caused by lax antitrust enforcement, that has caused significant harm to the economy. As we explain, however, every element of this narrative withers under closer scrutiny. Rather, the root causes of increased concentration (if it is happening in the first place) are decidedly uncertain; concentration is *decreasing* in the local markets in which consumers actually make consumption decisions; and there is evidence that, because much increased concentration has been caused by productivity advances rather than anticompetitive conduct, consumers likely *benefit* from it.

Lastly, the RFI assumes that the current merger-control laws and tools are no longer fit for purpose. Specifically, the agencies imply that current enforcement thresholds and longstanding presumptions, such as the HHI levels that trigger enforcement, allow too many anticompetitive mergers to slip through the cracks. We contend that this kind of myopic thinking fails to apply the relevant error-cost framework. In merger enforcement, as in antitrust law, it is not appropriate to focus narrowly on one set of errors in guiding legal and policy reform. Instead, general-purpose tools and presumptions should be assessed with an eye toward reducing the *totality* of errors, rather than those arising in one segment at the expense of another.

Substantively, our comments address the following issues:

First, the RFI is concerned with the state of merger enforcement in labor markets (and “monopsony” markets more broadly). While some discussion may be welcome regarding new guidelines for how agencies and courts might begin to approach mergers that affect labor markets, the paucity of past actions in this area (the vast bulk of which have been in a single industry: hospitals); the significant dearth of scholarly analysis of relevant market definition in labor markets; and, above all, the fundamental complexities it raises for the proper metrics of harm in mergers that affect multiple markets, all raise the specter that aiming for specific outcomes in labor markets may undermine the standards that support proper merger enforcement overall. If the agencies are to apply merger-control rules to monopsony markets, they must make clear that the relevant market to analyze is the output market, and not (only) the input market. Ultimately, this is the only way to separate mergers that generate efficiencies from those that create monopsony power, since both have the effect of depressing input prices. If antitrust law is to stay grounded in the consumer welfare standard, as it should, it must avoid blocking mergers that are consumer-facing simply because they decrease the price of an input. The issue of monopsony is further complicated by the fact that many inputs are highly substitutable across a wide range of industries, rendering the relevant market even more difficult to pin down than in traditional product markets.

Second, there is not enough evidence to create the presumption of a negative relationship between market concentration and innovation, or between market concentration and investment. In fact, as we show, it may often be the case that the opposite is true. The agencies should thus be wary of drawing any premature conclusions—let alone establishing any legal presumptions—on the connection between market structure and non-price effects, such as innovation and investment.

Third, the RFI blurs what has hitherto been a clear demarcation—and rightly so—between vertical and horizontal mergers by stretching the meaning of “potential competition” beyond any reasonable limits. In doing, it ascribes stringent theories of harm based on far-fetched hypotheticals to otherwise neutral or benign business conduct. This “horizontalization” of vertical mergers, if allowed to translate into policy, is likely to have chilling effects on procompetitive merger activity to the detriment of consumers and, ultimately, society as a whole. As we show, there is no legal or empirical justification to abandon the time-honed differentiation between horizontal and vertical mergers, or to impose a heightened burden of proof on the latter. The 2018 AT&T merger illustrates this.

Fourth, and despite some facially attractive rhetoric, data should not receive any special treatment under the merger rules. Instead, it should be treated as any other intangible asset, such as reputation, IP, know-how, etc.

Finally, the notion of “attention markets” is not ready to be applied in a merger-control context, as the attention-market scholarship fails to offer objective, let alone quantifiable, criteria that might enable authorities to identify firms that are unique competitors for user attention.

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FTC & DOJ Request for Information on Merger Enforcement

April 21, 2022

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I. Faulty Premises

A preliminary, albeit crucial, issue with the agencies' Request for Information ("RFI")¹ is that it rests on shaky first principles.

Conceptually, the role of guidelines is to codify the accepted knowledge in a particular area of antitrust for the sake of legal certainty, and *not* to drive the law toward a particular unsettled frontier of the discipline. It is highly doubtful, however, whether some of the issues raised in the RFI enjoy anywhere near the level of consensus needed to justify being codified into guidelines. The problem with pretending that they do is that it risks turning "guidelines" into an opportunity for agencies to create new antitrust law and set new antitrust policy, rather than offer a useful, albeit comparatively modest, tool for legal interpretation.

Relatedly, it is somewhat puzzling that the agencies feel compelled and empowered to issue new merger guidelines now. Typically, guidelines are issued in the face of new learnings or new jurisprudence with the potential to overhaul an area of antitrust law. Nothing of this sort has, to our knowledge, preceded the agencies' RFI. If new economic or legal learning is not guiding the new guidelines, then what is? The most plausible explanation is that it is politics. This idea is further reinforced by the limited public debate surrounding the current process for adopting new guidelines, and the pervasiveness in the RFI of certain contentious assumptions which indicate a clear political bias and preordained political intent.

Not that there isn't precedent for this sort of approach. But the last time merger guidelines were (arguably) employed to advance a contentious political objective was more than 40 years ago.² By virtually any measure, subsequent updates to the guidelines have been aimed at attempting to incorporate relatively new-but-well-established learning and to synthesize updates to longstanding agency practice aimed at "getting it right," particularly with respect to basic and ever-evolving procedural issues, like the use of thresholds. There has been, in other words, an overarching humility to the process, which has lent it a crucial authority in both courts and among practitioners and economic actors.

The 2010 [HMGs] are noteworthy because, although the agencies' views are not binding on the judiciary, courts adjudicating merger challenges routinely cite them as persuasive. The Guidelines derive their persuasive value from laying out a consensus view on the framework that the FTC and DOJ have developed, over decades of experience, to analyze the effects of mergers. Reflecting precedent from courts and the agencies, and based on

¹ U.S. Dep't of Justice & F.T.C., *Request for Information on Merger Enforcement* (Jan. 18, 2022), <https://www.regulations.gov/docket/FTC-2022-0003/document> [hereinafter "Merger Enforcement RFI" or "RFI"].

² See, e.g., Matt Stoller, *The Secret Plot to Unleash Corporate Power*, BIG (Apr. 8, 2022), <https://mattstoller.substack.com/p/the-secret-plot-to-unleash-corporate?s=r>.

accepted economic principles, they garnered support at adoption and in case after case, serving as the touchstone for merging parties, enforcers, and judges alike.³

Indeed, where previous guidelines have strayed perhaps a bit too far into novelty, their influence on the courts has been minimal. Perhaps the best example of this has been the reception by courts of the 2010 Horizontal Merger Guidelines (“2010 HMGs”), particularly the intended diminishment of the role of technical analysis of market definition and the heightened reliance on relatively novel methods of direct evidence of competitive effects.⁴ Although the 2010 HMGs have generally proved to be significantly influential,⁵ courts’ have been decidedly reluctant to replace consideration of market definition with measures like the gross upward pricing pressure index (“GUPPI”) to assess unilateral effects.⁶ Indeed, reliance on market shares to determine case outcomes has arguably increased.⁷

By contrast, the FTC’s recent rejection of the 2020 Vertical Merger Guidelines (“2020 VMGs”) was grounded in an obvious distaste for the specific outcomes it might have engendered.⁸ Although nominally justified by a claimed lack of scholarly support,⁹ that rhetoric was transparently faulty, particularly given the process by which the withdrawal was accomplished.¹⁰ Indeed, as Carl Shapiro

³ Noah Joshua Phillips & Christine S. Wilson, Comm’rs, Fed. Trade Comm’n, *Statement Regarding the Request for Information on Merger Enforcement* (Jan. 18, 2022) at 1-2, available at http://www.ftc.gov/system/files/documents/public_statements/1599775/phillips_wilson_rfi_statement_final_1-18-22.pdf.

⁴ See U.S. Dep’t of Justice & F.T.C., *Horizontal Merger Guidelines* (2010), available at <https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf> [hereinafter “2010 HMGs”].

⁵ Carl Shapiro & Howard Shelanski, *Judicial Response to the 2010 Horizontal Merger Guidelines*, 58 REV. INDUS. ORG. 51 (2021).

⁶ Jan M. Rybnicek & Laura C. Onken, *A Hedgehog in Fox’s Clothing: The Misapplication of GUPPI Analysis*, 23 GEO. MASON L. REV. 1187, 1190 (2016). (“This paper argues that the GUPPI regularly fails to live up to its promise for two principal reasons: (1) the GUPPI all too often is based on inaccurate or incomplete data and (2) there is insufficient guidance to allow the business community and the antitrust bar to draw reliable conclusions about how the GUPPI will be incorporated into the agencies’ enforcement decisions.”).

⁷ Adam Di Vincenzo, Brian Ryoo, and Joshua Wade, *Refining, Not Redefining, Market Definition: A Decade Under the 2010 Horizontal Merger Guidelines*, ANTITRUST SOURCE (Aug. 2020) at 11, available at https://www.americanbar.org/content/dam/aba/publishing/antitrust-magazine-online/2020/august-2020/aug20_divincenzo_8_18f.pdf

(“Market definition has retained a central and often outcome-determinative role in courts’ merger analysis beyond the presumption of anticompetitive effects; in this respect, market definition is as important today as it was prior to the 2010 Guidelines.”).

⁸ Fed. Trade Comm’n, *Federal Trade Commission Withdraws Vertical Merger Guidelines and Commentary* (Sep. 15, 2021), <https://www.ftc.gov/news-events/news/press-releases/2021/09/federal-trade-commission-withdraws-vertical-merger-guidelines-commentary>.

⁹ *Id.* (“The guidance documents... include unsound economic theories that are unsupported by the law or market realities.”).

¹⁰ As the dissent from the withdrawal of the 2020 VMGs by Commissioners Phillips and Wilson notes, “the FTC leadership continues the disturbing trend of pulling the rug out under from honest businesses and the lawyers who advise them, with no explanation and no sound basis of which we are aware ..., with the minimum notice required by law, virtually no public input, and no analysis or guidance.” Noah Joshua Phillips & Christine S. Wilson, Comm’rs, Fed. Trade Comm’n, *Dissenting Statement Regarding the Commission’s Rescission of the 2020 FTC/DOJ Vertical Merger Guidelines and the Commentary on Vertical Merger Enforcement* (Sep. 15, 2021) at 1, <https://www.ftc.gov/legal-library/browse/cases-proceedings/public-statements/dissenting-statement-commissioners-noah-joshua-phillips-christine-s-wilson-regarding-commissions>. See also *id.* at 6 (“The majority could have waited to rescind the 2020 Guidelines until they had something with which to replace it. It

and Herbert Hovenkamp put it: “The Federal Trade Commission’s recent withdrawal of its 2020 vertical merger guidelines is flatly incorrect as a matter of microeconomic theory and is contrary to an extensive economic literature about vertical integration.”¹¹ To be sure, there was (and always will be) disagreement at the margins over best practices in merger analysis and enforcement. But nothing in the 2020 VMGs was unsupported by longstanding scholarship and practice (except, ironically, to the extent they may have gone too far at times *toward* repudiating the FTC majority’s preferences).¹²

And the same preference for simply stronger—not necessarily better—enforcement seems to be animating the agencies’ “very tendentious” (in the words of Doug Melamed) effort to produce new merger guidelines now.¹³ Indeed, in the press release announcing the guidelines-revision process, FTC Chair Khan and AAG Kanter declare at the outset that they have “launched a joint public inquiry aimed at *strengthening* enforcement against illegal mergers.”¹⁴

The RFI is overwhelmingly concerned with the presumed dangers of underenforcement, but inexplicably pays almost no heed to the possibility, let alone the cost, of overenforcement. Leaving aside the fact that—in merger enforcement, as in antitrust law more generally—a sound error-cost framework takes a holistic view of the likelihood and cost of errors, underpinning the agencies’ slanted view are two popular, albeit unjustified, narratives that dissolve upon closer examination.

The first is that concentration trends have reached unprecedented levels due to lax antitrust enforcement. However, market concentration is not, in itself, a bad thing; indeed, recent research challenging the standard story demonstrates that much observed concentration is driven by increased productivity, rather than by anticompetitive conduct. In addition, several recent studies show that *local* concentration—which is the most likely to affect consumers, and where most competition happens—has been steadily decreasing. In fact, as we show, increased concentration at the national level is itself likely the result of more vigorous competition at the local level. Further complicating matters for the “accepted” story (and exacerbated by these national/local distinctions)

appears they prefer sowing uncertainty in the market and arrogating unbridled authority to condemn mergers without reference to law, agency practice, economics, or market realities.”)

¹¹ Carl Shapiro & Herbert Hovenkamp, *How Will the FTC Evaluate Vertical Mergers?*, PROMARKET (Sep. 23, 2021), <https://www.promarket.org/2021/09/23/ftc-vertical-mergers-antitrust-shapiro-hovenkamp>. Other choice words used by Shapiro & Hovenkamp in their extremely short essay to describe the FTC majority’s asserted basis for withdrawing the 2020 Guidelines include: “baffling,” “reli[ant] on specious economic arguments,” “demonstrably false,” “ignor[ing] relevant expertise,” “contrary to a broad consensus among economists going back at least to . . . 1968,” “flatly inconsistent with the Horizontal Merger Guidelines,” and “likely to cause real harm.” *Id.*

¹² See generally Geoffrey A. Manne, Kristian Stout & Eric Fruits, *The Fatal Economic Flaws of the Contemporary Campaign Against Vertical Integration*, 68 KANSAS L. REV. 923 (2020).

¹³ Doug Melamed, in *Antitrust Policy and its Different Perspectives: Where do the Antitrust professionals agree and disagree?* (interview by Alden Abbott with Doug Melamed and Joshua Wright), THE BRIDGE PODCAST (Apr. 19, 2022), transcript available at <https://www.mercatus.org/bridge/podcasts/04192022/antitrust-policy-and-its-different-perspectives> (“I will say I think the request for information that the agencies put out is a little worrisome because I think it’s very tendentious. At the outset, they say, ‘We’re interested in information that will help us strengthen merger enforcement.’ I would have thought the appropriate question would be information that would help us improve merger enforcement. They ask for information about false negatives, they don’t ask for information about false positives.”).

¹⁴ Press Release, *Federal Trade Commission and Justice Department Seek to Strengthen Enforcement Against Illegal Mergers* (Jan. 18, 2022), <https://www.ftc.gov/news-events/news/press-releases/2022/01/federal-trade-commission-justice-department-seek-strengthen-enforcement-against-illegal-mergers> (emphasis added).

is the longstanding problem of drawing inferences from national-level concentration metrics (such as those referenced by the RFI) for antitrust-relevant markets.

The second narrative is that the current merger-control tools are no longer fit for purpose. Specifically, the agencies imply that current threshold levels and longstanding presumptions, such as the HHI, allow too many anticompetitive mergers to slip through the cracks. The agencies fail, however, to grapple with the fact that, when considering whether to scrap certain tools, the relevant question should not be whether an alternative set of rules would reduce one type of judicial error (say, false acquittals), but whether the *total* cost of errors would decrease. It is possible, of course, to reduce the number of Type II errors in merger control to zero by prohibiting all mergers. But, just as obviously, Type I errors would explode as a result. Clearly, such an approach is wrong. Yet to avoid this “Nirvana fallacy” (and the concomitant imposition of net costs on society) for less drastic reforms, agencies must consider errors across all three categories *simultaneously*—false acquittals, false convictions, and enforcement costs—and not just one to the exclusion of the others.

Ultimately, both these narratives appear designed to bolster the case for the type of politically motivated overhaul of the merger guidelines that the agencies have pre-committed themselves to, rather than to fulfill what is—and should remain—the primary purpose of merger guidelines: i.e., to codify state-of-the-art knowledge and practice in one area of antitrust law as a means to increase legal certainty.

A. The role of merger guidelines in antitrust

Before the FTC and DOJ consider what recommendations should be incorporated into a new set of merger guidelines, it would be appropriate to briefly consider what the current review process should aim to achieve. This raises two critical questions: What is the ultimate aim of merger guidelines, and what should the process leading up to them look like?

1. The role of merger guidelines

Merger guidelines attempt to provide an authoritative and practical guide for enforcement and adjudication by explicating two important inputs into those processes. First, guidelines attempt to coalesce established agency thinking and practice to inform potential merging parties—effectively seeking to improve legal certainty by prefiguring how agencies are likely to respond to given situations. They also describe the “accepted wisdom” of merger analysis (especially that which stems from jurisprudence). “To be as effective and persuasive as possible, the Guidelines should reflect our best thinking about the competitive effects of mergers and appropriate merger enforcement policy.”¹⁵ Updating merger guidelines may thus be necessary when the consensus—the economic and legal “best thinking” or the underlying jurisprudence—surrounding certain practices has evolved. “Indeed, many commentators regard the guidelines’ credibility arising from this collected institutional wisdom as a foundational principle of any further revisions to the Guidelines. This caution

¹⁵ Christine A. Varney, Assistant Att’y Gen., Antitrust Div., U.S. Dept. of Justice, *An Update on the Review of the Horizontal Merger Guidelines* (Jan. 26, 2010) at 4, available at <http://www.justice.gov/atr/public/speeches/254577.pdf>.

doubtlessly preserves consumer welfare by reducing the costs associated with uncertain antitrust enforcement.”¹⁶

As the Antitrust Modernization Commission (“AMC”) described them:

There is general consensus that the Merger Guidelines have acted as the “blueprint for the architecture” of merger analysis and, overall, provide a guide that “functions well.” The Guidelines have had a significant influence on judicial development of merger law, which is reflected in their widespread acceptance by the courts as the relevant framework for analyzing merger cases.... The Guidelines have also provided useful guidance and transparency to the business community and antitrust bar. Finally, the Guidelines have helped to influence the development of merger policy by jurisdictions outside the United States.¹⁷

Given these twin goals—providing legal certainty and “codifying” the accepted knowledge concerning certain antitrust situations—guidelines are not the place to set out a novel, activist agenda or push the boundaries of knowledge and practice.

This is no small detail. The RFI states upfront that it “seek[s] new learning related to firm and market behavior.”¹⁸ But there is a vast difference between what may fairly be described as new *learning* (i.e., a new consensus gleaned from extensive scholarship and rigorous debate), on the one hand, and new *interrogations* (i.e., unresolved questions that pique the interest of some scholars), on the other. As the rest of our comment suggests, many of the questions currently contemplated by the agencies fall squarely within the latter category. Accordingly, while they arguably constitute an interesting research agenda for scholars, there is virtually no sense in which they justify drafting guidelines that seek to settle these unresolved issues and that, in doing so, lead to a significant departure from existing practice.

Our assertion here is further supported by the fact that guidelines do not have binding authority, either on enforcers or courts. Courts are under no obligation to adhere to antitrust guidelines, and they will be far less likely to look to them even for guidance if they espouse politicized, un-rigorous concepts. Accordingly, by importing novel and unresolved enforcement concepts (as well as approaches to merger enforcement) into their guidelines, the agencies may render them of little use both to the public and to the courts. As Tim Muris & Bilal Sayyed put it, “the Merger Guidelines have succeeded in significant part because they do not try to do too much.”¹⁹ In short, based on what the agencies’ RFI telegraphs, there is a risk that the resulting updated guidelines will not describe the “state of the art” of the economic and legal understanding. As a result, they would no

¹⁶ Judd E. Stone & Joshua D. Wright, *The Sound of One Hand Clapping: The 2010 Merger Guidelines and the Challenge of Judicial Adoption*, 39 REV. INDUS. ORG. 145, 152 (2011).

¹⁷ REPORT AND RECOMMENDATIONS OF THE ANTITRUST MODERNIZATION COMMISSION (Apr. 2007) at 54-55.

¹⁸ Merger Enforcement RFI, *supra* note 1, at 2.

¹⁹ Timothy J. Muris & Bilal Sayyed, *Three Key Principles for Revising the Horizontal Merger Guidelines*, ANTITRUST SOURCE (Apr. 2010) at 3.

longer shed light on either agency practice or likely litigation outcomes. The guidelines would thus be devoid of any tangible purpose.

This would be a real loss for consumers, as non-specialist courts currently *do* often look to guidelines in order to appropriately resolve complex merger issues. “The Guidelines accrued substantial institutional credibility and capital with courts due to their economic sophistication and consistency in application.”²⁰ As Christine Varney, assistant attorney general of the DOJ Antitrust Division in the Obama administration and a member of the Federal Trade Commission in the Clinton administration, put it: “many courts indicate that they consider the Guidelines in assessing mergers under the antitrust laws, some finding them more useful than others.”²¹ Numerous scholars and practitioners echo this view and applaud the role of the HMGs in bringing focus and consensus to merger enforcement.²² Given the speculative and politicized nature of many of the questions being raised by the agencies in the RFI, there is good reason to doubt that many courts will find the resulting guidelines to fall on the “more useful” end of the scale.

2. *How guidelines are adopted*

The process the DOJ and FTC are following to produce their updated guidelines is also problematic. Indeed, if guidelines are released without real opportunity for input and without clear indication that that input has been considered in their formulation, they will be of little use.

It is not inherently problematic to revisit and revise the guidelines, of course; the agencies have done so on a somewhat regular basis since the first guidelines were issued in 1968. In all previous instances (and in the case of the agencies’ other guidelines), revisions were preceded by significant public input, debate, and consideration, leading to identification of an overarching consensus. To take one example, the FTC and DOJ ran an extensive series of workshops and consultations when they updated the HMGs in 2009-2010.²³ In a joint press release announcing the workshops, the agencies explained the goal of this process: “The goal of the workshops will be to determine whether the Horizontal Merger Guidelines accurately reflect the current practice of merger review at the Department and the FTC as well as to take into account legal and economic developments that have

²⁰ Stone & Wright, *supra* note 16, at 157.

²¹ Christine Varney, Assistant Att’y Gen., Antitrust Div., U.S. Dept. of Justice, *Merger Guidelines Workshops* (Sep. 22, 2009) at 4-5, available at <http://www.justice.gov/atr/public/speeches/250238.pdf>.

²² See, e.g., Dennis Carlton, *Revising the Horizontal Merger Guidelines*, 6 J. COMP. L. & ECON. 1, 2 (2010) (“The Guidelines have proven to be a valuable and durable guide to antitrust practitioners and the courts”); William E. Kovacic, *The Modern Evolution of Competition Policy Enforcement Norms*, 71 ANTITRUST L.J. 377, 435 (“The Guidelines not only changed the way the U.S. courts and enforcement agencies examine mergers, but they also supplied an influential focal point for foreign competition authorities in the formulation of their own merger control regimes.”); Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L.J. 701, 703 (2010) (“One cannot help but marvel at how far merger enforcement has moved over the past forty years, with no change in the substantive provisions of the Clayton Act and very little new guidance on horizontal mergers from the Supreme Court”).

²³ Press Release, *Department of Justice and Federal Trade Commission to Hold Workshops Concerning Horizontal Merger Guidelines* (Sep. 22, 2009), <https://www.justice.gov/opa/pr/department-justice-and-federal-trade-commission-hold-workshops-concerning-horizontal-merger>.

occurred since the last significant Guidelines revision in 1992.”²⁴ And as Christine Varney later elaborated on the agencies’ process and what they expected to glean from it:

In addition to inviting comments, [five] workshops have been held over the past two months.... Our nearly 100 panelists have included leading practitioners, economists, consumer advocates, industry executives, and academics. We have been fortunate to have both former and current government enforcers from the United States and around the world share their perspectives with us.... We’ve learned a lot from the workshops and the comments received so far, and this morning I would like to offer some views about what we’ve heard during this process and *where I believe areas of consensus are emerging.*”²⁵

This is a far cry from the perfunctory process seemingly contemplated, at least thus far, by those same agencies today.

To make matters worse, it is difficult to escape the sense that, whatever nominal process is employed by the agencies, the current guidelines-reform effort is intended to effect a predetermined, political outcome, irrespective of any actual consensus (or lack thereof) that emerges. We can’t know precisely how this process will unfold, of course, but there is considerable basis for concern. In particular, the FTC majority’s seriousness about engaging in apolitical, rigorous analysis must be called into question based on the inescapable pattern that has emerged from its recent conduct. In brief, the current FTC majority has undertaken a series of actions and adopted a series of governance policies that reveal an agency focused myopically on advancing a radical revision of antitrust law, as far as possible from the strictures of judicial review and without consultation from the antitrust community.²⁶ As Josh Wright exclaimed in a recent interview:

The RFI is a propaganda document. It’s not a serious request for information to improve the methodological foundations of merger analysis. It’s just not what it is. It’s not what it’s sold as....

... I don’t think that the guidelines that come out of this process are going to do anything to improve the economic foundations of thinking about vertical mergers or anything helpful for judges. They’re going to be full of presumptions that are divorced from economic evidence and theory.²⁷

This sense that politics, rather than evidence, is driving the current review process is further reinforced by the contents of the agencies’ RFI. Many of the questions contained therein demonstrate substantial bias and heavy reliance on contentious and unsupported assumptions. Indeed, the RFI operates from the apparent assumptions (among others) that more enforcement is

²⁴ Press Release, *supra* note 23.

²⁵ Christine A. Varney, Assistant Att’y Gen., Antitrust Div., U.S. Dept. of Justice, *An Update on the Review of the Horizontal Merger Guidelines* (Jan. 26, 2010) at 3, available at <http://www.justice.gov/atr/public/speeches/254577.pdf> (emphasis added).

²⁶ We need not recount the entire series of actions here, but they include, *inter alia*: withdrawing the 2020 VMGs, rescinding the 2015 UMC Policy Statement; eviscerating HSR process by, among other things, suspending HSR early terminations and lowering merger-challenge thresholds; reinstating and expanding the use of prior-approval provisions; conducting business using “zombie votes”; and moving forward with competition rulemakings.

²⁷ Joshua Wright, in *Antitrust Policy and its Different Perspectives*, *supra* note 13.

inherently better, that merger efficiencies are inconsistent with Section 7, and that distributional concerns should factor into merger review. The RFI is overwhelmingly concerned with how the status quo may lead to false acquittals; the notions that authorities may err in the other direction, and that excessive enforcement may chill beneficial business activity, are conspicuously absent. Further, the inquiries of those questions often rely on cases that are woefully outdated and not reflective of a massive amount of subsequent economic learning and case law. This is notably the case of the RFI's repeated reliance on *Philadelphia National Bank*,²⁸ *Brown Shoe*,²⁹ and *Procter and Gamble*³⁰—three mid-20th century cases that are widely decried as being out of tune with modern economics and social science.³¹ In short, in their pursuit of strong merger enforcement, the agencies are seemingly looking to reverse time and return to an old set of learnings from which courts, enforcers, and mainstream antitrust scholars have all steered away.

The net effect of these problems is to undermine confidence in the agency. That effect that will carry over to the courts as they are confronted with the resulting guidelines, all the more so if the sanitizing effect of legitimate process is not applied going forward. Such undermining of confidence is a serious problem for effective guidelines, so much so that the FTC's unremitting willingness to maneuver outside the bounds of established antitrust law and economics reveals perhaps a fundamental disdain for the opinion of the courts.

B. Concentration trends

There is a popular narrative that lax antitrust enforcement has led to substantially increased concentration, strangling the economy, harming workers, and saddling consumers with greater markups in the process. 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.

These discussions have not escaped the FTC and DOJ. Indeed, in their RFI the agencies note that “[t]he agencies are particularly interested in aspects of competition the guidelines may underemphasize or neglect, such as labor market effects and non-price elements of competition like innovation, quality, potential competition, or any “*trend toward concentration*.”³²

However, these beliefs—lax enforcement and increased anticompetitive concentration—wither under more than cursory scrutiny.

²⁸ *United States v. Phila. Nat'l Bank*, 374 U.S. 321 (1963).

²⁹ *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962).

³⁰ *FTC v. Procter & Gamble Co.*, 386 U.S. 568 (1967).

³¹ See, e.g., Douglas H Ginsburg & Joshua D Wright, *Philadelphia National Bank: Bad Economics, Bad Law, Good Riddance*, 80 ANTITRUST L.J. 377 (2015).

³² Merger Enforcement RFI at 2 (emphasis added). The RFI even suggests that any increase in concentration could be sufficient to trigger liability under Section 7's “tend to create a monopoly” language, thus apparently equating competitive harm with an increase in concentration. *Id.* (“Do the guidelines reflect any additional competitive concerns reflected in the statute’s prohibition against mergers that ‘may... tend to create a monopoly?’... How should the guidelines analyze whether there is a ‘trend toward concentration in the industry.’”).

I. National versus local competition

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 effect is 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. 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.”³³

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 DOJ Antitrust Division 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.³⁴

The 2020 report from the President’s Council of Economic Advisors sounds a similar note. After critically examining 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 are sufficient to distinguish between alternative explanations for rising concentration and markups.³⁵

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

The narrative that increased market concentration has been driven by anticompetitive conduct derives from a widely reported literature documenting increased *national* product-market

³³ David Berger, Kyle Herkenhoff & Simon Mongey, *Labor Market Power*, IZA—Institute of Labor Economics Working Paper (Apr. 2019) at 1, available at <http://ftp.iza.org/dp12276.pdf>.

³⁴ Gregory J. Werden & Luke M. Froeb, *Don’t Panic: A Guide to Claims of Increasing Concentration*, 33 ANTITRUST 74, 74 (2018).

³⁵ EXECUTIVE OFFICE OF THE PRESIDENT, COUNCIL OF ECONOMIC ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 215 (Feb. 2020).

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.⁴⁰ But even more importantly, 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

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

³⁶ See, e.g., Germán Gutiérrez and Thomas Philippon, *Declining Competition and Investment in the U.S.*, NBER Working Paper No. 23583 (2017), <https://www.nber.org/papers/w23583>; Simcha Barkai, *Declining Labor and Capital Shares*, 75 J. FIN. 2021 (2020).

³⁷ See Jan De Loecker, Jan Eeckhout & Gabriel Unger, *The Rise of Market Power and the Macroeconomic Implications*, 135 Q. J. ECON. 561 (2020).

³⁸ See David Autor, et al., *The Fall of the Labor Share and the Rise of Superstar Firms*, 135 Q. J. ECON. 635 (2020).

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. REV. 4, 5 (2016).

⁴⁰ Several 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 37—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), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3120849; see also WORLD ECONOMIC OUTLOOK, APRIL 2019 GROWTH SLOWDOWN, PRECARIOUS RECOVERY, INTERNATIONAL MONETARY FUND (Apr. 2019), <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 Karabarbounis & Brent Neiman, *Accounting for Factorless Income*, 33 NBER MACROECONOMICS ANNUAL 167 (2018). 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, and Inequality*, 57 J. HUMAN RESOURCES S251 (2022), available at <http://jhr.uwpress.org/content/57/S/S251.full.pdf+html>.

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).

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

The 2020 report from the President’s Council of Economic Advisors sounds a similar note. After critically examining similar alarms about rising concentration, it concludes that:

⁴³ Steven Berry, Martin Gaynor & Fiona Scott Morton, *Do Increasing Markups Matter? Lessons from Empirical Industrial Organization*, 33 J. ECON. PERSP. 44, 48 (2019) (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 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 United States 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 Sam Peltzman’s research on increasing concentration in manufacturing has been on average associated with both increased productivity growth and widening margins of price over input costs. These two effects offset each other, leading to “trivial” net price effects.⁴⁹

Several other recent papers look at the data in detail and attempt to identify the likely cause for the observed national-level concentration. Their findings demonstrate clearly that measures of increased national concentration cannot justify increased antitrust intervention. In fact, as these papers show, the reason for apparently increased concentration trends in the United States in recent years appears to be technological, not anticompetitive. And, as might be expected from that cause, its effects appear *beneficial*. More to the point, *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, Oregon, 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

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), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3030966.

⁴⁸ *Id.* at 1.

⁴⁹ Sam Peltzman, *Productivity and Prices in Manufacturing During an Era of Rising Concentration*, Working Paper (May 10, 2018, rev. Feb. 3, 2021), <https://ssrn.com/abstract=3168877>.

real world, Walmart competes for consumers' produce dollars with other large retailers, 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. For example, when the FTC was investigating the Staples/Office Depot merger, it found that general merchandisers such as Walmart, K-Mart, and Target accounted for 80% of office-supply sales.⁵⁰

This conclusion is not mere supposition: In fact, recent empirical work demonstrates that national measures of concentration do not reflect market structures at the local level. Moreover, recent research published by the Federal Reserve Bank of New York concludes that a focus on nationwide trends may be misleading, to the extent that the data omit revenue earned by foreign firms competing in the United States.⁵¹ The authors note that accounting for foreign firms' sales in the U.S. indicates that market concentration did not increase, but “remained flat” over the 20-year period studied. They argue that increasing domestic concentration was counteracted by increasing market shares associated with foreign firms' sales.

In a recent paper,⁵² 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.⁵³

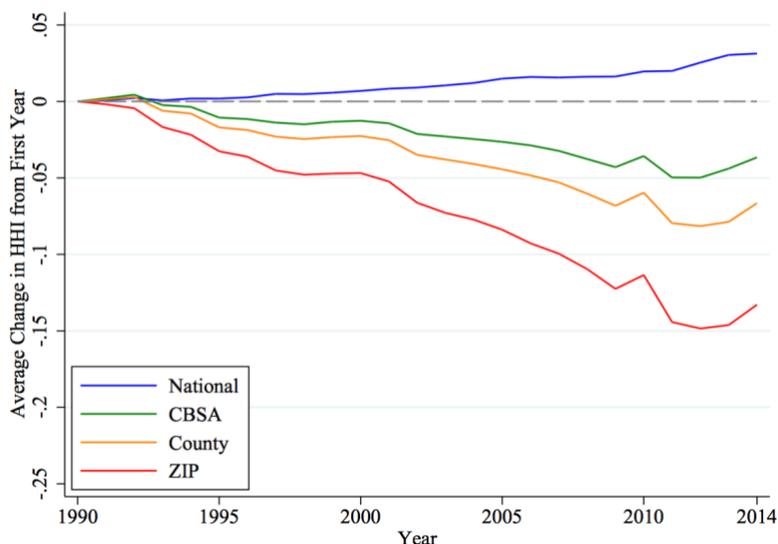
⁵⁰ W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR. AND DAVID E. M. SAPPINGTON, *ECONOMICS OF REGULATION AND ANTITRUST* (2005) at 214-15.

⁵¹ Mary Amiti & Sebastian Heise, *U.S. Market Concentration and Import Competition*, Federal Reserve Bank of New York, Working Paper No. 968 (May 2021), available at https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr968.pdf.

⁵² Esteban Rossi-Hansberg, Pierre-Daniel Sarte & Nicholas Trachter, *Diverging Trends in National and Local Concentration*, in *NBER MACROECONOMICS ANNUAL 2020*, VOL. 35 (Martin Eichenbaum & Erik Hurst eds., 2020).

⁵³ 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)⁵⁴

Importantly, all of the above applies 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.⁵⁵

2. Larger national firms lead to less concentrated local markets

What is perhaps most remarkable about this data is the unique role large firms play in driving *reduced* 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.*⁵⁶

⁵⁴ Rossi-Hansberg, et al, *supra* note 52, at 9.

⁵⁵ *Id.* at 14 (emphasis added).

⁵⁶ *Id.* at 27 (emphasis added).

A related paper explores this phenomenon in greater detail.⁵⁷ 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 relatively *smaller* players.⁵⁸

What appears to be happening is that national-level growth in *concentration* is driven by increased *competition* in certain industries at the local level. “The increasing presence of top firms has decreased local concentration in local markets as the new establishments of top firms gain market share from local incumbents.”⁵⁹ 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.

These results turn the commonly accepted narrative on its head:

1. 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.
2. 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.
3. Third, in labor markets, the effect of these dynamics is a *reduction* in monopsony power: “[T]he industrial revolution in services has implications on the employment of workers of different skills across locations. If labor markets are industry specific and local, the decline in local concentration of employment caused by the entry of top firms should reduce the monopsony power of employers in small markets.”⁶⁰

Another paper takes a similar approach to analyze the effect of increased firm size on labor-market share.⁶¹ In a complete refutation of the popular narrative, it 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.”⁶² 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.*”⁶³

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

⁵⁷ Chang-Tai Hsieh & Esteban Rossi-Hansberg, *The Industrial Revolution in Services*, Working Paper (May 12, 2021), available at <https://www.princeton.edu/~erossi/IRS.pdf>.

⁵⁸ *Id.* at 4 (“[T]he increase in national industry concentration documented by Autor et al. (2017) and others, is driven by the expansion in markets per firms by top firms.”).

⁵⁹ *Id.* at 6.

⁶⁰ *Id.* at 41-42.

⁶¹ David Berger, Kyle Herkenhoff & Simon Mongey, *Labor Market Power*, 112 AM. ECON. REV. 1147 (2022).

⁶² *Id.* at 1148.

⁶³ *Id.* (emphasis added).

example, while Autor, et al. (2020) attribute the purported decline in the labor share of the U.S. economy to the rise of “superstar” firms,⁶⁴ 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:

1. “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
2. “[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.”⁶⁵
3. *It is not clear industry concentration harms consumers*

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 some common claims, however, when 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*.”⁶⁶

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.”⁶⁷

⁶⁴ See Autor, et al., *supra* note 38.

⁶⁵ 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 (Apr. 27, 2018) (emphasis added), <https://web.stanford.edu/~rehall/Evidence%20on%20markup%202018>.

⁶⁶ 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.”).

⁶⁷ Baker & Bresnahan, *supra* note 43, at 26.

C. Merger enforcement and the error-cost framework

One of the recurring themes underlying much of the FTC and DOJ's inquiry is the notion that existing antitrust presumptions are no longer fit for purpose. The agencies suggest this may particularly be the case with current merger-filing thresholds and structural presumptions, such as those based on the HHI index. As the agencies put it:

Does the structural presumption in the guidelines accurately reflect current understanding of the characteristics of mergers that prove to be anticompetitive? Should the guidelines be revised to adjust the stated thresholds, emphasize certain criteria, or include other metrics such as the number of significant competitors as a supplement or alternative to, or even as a replacement for, HHI-based metrics?⁶⁸

The agencies imply these presumptions and safe harbors lead to false negatives, where anticompetitive deals are mistakenly allowed to proceed.

Unfortunately, this reasoning overlooks a crucial aspect of the antitrust apparatus (and of all regulation, for that matter): the error-cost framework. As we explain below, the key insight is that policymakers should always consider antitrust enforcement as a whole. In other words, it is never appropriate to look at certain categories of judicial error in isolation (such as authorities wrongly clearing certain mergers). Instead, the challenge is to determine which set of rules and presumptions minimizes the sum of three social costs: false convictions, false acquittals, and enforcement costs.

When this is properly understood, it becomes clear that false acquittals are only one part of the picture. It is equally important to ensure that new guidelines do not inefficiently chill procompetitive deals. This is where proposals to lower current thresholds and alter existing presumptions run into trouble. The following sections use the example of so-called “killer acquisitions” to show that such alterations involve much more complex and far-reaching tradeoffs than critics tend to acknowledge.

I. Filters are essential to the error-cost framework

Every year, firms around the world spend trillions of dollars on corporate mergers, acquisitions, and R&D investments.⁶⁹ Most of the time, these are benign or beneficial, often leading to cost reductions, synergies, new or improved products, and lower prices for consumers.⁷⁰ For smaller

⁶⁸ Merger Enforcement RFI at 4.

⁶⁹ See *Value of Mergers and Acquisitions (M&A) Worldwide From 1985 to 2020*, STATISTA (Jan. 15, 2021), <https://www.statista.com/statistics/267369/volumeof-mergers-and-acquisitions-worldwide/>.

⁷⁰ For vertical mergers the welfare-enhancing effects are well-established. See, e.g., Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LIT. 629, 677 (2007) (“In spite of the lack of unified theory, over all a fairly clear empirical picture emerges. The data appear to be telling us that efficiency considerations overwhelm anticompetitive motives in most contexts. Furthermore, even when we limit attention to natural monopolies or tight oligopolies, the evidence of anticompetitive harm is not strong.”). See also, Global Antitrust Institute, *Comment Letter on Federal Trade Commission’s Hearings on Competition and Consumer Protection in the 21st Century, Vertical Merger*, Geo. Mason Law & Econ. Research Paper No. 18-27, 8-9 (2018), <https://ssrn.com/abstract=3245940> (“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. While vertical integration can certainly foreclose rivals in theory, there is only limited empirical evidence supporting that finding in real markets. The results continue to suggest that the modern antitrust

firms, the possibility of being acquired can be vital to making a product worth developing. There are also instances, however, when M&A activity enables firms to increase their market power and reduce output. Therein lies the fundamental challenge for antitrust authorities: among these myriad transactions, investments, and business decisions, is it possible to effectively sort the wheat from the chaff in a way that leads to net improvements in efficiency and competition, and ultimately consumer welfare? In more concrete terms, the question is: are there rules and standards that enforcers can use to filter out anticompetitive practices while allowing beneficial ones to follow their course? And if so, can this be done in a timely and cost-effective manner?

This filtering question appears a herculean task, but has, in fact, been considerably streamlined, and vastly improved, by the emergence of the error-cost framework, itself a byproduct of pioneering advances in microeconomics and industrial organization.⁷¹ The error-cost framework is designed to enable authorities to focus their limited resources on that conduct most likely to have anticompetitive effects.⁷² In practice, this is done by applying several successive filters that separate potentially anticompetitive practices from ones that are likely innocuous.⁷³ Depending on this initial

approach to vertical mergers⁹ should reflect the empirical reality that vertical relationships are generally procompetitive.”). Along similar lines, empirical research casts doubt on the notion that antitrust merger enforcement (in marginal cases) raises consumer welfare. The effects of horizontal mergers are, empirically, less well documented. See, e.g., Robert W. Crandall & Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*, 17 J. ECON. PERSP. 3, 20 (2003) (“We can only conclude that efforts by antitrust authorities to block particular mergers or affect a merger’s outcome by allowing it only if certain conditions are met under a consent decree have not been found to increase consumer welfare in any systematic way, and in some instances the intervention may even have reduced consumer welfare.”). While there is some evidence that horizontal mergers can reduce consumer welfare, at least in the short run, see, e.g., Gregory J. Werden, et al., *The Effects of Mergers on Price and Output: Two Case Studies from the Airline Industry*, 12 MGMT. DECIS. ECON. 341 (1991), the long-run effects appear to be strongly positive. See, e.g., Dario Focarelli & Fabio Panetta, *Are Mergers Beneficial to Consumers? Evidence from the Market for Bank Deposits*, 93 AM. ECON. REV. 1152, 1152 (2003) (“We find strong evidence that, although consolidation does generate adverse price changes, these are temporary. In the long run, efficiency gains dominate over the market power effect, leading to more favorable prices for consumers.”). See generally Michael C. Jensen, *Takeovers: Their Causes and Consequences*, 2 J. ECON. PERSP. 21 (1988). Some related literature similarly finds that horizontal merger enforcement has harmed consumers. See B. Espen Eckbo & Peggy Wier, *Antimerger Policy Under the Hart-Scott-Rodino Act: A Reexamination of the Market Power Hypothesis*, 28 J.L. & ECON. 119, 121 (1985) (“In sum, our results do not support the contention that enforcement of Section 7 has served the public interest. While it is possible that the government’s merger policy has deterred some anticompetitive mergers, the results indicate that it has also protected rival producers from facing increased competition due to efficient mergers.”); B. Espen Eckbo, *Mergers and the Value of Antitrust Deterrence*, 47 J. FINANCE 1005, 1027–28 (1992) (rejecting “the market concentration doctrine on samples of both U.S. and Canadian mergers. By implication, the results also reject the effective deterrence hypothesis. The evidence is, however, consistent with the alternative hypothesis that the horizontal mergers in either of the two countries were expected to generate productive efficiencies”).

⁷¹ See, e.g., Olivier E. Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 32 (1968); see also, Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 3 (1984); Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965); see generally William M Landes & Richard A Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981).

⁷² See Easterbrook, *Limits of Antitrust*, *id.*

⁷³ *Id.* at 17 (“The task, then, is to create simple rules that will filter the category of probably-beneficial practices out of the legal system, leaving to assessment under the Rule of Reason only those with significant risks of competitive injury.”).

classification, practices are then submitted to varying levels of scrutiny, ranging from per se prohibitions to presumptive legality.⁷⁴

Of the thousands of M&A transactions that take place each year around the world, antitrust authorities must be notified of only a few, and fewer still are subject to in-depth reviews.⁷⁵ For instance, in both the U.S. and the EU, only deals that meet certain transaction values and/or revenue thresholds require merger notifications.⁷⁶ Accordingly, U.S. antitrust authorities receive somewhere in the vicinity of 2,000 merger filings per year, while the European Commission usually receives a few hundred.⁷⁷ Typically, less than 5% of these mergers are ultimately subjected to in-depth reviews.⁷⁸ These cases are selected by applying yet another set of filters that include: looking at the relationship between the merging firms (horizontal, vertical, conglomerate); calculating market shares and concentration ratios; and checking whether transactions fall within several recognized theories of harm.⁷⁹

Similar filtering mechanisms apply to other forms of conduct.⁸⁰ For instance, incumbent firms routinely decide to enter adjacent markets or adopt strategies that might incidentally reduce competition in markets where they are already present.⁸¹ As with mergers, authorities and courts apply a series of filters/presumptions to home in on those practices most likely to cause anticompetitive harm.⁸² Firms with small market shares are deemed less likely to possess market power (and thus less likely to harm competition); vertical agreements are widely seen as being less

⁷⁴ *Id.* at 15 (“They should adopt some simple presumptions that structure antitrust inquiry. Strong presumptions would guide businesses in planning their affairs by making it possible for counsel to state that some things do not create risks of liability. They would reduce the costs of litigation by designating as dispositive particular topics capable of resolution.”).

⁷⁵ See *Number of Merger and Acquisition Transactions Worldwide from 1985 to 2021*, STATISTA (May 14, 2021), <https://www.statista.com/statistics/267368/number-of-mergers-and-acquisitionsworldwide-since-2005>.

⁷⁶ See 15 U.S.C. § 18(a) (1976); see also, FTC Premerger Notification Office Staff, *HSR Thresholds Adjustments and Reportability for 2020*, FTC COMPETITION MATTERS (Jan. 31, 2020), <https://www.ftc.gov/news-events/blogs/competitionmatters/2020/01/hsr-threshold-adjustments-reportability-2020>; see also Council Regulation 139/2004, 2004 O.J. (L 24) 1, 22 (EC).

⁷⁷ See F.T.C. & U.S. Dep’t of Justice, *Hart-Scott-Rodino Annual Report Fiscal Year 2020, Appendix A*, (2021); see also European Commission, *Merger Statistics, 21 September 1990 to 31 December 2020* (2021), available at <https://ec.europa.eu/competition/mergers/statistics.pdf>.

⁷⁸ See F.T.C. & U.S. Dep’t of Justice, *id.*; see also European Commission, *id.*

⁷⁹ See 2010 HMGs, *supra* note 4; U.S. Dep’t of Justice & F.T.C., *Vertical Merger Guidelines* (2020), available at https://www.ftc.gov/system/files/documents/reports/usdepartment-justice-federal-trade-commission-vertical-mergerguidelines/vertical_merger_guidelines_6-30-20.pdf; European Commission, *Commission Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings*, 2008 O.J. (C 265) 6, 25 (Oct. 18, 2008).

⁸⁰ See F.T.C. & U.S. Dep’t of Justice, *Antitrust Guidelines for the Licensing of Intellectual Property* 15 (Jan. 12, 2017).

⁸¹ See *id.*

⁸² See *id.* (“The existence of a horizontal relationship between a licensor and its licensees does not, in itself, indicate that the arrangement is anticompetitive. Identification of such relationships is merely an aid in determining whether there may be anticompetitive effects arising from a licensing arrangement.”); see also European Commission, *Communication from the Commission—Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, O.J. C. 45, 7–20 (Feb. 24, 2009).

problematic than horizontal ones; and vertical integration is widely regarded as procompetitive absent other accompanying factors.⁸³

This system is certainly not perfect and filtering cases in this manner inevitably lets some anticompetitive practices fall through the cracks.⁸⁴ Indeed, the error-cost framework is premised on the recognition of this eventuality.⁸⁵ Nevertheless, the strengths of this paradigm arguably outweigh its weaknesses. “If presumptions let some socially undesirable practices escape, the cost is bearable.... One cannot have the savings of decision by rule without accepting the costs of mistakes.”⁸⁶

Today’s antitrust apparatus is administrable,⁸⁷ somewhat predictable,⁸⁸ and, in the case of merger enforcement, it ensures that deals are reviewed in a relatively timely manner.⁸⁹ The contours of this system have profound ramifications for substantive antitrust policy. Potential reforms need to account for the tradeoffs inherent to this vision of antitrust enforcement (between false positives and false negatives, between timeliness and thoroughness, and so on). Accordingly, the relevant policy question is not whether existing provisions allow certain categories of potentially harmful conduct to go unchallenged. Instead, policymakers should ask whether there is a better set of filters and heuristics that would enable authorities and courts to prevent previously unchallenged anticompetitive conduct without overburdening the system or disproportionately increasing false positives.

In short, antitrust enforcers must avoid the so-called “Nirvana fallacy” of believing that all errors can be eliminated, and existing policies should thus always be weighed against alternative institutional arrangements (as opposed to merely identifying instances where they lead to false negatives).⁹⁰

2. *Growing calls to update merger-enforcement standards*

A growing body of economic literature has identified potential inadequacies in both the U.S. and EU merger-control regimes, as well as the antitrust rules that govern the business practices of digital

⁸³ See F.T.C. & U.S. Dep’t of Justice, *supra* note 79; see also Commission Guidelines on Vertical Restraints, 2010 O.J. (C 130) 1, 46, [https://eurlex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52010XC0519\(04\)&from=EN](https://eurlex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52010XC0519(04)&from=EN).

⁸⁴ Easterbrook, *Limits of Antitrust*, *supra* note 71.

⁸⁵ *Id.*

⁸⁶ *Id.* at 15.

⁸⁷ It requires only limited government resources to function, compared to, for example, a system that reviews every merger in detail.

⁸⁸ Companies can self-assess whether their mergers are likely to be struck down by authorities and adapt their investment decisions accordingly.

⁸⁹ Even in-depth merger investigations are typically concluded within months, rather than years.

⁹⁰ Harold Demsetz, *Information and efficiency: Another Viewpoint*, 12 J. L. & ECON. 1 (1969) (“The view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an existing “imperfect” institutional arrangement. This nirvana approach differs considerably from a comparative institution approach in which the relevant choice is between alternative real institutional arrangements.”).

platforms (notably vertical integration and tying).⁹¹ These critiques focus on ways in which incumbents might prevent nascent or potential rivals from introducing innovative new products and services that could disrupt their existing businesses.⁹² In short, this recent economic literature purports to show how incumbents might use their dominant market positions to reduce innovation.

For instance, recent empirical research purports to show that mergers of pharmaceutical companies with overlapping R&D pipelines result in higher project-termination rates, thus reducing innovation and, ultimately, price competition.⁹³ These are referred to as “killer acquisitions.”⁹⁴ Others have argued that killer acquisitions also occur in the tech sector, although the empirical evidence offered to support this second claim is much weaker, because it does not differentiate between legitimate, efficient discontinuations of acquired products and the elimination of potential competitors.⁹⁵ Acquisitions of nascent and potential competitors undertaken with the intention of reducing competition have also been described as “killer acquisitions,” even if the acquisitions do not involve products being discontinued.⁹⁶

Along similar lines, it is sometimes argued that large tech firms create so-called “kill zones” around their core businesses.⁹⁷ Some scholars assert that incumbent digital platforms might seek to foreclose rivals in adjacent markets by “copying” their products, or by using proprietary datasets that tilt the scales in their favor.⁹⁸

All these practices are said to harm innovation by deterring competitors from investing in innovations that compete with incumbents.⁹⁹ The overarching theme of the above research is that

⁹¹ See generally, Colleen Cunningham, Florian Ederer & Song Ma, *Killer Acquisitions*, 129 J. POL. ECON. 649-702 (2021); Sai Krishna Kamepalli, Raghuram Rajan & Luigi Zingales, *Kill Zone*, NBER WORKING PAPER, 85 (2020); Kevin A Bryan & Erik Hovenkamp, *Antitrust Limits on Startup Acquisitions*, 56 REV. INDUS. ORG 615, 617 (2020); Mark A. Lemley & Andrew McCreary, *Exit Strategy* (Stanford L. and Econ. Working Paper No. 542, 2020) at 81, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3506919.

⁹² See, e.g., Bryan & Hovenkamp, *id.* at 616; Cunningham et al., *id.* at 650; Lemley & McCreary, *id.* at 81; Zingales et al., *id.* at 11-12.

⁹³ Cunningham et al., *supra* note 91, at 652.

⁹⁴ See *id.* at 650 (“We argue that an incumbent firm may acquire an innovative target and terminate the development of the target’s innovations to preempt future competition. We call such acquisitions ‘killer acquisitions,’ as they eliminate potentially promising, yet likely competing, innovation.”).

⁹⁵ See, e.g., Axel Gautier & Joe Lamesch, *Mergers in the Digital Economy*, 54 INFO. ECON. & POL’Y (2000) (“There are three reasons to discontinue a product post acquisition: the product is not as successful as expected, the acquisition was not motivated by the product itself but by the target’s assets or R&D effort, or by the elimination of a potential competitive threat. While our data does not enable us to screen between these explanations, the present analysis shows that most of the startups are killed in their infancy.”).

⁹⁶ John M. Yun, *Potential Competition, Nascent Competitors, and Killer Acquisitions*, 18 GLOBAL ANTITRUST INSTITUTE REPORT ON THE DIGITAL ECONOMY 652, 652-53 (2020).

⁹⁷ See Zingales et al. *supra* note 91, at 40

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, 396 (2018) (“Or imagine the platform was appropriating or ‘cloning’ app functionality into its basic service. The only potential harm in this instance would be that independent edge providers would be encouraged to exit or discouraged from entering in future periods. In theory, edge providers might be discouraged to compete in the app space given what they perceive to be a slanted playing field.”).

⁹⁹ See, e.g., Cunningham, et al., *supra* note 91, at 694.

existing antitrust doctrine is ill-equipped to handle these practices, or, at the very least, that antitrust law should be enforced more vigorously in these settings.

But while the above research identifies important and potentially harmful conduct that cannot be dismissed out of hand, it is important to recognize its inherent limitations when it comes to informing normative policy decisions. Indeed, there is a vast difference between identifying categories of conduct that sometimes harm consumers and being able to isolate individual instances of anticompetitive behavior.¹⁰⁰ The above is merely a restatement of the error-cost framework, which highlights that the existence of false negatives is not a sufficient condition for increased intervention:

The fact—if it can be proved—that there were some false negatives does not imply that there has been underenforcement with respect to the optimal level of enforcement. In other words, in the digital space the argument can be made that an optimal merger policy on average leads to ex-post “underenforcement.” Moreover, even if the level of enforcement has been lower than optimal, one must be careful not to swing to the opposite side, especially in high-tech industries. The chilling effect on innovation could be significant.¹⁰¹

Instead, it must always be the case that a change to the standards of government intervention to prevent more of these false negatives (with its inherent tradeoffs) ultimately increases social welfare overall.¹⁰²

Take the example of Google. The company has acquired at least 270 companies over the last two decades.¹⁰³ It has been argued that some of Google’s acquisitions—including those of YouTube, Waze, and DoubleClick—may have been anticompetitive.¹⁰⁴ However, the real test for regulators is whether they could reliably identify which of Google’s 270 acquisitions are actually anticompetitive and do so under a decision rule that causes less harm to consumers from false positives than is caused by the current false negatives.¹⁰⁵ If the anticompetitive mergers are such a tiny percentage of

¹⁰⁰ And even then, it is important to distinguish conduct that harms consumers overall from conduct that merely harms certain parameters of competition, while improving others. In other words, antitrust law should prohibit conduct when the category it belongs to is generally harmful to consumers and/or when harmful occurrences of that conduct can readily be distinguished. See, e.g., Eric Fruits, et al., *Static and Dynamic Effects of Mergers: A Review of the Empirical Evidence in the Wireless Telecommunications Industry*, GLOBAL FORUM ON COMPETITION, OECD DIRECTORATE FOR FIN. & ENTERP. AFF. (Dec. 6, 2020) at 18, available at [https://one.oecd.org/document/DAF/COMP/GF\(2019\)13/en/pdf](https://one.oecd.org/document/DAF/COMP/GF(2019)13/en/pdf) (“Studies that do not consider these [non-price] effects are incomplete for purposes of evaluating the mergers’ consumer welfare effects, and [are] all-too-easily used by advocates to misleadingly predict negative consumer outcomes. This is not necessarily a criticism of the studies themselves, which generally do not make comprehensive policy conclusions. The reality is that it is exceptionally difficult to comprehensively study even price effects, such that a well conducted study of price effects alone is a valuable contribution to the literature. Nevertheless, in the context of evaluating prospective transactions, the results of such studies must be discounted to account for their exclusion of non-price effects.”).

¹⁰¹ Luis Cabral, *Merger Policy in Digital Industries*, CEPR Discussion Paper No. DP14785 (May 2020) at 12, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3612854.

¹⁰² See Carl Shapiro, *Antitrust in a Time of Populism*, 61 INT’L J. INDUS. ORG. 714, 741 (2018).

¹⁰³ See *id.* at 740.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

total mergers, and if identifying them a priori is difficult, then a precautionary-principle strategy that results in many false positives would likely not merit the benefits from blocking one or two anticompetitive mergers.

Indeed, but for Google and Facebook's investments in YouTube and Instagram, respectively, it is far from clear that a mere "video-hosting service" or "photo-sharing app" would have grown into the robust competitors that advocates assume. Apart from the potential synergies arising from the combination of these products with the acquiring companies' other products,¹⁰⁶ corporate control by the acquiring company may lead to these firms being better managed. This concept of M&A as creating a "market for corporate control" adds an important new dimension to the understanding of the tradeoffs involved in merger control.¹⁰⁷

These anticompetitive theories of harm can be separated into three broad categories: (1) large incumbents have become so dominant in their primary markets that venture capitalists decline to fund startups that compete head-on, reducing potential competition; (2) large incumbents acquire potential competitors or non-competitor startups so as to reduce the competition along several dimensions, and (3) incumbents purchase competitors to shut down their overlapping innovation pipelines (i.e., killer acquisitions). With this in mind, applying the error-cost framework should lead policymakers to carefully consider the following questions when evaluating the merits and policy implications of economic research in this space:

1. Do the papers advancing these theories identify categories of conduct that, on average, harm consumer welfare?
2. If not, do the papers identify additional factors that would enable authorities to infer the existence of anticompetitive effects in individual cases?
3. If so, would it be feasible for authorities to add these factors to their analysis (in terms of time and resources)?
4. Finally, would prohibiting these practices at an individual or category level prevent efficiencies that would otherwise outweigh these anticompetitive harms? And could these efficiencies be analyzed on a case-by-case basis?

In addition to these error-cost-related questions, we must also question whether the results of these studies are relevant outside the specific markets they examine, and whether they give sufficient weight to countervailing procompetitive justifications.

¹⁰⁶ For example, YouTube's search and recommendations engines being developed by Google, the world's leading Internet search company, or Instagram's ad platform being integrated with Facebook's.

¹⁰⁷ See Henry G. Manne, *supra* note 71, at 117-19.

3. *Scrapping presumptions is dangerous without a holistic view*

The above suggests that authorities should consider the full picture before doing away with existing presumptions.

For instance, while lowering merger-filing thresholds may enable enforcers to review and block some anticompetitive mergers that currently go unchallenged, it will also have other costs for which enforcement agencies must account. Indeed, lowering filing thresholds will significantly increase the number of mergers that agencies must review. This will increase enforcement costs, delay the clearance of some socially beneficial deals, and stretch agency resources (potentially leading to certain deals receiving less attention than is currently the case, which may increase both false positives and negatives).

And much the same is true of structural presumptions, such as the HHI index and market shares. While these are certainly not perfect, they are useful heuristics that enable enforcers to focus their resources on deals that are most likely to harm competition. Scrapping these presumptions, on the account that they enable certain anticompetitive deals to evade prosecution, ignores the important role they play in streamlining enforcement and enabling unproblematic deals to rapidly and cheaply clear administrative hurdles. Of course, more marginally (but no less directionally the same), reducing thresholds would have the effect of increasing enforcement costs, as well.

Finally, and as we explain throughout the rest of our comment, these error-cost considerations should also influence the sort of conduct on which agencies should focus. Mergers may reduce costs, boost investments and innovation, and have many other beneficial effects. It is essential that attempts to combat particular harms do not overshadow and scupper these far-reaching benefits.

II. Substantive Considerations

Substantively, our comments to the RFI are as follows. First, if the agencies are to apply merger-control rules to monopsony markets, they must make it clear that the relevant market to analyze is the output market, and not (only) the input market. Ultimately, this is the only way to separate mergers that generate efficiencies from those that create monopsony power, since both have the effect of depressing input prices. If antitrust law is to stay grounded in the consumer welfare standard, as it should, it must avoid blocking mergers that are consumer-facing simply because they decrease the price of an input. The issue of monopsony is further complicated by the fact that many inputs are highly substitutable across a wide range of industries, rendering the relevant market even more difficult to pin down than in traditional product markets.

Second, there is not enough evidence to create a presumption of a negative relationship between market concentration and innovation. Many scholars—including Schumpeter, Arrow, and Aghion—have grappled with this problem and reached vastly different conclusions. What does appear clear is that the connection between innovation and concentration hinges on several endogenous factors that weigh differently from one industry to another—though it is not clear exactly how much, or in what way. Accordingly, the agencies should be wary of drawing any premature conclusions—let alone establishing any legal presumptions—on the connection between market structure and non-price effects, such as innovation. A similar conclusion applies, *mutatis mutandis*, to investment—where,

as we demonstrate, market concentration can often lead to long-term consumer gains in the form of higher investment levels.

Third, the RFI blurs what has hitherto been a clear demarcation (and rightly so) between vertical and horizontal mergers by stretching the meaning of “potential competition” beyond any reasonable limits. In so doing, it ascribes stringent theories of harm based on far-fetched hypotheticals to otherwise neutral or benign business conduct. This “horizontalization” of vertical mergers, if allowed to translate into policy, is likely to have chilling effects on procompetitive merger activity to the detriment of consumers and, ultimately, society as a whole. However, as the recent AT&T merger confirms, there is no legal or empirical justification to abandon the time-honed legal differentiation between horizontal and vertical mergers, or to impose a heightened burden of proof on the latter. Recent theories suggesting that vertical mergers should be treated analogously to horizontal mergers downplay the extent to which such eventualities hinge on a missing (and uncertain) step, which is that a vertically integrated firm must first merge with a competitor. Until that happens—and only if it does—a vertical merger is still a vertical merger and should be treated as presumptively benign and procompetitive.

Fourth, and despite some facially attractive rhetoric, data should not receive any special treatment under the merger rules. Instead, it should be treated as any other intangible asset, such as reputation, IP, know-how, etc. Indeed, data is “special,” in a sense, but the traits that make it so are the same that make it less interesting from a competition-law perspective. Namely, data is non-rivalrous, it has low appropriability, and it is idiosyncratic. Nor is there any reason to contend—as the RFI seems to imply—that the concentration of data in the hands of a few companies is automatically harmful for consumer privacy. To the contrary: the case can easily be made that the dispersion and duplication of data in the hands of many is, in fact, worse. There is thus no *ex ante* reason to prefer a particular number of firms having access to a dataset. Further, incorporating privacy concerns in merger analysis would require the agencies to rank a range of dimensions of product quality and second-guess the preferences of a vast, heterogeneous group of users. Antitrust agencies are ill-equipped for such endeavors, nor are they empowered to act as social engineers.

Finally, the notion of “attention markets”—currently ascendant in progressive circles—is not ready to be applied in a merger-control context, as the attention-market scholarship fails to offer objective and quantifiable criteria that might enable authorities to identify firms that are unique competitors for user attention. Merger review in attention markets would thus require agencies not only to identify actual and potential competitors for “attention”—a herculean task—but also the extent to which these competitors constrain each other. Unlike the SSNIP test applied in regular markets, the SSNIC and SSNTDQ, which attempt to solve the conundrum, fail as workable tests in the antitrust context.

A. Monopsony

In their RFI, the agencies ask: “How should the guidelines treat a merger that may generate monopsony power, but does not substantially lessen competition in an output market?”¹⁰⁸

This question is significantly more complicated than it might seem. On the surface, it may appear that monopsony is simply the “mirror image” of monopoly.¹⁰⁹ There are, however, several important differences between monopoly and monopsony, and several complications raised by monopsony analysis that significantly distinguish the analysis required for each. Most fundamental among these, monopsony and monopoly markets do not sit at the same place in the supply chain.¹¹⁰ This matters, because all supply chains end with final consumers. Accordingly, from a policy standpoint, it is essential to decide whether antitrust ultimately seeks to maximize output and welfare at that (final) level of the distribution chain (albeit indirectly); whether intermediate levels of the distribution chain (e.g., an input market) should be analyzed in isolation; or whether effects in both must be somehow aggregated.

This has important ramifications for antitrust enforcement against monopsonies. As we explain below, competitive conditions of input markets have salient impacts on prices and output in product markets. Given this, any evaluation of monopsony must consider the “pass-through” to the final product market, while there is no such “mirror image” complication in the consideration of final-product monopoly markets. Along similar lines, treating the assessment of mergers in input markets as the simple mirror image of product-market mergers presents important problems for the way authorities address merger efficiencies, as traditional efficiencies and increased buyer power are often two sides of the same coin. Finally, it is unclear how authorities should think about market definition—a cornerstone of modern antitrust policy—in labor markets, in particular.

The upshot is that, while monopsony concerns are becoming more prevalent in academic and policy discussions, the agencies should be extremely hesitant as they move forward. Some have argued that “[m]ergers affecting the labor market require some rethinking of merger policy, although not any altering of its fundamentals.”¹¹¹ As we discuss below, however, while the economic “fundamentals” undergirding merger policy may not change for labor-market mergers, the “rethinking” required to properly assess such mergers does entail fundamental changes that have not yet been adequately studied or addressed. As many have pointed out, there is only a scant history of merger enforcement

¹⁰⁸ Merger Enforcement RFI, at 6.

¹⁰⁹ See, e.g., Roger G. Noll, *Buyer Power and Economic Policy*, 72 ANTITRUST L.J. 589, 589 (2005) (“[B]uyer power arises from monopsony (one buyer) or oligopsony (a few buyers), and is the mirror image of monopoly or oligopoly.”); *Id.* at 591 (“Asymmetric treatment of monopoly and monopsony has no basis in economic analysis.”).

¹¹⁰ Of course, monopoly markets in intermediate products (i.e., products sold not to end users but to manufacturers who use them as inputs for products that are, in turn, sold to end users) may indeed sit in the same place in the supply chain as the typical monopsony market. Some, but not all, of the complications associated with monopsony analysis are relevant to these monopoly situations, as well.

¹¹¹ Ioana Marinescu and Herbert J. Hovenkamp, Herbert, *Anticompetitive Mergers in Labor Markets*, 94 INDIANA L.J. 1031, 1034 (2019) (“While the use of section 7 to pursue mergers among buyers is well established, there is relatively little case law.”)

in input markets in general, and even less in labor markets.¹¹² It is premature to offer guidelines purporting to synthesize past practice and the state of knowledge, when neither is well established.

I. Theoretical differences between monopoly and monopsony

Before getting to the practical differences of a monopoly case versus a monopsony case, consider the theoretical differences between identifying monopsony power versus monopoly power.¹¹³ Suppose, for now, that a merger either generates efficiency gains or market power but not both. In a monopoly case, if there are efficiency gains from a merger, the quantity sold in the output market will increase. With sufficient data, the agencies will be able to see (or estimate) the efficiencies directly in the output market. Efficiency gains result in either greater output at lower unit cost or else product-quality improvements that increase consumer demand. In contrast, if the merger simply enhances monopoly power without efficiency gains, the quantity sold will decrease, either because the merging parties raise prices or quality declines. The empirical implication of the merger is seen directly in the market in question.

The monopsony case is more complicated, however. Ultimately, we can be certain of the effects of monopsony only by looking at the output market, not the input market where the monopsony power is claimed. To see this, consider again a merger that generates either efficiency gains or market (now monopsony) power. A merger that creates monopsony power will necessarily reduce the prices and quantity purchased of inputs like labor and materials. But this same effect (reduced prices and quantities for inputs) could be observed if the merger is efficiency-enhancing, as well. If there are efficiency gains, the merged parties may purchase fewer of one or more inputs. For example, if the efficiency gain arises from the elimination of redundancies in a hospital merger, the hospital will buy fewer inputs, hire fewer technicians, or purchase fewer medical supplies. This may even reduce the wages of technicians or the price of medical supplies, even if the newly merged hospitals are not exercising any market power to suppress wages.¹¹⁴

Decisionmakers cannot simply look at the quantity of inputs purchased in the monopsony case as the flip side of the quantity sold in the monopoly case, because the efficiency-enhancing merger can look like the monopsony merger in terms of the level of inputs purchased. The court can only differentiate a merger that generates monopsony power from a merger that increases productive efficiencies by looking to the output market. Once we look at the output market, as in a monopoly case, if the merger is efficiency-enhancing, there will be an increase in the output-market quantity. If the merger increases monopsony power, the firm perceives its marginal cost as higher than before the merger and will reduce output.¹¹⁵

¹¹² *Id.* at 1034.

¹¹³ For purposes of this discussion, “monopoly” refers to any merger that would increase market power by a seller in a product market and “monopsony” refers to any merger that would increase market by the buyer in an input market.

¹¹⁴ Some efficiency-enhancing mergers will be identifiable, of course. For example, if the merger raises quantities and prices for all inputs, that must be efficiency enhancing. The problem, as always, is with the hard cases.

¹¹⁵ See C. Scott Hemphill & Nancy L. Rose, *Mergers that Harm Sellers*, 127 YALE L.J. 2078 (2018).

In short, the assumption that monopsony analysis is simply the mirror image of monopoly analysis does not hold.¹¹⁶ In both types of mergers—those that possibly generate monopoly or monopsony—the agencies and courts cannot look to the input market to differentiate them from efficiency-enhancing mergers; they must look at the output market. Therefore, it is impossible to discuss monopsony power coherently without considering the output market.

2. *Monopsony and merger efficiencies*

In real world cases, mergers will not necessarily be either just efficiency-enhancing or just monopsony-generating, but a blend of the two. Any rigorous consideration of merger effects must account for both and make some tradeoff between them. The question of how guidelines should address monopsony power is inextricably tied to the consideration of merger efficiencies—particularly given the point above that identifying and evaluating monopsony power will often depend on its effects in downstream markets.

This reality raises some thorny problems for monopsony merger review that have not been well studied to date:

Admitting the existence of efficiencies gives rise to a subsequent set of difficult questions central to which is “what counts as an efficiency?.” A good example of why the economics of this is difficult is considering the case in which a horizontal merger leads to increased bargaining power with upstream suppliers. The merger may lead to the merging parties being able to extract necessary inputs at a lower price than they otherwise would be able to. If so, does this merger enhance competition in a possible upstream market? Perhaps not. However, to the extent that the ability to obtain inputs at a lower price leads to an increase in the total output of the industry, then downstream consumers may in fact benefit. Whether the possible increase in the total surplus created by such a scenario should be regarded as off-setting any perceived loss in competition in a more narrowly defined upstream market is a question that warrants more attention than it has attracted to date.¹¹⁷

With “monopoly” mergers, plaintiffs must show that a transaction will reduce competition, leading to an output reduction and increased prices to consumers. This finding can be rebutted by demonstrating cost-saving or quality-improving efficiencies that would lead to lower prices or other forms of increased consumer welfare. In evaluating such mergers, agencies and courts must weigh

¹¹⁶ In theory, one could force a monopsony model to be identical to monopoly. The key difference is about the *standard* economic form of these models that economists use. The standard monopoly model looks at one output good at a time, while the standard factor demand model uses two inputs, which introduces a trade-off between, say, capital and labor. See SONIA JAFFE, ROBERT MINTON, CASEY B. MULLIGAN, AND KEVIN M. MURPHY, CHICAGO PRICE THEORY (2019) at Ch. 10. One could generate harm from an efficiency for monopoly (as we show for monopsony) by assuming the merging parties each produce two different outputs, apples and bananas. An efficiency gain could favor apple production and hurt banana consumers. While this sort of substitution among outputs is often realistic, it is not the standard economic way of modeling an output market.

¹¹⁷ John Asker and Volker Nocke, *Collusion, Mergers, and Related Antitrust Issues*, NBER Working Paper 29175 (Aug. 2021), at 42, <https://www.nber.org/papers/w29175>.

the upward pricing pressure from reduced competition against the downward pricing pressure associated with increased efficiencies and the potential for improved quality.

As we have explained above, this analysis becomes more complicated when a merger raises monopsony concerns. In a simple model of monopsony, the merger would increase market power in the input market (e.g., labor), leading to a lower price paid for the input and a smaller quantity used of the input relative to pre-merger levels. Assuming no change in market power in the final product market, these cost savings would result in lower prices paid by consumers. Should such efficiency effects “count” in evaluating mergers alleged to lessen competition in input markets? It is surely too facile a response to assert that such efficiency effects would be “out of market” and thus irrelevant. Indeed, if antitrust enforcement truly seeks to promote *consumer* welfare, any evaluation of a “monopsony” merger must weigh these effects against the effects in the input market.

Some would argue these are the types of efficiencies that merger policy is meant to encourage. Others may counter that policy should encourage technological efficiencies while discouraging efficiencies stemming from the exercise of monopsony power.

But this raises another complication: How do agencies and courts distinguish “good” efficiencies from “bad?” Is reducing the number of executives pro- or anticompetitive? Is shutting down a factory or healthcare facility made redundant post-merger pro- or anticompetitive? Trying to answer these questions places agencies and courts in the position of second guessing not just the effects of business decisions, but the *intent* of those decisions (to a first approximation, the observed outcomes are identical). Even worse, it can create a Catch-22 where an efficiencies *defense* in the product market is turned into an efficiencies *offense* in the input market—e.g., a hyper-efficient merged entity may outcompete rivals in the product market, possibly leading to monopsony in the input market. In ambiguous cases this means the outcome may depend on whether it is challenged on the input or output side of the market, and it even implies that overcoming a challenge by successfully identifying efficiencies in one case creates the predicate for a challenge based on effects on the other side of the market.

A further complication arises when dynamic effects are taken into account, which may convert apparent harms even on only the seller side of an input market into benefits:

[T]he presence of larger buyers can make it more profitable for a supplier to reduce marginal cost (or, likewise, to increase quality). This result stands in stark contrast to an often expressed view whereby the exercise of buyer power would stifle suppliers’ investment incentives. In a model with bilateral negotiations, a supplier can extract more of the profits from an investment if it faces more powerful buyers, though the supplier’s total profits decline. Furthermore, the presence of more powerful buyers creates additional incentives to lower marginal cost as this reduces the value of buyers’ alternative supply options.¹¹⁸

None of this is to say the creation of monopsony power should categorically be excluded from the scope of antitrust enforcement, of course. But it is quite apparent that this sort of enforcement raises

¹¹⁸ Roman Inderst & Christian Wey, *Countervailing Power and Dynamic Efficiency*, 9 J. EUR. ECON. ASS’N 702, 715 (2011).

extremely complicated tradeoffs that are elided over or underappreciated in the current discourse and under-explored in the law. It would be deeply problematic to attempt to enshrine a particular view of these tradeoffs into guidelines given the current state of knowledge and practice in this area. Perhaps worse, it would almost surely undermine the efficacy and authority of guidelines in general, as courts are unlikely to find such guidelines to be the helpful distillation of economic and legal principles that they are today.

3. *Determining the relevant market for labor*

In monopoly cases, agencies and courts face an enormous challenge in accurately identifying a relevant market. These challenges are multiplied in input markets—especially labor markets—in which monopsony is alleged. Many inputs are highly substitutable across a wide range of industries, firms, and geographies. For example, changes in technology, such as the development of PEX tubing and quick-connect fittings, allows for laborers and carpenters to perform work previously done exclusively by plumbers. Technological changes have also expanded the relevant market in skilled labor: Remote work during the COVID-19 pandemic, for example, demonstrates that many skilled workers are not bound by geography and compete in national—if not international—labor markets.

When Whole Foods attempted to acquire Wild Oats, the FTC defined the relevant market as “premium natural and organic supermarkets” as a way to exclude larger firms, such as Walmart and Kroger, from the relevant product market.¹¹⁹ Even if one were to accept the FTC’s product market definition, it is unlikely that anyone would consider *employment* at a “premium natural and organic supermarket” as a distinct input market. This is because the skill set needed to work at Whole Foods overlaps with the skill set demanded by myriad retailers and other employers—and *certainly* overlaps with the skillset needed to work at Kroger.

Moreover, policies such as occupational licensing have the effect of arbitrarily defining the work that can be performed or the services provided by a wide range of workers. This raises the question whether firms should be scrutinized for exercising monopsony power when regulations may be limiting the scope of the relevant market and contributing to the monopsony conditions. A “whole-of-government” approach to competition,¹²⁰ in other words, would certainly work to reduce these artificial barriers to market scope before thwarting possibly efficiency enhancing mergers that appear monopsonistic only because of such government constraints.

Contrary to what some have claimed, applying the SSNIP test to input markets—in the form of a “small and significant but non-transitory reduction in wages” or “SSNRW”—would also raise

¹¹⁹ *FTC v. Whole Foods Mkt., Inc.*, 548 F.3d 1028, 1063 (D.C. Cir. 2008). See also Geoffrey Manne, *Premium Natural and Organic Bullsh**t*, TRUTH ON THE MARKET (Jun. 6, 2007), <https://truthonthemarket.com/2007/06/06/premium-natural-and-organic-bullst> (“In other words, there is a serious risk of conflating a ‘market’ for business purposes with an actual antitrust-relevant market.”).

¹²⁰ Executive Order 14036 on Promoting Competition in the American Economy, § 2(g) (Jul. 9, 2021) <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy> (“This order recognizes that a whole-of-government approach is necessary to address overconcentration, monopolization, and unfair competition in the American economy.”)

significant difficulties.¹²¹ For a start the necessary datapoints required to conduct a SSNRW test are much harder to obtain than is the case for the SSNIP. The SSNIP test asks whether a hypothetical monopolist could *profitably* raise prices 5- 10% above the competitive baseline, whereas the SSNRW test questions whether a hypothetical monopsonist could *profitably* decrease wages by 5- 10%. The former question is far more tractable than the latter. Indeed, under the SSNIP, profitability hinges on the quantity sold, as well as the difference between prices and costs—both of which are relatively amendable to measurement. This is less true of the SSNRW, which depends on the difference between prices paid for inputs and their “marginal revenue product.” The second of these two factors would prove extremely challenging, perhaps impossible, to measure. This makes the SSNRW significantly harder to apply than the SSNIP. At the same time, “wages” in many labor contexts consist of a complicated mix of factors, including some (e.g., “work environment”) that defy easy quantification. While there are, of course, issues with measuring quality changes in product markets, the problems are significantly magnified in labor markets, and laborers’ preferences are invariably more heterogenous across many more dimensions of the elements of labor’s “price.” Furthermore, the marginal revenue product of an input hinges on competitive conditions in the output market. This reinforces the sense that monopsony analysis inherently raises cross-market effects that are less prevalent in the monopoly case.

4. *Monopsony and the consumer welfare standard*

As discussed in the previous sections, using antitrust enforcement to thwart potential monopsony harms is a task full of evidentiary difficulties, as well as complex tradeoffs. Perhaps more problematically, it is also unclear whether (and, if so, how) such an endeavor is consistent with the consumer welfare standard—the lodestar of antitrust enforcement—at least as it is currently understood and implemented by courts.

Marinescu & Hovenkamp assert that:

Properly defined, the consumer welfare standard applies in exactly the same way to monopsony. Its goal is high output, which comes from the elimination of monopoly power in the purchasing market.... [W]hen consumer welfare is properly defined as targeting monopolistic restrictions on output, it is well suited to address anticompetitive consequences on both the selling and the buying side of markets, and those that affect labor as well as the ones that affect products. In cases where output does not decrease, the anticompetitive harm to trading partners can also be invoked.”¹²²

But this is far from self-evident. There are at least two problems with this reasoning.

For a start, the assertion that harm to input providers that does not result in reduced product output is actionable is based on a tenuous assertion that a mere pecuniary transfer is sufficient to establish

¹²¹ Ioana Marinescu & Herbert J. Hovenkamp, *Anticompetitive Mergers in Labor Markets*, 94 INDIANA L.J. 1031, 1050 (2019). (“The analogous question for considering monopsony in the labor market would be to identify the smallest labor market for which a hypothetical monopsonist in that market would find profitable to implement a “small and significant but non-transitory reduction in wages” (SSNRW)”).

¹²² *Id.* 1062-63.

anticompetitive harm.¹²³ This is problematic because such harms may actually *benefit* consumers. In the extreme example, all of the benefits of a better negotiating position are passed on to consumers.¹²⁴ The main justification for ignoring these cross-market effects (as with all market-definition exercises) is primarily a pragmatic one (though it is rather weakened in light of modern analytical methods).¹²⁵ Particularly in the context of inputs into a specific output market, these cross-market effects are inextricably linked and hardly beyond calculation. And as the enforcement agencies have previously recognized, “[i]nextricably linked out-of-market efficiencies, however, can cause the Agencies, in their discretion, not to challenge mergers that would be challenged absent the efficiencies.”¹²⁶

The assertion that pecuniary transfers are actionable is also inconsistent with the fundamental basis for antitrust enforcement, which seeks to mitigate *deadweight loss*, but not mere pecuniary transfers that do not result in *anticompetitive* effects.¹²⁷

Second, it is unclear whether the consumer welfare standard applies to input markets. At its heart, the consumer welfare standard focuses on the effects that a(n) (incipient) monopolist’s behavior may have on *consumers*. And courts have, arguably, extended this welfare calculation to all direct purchasers affected by anticompetitive behavior. Much less clear is whether courts have extended (or would extend) this notion of anticompetitive harm to input markets. This goes to the very heart of the consumer welfare standard.

¹²³ As Marinescu & Hovenkamp note (attributing the point to Hemphill & Rose), “[i]n this case, there is merely a transfer away from workers and towards the merging firms. Yet. . . such a transfer is a harm for antitrust law as it results from a reduction in competition.” *Id.* at 1062 (citing Hemphill & Rose, *supra* note 115, at 2104-05).

¹²⁴ See, e.g., *Kartell v. Blue Shield of Mass., Inc.*, 749 F.2d 922 (1st Cir. 1984). See also Steven C. Salop, *Question: What Is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard*, 22 LOY. CONSUMER L. REV. 336, 342 (2010) (“However, Judge Breyer treated Blue Cross essentially as an agent for the customers it insured, rather than as an intermediary firm that purchased inputs and sold outputs as a monopolistic reseller. The court apparently assumed (perhaps wrongfully) that Blue Cross would pass on its lower input costs to its customers in the form of lower insurance premiums.”).

¹²⁵ See Jan M. Rybnicek & Joshua D. Wright, *Outside In or Inside Out?: Counting Merger Efficiencies Inside and Out of the Relevant Market*, in WILLIAM E. KOVACIC: AN ANTITRUST TRIBUTE VOL. II (2014) at *10, SSRN version available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2411270) (“Despite the incorporation of efficiencies analysis into modern merger evaluation, and the advances in economics that allow efficiencies to be identified and calculated more accurately than at the time of *Philadelphia National Bank*, antitrust doctrine in the United States still supports a regime that fails to take into account efficiencies arising outside of the relevant market.”).

¹²⁶ U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, COMMENTARY ON THE HORIZONTAL MERGER GUIDELINES (2006), available at <http://www.justice.gov/atr/public/guidelines/215247.htm>. See also U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES (1992, rev. 1997) § 4 at n.36 (“In some cases, merger efficiencies are “not strictly in the relevant market, but so inextricably linked with it that a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s).”).

¹²⁷ See, e.g., *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 487 (1977) (“Every merger of two existing entities into one, whether lawful or unlawful, has the potential for producing economic readjustments that adversely affect some persons. But Congress has not condemned mergers on that account; it has condemned them only when they may produce anticompetitive effects.”). See also ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (2021) at 110 (“Those who continue to buy after a monopoly is formed pay more for the same output, and that shifts income from them to the monopoly and its owners, who are also consumers. This is not dead-weight loss due to restriction of output but merely a shift in income between two classes of consumers. The consumer welfare model, which views consumers collectively, does not take this income effect into account.”).

As we explain above, lower wages could be consistent with both efficiency and monopsony.¹²⁸ Somewhat more problematically, these lower wages may also be accompanied by lower prices passed-through to consumers (or at least the monopsonist's direct purchasers, downstream).

Larger buyers may also be able to reduce their purchasing costs at the expense of suppliers.... The concept of buyer power as an efficiency defence rests squarely on such a presumption. What is more, the argument also posits that the exercise of buyer power will not only have distributional consequences, but also increase welfare and consumer surplus by reducing deadweight loss. As we spell out in detail below, welfare gains may arise both at the upstream level, i.e., in the transactions between the more powerful merged firm and its suppliers, as well as at the downstream level, where the creation of buyer power may translate into increased rivalry and lower prices. *The extent to which final consumers ultimately benefit is of particular importance if antitrust authorities rely more on a consumer standard when assessing mergers. If total welfare is the standard, however, distributional issues are not directly relevant and any pass-on to consumers is thus only relevant in as much as it contributes to total welfare.*¹²⁹

This raises an obvious question: can the consumer welfare standard (and thus antitrust authorities and courts) reach a finding of anticompetitive harm if *consumers* (at least in the narrow market under investigation) are ultimately being charged lower prices? As the FTC summarized in closing the investigation of a merger between two pharmacy benefit managers, “As a general matter, transactions that allow firms to reduce the costs of input products have a high likelihood of benefitting consumers, since lower costs create incentives to lower prices.”¹³⁰

Consider Judge Breyer's *Kartell* opinion. As Steve Salop explains:¹³¹

The famous *Kartell* opinion written by Judge (now Justice) Stephen Breyer provides an analysis of a buyer-side “cartel” (comprised of final consumers and their “agent” insurance provider, Blue Cross) that also is consistent with the true consumer welfare standard.... Buyer-side cartels generally are inefficient and reduce aggregate economic welfare because they reduce output below the competitive level.... However, a buyer-side cartel, comprised of *final consumers* generally would raise true consumer welfare (i.e., consumer surplus) because gains accrued from the lower prices would outweigh the losses

¹²⁸ Hemphill & Rose distinguish monopsony power from increased buyer leverage, which does not result in a deadweight loss but is simply a redistribution from sellers to buyers. Leverage will be partially passed through to consumers as lower prices. Standard monopsony increases in bargaining power will not generate lower prices, since “[a]n increase in monopsony power increases the firm’s perceived marginal cost and reduces output. Far from lowering output prices, the increased monopsony power raises price in output markets (if the firm faces downward sloping demand for its output) or else leaves it unchanged.” Hemphill & Rose, *supra* note 115, at 2106.

¹²⁹ Roman Inderst & Greg Shaffer, *Buyer Power in Merger Control*, in ABA ANTITRUST SECTION HANDBOOK, ISSUES IN COMPETITION LAW AND POLICY (Wayne Dale Collins, ed. 2008) at 1611, 1612-13 (emphasis added).

¹³⁰ Statement of the Federal Trade Commission Concerning the Proposed Acquisition of Medco Health Solutions by Express Scripts, Inc., FTC File No. 111-0210, at 7 (Apr. 2, 2012), *available at* https://www.ftc.gov/sites/default/files/documents/closing_letters/proposed-acquisition-medco-health-solutions-inc.express-scripts-inc./120402expressmedcostatement.pdf.

¹³¹ Salop, *supra* note 124, at 342 (“Efficiency benefits count under the true consumer welfare standard, but only if there is evidence that enough of the efficiency benefits pass through to consumers so that consumers (i.e., the buyers) would directly benefit on balance from the conduct.”)

from the associated output reduction, even though the conduct inherently reduces total welfare (i.e., total surplus)....

...Judge Breyer treated Blue Cross essentially as an *agent* for the customers it insured, rather than as an intermediary firm that purchased inputs and sold outputs as a monopolistic reseller. The court apparently assumed (perhaps wrongfully) that Blue Cross would pass on its lower input costs to its customers in the form of lower insurance premiums....

...In permitting Blue Cross to achieve and exercise monopsony power by aggregating the underlying consumer demands for medical care—i.e., permitting Blue Cross to act as the agent for final consumers—the *Kartell* court implicitly opted for the true consumer welfare standard. Blue Cross’s assumed monopsony conduct on behalf of its subscribers would thus lead to higher welfare for its subscribers despite reduced efficiency and lower aggregate economic welfare. Thus, this result represents a clear (if only implicit) judicial preference for the true consumer welfare standard rather than the aggregate economic welfare standard.

By this logic, it seems, the relevant “consumer” welfare in antitrust analysis—including mergers that increase *either* monopoly or monopsony power—is that of the *literal* consumer: the end-user of the final product. But this contrasts quite sharply with the standard mode of analysis in monopsony cases as the mirror image of monopoly, in which the merging parties’ “trading partner” (whether upstream or downstream) is the relevant locus of the welfare analysis.

Indeed, extended to more current potential cases, this mode of analysis raises a distinct problem for the agencies. Consider, for example, a hypothetical case against Kroger surrounding practices that exploit its buyer power.¹³² Should such a challenge fail regardless of the effect on input providers because Kroger can be considered “an *agent* for the customers it [sells to]”? There is, as Salop seems to suggest,¹³³ some merit in such an approach, but it is certainly not how similar cases have been evaluated in the past.

There is no easy answer to the difficulty of assessing harm in upstream markets when downstream markets benefit. At first blush, excluding deadweight losses that stem from monopsony power (or at least forcing plaintiffs to show that downstream purchasers are also harmed) seems like legalistic reasoning that is largely incompatible with the welfarist ancestry of the consumer welfare standard.¹³⁴

¹³² The same analysis can be applied to a hypothetical merger between, say, Kroger and Trader Joe’s in which we assume for the sake of argument there is no increase in seller power, but there is an increase in buyer power.

¹³³ It is worth noting that, although the analogy between Blue Cross and Kroger here seems quite apt and powerful, there can be little doubt that Salop would not condone this mode of analysis in a such a case against Kroger. Whether (if correct) that is a function of one person’s idiosyncratic preferences or an expression of the complication inherent in assessing consumer welfare in monopsony cases is uncertain.

¹³⁴ See, e.g., Gregory J. Werden, *Monopsony and the Sherman Act: Consumer Welfare in a New Light*, 74 ANTITRUST L.J. 707, 735 (2007). (“Predatory pricing that excludes competitors and results in monopsony is condemned by the Sherman Act, just as the Act condemns predatory pricing that excludes competitors and obtains a monopoly.... Protecting consumer welfare is the principal goal of the Sherman Act, but it is only a goal: The Sherman Act protects the people by protecting the competitive process. The competitive process could not be under mined any more clearly than it is when competing buyers conspire to eliminate the competition among themselves, and it matters not one whit under the Sherman Act whether the conspiracy threatens the welfare of conspirators’ customers or the welfare of end users. It is enough that the conspiracy threatens the

Indeed, the consumer welfare standard is largely premised on the assumption that increased output is desirable, and deadweight losses are harmful to society, regardless of their second-order effects. It seems odd to depart from this reasoning just because a supplier, rather than a consumer, is being harmed. Not to mention that, from a welfare standpoint, inefficient switching, caused by a deadweight loss, is no less harmful in the monopsony context than the monopoly one.

But at least when it comes to law and antitrust practice, things are more complicated than that. Faced with what may potentially be intractable economic questions, antitrust courts have often decided to limit antitrust analysis to what economics generally refer to as partial equilibrium analysis. This likely explains why only direct purchasers can claim antitrust damages,¹³⁵ and why the *Amex* court chose to overlook potential harm to cash purchasers (as they were deemed to lie outside of the relevant market).¹³⁶ The upshot is that, with some notable exceptions (such as the case of two-sided markets in *Amex*), antitrust courts have been reluctant to analyze competitive effects in adjacent markets.

What might seem like an arbitrary decision appears more reasonable when one considers the sheer complexity of the task at hand. Economic behavior will often have second-order effects that run in an opposite direction to its first-order or “partial equilibrium” ones. A charcoal monopoly may cause buyers to opt for cleaner energy sources; a conservation cartel may maximize the long-term value of scarce resources.¹³⁷

The question is whether antitrust law has a comparative advantage in dealing with these more “systemic” issues, or whether other legal frameworks are better adapted. Put differently, antitrust law’s main strength might be that it is mostly a consumer-oriented body of law that focuses on a single tractable problem: the prices consumers and other direct purchasers pay for goods. If that is true, then maybe other bodies of law (such as labor and environmental laws, e.g.) may be better suited to deal with broader harms. Indeed, in the case of each of these fields there exists a massive regulatory apparatus specifically designed to implement government standards. And, under the law as it stands, where antitrust law and a regulatory regime conflict, antitrust must give way.¹³⁸

welfare of the trading partners exploited by the conspiracy. Harm to them implies harm to people protected by the Sherman Act.”).

¹³⁵ See *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977); *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, 392 U.S. 481 (1968).

¹³⁶ *Ohio v. Am. Express Co.*, 138 S. Ct. 2274 (2018).

¹³⁷ See Jonathan H. Adler, *Conservation Through Collusion: Antitrust as an Obstacle to Marine Resource Conservation*, 61 WASH. & LEE L. REV 3 (2004) (“The purported aim of antitrust law is to improve consumer welfare by proscribing actions and arrangements that reduce output and increase prices. Conservation aims to improve human welfare by maximizing the long-term productive use of natural resources, an aim that often requires limiting consumption to sustainable levels. While such conservation measures might increase prices in the short-run, when successful they enhance consumer welfare by increasing long-term production and ensuring the availability of valued resources over time.”).

¹³⁸ See *Credit Suisse Securities (USA) LLC v. Billing*, 551 U.S. 264, *19-*20, *1-*2 (2007) (holding that where “(1) an area of conduct [is] squarely within the heartland of... regulations; (2) [there is] clear and adequate... authority to regulate; (3) [there is] active and ongoing agency regulation; and (4) [there is] a serious conflict between the antitrust and regulatory regimes. . . , [such] laws are ‘clearly incompatible’ with the application of the antitrust laws...[,]” thus “implicitly precluding the application of the antitrust laws to the conduct alleged”). See also *U.S. v. Philadelphia Nat. Bank*, 374 U.S. 321, 398-74 (1963) (Harlan, J. *dissenting*) (“Sweeping aside the ‘design fashioned in the Bank Merger Act’ as ‘predicated upon uncertainty as to

We do not purport to have a satisfactory answer to this complicated question. In fact, it is probably fair to say one does not exist. Antitrust law can either depart from its welfarist underpinnings—a large loss for its economic consistency—or it can follow those principles towards potentially intractable problems that may ultimately undermine its administrability and thus its usefulness as a policy tool. At this juncture, it is not clear there is a compromise that might enable enforcers to thread the needle to solve this complex conundrum. And if such a solution exists, it has yet to be articulated in a convincing manner that may lead to actionable insights for enforcers or courts.

Given all of this, the FTC and DOJ’s desire to adopt merger guidelines that address monopsony harms, while clearly important, seems premature compared to the state of the economic literature, and potentially unactionable under the consumer welfare standard. This is not to say the antitrust policy world should suddenly ignore monopsony harms, but rather that more research, discussion, and case law is needed before definitive guidelines can be written. And, ultimately, it may well be that legislative change is needed before any such guidelines will be enforceable before the courts.

B. Innovation

A central question in merger review is the likely effects that a transaction will have on consumers. This includes effects on prices, output, and quality (e.g., innovation and investment) that can play out both in the short run and long run (sometimes referred to as static and dynamic effects). In recent years, these dynamic effects have received increased attention from policymakers. As the agencies put it in their RFI:

The agencies are particularly interested in aspects of competition the guidelines may underemphasize or neglect, such as labor market effects and non-price elements of competition like innovation, quality, potential competition, or any “trend toward concentration.”¹³⁹

While the agencies’ concern for promoting innovation is laudable, as we explain below, there are significant difficulties—at least, at the margin—associated with enacting a competition policy that achieves this goal. This is notably due to the ambiguous relationship between *innovation* and market structure. As a result, “more competition” in the market does not necessarily lead to greater innovation, and the opposite can even be true (Subsection 1). This echoes findings from the economic literature on market structure and *investment* in the telecommunications industry, which finds that, up to some point, more concentrated market structures boost investment in telecom infrastructure (Subsection 2).

the scope of § 7 of the Clayton Act’ (*ante*, p. 349), the Court today holds § 7 to be applicable to bank mergers and concludes that it has been violated in this case. I respectfully submit that this holding, which sanctions a remedy regarded by Congress as inimical to the best interests of the banking industry and the public, and which will in large measure serve to frustrate the objectives of the Bank Merger Act, finds no justification in either the terms of the 1950 amendment of the Clayton Act or the history of the statute.”).

¹³⁹ Merger Enforcement RFI, at 2.

I. Market structure and innovation

How does a market's structure affect innovation? This crucial question has occupied the world's brightest economists for almost a century, from Schumpeter (who found that monopoly was optimal)¹⁴⁰ through Arrow (who concluded that competitive market structures were key)¹⁴¹ to the endogenous-growth scholars (who empirically derived an inverted-U relationship between market concentration and innovation).¹⁴² Despite these pioneering contributions to our understanding of competition and innovation, if the past century of innovation economics has taught us anything, it is that no specific market structure is strictly superior at generating innovation. Just as the SCP paradigm ultimately faltered—because structural presumptions were a weak predictor of market outcomes¹⁴³—so too have dreams of divining the optimal market structure for innovation.¹⁴⁴ Instead, in any given case, the right market structure likely depends on a plethora of sector- and firm-specific characteristics that range from the size and riskiness of innovation-related investments to regulatory compliance costs, the appropriability mechanisms used by firms, and the rate of technological change, among many others.

Against this backdrop, it may come as a surprise that several antitrust agencies, including the FTC and the European Commission, believe they have cracked the innovation-market-structure conundrum. Throughout several recent decisions and complaints, these and other authorities have concluded that more firms in any given market will produce greater choice and more innovation for consumers. This could be referred to as the “Structuralist Innovation Presumption.”¹⁴⁵ This presumption notably plays an important role in the FTC's recent case against Facebook, where the agency argues that:

Competition benefits users in some or all of the following ways: additional innovation (such as the development and introduction of new features, functionalities, and business models to attract and retain users); quality improvements (such as improved features, functionalities, integrity measures, and user experiences to attract and retain users); and consumer choice...¹⁴⁶

¹⁴⁰ See J.A. SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY* 72 (1976).

¹⁴¹ See Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 620 (Richard R. Nelson ed., 1962).

¹⁴² See, e.g., Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith & Peter Howitt, *Competition and Innovation: An Inverted-U Relationship*, 120 Q. J. ECON. 702 (2005).

¹⁴³ See generally *INDUSTRIAL CONCENTRATION: THE NEW LEARNING* (Harvey J. Goldschmid, H. Michael Mann, and J. Fred Weston eds., 1974), and see especially Harold Demsetz, *Two Systems of Belief About Monopoly*, in *id.* at 164-184. See also Sam Peltzman, *The Gains and Losses from Industrial Concentration*, 20 J. L. & ECON. 229 (1977); Yale Brozen, *The Concentration-Collusion Doctrine*, 46 ANTITRUST L.J. 826 (1978).

¹⁴⁴ See, e.g. Michael L. Katz & Howard A. Shelanski, *Mergers and Innovation*, 74 ANTITRUST L.J. 1, 22 (2007) (“The literature addressing how market structure affects innovation (and vice versa) in the end reveals an ambiguous relationship in which factors unrelated to competition play an important role.”).

¹⁴⁵ Dirk Auer, *Structuralist Innovation: A Shaky Legal Presumption in Need of an Overhaul*, CPI ANTITRUST CHRONICLE (Dec. 1, 2018).

¹⁴⁶ Amended complaint, *Fed. Trade Comm'n v. Facebook, Inc.*, No. 1:20-cv-03590 (D.C. Cir. filed Aug. 19, 2021), available at https://www.ftc.gov/system/files/documents/cases/ecf_75-1_ftc_v_facebook_public_redacted_fac.pdf, at 73.

Unfortunately, the Structuralist Innovation Presumption is a misguided heuristic that antitrust authorities around the globe would do well to avoid, as it is at odds with the mainstream economics of innovation.¹⁴⁷

There is a vast empirical literature examining the relationship between market structure and innovation. While surveying this entire literature is beyond the scope of our comments, the top-level findings clearly suggest that, contrary to what many policymakers assume, the relationship between market structure and innovation is not monotonic, and depends on several other parameters. For instance, surveying the econometric literature concerning the effect of industry structure on innovation, Richard Gilbert concludes that it is indeterminate:

Table 6.1 summarizes the conclusions from these interindustry studies for the effects of competition and industry structure on innovation. Unfortunately, these studies do not reach a consensus, other than to note that innovation effects can differ dramatically for firms that are at different levels of technological sophistication. Although some studies find a positive relationship between measures of innovation and competition (alternatively, a negative relationship between innovation and industry concentration), others find that the relationship exhibits an inverted-U, with the largest effects at moderate levels of industry concentration or competition, and at least one study reports a negative relationship between competition (measured by Chinese import penetration) and innovation (measured by citation-weighted patents and R&D investment). One consistent finding is that an increase in competition has less of a beneficial effect, and may have a negative effect, on innovation incentives for firms that are far behind the industry technological frontier.¹⁴⁸

Along similar lines, high-profile studies reach opposite conclusions. For instance, looking at the semiconductor industry, Ronald Goettler and Brett Gordon find that concentrated market structures lead to higher innovation:

The rate of innovation in product quality would be 4.2 percent higher without AMD present, though higher prices would reduce consumer surplus by \$12 billion per year. Comparative statics illustrate the role of product durability and provide implications of the model for other industries.¹⁴⁹

Mitsuru Igami reaches the opposite conclusion while studying the hard-disk-drive industry:

¹⁴⁷ This is not to say that some economists do not believe that more competitive market structures generally lead to more innovation. But rather that these writings have (i) not garnered a wide consensus among the economics profession, and (ii) often rest on narrow assumptions that reduce their application to specific settings. See, e.g., Carl Shapiro, *Competition and Innovation: Did Arrow Hit the Bull's Eye?*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 400* (Josh Lerner and Scott Stern eds., 2011). See also Ilya Segal & Michael D. Whinston, *Antitrust in Innovative Industries*, 97 *AM. ECON. REV.* 1712 (2007). For instance, both above papers conclude that exclusivity, though it may increase innovator's *ex-post* profits, is unlikely to increase incentives to innovate because it prevents entry by more innovative rivals. To reach this conclusion, the authors notably assume that consumers that are bound by exclusivity contracts never find it profitable to purchase the innovation of a second firm (they assume that the innovation costs more to produce than the value to consumers of its incremental improvement). There is no reason to believe that this is, or is not, a good reflection of reality.

¹⁴⁸ Richard J. Gilbert, *INNOVATION MATTERS: COMPETITION POLICY FOR THE HIGH-TECHNOLOGY ECONOMY*, 116 (2020)

¹⁴⁹ Ronald L. Goettler & Brett R. Gordon, *Does AMD Spur Intel to Innovate More?*, 119 *J. POL. ECON.* 1141, 1141 (2011)

The results suggest that despite strong preemptive motives and a substantial cost advantage over entrants, cannibalization makes incumbents reluctant to innovate, which can explain at least 57 percent of the incumbent-entrant innovation gap.¹⁵⁰

Looking at the hospital industry, Elena Patel & Nathan Seegert find a negative relationship between competition and *investment*:

In particular, hospitals in concentrated markets increased investment by 5.1 percent (\$2.5 million) more than firms in competitive markets in response to tax incentives. Further, firms' investment responses monotonically increased with market concentration.¹⁵¹

Finally, one of the most highly recognized articles in this field is the empirical research of Aghion and his various co-authors.¹⁵² Their work famously found that the relationship between product-market competition and innovation had an inverted-U shape. Stated differently, increased product-market competition is associated with higher innovative output, up to a point of diminishing returns.¹⁵³ According to some, this strand of research warrants a policy of greater antitrust enforcement, relying upon patents to generate *ex post* profits for innovators.¹⁵⁴

This conclusion appears somewhat misguided, as Aghion et al.'s seminal paper paints a far more nuanced picture. The authors' main finding is that product-market competition has an ambiguous effect on innovation—on average.¹⁵⁵ This last qualification is often omitted in policy discussions. As a result, what is true for the economy as a whole does not necessarily hold on a case-by-case basis. Some comparatively concentrated industries may score highly in terms of innovation, while some moderately concentrated ones do not.¹⁵⁶ In other words, there are several endogenous factors that affect how increased product-market competition will influence innovation in a given case. For example, the authors show that greater product-market competition is more likely to have a positive effect on innovation in industries where firms are technologically “neck and neck” before an innovation takes places (as opposed to those industries where “laggard” firms can innovate to overtake incumbents).¹⁵⁷ In the first case, more competition mostly decreases pre-innovation rents, while in the second case it has a larger effects on post-innovation rents (this is because increased

¹⁵⁰ Mitsuru Igami, *Estimating the Innovator's Dilemma: Structural Analysis of Creative Destruction in the Hard Disk Drive Industry, 1981–1998*, 125 J. POL. ECON. 798, 798 (2017)

¹⁵¹ Elena Patel & Nathan Seegert, *Does Market Power Encourage or Discourage Investment? Evidence From the Hospital Market*, 63 J.L. ECON. 667, 667 (2020).

¹⁵² See Aghion, et al., Q. J. ECON., 701-28 (2005). The theoretical aspects of this paper are a refinement of previous seminal research by some of these authors, which found that increased product market competition had a negative effect on innovation. See P. Aghion & P. Howitt, *A Model of Growth through Creative Destruction*, 60 ECONOMETRICA 323 (1992).

¹⁵³ *Id.* at 707.

¹⁵⁴ See, e.g., FEDERICO ETRO, *COMPETITION, INNOVATION, AND ANTITRUST: A THEORY OF MARKET LEADERS AND ITS POLICY IMPLICATIONS* (2007) at 163-64.

¹⁵⁵ See Aghion, et al., *supra* note 152, at 714.

¹⁵⁶ *Id.* at 706.

¹⁵⁷ *Id.* at 702.

competition would have little to no effect on laggard firms' pre-innovation rents, which are likely to be small).¹⁵⁸

The upshot is that empirical economics do not paint a clear picture concerning the relationship between market structure and innovation. Antitrust authorities and courts should thus avoid the presumption that more concentrated-market structures hinder innovation to the detriment of consumers.

2. *Market structure and investment: lessons from telecom*

As the previous section explained, mergers may lead to diverging price and innovation effect—as increased concentration might sometimes (though certainly not always) increase both market power and innovation output. This is not the only area where price and “non-price” effects may cut in opposite directions. Price competition and investments can also be inversely correlated.

Mergers among mobile-wireless providers provide a rich source of information to evaluate these effects. In a recent paper, ICLE scholars reviewed the sizable empirical literature on this topic, with much of the research focused on so-called “4-to-3” mergers that reduce the number of large, national carriers from four firms to three (though some have also persuasively argued that such a characterization may not be accurate).¹⁵⁹

Of the 18 studies ICLE reviewed, eight analyzed changes in market concentration across multiple jurisdictions between 2000 and 2015, while 10 analyzed specific mergers. ICLE's paper also reviewed a more recent study that considered the effects of U.S. market concentration in spectrum ownership on measures of quality.

Of the 10 studies that looked at specific mergers, about half found that short-term prices decreased following a merger, whereas half found that short-term prices increased. Even different studies of the *same* merger found wildly different effects on short-term prices, ranging from significant price decreases to significant price increases. Thus, looking at these price effects alone, the studies are, collectively, inconclusive.

The ICLE paper identified several reasons for these apparently divergent results, including:

1. a lack of common measures of prices and price effects across studies;
2. differences in the time period chosen; and
3. difficulties accounting for variations in geography, demography, and regulatory regimes among jurisdictions (the latter also creates a potential for endogeneity bias).

¹⁵⁸ *Id.*

¹⁵⁹ Eric Fruits, Justin (Gus) Hurwitz, Geoffrey A. Manne, Julian Morris & Alec Stapp, *Static and Dynamic Effects of Mergers: A Review of the Empirical Evidence in the Wireless Telecommunications Industry*, OECD Directorate for Financial and Enterprise Affairs Competition Committee, Global Forum on Competition. DAF/COMP/GF(2019)13 (Sep. 4, 2020), available at [https://one.oecd.org/document/DAF/COMP/GF\(2019\)13/en/pdf](https://one.oecd.org/document/DAF/COMP/GF(2019)13/en/pdf).

Of those studies that considered the effect on long-term investment of such mergers, *all* found that capital expenditures—a proxy for investment and, presumably, long-term dynamic welfare—increased post-merger.

Indeed, several recent studies that looked more broadly at the effects of market concentration in the mobile-telecommunications industry suggest that increased concentration is correlated with increased investment and may therefore be correlated with greater dynamic benefits. These studies indicate that the highest levels of long-term country-wide investment occurred in markets with three facilities-based operators (though total investment was not significantly lower in markets with four facilities-based operators). In addition, a recent analysis found that U.S. markets with higher concentration of spectrum ownership had faster, more reliable cellular service (reflecting an increase in dynamic welfare effects).

Studies of investment also found that markets with three facilities-based operators had significantly higher levels of investment by individual firms. The implication is that, in such markets, individual firms have stronger incentives to make capital investments that enable long-term competition through expanded infrastructure and technological innovation, which affect the range, quality, and quantity of services provided to consumers. Studies also suggest this effect may be strengthened when the merger results in a more symmetrical market structure (i.e., the various facilities-based providers become more equal in market share). It is argued that increases in the number of competitors in asymmetric markets leads to disproportionately lower levels of investment by smaller firms. Thus, a merger between two smaller firms that results in greater market symmetry could result in higher levels of investment by the merged firms relative to the unmerged entities.

The results of ICLE's review indicate that a merger that involves products or firms that compete along a variety of dimensions, in addition to price, must evaluate the effects of the merger across these dimensions, as well. In addition, relying on past empirical research to evaluate a current merger may overlook economic, technological, or regulatory changes that diminish the reliability of past experience to inform current events. This review of mobile-wireless-provider mergers reveals a number of factors that should be considered when seeking to understand the likely welfare effects of a given merger. These include:

1. Whether the effects to be evaluated are limited to static price effects or also include qualitative measures, such as capital expenditures and other investment in quality of service, suggesting dynamic innovation effects;
2. The timeframe over which the effects are evaluated;
3. The effects on different tiers of service, especially those measured by hypothetical consumption profiles (known as "baskets" in mobile-wireless-provider mergers);
4. The extent to which the effects of previous mergers may confound projected effects of the merger at hand; and
5. Whether a transaction occurs during, or even as part of, a transition between different generations of technology (e.g., during an upgrade from 3G to 4G networks).

Further, it is well-known that process and product innovation does not arise solely from new entry; incumbent firms frequently are important sources of innovation, as well as of increased market

competitiveness.¹⁶⁰ Dynamic analysis takes entry seriously, but it is much more sensitive to potential entry as a constraint on incumbents than a structuralist view would permit. Thus, for example, an incumbent mobile-wireless provider that offers wide coverage of 4G service must consider the potential capabilities of an existing competitor that currently has only sparse 4G coverage; it must incorporate potential threats from that competitor in its decision matrix when evaluating whether to upgrade its network to 5G in order to retain its customer base. An incumbent's dominant position can quickly erode thanks to imperfect in-market substitutes, as well as from out-of-market firms that may decide to enter in the future.¹⁶¹

When evaluating the merits of a merger, authorities are charged with identifying the effects on the welfare of consumers. Crucially, this analysis must consider not only short-term price effects, but also long-term and dynamic effects, particularly in markets (like mobile telecommunications) in which competition occurs over both price and innovation. Based on the studies that we reviewed, 4-to-3 mergers appear to generate net long-term benefits to consumer welfare in the form of increased investment (presumably—although not conclusively, based on these studies—resulting in increased innovation), while the short-term effects on price are resolutely inconclusive.

C. Vertical mergers

Antitrust merger enforcement has long relied on a fundamental distinction between horizontal and vertical mergers (or horizontal and vertical theories of harm, to be more precise). Policymakers widely assume the former are more likely to cause problems for consumers than the latter. However, this distinction increasingly has been challenged by progressive-minded antitrust scholars and enforcers. For instance, in their RFI, the DOJ and FTC ask:

Should the guidelines' traditional distinctions between horizontal and vertical mergers be revisited in light of recent economic trends in the modern economy? What aspects of modern market realities may be lost by focusing on these relationships categorically? Should the guidelines address all mergers in a common framework that covers all market relationships relevant to competition? If so, how?¹⁶²

The agencies' (likely rhetorical) question will not surprise anyone who has followed contemporary policy debates regarding merger enforcement. In recent years, antitrust authorities on both sides of the Atlantic—as well as several high-profile scholars—have put forward theories of harm that obscure the traditional distinctions among horizontal, vertical, and conglomerate mergers. This is epitomized by an alarmist 2020 article by Cristina Caffarra and co-authors which portrays nearly all tech mergers as horizontal, based on the supposition that these firms likely would launch their own competing vertical products absent these acquisitions (although the paper offers no evidence to support this

¹⁶⁰ See generally Nicolai J. Foss & Peter G. Klein, *ORGANIZING ENTREPRENEURIAL JUDGMENT* (2012).

¹⁶¹ See, e.g., J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581 (2009).

¹⁶² Merger Enforcement RFI at 3.

claim).¹⁶³ The implication of this (and other) research is that mergers between firms that are either vertically related or active in unrelated markets nevertheless routinely have significant horizontal effects.¹⁶⁴ This can either be the case when merging firms are *potential* competitors or when they compete in innovation markets (i.e., they have overlapping R&D pipelines, or may have them in the future).¹⁶⁵

I. The ‘horizontalization’ of merger enforcement

These concerns are compounded in the digital economy, where ostensibly non-competing firms may become competitors on one side of their platforms. For instance, it has been argued that Giphy, which offers a library of gif files, may ultimately compete with Facebook in ad markets.¹⁶⁶ Similarly, it has been claimed that Google’s acquisition of Fitbit—a producer of wearable health-monitoring devices—raises horizontal theories of harm, because Google would otherwise have developed its own wearable devices.¹⁶⁷ Such hypotheticals are sometimes deemed to be “reverse killer acquisitions,” on grounds that acquiring a rival enables the incumbent to *not* produce a good itself. Endorsing this approach to merger review wholeheartedly would have profound policy ramifications. Indeed, should authorities assume the counterfactual to a merger is that the acquirer will compete with the target directly, then every merger effectively becomes a horizontal one.

The influence of this research can be seen in the FTC’s ongoing case against Facebook, which centers on the company’s acquisitions of WhatsApp and Instagram.¹⁶⁸ At the time of those mergers, competition authorities around the world tended to analyze them (and the potential theories of harm they might give rise to) primarily as vertical. For instance, looking at Facebook’s purchase of WhatsApp, the European Commission concluded that “while consumer communications apps like Facebook Messenger and WhatsApp offer certain elements which are typical of a social networking service, in particular sharing of messages and photos, there are important differences between

¹⁶³ Cristina Caffarra, Gregory S. Crawford & Tommaso Valletti, “How Tech Rolls”: *Potential Competition and “Reverse” Killer Acquisitions*, ANTITRUST CHRONICLE (May, 26, 2020) (“Large digital platforms in particular have exceptional abilities to pursue organic expansion but also opportunities to ‘roll up’ (willing) startups to ‘get there faster’, ‘buying’ instead of expending effort in rival innovation. Foregoing such effort is never good for consumers and society as a whole: while innovative effort is costly, it will often yield multiple providers and differentiated services, with socially desirable properties.”).

¹⁶⁴ See, e.g., Steven C. Salop, *Potential Competition and Antitrust Analysis: Monopoly Profits Exceed Duopoly Profits*, Working Paper (Apr. 28, 2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3839631. See also C. Scott Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PA. L. REV. 1879 (2019).

¹⁶⁵ See, e.g., Salop, *id.* See also Giulio Federico, Gregor Langus & Tommaso Valletti, *Horizontal Mergers and Product Innovation*, 59 INT’L J. INDUS. ORG. 1 (2018).

¹⁶⁶ CMA, *Completed acquisition by Facebook, Inc (now Meta Platforms, Inc.) of Giphy, Inc., Final Report* (Nov. 30, 2021) at 223 (“We consider this evidence supports the view that GIPHY was an important player in a potentially growing segment of the display advertising market, and as such (taking account of the economic context, in particular the expected closeness of competition between Facebook and GIPHY) an important part of a dynamic competitive process with Facebook and others.”).

¹⁶⁷ See Caffarra et al. *supra* note 163. (“What seems to be more frequent are cases where the acquisition may effectively extinguish the standalone effort of the buyer to expand in a particular space because the target immediately provides it with those capabilities. This covers a broader set of possibilities as platforms continue to expand into adjacent fields by buying functionalities, capabilities, even whole businesses (see the recent example of Google/Fitbit).”).

¹⁶⁸ Complaint, Fed. Trade Comm’n v. Facebook, Inc., No. 1:20-cv-03590 (D.C. Cir. filed Jan. 13, 2021).

WhatsApp and social network services.” This suggested the merging firms were likely active in separate markets.¹⁶⁹ The FTC’s clearance of that deal suggests that the agency largely adhered to the view that the merging entities were not close competitors.¹⁷⁰ Similarly, when the UK CMA reviewed Facebook’s acquisition of Instagram, it concluded that the two firms exercised only weak competitive constraints on each other:

To conclude, there are several relatively strong competitors to Instagram in the supply of camera and photo editing apps, and those competitors appear at present to be a stronger constraint on Instagram than Facebook’s new app.¹⁷¹

Reevaluating these deals almost a decade later, the FTC reached a diametrically opposite conclusion. In its *Facebook* complaint, the agency concluded that:

Failing to compete on business talent, Facebook developed a plan to maintain its dominant position by acquiring companies that could emerge as or aid competitive threats. By buying up these companies, Facebook eliminated the possibility that rivals might harness the power of the mobile internet to challenge Facebook’s dominance....

...As Instagram soared, Facebook’s leaders began to focus on the prospect of acquiring Instagram rather than competing with it....

...In sum, Facebook’s acquisition and control of WhatsApp represents the neutralization of a significant threat to Facebook Blue’s personal social networking monopoly, and the unlawful maintenance of that monopoly by means other than competition on the merits.¹⁷²

While this change of heart could be characterized as the agency updating its position in light of new evidence concerning the nature of competition between the merging firms, there is also a clear sense that times have changed. Indeed, both antitrust agencies and scholars appear more willing to assume (i) that firms could become competitors absent a merger, and (ii) that mergers between them are likely to reflect efforts by the acquirer to anticompetitively maintain its market position. We address both these claims in the subsequent sections.

2. *Potential competition is probabilistic*

One difficulty associated with these “horizontal” cases is that they depend on the hypothetical that a vertically related (or even non-related) firm *could* eventually threaten the acquiring incumbent. In other words, potential competition is probabilistic. This forces agencies to make complex

¹⁶⁹ Case No COMP/M.7217–*Facebook / WhatsApp* (Oct. 3, 2014), at 61.

¹⁷⁰ Jessica L Recih, *Letter Reminding Both Firms That WhatsApp Must Continue To Honor Its Promises To Consumers With Respect to the Limited Nature of the Data It Collects, Maintains, and Shares With Third Parties* (Apr. 10, 2014), available at https://www.ftc.gov/system/files/documents/public_statements/297701/140410facebookwhatapltr.pdf.

¹⁷¹ CMA Case ME/5525/12–*Anticipated acquisition by Facebook Inc of Instagram Inc* (Aug. 22, 2012).

¹⁷² Amended complaint, *Fed. Trade Comm’n v. Facebook, Inc.*, No. 1:20-cv-03590 (D.C. Cir. filed Aug. 19, 2021), available at https://www.ftc.gov/system/files/documents/cases/ecf_75-1_ftc_v_facebook_public_redacted_fac.pdf, at 26-41.

assessments regarding the potential future evolution of competition. The agencies' request for information concedes as much:

How can the guidelines characterize, and perhaps quantify, the importance of a potential competitor to market competition? What sources of evidence are most probative?

In the case of a nascent competitor—a firm that, while small now, might evolve into a competitive force—how should the guidelines assess its potential path of evolution into a plausible competitor? **What degree of probability should serve as sufficient, especially in cases where technology and products evolve rapidly or unpredictably?**¹⁷³

This uncertainty has important ramifications for policymaking. Anticompetitive mergers are, by definition, possible (under the above theories) only when the acquired rival could effectively challenge the incumbent.¹⁷⁴ But these are, of course, only potential challengers; there is no guarantee that any one of them could or would mount a viable competitive threat.¹⁷⁵

A first important consequence is that, while potential competitors are important constraints on existing markets, they do not generally offer the same degree of constraint as actual competitors.¹⁷⁶ As such, any analysis of a merger involving a potential competitor would have to assess and incorporate the probability of competition.¹⁷⁷ High-quality analysis of the effects of potential competition are few and far between but, according to at least one literature review, a potential competitor may have between one-eighth to one-third the effect on competition as an actual competitor.¹⁷⁸ The strength of this competitive constraint also depends on the firms' perceptions: If both the incumbent and the rival heavily discount the probability of entry, then potential competition is unlikely to affect their behavior.¹⁷⁹

This leads to a second important issue. Because the loss of a potential competitor will, in expectation, lead to less harm than that of an actual competitor, it is crucial that agencies tailor their responses accordingly. While the traditional remedies for anticompetitive horizontal mergers include divestments or outright prohibition, these remedies may no longer be appropriate in the face of

¹⁷³ Merger Enforcement RFI at 6.

¹⁷⁴ See generally Salop, *supra* note 162.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ See Dissenting Statement of Commissioner Joshua D. Wright, *In the Matter of Nielsen Holdings N.V. and Arbitron Inc.*, FTC File No. 131-0058 (Sep. 20, 2013), at note 3 (“Nevertheless, competitive effects in actual potential competition cases still are more difficult, on balance, to assess than typical merger cases because the agency must predict whether a party is likely to enter the relevant market absent the merger. It is because of this uncertainty and the potential for conjecture that the courts and agencies have cabined the actual potential competition doctrine by, for instance, applying a heightened standard of proof for showing a firm likely would enter the market absent the merger.”) (citing *B.A.T. Indus.*, 104 F.T.C. 852, 926-28 (1984) (applying a “clear proof” standard)).

¹⁷⁸ See *Mergers That Eliminate Potential Competition*, RESEARCH HANDBOOK ON THE ECONOMICS OF ANTITRUST LAWS 111 (Einer Elhauge, ed. 2012) (“All twelve studies [of airline markets] find that potential competition results in lower prices by incumbent carriers, in ten cases by statistically significant amounts. Except as noted below, the amounts range between one quarter of one percent to about two percent, and in all cases are less than the amount of the price decline from one additional actual competitor, specifically, from one eighth to one third as large.”).

¹⁷⁹ *Id.*

potential competition theories of harm (although such remedies might sometimes remain necessary to fully remove potential anticompetitive harm). Decisionmakers should look at mergers from a cost/benefit standpoint, which, in turn, counsels weighing anticompetitive harms against procompetitive benefits. Because one would expect anticompetitive harms in potential-competition cases to be only a fraction of those in actual-competition cases, there is—all else being equal—a higher likelihood in the former that efficiencies will outweigh harms.

It is not clear how this can be addressed in terms of remedies: neither divestures nor prohibitions can realistically be made probabilistic or conditioned on future market outcomes, as this could easily be gamed by firms. At the very least, this probably means judges should set a high evidentiary bar for claims that a merger will reduce *potential* competition, and agencies should, at the margin, focus more heavily on traditional theories that involve more tangible risks of consumer harm.

This restrained approach to enforcement is—perhaps surprisingly, given the agency’s generally interventionist track record in digital markets—encapsulated by the European Commission’s stance in the *Google /Fitbit* merger, which many sought to frame as a potential competition case. Instead, the commission found that:

As regards Fitbit’s ability to compete in innovation with regard to smartwatches, the Commission notes that [Fitbit’s product strategy], there are also no competitive relationships that would lead to the Transaction reducing Google’s incentives to innovate in the future. Based on the Notifying Party’s submission, the Commission considers that there is no possible market assessed in this Decision where Fitbit is the only or main source of pressure on Google to innovate. For these reasons, the Commission considers that the Transaction would not unduly restrict competition in... innovation as regards the supply of smartwatches. This issue will, therefore, not be further discussed in this Decision.¹⁸⁰

Review of mergers that involve potential competitors require agencies to make speculative assessments as to how competition will likely play out in a given market. Absent the ability to condition remedies on these future evolutions, error-cost considerations will often dictate that authorities clear mergers, despite a limited risk of future competitive harm.¹⁸¹ Failing this, agencies

¹⁸⁰ Case No M.9660—*Google/Fitbit*, C (2020) 9105 final (Dec. 12, 2020), at 398.

¹⁸¹ Geoffrey A. Manne, Sam Bowman & Dirk Auer, *Technology Mergers and the Market for Corporate Control*, 86 MO. L. REV. 1047 (2021). This is because the availability of mergers as an exit strategy have been shown to increase investments by firms. Regarding the effect of mergers on investment, *see, e.g.*, Gordon M. Phillips & Alexei Zhdanov, *Venture Capital Investments and Merger and Acquisition Activity Around the World*, NBER, Working Paper No. 24082 (Nov. 2017), <https://ssrn.com/abstract=3082265> (“We examine the relation between venture capital (VC) investments and mergers and acquisitions (M&A) activity around the world. We find evidence of a strong positive association between VC investments and lagged M&A activity, consistent with the hypothesis that an active M&A market provides viable exit opportunities for VC companies and therefore incentivizes them to engage in more deals.”). And increased M&A activity in the pharmaceutical sector has not led to decreases in product approvals; rather, quite the opposite has happened. *See, e.g.*, Barak Richman, et al., *Pharmaceutical M&A Activity: Effects on Prices, Innovation, and Competition*, 48 Loyola U. Chi. L. J. 787, 799 (2017) (“Our review of data measuring pharmaceutical innovation, however, tells a different story. First, even as merger activity in the United States increased over the past ten years, there has been a steady upward trend of FDA approvals of new molecular entities (“NMEs”) and new biological products (“BLAs”). Hence, the industry has been highly successful in bringing new products to the market.”).

and courts should, at the very least, set a high evidentiary bar for plaintiffs to bring forward such claims, or else numerous mergers will wrongly be prohibited as anticompetitive, to the detriment of consumers.

3. *Multiple potential competitors complicate the profitability of joint duopolies*

The RFI repeatedly requests information that would support the conclusion that the agencies should strengthen merger enforcement, rather than information that might point toward either stronger or weaker enforcement. For example, the RFI asks, “What changes in standards or approaches would appropriately *strengthen* enforcement against mergers that eliminate a potential competitor?”¹⁸² This framing presupposes that enforcement should be strengthened against mergers that eliminate a potential competitor.

But one cannot simply assume that mergers involving potential competitors are harmful. It is becoming a common theory of harm regarding non-horizontal acquisitions that they are, in fact, horizontal acquisitions in disguise. This is a form of the “horizontalization” discussed above. The acquired party may not be a direct competitor today but may become one in the future. Therefore, the theory goes, to reduce the competitive pressure they would otherwise face in the future, the incumbent will acquire a company that does not appear to be a competitor.

This argument to strengthen enforcement against mergers involving potential competitors is intuitive but it involves restrictive assumptions that weaken its applicability. The argument is laid out most completely by Steven Salop in his paper, *Potential Competition and Antitrust Analysis: Monopoly Profits Exceed Duopoly Profits*.¹⁸³ In it, he argues that:

Acquisitions of potential or nascent competitors by a dominant firm raise inherent anticompetitive concerns. By eliminating the procompetitive impact of the entry, an acquisition can allow the dominant firm to continue to exercise monopoly power and earn monopoly profits. The dominant firm also can neutralize the potential innovation competition that the entrant would provide.

Under the model that Salop puts forward, there should, in fact, be a presumption against any acquisition.¹⁸⁴ Given that the RFI appears to share this framing, it is important to examine the model’s assumptions, including that, because monopoly profits exceed duopoly profits, incumbents have an incentive to eliminate potential competition for anticompetitive reasons.

The notion that monopoly profits exceed joint duopoly profits rests upon two restrictive assumptions that hinder the simple application of Salop’s model to antitrust in general and to the merger guidelines, in particular.

¹⁸² Merger Enforcement RFI at 6 (emphasis added).

¹⁸³ See Salop, *supra* note 162.

¹⁸⁴ In this section, we focus on Salop’s comments because they represent a common perspective. As Salop himself points out “I do not think that any of the analysis in the article is new. I expect that all the points have been made elsewhere by others and myself.”

First, even in a simple model, it is not always true that monopolists have both the ability and incentive to eliminate any potential entrant simply because monopoly profits exceed duopoly profits. For the simplest complication, suppose there are two possible entrants, rather than the common assumption of just one entrant at a time. The monopolist must now pay each of the entrants enough to prevent entry. But how much? If the incumbent has already paid one potential entrant not to enter, the second could then enter the market as a duopolist, rather than as one of three oligopolists. Therefore, the incumbent must pay the second entrant an amount sufficient to compensate a duopolist, not their share of a three-firm oligopoly profit. The same is true for buying the first entrant. To remain a monopolist, the incumbent would have to pay each possible competitor duopoly profits.

Because monopoly profits exceed duopoly profits, it is profitable to pay a single entrant half of the duopoly profit to prevent entry. It is not, however, necessarily profitable for the incumbent to pay both potential entrants half of the duopoly profit to avoid entry by either.¹⁸⁵ With enough potential entrants, the monopolist in any market will not want to buy any of them out. In that case, the outcome involves no acquisitions.

If we observe an acquisition in a market with many potential entrants, which any given market may or may not have, there must be another reason for that deal besides monopoly maintenance. The presence of multiple potential entrants overturns the antitrust implications of the truism that monopoly profits exceed duopoly profits. The question turns instead to empirical analysis of the merger and market in question as to whether it would be profitable to acquire *all* potential entrants.

The second simplifying assumption that restricts applicability of Salop's baseline model is that the incumbent has the lowest cost of production. He rules out the possibility of lower-cost entrants in Footnote 2: "Monopoly profits are not always higher. The entrant may have much lower costs or a better or highly differentiated product. But higher monopoly profits are more usually the case." If one allows the possibility that an entrant may have lower costs (even if those lower costs won't be achieved until the future, when the entrant gets to scale), it does not follow that monopoly profits (under the current higher-cost monopolist) necessarily exceed duopoly profits (with a lower-cost producer involved).

One cannot simply assume that all firms have the same costs or that the incumbent is always the lowest-cost producer. This is not just a modeling choice but has implications for how we think about mergers. As Manne, Bowman, and Auer argue:

Although it is convenient in theoretical modeling to assume that similarly situated firms have equivalent capacities to realize profits, in reality firms vary greatly in their capabilities, and their investment and other business decisions are dependent on the firm's managers' expectations about their idiosyncratic abilities to recognize profit

¹⁸⁵ For a simple example, consider a Cournot oligopoly model with an industry inverse demand curve of $P(Q)=1-Q$ and constant marginal costs that are normalized to zero. In a market with N symmetric sellers, each seller earns $\frac{1}{(N+1)^2}$ in profits. A monopolist makes a profit of $1/4$. A duopolist can expect to earn a profit of $1/9$. If there are 3 potential entrants plus the incumbent, the monopolist must pay each the duopoly profit $3 \cdot 1/9 = 1/3$, which exceeds the monopoly profits of $1/4$. In the Nash/Cournot equilibrium, the incumbent will not acquire any of the competitors since it is too costly to keep them all out.

opportunities and take advantage of them—in short, they rest on the firm managers’ ability to be entrepreneurial.¹⁸⁶

Given the assumptions that all firms have identical costs and there is only one potential entrant, Salop’s framework would find that all possible mergers are anticompetitive and that there are no possible efficiency gains from any merger. Since the acquired firm cannot, by assumption, have lower costs of production, it cannot improve the incumbent’s costs of production. But, in fact, whether a merger is efficiency-reducing and bad for competition and consumers needs to be proven, not assumed.

If we take Salop’s acquisition model literally, every industry would have just one firm. Every incumbent would acquire every possible competitor, no matter how small—after all, monopoly profits are higher than duopoly profits, and so the incumbent both wants to and can preserve its monopoly profits. The model gives us no way to disentangle when mergers would stop. The merger, again by assumption, does not affect the production side of the economy but exists only to gain market power to manipulate the price. Since the model offers no downside to the incumbent of acquiring a competitor, it would acquire every last potential competitor, no matter how small, unless prevented by law.

Once we allow for the possibility that firms differ in productivity, however, it is no longer true that monopoly profits are greater than industry duopoly profits. We can see this most clearly in situations where there is “competition for the market” and the market is winner-take-all. If the entrant to such a market has lower costs, the profit under entry (when one firm wins the whole market) can be greater than the original monopoly profits. In such cases, monopoly maintenance alone cannot explain an entrant’s decision to sell. An acquisition could therefore be procompetitive and increase consumer welfare. For example, the acquisition could allow the lower-cost entrant to get to scale quicker. The acquisition of Instagram by Facebook, for example, brought the photo-editing technology that Instagram had developed to a much larger market of Facebook users and provided it with a powerful monetization mechanism that was otherwise unavailable to Instagram.

In short, the notion that incumbents can systematically and profitably maintain their market position by acquiring potential competitors rests on assumptions that, in practice, will regularly and consistently fail to materialize. It is thus improper to assume that most of these acquisitions reflect efforts by an incumbent to anticompetitively maintain its market position.

4. *Horizontal and vertical mergers remain distinct*

The most important difference between a horizontal merger and a vertical merger is the merging parties’ relationships with each other. A *horizontal* merger is between firms that compete in the same product and geographic market. A *vertical* merger is between firms with an upstream-downstream (e.g., seller-buyer) relationship. These distinctions are well-known and widely accepted. There has been no economic trend that would justify a redefinition of these distinctions.

¹⁸⁶ Manne, Bowman & Auer, *supra* note 181, at 1080.

Drawing on an example provided by Steve Salop, consider a hypothetical orange-juice market with firms that manufacture and engage in the wholesale distribution of orange juice, as well as firms that own the orchards that supply the oranges to be juiced.¹⁸⁷ A merger between manufacturer/wholesalers would be a horizontal merger; a manufacturer/wholesaler's purchase of a firm owning orchards would be a vertical merger.

A horizontal merger removes a competing firm from the market and thereby eliminates *substitute* products or firms that produce the products.^{188,189} By definition, horizontal mergers reduce competition, but any consumer harms may be offset by benefits, such as economies of scale and other efficiencies.¹⁹⁰

In contrast, in most cases, a vertical merger does not eliminate a competing firm from the market and does not involve substitutes.¹⁹¹ In fact, vertical mergers often involve *complements*, such as a product plus distribution or a critical input to a complex device.¹⁹² In Salop's orange-juice hypothetical, the manufacturer juices oranges, cans the juice, and operates a wholesaling operation to sell the canned juice to retailers. In this example, the wholesaling operations is a complement to the manufacturing process.

Although not necessarily "by definition," in most cases, vertical mergers are undertaken to achieve efficiencies and reduce costs. For example, through the elimination of double marginalization and the resulting downward pressure on prices, vertical mergers present a stronger likelihood of improving competition than horizontal mergers.¹⁹³

In a statement during the 2018 FTC hearings, FTC Commissioner Christine Wilson concluded that "we know that competitive harm is less likely to occur in a vertical merger than in a horizontal one," and echoed some of Hoffman's points:¹⁹⁴

[I]n contrast to horizontal guidelines, the economics in vertical mergers indicate efficiencies are much more likely. Professor Shapiro went so far as to call them "inherently" likely at our hearing. Given this dynamic, it may be appropriate to presume

¹⁸⁷ Steven C. Salop, *A Suggested Revision of the 2020 Vertical Merger Guidelines*, Georgetown Law Faculty Publications and Other Works No. 2381 (Dec. 2021), <https://scholarship.law.georgetown.edu/facpub/2381>.

¹⁸⁸ D. Bruce Hoffman, Acting Dir., Bureau of Competition, Fed. Trade Comm'n, *Remarks at the Credit Suisse 2018 Washington Perspectives Conference: Vertical Merger Enforcement at the FTC 4* (Jan. 10, 2018), available at https://www.ftc.gov/system/files/documents/public_statements/1304213/hoffman_vertical_merger_speech_final.pdf.

¹⁸⁹ Although in some cases, such as a failing firm, the competing firm may have exited the market even if the merger did not occur.

¹⁹⁰ Hoffman, *supra* note 188.

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ Christine S. Wilson, Comm'r, Fed. Trade Comm'n, *Keynote Address at the GCR Live 8th Annual Antitrust Law Leaders Forum: Vertical Merger Policy: What Do We Know and Where Do We Go?* (Feb. 1, 2019) at 4 & 9, available at https://www.ftc.gov/system/files/documents/public_statements/1455670/wilson_-_vertical_merger_speech_at_gcr_2-1-19.pdf.

that certain vertical efficiencies are verifiable and substantial in the absence of strong evidence to the contrary, even if we would not do so in a horizontal merger case.¹⁹⁵

The economics of horizontal mergers comprises a long, well-established literature of theoretical models and empirical research. In contrast, there are fewer quantitative theoretical models that can be used to predict outcomes in vertical mergers. Moreover, those models that do exist have a far shorter track record than those used to assess horizontal mergers.¹⁹⁶

Naturally, the real world is much more complicated. For example, Salop points out that some mergers involve firms that are already vertically integrated prior to the merger.¹⁹⁷ In these cases, the merger would involve both vertical and horizontal elements. Such mergers may lead to horizontal and vertical efficiencies that reinforce each other. They also may lead to horizontal and vertical harms that reinforce each other. Or they may lead to mix of horizontal and vertical efficiencies and harms that counteract each other. That may explain why empirical research on vertical mergers, discussed below, can yield sometimes wildly different results—even when using seemingly similar sets of data.

To be sure, there are no economic trends that would lead one to revisit the distinction between horizontal and vertical mergers. Nevertheless, there have been advances in economic theory that have led some to conclude that vertical mergers may not be as beneficial as once thought or that they may lead to anticompetitive consumer harm.

Some critics of the current state of vertical-merger enforcement assert a vertical merger can effectively become a horizontal merger—or have horizontal effects. If that is the case, then it is argued that vertical mergers should be evaluated in the same way as horizontal mergers. According to Salop, “[f]or the type of markets that are normally analyzed in antitrust, *the competitive harms from vertical mergers are just as intrinsic as are harms from horizontal mergers.*”¹⁹⁸ Thus, a vertically integrated firm faces an “intrinsic incentive”¹⁹⁹ to foreclose downstream competition “by raising the input price it charges to the rivals of its downstream merger partner” in the same way that horizontal firms face “inherent upward pricing pressure from horizontal mergers in differentiated products markets, *even without coordination.*”²⁰⁰

In an implicit acknowledgement of the distinction between horizontal and vertical mergers, Salop describes the competition between an upstream firm and a downstream partner as *indirect*: “the

¹⁹⁵ *Id.*

¹⁹⁶ Hoffman, *supra* note 188.

¹⁹⁷ Salop, *supra* note 187.

¹⁹⁸ *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*, Presentation Slides at 15 (Nov. 1, 2018), available at https://www.ftc.gov/system/files/documents/public_events/1415284/ftc_hearings_5_georgetown_slides.pdf [hereinafter “Salop, Vertical Merger Slides”] (emphasis added). See also Serge Moresi & Steven C. Salop, *When Vertical is Horizontal: How Vertical Mergers Lead to Increases in “Effective Concentration,”* 59 R. IND. ORG. 177 (2021) (“there is an inherent loss of an indirect competitor that supported the non-merging competitors in the pre-merger world, which leads to reduced competition when there is an input foreclosure concern”).

¹⁹⁹ *Id.* (emphasis added).

²⁰⁰ *Id.* (emphasis added).

upstream merging firm that supplies a downstream firm is inherently an ‘*indirect competitor*’ of the future downstream merging firm. That indirect competition is eliminated by merger. This unilateral effect is exactly parallel to the unilateral effect from a horizontal merger.”²⁰¹

But the two are not “exactly parallel,” of course, because indirect competition is not the same as direct competition—Salop himself make the distinction. Even in Salop’s telling, the mechanism by which his vertical-leads-to-horizontal theory operates requires that (1) the upstream firm has market power and (2) post-merger, the merged firm forecloses supply or raises costs to the downstream firm’s horizontal rivals. While this is possible, it is not guaranteed and, at the very least, would have to be conditioned by the estimated likelihood of it actually occurring. The presence of downstream horizontal competitors operates as an immediate and present constraint on the vertically integrated merged firm.

It may be helpful to explain using Salop’s orange-juice hypothetical:

Company A is a manufacturer and wholesale supplier of orange juice to retailers. It seeks to acquire Company B, an owner of orange orchards.... The merged firm may find it profitable to raise the price or cease supplying oranges to one or more rival orange juice suppliers.... This input foreclosure may lessen competition in the wholesale orange juice market, for example, by raising the price or reducing the quality of some or all types of orange juice.²⁰²

This is an excellent example because it highlights how complex even a straightforward hypothetical of raising rivals’ costs can get. Under the standard formulation, the vertically integrated firm would produce oranges at the orchard’s marginal cost—in theory, the price it pays for oranges would be the same both pre- and post-merger. Under this theory, if the vertically integrated orchard does not sell its oranges to the non-integrated manufacturer/wholesalers, then the other non-vertically integrated orchards will be able to charge a price greater than their marginal cost of production and greater than the pre-merger market price for oranges. The higher price of oranges used by non-integrated manufacturer/wholesalers will then be reflected in higher prices for orange juice sold by the manufacturer/wholesalers.

The merged firm’s juice prices will be higher post-merger because its unintegrated rivals’ juice prices will be higher, thus increasing the merged firm’s profits. The merged firm and unintegrated orchards would be the “winners;” unintegrated manufacturer/wholesalers and consumers would be the “losers.” Under a consumer welfare standard, the result could be deemed anticompetitive. Under a total welfare standard, anything goes.

But this classic example of raising rivals’ costs is based on some strong assumptions. It assumes that, pre-merger, all upstream firms price at marginal cost, which means there is no double marginalization. It assumes all the upstream firm’s products are perfectly identical. It assumes unintegrated firms don’t respond by integrating themselves. If one or more of these assumptions is

²⁰¹ *Id.* (emphasis added).

²⁰² Salop, *supra* note 187.

not correct, more complex models—with additional (potentially unprovable) assumptions—must be employed. What begins as a seemingly straightforward theoretical example is now a battle of which economic models best fit the facts and best predict the likely outcome.

In Salop’s example, it is assumed the merged firm would raise the price or refuse to sell oranges to rival downstream wholesalers. However, if rival orchards charge a sufficiently high price, the merged firm would profit from undercutting its rivals’ orange prices, while still charging a price greater than its own marginal cost. Thus, it is not obvious that the merged firm has an incentive to cut off supply to downstream competitors or charge a higher price. The extent of the pricing pressure on the merged firm to cheat on itself is an empirical matter that depends on how upstream and downstream firms will or might react. Depending on how other manufacturer/wholesalers and orchard firms react, the merged firm’s attempt at foreclosure may have no effect and there would be no harm to competition.

The hypothetical assumes that commercial juicing is the only use for oranges and that juice oranges are the only thing that can be produced by citrus groves. It is possible that, rather than raising prices or foreclosing competitors, the merged firm would divert some or all of its juice oranges to a “secondary” market, such as the retail market for those who juice at home. They also could convert groves used to grow juice oranges to the production of strains of oranges and other citrus fruits that are sold as fresh produce. Indeed, fresh citrus fruits currently account for 10% of Florida’s crop and 75% of California’s.²⁰³ This diversion would lead to a decline in the supply of juice oranges and the price of this key input would rise.

This strategy would raise the merged firm’s costs along with its rivals. Moreover, rival orchards can respond to this strategy by diverting their own groves from the production of fresh produce citrus to the juice market, in which case there may be no significant effect on the price of juice oranges. What begins as a seemingly straightforward theoretical example is now a complicated empirical matter and raises the antitrust question of whether selling into a “secondary” market constitutes anticompetitive conduct.

Moreover, the merged firm may have legitimate business reasons for the merger and legitimate business reasons for reducing the supply of oranges to juice wholesalers. For example, “citrus greening,” an incurable bacterial disease, has caused severe damage to Florida’s citrus industry, significantly reducing crop yields.²⁰⁴ A vertical merger could be one way to reduce supply risks. On the demand side, an increase in the demand for fresh oranges would guide firms to shift from juice and processed markets to the fresh market. What some would see as anticompetitive conduct, others would see as a natural and expected response to price signals.

²⁰³ USDA, *Citrus Fruits 2021 Summary* (Sep. 2021), available at <https://downloads.usda.library.cornell.edu/usda-esmis/files/j9602060k/kp78hg05n/1544cn77s/cfrr0921.pdf>.

²⁰⁴ Chad Miles, *After Troubling New Forecast, Florida Citrus Advocate Says Industry Is “At A Crossroads,”* WFTS (Jan. 24, 2022), <https://www.abcactionnews.com/news/region-polk/after-troubling-new-forecast-florida-citrus-advocate-says-industry-is-at-a-crossroads>.

Furthermore, it is not actually the case that the incentive to foreclose downstream rivals is “intrinsic,” nor is it the case that the effect is necessarily deleterious.²⁰⁵ In fact, as we discuss below, even when foreclosure can be shown, empirical evidence indicates that the consumer benefits from efficiencies are greater than the harms from foreclosure.

Salop notes that, in some cases, one or both merging firms may be *potential* entrants or may be *potential* sponsors of entry by third parties into the other merging firm’s market. In these cases, it is argued, such mergers can be characterized as horizontal as well as vertical.²⁰⁶

To be fair, if a pre-merger upstream firm *could* merge with a rival instead of the target firm, or *could* facilitate entry by a new downstream rival, then it *could* also operate as a constraint on the merging firm. And, indeed, potential competitors are important constraints on existing market actors. But by definition, they do not offer the *same degree* of constraint as actual existing competitors. Rather, any analysis of their competitive effect would have to incorporate the *probability* of entry. Moreover, such analysis would have to differentiate between entry deterred because of *increased* competition and entry deterred because of *anticompetitive* foreclosure.²⁰⁷

High-quality analysis of the effects of potential competition are few and far between. But according to several studies, a potential competitor may have on the order of 0.25% to 2% the effect on competition as an actual competitor.²⁰⁸

A key difference between horizontal and vertical mergers is that any efficiency gains from a horizontal merger are not automatic and must be established. On the other hand, the realization of vertical-merger efficiencies, at least from the elimination of double marginalization, is automatic.²⁰⁹

²⁰⁵ James C. Cooper, et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT’L. J. INDUS. ORG. 639, 643 (2005) (“However, there is no general incentive to raise rivals’ costs, and even when it is privately profitable to do so, the attendant welfare consequences may be positive. If the cost raising strategy is profitable, it may lead to an increase or decrease in price. This is because the dominant firm may expand output enough to offset the contraction in the output of the fringe. If the strategy leads to an increase in price, total welfare still may rise if the dominant firm is more efficient than the fringe firms, as the shift in output from the fringe to the dominant firm can increase productive efficiency.”).

²⁰⁶ Salop, *supra* note 187.

²⁰⁷ See, Cooper, et al., *supra* note 205, at 647 (“Many models of vertical practices find that competitors are excluded precisely because the practices in question intensify competition. Antitrust policymakers tempted to draw policy inferences from these analyses always must bear in mind that harm to competitors. . . is not the same as harm to competition. Instead, harm to competitors is often—indeed, usually—consistent with enhanced competition.”).

²⁰⁸ See John Kwoka, *Mergers That Eliminate Potential Competition*, in RESEARCH HANDBOOK ON THE ECONOMICS OF ANTITRUST LAWS (Einer Elhauge ed., 2012) (“All twelve studies [of airline markets] find that potential competition results in lower prices by incumbent carriers, in ten cases by statistically significant amounts. Except as noted below, the amounts range between one quarter of one percent to about two percent, and in all cases are less than the amount of the price decline from one additional actual competitor, specifically, from one eighth to one third as large.”).

²⁰⁹ David Reiffen & Michael Vita, *Comment: Is There New Thinking on Vertical Mergers?* 63 ANTITRUST L. J. 917, 920 (1995) (“Some horizontal mergers do not create efficiencies; they are profitable only because of the post-merger anticompetitive conduct made possible by the transaction. By contrast, the primary lesson of both the older literature on vertical integration, as well as the newer ‘post-Chicago’ literature, is that this trade-off invariably exists for all vertical transactions that threaten to reduce consumer welfare.”). See also Joseph J. Spengler, *Vertical Integration and Antitrust Policy*, 58 J. POL. ECON. 347 (1950); Robert H. Bork, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* 219 (1978); Richard A. Posner, *ANTITRUST LAW* 228 (1976).

The logic is simple: Potentially welfare-reducing vertical mergers are those that involve an upstream firm with market power. Thus, pre-merger, all downstream firms bear presumptively higher input costs. In order to realize their own profits, they must increase final-product prices to consumers by even more.²¹⁰ But after the merger, the merged downstream entity no longer pays the markup. As a result, it “enjoys lower input costs and thus increases its output, thereby increasing welfare.”²¹¹ At the same time, of course, non-merged downstream firms bear a higher input price, and it is an empirical question whether the net consumer welfare effect will be positive or negative. But it is *never* a question that the two effects operate simultaneously, and that the reduction of double marginalization necessarily occurs. Indeed, it is most likely to arise *and* to lead to net consumer-welfare benefits precisely where there is the greatest potential for anticompetitive price increases to downstream rivals.²¹²

All else being equal, the effect of removing a horizontal competitor by merger is automatic: less competition. That isn’t necessarily bad. It may be compensated for and it may also enable innovation, more competition, or other results that benefit consumers. But in the first instance, former head-to-head competitors that merge are no longer competing. With vertical mergers, however, the effect is not to *automatically* reduce competition (indirect, potential, or otherwise). A vertically integrated firm might choose to hurt unaffiliated downstream competitors by more than it benefits its integrated downstream firm, but nothing is automatic. Assessing the competitive effect of such a merger necessarily means incorporating an added layer of uncertainty, complexity, and distance between cause and effect. In the absence of a few particular, tenuous, and stylized circumstances, “[i]n this model, vertical integration is unambiguously good for consumers.”²¹³

In response, proponents of invigorated vertical-merger enforcement argue, in part, that:

[T]he claim that vertical mergers are inherently unlikely to raise horizontal concerns fails to recognize that all theories of harm from vertical mergers posit a horizontal interaction that is the ultimate source of harm. Vertical mergers create an inherent exclusionary *incentive* as well as the *potential* for coordinated effects similar to those that occur in horizontal mergers.²¹⁴

But this fails to resolve anything. Moreover, the “analogy with horizontal mergers is misleading.”²¹⁵ It is uncontroversial (and far from “[un]recognized”) that “all theories of harm from vertical mergers

²¹⁰ See, e.g., Michael A. Salinger, *Vertical Mergers and Market Foreclosure*, 103 Q.J. ECON. 345 (1988).

²¹¹ Reiffen & Vita, *supra* note 209, at 921.

²¹² *Id.* (“High price-cost margins increase the size of gain to the integrated firm as well as the potential for anticompetitive input price increases.... [And] the post-Chicago literature suggests that vertical mergers that occur in the presence of high premerger concentration are likely to result in lower prices to consumers.”).

²¹³ Cooper, et al., *supra* note 205, at 645.

²¹⁴ Jonathan B. Baker, Nancy L. Rose, Steven C. Salop, and Fiona Scott Morton, *Five Principles for Vertical Merger Enforcement Policy*, Georgetown Law Faculty Pub. and Other Works, Working Paper No. 2148 (2019), at 8 <https://scholarship.law.georgetown.edu/facpub/2148> (emphasis added).

²¹⁵ Reiffen & Vita, *supra* note 209, at 920.

posit a horizontal interaction that is the ultimate source of harm.”²¹⁶ All this says is that there could be harm of the sort that horizontal mergers might cause. But it does not acknowledge that the likelihood and extent of that harm are different in the vertical and horizontal contexts. Moreover, it does not note that the *mechanism* by which harm might arise is different and more complex in the vertical case. All in all, the probability of that outcome is lower in the case of a vertical merger, where it is dependent on an additional step that may or may not arrive and that may or may not cause harm.

5. *Vertical mergers are still generally procompetitive*

Critics of the “Chicago school orthodoxy” on vertical mergers pay special attention to “oligopoly” markets,²¹⁷ contending that “[a] stronger overarching procompetitive presumption for vertical mergers does not make sense in oligopoly markets where vertical merger enforcement would be focused.”²¹⁸ But the critics are simply wrong that the empirical evidence supports greater condemnation of vertical mergers, even in oligopoly markets. At best, the evidence from oligopoly markets is mixed. Rather than a rush to condemnation, there is a need for further research before adopting any new policies based on such ambivalent (at best) evidence.

Emerging criticisms of the so-called “orthodoxy” must either ignore or dismiss the hundreds of econometric studies famously reviewed by Lafontaine and Slade.²¹⁹ Indeed, this longstanding work is criticized by some as irrelevant or insufficient.²²⁰ But the reality is that these studies constitute the overwhelming majority of the evidence we have; many, if not most, of the studies are well-done, even by modern standards.²²¹ The upshot of these studies, as Lafontaine and Slade put it, is that:

²¹⁶ See, e.g., Cooper, et al., *supra* note 205, at 642-45 (assessing the vast majority of post-Chicago theories of vertical harm under the heading “softening horizontal competition”).

²¹⁷ See Baker, et al., *supra* note 214, at 13 (“[Treating vertical mergers more permissively than horizontal mergers, even in concentrated markets] would be tantamount to presuming that vertical mergers benefit competition regardless of market structure. However, such a presumption is not warranted for vertical mergers in the oligopoly markets that typically prompt enforcement agency review.”); *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*; FTC Transcript 164 (Nov. 1, 2018) [hereinafter “FTC Hearing #5”] at 14-15 (statement of Steven Salop, Professor, Georgetown University Law Center). See also Cooper, et al., *supra* note 205, at 643-48 (discussing such “post-Chicago” scholarship).

²¹⁸ Salop, *Vertical Merger Slides*, *supra* note 198, at 14.

²¹⁹ See Lafontaine & Slade, *supra* note 70. See also Cooper, et al., *supra* note 205; Daniel O’Brien, *The Antitrust Treatment of Vertical Restraint: Beyond the Possibility Theorems*, in REPORT: THE PROS AND CONS OF VERTICAL RESTRAINTS 22, 36 (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.”).

²²⁰ See, e.g., Salop, *Vertical Merger Slides*, *supra* note 198, at 17 (dismissing Lafontaine & Slade and attempting to adduce a few newer studies as contradictory and dispositive).

²²¹ It is fair to point out that, indeed, many of the studies look at the effects of vertical restraints rather than vertical mergers, *per se*. But such studies remain instructive, given that the theories of harm arising from vertical mergers arise from precisely the sorts of conduct at issue in these studies. If perfect alignment of facts were required, no economic theory or evidence would *ever* be relevant.

[C]onsistent with the large set of efficiency motives for vertical mergers that we have described so far, the evidence on the consequences of vertical mergers suggests that consumers mostly benefit from mergers that firms undertake voluntarily.²²²

Francine Lafontaine, while acknowledging the limitations of some of the evidence used for these studies, recently reiterated the relevance of the studies to vertical mergers, and restated the overall conclusions of the literature:

We were clear that some of the early empirical evidence is less than ideal, in terms of data and methods.

But we summarized by saying that 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.²²³

Margaret Slade reiterated this same conclusion in June 2019 at the OECD, where she noted that, even in light of further studies, “[t]he empirical evidence leads one to conclude that most vertical mergers are efficient.”²²⁴ Moreover, as Slade noted, forecasting likely effects from vertical mergers using more modern tools—such as assessment of vertical upward pricing pressure—is a fraught and unreliable endeavor.²²⁵

Nonetheless, critics forward the claim that many *newer* studies demonstrate harm from vertical mergers. The implication is that the balance of evidence taken from these studies tips the scales against a presumption of benefits from vertical mergers:

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.²²⁶

The implication is that the balance of evidence taken from these studies tips the scales against a presumption of benefits from vertical mergers. Yet the newer literature is no different than the old in finding widely procompetitive results overall, intermixed with relatively few seemingly harmful results. As scholars at the Global Antitrust Institute at George Mason Law School have noted in a thorough canvassing of the more-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

²²² Lafontaine & Slade, *supra* note 70, at 663.

²²³ *FTC Hearing #5* (statement of Francine Lafontaine, Professor, Michigan-Ross), *supra* note 217, at 93.

²²⁴ Margaret E. Slade, *Vertical Integration and Mergers: Empirical Evidence and Evaluation Methods*, OECD (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).

²²⁵ *Id.* at 10-12.

²²⁶ Baker, et al., *supra* note 214, at 11.

vertical integration. While vertical integration can certainly foreclose rivals in theory, there is only limited empirical evidence supporting that finding in real markets.²²⁷

Below, we briefly review the actual results of several of these recent studies—including, in particular, studies that were referenced at the recent 2018 FTC hearings to support claims that the “econometric evidence does not support a stronger procompetitive presumption.”²²⁸

Fernando Luco and Guillermo Marshall examined Coca-Cola and PepsiCo’s acquisitions of some of their downstream bottlers.²²⁹ At the time, Dr Pepper Snapple Group remained independent in selling inputs to bottlers. Bottlers, even those that are vertically integrated with one of their upstream suppliers, purchased inputs from competing upstream suppliers. Based on their statistical analysis, the authors conclude that vertical integration in the carbonated-beverage industry was associated with price increases for Dr Pepper Snapple Group products and price decreases for both Coca-Cola and PepsiCo products bottled by vertically integrated bottlers. However, the market share of the products associated with higher prices was no more than 2%. Thus, the authors conclude: “vertical integration did not have a significant effect on quantity-weighted prices when considering the full set of products.”²³⁰ Overall, the effect on consumers was either an efficiency *gain* or no change. As Francine Lafontaine notes, “in total, consumers were better off given who was consuming how much of what.”²³¹

Justine Hastings and Richard Gilbert conclude that vertical integration is associated with statistically significant higher wholesale gasoline prices.²³² Using data from 1996-1998, their study examined the wholesale prices charged by a vertically integrated refiner/retailer and found the firm charged higher wholesale prices in cities where its retail outlets competed more with independent gas stations. Hastings and Gilbert conclude that their observations are consistent with a theory of raising rivals’ costs.²³³

In subsequent research, Christopher Taylor, Nicolas Kreisle, and Paul Zimmerman examine retail gasoline prices following the 1997 acquisition of an independent gasoline retailer by a vertically integrated refiner/retailer.²³⁴ They estimate the merger was associated with a price increase of 0.4 to 1.0 cents per-gallon—about 1% or less—and was economically insignificant.²³⁵ These results were at

²²⁷ Global Antitrust Institute, *Comment at the Fed. Trade Comm’n Hearings on Competition and Consumer Protection in the 21st Century, The Consumer Welfare Standard in Antitrust Law* (Sep. 7, 2018).

²²⁸ Salop, *Vertical Merger Slides*, *supra* note 198, at 25. For a more comprehensive assessment of the recent empirical scholarship (finding the same overall results that we do), see *id.*

²²⁹ Fernando Luco & Guillermo Marshall, *Vertical Integration with Multiproduct Firms: When Eliminating Double Marginalization May Hurt Consumers* (Jan. 15, 2018), <https://ssrn.com/abstract=3110038>.

²³⁰ *Id.* at 22.

²³¹ *FTC Hearing #5* (statement of Francine Lafontaine, Professor, Michigan-Ross), *supra* note 217, at 88.

²³² Justine S. Hastings & Richard J. Gilbert, *Market Power, Vertical Integration, and the Wholesale Price of Gasoline*, 33 J. INDUS. ECON. 469 (2005).

²³³ *Id.* at 471.

²³⁴ Christopher T. Taylor, Nicolas M. Kreisle, & Paul R. Zimmerman, *Vertical Relationships and Competition in Retail Gasoline Markets: Empirical Evidence from Contract Changes in Southern California: Comment*, 100 AM. ECON. REV. 1269 (2010).

²³⁵ *Id.* at 1272-76.

odds with Hastings' earlier review of the same merger, which concluded that the replacement of independent retailers with branded vertically integrated retailers would result in higher prices.²³⁶

To explain the conflicting results between Hastings and Taylor et al., Hastings²³⁷ highlights the challenges of evaluating vertical mergers with incomplete data or using different sets of data—even seemingly similar data can yield wildly different results. Because of the wide range of reported results and their sensitivity to the data used, caution should be exercised before inferring any general conclusions from this line of research.

Other commonly cited studies for the proposition that the more-recent evidence on vertical mergers shows a greater likelihood of harm fare no better.

Gregory Crawford, Robin Lee, Michael Whinston, and Ali Yurukoglu examine vertical mergers between cable-programming distributors (MVPDs) and regional sports networks (RSNs).²³⁸ Margaret Slade characterizes the findings of the paper as “mixed,” in that integration can be associated with both beneficial and harmful effects.²³⁹ In a purely semantic sense, that is an accurate characterization. But the overall results in Crawford et al. overwhelmingly find procompetitive consumer-welfare effects:

In counterfactual simulations that enforce program access rules, we find that vertical integration leads to significant gains in both consumer and aggregate welfare... Averaging results across channels, we find that integration of a single RSN with effective program access rules in place would reduce average cable prices by 1.2% (\$0.67) per subscriber per month in markets served by the RSN, and increase overall carriage of the RSN by 9.4%. **Combined, these effects would yield, on average, a \$0.43 increase in total welfare per household from all television services, representing approximately 17% of the average consumer willingness to pay for a single RSN. We also predict that consumer welfare would increase....**

...On net, we find that the overall effect of vertical integration in the absence of effective program access rules—allowing for both efficiency and foreclosure incentives—is to increase consumer and total welfare on average, resulting in (statistically significant) gains of approximately \$0.38–0.39 per household per month, representing 15–16% of the average consumer willingness to pay for an RSN....²⁴⁰

²³⁶ Justine Hastings, *Vertical Relationships and Competition in Retail Gasoline Markets: Empirical Evidence from Contract Changes in Southern California*, 94 AM. ECON. REV. 317 (2004).

²³⁷ Justine Hastings, *Vertical Relationships and Competition in Retail Gasoline Markets: Empirical Evidence from Contract Changes in Southern California: Reply*, 100 AM. ECON. REV. 1227 (2010).

²³⁸ Gregory S. Crawford, Robin S. Lee, Michael D. Whinston, & Ali Yurukoglu, *The Welfare Effects of Vertical Integration in Multichannel Television Markets*, 86 ECONOMETRICA 891 (2018).

²³⁹ Slade, *supra*, note 224, at 6.

²⁴⁰ Crawford, et al, *supra* note 238, at 893-94 (emphasis added).

The implications of this well-designed and carefully executed study are clear. Indeed, Harvard economist Robin Lee, one of the study's authors, concluded that the findings demonstrate that the consumer benefits of efficiency gains outweighed any harms from foreclosure.²⁴¹

Ayako Suzuki reviewed the vertical merger between Time Warner and Turner Broadcasting in programming and distribution in the cable-television market.²⁴² The paper examined the merger's effects on foreclosure, per-channel prices, basic-bundle product mix, and basic-bundle penetration.

The author found foreclosure following the merger in Time Warner markets for those rival channels that were not integrated with any cable distributors. After the merger, two independent channels, the Disney Channel and the Fox News Channel, were foreclosed from Time Warner markets. The paper notes that prior to the merger, two Turner channels (TBS and TCM) were foreclosed by Time Warner, but the foreclosure was ended after the merger: "Turner suffered from the low market shares of TBS and TCM in Time Warner markets, therefore it integrated itself with Time Warner in order to recover their market shares."²⁴³

Suzuki concludes that per-channel prices decreased more in Time Warner markets than they would have in the absence of the merger.²⁴⁴ The paper suggests transaction-cost efficiencies lowered the implicit cost to the channels' distributor, causing input prices to shift downward, and in turn resulted in reduced cable prices to consumers.²⁴⁵

6. *AT&T/Time Warner highlights the distinctions between horizontal and vertical mergers*

The 2018 AT&T/Time Warner merger case was the first vertical merger in decades to be litigated by U.S. antitrust agencies. The merger itself is widely considered a commercial failure; in 2021, AT&T announced it would unwind the merger. The U.S. Justice Department's challenge to the merger is also considered (though less widely) to have been a failure, both in its approach and the result. Judge Leon of the U.S. District Court in Washington said the DOJ had not proved that AT&T's acquisition of Time Warner would lead to fewer choices for consumers and higher prices for television and internet services.

²⁴¹ *Competition and Consumer Protection in the 21st Century: FTC Hearing #3: Multi-sided Platforms, Labor Markets, and Potential Competition*; FTC Transcript 101 (Oct. 17, 2018) (statement of Robin Lee, Professor, Harvard University), available at https://www.ftc.gov/system/files/documents/public_events/1413712/ftc_hearings_session_3_transcript_day_3_10-17-18_0.pdf. ("[O]ur key findings are that, on average, across channels and simulations, there is a net consumer welfare gain from integration. Don't get me wrong, there are significant foreclosure effects, and rival distributors are harmed, but these negative effects are oftentimes offset by sizeable efficiency gains. Of course, this is an average. It masks considerable heterogeneity. When complete exclusion occurs, which happens both in our simulations and in the data some of the times, consumer welfare is actually harmed.")

²⁴² Ayako Suzuki, *Market Foreclosure and Vertical Merger: A Case Study of the Vertical Merger Between Turner Broadcasting and Time Warner*, 27 INT'L J. OF INDUS. ORG. 532 (2009).

²⁴³ *Id.* at 542.

²⁴⁴ *Id.*

²⁴⁵ *Id.*

The AT&T/Time Warner merger was about as close to a “pure” vertical merger as one can get in today’s economy. There was virtually no overlap in services provided by Time Warner (content creation and broadcasting) and AT&T (content distribution). We say “virtually” no overlap because, through its ownership of DirecTV, AT&T had an ownership stake in several channels, such as the Game Show Network, the MLB Network, and Root Sports.

The DOJ’s approach to trying the case demonstrates a fundamental difference between evaluating horizontal and vertical mergers. With the AT&T/Time Warner merger, rather than present a prima facie case and rely on the defendants to produce evidence of countervailing efficiencies—as in a typical horizontal-merger challenge—the government’s case conceded efficiencies from the outset. In effect, the government began with the presumption that the merger was procompetitive, but then offered its *own* rebuttal that the inefficiencies *outweighed* the presumed efficiencies. It was, effectively, an *inefficiencies* argument.

Toward that end, the DOJ, through its economic expert, Berkeley professor Carl Shapiro, argued that the merger would harm consumers and competition in three ways:

1. **Raising rivals’ costs.** AT&T would raise the price of content to other cable companies, driving up their costs, which would be passed on to consumers.
2. **Threats of foreclosure leading to differential-bargaining power.** Across more than 1,000 subscription-television markets, AT&T could benefit by drawing customers away from rival content distributors in the event of a “blackout,” in which the distributor chooses not to carry Time Warner content over a pricing dispute. In addition, AT&T could use its control over Time Warner content to retain customers by discouraging consumers from switching to providers that don’t carry the Time Warner content. Those two factors, according to Shapiro, could cause rival cable companies to lose between 9% and 14% of their subscribers over the long term.
3. **Downstream coordinated effects.** AT&T and competitor Comcast could coordinate to restrict access to popular Time Warner and NBC content in ways that could stifle competition from online-cable alternatives, such as Dish Network’s Sling TV or Sony’s PlayStation Vue. Even tacit coordination of this type would impair consumer choices, Shapiro opined.

The district court concluded that the government did not meet its burden to demonstrate that the asserted inefficiencies *outweighed* the presumed efficiencies.

To sum up, the Court accepts that vertical mergers “are not invariably innocuous,” but instead can generate competitive harm “[i]n certain circumstances.” The case at hand therefore turns on whether, notwithstanding the proposed merger’s conceded procompetitive effects, the Government has met its burden of proof of establishing, through “case-specific evidence,” that the merger of AT&T and Time Warner, at this time and in this remarkably dynamic industry, is likely to substantially lessen competition in the manner it predicts. Unfortunately for the Government. . . , it did not meet its burden.²⁴⁶

²⁴⁶ *United States v. AT&T Inc.*, 310 F. Supp. 3d 161, 194 (D.D.C. 2018).

In reviewing the district court decision, the U.S. Circuit Court of Appeals for the D.C. Circuit both recognized the court's acceptance of presumed efficiencies and ruled specifically that this was not error:

[T]he district court viewed the outcome of the litigation to “turn[] on whether, notwithstanding the proposed merger’s conceded procompetitive effects, the [g]overnment has met its burden of establishing, through ‘case-specific evidence,’ that the merger of AT&T and Time Warner, at this time and in this remarkably dynamic industry, is likely to substantially lessen competition in the manner it predicts.”

Several amici urge this court to speak definitively on the proper legal standard for evaluating vertical mergers.... But there is no need to opine on the proper legal standards for evaluating vertical mergers because, on appeal, neither party challenges the legal standards the district court applied, and no error is apparent in the district court’s choices.²⁴⁷

Neither Judge Leon nor the DOJ—nor even the D.C. Circuit—adopted Salop’s vertical-leads-to-horizontal approach to vertical mergers. Indeed, here’s what the D.C. Circuit said:

[T]he district court found that the quantitative model as presented through Professor Shapiro’s opinion testimony did not provide an adequate basis to conclude that the merger will lead to “any” raised costs for distributors or consumers, “much less consumer harms that outweigh the conceded \$350 million in annual cost savings to AT&T’s customers....”

...It is true that the district court misstated that the government had not proven that any price increases would “outweigh the conceded \$350 million in annual cost saving to AT&T’s customers.” The \$352 million [] was not cost savings to consumers but to AT&T. *But the district court did not weigh increased prices for consumers against cost savings for consumers, and instead found that the government had not shown at the first level that the merger was likely to lead to any price increases for consumers because of the failure to show that costs for rival MVPDs would increase as a result of Turner Broadcasting’s increased leverage in affiliate negotiations after the merger.* Counsel for the government and AT&T agree the error regarding the consumer savings value alone would not require remand because *the district court’s opinion was not based on balancing any price increases against cost savings to consumers.* Consequently, because the government failed to meet its burden of proof under its increased leverage theory at the first level, the error regarding cost savings was harmless error.²⁴⁸

The process that was blessed by the D.C. Circuit was one in which the district court *first* assumed consumer-welfare benefits, and *then* looked to the government to make out a case that corresponding inefficiencies undermined them. But the government could not make out the case that the inefficiencies were cognizable, and the presumption of benefit carried the day.

²⁴⁷ United States v. AT&T, 916 F.3d 1029, 1037 (D.C. Cir. 2019).

²⁴⁸ *Id.* at 1046-47 (emphasis added).

In this sense, this is not the standard rule-of-reason approach typically applied to horizontal mergers. Here the government conceded—and the court accepted—precisely what the defendants would have had to prove following a prima facie showing under a traditional balancing test.

At the district court level, this is a thorough refutation of the assertion that vertical mergers are (or eventually become) horizontal mergers and therefore require a similar approach or similar presumptions. That it was confirmed without objection from the parties or the D.C. Circuit is a rather complete rejection of this claim.

D. Mergers and data

The antitrust policy world has become increasingly preoccupied with the effects that data aggregation may have on firms' competitive position, and the agencies' RFI is no exception. The RFI asks: "*How should the guidelines analyze mergers involving data aggregation as an important motive and/or effect? How should economies of scale and scope be measured in these cases?*"²⁴⁹

There is no easy answer to how data aggregation can be considered as part of an antitrust framework. Advocates of incorporating data into merger analysis have struggled over time to come up with how, exactly, this would work. Underlying the supposition that data aggregation should be considered, however, is a fundamentally erroneous assumption that data is such a unique input that it presents a competitive harm by its nature. This fallacy is frequently framed by claiming that "data is the new oil."²⁵⁰ Despite the rhetorical appeal of this comparison, there is little substance to it.

In short, data is an intangible asset like any other: IP, reputation, know-how, efficacy of a leadership team, etc. From a competition perspective, there is nothing to fundamentally distinguish datasets from these other assets. Thus, to the extent that data is considered in a merger review, it should generally be viewed as another element alongside other intangible assets.

²⁴⁹ Merger Enforcement RFI, at 8.

²⁵⁰ For instance, several state attorneys general drew this parallel in an antitrust complaint lodged against Google. See Complaint, *State Attorney Generals v. Google*, 6 (Dec. 17, 2020), available at <https://coag.gov/app/uploads/2020/12/Colorado-et-al.-v.-Google-PUBLIC-REDACTED-Complaint.pdf> ("Cash is no longer the only form of currency, and rather than mining and monetizing a scarce resource such as oil, the attention economy is based on mining and monetizing knowledge about what is inside the minds of individual users. Google uses its gargantuan collection of data to strengthen barriers of expansion and entry, which blunts and burdens firms that threaten its search-related monopolies (including general search services, general search text advertising, and general search advertising."). See also Meglena Kuneva, European Consumer Comm'r, Keynote Speech: Roundtable on Online Data Collection, Targeting and Profiling (Mar. 31, 2009) ("Personal data is the new oil of the internet and the new currency of the digital world."); Martin Pelletier, *Why Data Is the New Oil and What it Means for Your Investment Portfolio*, FINANCIAL POST (Aug. 29, 2017), <https://business.financialpost.com/investing/why-data-is-the-new-oil-and-what-it-means-for-your-investment-portfolio>; Leaders, *The World's Most Valuable Resource is No Longer Oil, But Data*, THE ECONOMIST (May 6, 2017), <https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data>.

Nonetheless, there have been efforts to view data as a unique consideration for merger review, particularly with respect to firms creating large pools of data²⁵¹ and the potential privacy harms that can arise from acquisitions involving data.²⁵² Below, we explain how these attempts are misguided.

I. Lack of access to data as competitive harm

As noted in the U.S. *Microsoft* case, competition law is concerned with a company's "efforts to maintain [a lawfully obtained monopoly] position through means other than competition on the merits."²⁵³ Thus, the theory relevant to data acquisition is that a company may obtain and employ its datasets in a ways that can act barriers to competition.

For example, some consider data acquisition to be among the motivations for "killer acquisitions." Former Assistant Attorney General Makan Delrahim highlighted the importance of considering datasets as an entry barrier in Visa's proposed acquisition of Plaid:

Speaking of entry barriers, earlier this month, the Division filed suit to enjoin Visa's proposed acquisition of Plaid, the leading financial data aggregation company in the United States. The Division has filed this lawsuit to enjoin Visa's proposed acquisition of Plaid because the transaction would eliminate the nascent but significant competitive threat Plaid poses to Visa in the online debit market and unlawfully maintain Visa's monopoly in online debit. Today, I would like to focus on another aspect of our challenge: Visa's acquisition of Plaid's vast trove of consumer data.

Plaid powers some of today's most innovative fintech apps such as Venmo, Acorns, and Betterment. The data Plaid retrieves allows these fintech apps to offer personal financial management tools, manage bill payments or other expenses, support loan underwriting, and transfer funds, among other uses. Plaid's services can also be used to reduce fraud by verifying the consumer's identity and account balance, examining the consumer's bank account history, assuring that a transaction is bona fide, and confirming that there are sufficient funds to cover a transaction at the time of payment

The fintech world is just one area where large troves of data are being used in cutting-edge business applications. Indeed, it is increasingly important that as antitrust lawyers

²⁵¹ See, e.g., Geoffrey Parker, Georgios Petropoulos & Marshall Van Alstyne, *Platform Mergers and Antitrust*, 30 INDUS. & CORP. CHANGE 1307, 1308 (2021) ("Mergers can intensify data-driven *economies of scope*, valuable to multi-sided platforms, because they also facilitate strategies of horizontal and vertical platform expansion. Through mergers, platforms can repurpose insights from data they have collected to operate in adjacent horizontal markets. In addition, platforms can use data to identify vertical expansion opportunities and compete directly with upstream producers that operate on their infrastructure. The platform's operating data, spanning all its market players, provides a privileged view superior to that of any individual producer.").

²⁵² See, e.g., Laura Alexander, *Antitrust at the Crossroads of Big Tech*, American Antitrust Institute (Dec. 16, 2021), available at <https://www.antitrustinstitute.org/wp-content/uploads/2021/12/Privacy-Antitrust.pdf>.

²⁵³ *United States v. Microsoft Corp.*, 253 F.3d 34, 56 (D.C. Cir. 2001).

we remain up to speed on the latest technologies and the roles they play in markets today.²⁵⁴

But possessing large amounts of data is not a harm in itself. It is in the use of data that it can be put to anticompetitive ends. To understand why, it's necessary to look at the properties of data that govern its use and utility.

As a form of information, data has some properties associated with public goods.²⁵⁵ The marginal cost to collect data is close to zero, making its consumption non-rivalrous. Thus, though data is certainly valuable to any given firm, it is not, in its raw form, subject to hoarding and dominance. Any firm that invests in data collection can access generally available observational and statistical data. Moreover, while the fixed costs to build the infrastructure needed to adequately aggregate and analyze data can be high, the marginal costs of gathering, storing, and transmitting data are close to zero.²⁵⁶ Even those fixed costs have been shrinking, thanks to the proliferation of infrastructure-as-a-service cloud offerings.²⁵⁷ Thus, the basic costs to acquire and utilize data have been falling, and are now well within reach of firms of all sizes.

Relatedly, data is also difficult to appropriate, insofar as a firm that acquires data has difficulties preventing competitors from also acquiring both that data and the competitive insights that can follow from it. Thus, contrary to an assumption that firms have incentive to hoard data, it is likely the case that the lack of appropriability leads firms to systematically underinvest in the acquisition and development of data.²⁵⁸ Given this reality, it is therefore nearly impossible for a firm to construct an impassable competitive moat based on possessing data.²⁵⁹

It is true that there are special qualities of data that make it valuable to firms, but it is these qualities that make data *less* interesting from a competition-law perspective. Data, frequently, are idiosyncratic. That is to say, the data that are useful to one firm, are often purpose-specific for that firm and not generally useful to other firms without further processing. Basic data, such as demographic details, are essentially trivial and of minimal value. Instead, it is the observational and predictive data that firms generate through users' interactions with their products and services that are valuable.

²⁵⁴ Makan Delrahim, "Here I Go Again": *New Developments for the Future of the Antitrust Division* (Nov. 12, 2020), available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-future-antitrust>.

²⁵⁵ See CARL S. SHAPIRO & HAL R. VARIAN *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY* 3 (1998).

²⁵⁶ *Id.* at 3.

²⁵⁷ See, e.g., Diane Coyle & David Nguyen, *Cloud Computing, Cross-Border Data Flows, and New Challenges for Measurement in Economics*, 249 NAT'L INST. ECON. REV. R30 (2019) (noting that "quality-adjusted prices of cloud services have been falling rapidly over the past decade, which is currently not captured by the deflators used in official statistics.").

²⁵⁸ Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 617 (1962).

²⁵⁹ Techniques for acquiring data on the Internet are manifold and widely used, for example, data scraping and related practices which can be employed by small firms to great advantage. See Klint Finley, *Scraper' Bots and the Secret Internet Arms Race*, WIRED (Jul. 23, 2018), <https://www.wired.com/story/scraper-bots-and-the-secret-internet-arms-race>; Miranda Katz, *A Lone Data Whiz Is Fighting Airbnb – and Winning*, WIRED (Feb. 10, 2017), <https://www.wired.com/2017/02/a-lone-data-whiz-is-fighting-airbnb-and-winning>; Julia Angwin & Steve Stecklow, *Scrapers' Dig Deep for Data on Web*, THE WALL STR. J. (Oct. 12, 2010).

To be sure, a unique dataset can have *some* value to an outside firm, but it will rarely be the case that acquiring a firm's dataset will immediately yield value without *further* processing. And firms that *do* aggregate their data in ways meant to provide broad insights typically do so with the intent of making access to that data a product.

For example, consider Meta's tools for allowing marketers to reach highly targeted user segments.²⁶⁰ This dataset and its processing are intended to deliver a product to market, putting that data (or at least the end-users associated with the data) within reach of other firms. Similarly, as processing is one of the necessary ingredients to make data valuable for a particular use, firms have begun to offer software-as-a-service solutions to allow companies of all sizes to leverage powerful processing tools. Amazon's web services suite, for example, includes an ever-expanding set of processing tools that include advanced analytics²⁶¹ and machine-learning tools.²⁶² Thus, firms that access widely available data can apply their own unique know-how while using what are essentially off-the-shelf tools

And while non-idiosyncratic data is of *de minimis* value, the actual value of useful data can be extremely difficult to anticipate, *ex ante*. As Kenneth Arrow argued, "[t]here is a fundamental paradox in the determination of demand for information; its value for the purchaser is not known until he has the information, but then he has in effect acquired it without cost."²⁶³

Thus, the marginal value of any given piece of data is zero, insofar as it is unknowable in advance exactly how valuable a piece of data (or an entire dataset) will be until it is subsequently employed in a firm's discovery or marketing efforts. Thus, even apart from the idiosyncratic qualities noted above, two firms with identical technologies may nonetheless derive differential value from the same dataset based on their relative capabilities, such as internal management and marketing strategies.

Moreover, there is a fundamental information asymmetry that favors users, not firms, thereby further eroding a given firm's ability to value a dataset *ex ante*. Large tech platforms vie to compete for user attention, with the end goal directed toward either optimizing their services or delivering superior marketing based on user preferences. But users have a better understanding of their own preferences, and it is up to firms to discern by inference how to serve those preferences. It is not data, broadly understood, that is valuable; what's valuable is the *right* data that connects firms to users. Thus, a small startup that asks the *right* questions or locates the *right* dataset can easily position itself to obtain a competitive advantage over larger incumbents.

After all, if possessing large troves of data were sufficient to accurately predict user preferences, there would be little error in research and development. But the economy is full of examples of failed

²⁶⁰ See Meta for Business, *Help Your Ads Find the People Who Will Love Your Business*, META (last accessed Mar. 11, 2022), <https://www.facebook.com/business/ads/ad-targeting>.

²⁶¹ See Amazon QuickSight, AWS (last accessed Mar. 11, 2022), https://aws.amazon.com/quicksight/?did=ft_card&trk=ft_card.

²⁶² See Amazon SageMakers, AWS (last accessed Mar. 11, 2022) https://aws.amazon.com/sagemaker/?did=ft_card&trk=ft_card.

²⁶³ See Arrow, *supra* note 258.

products, from small startups and large incumbents alike. Merely having data is simply not enough to guarantee success.

Much of the concern about the use of data by large tech companies is an assumption that there are increasing returns to scale when using data as an input.²⁶⁴ These returns to scale are commonly framed as tied to what some claim are “data network effects.”²⁶⁵ On this account, possessing a large dataset allows a firm to improve their services in ways that lead to the acquisition of more data. It is assumed that this will generate a recursive pattern that leads inevitably to market dominance.²⁶⁶

While this is a compelling story, the effect has never been demonstrated empirically nor modeled with rigor. Examinations of the question to date do not support the narrative of barriers to competition arising from “data network effects.”²⁶⁷ Indeed, this makes intuitive sense, given the nature of the technologies used to process data. The aim of much of machine-learning research is to optimize algorithms to be able to extract more insights with smaller training sets.²⁶⁸ Thus, the value of additional data has *diminishing* returns for the purposes of improving algorithmic utility and accuracy.²⁶⁹

2. *Loss of privacy as competitive harm*²⁷⁰

Privacy concerns are similarly presented as a potential concern due to a merger or acquisition.²⁷¹ But another fundamental flaw lingers in the underlying assumptions that drive this concern. In short,

²⁶⁴ Stigler Center Committee on Digital Platforms, *Final Report*, at 36 (Sep. 2019), available at <https://www.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms--committee-report--stigler-center.pdf> (“Typically, information goods involve increasing returns to scale because their production requires a fixed cost and no or little variable cost.”)

²⁶⁵ See, e.g., Maurice E. Stucke & Allen P. Grunes, *Introduction: Big Data and Competition Policy*, BIG DATA AND COMPETITION POLICY 1, 7 (2016). See also Jason Furman, *Address at the FTC Hearings on Competition and Consumer Protection in the 21st Century* (Sep. 13, 2018) (“I think the big empirical question that I do not know the answer to [...] is if you think there is diminishing returns to data then you are a lot less worried about it then if you think there is some region of increasing returns. There is some people that deal with computer science that say, with machine learning, when you get past a certain point you get to this place where you can, you know, do the AI in a certain way that you could not do before you get to that scale.”).

²⁶⁶ See, e.g., Nathan Newman, *Search, Antitrust, and the Economics of the Control of User Data*, 31 YALE J. REG. 401, 420 & 423 (2014).

²⁶⁷ See, e.g., Catherine Tucker, *Digital Data, Platforms, and the Usual [Antitrust] Suspects: Network Effects, Switching Costs, Essential Facility*, 54 REV. INDUS. ORG. 683 (2019), available at https://dspace.mit.edu/bitstream/handle/1721.1/131509/11151_2019_9693_ReferencePDF.pdf?sequence=1&isAllowed=y (summarizing studies on the issue, she concludes that “empirically there is little evidence of economies of scale and scope in digital data in the instances where one would expect to find them”).

²⁶⁸ See, e.g., Illia Sucholutsky & Matthias Schonlau, ‘Less than One’ Shot Learning: Learning N Classes From $M < N$ Samples (Proceedings of the AAI Conference on Artificial Intelligence, May 2021), available at <https://arxiv.org/abs/2009.08449>.

²⁶⁹ See, e.g., Hal Varian, *Is There a Data Barrier to Entry?*, GOOGLE (Jun. 2015), available at <http://www.learconference2015.com/wp-content/uploads/2014/11/Varian-slides.pdf>.

²⁷⁰ Much of this section is adapted from Geoffrey A. Manne & R. Ben Sperry, *The Problems and Perils of Bootstrapping Privacy and Data into an Antitrust Framework*, CPI ANTITRUST CHRONICLE (May 2015), available at <https://laweconcenter.org/wp-content/uploads/2017/09/bootstrapping-privacy.pdf>.

²⁷¹ See, e.g., *Competition and Consumer Protection in the 21st Century: FTC Hearing #12: The FTC’s Approach to Consumer Privacy* (Apr. 10, 2019) (remarks of Commissioner Rebecca Kelly Slaughter), at 3, available at

having only one firm with a large amount of data could be *more* privacy protective than many firms all having access to sensitive information. There is no ex ante reason to prefer a particular number of firms having access to a dataset.

Some scholars and activists have forwarded theories of how to incorporate privacy itself into antitrust analysis.²⁷² The most well-articulated way that privacy has been framed as an antitrust problem is as an element of non-price competition. As argued by Peter Swire in his landmark testimony on the issue:

[P]rivacy harms can reduce *consumer welfare*, which is a principal goal of modern antitrust analysis. In addition, privacy harms can lead to a reduction in the *quality of a good or service*, which is a standard category of harm that results from market power. Where these sorts of harms exist, it is a normal part of antitrust analysis to assess such harms and seek to minimize them.²⁷³

This has particular relevance in the merger context. The HMGs, for example, have long recognized that anticompetitive effects may “be manifested in non-price terms and conditions that adversely affect consumers.”²⁷⁴ The theory here is that a merger between two entities, one that is more privacy-protective and one that is less, could lead to less privacy (framed here as more data collection for targeted advertising) because there is now one less firm to provide competitive pressure against the newly merged firm. Thus, competition authorities reviewing such mergers are encouraged to consider the impact on privacy as part of their analysis.

For example, in Google’s 2007 acquisition of DoubleClick, the FTC explicitly considered the impact of the transaction on “non-price attributes of competition, such as consumer privacy.”²⁷⁵ While a merger has never been blocked due to privacy concerns, it clearly can be analyzed as a form of non-price competition. However, the lack of enforcement on these grounds may be due to the clear difficulties in applying this framework.

First, product-quality effects can be extremely difficult to distinguish from price effects. Quality-adjusted price is usually the touchstone by which antitrust regulators assess prices for competitive

https://www.ftc.gov/system/files/documents/public_statements/1513009/slaughter_remarks_at_ftc_approach_to_consumer_privacy_hearing_4-10-19.pdf.

²⁷² See e.g., Pamela Jones Harbour & Tara Isa Koslov, *Section 2 in a Web 2.0 World: An Expanded Vision of Relevant Product Markets*, 76 ANTITRUST L.J. 769, 773-74 (2010); Peter Swire, I, CTR. FOR AM. PROGRESS (Oct. 19, 2007), <http://www.americanprogress.org/issues/regulation/news/2007/10/19/3564/protecting-consumers-privacy-matters-in-antitrust-analysis>.

²⁷³ Swire, *id.*

²⁷⁴ See, e.g., 2010 HMGs, *supra* note 4, at Sec. 1 (“Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Such nonprice effects may coexist with price effects, or can arise in their absence.”); 1997 Merger Guidelines, Sec. 0.1 & note 6 (“The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise. Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time. . . Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.”).

²⁷⁵ Statement of the Federal Trade Commission, Google/DoubleClick, No. 071-0170, *available at* https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf.

effects analysis. Disentangling (allegedly) anticompetitive quality effects from simultaneous (neutral or pro-competitive) price effects is an imprecise exercise, at best. For this reason, it is very difficult to prove a product-quality case alone and would require connecting the degradation of a particular element of product quality to a net gain in advantage for the monopolist.

This means, for example, that the price of free access for users of multi-sided platforms must be balanced against the cost of data collection. For instance, most users of apps and Internet sites strongly prefer free access in exchange for their data, as evidenced by the fact that very few pay for subscription models that eschew data collection.²⁷⁶ The consumer welfare standard would require looking at the *quality-adjusted price* to consider whether a merger would help or harm consumers on privacy grounds. One of the tradeoffs inherent in this exercise is whether blocking a potential merger could mean higher prices for many users in the name of protecting privacy.

For example, imagine a hypothetical device maker with high levels of privacy protection who charges more for its products and who requires fee-based access to apps in the app marketplace for its devices. Imagine this device maker is acquired by a rival that has lower-cost devices and mostly “free” apps in its stores, which are cross subsidized via targeted ads powered by data collection. If an antitrust enforcement agency rejects this acquisition on privacy grounds, there would be a potential cost to those consumers who would have experienced lower prices for the devices and free apps. Determining the tradeoffs between device and app selection, price, and privacy for the consumer welfare analysis in such a case would be extremely difficult.

Invariably, product quality can be measured on more than one dimension. For instance, product quality could include both function and aesthetics: A watch’s quality lies in both its ability to tell time as well as how nice it looks on your wrist. A non-price-effects analysis involving product quality across multiple dimensions becomes exceedingly difficult if there is a tradeoff in consumer welfare between the dimensions. Thus, for example, a smaller watch battery may improve its aesthetics, but also reduce its reliability. Any such analysis would necessarily involve a complex and imprecise comparison of the relative magnitudes of harm/benefit to consumers who prioritize one type of quality over another.

All other things being equal, it is plausible that consumers would prefer more privacy. But not only are there potential tradeoffs between price and privacy online, but there could be an important tradeoff between privacy and other product qualities, such as how well an algorithm for a search engine or a social-media news feed works. One of the reasons many users prefer Google over

²⁷⁶ See, e.g., Alastair R. Beresford, Dorothea Kubler, & Sören Preibusch, *Unwillingness to Pay for Privacy: A Field Experiment* (SFB 649 Discussion Paper 2011-010, 2011), available at <https://ftp.iza.org/dp5017.pdf>; Jens Grossklags & Alessandro Acquisti, *When 25 Cents Is Too Much: An Experiment on Willingness-To-Sell and Willingness-To-Protect Personal Information*, in PROCEEDINGS OF THE SIXTH WORKSHOP ON THE ECONOMICS OF INFORMATION SECURITY (2007), available at <https://econinfosec.org/archive/weis2007/papers/66.pdf>; Mary Ellen Gordon, *The History of App Pricing, and Why Most Apps are Free*, THE FLURRY BLOG (Jul. 18, 2013), <http://blog.flurry.com/bid/99013/The-History-of-App-Pricing-And-Why-Most-Apps-Are-Free>.

DuckDuckGo, for instance, is because of how well the search algorithm works, empowered in part by data collected online.²⁷⁷

For enforcers, this again leads to a question of how to engage in tradeoffs within the consumer welfare standard. Without more information, it will be very difficult to determine whether consumers care more about data collection or the other product qualities that data collection could empower. The preferences among users about the relative weighting of product features is, moreover, likely to be highly heterogeneous, making a generalized assessment of given features exceedingly difficult.

In sum, the question of antitrust-relevant product quality really comes down to the relative numbers of, and magnitude of harm to, consumers who prefer more privacy protection versus those who prefer a better product experience and/or a lower monetary price. To make out an antitrust case based on privacy harms, antitrust regulators would have to compare the magnitude of the harms to what appears to be a small group of privacy-sensitive consumers (who have not otherwise protected themselves by using marketplace tools like tracking-blockers or the opt-out options provided by major ad networks and data brokers) to the benefits received by the supermajority of consumers who are less privacy-sensitive. Beyond the enormous difficulty of performing such analysis, it seems extraordinarily unlikely that the harms would outweigh the benefits on net.

E. Growing attention for attention markets

A raft of progressive scholars in recent years have argued that antitrust law remains blind to the emergence of so-called “attention markets,” in which firms compete by converting user attention into advertising revenue. This blindness, the scholars argue, has caused antitrust enforcers to clear harmful mergers in these industries.²⁷⁸

It certainly appears that the argument is gaining increased attention, for lack of a better word, with sympathetic policymakers, as suggested by the RFI itself, which asks: “How should the guidelines analyze mergers involving competition for attention? How should relevant markets be defined? What types of harms should the guidelines consider?”²⁷⁹

Unfortunately, the recent scholarly inquiries into attention markets remain inadequate for policymaking purposes. For example, while many progressives focus specifically on antitrust authorities’ decisions to clear Facebook’s 2012 acquisition of Instagram and 2014 purchase of WhatsApp, they largely tend to ignore the competitive constraints Facebook now faces from TikTok.

²⁷⁷ Though not the only important explanation of the quality of the algorithm, data collection—especially for indexing purposes—has been a bigger driver of Google’s success. See, e.g., Daisuke Wakabayashi, *Google Dominates Thanks to an Unrivaled View of the Web*, NEW YORK TIMES (Dec. 14, 2020), <https://www.nytimes.com/2020/12/14/technology/how-google-dominates.html>.

²⁷⁸ See, e.g., John M Newman, *The Myth of Free*, 86 GEO. WASH. L. REV. (2018). See also Tim Wu, *Blind Spot: The Attention Economy and the Law*, 82 ANTITRUST L.J. 771 (2019). *Contra*, David S. Evans, *Attention Rivalry Among Online Platforms*, 9 J. COMPETITION L. & ECON. 313 (2013).

²⁷⁹ Merger Enforcement RFI, at 8.

When firms that compete for attention seek to merge, authorities need to infer whether the deal will lead to an “attention monopoly” (if the merging firms are the only, or primary, market competitors for some consumers’ attention) or whether other “attention goods” sufficiently constrain the merged entity. Put another way, the challenge is not just in determining which firms compete for attention, but in evaluating how strongly each constrains the others.

As these comments explain, recent attention-market scholarship fails to offer objective, let alone quantifiable, criteria that might enable authorities to identify firms that are unique competitors for user attention. These limitations should counsel policymakers to proceed with increased rigor when they analyze anticompetitive effects.

I. The shaky foundations of attention-markets theory

Advocates for more vigorous antitrust intervention have raised (at least) three normative arguments that pertain to attention markets and merger enforcement. First, because they compete for attention, firms may be more competitively related than they seem at first sight. It is sometimes said that these firms are nascent competitors.²⁸⁰ Second, the scholars argue that all firms competing for attention should not automatically be included in the same relevant market.²⁸¹ Finally, scholars argue that enforcers should adopt policy tools to measure market power in these attention markets—e.g., by applying a SSNIC test (“small but significant non-transitory increase in cost”), rather than a SSNIP test (“small but significant non-transitory increase in price”).²⁸²

There are some contradictions among these three claims. On the one hand, proponents advocate adopting a broad notion of competition for attention, which would ensure that firms are seen as competitively related and thus boost the prospects that antitrust interventions targeting them will be successful. When the shoe is on the other foot, however, proponents fail to follow the logic they have sketched out to its natural conclusion; that is to say, they underplay the competitive constraints

²⁸⁰ See, e.g., Tim Wu, *supra* note 278, at 774-76 (“[L]et us focus our attention on the more recent series of mergers in the tech industries, and in particular the 2012 merger between Facebook and Instagram.... While they were not competing on price (yet), they were competing for the time people might spend sharing photos and comments online. Having already gained 30 million users, Instagram was poised to become the leading challenger ‘to Facebook based on its strength on mobile platforms, where Facebook was weak. At a minimum, the fact that the two firms were competing in attention markets might have yielded the conclusion that they were at least potential or nascent competitors in advertising markets.’”) (emphasis added). See also C. Scott Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PA. L. REV. 1879, 1888 (2020) (“In some cases, a nascent competitor may already have begun to compete in the incumbent’s market, even if its potency is not yet fully proven. For example..., Instagram competed with Facebook for the attention of social network users.”).

²⁸¹ See, e.g., John M Newman, *Antitrust in Attention Markets: Definition, Power, Harm*, UNIVERSITY OF MIAMI LEGAL STUDIES RESEARCH PAPER, 25-26 (2020) (“Multiple commentators contend that all attention-seeking firms compete with each other in one massive, unconcentrated market. Under this view, Google, Facebook, Twitter, Reddit, Vimeo, Yelp, Pinterest, Breitbart, the New York Times, CNN, and more all compete to attract our attention.... This “massive market” narrative rests on an obvious fallacy. Proponents argue that the relevant market includes all substitutable sources of attention depletion, so the market is “enormous.” But their premise reflects a misunderstanding of antitrust law. Relevant markets do not include all substitutes. Instead, they include only products that are “reasonable substitutes.”).

²⁸² *Id.* at 19 (“But if the focus is on the zero-price barter exchange, the SSNIP test requires modification. In such cases, the “SSNIC” (Small but Significant and Non-transitory Increase in Cost) test can replace the SSNIP. Instead of asking whether a hypothetical monopolist would increase prices, the analyst should ask whether the monopolist would likely increase attention costs. The relevant cost increases can take the form of more time or space being devoted to advertisements, or the imposition of more distracting advertisements. Alternatively, one might ask whether the hypothetical monopolist would likely impose an “SSNDQ” (Small but Significant and Non-Transitory Decrease in Quality).”).

that are necessarily imposed by wider-ranging targets for consumer attention. In other words, progressive scholars are keen to ensure the concept is not mobilized to draw broader market definitions than is currently the case: “This ‘massive market’ narrative rests on an obvious fallacy. Proponents argue that the relevant market includes ‘all substitutable sources of attention depletion,’ so the market is ‘enormous.’”²⁸³

Faced with this apparent contradiction, scholars retort that the circle can be squared by deploying new analytical tools that measure attention for competition, such as the so-called SSNIC test.²⁸⁴ But do these tools actually resolve the contradiction? It would appear, instead, that they merely enable enforcers to selectively mobilize the attention-market concept in ways that fit their preferences. Consider the following description of the SSNIC test, by John Newman:

But if the focus is on the zero-price barter exchange, the SSNIP test requires modification. In such cases, the “SSNIC” (Small but Significant and Non-transitory Increase in Cost) test can replace the SSNIP. Instead of asking whether a hypothetical monopolist would increase prices, the analyst should ask whether the monopolist would likely increase attention costs. *The relevant cost increases can take the form of more time or space being devoted to advertisements, or the imposition of more distracting advertisements.* Alternatively, one might ask whether the hypothetical monopolist would likely impose an “SSNDQ” (Small but Significant and Non-Transitory Decrease in Quality). The latter framing should generally be avoided, however, for reasons discussed below in the context of anticompetitive effects. Regardless of framing, however, *the core question is what would happen if the ratio between desired content to advertising load were to shift.*²⁸⁵

Tim Wu makes roughly the same argument:

The A-SSNIP would posit a hypothetical monopolist who adds a 5-second advertisement before the mobile map, and leaves it there for a year. *If consumers accepted the delay, instead of switching to streaming video or other attentional options, then the market is correctly defined and calculation of market shares would be in order.*²⁸⁶

The key problem is this: consumer switching among platforms is consistent both with competition and with monopoly power. In fact, consumers are more likely to switch to other goods when they are faced with a monopoly.²⁸⁷ Perhaps more importantly, consumers can and do switch to a whole

²⁸³ See Newman, *supra* note 281, at 25-26.

²⁸⁴ *Id.* See also, Wu, *supra* note 278, at 777.

²⁸⁵ Newman, *supra* note 281, at 21 (emphasis added).

²⁸⁶ Wu, *supra* note 278, at 777 (emphasis added).

²⁸⁷ See, e.g. Landes & Posner, *supra* note 71, at 971 (“When the question is instead whether to include different products in the same product market, merely observing that a different product is a good substitute at the current price for the product of firm *i* does not necessarily warrant a conclusion that the demand elasticity faced by firm *i* is high. Du Pont may have charged such a high price for cellophane that some consumers switched to aluminum foil or even coarse wrapping paper. but. for many other consumers, having different demands, these substitutes must still have been poor even at the high price of cellophane. The monopolist who charges a single price necessarily loses marginal customers, those for whom other products are pretty good substitutes at prevailing prices. But so long as his other customers do not regard other products as good substitutes, the monopolist will face a demand curve having a low elasticity (though still greater than *i*), and price will be substantially above the competitive price.”).

range of idiosyncratic goods. Absent some quantifiable metric, it is simply impossible to tell which of these alternatives are significant competitors.

None of this is new, of course. Antitrust scholars have spent decades wrestling with similar issues in connection with the price-related SSNIP test.²⁸⁸ The upshot of those debates is that the SSNIP test does not measure whether price increases cause users to switch. Instead, it examines whether firms can profitably raise prices above the competitive baseline.²⁸⁹ Properly understood, this nuance renders proposed SSNIC and SSNDQ tests (“small but significant non-transitory decrease in quality”) unworkable.

First and foremost, proponents wrongly presume to know how firms would choose to exercise their market power, rendering the resulting tests unfit for policymaking purposes.²⁹⁰ This mistake largely stems from the conflation of price levels and price structures in two-sided markets. In a two-sided market, the price level refers to the cumulative price charged to both sides of a platform. Conversely, the price structure refers to the allocation of prices among users on both sides of a platform (i.e., how much users on each side contribute to the costs of the platform). This is important because, as Jean Charles Rochet and Jean Tirole show, changes to either the price level or the price structure both affect economic output in two-sided markets.²⁹¹

This has powerful ramifications for antitrust policy in attention markets. To be analytically useful, SSNIC and SSNDQ tests would have to alter the price level while holding the price structure equal. This is the opposite of what attention-market theory advocates are calling for. Indeed, increasing ad loads or decreasing the quality of services provided by a platform, while holding ad prices constant, evidently alters platforms’ chosen price structure.

²⁸⁸ *Id.*

²⁸⁹ See Landes & Posner, *supra* note 71, at 495 (“The term “market power” refers to the ability of a firm (or a group of firms, acting jointly) to raise price above the competitive level without losing so many sales so rapidly that the price increase is unprofitable and must be rescinded.”).

²⁹⁰ For a detailed discussion, see, e.g., Dirk Auer & Nicolas Petit, *Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy*, 60 THE ANTITRUST BULLETIN, 442-43 (2015). (“Second, regardless of the approach followed, authorities will have to decide how to allocate the 10% price increase among different groups of users. This is no easy choice.... Some posit that the hypothetical monopolist should be allowed to adjust the price structure,108 while others argue it should not. In the First Data case, the DOJ argued that a hypothetical monopolist would raise prices by 5% to 10% on the acquiring banks side (and hence to merchants), and held the price to issuing banks fixed.”). See also, Dirk Auer, *What is a Search Engine*, TRUTH ON THE MARKET (Oct. 21, 2020), <https://truthonthemarket.com/2020/10/21/what-is-a-search-engine-2>. (“The SSNIP test (which is the standard method of defining markets in antitrust proceedings) is inapplicable to the consumer side of search platforms. Indeed, it is simply impossible to apply a hypothetical 10% price increase to goods that are given away for free. This raises a deeper question: how would a search engine exercise its market power? For a start, it seems unlikely that it would start charging fees to its users. For instance, empirical research pertaining to the magazine industry (also an ad-based two-sided market) suggests that increased concentration does not lead to higher magazine prices.... It is also far from certain that a dominant search engine would necessarily increase the amount of adverts it displays. To the contrary, market power on the advertising side of the platform might lead search engines to decrease the number of advertising slots that are available (i.e. reducing advertising output), thus showing less adverts to users. Finally, it is not obvious that market power would lead search engines to significantly degrade their product (as this could ultimately hurt ad revenue).”).

²⁹¹ Jean-Charles Rochet & Jean Tirole, *Two-sided markets: a progress report*, 37 THE RAND JOURNAL OF ECONOMICS, 646 (2006). (“We define a two-sided market as one in which the volume of transactions between end-users depends on the structure and not only on the overall level of the fees charged by the platform.”).

This matters. Even if the proposed tests were properly implemented (which would be difficult; it is unclear what a “5% quality degradation” would look like²⁹²), the tests would likely lead to false negatives, as they force firms to depart from their chosen (and, thus, presumably profit-maximizing) price structure/price level combinations. Consider the following illustration: to a first approximation, increasing the quantity of ads served on YouTube would presumably decrease Google’s revenues, as doing so would simultaneously increase output in the ad market (note that the test becomes even more absurd if ad revenues are held constant). In short, scholars fail to recognize that the consumer side of these markets is intrinsically related to the ad side. Each side affects the other in ways that prevent policymakers from using single-sided ad-load increases or quality decreases as an independent variable.

This leads to a second, more fundamental, flaw. To be analytically useful, these increased ad loads and quality deteriorations would have to be applied from the competitive baseline. Unfortunately, it is not obvious what this baseline looks like in two-sided markets. Economic theory tells us that, in regular markets, goods are sold at marginal cost under perfect competition. However, there is no such shortcut in two-sided markets. As David Evans and Richard Schmalensee aptly summarize:

An increase in marginal cost on one side does not necessarily result in an increase in price on that side relative to price on the other. More generally, the relationship between price and cost is complex, and the simple formulas that have been derived by single-handed markets do not apply.²⁹³

In other words, while economic theory suggests perfect competition among multi-sided platforms should result in zero economic profits, it does not say what the allocation of prices will look like in this scenario. There is thus no clearly defined competitive baseline upon which to apply increased ad loads or quality degradations. And this makes the SSNIC and SSNDQ tests unsuitable.

In short, the theoretical foundations necessary to apply the equivalent of a SSNIP test on the “free” side of two-sided platforms are largely absent (or exceedingly hard to apply in practice). Calls to implement SSNIC and SSNDQ tests thus greatly overestimate the current state of the art, as well as decision-makers’ ability to solve intractable economic conundrums. The upshot is that, while proposals to apply the SSNIP test to attention markets may have the trappings of economic rigor, the resemblance is superficial. As things stand, these tests fail to ascertain whether given firms are in competition, and in what market.

²⁹² For instance, John Newman mentions the following parameters that could be increased: “The relevant cost increases can take the form of more time or space being devoted to advertisements, or the imposition of more distracting advertisements.” See Newman, *supra* note 281, at 22. This raises the question: what does a 5-10% more intrusive ad look like? And what does it mean to give 5-10% more time/space to advertisements? And how would such diverse metrics be rigorously compared or aggregated? These determinations are far less obvious/objective than they might seem, yet they would largely determine the outcome of antitrust cases.

²⁹³ David Evans & Richard Schmalensee, *The Industrial Organization of Markets With Two-Sided Platforms*, NBER WORKING PAPER 11603 (2005) at 12.

2. *The bait and switch: qualitative indicia*

These problems with the new quantitative metrics likely explain why proponents of tougher enforcement in attention markets often fall back upon qualitative indicia to resolve market-definition issues. As John Newman writes:

Courts, including the U.S. Supreme Court, have long employed practical indicia as a flexible, workable means of defining relevant markets. *This approach considers real-world factors: products' functional characteristics, the presence or absence of substantial price differences between products, whether companies strategically consider and respond to each other's competitive conduct, and evidence that industry participants or analysts themselves identify a grouping of activity as a discrete sphere of competition....*

...The SSNIC test may sometimes be massaged enough to work in attention markets, but practical indicia will often—perhaps usually—be the preferable method.²⁹⁴

Unfortunately, far from resolving the problems associated with measuring market power in digital markets (and of defining relevant markets in antitrust proceedings), this proposed solution would merely focus investigations on subjective and discretionary factors.

This can be easily understood by looking at the FTC's *Facebook* complaint regarding its purchases of WhatsApp and Instagram.²⁹⁵ The complaint argues that Facebook—a “social networking service,” in the eyes of the FTC—was not interchangeable with either mobile-messaging services or online-video services. To support this conclusion, it cites a series of superficial differences. For instance, the FTC argues that online-video services “are not used primarily to communicate with friends, family, and other personal connections,” while mobile-messaging services “do not feature a shared social space in which users can interact, and do not rely upon a social graph that supports users in making connections and sharing experiences with friends and family.”²⁹⁶

This is a poor way to delineate relevant markets. It wrongly portrays competitive constraints as a binary question, rather than a matter of degree. Pointing to the functional differences that exist among rival services mostly fails to resolve this question of degree. It also likely explains why advocates of tougher enforcement have often decried the use of qualitative indicia when the shoe is on the other foot—e.g., when authorities concluded that Facebook did not, in fact, compete with Instagram because their services were functionally different.²⁹⁷

²⁹⁴ See Newman, *supra* note 281, at 22-23 (emphasis added).

²⁹⁵ Complaint, *Fed. Trade Comm'n v. Facebook, Inc.*, No. 1:20-cv-03590 (D.C. Cir. filed Aug. 19, 2021).

²⁹⁶ *Id.* at 17.

²⁹⁷ See Wu, *supra* note 278, at 774-75 (“The Office approved the merger based on two main premises. The first was that Facebook did not have an important photo app, meaning that Facebook was not a serious competitor to Instagram in consumer markets. Next, the office observed that Instagram was not yet earning advertising revenue, meaning that Instagram was not an important competitor to Facebook for advertisers. Hence, the companies were not really competitors, allowing the Office to safely conclude that “no substantial competition concerns arise.... At a minimum, the fact that the two firms were competing in attention markets might have yielded the conclusion that they were at least potential or nascent competitors in advertising markets.”).

A second, and related, problem with the use of qualitative indicia is that they are, almost by definition, arbitrary. Take two services that may or may not be competitors, such as Instagram and TikTok. The two share some similarities, as well as many differences. For instance, while both services enable users to share and engage with video content, they differ significantly in the way this content is displayed.²⁹⁸ Unfortunately, absent quantitative evidence, it is simply impossible to tell whether, and to what extent, the similarities outweigh the differences.

There is significant risk that qualitative indicia may lead to arbitrary enforcement, where markets are artificially narrowed by pointing to superficial differences among firms, and where competitive constraints are overemphasized by pointing to consumer switching.

3. *The way forward*

The difficulties discussed above should serve as a good reminder that market definition is but a means to an end. As William Landes, Richard Posner, and Louis Kaplow have all observed, market definition is merely a proxy for market power, which in turn enables policymakers to infer whether consumer harm (the underlying question to be answered) is likely in a given case.²⁹⁹

Given the difficulties inherent in properly defining markets, policymakers should redouble their efforts to precisely measure both potential barriers to entry (the obstacles that may lead to market power) or anticompetitive effects (the potentially undesirable effect of market power), under a case-by-case analysis that looks at both sides of a platform.

Unfortunately, this is not how the FTC has proceeded in recent cases. The FTC's *Facebook* complaint, to cite but one example, merely assumes the existence of network effects (a potential barrier to entry) with no effort to quantify their magnitude.³⁰⁰ Likewise, the agency's assessment of

²⁹⁸ See, e.g., *TikTok vs. Instagram Influencers: What's the Difference?*, GRIN (Aug. 23, 2022), <https://grin.co/blog/tiktok-vs-instagram-influencers>. ("The main differences between these two platforms are: Instagram is a visual platform for images, carousels, ephemeral content (Stories), short-form videos (Reels), long-form videos (IGTV), streaming (Live), and listicles (Guides). TikTok is the established vertical, short-form video social channel online. But there are many subtle differences between TikTok and Instagram when it comes to algorithms, audiences, engagement, and social commerce.")

²⁹⁹ See Landes & Posner, *supra* note 71, at 938 ("The standard method of proving market power in antitrust cases involves first defining a relevant market in which to compute the defendant's market share, next computing that share, and then deciding whether it is large enough to support an inference of the required degree of market power."); Louis Kaplow, *Why (ever) Define Markets?*, 124 HARV. L. REV. 437, 515 (2010) ("The market definition / market share paradigm plays a prominent role in competition law regimes. Its central justification is that it offers a useful means of making inferences about market power, indeed one that is easier or more reliable than other means of market power determination. Upon analysis, however, it appears that this widely accepted view is always false....").

³⁰⁰ Complaint, *Fed. Trade Comm'n v. Facebook, Inc.*, No. 1:20-cv-03590 (D.C. Cir. filed Jan. 13, 2021), at 19. Consider the following passage from the FTC's complaint: "Direct network effects are a significant barrier to entry into personal social networking. Specifically, because a core purpose of personal social networking is to connect and engage with personal connections, it is very difficult for a new entrant to displace an established personal social network in which users' friends and family already participate. A potential entrant in personal social networking services also would have to overcome users' reluctance to incur high switching costs." This analysis fails to examine whether users can and do coordinate among themselves to join rival networks. For a detailed discussion of these considerations, see, e.g., Daniel F Spulber, *Consumer Coordination in the Small and in the Large: Implications for Antitrust in Markets With Network Effects*, 4 J. COMPETITION L. & ECON. 207 (2008). See also, Dirk Auer, *What Zoom can tell us about network effects and competition policy in digital markets*, TRUTH ON THE MARKET (Apr. 14, 2019), <https://truthonthemarket.com/2019/04/24/what-zoom-can-tell-us-about-network-effects-and-competition-policy-in-digital-markets>.

consumer harm is just two pages long and includes superficial conclusions that appear plucked from thin air:

The benefits to users of additional competition include some or all of the following: additional innovation...; quality improvements...; and/or consumer choice.... In addition, by monopolizing the U.S. market for personal social networking, Facebook also harmed, and continues to harm, competition for the sale of advertising in the United States.³⁰¹

Not one of these assertions is based on anything that could remotely be construed as empirical or even anecdotal evidence. Instead, the FTC's claims are presented as self-evident. Given the difficulties surrounding market definition in digital markets, this superficial analysis of anticompetitive harm is simply untenable.

In short, discussions around attention markets emphasize the important role of case-by-case analysis underpinned by the consumer welfare standard. Indeed, the fact that some of antitrust enforcement's usual benchmarks are unreliable in digital markets reinforces the conclusion that an empirically grounded analysis of barriers to entry and actual anticompetitive effects must remain the cornerstones of sound antitrust policy. Or, put differently, uncertainty surrounding certain aspects of a case is no excuse for arbitrary speculation. Instead, authorities must meet such uncertainty with an even more vigilant commitment to thoroughness.

³⁰¹ Complaint, *Fed. Trade Comm'n v. Facebook, Inc.*, *id.* at 48.