

MERGER BREAKUPS

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One of today's most pressing antitrust questions is how antitrust should address the conduct of dominant technology companies such as Amazon, Facebook, and Google. These companies, once considered untouchable by antitrust law, are now the subject of growing calls for their antitrust breakup, including through actions by the federal antitrust agencies to challenge and unwind key mergers in the technology space, such as Facebook-Instagram, Amazon-Whole Foods, and Google-DoubleClick, among others. But nearly every one of the technology mergers identified for ex-post challenge and breakup was previously reviewed and cleared by the antitrust agencies pursuant to the existing federal merger review scheme, including in some instances after a lengthy investigation. The calls for the antitrust breakup of the identified technology mergers therefore implicate a much more fundamental antitrust question: should the antitrust agencies more readily challenge mergers that they themselves previously reviewed and cleared pursuant to the existing federal merger review scheme? This article offers a qualified affirmative response to that question. The antitrust agencies should increase the extent of their challenges to previously reviewed and cleared mergers, but should do so in a principled way that respects the significant mitigating factors associated with an expansion in such ex-post merger challenges. By conducting that principled analysis, this article identifies important limiting conditions on the expansion of agency challenges to previously reviewed and cleared mergers, both generally and with respect to the targeted technology mergers in particular.

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“The FTC’s biggest mistake was to allow Facebook to acquire Instagram and WhatsApp.”

—Chris Hughes, co-founder of Facebook (2019)¹

“Current antitrust laws empower federal regulators to break up mergers that reduce competition Unwinding these mergers will promote healthy competition in the market—which will put pressure on big tech companies to be more responsive to user concerns”

—Senator Elizabeth Warren (2019)²

INTRODUCTION

A vigorous debate rages within antitrust regarding the appropriate antitrust treatment of dominant technology companies such as Amazon, Facebook, and Google. There is an emerging fear that these and other technology companies have grown too large and are exploiting their dominance through conduct injurious to competition and social welfare more generally. Once heralded as the champions of innovation and the modern economy, so-called big technology is increasingly viewed with deep skepticism and scorn.

A wide array of policy proposals have been advanced to address the perceived harms generated by these and other large technology companies,³ and each of the relevant government actors now is fully engaged on the issue. The Federal Trade Commission has assembled a technology task force to monitor anticompetitive conduct in the technology sector⁴ and has commenced an antitrust investigation into Facebook.⁵ The Department of Justice, through its Antitrust Division, is investigating the market practices

¹ Chris Hughes, *It’s Time to Break Up Facebook*, N.Y. TIMES (May 14, 2019).

² Sen. Elizabeth Warren, *Here’s How We Can Break Up Big Tech*, MEDIUM (Mar. 8, 2019), available at <https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>.

³ See, e.g., Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973 (2019); Warren, *Here’s How We Can Break Up Big Tech*, *id.*; TIM WU, *THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE* (2018); *infra* notes 93, 94 & 95.

⁴ See Fed. Trade Comm’n, *FTC’s Bureau of Competition Launches Task Force to Monitor Technology Markets* (Feb. 26, 2019), available at <https://www.ftc.gov/news-events/press-releases/2019/02/ftcs-bureau-competition-launches-task-force-monitor-technology>.

⁵ See Mike Isaac & Natasha Singer, *Facebook Antitrust Inquiry Shows Big Tech’s Freewheeling Era is Past*, N.Y. TIMES (July 24, 2019), available at <https://www.nytimes.com/2019/07/24/technology/facebook-ftc-antitrust-investigation.html>.

of dominant online platforms.⁶ The House Judiciary antitrust subcommittee has initiated a wide-reaching antitrust investigation into the conduct of the large technology companies.⁷ For its part, the Senate Judiciary antitrust subcommittee is conducting hearings on issues at the heart of antitrust and technology.⁸ And, in a rare display of political consensus, a bipartisan group of state Attorneys General has initiated an antitrust investigation into Facebook⁹ and another, even larger, bipartisan group of state Attorneys General has initiated an antitrust investigation into Google.¹⁰

The theory that antitrust should be used to break-up the large technology companies has gained traction among many policymakers, scholars, and commentators.¹¹ One such proposal calls on the federal antitrust agencies to commence aggressive monopolization suits against the large technology companies and to seek breakup as the remedial measure, similar to the Department of Justice’s seminal monopolization suit against Microsoft in the 1990s.¹² A second policy proposal seeks new antitrust legislation that would prohibit platform-based companies from operating on their own platforms, thus preventing, for example, Amazon from both operating and selling its own products on its marketplace.¹³

A third breakup policy proposal—and the proposal that motivates this article’s question of interest—is for the federal antitrust agencies to challenge and unwind previously consummated mergers¹⁴ in the technology

⁶ See Department of Justice, *Justice Department Reviewing the Practices of Market-Leading Online Platforms* (July 23, 2019), available at <https://www.justice.gov/opa/pr/justice-department-reviewing-practices-market-leading-online-platforms>.

⁷ See U.S. House Committee on the Judiciary, *House Judiciary Committee Launches Bipartisan Investigation into Competition in Digital Markets* (June 3, 2019), available at <https://judiciary.house.gov/news/press-releases/house-judiciary-committee-launches-bipartisan-investigation-competition-digital>

⁸ See David McCabe, *Lawmakers Urge Aggressive Action from Regulators on Big Tech*, N.Y. TIMES (Sept. 17, 2019), available at <https://www.nytimes.com/2019/09/17/technology/senate-antitrust-tech-hearing.html>.

⁹ See Steve Lohr, *New Google and Facebook Inquiries Show Big Tech Scrutiny is a Rare Bipartisan Act*, N.Y. TIMES (Sept. 6, 2019), available at <https://www.nytimes.com/2019/09/06/technology/attorney-generals-tech-antitrust-investigation.html>.

¹⁰ See Steve Lohr, *Google Antitrust Investigation Outlined by State Attorneys General*, N.Y. TIMES (Sept. 9, 2019), available at <https://www.nytimes.com/2019/09/09/technology/google-antitrust-investigation.html>.

¹¹ See *infra* notes 12, 13, 93, 94 & 95.

¹² See, e.g., WU, *THE CURSE OF BIGNESS*, *supra* note 3, at 131.

¹³ See Warren, *Here’s How We Can Break Up Big Tech*, *supra* note 2. See also Khan, *The Separation of Platforms and Commerce*, *supra* note 3.

¹⁴ As noted below, the article uses “merger” in a broad sense to include all transactions subject to Section 7 of the Clayton Act. See *infra* note 24.

space. The specific mergers that have been identified for breakup include Facebook's acquisitions of Instagram and WhatsApp; Amazon's acquisitions of Whole Foods and Zappos; and Google's acquisitions of DoubleClick, Nest, and Waze.¹⁵ Once considered draconian and extremely unlikely, the prospect of the federal agencies seeking to break-up these technology mergers has now moved from the hypothetical into the possible.¹⁶

These merger challenges and potential breakups would occur within the existing federal merger review scheme, the Hart-Scott-Rodino Act. That scheme has guided federal merger antitrust review since 1976 and obligates the antitrust agencies to evaluate mergers for their expected competitive effects prior to consummation. Nearly all large mergers are subject to Hart-Scott-Rodino review; and if a merger is subject to the Act, the merging parties may not consummate their transaction and proceed forward until the antitrust agencies review and clear¹⁷ the transaction.

Notably, with one exception, each of the various technology mergers identified for potential breakup was previously reviewed by the antitrust agencies pursuant to Hart-Scott-Rodino and permitted by the antitrust agencies to go forward. Take Facebook's 2012 acquisition of Instagram, where the parties properly reported that transaction to the antitrust agencies and the FTC not only reviewed but investigated that transaction for at least three months before clearing it without any conditions.¹⁸ Also pursuant to Hart-Scott-Rodino, the antitrust agencies cleared Facebook's acquisition of WhatsApp, Amazon's acquisitions of Whole Foods and Zappos, and Google's acquisitions of DoubleClick and Nest.¹⁹

The recent calls for the antitrust authorities to unwind these specific technology mergers therefore implicates a much more fundamental antitrust question: should the antitrust agencies more readily challenge mergers that they themselves previously reviewed and cleared? Despite its significance, both with respect to the recent and growing calls for the unwinding of the

¹⁵ See *infra* notes 93, 94 & 95.

¹⁶ See Brent Kendall, John D. McKinnon & Deepa Seetharama, *FTC Antitrust Probe of Facebook Scrutinizes its Acquisitions*, WALL. ST. J. (Aug. 1, 2019), available at <https://www.wsj.com/articles/ftc-antitrust-probe-of-facebook-scrutinizes-its-acquisitions-11564683965> (reporting that the FTC's antitrust investigation of Facebook includes inquiry into Facebook's past acquisitions).

¹⁷ The article uses "clear" or "cleared" to refer to a circumstance in which the antitrust agencies permit a merger subject to Hart-Scott-Rodino review to proceed, either because neither agency challenges the transaction in connection with the Hart-Scott-Rodino process or because one of the agencies does challenge the transaction in connection with that process but permits the transaction to go forward because the agency enters into a negotiated settlement with the merging parties.

¹⁸ See *infra* Sections II.A.

¹⁹ See *infra* Sections II.A-C.

technology mergers above and for antitrust policy in general, there has been no prior work systematically evaluating this question. This Article addresses this gap in the literature by providing a comprehensive analysis of federal antitrust agency challenges to previously reviewed and cleared mergers.

The article demonstrates that the federal antitrust authorities should amplify, in a principled manner, the extent to which they challenge anticompetitive mergers that they previously reviewed and cleared pursuant to Hart-Scott-Rodino. As the article first explains, there are strong theoretical reasons why an expansion in such ex-post agency merger challenges would enhance consumer welfare, the maximization of which is the functional objective of antitrust.²⁰ Merger review is an inherently predictive exercise whereby the agencies assess the potential competitive effects of a merger prior to merger consummation using the universe of information available to them at the time of review. As with any predictive exercise, actual outcomes may deviate from predicted outcomes, and it is possible that the actual competitive effects of a merger are much more deleterious than predicted. In this case, an ex-post challenge to the previously reviewed and cleared merger may be able to abate the merger's competitive harm.

For empirical evidence supporting an amplification of agency challenges to previously reviewed and cleared mergers, the article draws on the findings of merger retrospectives, which are important empirical studies that have been largely neglected in legal antitrust scholarship. These studies utilize standard empirical techniques to evaluate whether a given merger generated actual competitive harm. So, for example, if two publishers of legal treatises merge, a merger retrospective can evaluate the extent to which the merger caused competitive harm such as in the form of higher treatise prices.²¹ Economists have conducted a number of merger retrospectives in recent years, and the bulk of these studies show that the mergers under consideration generated competitive harm, including mergers that were subject to the Hart-Scott-Rodino review process. Based on the findings of the merger retrospectives conducted to date, therefore, the agencies could potentially advance the objectives of antitrust by increasing the number of challenges to previously reviewed and cleared mergers.

²⁰ See Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2017-20 (2018).

²¹ See, e.g., Mark J. McCabe, *Law Serials Pricing and Mergers: A Portfolio Approach*, 3 CONTRIBUTIONS TO ECON. ANALYSIS & POL'Y 1 (2004) (conducting a merger retrospective on a class of mergers involving legal publishers and finding that the mergers resulted in substantial price increases of print law serials including legal treatises).

At the same time, there are significant reasons to be wary about a shift in antitrust policy that involves a mere ratcheting up of the number of agency challenges to mergers that the agencies previously reviewed and cleared. It is widely recognized that consumer welfare is better enhanced if anticompetitive mergers are challenged and corrected during the merger review process than after the fact. As clearly evidenced by merger enforcement actions occurring before enactment of the Hart-Scott-Rodino Act, there are significant difficulties in crafting an effective antitrust remedy once a merger has been consummated and the merging parties have integrated their assets and operations. For this and other reasons, a post-review, post-clearance merger challenge may be a poor vehicle to alleviate a merger's competitive harm.

Additionally, the unbridled availability of ex-post challenges would diminish the ability and incentives of the antitrust agencies to correct mergers' competitive effects in their incipiency, before the parties' assets and operations have been integrated and before the merger has inflicted competitive harm. An expansive and unprincipled amplification in the extent of post-review, post-clearance merger challenges also would generate social harm by disrupting the finality of the merger review process. If mergers that cleared the Hart-Scott-Rodino process are readily subject to after-the-fact challenge, merging parties would have diminished incentives to integrate their operations for fear of having to incur the cost of undoing the integration if the merger is subsequently challenged and diminished incentives to undertake even a procompetitive merger in the first place.

Because of these mitigating factors, the appropriate policy response is *not* for the agencies to simply increase the extent to which they challenge mergers that they previously reviewed and cleared. Instead, the optimal policy response is for the agencies to increase the number of post-review, post-clearance challenges but in a principled way that reflects the potential benefits and costs associated with an expansion in that type of ex-post merger challenge.

The article also undertakes that principled analysis and identifies the circumstances under which the federal antitrust agencies should challenge a previously reviewed and cleared merger, such as the specific technology mergers discussed above. The article argues that while the antitrust agencies as a general matter should increase the number of post-review, post-clearance challenges, they should challenge a previously reviewed and cleared merger only if two conditions are met:

- (1) The preponderance of the agencies' evidence shows that the merger has or is likely to substantially lessen competition; and

(2) The agencies reasonably believe there is a remedy that would correct the merger's competitive harm.

These two criteria are general in nature. They not only provide the requirements that must be met before the antitrust agencies challenge any particular merger ex-post, such as any one of the targeted technology mergers, but also provide an important limiting structure that cabins the general increase in agency challenges to previously reviewed and cleared mergers that is necessary to restore competition to the affected markets. Because the two limiting criteria are necessary, not sufficient, conditions, the agencies may elect not to challenge a previously reviewed and cleared merger ex-post even if both criteria are met. Additionally, because the two limiting criteria are directed only at federal agency challenges to previously reviewed and cleared mergers, they do not restrict other antitrust actions against a merged entity, such as monopolization claims based on the merged firm's exclusionary conduct.

The article also lends strong support for expanding federal merger enforcement resources, which have been deteriorating in real terms even though the number of reportable mergers has been increasing. An expansion of federal merger enforcement resources would enable the agencies to undertake the necessary additional ex-post merger challenges but also to more thoroughly conduct ex-ante merger review. More comprehensive ex-ante merger review would generate immediate competitive gains but also would mitigate some of the future need to conduct ex-post merger challenges, which generally are inferior means of promoting competition compared to robust ex-ante merger review.

The article is organized as follows. Part I discusses the broad contours of the current federal merger review and enforcement framework, with an emphasis on agency challenges to mergers that the agencies previously reviewed and cleared pursuant to the Hart-Scott-Rodino process. Part II discusses the various technology mergers that have been targeted for challenge and breakup, as well as the nature of the agencies' ex-ante review of them. This discussion frames and motivates the article's central question of interest—whether increased agency challenges to previously reviewed and cleared mergers would further the aims of antitrust—and Part III identifies the potential competitive benefits of this shift in antitrust policy, as well as identifying a set of significant mitigating factors. Part IV provides and analyzes the article's policy proposal and addresses some additional considerations.

I. THE UNDERLYING LEGAL FRAMEWORK

A fundamental component of the recent calls for the vigorous antitrust scrutiny of the large technology companies is for the federal antitrust authorities to challenge and breakup key historical mergers in the technology space. In order to properly frame the fundamental antitrust issue implicated by these demands for ex-post merger challenge and break-up, it is necessary to first outline the broad contours of the legal framework in which these potential breakups would occur, with a focus on agency challenges to previously reviewed and cleared mergers. The relevant legal framework encompasses both merger review and merger challenge.

A. Merger Notification and Review Under the Hart-Scott-Rodino Act

The current merger review scheme is a relatively new development in the long arc of antitrust, arising in 1976 with the enactment of the Hart-Scott-Rodino Act.²² The Hart-Scott-Rodino Act and its implementing rules²³ (collectively, “Hart-Scott-Rodino” or “HSR”) created a mechanism that requires parties to a merger²⁴ notify the Department of Justice and the Federal Trade Commission of their proposed transaction prior to consummation; furnish those two agencies with information enabling an antitrust review of the merger; and defer consummating their merger until after that antitrust review.²⁵ Hart-Scott-Rodino is a defining feature of modern United States merger enforcement and is considered to generate significant gain to consumer welfare because it provides a means for the antitrust agencies to review and challenge anticompetitive mergers prior to their consummation.²⁶

Hart-Scott-Rodino’s premerger requirements apply if two requirements are met. First, the transaction must meet certain HSR thresholds, in that the transaction must be sufficiently large and possibly also that one or both of

²² Hart-Scott-Rodino, Antitrust Improvement Act, Pub. L. N. 94-435, 90 Stat. 1383 (1976).

²³ 16 C.F.R. §§ 801.1 *et seq.*

²⁴ Hart-Scott-Rodino is broad in scope and applies to not just mergers, but also to “consolidations, tender offers, private purchases, other acquisitions of voting securities or noncorporate interests, and acquisitions of certain assets, as well as to the formation of corporate and noncorporate joint ventures.” ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 406 (8th ed. 2017). Section 7 of the Clayton Act, discussed below, likewise is broad in scope and encompasses a wide range of acquisitions, including both stock acquisitions and asset acquisitions. *See* 15 U.S.C. § 18. This article uses “merger” to refer to the entire set of transactions encompassed by Section 7.

²⁵ *See* 15 U.S.C. § 18a.

²⁶ *See* William J. Baer, *Reflections on Twenty Years of Merger Enforcement Under the Hart-Scott-Rodino Act*, 65 ANTITRUST L.J. 825 (1997).

the merging parties must be sufficiently large.²⁷ Second, the transaction must not be within one of the Hart-Scott-Rodino exemptions.²⁸

If a merger satisfies these two HSR requirements, the parties must report the merger to the agencies and abide by a waiting period before consummating it.²⁹ Additionally, the merging parties must provide the agencies with detailed information about the transaction and themselves,³⁰ including various internal documents bearing on the potential competitive effects of the merger.³¹

Once the merging parties have made their HSR submissions, a waiting period commences³² and one of the two agencies will be assigned to the merger for review.³³ Based on the information it has obtained during the waiting period,³⁴ the reviewing agency will conduct an initial assessment of

²⁷ The HSR thresholds are (1) the stock or assets held as result of the transaction are worth more than \$200 million (as adjusted); or (2) the stock and assets are valued between \$50 million (as adjusted) and \$200 million (as adjusted) and one of the parties has at least \$10 million (as adjusted) and the other at least \$100 million (as adjusted) in total assets or net annual sales. *See* 15 U.S.C. § 18a(a). Small mergers, that is, those below the \$50 million threshold (as adjusted), do not have to be reported under Hart-Scott-Rodino *See id.* Pursuant to Hart-Scott-Rodino, this and the other HSR thresholds in this footnote have been and continue to be adjusted yearly for inflation. *See* 15 U.S.C. § 18a(a). For instance, the \$200 million threshold currently is \$359.9 million. *See* Federal Trade Commission, *Revised Jurisdictional Thresholds for Section 7a of the Clayton Act*, 84. Fed. Register 7369-70 (Mar. 4, 2019).

²⁸ *See* 15 U.S.C. § 18a(c) (providing statutory exemptions); 16 C.F.R. §§ 802.1-802.80 (providing additional exemptions).

²⁹ *See* 15 U.S.C. § 18a(b)(1)(B) (30 day waiting period but 15 days in case of a cash tender offer).

³⁰ *See* Federal Trade Commission, Hart-Scott-Rodino Notification and Report Form (2017), *available at* https://www.ftc.gov/system/files/attachments/form-instructions/hsr_form_ver_102_-_01-02-17_0.pdf. The fact of an HSR filing and its contents are confidential, though companies may note that the transaction is subject to antitrust approval when they announce the transaction or elsewhere.

³¹ The most important category of these documents are so-called 4(c) documents, which are documents “prepared by or for any officer(s) or director(s) . . . for the purpose of evaluating or analyzing the transaction with respect to market shares, competition, competitors, markets, potential for sales growth or expansion into product or geographic markets.” Fed. Trade Comm’n, *Instructions, Antitrust Improvements Act Notification and Report Form* (2018), *available at* https://www.ftc.gov/system/files/attachments/form-instructions/hsr_form_instructions_-_06-25-18.pdf.

³² *See* 15 U.S.C. § 18a(b)(1)(A).

³³ DOJ and FTC staff consult, and then the merger is assigned to one of the two agencies. *See, e.g.*, Federal Trade Commission, *Premerger Notification and the Merger Review Process*, *available at* <https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/mergers/premerger-notification-merger-review>.

³⁴ During the waiting period, the reviewing agency may also obtain information from third-parties, such as customers, competitors, or suppliers of the merging parties, germane to the competitive effects analysis and also may request additional information from the

the likely competitive effects of the reported merger and determine whether further investigation is necessary. Based on the reviewing agency's assessment, the agency can take one of three actions. Two options are for the agency to let the waiting period expire or to terminate the waiting period, each of which clears the merger and permits the parties to consummate their transaction.³⁵

On the other hand, if the reviewing agency identifies a potential competition issue with the reported merger during the waiting period, the agency can extend the review and request the parties provide additional information facilitating the agency's further, and more fulsome, evaluation of the merger.³⁶ This process, known as a second request, ordinarily obligates the merging parties to produce voluminous documents, data, other information to the reviewing agency in order to facilitate the agency's competitive effects analysis and imposes considerable costs on the merging parties, as well as the reviewing agency.³⁷

Once the parties to the reported merger have substantially complied with the second request, another waiting period commences.³⁸ During this period, the agency can either close the investigation, thus allowing the parties to consummate the transaction; or the agency can challenge the reported merger. The challenge can either result in a settlement in the form of a consent order or decree, which also will enable the parties to close their transaction but with conditions or, if a settlement is not reached, proceed to active litigation.

The vast majority of mergers subject to Hart-Scott-Rodino are deemed to not pose any substantial competitive threat and therefore close without any merger challenge by the antitrust agencies. Data for Fiscal Year 2018 indicate that 2111 mergers were reported under the HSR Act and the agencies challenged just 39 (or approximately 1.8%) of those transactions.³⁹

merging parties. *See* ANTITRUST LAW DEVELOPMENTS, *supra* note 24, at 410 n. 418.

³⁵ *See* Fed. Trade Comm'n, *Merger Review*, available at <https://www.ftc.gov/news-events/media-resources/mergers-and-competition/merger-review>.

³⁶ *See id.*

³⁷ In addition to the production of documents and data, a second request ordinarily also will require merging parties to provide substantial responses to detailed interrogatories relating to the transaction and its potential competitive effects. *See* ANTITRUST LAW DEVELOPMENTS, *supra* note 24, at 410. A second request also may involve a number of party and third-party depositions, as well as the production of documents by third-parties. *See id.*

³⁸ *See* 15 U.S.C. § 18a(e)(2) (additional 30 day waiting period but 10 days in case of a cash tender offer).

³⁹ *See* Fed. Trade Comm'n & U.S. Dep't of Justice, *Hart-Scott-Rodino Annual Report Fiscal Year 2018* (2019), available at <https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-bureau-competition-department-justice-antitrust-division-hart-scott-rodino/fy18hrsreport.pdf>, at 1-

B. Ex Ante Challenges: Merger Challenges Occurring in Connection with HSR Review

Merger review is fundamentally a factual exercise that requires the agencies undertake a case-by-case analysis to determine whether the transaction is likely to substantially lessen competition.⁴⁰ The agencies challenge mergers as violations of Section 7 of the Clayton Act,⁴¹ which prohibits acquisitions that may substantially lessen competition or tend to create a monopoly.⁴² Harm to competition is evaluated through the lens of consumer welfare,⁴³ the impairment of which includes both price effects and non-pecuniary harms.⁴⁴

In reviewing a reported merger to determine its expected competitive effects, the reviewing agency will conduct a multifaceted analysis based on the information and data available to it at the time of review. If the reviewing agency believes the merger is likely to substantially lessen competition and should be challenged, the merging parties can avoid litigation by negotiating with the reviewing agency and entering into a consent order, in the case of the FTC, or a consent decree, in the case of the

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⁴⁰ See Fed. Trade Comm'n, *Merger Review*, *supra* note 35 (“Under the Hart-Scott-Rodino Act, the FTC and the Department of Justice review most of the proposed transactions that affect commerce in the United States and are over a certain size, and either agency can take legal action to block deals that it believes would ‘substantially lessen competition’”); Department of Justice, *Antitrust Division Manual* at p. III-22 (2019), available at <https://www.justice.gov/atr/division-manual> (explaining that “[w]hen investigating a transaction that raises significant competitive issues,” agency staff should “seek[] to determine objectively whether a proposed transaction likely will substantially lessen competition”).

⁴¹ 15 U.S.C. § 18. The FTC also challenges mergers under Section 5 of the FTC Act, which prohibits “unfair methods of competition” and “unfair or deceptive acts or practices.” 15 U.S.C. § 45.

⁴² See 15 U.S.C. § 18.

⁴³ Consumer welfare has a particular meaning in antitrust and is best defined as harm to trading parties on the other side of the market resulting from a disruption in the competitive process. See Hovenkamp & Shapiro, *supra* note 20, at 2000-2001 (“As we use this term, applying the ‘consumer welfare’ standard means that a merger is judged to be anticompetitive if it disrupts the competitive process and harms trading parties on the other side of the market.”) (footnote omitted). For a well-known critique of antitrust’s adoption of the consumer welfare standard, see Barak Orbach, *How Antitrust Lost its Goal*, 81 *FORDHAM L. REV.* 2253 (2013). For recent work in support of the consumer welfare standard, see A. Douglas Melamed and Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets*, 54 *REV. IND. ORG.* 741 (2019). See also Hovenkamp & Shapiro, *supra* note 20, at 2020 (explaining the relative merits of the consumer welfare standard).

⁴⁴ See *infra* notes 248 & 249 and accompanying discussion.

Department of Justice, (collectively “consent decree”) that alleviates the agency’s competitive concerns. The consent decree permits the merger to be cleared and to proceed forward but on the agreed upon terms. Nearly all challenged mergers are settled through consent decree (or with the parties abandoning or restructuring their transaction) and do not proceed to active litigation.⁴⁵

The relief ordered by a consent decree will be tailored to address the merger’s specific harm. Antitrust remedies are generally classified as structural remedies or as behavioral, or conduct, remedies, though any given remedy may have both structural and behavioral components. Structural remedies, as the name implies, impose some structural change on the merging parties, such as a divestiture of assets or some other breakup. Behavioral remedies, in contrast, seek to regulate the conduct of the merging parties.

C. *Ex-Post Challenges to Previously Reviewed and Cleared Mergers*

If the agencies decide not to challenge the reportable merger in connection with the Hart-Scott-Rodino process or if one agency does challenge the merger but enters into a consent decree, the parties will be cleared to consummate the merger. In addition to challenging a merger during the merger review process, the agencies also may challenge a reported merger after the transaction has been reviewed and cleared.⁴⁶

1. Agencies’ Legal Authority to Bring Ex-Post Challenges to Previously Reviewed and Cleared Mergers

While Hart-Scott-Rodino provides a mechanism for agency review of and pre-consummation challenges to reported mergers, nothing in the statute prohibits the agencies from challenging a reported merger at some

⁴⁵ Of the 39 agency challenges to reportable mergers occurring in Fiscal Year 2018, *see supra* note 39 and associated text, 20 were settled with consent decrees, 13 were abandoned or restructured by the parties, and only 6 proceeded to active litigation. *See* Fed. Trade Comm’n & U.S. Dep’t of Justice, *Hart-Scott-Rodino Annual Report Fiscal Year 2018*, *supra* note 39, at 2-3.

⁴⁶ In addition to challenging reported mergers prior to clearance or after merger clearance, the agencies also may and do investigate and challenge mergers that were not reportable under the Hart-Scott-Rodino Act. Agency challenges to non-reportable mergers are not uncommon. Investigations of non-reportable transactions constituted nearly 20% of the Department of Justice’s merger investigations between 2009 to 2013 and nearly 25% of these investigations resulted in a challenge. *See* Leslie C. Overton, Department of Justice, *Non-Reportable Transactions and Antitrust Enforcement* (2014), available at <https://www.justice.gov/atr/file/517791/download>, at 2.

later stage, including after merger review, merger clearance, and merger consummation. In fact, Section 7(A)(i) of the Hart-Scott-Rodino Act states:

“Any action taken by the Federal Trade Commission or the Assistant Attorney General or any failure of the Federal Trade Commission or the Assistant Attorney General to take any action under this section shall not bar any proceeding or any action with respect to such acquisition at any time under any other section of this Act or any other provision of law.”⁴⁷

Thus, by the express terms of Section 7(A)(i), the fact that the agencies reviewed and cleared a reported merger does not preclude the agencies from challenging the transaction at some later date.⁴⁸ As some commentators have observed, Section 7(A)(i) embodies Congress’ intent to “not penalize the antitrust enforcement agencies if they chose not to use, or only partially use, the Act’s preacquisition notification procedures.”⁴⁹

Agency practice acknowledges the possibility of later challenges to cleared mergers. For example, FTC letters announcing that a merger investigation has ended without challenge may include language referencing the possibility of subsequent FTC action, such as:

“[T]he investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.”⁵⁰

⁴⁷ 15 U.S.C. § 18a(i)(1).

⁴⁸ See STEPHEN M. AXINN, ET AL., ACQUISITIONS UNDER THE HART-SCOTT-RODINO IMPROVEMENTS ACT § 9.07 (2011) (“[T]he government will not later be estopped from challenging an acquisition after it has been consummated because of its failure to take steps to prevent the acquisition during the preacquisition waiting period.”); Terry Calvani, *The Government has the Right to Challenge Mergers After Hart-Scott-Rodino Review*, 4 ANTITRUST 27, 29 (1990) (“[T]he enactment of the premerger notification provisions did not affect the ability of the federal antitrust enforcement agencies to challenge a transaction after expiration of the waiting periods created by the statute.”).

⁴⁹ See *id.*

⁵⁰ Ltr. from Federal Trade Commission to Counsel for Valero Energy, FTC File No. 161-0220 (Apr. 5, 2018), available at https://www.ftc.gov/system/files/documents/closing_letters/nid/161_0220_valero_plains_closing_letter_to_counsel_for_valero.pdf; see also Calvani, *supra* note 48, at 28 (citing similar language). Statements by FTC Commissioners issued in connection with consents and merger challenges occasionally include similar language. See, e.g., Statement of FTC Commissioners Orson Swindle & Thomas B. Leary, PepsiCo/Quaker Oats, FTC File No.

An ex-post agency challenge to a reported and cleared merger seeking equitable relief, such as a breakup or a conduct remedy, would not be barred by any statute of limitations. Claims for equitable relief are not subject to the Clayton Act's four year limitations period⁵¹ and laches ordinarily cannot be asserted against the government.⁵²

2. Remedies in Ex-Post Challenges to Previously Reviewed and Cleared Mergers

Because merging parties ordinarily will close their transaction shortly after they have received merger clearance, an ex-post challenge to a previously reviewed and cleared merger usually will occur after the merger has been consummated.⁵³ As with a challenge during the HSR process, an ex-post challenge to a cleared merger can be resolved through a consent decree or litigation.

If the parties are unable to settle through a consent decree and the agency litigates its post-clearance merger challenge, the agency will be aided by the time-of-suit doctrine, announced by the Supreme Court in *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586 (1957). Under that doctrine, when an agency brings a Clayton Act Section 7 claim challenging a merger, it can rely on market conditions at the time of suit, rather than conditions at the time of the merger, for purposes of establishing that the transaction may substantially impair competition.⁵⁴

If the agency prevails in litigation on its Section 7 claim, the court or the Commission will fashion a remedy that “is necessary and appropriate in the public interest to eliminate the [anticompetitive] effects of the acquisition.”⁵⁵ In imposing a remedy, the court “has broad equitable

011-0059 (2001), available at <https://www.ftc.gov/sites/default/files/documents/cases/2001/08/swindlelearypepsistatement.htm> (“If the Commission concludes that competition is threatened as a result of any such practices, it should seek appropriate relief against any firms engaged in anti-competitive conduct, including, if necessary, post-acquisition divestitures.”).

⁵¹ See 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 320g (4th ed. 2016) (“The [Clayton Act’s 4 year] limitation period applies only to damages action. Equity actions, private or governmental, are not restricted by the statute of limitation.”).

⁵² See *id.* & *infra* note 203 (noting the “usual proposition that laches does not run against the government.”).

⁵³ See Section III.B, *infra*.

⁵⁴ See *du Pont*, 353 U.S. at 590-91. For a thorough discussion and analysis of *du Pont*’s time of suit doctrine, see Scott A. Sher, *Closed But Not Forgotten: Government Review of Consummated Mergers Under Section 7 of the Clayton Act*, 45 SANTA CLARA L. REV. 41, 57-77 (2004). See also Section IV.C, *infra* (discussing post-clearance suits based on market conditions at time of suit).

⁵⁵ See *du Pont*, 353 U.S. at 586.

authority to [restore competition] despite substantial burdens on the acquirer and others.”⁵⁶

When the challenged merger has been consummated, courts ordinarily impose a structural remedy, such as a remedy causing the breakup of the merged firm or the divestiture of some of the acquired assets, which are often supported by facilitating remedies.⁵⁷ However, the fact of merger consummation does not obligate the tribunal to order a break-up or other structural remedy. In some challenges to a consummated merger, if the difficulty of or the costs associated with a breakup are too high, the appropriate remedy may be a conduct remedy that eliminates the merger’s competitive harm.

An example of a recent challenge to a consummated (though a non-reported⁵⁸) merger in which structural relief such as a breakup was not ordered is the FTC’s successful challenge of Evanston Northwestern Healthcare’s (“Evanston Northwestern”) acquisition of Highland Park (“Highland Park”) Hospital.⁵⁹ The FTC challenged the merger through an administrative proceeding, and the ALJ concluded that the merger violated Section 7 and ordered the breakup of the merged entity.⁶⁰

The merging parties appealed and, seven years after the merger had closed, the Commission affirmed the ALJ’s liability ruling but reversed as to the remedy.⁶¹ The Commission explained that while divestiture is ordinarily the preferred remedy in a Section 7 case,⁶² breaking up the two integrated entities in this particular instance would be costly because a significant amount of time had elapsed between the closing of the merger and the conclusion of the litigation⁶³ and that a breakup could be injurious to consumers because Evanston Northwestern had invested in and made improvements to Highland Park.⁶⁴ The appropriate remedy, the

⁵⁶ ANTITRUST LAW DEVELOPMENTS, *supra* note 24, at 428.

⁵⁷ See *In re Chicago Bridge & Iron Co.*, 138 FTC 1024, 1160 (2005) (“Much of the case law has . . . found divestiture the most appropriate means for restoring competition lost as a consequence of a merger or acquisition.”); *In the Matter of Evanston Northwestern Healthcare Corporation*, Opinion of the Commission (2007), <https://www.ftc.gov/sites/default/files/documents/cases/2007/08/070806opinion.pdf>, at 89 (“Structural remedies are preferred for Section 7 violations.”).

⁵⁸ See *infra* note 92.

⁵⁹ See *Evanston Northwestern v. Highland Park*, FTC Docket No. 9315.

⁶⁰ See *In the Matter of Evanston Northwestern Healthcare Corporation*, FTC Docket No. 9315 (Jan. 12. 2006) at 6-7.

⁶¹ See *id.* at 5.

⁶² See *id.* at 89. See also *id.* at 91 (“Divestiture is the preferred remedy for challenges to unlawful mergers, regardless of whether the challenge occurs before or after consummation.”).

⁶³ See *id.*

⁶⁴ See *id.*

Commission concluded, was a conduct remedy.⁶⁵

3. The Rarity of Ex-Post Challenges to Previously Reviewed and Cleared Mergers

Despite the agencies' ability to challenge reviewed and cleared mergers after the fact and, as discussed below,⁶⁶ the potential competitive benefits of such ex-post merger challenges, they are extremely rare. Publicly available materials, such as agency statements and reports, news reports, and other sources, were reviewed to identify the extent of agency challenges to cleared mergers since 2001.⁶⁷ The research to date indicates that the agencies have mounted just four ex-post merger challenges to cleared mergers since 2001.⁶⁸

The most recent ex-post agency challenge to a cleared merger is the DOJ's 2017 challenge to Parker-Hannifin's acquisition CLARCOR as it related to certain fuel filtration assets that Parker-Hannifin acquired in connection with that larger transaction.⁶⁹ The parties had reported their merger to the antitrust agencies pursuant to Hart-Scott-Rodino, and the agencies cleared the merger on January 17, 2017 by letting the 30 day waiting period expire without taking any action.⁷⁰ The parties consummated

⁶⁵ See *id.* at 5.

⁶⁶ See Section III.A *infra*.

⁶⁷ 2001 was chosen as the starting point because of a significant change to the HSR thresholds made effective on February 1, 2001. See Federal Trade Commission, *Major Changes to Hart-Scott-Rodino Premerger Notification Requirements to Take Effect February 1, 2001* (2001), available at <https://www.ftc.gov/news-events/press-releases/2001/01/major-changes-hart-scott-rodino-premerger-notification> (HSR threshold changes including increasing the lower bound of the HSR reporting threshold from \$15 million to \$50 million).

⁶⁸ In addition to the four challenges to reviewed and cleared mergers discussed below, another potential such ex-post challenge since 2001 is the FTC's 2001 challenge to Airgas's acquisition of Mallinckrodt's Puritan-Bennett's medical gas business. However, the FTC's April 2012 Year in Review is ambiguous whether that FTC challenge was a challenge to a reported merger that had been cleared and consummated or instead was a challenge to a non-reportable merger that had been consummated. See Federal Trade Commission, BUILDING ON A STRONG FOUNDATION: THE FTC YEAR IN REVIEW (Apr. 2012), available at https://www.ftc.gov/sites/default/files/documents/reports_reports_annual/annual-report-2002/ftcyearreview_0.pdf.

⁶⁹ See Press Release, Department of Justice, *Justice Department Files Antitrust Lawsuit Against Parker-Hannifin Regarding Company's Acquisition of CLARCOR's Aviation Fuel Filtration Products* (Sept. 26, 2017), available at <https://www.justice.gov/opa/pr/justice-department-files-antitrust-lawsuit-against-parker-hannifin-regarding-company-s>.

⁷⁰ See Sidley Austin LLP, *Merger Filers Beware: Department of Justice Challenges a Transaction that Cleared Hart-Scott Rodino* (Oct. 10, 2017), available at

their transaction shortly thereafter.⁷¹

Even though the agencies cleared the merger, the DOJ subsequently commenced investigation,⁷² potentially in response to consumer complaints that alerted the DOJ of the competitive overlap in the relevant fuel filtration markets.⁷³ The DOJ went on to challenge the merger by filing suit in September 2017, alleging that the transaction as it related to the pertinent fuel filtration assets threatened to result in higher prices, less innovation, and less favorable terms of service.⁷⁴

Parker-Hannifin settled with the DOJ three months later.⁷⁵ Because the suit only challenged one component of the merger, the settlement did not result in a break-up of the merged company per se. Instead, the settlement just resulted in Parker-Hannifin divesting the specific assets that were subject of the merger challenge and the source of the competitive harm,⁷⁶ which were a relatively small component of the overall transaction.⁷⁷

Additional ex-post agency challenges to cleared mergers since 2001 include:

- Chicago Bridge & Iron/Pitt-Des Moines. The FTC challenged Chicago Bridge & Iron's merger with Pitt-Des Moines in October 2001, approximately a year after clearance.⁷⁸ The

<https://www.sidley.com/en/insights/newsupdates/2017/10/merger-filers-beware-department-of-justice-challenges-a-transaction>.

⁷¹ See *id.*

⁷² See *United States v. Parker-Hannifin*, Competitive Impact Statement, Case No. 17-1354 (Dec. 18, 2017) available at <https://www.justice.gov/atr/case-document/file/1018651/download>.

⁷³ See Cravath, Swaine & Moore LLP, *DOJ Challenges Parker-Hannifin's Acquisition of CLARCOR* (Oct. 6, 2017), available at https://www.cravath.com/files/uploads/Documents/Publications/3679431_1.PDF, at 2 & n.4.

⁷⁴ See Press Release, Department of Justice, *Justice Department Files Antitrust Lawsuit Against Parker-Hannifin Regarding Company's Acquisition of CLARCOR's Aviation Fuel Filtration Products* (Sept. 26, 2017), available at <https://www.justice.gov/opa/pr/justice-department-files-antitrust-lawsuit-against-parker-hannifin-regarding-company-s>.

⁷⁵ See Press Release, Department of Justice, *Justice Department Reaches Settlement with Parker-Hannifin* (Dec. 18, 2017), available at <https://www.justice.gov/opa/pr/justice-department-reaches-settlement-parker-hannifin>.

⁷⁶ See *id.* The consent decree also included provisions facilitating compliance and enforcement of the settlement. See *id.*

⁷⁷ See Cravath, Swaine & Moore LLP, *DOJ Challenges Parker-Hannifin's Acquisition of CLARCOR*, *supra* note 73, at 2.

⁷⁸ See Pretrial Brief of Respondent Chicago Bridge & Iron As Corrected on October 29, 2002, In the Matter of Chicago Bridge & Iron Co., FTC Docket No. 9300 (Nov. 5, 2002), available at <https://www.ftc.gov/sites/default/files/documents/cases/2002/11/021105respondentspretrial>

agencies let the Hart-Scott-Rodino waiting period expire with no action, thereby clearing the merger, but the FTC nonetheless commenced an investigation of the merger just one week after clearance.⁷⁹ The FTC prevailed in its merger challenge and the Fifth Circuit affirmed the liability finding and the divestiture remedy that ordered a breakup of the merged company.⁸⁰

- Hearst/Medi-Span. In 2001, the Federal Trade Commission challenged Hearst's 1998 acquisition of Medi-Span.⁸¹ The parties had reported their transaction pursuant to Hart-Scott-Rodino and the agencies had cleared it without a second request.⁸² The FTC nonetheless investigated the merger post-clearance because of consumer complaints about dramatic price increases.⁸³ As part of the investigation, the FTC learned that that Hearst had failed to submit all of the necessary internal documents with its HSR filing.⁸⁴ The FTC challenged the merger by filing suit April 2001.⁸⁵ Hearst settled the matter in December 2001 and agreed to divest the Medi-Span business and disgorge its unlawfully acquired profits.⁸⁶
- Deere/Precision Planting. In August 31, 2016, the Department of

brief.pdf at 4.

⁷⁹ See *id.* The reason for the lack of a second request but commencement of an investigation so quickly after clearance is unknown. Once the investigation had commenced, the parties initially delayed closing their transaction at the request of the FTC but ultimately consummated the merger during the FTC's investigation and four months after merger clearance. See *id.*

⁸⁰ See *Chi. Bridge & Iron v. FTC*, 534 F.3d 410 (5th Cir. 2008). In order to restore the competitive landscape to what it was before the merger, the remedy not only required Chicago Bridge & Iron to divest the PDM assets that it had acquired through its merger with PDM but also to divest certain assets that Chicago Bridge & Iron had acquired after the acquisition. See *In re Chi. Bridge & Iron Co.*, 138 F.T.C. 1024, 1158-77 (2005).

⁸¹ See Fed. Trade Comm'n, *FTC Charges Hearst Trust with Acquiring Monopoly in Vital Drug Information Market* (Apr. 4, 2011), available at <https://www.ftc.gov/news-events/press-releases/2001/04/ftc-charges-hearst-trust-acquiring-monopoly-vital-drug>.

⁸² See Complaint, *FTC v. Hearst Trust* (Apr. 4, 2001), available at <https://www.ftc.gov/sites/default/files/documents/cases/2001/04/hearstcmp.htm>.

⁸³ See *id.* at ¶ 21.

⁸⁴ See Fed. Trade Comm'n, *The Hearst Corporation Settles Charges of Filing Incomplete Pre-Merger Report* (Oct 11, 2011), available at <https://www.ftc.gov/news-events/press-releases/2001/10/hearst-corporation-settles-charges-filing-incomplete-pre-merger>.

⁸⁵ See Fed. Trade Comm'n, *FTC Charges Hearst Trust*, *supra* note 81.

⁸⁶ See Fed. Trade Comm'n, *Hearst Corp. to Disgorge \$19 Million and Divest Business to Facts and Comparisons to Settle FTC Complaint* (Dec. 14, 2001), available at <https://www.ftc.gov/news-events/press-releases/2001/12/hearst-corp-disgorge-19-million-and-divest-business-facts-and>.

Justice filed suit to challenge Deere's acquisition of Precision Planting from Monsanto.⁸⁷ The parties had reported their transaction pursuant to Hart-Scott-Rodino and the agencies had cleared it.⁸⁸ The DOJ nonetheless challenged the merger after clearance,⁸⁹ allegedly because a Deere competitor complained.⁹⁰ In response to the DOJ's merger challenge, the parties abandoned their transaction.⁹¹

Thus, while the agencies can mount ex-post challenges to cleared mergers, such challenges are currently very rare.⁹²

⁸⁷ See Department of Justice, *Justice Department Sues to Block Deere's Acquisition of Precision Planting* (Aug. 31, 2016), available at <https://www.justice.gov/opa/pr/justice-department-sues-block-deere-s-acquisition-precision-planting>.

⁸⁸ See Answer of Defendant Deere & Company, *United States v. Deere & Company*, Case No. 1:16-cv-08515 (Dec. 12, 2016) at 1.

⁸⁹ Unlike the other ex-post agency challenges to cleared mergers, the parties in the Deere/Precision Planning merger had not yet consummated their cleared merger when the DOJ challenged it. See Monsanto Company, Quarterly Report (Form 10-Q) at 9 (Jan. 6, 2017), available at <https://www.sec.gov/Archives/edgar/data/1110783/000111078317000008/mon-20171130xq1.htm> ("As a result of [the DOJ's suit], the closing date for this transaction is uncertain").

⁹⁰ See Deere's Answer in *United States v. Deere & Company*, *supra* note 88, at 1.

⁹¹ See Department of Justice, *Deere Abandons Proposed Acquisition of Precision Planting from Monsanto* (May 1, 2017), available at <https://www.justice.gov/opa/pr/deere-abandons-proposed-acquisition-precision-planting-monsanto>.

⁹² The merger at issue in the Evanston Northwest/Highland Park challenge discussed in Section I.C.2 *supra* was not reported under HSR because the parties apparently received representations from the FTC's Pre-Merger Notification Office that their transaction was not reportable. See Respondent's Corrected Appeal Brief, In the Matter of Evanston Northwestern Healthcare Corporation, FTC Docket No. 9315 (Jan. 12, 2006), available at <https://www.ftc.gov/sites/default/files/documents/cases/2006/01/060112enhappealbriefcorrected.pdf>, at 86. Additionally, the FTC's 2010 challenge to Tops Markets' acquisition of Penn Traffic Company was a post-consummation challenge to a reported transaction but, for reasons relating to the pending bankruptcy of the Penn Traffic, the FTC and Tops Markets entered into an agreement permitting the deal to close while the FTC completed its investigation. See Federal Trade Commission, *FTC Order Requires Tops Markets to Sell Seven Penn Traffic Supermarkets* (2010), available at <https://www.ftc.gov/news-events/press-releases/2010/08/ftc-order-requires-tops-markets-sell-seven-penn-traffic>. Finally, though the parties closed the transaction during the pendency of the challenge, the FTC's 2007 challenge of the Whole Foods-Wild Oats merger occurred in connection with the Hart-Scott-Rodino process and therefore is not an example of an agency challenge to a previously reviewed and cleared merger. See *FTC v. Whole Foods Mkt.*, 548 F.3d 1028, 1032-33 (D.C. Cir. 2008) (describing procedural history).

II. IDENTIFIED MERGER CHALLENGES AND BREAKUP TARGETS

The recent calls for the antitrust breakup of the large technology companies seek to effectuate that breakup through a variety of different mechanisms. One suggested mechanism is for the federal antitrust agencies to mount vigorous Section 7 challenges to certain key mergers in the technology space alleged to be generating competitive harm and seek a remedy that causes the mergers to be unwound. The technology mergers identified for challenge and breakup include: Facebook-Instagram and Facebook-WhatsApp;⁹³ Amazon-Whole Foods and Amazon-Zappos⁹⁴; Google-DoubleClick, Google-Nest, and Google-Waze.⁹⁵

This Part of the article briefly discusses these mergers; their perceived competitive harm as described by advocates of their breakup; and the

⁹³ See, e.g., Sen. Richard Blumenthal (@SenBlumenthal), TWITTER (Mar. 5, 2019, 7:01 PM), <https://twitter.com/SenBlumenthal/status/1103128392482897920> (identifying Facebook-Instagram as potential breakup target); Hughes, *It's Time to Break Up Facebook*, *supra* note 1; Warren, *Here's How We Can Break Up Big Tech*, *supra* note 2 (identifying Facebook-WhatsApp and Facebook-Instagram as breakup targets); Tim Wu, *The Case for Breaking Up Facebook and Instagram*, THE WASHINGTON POST (Sept. 28, 2018), available at <https://www.washingtonpost.com/outlook/2018/09/28/case-breaking-up-facebook-instagram/> (“If a better analysis is used, it becomes clear that Facebook’s acquisition of Instagram was illegal to begin with; the FTC should require Facebook to unwind the acquisition of both WhatsApp and Instagram”); Wu, *THE CURSE OF BIGNESS*, *supra* note 3, at 132-33 (2018) (discussing unwinding of Facebook-Instagram and Facebook-WhatsApp mergers); Sarah Miller, *Break Up Facebook: Latest Hack Proves It's a Dangerous Monopoly That a Fine Won't Fix* (Oct. 5, 2018), available at <https://openmarketsinstitute.org/op-eds-and-articles/break-facebook-latest-hack-proves-dangerous-monopoly-fine-wont-fix/> (calling on FTC to spinoff WhatsApp and Instagram from Facebook); Letter from Electronic Privacy Information Center et al. to FTC Chairman Joseph J. Simons (Jan. 24, 2019), available at <https://epic.org/privacy/facebook/2011-consent-order/US-NGOs-to-FTC-re-FB-Jan-2019.pdf> (“[T]he FTC should require Facebook to unwind the acquisition of both WhatsApp and Instagram”). See also Rep. David N. Cicilline, Letter to Commissioners of the Federal Trade Commission (Mar. 19, 2019), available at https://cicilline.house.gov/sites/cicilline.house.gov/files/documents/Facebook_FTC.pdf (requesting FTC to investigate Facebook for antitrust violations, including with respect to its acquisitions of WhatsApp and Instagram).

⁹⁴ See, e.g., Warren, *Here's How We Can Break Up Big Tech*, *supra* note 2 (identifying Amazon-Whole Foods and Amazon-Zappos as breakup targets).

⁹⁵ See, e.g., Sen. Richard Blumenthal, Mar. 5, 2019 tweet, *supra* note 93 (identifying Google-DoubleClick as potential breakup target); Allison Grande, *FTC Urged to Make Google Spin Off Nest After Privacy Flap*, LAW360 (Feb. 21, 2019), available at <https://www.law360.com/articles/1131488/ftc-urged-to-make-google-spin-off-nest-after-privacy-flap> (discussing calls by the Electronic Privacy Information Center that the FTC unwind the Google-Nest merger); Warren, *Here's How We Can Break Up Big Tech*, *supra* note 2 (identifying Google-Waze, Google-Nest, and Google-DoubleClick as breakup targets).

antitrust agencies' prior review of those mergers in terms of the legal infrastructure discussed in the previous Part. The most notable observation is that with one exception, each of the technology mergers identified for breakup was previously reviewed and cleared by the federal agencies pursuant to the Hart-Scott-Rodino process discussed above.

A. Facebook/Instagram and Facebook/WhatsApp

Facebook/Instagram. Facebook's 2012 acquisition of Instagram is the transaction that is perhaps most frequently identified as a breakup target.⁹⁶ Facebook announced this acquisition on April 9, 2012,⁹⁷ and the transaction was reported to the antitrust authorities pursuant to Hart-Scott-Rodino.⁹⁸

In May 2012, it became known that Federal Trade Commission was investigating the proposed transaction.⁹⁹ In August 2012, about five months after the deal was announced, the FTC announced that it had closed its investigation.¹⁰⁰ The FTC vote to close the investigation was unanimous.¹⁰¹ At the time of the transaction, Instagram was considered a photo-sharing application, not a social media platform, and thus not vied to be in head-to-head competition with Facebook,¹⁰² especially since Instagram only had about 30 million users when the transaction was announced.¹⁰³ Nonetheless, some experts and scholars expected the investigation to last up to six to twelve months.¹⁰⁴

Recent calls for the breakup of the technology mergers do not always identify the specific competitive harm generated by the merger that

⁹⁶ See *supra* note 93.

⁹⁷ See Facebook, *Facebook to Acquire Instagram* (Apr. 9, 2012), available at <https://newsroom.fb.com/news/2012/04/facebook-to-acquire-instagram/>.

⁹⁸ See Facebook, Amendment No. 4 to Registration Statement (Form S-1) at 65 (Apr. 23, 2012), available at <https://www.sec.gov/Archives/edgar/data/1326801/000119312512175673/d287954ds1a.htm>

⁹⁹ See April Dembosky, *Watchdog Threat to Facebook Deal for Instagram*, FIN. TIMES (May 11, 2012),

¹⁰⁰ See Fed. Trade Comm'n, *FTC Closes Its Investigation Into Facebook's Proposed Acquisition of Instagram's Photo Sharing Program* (Aug. 22, 2012), available at <https://www.ftc.gov/news-events/press-releases/2012/08/ftc-closes-its-investigation-facebooks-proposed-acquisition>.

¹⁰¹ *Id.*

¹⁰² See, e.g., Donald Martin, Ran Farmer & Zsolt Macskasi, *Facebook's Instagram Deal: Why is the FTC Involved*, LAW360 (May 25, 2012), available at <https://www.law360.com/articles/344304>.

¹⁰³ See Bruce Upbin, *Facebook Buys Instagram for \$1 Billion*, FORBES.COM (Apr. 4, 2009), available at <https://www.forbes.com/sites/bruceupbin/2012/04/09/facebook-buys-instagram-for-1-billion-where-the-revenue/#607132354b8a>.

¹⁰⁴ See Dembosky, *Watchdog Threat*, *supra* note 99.

motivates and would serve as the basis of the merger challenge. However, in the case of Facebook-Instagram, the alleged competitive harm caused by the merger includes a loss of innovation and a loss of privacy.¹⁰⁵

Facebook/WhatsApp. In February 2014, Facebook announced its \$19 billion blockbuster acquisition of WhatsApp.¹⁰⁶ Like Facebook/Instagram, Facebook's acquisition of WhatsApp was subjected to federal antitrust review through the Hart-Scott-Rodino process.¹⁰⁷ Because of competition between instant messaging and text messaging, a number of experts at the time did not expect the deal to raise antitrust concern.¹⁰⁸ Some privacy groups, however, expressed significant concern that the deal would undermine user privacy.¹⁰⁹

The Federal Trade Commission cleared the Facebook-WhatsApp transaction on April 10, 2014.¹¹⁰ The European Commission cleared the merger some months later and concluded that the transaction would not impair competition because "customers can and do use multiple [communication] apps at the same time and can easily switch from one to another."¹¹¹

As with Facebook/Instagram, a loss of privacy has been cited as the one of the primary competitive consequences of the Facebook-WhatsApp

¹⁰⁵ See Hughes, *It's Time to Break Up Facebook*, *supra* note 1; Wu, *The Case for Breaking Up Facebook and Instagram*, *supra* note 93. See also Dina Srinivasan, *The Antitrust Case Against Facebook: A Monopoly's Journey Towards Pervasive Surveillance in Spite of Consumers' Preference for Privacy*, 16 BERKELEY BUS. L.J. 39 (2019) (arguing that Facebook exercises monopoly power in a manner detrimental to user privacy); Letter by advocacy groups to FTC Chairman Joseph Simons (January 24, 2019) at 3, *available at* <https://epic.org/privacy/facebook/2011-consent-order/US-NGOs-to-FTC-re-FB-Jan-2019.pdf> (advocating that as a penalty for Facebook violating a 2011 consent order with the FTC concerning user privacy, the FTC should require Facebook to unwind its acquisition of Instagram and WhatsApp). For discussion of privacy as a cognizable antitrust harm, see Section IV.D, *infra*.

¹⁰⁶ See Gerry Shih & McBride, *Facebook to Buy WhatsApp for \$19 Billion*, REUTERS (Feb. 19, 2014), *available at* <https://www.reuters.com/article/us-whatsapp-facebook/facebook-to-buy-whatsapp-for-19-billion-idUSBREA1I26B20140219>.

¹⁰⁷ Alexei Oreskovic, *Facebook Says WhatsApp Deal Cleared by FTC*, REUTERS (Apr. 10, 2014), *available at* <https://www.reuters.com/article/us-facebook-whatsapp/facebook-says-whatsapp-deal-cleared-by-ftc-idUSBREA391VA20140410>.

¹⁰⁸ See Alex Byers, *Little Scrutiny Likely for WhatsApp*, POLITICO.COM (Feb. 20, 2014), *available at* <https://www.politico.com/story/2014/02/whatsapp-facebook-merger-approval-103733>.

¹⁰⁹ See Kirk Victor, *Privacy Groups Ask FTC to Probe Facebook's Deal to Buy WhatsApp*, FTC Watch, *available at* <https://www.mlexwatch.com/articles/1413/print?section=ftcwatch>.

¹¹⁰ See Oreskovic, *Facebook Says WhatsApp Deal Cleared by FTC*, *supra* note 107.

¹¹¹ European Commission, *Commission Approves Acquisition of WhatsApp by Facebook* (Oct. 3, 2014), *available at* https://europa.eu/rapid/press-release_IP-14-1088_en.htm.

merger.¹¹²

B. Amazon/Whole Foods and Amazon/Zappos

Amazon/Whole Foods. Another blockbuster merger that has been identified as an object for breakup is Amazon’s acquisition of Whole Foods, which was announced on June 16, 2007.¹¹³ As with the two Facebook mergers discussed above, Amazon’s acquisition of Whole Foods was vetted by the federal antitrust authorities pursuant to Hart-Scott-Rodino’s notification and review process.¹¹⁴

When the transaction was announced and during the FTC’s review, some argued that the transaction would be socially injurious along a variety of important dimensions.¹¹⁵ But antitrust experts observed that there should not be any *antitrust* issue with the transaction,¹¹⁶ because, to the extent the companies were rivals in any relevant market, they commanded a very low share of the market¹¹⁷ and because the two companies were not in a vertical

¹¹² See Cicilline, Ltr. to Commissioners of the Federal Trade Commission, *supra* note 93, at 3 (arguing that Facebook’s acquisition of WhatsApp undermined WhatsApp’s users’ privacy); Stucke & Steinbaum, *The Effective Competition Standard: A New Standard for Antitrust*, *supra* note 252, at 14 (arguing that Facebook’s acquisition of WhatsApp threatened user privacy).

¹¹³ See Nick Wingfield & Michael J. de al Merced, *Amazon to Buy Whole Foods for \$13.4 Billion*, N.Y. TIMES (June 16, 2017), available at <https://www.nytimes.com/2017/06/16/business/dealbook/amazon-whole-foods.html>.

¹¹⁴ See Fed. Trade Comm’n, *Statement of Federal Trade Commission’s Acting Director of the Bureau of Competition on the Agency’s Review of Amazon.com, Inc.’s Acquisition of Whole Foods Market Inc.* (Aug. 23, 2017), available at <https://www.ftc.gov/news-events/press-releases/2017/08/statement-federal-trade-commissions-acting-director-bureau>

¹¹⁵ See Rep. David Cicilline, Ltr. to House Committee on the Judiciary and House Subcommittee on Regulatory Reform, Commercial and Antitrust Law (June 13, 2017), available at https://cicilline.house.gov/sites/cicilline.house.gov/files/images/Amazon_Whole_Foods_Acquisition.pdf (requesting a hearing on the proposed transaction because it would “harm consumers, workers, and small businesses in our communities”); Barry C. Lynn, NEW AMERICA, *Open Markets Condemns Amazon Plan to Buy Whole Foods* (June 17, 2007), available at <https://www.newamerica.org/open-markets/press-releases/open-markets-condemns-amazon-plan-buy-whole-foods/> (“[Amazon] already dominates every corner of online commerce, and uses its power to set terms and prices for many of the most important products Americans buy or sell to one another.”).

¹¹⁶ See Jacob Pramuk, *Trump Likely Won’t Thwart Old Foe Jeff Bezos’ Latest Move*, CNBC (Jun. 19, 2017), available at <https://www.cnbc.com/2017/06/19/amazon-whole-foods-trump-administration-likely-wont-block-deal.html> (quoting antitrust assessments by Eleanor Fox and by Herbert Hovenkamp that the transaction should not pose antitrust concern).

¹¹⁷ See Melissa Lipman, *Amazon’s Whole Foods Buy Unlikely to Face Antitrust Hurdles*, LAW360 (June 19, 2017), available at <https://www.law360.com/articles/936085/amazon-s-whole-foods-buy-unlikely-to-face->

arrangement with one another.

On August 23, 2007, approximately two months after Amazon announced the transaction, the Federal Trade Commission announced that it had completed its investigation. The Commission determined that it would not pursue the matter further, including the issuance of a second request.¹¹⁸

The justification for challenging and potentially breaking-up the Amazon/Whole Foods merger is unstated.

Amazon/Zappos Amazon announced its acquisition of online shoe retailer Zappos on July 22, 2009.¹¹⁹ As with the other transactions above, this transaction also was subject to federal merger review through the Hart-Scott-Rodino process.¹²⁰ Though the two companies were competitors in a particular market segment, observers did not consider the transaction to pose any significant antitrust concern because of the companies' limited market shares and the competition they faced from other retailers.¹²¹ The transaction closed on October 31, 2009.¹²²

As with Amazon/Whole Foods, the motivation for the calls to unwind the Amazon/Zappos merger is unstated.

C. Google/DoubleClick, Google/Nest, and Google/Waze

Google/DoubleClick Google announced its acquisition of the online advertising company, DoubleClick, on April 13, 2007.¹²³ The transaction was subject Hart-Scott-Rodino review.¹²⁴ On May 29, 2007, Google

antitrust-hurdles (quoting Herbert Hovenkamp for the observation that if the relevant market is general groceries, then Whole Foods commands a small market share).

¹¹⁸ See *id.*

¹¹⁹ See Business Wire, *Amazon.com to Acquire Zappos.com* (July 22, 2009), available at <https://www.businesswire.com/news/home/20090722006145/en/Amazon.com-Acquire-Zappos.com>.

¹²⁰ See Zappos, Final Prospectus (Sept. 25, 2009), available at <https://www.sec.gov/Archives/edgar/data/1018724/000119312509199231/d424b3.htm> (“The Merger is subject to review by the FTC and the DOJ under the HSR Act. Under the HSR Act, [the parties] are required to make pre-merger notification filings and Amazon and Zappos must await the expiration of statutory waiting periods prior to completing the Merger”).

¹²¹ Diane Bartz, Reuters, *Amazon's Zappos Buy Seen Clearing Antitrust Review* (July 23, 2009), available at <https://www.reuters.com/article/zappos-amazon-antitrust/amazons-zappos-buy-seen-clearing-antitrust-review-idUSN2341906020090723>.

¹²² Letter from Tony Hsieh to Zappos Employees (Nov. 2, 2009), available at <https://www.zappos.com/c/amazon-closing>.

¹²³ See Press Release, Google, *Google to Acquire DoubleClick* (2007), available at <https://www.sec.gov/Archives/edgar/data/1288776/000119312507084483/dex991.htm>

¹²⁴ See Google, Current Report (Form 8-K) (Apr. 18, 2007), available at <https://www.sec.gov/Archives/edgar/data/1326801/000119312512175673/d287954ds1a.htm> <https://www.sec.gov/Archives/edgar/data/1288776/000119312507084483/d8k.htm>.

reported that the FTC was further investigating the transaction and had issued a second request.¹²⁵

The primary potential antitrust issue with the transaction was a reduction in competition in one or more markets for online advertising, which would result in injury to Google and DoubleClick's advertising customers—internet-based content providers and advertisers.¹²⁶ Another identified issue, though not framed solely an antitrust issue by critics of the merger, was an impairment of privacy of internet users.¹²⁷

The FTC extensively investigated the merger, which included the FTC conducting over one hundred interviews and reviewing more than 2 million pages of documents produced by the parties, as well as thousands of documents produced by third-parties in response to subpoenas.¹²⁸ On December 20, 2007, the FTC announced that it had voted 4-1 to end its investigation and not challenge the merger.¹²⁹ The Commission evaluated principal three theories of competitive harm in connection with its investigation and concluded, based on the evidence before it, that the transaction was unlikely to substantially lessen competition.¹³⁰

With respect to the privacy implications of the merger, the Commission first explained that it “lack[s] legal authority to require conditions to this merger that do not relate to antitrust” and that “regulating the privacy requirements of just one company could itself pose a serious detriment to competition in this vast and rapidly growing industry.” However, the Commission went on to explain that it did investigate the non-price effects of the merger such as consumer privacy and had determined that the evidence did not support a conclusion that the merger would have an effect on those non-price factors.¹³¹

¹²⁵ See Google, Current Report (Form 8-K) (May 29, 2007), available at <https://www.sec.gov/Archives/edgar/data/1326801/000119312512175673/d287954ds1a.htm> <https://www.sec.gov/Archives/edgar/data/1288776/000119312507124889/d8k.htm>.

¹²⁶ See Federal Trade Commission, *Federal Trade Commission Closes Google/DoubleClick Investigation* (Dec. 20, 2007) (“FTC Google/DoubleClick Statement”), available at <https://www.ftc.gov/news-events/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

¹²⁷ See Electronic Privacy Information Center, *Privacy? Proposed Google/DoubleClick Merger*, available at <https://epic.org/privacy/ftc/google> (discussing privacy concerns with Google-DoubleClick merger).

¹²⁸ See FTC Google/DoubleClick Statement, *supra* note 120.

¹²⁹ See *id.* at 1 n.2.

¹³⁰ See *id.* at 6.

¹³¹ See *id.* at 2-3. Commissioner Harbour issued a lengthy and detailed dissent in which she first observed that the privacy issues implicated by the merger pertained to the privacy of internet users, not the customers in the relevant markets, i.e., internet-based content providers and advertisers. See Dissenting Statement of Pamela Jones Harbour, Google/DoubleClick, FTC File No. 071-0170 (2007), available at

The recent calls for the ex-post challenge and breakup of the Google-DoubleClick merger do not identify the basis for the desired break-up.

Google/Nest Google announced its acquisition of Nest Labs, a maker of connected home devices, on January 13, 2014 for \$3.2 billion.¹³² The transaction was subject to Hart-Scott-Rodino review¹³³ and was generally considered to not raise any antitrust issue since Google and Nest were not competitors in any relevant market, though some industry and consumer analysts raised privacy concerns with the merger.¹³⁴ The agencies cleared the transaction on Feb. 4, 2014.¹³⁵

Not all of the calls for the ex-post challenge and breakup of the Google/Nest merger identify the basis for the desired break-up, though one call for break-up is motivated by the merger causing a deterioration of Nest users' privacy.¹³⁶

Google/Waze Google announced that it had acquired online mapping company, Waze, on June 11, 2013 for approximately \$1 billion.¹³⁷ In contrast to the other mergers above, Google's acquisition of Waze was not reported pursuant to Hart-Scott-Rodino and so was not subject to federal merger review prior to closing.¹³⁸ However, the Federal Trade Commission

https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/doubleclick/071220harbour_0.pdf, at 9-11. For that reason, she went on to explain, the Commission's privacy analysis, which focused on the privacy interests of the customers in the relevant market, did not encompass the privacy implications of internet users, which had no business relationship with Google or DoubleClick. *See id.* at 10.

¹³² See Alphabet Investor Relations, *Google to Acquire Nest* (Jan. 13, 2014), available at <https://abc.xyz/investor/news/releases/2014/0113/>.

¹³³ See Federal Trade Commission, *Early Termination Notice for Google/Nest* (Feb. 4, 2014), available at <https://www.ftc.gov/enforcement/premerger-notification-program/early-termination-notices/20140457>.

¹³⁴ See Electronic Privacy Information Center and Center for Digital Democracy, Supplemental Materials in Support of Pending Complaint, Request for Investigation and Injunction, and Other Relief; Related Commentary Concerning Commission's Surprising Expedition of Google-Nest Review (Mar. 21, 2014), available at <https://epic.org/privacy/internet/ftc/whatsapp/WhatsApp-Nest-Supp.pdf>, at 10 n.31 (citing some of the calls for concern).

¹³⁵ *See id.*

¹³⁶ See Grande, *FTC Urged To Make Google Spin Off Nest*, *supra* note 95 (discussing call by Electronic Privacy Information Center that FTC cause Google to divest Nest because of a loss of Nest users' privacy).

¹³⁷ See Vindu Goel, *Google Expands its Boundaries, Buying Waze for \$1 Billion*, N.Y. TIMES (June 11, 2013), available at <https://bits.blogs.nytimes.com/2013/06/11/google-expands-its-boundaries-buying-waze-for-1-billion/>.

¹³⁸ See, e.g., Steven Davidoff Solomon, *Google's Effort to Skirt Regulation May Invite More Scrutiny*, N.Y. TIMES (June 18, 2013), available at <https://dealbook.nytimes.com/2013/06/18/googles-effort-to-skirt-regulation-may-invite-more-scrutiny/>. Despite the massive size of the transaction, the lack of an HSR filing may have been because the companies relied on HSR's foreign company exemption, the

nonetheless investigated the merger approximately two weeks after the merger had closed and been announced.¹³⁹

The primary antitrust concern with the merger was that it would diminish competition in one or more markets for online mapping because Google, which commended relatively high market share through Google Maps, would be acquiring a rapidly growing competitor, Waze.¹⁴⁰ The FTC investigated the Google-Waze merger for about three and a half months but ultimately decided not to challenge the merger.¹⁴¹ Likewise, the United Kingdom’s Office of Fair Trading (“OFT”), which also had investigated the merger, ultimately ended its investigation without challenging the merger. The OFT issued a written opinion in which it analyzed the expected competitive effects, concluding that the OFT “does not believe . . . that the merger has resulted or may be expected to result in substantial lessening of competition within a market or markets in the United Kingdom.”¹⁴²

The recent calls for the ex-post challenge and breakup of the Google-Waze merger do not identify the basis for the desired break-up but presumably they are predicated on the same competitive concerns that motivated the FTC’s initial investigation.

III. ADDITIONAL EX-POST MERGER CHALLENGES: POTENTIAL COMPETITIVE BENEFITS AND MITIGATING FACTORS

As shown in the previous Part, the recent calls for the breakup of the identified technology mergers would require the federal antitrust authorities to mount ex-post challenges to mergers that they previously reviewed and cleared pursuant to the Hart-Scott-Rodino Act. These specific demands for

applicability of which some have questioned. *See id.*

¹³⁹ Shortly after the merger was announced, a consumer advocacy group, Consumer Watchdog, called on the Federal Trade Commission to investigate the merger. *See id.* The FTC’s investigation was reported soon after that. *See* Amir Efrati, *FTC Reviewing Google’s Purchase of Navigation App Waze*, N.Y. TIMES (June 23, 2013), available at <https://www.wsj.com/articles/SB10001424127887324637504578563412475905552>.

¹⁴⁰ *See* Dan Prochilo, *FTC Closes Probe Into Google’s \$1B Waze Buy*, LAW360 (Nov. 6, 2013), available at <https://www.law360.com/articles/486509/ftc-closes-probe-into-google-s-1b-waze-buy> (discussing competitive concerns).

¹⁴¹ *See* Sara Forden & David McLaughlin, *Google Said to Avoid U.S. Antitrust Challenge Over Waze*, BLOOMBERG (Sept. 30, 2019), available at <https://www.bloomberg.com/news/articles/2013-10-01/google-said-to-avoid-u-s-antitrust-challenge-over-waze>.

¹⁴² *See* United Kingdom, Office of Fair Trading, Decision on Reference, Completed Acquisition by Motorola Mobility Holding (Google, Inc.) of Waze Mobile Limited (Dec. 17, 2013), available at https://webarchive.nationalarchives.gov.uk/20140402225142/http://www.offt.gov.uk/shared_offt/mergers_ea02/2013/motorola.pdf.

break-up, coupled with the findings above concerning the current rarity of agency challenges to reviewed and cleared mergers, accordingly implicate a much more fundamental question: should the federal antitrust agencies more frequently challenge mergers that they themselves previously reviewed and cleared?

This Part evaluates that fundamental question and shows there are compelling reasons why an increase in agency challenges to previously reviewed and cleared mergers would further competition and advance the aims of antitrust. But, as this Part also shows, there are important reasons to be cautious about a widespread and unprincipled amplification in the number of agency challenges to previously reviewed and cleared mergers.

A. The Potential Competitive Benefits

There are both significant theoretical and empirical justifications why an expansion in agency challenges to previously reviewed and cleared mergers would substantially advance competition. This section discusses these theoretical and empirical justifications in turn.

1. Theoretical Justification for Ex-Post Challenges

Merger review is an entirely predictive exercise through which the reviewing agency seeks to ascertain the expected competitive effects of the transaction based on all of the information it possesses at the time of review. The reviewing agency's determination will be guided by the analysis of its economists, which have available an array of sophisticated econometric tools capable of predicting a merger's competitive effects,¹⁴³ such as merger simulations,¹⁴⁴ natural experiments,¹⁴⁵ and analysis capable

¹⁴³ While court opinions and agency guidelines often reference market concentration levels as the foundation of a merger's competitive effects analysis, agency economists can and do rely on much more sophisticated analysis to conduct a competitive effects analysis. See, e.g., Joseph Farrell & Carl Shapiro, *Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition*, 10 THE B.E. J. THEORETICAL ECON. (2010), available at <http://faculty.haas.berkeley.edu/shapiro/alternative.pdf>, at 3-4 (“[T]he DOJ and the FTC have perhaps the world’s largest concentration of Ph.D. industrial organization economists, and they do not mechanically rely on concentration and market shares, but seek flexibility to understand the economics of the industry.”). See also Daniel L. Rubinfeld, *Econometric Issues in Antitrust Analysis*, 166 J. INSTITUTIONAL & THEORETICAL ECON. 62 (2010).

¹⁴⁴ See, e.g., Jonathan B. Baker, *Merger Simulation in an Administrative Context*, 77 ANTITRUST L.J. 451 (2011) (examining the application of merger simulation in merger review and enforcement).

¹⁴⁵ Malcolm B. Coate, 1 J. ANTITRUST ENFORCEMENT 437, *The Use of Natural Experiments in Merger Analysis* (2012).

of evaluating price effects in markets with differentiated goods.¹⁴⁶ Documentary and testimonial evidence in the form of party and third-party documents, customer and supplier testimony, and information from industry participants and observers are also important inputs in the agency's evaluation of a merger's expected competitive effects.¹⁴⁷

Based on the information available to it, the reviewing agency may be able to properly predict the competitive effects of a merger and, if necessary, craft an effective remedy that alleviates the merger's expected competitive harm. However, as with any predictive exercise, ex ante merger review may not necessarily always correctly predict a merger's competitive effects or identify a remedy that fully alleviates the merger's expected competitive harm.

First, because of resource constraints, which have been increasingly binding in recent years,¹⁴⁸ the reviewing agency may only be able to obtain a subset of the information pertinent to the competitive effects analysis and also may only be able to conduct some of available analyses using the information that it has obtained. One important limitation is that the agency may not be able to obtain all of the data necessary to conduct the competitive effects analysis and even when the relevant data is available, it may not be in a form that is readily usable by the agency economists.¹⁴⁹ The agencies' resource pressures are buttressed by the time pressures of the HSR process, which may independently require the reviewing agency to selectively choose the information it obtains and the analysis it conducts.¹⁵⁰

¹⁴⁶ See, e.g., Carl Shapiro, *Mergers with Differentiated Products*, ANTITRUST 23 (Spring 1996) (developing diversion ratios); Farrell & Shapiro, *supra* note 143 (developing the Upward Pricing Pressure test).

¹⁴⁷ See, e.g., Terrell McSweeney, *The Clayton and FTC Acts: 100 Years of Looking Ahead* (2014) at 4, available at https://www.ftc.gov/system/files/documents/public_statements/603341/mcsweeney_-_aba_clayton_act_100th_keynote_12-04-14.pdf.

¹⁴⁸ See Section IV.D, *infra*.

¹⁴⁹ As just one example, to identify the competitive effects of a merger involving two differentiated goods, the agencies can evaluate the two goods' diversion ratio. See U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines* (2010), available at www.justice.gov/atr/horizontal-merger-guidelines-08192010, at § 6.1 (observing that, with respect to a merger involving two differentiated products, the products' diversion ratio "can be very informative for assessing [the merger's] unilateral price effects"). The diversion ratio is defined as the percentage of sales lost by one of the products in response to a price increase that would be captured by the other product, see Shapiro, *Mergers with Differentiated Products*, *supra* note 146, at 23, and thus its calculation requires the agencies possess the requisite underlying data (though in certain circumstances, the two products' market shares can be used to estimate the diversion ratio). See, e.g., Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L. J. 701, 714-15 (2010).

¹⁵⁰ To ameliorate the time pressure associated with investigating a merger in

But even in a hypothetical world in which the reviewing agency obtains all of the available information relevant to the merger and conducts all of the relevant analysis using that information, an assessment of the merger's expected competitive effects would remain a stochastic exercise infused with some inherent uncertainty. And because of that inherent uncertainty, the reviewing agency—even armed with sufficient information and analysis—may still not correctly predict each of the numerous and complex ways in which the transaction could impair competition and the expected magnitude of those pathways of competitive harm.¹⁵¹

As an example, suppose the reviewing agency conducts a thorough analysis of a merger that causes the agency to conclude that the merger will not generate competitive harm because the analysis establishes that the market at issue will continue to include a maverick firm capable of disciplining any price increases by the merged firm.¹⁵² If the maverick firm unexpectedly exits the market, then the merger may generate substantial competitive effects, despite the agency's fully informed ex-ante assessment of no competitive effects.¹⁵³ The agencies' predictions of the merger's efficiencies also may overstate the viability or the scope of the merger's actual efficiencies.¹⁵⁴ These various factors are all the more salient in technology markets, in which market dynamism causes those markets and the goods and services within them to experience significant evolution even over relatively short time horizons.

These factors—resource constraints, time constraints, and inherent uncertainty—also may cause the agencies to enter into a consent that is ex

connection with the HSR process, the reviewing agency often will enter into a timing agreement with the merging parties whereby the merging parties agree to not consummate their transaction before a certain date or event. See Federal Trade Commission, *Getting in Sync with HSR Timing Considerations* (2017), available at <https://www.ftc.gov/news-events/blogs/competition-matters/2017/08/getting-sync-hsr-timing-considerations>.

¹⁵¹ By way of analogy, if an individual is given a weighted coin and asked to predict the outcome of a coin toss, then even after observing an infinite number of tosses, there is still some chance that the individual will incorrectly predict the outcome of the next toss.

¹⁵² In assessing a merger's likely competitive effects, the agencies assess the presence of and the merger's effects on any "maverick" firms, which are any firms in the relevant market that "play[] a disruptive role in the market to the benefit of customers." See *Horizontal Merger Guidelines*, *supra* note 149, at § 2.1.5.

¹⁵³ One possibility is that the merger causes the maverick firm to exit the market. Another possibility is that the maverick exists for some reason completely independent of the merger. This latter possibility implicates the issue of exogenous competitive effects, discussed in Section IV.D, *infra*.

¹⁵⁴ See Brian A. Facey, *The Future of Looking Back: The Efficient Modeling of Subsequent Review*, 44 ANTITRUST BULL. 519 (1999) (arguing that the agencies may incorrectly predict the merger's proffered efficiencies because "(1) efficiency claims are asserted by self-interested parties who control the information relating to such claims; and (2) they are difficult for both the agencies and the merging parties to predict ex ante.")

ante correct, in the sense that the agency's assessment is correctly based on all of the information available to the agency, but proves to be suboptimal ex-post. For instance, suppose that the merging firms conduct business in two relevant markets, market X and market Y, and the agency's ex ante competitive effects predicts adverse competitive effects only in market X. In response, in response, the parties negotiate and enter into a consent with the reviewing agency imposing a remedy that completely alleviates the competitive harm in market X. If the merger turns out to also impair competition in market Y, then the consent will not alleviate the competitive harm in market Y.

There are additional reasons why a reviewing agency's ex ante predictions may prove to be incorrect after the merger is consummated. For instance, if the merging parties or third parties misrepresented relevant information to the reviewing agency, then the agency's ex-ante predictions concerning the extent of the merger's competitive harm may not be correct.¹⁵⁵ Or, the agency may simply make a mistake in conducting its ex ante analysis.

The fact that the agencies' ex ante predictions may ultimately be incorrect provides a theoretical justification for the agencies mounting ex-post challenges to previously reviewed and cleared mergers. If the ex ante prediction of a given merger deviates from the actual state of the world following consummation of the merger, then the merger may be generating substantial competitive harm in violation of Section 7. By challenging the previously reviewed and cleared merger ex-post, the agencies can seek to rectify that competitive harm, thereby enhancing consumer welfare. Agency inaction, on the other hand, will cause the competitive harm to persist. The goals of antitrust should not be jettisoned simply because the offending merger was the subject of prior agency review and clearance.

In fact, there are additional theoretical reasons supporting the expansion of agency challenges to previously reviewed and cleared mergers. For instance, the mere threat of a post-review and post-clearance challenge may discipline the parties to a potentially anticompetitive merger from raising prices or otherwise impairing competition.¹⁵⁶ In addition, if an agency is

¹⁵⁵ See, for example, the FTC's ex-post challenge of Hearst's acquisition of Medi-Span, discussed in Section I.C.3, *supra*. As the FTC alleged in its complaint, Hearst's failure to submit all of the necessary internal documents with its HSR filing "hinder[ed] the ability of the federal antitrust authorities to analyze the competitive effects of the merger." See Federal Trade Commission, *The Hearst Corporation Settles Charges of Filing Incomplete Pre-Merger Report*, *supra* note 84.

¹⁵⁶ Cf. Robert Pitofsky, *Subsequent Review: A Slightly Different Approach to Antitrust Enforcement* (1995), available at <https://www.ftc.gov/es/public-statements/1995/08/subsequent-review-slightly-different-approach-antitrust-enforcement> (arguing that the agencies' public commitment to monitor a merger ex-post may cause

unable to challenge a competition reducing merger in connection with the Hart-Scott-Rodino process because the agency lacks the requisite evidence of likely competitive effects, the availability of a post-clearance challenge provides a pathway for the agency to challenge the merger once it has sufficient evidence of the merger's actual competitive effects.¹⁵⁷ Finally, in the absence of any ex-post merger challenge, consumers bear the entire risk of an ex-ante review that ends up underestimating a merger's actual competitive harm. A shift in antitrust policy that involves after-the-fact agency challenge to previously reviewed and cleared mergers redistributes some of that risk from consumers to the merging parties.

2. Empirical Evidence: Merger Retrospectives

The justification for ex-post agency challenges to mergers that were previously reviewed and cleared is not just theoretical. As this section explains, there is strong empirical evidence that the objectives of antitrust would be advanced through a shift in antitrust policy that resulted in a greater number of post-review, post-clearance agency merger challenges. This empirical evidence comes in the form of merger retrospectives, which are econometric studies that analyze the *actual* effects of a merger once the merger has been consummated.¹⁵⁸ While economists have conducted a number of merger retrospectives and their importance as an object of study

“parties claiming efficiencies or brushing off the possibility of anticompetitive practices [to] be induced in the years following the merger to pursue more aggressively the efficiencies or avoid more carefully anticompetitive effects.”)

¹⁵⁷ The agencies' evidentiary burdens in establishing competitive effects have been heightened in response to judicial opinions that have narrowed the so-called structural presumption, i.e. the rebuttable presumption that a horizontal merger that increases concentration in an already concentrated market substantially impairs competition. See Jonathan B. Baker, *Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws*, 77 N.Y.U.L. REV. 135, 142-51 (discussing the erosion of the structural presumption); Macro Ottaviani & Abraham L. Wickelgren, *Policy Timing Under Uncertainty: Ex Ante Versus Ex Post Merger Control* (2008), available at <https://pdfs.semanticscholar.org/c28a/3c4483077369fda4db01adc7cad556f4ce53.pdf>, at 2 (observing that the move away from a strong structural presumption acts as a motivator for enhanced ex-post merger enforcement).

¹⁵⁸ Most merger retrospectives conduct the analysis using a difference-in-differences methodology that compares the merged firm's performance (such as its prices) relative to some control group. See F. David Osinski and Jeremy A. Sandford, *Merger Remedies: A Retrospective Analysis of Pinnacle/Ameristar* (2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3008770. For a summary of difference-in-differences as it relates to merger retrospectives, see Daniel Greenfield, *A Guide to Merger Analysis Using Difference in Differences*, in JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES 57 (2015).

has amplified in recent years,¹⁵⁹ they have largely gone neglected in antitrust legal scholarship. The results of those empirical studies have a number of important implications on merger enforcement, including substantiating the potential significant competitive benefits that would inure to consumers if the agencies were to more readily challenge previously reviewed and cleared mergers.

Retrospectives have been conducted on mergers occurring in various sectors, such as airline, banking, consumer products, and healthcare.¹⁶⁰ Numerous retrospectives conclude that the merger or mergers under consideration resulted in competitive harm, despite the fact that the merger may have been the subject of agency antitrust review or even agency challenge prior to consummation. For example, in a well-known retrospective, Ashenfelter and Hosken evaluated the price effects of five mergers in the consumer products sector.¹⁶¹ Each of the five mergers examined by Ashenfelter and Hosken's retrospective was reviewed and cleared by the antitrust agencies and at least two were subject to agency challenge prior to clearance.¹⁶² Nonetheless, Ashenfelter and Hosken find

¹⁵⁹ The heightened interest in merger retrospectives is reflected by the Federal Trade Commission's recent hearing on the topic. See Federal Trade Commission, *FTC Hearing #13: Merger Retrospectives* (Apr. 12, 2019), available at <https://www.ftc.gov/news-events/events-calendar/ftc-hearing-14-merger-retrospectives>. The FTC historically has been a proponent of merger retrospectives. A number of important retrospectives have been conducted by FTC economists, see Federal Trade Commission, List of FTC Bureau of Economics Retrospective Studies, available at https://www.ftc.gov/system/files/attachments/press-releases/ftc-announces-agenda-14th-session-its-hearings-competition-consumer-protection-21st-century/list_of_be_retrospective_studies.pdf (listing merger retrospectives conducted by FTC economists), and the FTC has used retrospectives in order to "help[] it improve enforcement accuracy by providing valuable insights into when merger policy has worked, and when it has not." Michael Vita & F. David Osinski, *John Kwoka's Mergers, Merger Control, and Remedies: A Critical Review*, 82 ANTITRUST L. J. 361, 362 (2018).

¹⁶⁰ See Luke Froeb, Daniel Hosken & Janis Pappalardo, *Economics Research at the FTC: Information, Retrospectives, and Retailing*, 25 REV. OF INDUS. ORG. 353–74 (2004) ("[M]ost of the studies estimating the competitive effects of mergers focuses on historically regulated industries where some data are publicly reported, e.g., hospitals, airlines, and banking").

¹⁶¹ See Orley Ashenfelter & Daniel Hosken, *The Effect of Mergers on Consumer Prices: Evidence From Five Selected Case Studies*, NBER Working Paper 13859 (2008), available at <https://www.nber.org/papers/w13859>. The five mergers evaluated by Ashenfelter and Hosken were Proctor & Gamble's acquisition of Tambrands; the conglomerate merger between Guinness and Grand Metropolitan; Pennzoil's acquisition of Quaker State; General Mill's purchase of Ralcorp's branded cereal business; and Aurora Food's purchase of Kraft's breakfast syrup business. See *id.* at 12–16.

¹⁶² See WALL ST. J., *Justice Clears P&G Acquisition of Tambrands, Passing Big Test* (1997), available at <https://www.wsj.com/articles/SB865813986830252000> (reporting the clearance of Proctor & Gamble-Tambrands transaction); N.Y. TIMES, *Guinness Merger*

that there were significant consumer price increases for groups of products sold by the merging firms in four of the five studied mergers, typically in the 3% to 7% range.¹⁶³ The authors concluded that because of “the large amount of commerce in [the evaluated] industries, the implied transfer from consumers to manufacturers is substantial.”¹⁶⁴

Merger retrospectives also have sought to identify the underlying dynamic responsible for a merger’s generation of competitive harm.¹⁶⁵ In a recent study, Miller and Weinberg evaluated the effects of the combination between SABMiller PLC and Molson Coors Brewing, at the time the second and third largest brewers in the United States,¹⁶⁶ that created the brewery behemoth MillerCoors.¹⁶⁷ As part of the Hart-Scott-Rodino process, the Department of Justice undertook a far-reaching, eight month investigation of the transaction, relying on extensive information it had obtained from a wide range of market participants, including the merging companies, rival brewers, beer distributors, and retailers.¹⁶⁸

Cleared by U.S. (Dec. 16, 1997), available at <https://www.nytimes.com/1997/12/16/business/guinness-merger-cleared-by-us.html> (reporting the approval of Guinness-Grand Metropolitan merger but with divestitures); Quaker State, Current Report (Form 8-K) (Apr. 21, 1998), available at <https://www.sec.gov/Archives/edgar/data/81381/0000950134-98-003421.txt> at 2 (noting that Pennzoil-Quaker State transaction was subject to Hart-Scott-Rodino review); L.A. TIMES, *General Mills Gets OK for Ralcorp Cereal Deal* (Dec 26, 1997), available at <https://www.latimes.com/archives/la-xpm-1996-12-27-fi-12883-story.html> (reporting clearance of General Mill’s purchase of Ralcorp’s branded cereal business but with conditions); Aurora Foods, Inc., Amendment to Registration Statement (S-4/A) (July 11, 1997), available at <https://www.sec.gov/Archives/edgar/data/1033523/0000912057-97-024051.txt>, at Exh. 2.2. (asset purchase agreement relating to Aurora Foods’ \$220 million purchase of Kraft’s breakfast syrup business), § VIII.E (mutual covenant obligating the parties to file any necessary HSR notifications).

¹⁶³ Ashenfelter & Hosken, *The Effect of Mergers on Consumer Prices*, *supra* note 161, at 4 & 26. The one merger that exhibit on little evidence of price effects was Aurora Foods’ purchase of Kraft’s breakfast syrup business. *See id.* at 26.

¹⁶⁴ *Id.* at 4.

¹⁶⁵ Retrospectives also have sought to identify the effectiveness of the remedies that the agencies and the merging parties have agreed to in connection with merger clearance. *See, e.g.*, Osinski and Sandford, *supra* note 158.

¹⁶⁶ *See* Andrew Martin, *Merger For SABMiller and Molson Coors*, N.Y. TIMES (Oct. 10, 2007), available at <https://www.nytimes.com/2007/10/10/business/worldbusiness/10beer.html>. The transaction was a joint venture between SABMiller PLC and Molson Coors Brewing. *See id.*

¹⁶⁷ *See* Nathan H. Miller & Matthew C. Weinberg, *Understanding the Price Effects of the MillerCoors Joint Venture*, 85 *ECONOMETRICA* 1763 (2017).

¹⁶⁸ Department of Justice, *Statement of the Department of Justice’s Antitrust Division on its Decision to Close its Investigation of the Joint Venture Between SABMiller and Molson Coors Brewing Company* (June 5, 2008), available at https://www.justice.gov/archive/atr/public/press_releases/2008/233845.pdf.

As part of its pre-consummation review, the DOJ conducted a careful economic analysis of the MillerCoors transaction and concluded that while concentration in the relevant markets was high, the transaction was unlikely to substantially lessen competition because the two merging companies competed less with each other than the largest market participant, Anheuser-Busch.¹⁶⁹ The competitive effects analysis further predicted that the transaction was likely to generate significant efficiencies in the form of both variable and fixed cost savings¹⁷⁰ and also was unlikely to make it significantly easier for firms in the market to impair competition through coordinated effects¹⁷¹ because neither of the merging parties was a coordination-disrupting maverick firm.¹⁷²

Based on its analysis, the Department of Justice ended its eight month investigation of the transaction and cleared the merger without imposing any divestitures or any other structural or conduct remedy.¹⁷³ In its statement announcing the closing of its investigation, the DOJ explained that “[t]he large amount of . . . savings [expected to result from the transaction] and other evidence obtained by the Division supported the parties’ contention that the venture should make a lower-cost, and therefore more effective, beer competitor.”¹⁷⁴

Miller and Weinberg’s retrospective evaluates the effects of the MillerCoors transaction. In contrast to the absence of competitive effects predicted ex-ante,¹⁷⁵ Miller and Weinberg’s empirical analysis documents a 6% price increase in retail beer prices following the merger.¹⁷⁶ Their empirical analysis also indicates that the increased coordinated effects was

¹⁶⁹ See Ken Heyer, Carl Shapiro & Jeffrey Wilder, *The Year in Review: Economics at the Antitrust Division, 2008-2009*, 35 REV. INDUS. ORG. 349 (2009) (discussing competitive effects analysis of SABMiller-Molson Coors transaction).

¹⁷⁰ See *id.*

¹⁷¹ Horizontal mergers are evaluated for two types of competitive harm: unilateral price increase by the merged firm and coordinated effects, i.e., collusive conduct by firms in the relevant market. See *Horizontal Merger Guidelines*, *supra* note 149, at §§ 6 (unilateral effects), 7 (coordinated effects).

¹⁷² See Heyer et al., *Economics at the Antitrust Division, 2008-2009*, *supra* note 169.

¹⁷³ See Department of Justice, *Statement in SABMiller-Molson Coors*, *supra* note 168.

¹⁷⁴ *Id.*

¹⁷⁵ While Miller & Weinberg’s findings indicate that the MillerCoors transaction resulted in competitive harm contrary to the agencies’ ex ante predications, neither those findings nor the findings from other merger retrospectives should be construed to imply that the agencies are somehow doing a poor job evaluating mergers ex ante, as those ex ante assessments are made using just the set of information available to the agencies at the time of review. See also Section IV.D, *infra* (discussing the benefits of enhanced enforcement resources on improved ex ante review).

¹⁷⁶ See Miller & Weinberg, *Understanding the Price Effects of the MillerCoors Joint Venture*, *supra* note 167 at 1764 (summarizing the descriptive findings).

the likely source of the observed price increase.¹⁷⁷

While there are exceptions,¹⁷⁸ the bulk of merger retrospectives document that the analyzed mergers generated adverse competitive effects,¹⁷⁹ including with respect to mergers that were reviewed and cleared pursuant to Hart-Scott-Rodino, even after entry of a consent decree. In a comprehensive study, Kwoka identified a set of 47 prior merger retrospectives that collectively analyzed the competitive effects of the evaluated mergers on 119 products.¹⁸⁰ Kwoka analyzed the prior merger retrospectives and found that the studied mergers resulted in higher prices for 73 of the 119 products (i.e., more than 60% of the products at issue), with the price of the 119 products increasing by an average of 4.31%¹⁸¹ as a result of the evaluated mergers.¹⁸² As Kwoka observes, we are less interested in average price increases than price increases at the upper tail of the distribution. In that regard, Kwoka finds that for 40 of the 119 products (i.e., nearly one third of the products at issue), the measured price effects

¹⁷⁷ See *id.* at 1764-65 (summarizing empirical findings relating to coordinated effects).

¹⁷⁸ For example, Silvia and Taylor conducted a retrospective on two mergers in the petroleum industry that were each reviewed and investigated by the FTC pursuant to Hart-Scott-Rodino: Sunoco's 2004 acquisition of El Paso's New Jersey refinery and Valero's 2005 acquisition of Premcor's Delaware refinery. See Louis Silvia & Christopher T. Taylor, *Petroleum Mergers and Competition in the Northeast United States*, FTC Working Paper (2010), available at https://www.ftc.gov/sites/default/files/documents/reports/petroleum-mergers-and-competition-northeast-united-states/wp300_0.pdf, at 1. Silvia and Taylor found that the two transactions "were largely competitively neutral." *Id.*

¹⁷⁹ For summaries of merger retrospectives, see Orley Ashenfelter, Daniel Hosken & Matthew Weinberg, *Did Robert Bork Underestimate the Competitive Impact of Mergers? Evidence From Consummated Mergers*, 57 J. L. & ECON. S67, S80-S93 (2014) (cataloging and summarizing merger retrospectives); Chengyan Gu, *Appendix I: Summaries of Individually Studied Mergers* and *Appendix II: Summaries of Group Merger Studies*, in JOHN KWOKA, *MERGERS, MERGER CONTROL, AND REMEDIES* 161 (2015) (cataloging and summarizing merger retrospectives).

¹⁸⁰ JOHN KWOKA, *MERGERS, MERGER CONTROL, AND REMEDIES* 83-104 (2015). Not all of the mergers evaluated in the 47 retrospectives were reviewed by the agencies pursuant to the Hart-Scott-Rodino Act. For example, one of the mergers predates the Hart-Scott-Rodino Act. See Gu, *Appendix I: Summaries of Individually Studied Mergers*, *supra* note 179 at 161 (June 1, 1976 merger between Xidex and Scott Graphics). Four other mergers fell below the operative HSR thresholds and therefore were not subject to Hart-Scott-Rodino. See Vita & Osinski, *John Kwoka's Mergers, Merger Control, and Remedies*, *supra* note 159, at 368.

¹⁸¹ See KWOKA, *MERGERS, MERGER CONTROL, AND REMEDIES*, *supra* note 180, at 94. This estimate's standard error is not provided. See *id.*

¹⁸² See *id.* at 95. The median price increase for the 119 products is 0.8%, see *id.*, reflecting the fact that average price increase is in part driven by some extreme positive price increases. One merger retrospective, for instance, identified a 52.4% increase in one of the products at issue. See *id.*

exceeds 5% and for 23 products (i.e., nearly 20% of the products at issue), the price change exceeds 10%.¹⁸³

Other meta-evaluations of merger retrospectives similarly conclude that most of the mergers subjected to retrospective analysis generated competitive harm. Ashenfelter, Hosken, and Weinberg evaluated 49 retrospectives and concluded that “[t]he empirical evidence that mergers can cause economically significant increases in price is overwhelming. Of the 49 studies surveyed, 36 find evidence of merger-induced price increases.”¹⁸⁴ Many other researchers have reached similar conclusions.¹⁸⁵

The results of merger retrospectives thus strongly substantiate the proposition that the nearly sole focus on the ex-ante review of mergers with effectively no ex-post challenge is generating competitive harm—mergers are being reviewed and cleared, perhaps after agency challenge, but nonetheless are impairing consumer welfare. The exact proportion of reviewed and cleared mergers that ultimately go on to generate substantial competitive harm cannot be precisely identified through the existing studies.¹⁸⁶ Nonetheless, the fact remains that the retrospectives conducted to date clearly indicate that a non-trivial percentage of agency reviewed mergers result in competitive harm and that additional ex-post merger

¹⁸³ See *id.* Vita and Osinski have critiqued Kwoka’s study. See Vita & Osinski, *John Kwoka’s Mergers, Merger Control, and Remedies*, *supra* note 159. For Kwoka’s response to that critique, see John Kwoka, *Mergers, Merger Control, and Remedies: A Response to the Vita-Osinski Critique*, 82 ANTITRUST L.J. 741 (2019). See also John D. Harkrider, *Are Merger Enforcement and Remedies Too Permissive? A Look at Two Current Merger Studies*, 32-Fall ANTITRUST 96 (2017) (critique of Kwoka’s study); John Kwoka, *Comment on ‘Are Merger Enforcement and Remedies Too Permissive? A Look at Two Current Merger Studies’ By John Harkrider*, 32-Spg ANTITRUST 101 (2018) (responding to Harkrider’s critique).

¹⁸⁴ See Ashenfelter, Hosken & Weinberg, *supra* note 179 at 578.

¹⁸⁵ See, e.g., Joseph Farrell, Paul A. Pautler & Michael G. Vita, *Economics at the FTC: Retrospective Merger Analysis With a Focus on Hospitals*, 35 REV. IND. ORG. 369, 374 (2009) (“[T]he [merger retrospective] literature has produced a range of results. Merger retrospectives that use case studies, or samples based on ‘close call’ mergers that were not blocked, have repeatedly found post-merger price increases. Although no recent published census of the literature exists, it is almost surely true that price increases are found over half the time.”); Graeme Hunter, Gregory K. Leonard & G. Steven Olley, *Merger Retrospective Studies: A Review*, 23 ANTITRUST 34 (2008) (reviewing various merger retrospectives conducted between 1990 and 2008 and concluding that “the majority of the studies that analyze price effects have found post-merger price increases. A significant minority of studies have found no price effects”); Steven C. Salop & Carl Shapiro, *Whither Antitrust Enforcement in the Trump Administration*, ANTITRUST SOURCE 1, 6 (Feb. 2017) (“[Merger retrospective] [s]tudies have shown that merger enforcement and remedies are insufficient, and prices may rise or service may decline.”).

¹⁸⁶ Among other things, as many have previously observed, the set of mergers subject to retrospective analysis are not a representative sample of all mergers. See, e.g., *supra* note 160 (retrospectives focus on mergers in certain industries).

investigation and challenge could generate substantial benefits to consumer welfare by enabling correction of the manifested competitive harm.¹⁸⁷ And, while there are known methodological considerations with retrospectives¹⁸⁸ and while the set of mergers that have been subject to retrospective analysis is not a representative sample of all mergers,¹⁸⁹ these issues simply mandate care in interpreting the retrospectives' findings, rather than highlighting some inherent defect in them.¹⁹⁰

B. Significant Factors Mitigating the Benefits of Ex-Post Challenges

While there are strong theoretical and empirical justifications for the expansion of agency challenges to previously reviewed and cleared mergers, there are several significant mitigating factors. A foundational point in evaluating those mitigating factors is that if an agency commences a post-review, post-clearance merger challenge, the targeted merger ordinarily will be a consummated merger rather than a proposed merger, as is the case if a merger is challenged in connection with the Hart-Scott-Rodino review process. The reason for this is straightforward—because the agencies will become aware of a merger's actual competitive effects only after merger closing, any ex-post challenge ordinarily will occur only after consummation of the merger.¹⁹¹ Furthermore, as would be the case with

¹⁸⁷ This is not the only implication from the body of merger retrospectives. As Steven Salop has explained, the findings of merger retrospectives support ex-post agency review of consent decrees. See Steven C. Salop, *Modifying Merger Consent Decrees to Improve Merger Enforcement Policy*, 31 ANTITRUST 15, 16 (2016). See also Section IV.C, *infra* (discussing the article's implications on the propriety of ex-post agency review of consent decrees). These retrospectives also provide support for more vigorous ex-ante merger review. See Section IV.D, *infra*.

¹⁸⁸ For instance, it well-understood that the conclusions of a retrospective based on a difference-in-differences will depend on the specific control group and the specific time period, i.e., the "data window", used in the analysis. See, e.g., Greenfield, *A Guide to Merger Analysis Using Difference in Differences*, *supra* note 158, at 63-67. See also Gregory J. Werden, *Inconvenient Truths on Merger Retrospective Studies*, 3 J. ANTITRUST ENFORCEMENT 287 (2015) (arguing that merger retrospectives do not alter our understanding of mergers' competitive effects).

¹⁸⁹ For instance, merger retrospectives have focused on mergers in particular industries. See *supra* note 160 and associated text.

¹⁹⁰ Researchers are mindful of the known methodological considerations and merger retrospectives often include robustness tests to assess the extent to which the empirical findings are sensitive to the imposed modelling assumptions. See, e.g., Ashenfelter & Hosken, *The Effect of Mergers on Consumer Prices*, *supra* note 161 (analysis conducted using various control groups and data windows).

¹⁹¹ Of course, if the agencies become aware of or predict substantial competitive effects after clearance but before consummation, the agencies could challenge the cleared merger before it is consummated. An example of a pre-consummation challenge to a

many of the targeted technology mergers,¹⁹² an ex-post challenge may occur substantially after the merger has been consummated.

The observation that agency challenges to previously reviewed and cleared mergers would involve challenges to consummated mergers reveals important limitations on the agencies' ability to use ex-post merger challenges as a means for improving consumer welfare. Consummated merger challenges are widely understood as often being ineffective vehicles for restoring competition to the affected markets, especially when the challenge occurs years after the merger has closed. While many issues plague consummated merger challenges, the primary issue is one of remedies: once a merger is consummated, it may be difficult and costly to devise a remedy that reverses the merger's competitive effects.

Unless the merging parties intend to keep the two entities structurally separate after the transaction, once the merger has been consummated the merging parties will begin integrating the merging entities' assets and operations. The extent and the nature of the integration depends on specific transaction, but if the merger is expected to generate cost savings or other efficiencies from the combination, then the merger will involve at least some meaningful level of integration in order to capitalize on those efficiencies.

An agency challenge to a consummated merger occurring after the integration of the parties' assets and operations will face the challenge of devising an implementable remedy that effectively restores competition to the relevant market. A structural remedy in the form of a breakup may be infeasible or impotent in restoring competition because of the difficulty of separating the parties' commingled assets and operations in a manner that enables the divested unit to sufficiently infuse competition into the relevant market.¹⁹³

The inability of consummated merger challenges to readily restore competition is evidenced by the merger challenges that occurred prior to enactment of Hart-Scott-Rodino, which usually involved challenges to consummated mergers.¹⁹⁴ These consummated merger challenges were

reviewed and cleared merger is Deere's acquisition of acquisition of Precision Planting from Monsanto, discussed in Section I.D.3 *supra*, which was seemingly commenced in response to a competitor complaint.

¹⁹² See Section IV.D.2, *infra*.

¹⁹³ See, e.g., Baer, *Reflections on Twenty Years of Merger Enforcement*, *supra* note 26, at 830 ("Once a merger takes place and the firms' operations are integrated, it can be very difficult or impossible to unscramble the eggs and reconstruct a viable, divestible group of assets.").

¹⁹⁴ See *id.* at 829 (explaining that before Hart-Scott-Rodino "relatively few mergers were challenged at the premerger stage" and observing that the data suggest that nearly 70% of challenged mergers between 1956 and 1971 were not detected by the agencies in

characterized by lengthy litigations often culminating in remedies that were understood even at the time to have been ineffective in bringing competition back to the affected markets or to have generated costs that overwhelmed the remedy's competitive benefits.¹⁹⁵

The most well-known of these pre-HSR challenges to a consummated merger was the transaction at issue in *United States v. El Paso Natural Gas Co.*, 374 U.S. 651 (1964). This merger challenge generated 7 years of litigation, eventually resulting in a Supreme Court ruling in favor of the government and ordering a breakup of the merged entity "without delay."¹⁹⁶ Despite that directive, the actual breakup took an additional 10 years, with more litigation along the way, so that *17 years elapsed* between commencement of the post-consummation merger challenge and full implementation of the remedy.¹⁹⁷ While the breakup may have restored competition to the relevant market, the competitive benefits of the remedy potentially were eclipsed by its costs, thus minimizing the social benefits of the government's victory or even rendering it pyrrhic.¹⁹⁸

Studies confirm the ineffectiveness and costliness of consummated

time for them to seek preliminary relief) (citing Grant S. Lewis, *Preliminary Injunctions in Government Section 7 Litigation*, 17 ANTITRUST BULL. 1, 2, n.8 (1972).

¹⁹⁵ See, e.g., Kenneth G. Elzinga, *The Antimerger Law: Pyrrhic Victories?*, 12 J. L. & ECON. 43, 53 (1969) ("One of the greatest problems in relief is restoring the assets of a firm after they have been consumed by a merger. Whenever one firm absorbs another, even if their locations are geographically separate, the personnel remain separate and unchanged, and the assets involved continue in their general premerger state, separating the two firms will present problems. . . . But [these problems] are minor compared to those so often encountered in trying to restore a once viable firm. . . . In some cases the firm to be restored, quite literally, no longer exists.").

¹⁹⁶ *U.S. v. El Paso*, 374 U.S. at 662 (1964).

¹⁹⁷ See Baer, *Reflections on 20 Years for Merger Enforcement*, *supra* note 26, at 827.

¹⁹⁸ The attorney who represented the acquired company explained:

[C]onsider the extraordinary expenditure of time, as well as resources, which have been devoted to this [divestiture] effort. While there is no tally of the total cost that was made in seeing this case through to complete divestiture, it is safe to say that it ran into many millions, employed hundreds of lawyers, accountants and others, consumed great quantities of the scarce resources of our courts, and left a non-competitive market structure in the gas industry in the west for a decade after that market structure had been declared unlawful by our highest court. Another incalculable, but very significant cost was the substantial loss of the time and talents of key El Paso executives from the important jobs of running a major utility and developing new sources of energy supplies in a time of growing energy shortages because of the inordinate demands made upon them in the defense of this antitrust proceeding.

See *id.* at 828 (citing Senate Judiciary Comm. On S.1284, 94th Cong., 1st Sess. 428 (1975) (prepared statement of David K. Watkiss)).

merger challenges occurring prior to enactment of the Hart-Scott-Rodino Act. In an important 1969 study, Elzinga evaluated a set of 39 merger challenges occurring prior to Hart-Scott-Rodino in order to assess whether the associated remedies effectively restored competition to the affected markets.¹⁹⁹ Elzinga constructed two metrics to assess the merger challenges under consideration.²⁰⁰ With respect to both metrics, the ordered remedies were evaluated and identified as falling within one of four categories: successful relief, sufficient relief, deficient relief, and unsuccessful relief.²⁰¹ Elzinga concluded that under one of his metrics, only 10 of the 39 merger challenges generated successful relief; the remaining 29 of the 39 merger challenges generated either deficient or unsuccessful relief.²⁰² The evaluated merger challenges fared even worse under Elzinga's second metric, with just 4 of the 39 merger challenges identified as generating successful or sufficient relief and the remaining 35 as generating deficient or unsuccessful relief.²⁰³

It is of course the case that the scope and sophistication of economic analysis and the nature of merger enforcement and litigation is markedly different now than it was in the decades preceding enactment of the Hart-Scott-Rodino Act in 1976. And for that reason, post-consummation merger challenges today may be able to avoid some of the difficulties that plagued post-consummation merger challenges prior to Hart-Scott-Rodino. But it remains the case that because additional agency challenges to previously reviewed and cleared mergers would involve challenges to already consummated mergers, these ex-post challenges would still need to grapple with the fundamental difficulties of unwinding consummated mergers, such as the inherent difficulty in breaking up the operations and assets of a combined entity in a manner that effectively restores competition to the affected market.²⁰⁴ This is especially the case for mergers that are challenged many years after consummation and integration, such as the technology mergers that are the subjects of the recent calls for ex-post agency challenge and breakup.

Because they do not require separating the comingled assets and operations of an already merged entity, ex-ante merger challenges are a

¹⁹⁹ See Elzinga, *The Antimerger Law*, *supra* note 195, at 46.

²⁰⁰ *Id.* at 47.

²⁰¹ *Id.* at 47-52.

²⁰² *Id.* at 48 (Table 1).

²⁰³ *Id.* at 51 (Table 2).

²⁰⁴ For a thorough discussion of agency challenges to consummated mergers, see Sher, *Closed But Not Forgotten*, *supra* note 54. See also J. Thomas Rosch, *Consummated Merger Challenges—The Past is Never Dead* (2012), available at https://www.ftc.gov/sites/default/files/documents/public_statements/consummated-merger-challenges-past-never-dead/120329springmeetingspeech.pdf.

superior method of merger enforcement than merger challenges occurring after review and clearance, all else equal. Indeed, the significant benefits of ex-ante merger review vis-à-vis post-consummation merger challenges was Congress' key motivator in enacting the Hart-Scott-Rodino Act.²⁰⁵ An expansion in the number of agency merger challenges to reviewed and cleared mergers would reintroduce many of the same significant impediments and social costs associated with merger enforcement that Hart-Scott-Rodino eliminated.

Also because of an important temporal consideration, post-clearance merger challenges less effectively rectify mergers' competitive effects than remedial relief imposed in connection with ex-ante merger review. A competitive correction to a merger occurring during the merger review process and prior the merger's consummation prevents the merger from impairing competition and undermining consumer welfare. In contrast, a correction to a merger's competitive effects occurring after review and clearance enables the merger to inflict competitive harm during the time period spanning merger consummation and implementation of the competitive remedy.

Nonetheless, the inability of ex-post challenges to alleviate mergers' anticompetitive effects as effectively as ex-ante review does not nullify the propriety of an expansion to agency challenges to reviewed and cleared mergers since those after-the-fact challenges may still advance consumer welfare in many instances. But even with respect to the subset of mergers where ex-post challenge would improve consumer welfare, an expansion of post-review, post clearance agency merger challenges would generate at least some offsetting social cost by lessening the extent to which the agencies engage in valuable ex-ante merger review.²⁰⁶

The expected mitigation in the thoroughness of ex ante review resulting from heightened challenges to previously reviewed and cleared mergers would be the result of two forces. The first is a resource constraint: the

²⁰⁵ See, e.g., Baer, *Reflections on 20 Years for Merger Enforcement*, *supra* note 26, at 826-31 (discussing objectives of the Hart-Scott-Rodino Act); Sher, *Closed But Not Forgotten*, *supra* note 54, at 52-54 (same).

²⁰⁶ For economic models evaluating the trade-offs associated with ex-ante and ex-post merger review and the optimal mix of ex-ante and ex-post merger review, see David Besanko & David F. Spulber, *Contested Mergers and Equilibrium Antitrust Policy*, 9 J. LAW, ECON. & ORG. 1 (1993); Ottaviani & Wickelgren, *Policy Timing Under Uncertainty*, *supra* note 157; Marco Ottaviani & Abraham L. Wickelgren, *Ex Ante or Ex Post Competition Policy? A Progress Report*, 29 INT'L J. IND. ORG. 356 (2011); Andrea Cosnita-Langlais & Jean-Phillipe Tropeano, *Better Safe Than Sorry, Ex Ante Vs. Ex Post Merger Control* (2014), available at <http://fesp-eg.org/wp-content/uploads/2012/02/JPh-Tropeano-and-Andrea-Costina-Ex-Post-or-Ex-Ante-On-the-Optimal-Timing-of-Merger-Control.pdf>.

agencies face finite budgets to conduct enforcement activities, and ex-ante merger review is costly. The cost of merger review is especially high with respect to the second request process, which generates voluminous information and data that greatly facilitates agency assessment of a merger's expected competitive effects. Because an expansion of ex-post merger challenges would leave fewer resources available to the agencies for other merger enforcement, they would be unable to as vigorously conduct ex-ante merger review as they currently are, including through the important second request process.

Agency incentives provide a second reason why increased challenges to previously reviewed and cleared mergers may mitigate the thoroughness of ex ante review. Because the agencies would have a safety valve enabling them to subsequently correct any failure in merger review occurring through the Hart-Scott-Rodino process, the availability of post-review, post-clearance challenges may suppress the agencies' incentives to identify and correct anticompetitive mergers in the first instance. The unconstrained availability of post-clearance challenges also may incentivize an agency to not challenge a seemingly anticompetitive merger ex-ante, because by waiting the agency can amass evidence on the transaction's actual competitive effects that it can use to mount an effective post-clearance challenge.²⁰⁷

Apart from the effects that an expansion of post-review, post-clearance merger challenges may have on the effectiveness of ex-ante merger review, such a shift in merger enforcement policy may generate a distinct set of additional social costs. Chief among these is disruption of the finality of the merger review process, which may undermine consumer welfare in various ways.

As discussed above, agency challenges to reviewed and cleared mergers presently are extremely rare.²⁰⁸ For this reason, while the agencies are able to challenge a merger after clearance, agency clearance of a merger effectively signals to the merging parties that their integration will not be subject to further challenge. If merging parties instead were to believe that their cleared transactions were subject to ex-post review, they may be disincentivized from promptly or fully completing their integration for fear of having to incur the cost of undoing the integration if the merger is subsequently challenged. The lack of integration would prevent the merger from achieving the extent of its potential efficiencies, which would come at

²⁰⁷ See also Ottaviani & Wickelgren, *Policy Timing Under Uncertainty*, *supra* note 157 (developing a model in which the agency's postponement of an ex-ante merger challenge enables to agency to obtain information about the merger's competitive effects); Ottaviani & Wickelgren, *Ex Ante or Ex Post Competition Policy*, *supra* note 206 (same).

²⁰⁸ See Section I.C.3, *supra*.

the expense of consumer welfare.²⁰⁹ Also, by generating uncertainty about the viability of the merged firm, a lengthy post-review, post-clearance merger challenge may cause the merged firms' employees, suppliers, and creditors and shareholders to leave or disengage with the merged firm to the ultimate detriment of the merged firm's consumers.²¹⁰ And perhaps most starkly, to the extent that ex-post challenges only imperfectly target mergers that actually impair competition, the risk of an ex-post challenge may diminish the incentives for even pro-competitive merger activity.²¹¹ This consideration is particularly relevant in the technology sector where entrepreneurial innovation and investment is increasingly fueled by prospect of being acquired.²¹²

Accordingly, while there would be clear competitive benefits generated by an expansion in agency challenges to previously reviewed and cleared mergers, there are a number of mitigating factors that could offset the associated gains to consumer welfare or otherwise impair social welfare. The next part of the article addresses the policy implications of these findings.

²⁰⁹ Merger retrospectives evidence the ability of mergers to generate significant consumer welfare enhancing efficiencies. *See, e.g.*, Robert A. Connor et al., *The Effects of Market Concentration and Horizontal Mergers on Hospital Costs and Prices*, 5 INT'L J. ECON. BUS. 159 (1998) (analyzing hospital mergers between 1986 to 1994 and finding that merging hospitals' costs decreased 5% more than the costs of the non-merging control group); Ugur Tony Sinay, *Pre- and Post-Merger Investigation of Hospital Mergers*, E. ECON. J. 83 (1998) (analyzing hospital mergers between 1987-1990 and finding the merged hospitals experienced operational efficiencies not experienced by not-merging hospitals).

²¹⁰ Cf. Rosch, *Consummated Merger Challenges*, *supra* note 204, at 20 (in the context of agency investigations to consummated mergers, observing that because a lengthy investigation can generate marketplace uncertainty, "[c]ustomers, vendors, and even employees may go elsewhere out of a fear that the merged entity will be broken up, and even ultimately, the agency concludes there is no violation."). However, with respect to ex-post challenges to those mergers cleared after entry of a consent, the finality of that outcome is even currently subject to some uncertainty because, as Salop notes, "DOJ consent decrees contain general language regarding potential modification by the court, and the Commission has the right to reopen and modify FTC orders." Salop, *Modifying Merger Consent Decrees*, *supra* note 187.

²¹¹ *See e.g.*, J. Paul McGrath, *The Federal Government Should Not Challenge Mergers After the Hart-Scott-Period Has Expired*, 4 ANTITRUST 29, 30 (1990). *See also* Ottaviani & Wickelgren, *Policy Timing Under Uncertainty*, *supra* note 157, at 3-5 (developing model where availability of ex-post merger review causes socially beneficial mergers to be abandoned under certain circumstances); Ottaviani & Wickelgren, *Ex Ante or Ex Post Competition Policy?*, *supra* note 206, at 357-58 (same).

²¹² *See, e.g.*, D. Daniel Sokol, *Vertical Mergers and Entrepreneurial Exit*, 70 FL. L. REV. 1357 (2018) (discussing the relationship between vertical merger policy and the availability of entrepreneurial exit for founders and venture capitalists).

IV. POLICY RECOMMENDATION: A PRINCIPLED INCREASE IN EX-POST MERGER CHALLENGES

As Part III above shows, an expansion of agency challenges to previously reviewed and cleared mergers could generate substantial competitive benefits. As discussed there, strong theoretical reasons favor that expansion and there is an abundance of supporting evidence in the form of merger retrospectives. Those studies indicate that many mergers, including mergers previously reviewed and cleared through the Hart-Scott-Rodino process, are generating competitive harm. At the same time, as shown in Part III.B, there are a number of ways in which an unbridled amplification of agency challenges to previously reviewed and cleared mergers could impair consumer welfare or generate other social costs.

In light of these mitigating factors, the appropriate policy response is not for the agencies to simply ramp up the frequency with which they mount ex-post challenges to anticompetitive mergers that they have previously reviewed and cleared. Such a policy shift would disregard the mitigating factors discussed above and ultimately could nullify any improvement to competition. Instead, because of the potential costs associated with expanded agency challenges to previously reviewed and cleared mergers, it is necessary to impose at least some principled limitations on when the agencies should challenge mergers that were previously subject to the Hart-Scott-Rodino review process.

As discussed further below, the appropriate policy response is for the agencies to increase the extent to which they challenge previously reviewed and cleared mergers but to undertake such an ex-post challenge only if following two conditions are met:

- (1) The preponderance of the agencies' evidence shows that the merger has or is likely to substantially lessen competition; and
- (2) The agencies reasonably believe there is a remedy that would correct the merger's competitive harm.

These limiting requirements satisfy a number of important objectives. First, because they flow directly from the most salient benefits and costs analyzed in Part III above, they further the ultimate objective of enhancing competition. Second, because they are limited in scope and narrowly tailored, they do not unduly restrict the agencies' ability to conduct the case-by-case analysis that is fundamental to modern merger review. Finally, because the two criteria will be met only if the ex-post challenge is sufficiently expected to advance the objectives of antitrust, the criteria help

guard against the potential misuse of antitrust policy, such as the use of antitrust to address non-antitrust conduct or the political misuse of antitrust.²¹³

A. Preponderance of Agencies' Evidence Shows Competitive Harm

As discussed in Section I.C.1. above, antitrust law does not prevent the agencies from bringing an ex-post Section 7 challenge to a merger that they previously reviewed and cleared. Instead, the Hart-Scott-Rodino Act contemplates that type of ex-post merger challenge and expressly permits it.²¹⁴ However, in any Section 7 claim, the agencies must still establish substantial harm to competition.²¹⁵ Therefore, as a precondition to initiating an ex-post challenge to a previously reviewed and cleared merger, the agencies should possess at least some evidence that the challenged merger has or may substantially lessen competition; in the absence of any evidence of substantial competitive harm, there would be no antitrust basis for the agencies' merger challenge.

The agencies, though, should possess more than just some evidence of the merger's actual or expected substantial competitive harm before challenging it ex-post. First, because of the costs associated with an expansion in post-review, post-clearance merger challenges and limited enforcement resources, the agencies should focus their ex-post enforcement efforts on those mergers that are exerting or expected to exert the most deleterious effect on competition. Requiring the agencies to possess more than just some evidence of the merger's actual or likely substantial competitive harm before challenging the reviewed and cleared merger ex-post serves that objective by excluding those mergers where there is scant evidence of harm to competition.

Second, and more fundamentally, a merger may generate conflicting evidence of its competitive effects. Analysis of a consummated merger's competitive effects, unlike the competitive effects analysis of a proposed merger, will be able to rely on the merger's actual competitive effects. However, the competitive effects analysis of a consummated merger is still

²¹³ Much has recently been written about the potential misuse of antitrust, which is a growing concern. For a recent and thorough discussion of the political misuse of antitrust, see JONATHAN B. BAKER, *THE ANTITRUST PARADIGM* 53-70 (2019).

²¹⁴ See 15 U.S.C. § 18a(i)(1); see also Section I.C.1, *supra*.

²¹⁵ While Section 7 references the merger's expected competitive effects and its tendency to create a monopoly, see 15 U.S.C. § 18, an ex-post agency Section 7 challenge may also be predicated on the merger's actual competitive effects. See *U.S. v. General Dynamics Corp.*, 415 U.S. 486, 505 n.13 (1974) ("post-merger evidence showing a lessening of competition may constitute an 'incipiency' on which to base a divestiture suit").

a statistical exercise that can generate differing conclusions based on a variety of factors, such as the nature of the data used and statistical modelling choices.

A well-known example of conflicting ex-post evidence on competitive effects comes from a set of merger retrospectives conducted on mergers in the petroleum industry. In 2004, the Government Accountability Office conducted retrospectives of eight U.S. petroleum mergers to determine those mergers' effects on wholesale petroleum prices.²¹⁶ To conduct its analysis, the GAO worked closely with experts in academia, governmental agencies, and the private sector.²¹⁷ The GAO applied sound econometric techniques to data on the mergers' actual competitive effects and concluded that six of the eight mergers under consideration led to wholesale price increases.²¹⁸

Federal Trade Commission staff subsequently analyzed the GAO's findings that the bulk of the mergers the GAO evaluated generated competitive harm.²¹⁹ FTC staff used the same data as the GAO and retrospectively evaluated the same eight mergers as the GAO, but used different statistical modelling assumptions. FTC staff concluded that the GAO's results were not impervious to the chosen statistical modelling assumptions and that modifying the selected modelling assumptions caused that the mergers' associated price effects to vary greatly.²²⁰ As these studies show, while a particular set of statistical techniques can evidence a merger's competitive harm, a different set of statistical techniques can show otherwise.

Apart from any statistical-based considerations, there are a variety of other reasons why a given merger may generate conflicting evidence of its

²¹⁶ See U.S. Gen. Acc't Office, *Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry* (2004), available at <https://www.gao.gov/new.items/d0496.pdf>.

²¹⁷ See *id.* at 3.

²¹⁸ See *id.* at 1.

²¹⁹ Fed. Trade Comm'n, Staff Technical Report, *Robustness of the Results in the GAO's 2004 Report Concerning Price Effects of Mergers and Concentration Changes in the Petroleum Industry* (2004), available at <https://www.ftc.gov/system/files/documents/reports/ftc-staff-technical-report-robustness-results-gaos-2004-report-concerning-price-effects-mergers/ftcstafftechnicalreport122104.pdf>.

²²⁰ *Id.* at 2-3. See also Werden, *Inconvenient Truths*, *supra* note 188, at 291-92 (discussing the GAO study and the FTC staff report, as well as further analysis by FTC economists, see Daniel Hosken, Louis Silvia, and Christopher Taylor, *Does Concentration Matter? Measurement of Petroleum Merger Price Effects*, 100 AM. ECON. REV. (Papers & Proceedings) 45 (2011), whose empirical results indicated that the one merger the GAO's analysis showed as generating significant competitive effects led to a significant price decrease).

competitive effects. For instance, in deciding whether to challenge a particular merger, the agencies give weight to both customer complaints and competitors complaints²²¹ (albeit weighting the former more than the latter). If a merger is pro-competitive and enables the merged firm to better compete with the rival firm through lowered prices or enhanced quality, competitors of the merged firm will have an incentive to argue and adduce evidence that the merger is anticompetitive, despite the fact that consumer-focused evidence would show the merger's pro-competitive effects.²²²

For these reasons, when deciding whether to challenge a previously reviewed and cleared mergers, the agencies ordinarily will have conflicting evidence of the merger's competitive effects. Because the ultimate objective of ex-post challenges is to remedy those mergers that actually are substantially impairing competition, the agencies' should base their ex-post enforcement decision on totality of their evidence, rather than just the strata of evidence indicating the merger's competitive harm. For these same reasons, the agencies should initiate an ex post only when the balance of their evidence shows that the merger has or likely is going to substantially impair competition, which is the consideration mandated by the first limiting condition above.²²³

Regarding the source of the agencies' evidence, the agencies potentially will have access to a wide range of evidence concerning a merger's competitive effects prior to commencing an ex-post challenge, including both evidence arising after merger clearance and evidence previously adduced through the merger review process. As to post-clearance evidence, the agencies may obtain evidence informally, such as through customer complaints, or formally through a pre-challenge investigation. Depending on the scope of the agencies' post-clearance data, the agencies also may be able to conduct merger retrospectives that are probative of the merger's competitive effects.²²⁴ A recent proposal by a FTC Commissioner would

²²¹ For example, the FTC's 2001 challenge to Heart's acquisition of Medi-Span, discussed in Section I.C.3, *supra*, was initiated in response to customer complaints, while the DOJ's 2016 challenge to Deere's acquisition of Precision Planting, also discussed in Section I.C.3, *supra*, was apparently initiated in response to competitor complaints. *See* Section I.C.3, *supra*.

²²² For instance, suppose a vertical merger between a supplier and a retailer enhances competition in that it enables the merged firm to trim supply costs and pass those cost savings on to consumers in the form of lower retail prices. In this case, retail rivals of the merged firm have an incentive to argue that the merger impaired their ability to compete by foreclosing them from the supply market.

²²³ If the ex-post challenge proceeds to trial on the merits, then the Section 7 liability analysis will not be based on just the agencies evidence but on all of the admissible evidence.

²²⁴ Though the merger was not subject to Hart-Scott-Rodino, the post-consummation challenge to Evanston Northwestern's acquisition of Highland Park discussed in Section

require parties in selected vertical mergers to provide the FTC with ongoing post-clearance data sufficient for the FTC to undertake a retrospective analysis of the merger.²²⁵

B. Reasonable Belief of Corrective Remedy

Agency merger challenges preceding enactment of the Hart-Scott-Rodino Act show that the net competitive benefit of an ex-post challenge to an anticompetitive merger may be significantly undermined for lack of a suitable remedy. To guard against the possibility that the cost of correcting a merger's competitive harm do not overwhelm the associated benefits, an agency should initiate a challenge to a previously reviewed and cleared merger only if it has a reasonable belief at the time of the challenge that there exists a remedy that will correct the merger's competitive harm. This limiting criterion is similar to the assessment the agencies make when proposing a remedy in connection with an ongoing merger challenge²²⁶ but forces a remedial assessment to be made before initiation of an ex-post challenge in the first place.²²⁷

Because of the scope of remedies available to the agencies, this second limiting requirement ordinarily will be met. But breakup or other structural relief may not be a corrective remedy, especially if the merger was consummated many years ago and the parties' assets and operations have

I.C.2, *supra*, was motivated in part by a FTC merger retrospective showing the merger's competitive harm. See Dionne C. Lomax, *A History of Evanston and Analysis of the Merger Remedy*, Global Competition Policy (2008), available at [https://www.competitionpolicyinternational.com/assets/0d358061e11f2708ad9d62634c6c40ad/Lomax,%20GCP%20May-08\(2\).pdf](https://www.competitionpolicyinternational.com/assets/0d358061e11f2708ad9d62634c6c40ad/Lomax,%20GCP%20May-08(2).pdf).

²²⁵ See Rebecca Kelly Slaughter, *In the Matter of Sycamore Partners, Staples, and Essendant* (2019), available at https://www.ftc.gov/system/files/documents/public_statements/1448321/181_0180_staples_essendant_slaughter_statement.pdf (proposing that when faced with a close vertical merger case, the FTC “should commit publicly, at the time the investigation concludes, to a follow-up retrospective investigation a few years after the merger is consummated and should require the parties to provide whatever data might be necessary to complete it”).

²²⁶ See, e.g., Department of Justice, *Antitrust Division Policy Guide to Merger Remedies* 3-4 (2004) (effective as of Sept. 25, 2018) (“Before recommending a proposed remedy to an anticompetitive merger, the staff should satisfy itself that there is a close, logical nexus between the recommended remedy and the alleged violation—that the remedy fits the violation and flows from the theory of competitive harm.”).

²²⁷ This second requirement, like the first requirement, tracks a substantive aspect of the government's eventual Section 7 claim (here, appropriate remedy), should the ex-post challenge proceed to trial. Specifically, if the agency prevails in its ex-post challenge, the court will impose a remedy that effectively restores competition to the affected market. See *du Pont*, 366 U.S. at 326. See also *supra* notes 55 & 56 and associated text (discussing remedies in a Section 7 challenge).

been thoroughly commingled. In this case, a breakup may impose more competitive cost than benefit, while a conduct remedy may result in net competitive gain.²²⁸ Additionally, as discussed in more detail below,²²⁹ depending on the specific competitive harm generated by the merger, a structural remedy such as a breakup may not alleviate the transaction's competitive harm.²³⁰ Furthermore, a full breakup should be rejected in favor of a partial divestiture if the former generates competitive cost in excess of competitive benefits but the latter alleviates the merger's competitive harm without the imposition of those costs.

Requiring reasonable belief of a corrective remedy requires the agencies to evaluate not just the potential actual or expected competitive harm from the merger but also evaluate—before mounting their ex-post challenge—the range of available remedies and confirm that there exists a remedy, the imposition of which will result in net competitive benefits and such remedy that the agencies will endeavor to have imposed through the ex-post challenge. Because the viability of a structural remedy ordinarily will ebb as the parties continue to integrate their assets and operations, the reasonable belief of a corrective remedy requirement also incentivizes the agencies to challenge the merger as soon as the preponderance of their evidence shows the merger's competitive harm.

Another important consideration is the relevance of the merged firm orchestrating an integration in order to thwart the viability of a breakup, as opposed to integration for the purpose of achieving merger efficiencies.²³¹ While such conduct should not be sanctioned, merger remedies should not be punitive and instead should seek to restore the competition to the affected market.²³² If the competition impairing merged entity is integrating

²²⁸ See, for example, the discussion of the Evanston Northwestern-Highland Park merger in Section I.C.2, *supra*.

²²⁹ See Section IV.D, *infra*.

²³⁰ See, e.g., Tom Wheeler, *Should Big Technology Companies Break Up or Break Open*, BROOKINGS (Apr. 11, 2019), available at <https://www.brookings.edu/blog/techtank/2019/04/11/should-big-technology-companies-break-up-or-break-open/>.

²³¹ For instance, some have argued that Facebook's recent integration of itself and Instagram and WhatsApp is to make breakup less likely. See, e.g., Sally Hubbard, *How to Stop Facebook's Dangerous App Integration Ploy*, N.Y. TIMES (Feb. 5, 2019), available at <https://www.nytimes.com/2019/02/05/opinion/facebook-integration.html>.

²³² See *St. Alphonsus Med. Ctr. – Nampa v. St. Luke's Health Sys.*, 778 F.3d 775, 792 (9th Cir. 2015) (“Section 7 remedies should not be punitive”); Deborah Platt Majoras, *Antitrust Remedies in the United States: Adhering to Sound Principles in a Multi-Faceted Scheme* (2002), available at <https://www.justice.gov/atr/speech/antitrust-remedies-united-states-adhering-sound-principles-multi-faceted-scheme> (“[M]erger remedies must not be punitive. The only objective in imposing a merger remedy is maintenance of competition at premerger levels. Remedies that extract more than necessary to achieve that goal as a price

for the purpose of avoiding a breakup, the proper response is for the agencies to immediately file suit challenging the merger and seeking preliminary relief enjoining the integration (assuming the preponderance of the agencies' evidence shows the merger's competitive harm), rather than waiting to challenge the merger at some later stage and pursuing a breakup at that time, partially as a punitive measure targeting the parties' integrative efforts. In short, an appropriate corrective remedy is one that seeks to restore competition to the affected market, not one that seeks to punish.

C. Further Considerations

By increasing the frequency of challenges to previously reviewed and cleared mergers but in a manner consistent with the two limiting principles above, this shift in policy will potentially result in substantial gains to competition. It is worth noting that the two limiting requirements are necessary conditions, not sufficient conditions. Thus, they set forth the circumstances under which the agencies may challenge a previously reviewed and cleared merger but not the circumstances mandating an ex-post challenge. As discussed below, there may be reasons why even if the two conditions are met, the agencies nonetheless still may not elect to challenge a previously reviewed and cleared merger ex post. On the other hand, a failure of the two conditions to be met should preclude an ex-post agency challenge.

Another important point is that the limiting requirements relate only to a particular type of antitrust action, i.e., an agency challenge to a previously reviewed and cleared merger. The conditions do not limit the ability or the circumstances under which the agencies or other parties may bring other antitrust claims against the merged entity. Those limitations for instance would not limit a private plaintiff's ability to challenge a merger ex-post, even if the merger was subject to Hart-Scott-Rodino review and cleared by the agencies.²³³ Perhaps more important, the two limiting requirements would not limit Sherman Act Section Two monopolization claims against the merged entity based on the merged firm's exclusionary conduct.²³⁴

for permitting the merger to proceed have no place in responsible merger enforcement.”).

²³³ While such challenges are rare, a private party recently mounted a successful ex-post challenge to a merger that had been previously reviewed and cleared by the agencies pursuant to Hart-Scott-Rodino, which resulted in the partial breakup of the merged entity. See *Steves & Sons v. Jeld-Wen*, 345 F. Supp. 3d 614 (E.D. Va. 2018). While private plaintiffs have standing to challenge anticompetitive mergers, they must overcome certain doctrinal hurdles. See Sandeep Vaheesan, *Killing Antitrust Softly (Through Procedure)*, L. & POL. ECON. (2019), available at <https://lpeblog.org/2019/06/11/killing-antitrust-softly-through-procedure/> (discussing the *Illinois Brick* and antitrust injury doctrines).

²³⁴ While a Clayton Act Section 7 claim targets an anticompetitive merger, Section

However, some of the article's analysis, such as the potential inability of breakup to serve as a corrective remedy discussed below,²³⁵ are relevant to a Section Two context.²³⁶

As discussed in Section III.B, a shift towards increased ex-post merger challenges may generate social cost by disrupting the current near-finality of the merger review process. By providing some limiting criteria on when the agencies will mount such ex-post challenges, the two limiting requirements will ameliorate some of the potential for the heightening of uncertainty in the contours of merger review and enforcement. To further mitigate that uncertainty and better guide merging parties on when their anticompetitive merger may be subject to ex-post challenge despite being cleared by the Hart-Scott-Rodino process, the agencies should include the limiting criteria as part of their existing merger guidelines.²³⁷ Adding those criteria to the merger guidelines after the shift in policy would harmonize the guidelines with actual agency practice, which is an important objective of the merger guidelines.²³⁸

Two of the Sherman Act targets the inappropriate acquisition or maintenance of monopoly power. A Sherman Act Section Two monopolization claim has two elements: (1) the firm's possession of monopoly power in the relevant market, and (2) its exclusionary conduct, i.e., "the willful acquisition or maintenance of that [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States v. Grinnell Corp.*, 384 U.S. 563, 57071 (1966).

²³⁵ See Section IV.D.2, *infra*.

²³⁶ For recent discussion and critique of the use of breakup as a remedy in non-merger Section Two cases, see Noah J. Phillips, *We Need to Talk: Toward a Serious Conversation About Breakups* (2019), available at https://www.ftc.gov/system/files/documents/public_statements/1517972/phillis_-_we_need_to_talk_0519.pdf. See also Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases* (2001), available at https://www.brookings.edu/wp-content/uploads/2016/06/03_monopoly_crandall.pdf (evaluating all monopolization cases brought by the government between 1890 and 1996 not based on a merger or a conspiracy that resulted in structural relief and concluding that there were only four or five such cases and that the remedies in those cases were largely unsuccessful in restoring competition). Additionally, while the agencies have sought breakup as a Section Two remedy in certain well-known cases, such as in the Microsoft and the AT&T cases, the resulting remedies in agency-initiated Section Two civil cases usually were behavioral remedies. See *id.* (of all Section Two civil cases brought by the government between 1890 and 1996 ending in governmental victory or consent, 51.2% resulted behavioral remedies; 20.5 involved compulsory licensing; and 28.3 percent resulted in structural remedies).

²³⁷ See *Horizontal Merger Guidelines*, *supra* note 149; Dep't of Justice & Fed. Trade Comm'n, *Non-Horizontal Merger Guidelines* (1984), available at <https://www.justice.gov/atr/page/file/1175141/download>. The Horizontal Merger Guidelines presently include a section on evidentiary issues in consummated merger challenges. See *Horizontal Merger Guidelines*, *supra* note 17, at § 2.1.1.

²³⁸ See, e.g., Timothy J. Muris & Bilal Sayyed, *Three Key Principles for Revising the*

The DOJ and FTC solicited public comment and held joint public workshops when they last revised the Horizontal Merger Guidelines in 2010.²³⁹ That process enabled the agencies to obtain the important input of a broad cross-section of experts and stakeholders, including academics, company representatives, labor unions, consumer groups, practitioners, and economic experts.²⁴⁰ The 2010 revision to the Horizontal Merger Guidelines is generally held in high regard and the resulting guidelines are routinely relied on by merging parties and also cited by courts when shaping and applying antitrust law. The agencies similarly should solicit public comment for the purpose of reformulating merger policy to include a greater number of ex-post agency challenges to previously reviewed and cleared mergers.

These public comments may result in the agencies adopting additional guidelines concerning the expansion of challenges to reviewed and cleared mergers. One important consideration concerns what this article refers to as *exogenous competitive effects*, defined as a situation in which the competitive harm of a merger is caused by a market change that is directly unrelated to the merger or the merged firm's conduct, and the merger merely amplifies the associated competitive harm.

As an example of an exogenous competitive effect, suppose that after a merger a maverick firm exists the market for reasons completely unrelated to the merger. Suppose that this exit enables the merged firm to raise prices and also that this price increase is greater than the price increase that would have resulted if the maverick had exited the market in the but-for world in which the merger did not occur. Because the time-of-suit doctrine allows the agency to establish the merger's expected or actual competitive effects using the market conditions at the time of suit, i.e., after the maverick has exited the market, rather than the time of merger consummation, an ex-post agency challenge to the merger would find competitive harm. The agency could also establish a causal link between the merger and the competitive harm since the price increase would have been lower in the but-for world in which there were no merger.

Horizontal Merger Guidelines, ANTITRUST SOURCE 4 (Apr. 2014).

²³⁹ See, e.g., Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L.J. 49 (2010) (explaining that “[t]he process for revising the Guidelines was lengthy, collaborative, and open” and then describing that collaborative process).

²⁴⁰ In addition to voluminous comments received at the public workshops, over 80 written comments were submitted to the agencies in connection with their revision of the Horizontal Merger Guidelines in 2010. See Fed. Trade Comm'n & Dep't of Justice, *Horizontal Merger Guidelines Review Project*, available at <https://loadtest.ftc.gov/news-events/events-calendar/2009/12/horizontal-merger-guidelines-review-project>.

The problem, of course, is that despite the finding of a Section 7 violation, the competitive harm in the example is directly attributed to some change in the market that was unrelated to the merger or any conduct by the merged firm, and the merger served merely as a mechanism to amplify the competitive harm caused by the exogenous change. The situation would be different if, for instance, the maverick's exit was caused by exclusionary conduct by the merged firm that was enabled by the merger. In this case, the competitive harm would be directly related to the merged firm's conduct that caused the maverick to exit, rather than some exogenous market change.

On the one hand, there is a very compelling reason why the agencies should not rely on exogenous competitive effects to establish competitive harm in an ex-post challenge to a reviewed and cleared merger: the realized ex-post competitive harm is the direct result of some independent market change, rather than the merger or the merged firm's conduct. On the other hand, there is at least some basis for the agencies to rely on exogenous competitive effects in an ex-post merger challenge, as the merger may have amplified the competitive harm of the exogenous change. For instance, in the example above, the maverick firm's exogenous exit would have caused a smaller price increase if the two firms had not merged. In this sense, while not the direct cause, the merger was at least *a* causal contributor of the realized competitive harm.²⁴¹

There is a wide difference of opinion among scholars and commentators regarding the extent to which the agencies should rely on or should be able to rely on exogenous competitive effects, or the time of suit doctrine more generally, to establish competitive harm in an ex-post merger challenge.²⁴²

²⁴¹ To see this even more starkly, suppose that there are just three firms in the market, A, B, and C, with each of the firms fully disciplining the price increase of the other two through vigorous head-to-head competition with one another. Suppose that A and B merge and at some point thereafter, C exits the market for reasons unrelated to the merger or the merged firm's conduct. In this case, firm C's exit generates a price increase because firm C no longer disciplines the pricing of A and B, which also do not discipline each other because they have merged. Thus, prices after the merger (i.e., after firm C's exit) will be higher than before the merger. Now, suppose instead that A and B do not merge and firm C exits the market for the same exogenous reasons that caused it to exit the market in the world in which A and B merged. In this no-merger case, the head-to-head competition between A and B causes firm C's exit to generate no price increase. Thus, in the absence of the merger, the exogenous exit of firm C causes no price increase, but does generate a price increase if the firms had merged. Accordingly, the merger was pivotal in firm C's exit generating any competitive harm.

²⁴² See, e.g., PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 1205a (4th ed. 2016) (arguing that while noncontrolling acquisitions of stock and temporary acquisitions of assets may be evaluated for equitable purposes based on conditions at the time of suit, "[c]ontrolling and . . . total acquisitions should be judged on the basis of

Additional input and analysis by scholars, commentators, and stakeholders in connection with a public comment process similar to that undertaken in connection with the revision of the Horizontal Merger Guidelines in 2010 would enable a more complete and consensus-based understanding of this and the other issues pertinent to agency challenges to previously reviewed and cleared mergers addressed in this article and elsewhere.

In the meanwhile, as a prudential consideration, the agencies may elect not to bring any ex-post challenges that rely solely on exogenous competitive effects, even if the two limiting requirements above are met. Furthermore, there may be other reasons why the agencies may elect not to bring an ex-post challenge even though the preponderance of their evidence shows the merger's substantial competitive effects and they reasonably believe there is a corrective remedy. For example, if the agencies determine that the expected net competitive gain from their ex-post challenge is slight, they may elect to conserve their enforcement resources in order to mount other merger challenges that would have a more pronounced competitive benefit.

Finally, the article's policy recommendation for an increase in ex-post merger challenges subject to the two limiting requirements can be understood as a partial generalization of the policy proposal by Steven Salop's regarding an expansion of the agencies' ex-post review and modification of consent decrees.²⁴³ Under his proposal, consent decrees settling merger challenges would "include explicit review and modification provisions that would give the agency the power to petition the court to order further relief if the consent decree fails to preserve competition and

evidence of the situation existing at the time of the acquisition."); Salop, *Modifying Merger Consent Decrees*, *supra* note 187 (observing that "[p]rice increases also could have been caused by changes in demand or costs or other exogenous supply factors not related to the merger" and therefore "the agency . . . must determine the prices relative to those that would have occurred absent the merger"); Sher, *Closed But Not Forgotten*, *supra* note 54, at 64-65 (arguing that "if the government intends to challenge such a transaction at a later date based on conditions at the time of suit and not at the time the transaction closed, it must demonstrate actual anticompetitive effects and bring a claim under section 2 of the Sherman Act.").

²⁴³ See Salop, *Modifying Merger Consent Decrees*, *supra* note 187. See also Pitofsky, *Subsequent Review*, *supra* note 156 (discussing subsequent review of matters resolved by consent decree). Others have argued that the agencies should conduct ex-post reviews of claimed merger efficiencies. See, e.g., Joseph Brodley, *The Economic Goals of Antitrust: Efficiency, Consumer Welfare and Technological Progress*, 62 N.Y.U. L. REV. 1020 (1987) ("[A]ntitrust law should use a two-stage procedure. The first stage would involve the use of threshold standards to screen transactions as plausibly capable of realizing promised efficiencies and otherwise meeting the requirements of an efficiencies defense. . . . The second stage would be an ex post inquiry to determine if, in fact, promised efficiencies have resulted.").

protect consumer welfare.”²⁴⁴ This article’s proposal reaches not only the particular strata of HSR reportable mergers that are challenged and settled through a consent decree but also the significantly larger set of reportable mergers not challenged ex-ante, such as the technology mergers that have been identified for breakup. The article also adds another layer to Salop’s proposal by identifying a set of conditions that serve to limit ex-post challenges to reportable mergers, including ex-post challenges to reportable mergers settled through consents.

D. As Applied to the Targeted Technology Mergers

The two limiting conditions circumscribe the necessary expansion of agency challenges to previously reviewed and cleared mergers in a manner that better ensures that the shift in antitrust policy fulfils its objectives of restoring competition to the affected markets. The two conditions are general in nature and apply to any agency challenge to a previously reviewed and cleared merger, independent of industry or merger type, including the specific technology mergers discussed in Part II above. Application of those conditions to any particular merger is a fact dependent exercise that turns on the nature and scope of the agencies’ evidence and competitive effects analysis. In order to guide any possible future agency decision challenging the identified technology mergers, this section outlines some of the key ways in which the two conditions would bear on the agencies’ ex-post challenge decision.

1. The First Limiting Condition

The most basic, though most fundamental, observation pertinent to the first limiting condition is that the mere fact that a technology merger created a large market participant does not by itself provide sufficient justification for challenging the merger ex-post, or for that matter, mounting any antitrust action against the merged firm. Evidence of the merger’s actual or expected competitive harm is required – a requirement that flows from the important maxim that antitrust does not prohibit mere bigness.²⁴⁵ This observation is especially relevant today, given current sentiments which

²⁴⁴ See Salop, *Modifying Merger Consent Decrees*, *supra* note 187, at 17. Salop’s proposal addresses consents arising in connection with agency merger challenges generally, rather than just consents arising from challenges in connection with the HSR process.

²⁴⁵ See, e.g., D. Daniel Sokol & Roisin E. Comerford, *Antitrust and Regulating Big Data*, 23 GEO. MASON L.R. 1129, 1130 (2016) (“[B]igness is not an antitrust offense. Rather, antitrust focuses on consumer welfare loss and there has not been a decided merger or a litigated conduct decision that has said otherwise for at least a generation.”).

sometimes seek to improperly impose antitrust liability on large technology companies purely on the basis of market size or market power.²⁴⁶

As discussed in Part II, breakup proposals do not always identify the specific potential competitive harm that would justify the agencies challenging and seeking to break-up a particular technology merger. But that is not uniformly the case, and a deterioration of privacy is sometimes identified as an antitrust basis for ex-post agency merger challenges. For instance, privacy considerations animate much of the discussion of agency breakup of the Facebook/Instagram and Facebook/WhatsApp mergers.²⁴⁷

A loss of privacy, if established, is cognizable under antitrust law. While recent popular discussion of antitrust sometimes suggests otherwise, antitrust's consumer welfare standard is nimble and not limited to just price effects. Instead, that polestar of antitrust also encompasses non-pecuniary injuries to consumer welfare such as diminished quality, innovation, and consumer choice,²⁴⁸ and, as the antitrust agencies have recently reiterated, a loss of privacy.²⁴⁹ Indeed, the antitrust agencies routinely evaluate non-price

²⁴⁶ See, e.g., Carl Shapiro, *Antitrust in a Time of Populism*, 61 INT'L J. OF IND. ORG. 748, 745 (2018) ("The danger to effective antitrust enforcement is that today's populist sentiments are fueling a 'big is bad' mentality, leading to policies that will slow economic growth and harm consumers."). See also Marina Lao, *No-Fault Digital Platform Monopolization*, __ WM. & MARY L. REV. __ (forthcoming 2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3368499&download=yes (discussing and rejecting arguments for adoption of no-fault monopolization, i.e., permitting Sherman Act Section Two monopolization claims to dispense of the exclusionary conduct requirement and be predicated just on the defendant's monopoly power).

²⁴⁷ See Section III.A, *supra*.

²⁴⁸ See, e.g., Joshua D. Wright, *The Consumer Welfare Standard in Antitrust: Outdated or a Harbor in a Sea of Doubt?*, Submitted Questions to Senate Judiciary Committee (Dec. 15, 2017), available at <https://www.judiciary.senate.gov/imo/media/doc/Wright%20Responses%20to%20QFRs1.pdf> (explaining that the consumer welfare standard "recognizes the importance of taking a holistic approach to understanding a transaction's likely long-run impact, including price, quantity, quality, innovation and other effects."); Daniel P. Crane, *Four Questions for the Neo-Brandeisians*, ANTITRUST CHRONICLE (2018), available at <https://www.competitionpolicyinternational.com/wp-content/uploads/2018/04/CPI-Crane.pdf> ("If current antitrust analysis is too focused on static efficiency, there is nothing within the frame of the consumer welfare standard that prevents pushing it in the direction of dynamic efficiency or some other aspect of consumer value."). See also Peter P. Swire, *Protecting Consumers: Privacy Matters in Antitrust Analysis*, Center for American Progress (2007), available at <https://www.americanprogress.org/issues/economy/news/2007/10/19/3564/protecting-consumers-privacy-matters-in-antitrust-analysis/> (discussing relationship between privacy and consumer welfare).

²⁴⁹ See Makan Delrahim, "' . . . And Justice for All': Antitrust Enforcement and Digital Gatekeepers" (2019), available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-antitrust-new-frontiers> (explaining that

factors when conducting competitive effects analysis.²⁵⁰ In the Google/DoubleClick investigation, for instance, the FTC expressed some hesitation about including privacy considerations in its competitive effects analysis but it made clear that it had “investigated the possibility that the transaction could adversely affect non-price attributes of competition, such as consumer privacy.”²⁵¹

To be sure, there are practical difficulties associated with including privacy as an input to a competitive effects analysis. One such practical difficulty is quantifying the harm associated with a deterioration in privacy.²⁵² Another is assessing the net competitive effects of a merger when some non-pecuniary consumer harm, such as an impairment of

“diminished quality is also a type of harm to competition” and “privacy can be an important dimension of quality”). *See also* Public Comments of 43 State Attorneys General, Federal Trade Commission Hearings on Competition and Consumer Protection in the 21st Century (2019), available at https://www.texasattorneygeneral.gov/sites/default/files/images/admin/2019/Press/Comment_Submitted_by_National_Association_of_Attorneys_General.pdf, at 11-12 (explaining why a degradation in privacy constitutes cognizable antitrust harm).

²⁵⁰ *See* Matthew Jones, Bruce Kobayashi & Jason O’Connor, *Economics at the FTC: Non-Price Merger Effects and Deceptive Automobile Ads* (2018), available at <https://www.ftc.gov/system/files/documents/reports/economics-ftc-non-price-merger-effects-deceptive-automobile-ads/1812-be-rio.pdf> (“Explaining that “[w]hile price effects typically receive the most attention in investigations of proposed mergers, the [agencies’] Horizontal Merger Guidelines recognize that reduced competition can also cause significant losses in consumer welfare through a reduction of non-price benefits to consumers” and noting that non-price effects were the central focus of the FTC’s recent investigation of the proposed merger between two daily fantasy sports game providers); Seth B. Sacher & John M. Yun, *Twelve Fallacies of the ‘Neo-Antitrust Movement’* (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3369013 (“There is abundant evidence that the agencies and antitrust generally are concerned with non-price factors in addition to price factors.”).

²⁵¹ *See* Statement of Fed. Trade Comm’n, Google/DoubleClick, FTC File No. 071-0170 (2007), available at https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf, at 2. Courts recognize that the consumer welfare standard encompasses non-price effects, *see, e.g., United States v. AT&T, Inc.*, 916 F.3d 1029, 1045 (D.C. Cir. 2019) (“[T]he court does not hold that quantitative evidence of price increase is required in order to prevail on a Section 7 challenge.”), but have not yet developed a doctrine of consumer welfare and privacy. *See* Gregory Day & Abbey Stemler, 107 IOWA L. REV. ___ (forthcoming, 2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3263172, at 31-32 (reviewing case law and finding no cases premising antitrust liability on remedying privacy injuries).

²⁵² *See, e.g.,* Maurice Stucke & Marshall Steinbaum, *The Effective Competition Standard: A New Standard for Antitrust*, Roosevelt Institute Paper (Sept. 2018), available at <https://rooseveltinstitute.org/wp-content/uploads/2018/09/The-Effective-Competition-Standard-FINAL.pdf>, at 14-17 (discussing potential difficulties of using privacy as a component of the consumer welfare standard).

privacy, is accompanied by some non-pecuniary gain, such as an improvement to some other non-price attribute of the relevant product or service. And, depending on the nature of the harm, conduct that impairs privacy may be better addressed through privacy regulation or consumer protection law than antitrust.²⁵³ To draw an analogy, while a deterioration in product safety constitutes a non-price impairment to consumer welfare, antitrust understandably, and fortunately, is not society's chosen means of addressing product safety.²⁵⁴

It is important to note that the fact that user privacy deteriorated after a merger, such as after the Facebook/Instagram or Facebook/WhatsApp transactions, by itself does not justify the agencies challenging the merger ex-post. The reason is one of causation: any post-merger loss in privacy can serve as the proper basis of an agency's ex-post merger challenge only if the impairment in privacy was causally related, directly or indirectly, to the merger. Likewise, while the agencies can bring a non-merger antitrust claim against the merged firm based on a loss of privacy, such as a Sherman Act monopolization claim, the claim must still be based on some specific anticompetitive conduct that is causally connected to the observed loss of privacy.

A merger breakup predicated on competitive effects in the form of loss of privacy also would need to accommodate the fact that users continue to adopt and use the technological platforms targeted for breakup despite increasing user awareness of the privacy considerations.²⁵⁵ Additionally, the

²⁵³ See e.g., Maureen K. Ohlhausen & Alexander P. Okulliar, *Competition, Consumer Protection, and the Right [Approach] to Privacy*, 80 ANTITRUST L.J. 121, 138 & 153 (2015) (“We contend that . . . commingling of the competition and consumer protection laws . . . is unnecessary and could lead to confusion and doctrinal issues in antitrust without true gains to consumer protection. . . . Although privacy can be (and is today) a dimension of competition, the more direct route to protecting privacy as a norm lies in the consumer protection laws.”); Hal Singer, *Sorry, Mr. Delrahim: Big Tech's Worst Abuses Can't be Cured Without Stiffer Regulation*, PROMARKET.ORG (June 17, 2019), available at <https://promarket.org/mr-delrahim-big-tech-worst-abuses-cant-be-cured-without-stiffer-regulation/> (“Simply adding competition in the tech sector won't solve problems like privacy abuses or discrimination. Competition is needed, but regulation is a necessary element of any tech solution.”).

²⁵⁴ See Sokol & Comerford, *Antitrust and Regulating Big Data*, *supra* note 245 at 1157 (citing product safety regulation in support of the argument that the antitrust laws are not designed to address harm to privacy).

²⁵⁵ See Mariel Soto Reyes, *Scandals and Teen Dropoff Weren't Enough to Stop Facebook's Growth*, BUSINESS INSIDER (Apr. 26, 2019), available at <https://www.businessinsider.com/facebook-grew-monthly-average-users-in-q1-2019-4>; Josh Constine, *WhatsApp Hits 1.5 Billion Users*, TECHCRUNCH (Jan. 31, 2018), available at <https://techcrunch.com/2018/01/31/whatsapp-hits-1-5-billion-monthly-users-19b-not-so-bad/>; Josh Constine, *Instagram Hits \$1 Billion Monthly Users, Up From \$800M in September*, TECHCRUNCH (June 20, 2018), available at

competitive effects analysis would need to evaluate the totality of the transactions' competitive effects, including on prices. With respect to the two targeted Facebook transactions, it is notable that Facebook does not charge individual consumers any monetary price to access or use Facebook, Instagram, or WhatsApp. Likewise, Google does not charge consumers a monetary price to access or use Google Maps or Waze.²⁵⁶ And while a price analysis of the Amazon/Whole Foods merger necessitates formal empirical analysis based on actual pricing data, there are some indications that the transaction generated some lower prices at Whole Foods stores²⁵⁷ and potentially amplified retail competition along some dimensions.²⁵⁸ There are also strong indications that Amazon's acquisition of Zappos has not generated a deterioration in quality. Zappos continues to flourish as a retailer, and the attributes that facilitated Zappos' success in the marketplace prior to the merger, such as Zappos' highly regarded customer service, continue after the merger.²⁵⁹

<https://techcrunch.com/2018/06/20/instagram-1-billion-users/>.

²⁵⁶ Of course, because the consumer welfare standard encompasses more than just pecuniary effects, the fact of a no positive price does not preclude antitrust challenge or liability. *See, e.g.*, John M. Newman, *Antitrust in Zero-Price Markets: Foundations*, 164 U. PENN. L. REV. 149 (2015); John M. Newman, *Antitrust in Zero-Price Markets: Applications*, 94 WASH. U. L. REV. 49 (2016).

²⁵⁷ *See* Sarah Perez, *Amazon Again Slashes Whole Foods Prices, Doubles Prime Member Weekly Deals*, TECHCRUNCH (Apr. 2, 2019), available at <https://techcrunch.com/2019/04/02/amazon-again-slashes-whole-foods-prices-doubles-prime-member-weekly-deals>; Heather Haddon, *Amazon Cuts More Prices at Whole Foods*, WALL ST. J. (Apr. 1, 2019), available at <https://www.wsj.com/articles/amazon-cuts-more-prices-at-whole-foods-11554146071>. *But see* Zach Wichter & Karen Weise, *Whole Foods Cut Prices. It Saved us 5 Cents*, N.Y. TIMES (Apr. 3, 2019), available at <https://www.nytimes.com/2019/04/03/technology/whole-foods-prices.html>.

²⁵⁸ *See, e.g.*, Herbert Hovenkamp, *The Warren Campaign's Antitrust Proposals*, THE REGULATORY REVIEW (Mar. 25, 2019), available at <https://www.theregview.org/2019/03/25/hovenkamp-warren-campaigns-antitrust-proposals/> (mergers such as the one between Amazon and Whole Foods. . . almost certainly benefit both consumers and labor. The Amazon-Whole Foods merger places rival grocery chains under pressure to innovate. For example, Walmart is now expanding its offerings to include delivery and other services."). *See also* Nick Statt, *Amazon and Walmart's Rivalry is Reshaping How We'll Buy Everything in the Future*, THE VERGE (Aug. 3, 2018), available at <https://www.theverge.com/2018/8/3/17630604/amazon-walmart-competition-tech-partnerships-grocery-delivery>; Michael Corkery, *Playing Catch-Up With Walmart, Amazon Offers Digital Grocery Pickup at Whole Foods*, N.Y. TIMES (Aug. 8, 2018), available at <https://www.nytimes.com/2018/08/08/business/amazon-whole-foods-walmart-groceries.html>.

²⁵⁹ *See* Micah Soloman, *Tony Hsieh Reveals the Secret to Zappos' Customer Service Success in One Word*, FORBES (June 12, 2017), available at <https://www.forbes.com/sites/micahsolomon/2017/06/12/tony-hsieh-spills-the-beans-the-one-word-secret-of-zappos-customer-service-success/#5ca0787c1acc>.

Finally, a theory of competitive harm of particular importance to the technology space is a dominant firm's acquisition of a nascent competitor undertaken to prevent or undermine the acquired firm's future ability to compete with the dominant firm. That theory of competitive harm can serve as the basis of an agency challenge to a previously reviewed and cleared merger.²⁶⁰ However, with respect to at least some of the targeted technology mergers in particular, the smaller firms acquired in those transactions were not abandoned and instead have thrived in the marketplace.²⁶¹ In such a circumstance, the relevant antitrust question the agencies must answer before challenging the merger ex-post is whether the acquired firm would have been a more formidable competitor to the acquiring company in the absence of the acquisition.²⁶²

2. The Second Limiting Condition

An agency challenge to a previously reviewed and cleared merger is appropriate also only if the agencies have a reasonable belief of a corrective remedy. For a particular technology merger, though *some remedy* likely will meet this standard, breakup specifically may not.

Facebook/ Instagram	Facebook/ WhatsApp	Amazon/ Whole Foods	Amazon/ Zappos	Google/ DoubleClick	Google/ Waze	Google/ Nest
9/6/12	10/6/14	8/28/17	11/2/09	4/11/08	6/11/13	2/7/14

Table 1: Closing Dates of the Technology Mergers Targeted for Challenge and Breakup.

²⁶⁰ See *Horizontal Merger Guidelines*, *supra* note 149, at § 5.3 (“A merger between an incumbent and a potential entrant can raise significant competitive concerns.”)

²⁶¹ For instance, Instagram has grown considerably since Facebook acquired the company, which some have argued is evidence of lack of competitive harm. See, e.g., John M. Yun, Prepared Statement Before the United States Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights (Sept. 24, 2019), available at <https://www.judiciary.senate.gov/imo/media/doc/Yun%20Testimony.pdf> (observing that at the time of Facebook's acquisition, Instagram had no revenues and a just few employees and that since the acquisition, Instagram has grown from 30 million users to over a billion; and observing that “[t]his substantial expansion in users and output are the complete opposite of what we typically consider an anticompetitive outcome.”).

²⁶² See also *infra* note 281 and associated text (discussing other potential instances of acquisitions undertaken to suppress a nascent competitor).

One reason why a breakup may not be a corrective remedy is that challenges to the identified technology mergers would occur years after those mergers had been consummated and in some instances, many years after consummation. Table 1 provides the closing dates of the identified technology mergers.²⁶³ As shown there, the transaction most often identified as a potential breakup target, Facebook/Instagram, was consummated more than 7 years ago. The most recent transaction identified as a potential breakup target is Amazon/Whole Foods, which closed approximately 2 years ago; the potential breakup target consummated the furthest back in time is Google/DoubleClick, which was consummated more than 11 years ago.

As evidenced by previous ex-post challenges to mergers that were undertaken years after consummation, including those occurring before enactment of Hart-Scott-Rodino,²⁶⁴ because of the significant amount of time that has passed between consummation of the targeted technology mergers and any future ex-post challenge, it may be extremely difficult to separate the targeted firms in a manner that allows each or both to be capable market participants. While the actual efficacy of breakup as a corrective remedy depends on the specific circumstances, such as the extent of integration between the acquiring firm and the acquired firm, it is not necessarily the case that a breakup will be a corrective remedy in an ex-post challenge to a targeted technology merger.

A breakup also may not be a corrective remedy depending on the particular manner in which the technology merger is impairing competition.²⁶⁵ As an example, a breakup may not ameliorate harm to

²⁶³ The closing dates in Table 1 are drawn from Tomio Geron, *Facebook Officially Closes Instagram Deal*, FORBES (Sept. 6, 2012), available at <https://www.forbes.com/sites/tomiogeron/2012/09/06/facebook-officially-closes-instagram-deal/#52a6d5531d45>; Parmy Olson, *Facebook Closes \$19 Billion WhatsApp Deal*, FORBES (Oct. 6, 2014), available at <https://www.forbes.com/sites/parmyolson/2014/10/06/facebook-closes-19-billion-whatsapp-deal/#5ff2a6d25c66>; Ben Fox Rubin, *Cheaper Avocados Are Here: Amazon Closes Whole Foods Deal*, CNET.com (Aug. 28, 2017), available at <https://www.cnet.com/news/amazon-closes-whole-foods-deal-cheaper-avocados/>; *Amazon Closes Zappos Deal, Ends up Paying \$1.2 Billion*, TechCrunch.com (Nov. 2, 2009), available at <https://techcrunch.com/2009/11/02/amazon-closes-zappos-deal-ends-up-paying-1-2-billion/>; Google.com, *Google Closes Acquisition of DoubleClick* (Mar. 11, 2008), available at https://googlepress.blogspot.com/2008/03/google-closes-acquisition-of_11.html; Google.com, *Google Maps and Waze, Outsmarting Traffic Together* (June 11., 2013), available at <https://googleblog.blogspot.com/2013/06/google-maps-and-waze-outsmarting.html>; Lance Whitney, *Google Closes \$3.2 Billion Purchase of Nest*, CNET.com, available at <https://www.cnet.com/news/google-closes-3-2-billion-purchase-of-nest/> (reporting a Feb. 7, 2014 closing date).

²⁶⁴ See Section III.B, *supra*.

²⁶⁵ See, e.g., Fiona M. Scott Morton, *Why 'Breaking Up' Big Tech Probably Won't*

competition caused by a deterioration in privacy. Even if a breakup infuses competition into the relevant market, that enhanced competition may not be sufficient to cause the two separated firms to curtail their injuries to privacy. Post-breakup, the relevant market may simply be comprised of two privacy deteriorating firms, which may be no better for consumers than a single privacy deteriorating firm. And, as others have argued, a breakup intended to cure a deterioration in privacy may instead have the opposite effect and generate greater privacy deterioration.²⁶⁶

Additionally, some of the markets associated with the technology mergers identified for breakup exhibit consumer-side network effects, i.e., a circumstance in which the benefit a consumer derives from using the good or service is positively related to the number of other consumers using that good or service.²⁶⁷ In the presence of network effects, a separation of the merged entity potentially can restore competitive balance to the marketplace in the short run. But because the winner-take-all aspect of network effects can enable one of those two firms to readily dominate the relevant market²⁶⁸ and because the resulting dominant firm may engage in competitive conduct no better than its predecessor, the breakup may not ultimately be curative. A breakup of a firm subject to network effects also may undermine consumer

Work, Yale Insights (July 18, 2019), available at <https://insights.som.yale.edu/insights/why-breaking-up-big-tech-probably-wont-work> (“[A]n agency must think carefully about the course of each platform’s market power and figure out what remedy—antitrust or otherwise—would create competition in that market. If used indiscriminately, a breakup can actually harm consumers and workers and reduce innovation.”)

²⁶⁶ See, e.g., Tyler Cowen, *Breaking Up Facebook Would Be a Big Mistake*, SLATE (June 13, 2019), available at <https://slate.com/technology/2019/06/facebook-big-tech-antitrust-breakup-mistake.html> (in the context of a Facebook breakup, arguing that “[a]s for privacy, these smaller Facebook replacements would be more susceptible to hacks, foreign surveillance and infiltration, and external manipulation—the real dangers to our privacy and well-being”); Aaron Edlin & Carl Shapiro, *Why Breaking Up Facebook Would Likely Backfire*, SAN JOSE MERCURY NEWS (Sept. 23, 2019), available at <https://www.mercurynews.com/2019/09/19/opinion-why-breaking-up-facebook-would-likely-backfire/> (arguing that the breakup of Facebook may result in constituent entities that generate social harm more pernicious than the combined company). For a different perspective and analysis of how enhanced competition can spur privacy, see, e.g., Srinivasan, *The Antitrust Case Against Facebook*, *supra* note 105, and Day & Stemler, *Infracompetitive Privacy*, *supra* note 251.

²⁶⁷ See Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 94 (1994). For example, Facebook’s value to any particular user is higher the greater the number of other users also on the network.

²⁶⁸ *Id.* at 105-06 (“In markets with network effects, there is natural tendency toward de facto standardization, which means everyone using the same system. Because of the strong positive-feedback elements, systems markets are especially prone to ‘tipping,’ which is the tendency of one system to pull away from its rivals in popularity once it has gained an initial edge.”).

welfare if it destroys the benefits of the underlying network efficiencies²⁶⁹ or if it results in a less efficient entity dominating the market.²⁷⁰

Finally, markets with two-sided platforms exhibit many of the same breakup considerations as markets with pure consumer-side network effects. Two-sided platforms are intermediaries that facilitate interactions between two distinct user groups where network effects exist across the two sides of the platform, in that the value a user on one side of the platform derives from using the good or service also depends on the number of users on the other side of the platform.²⁷¹ A social media site, for instance, operates a two-sided market by facilitating interactions between users and advertisers.

For many of the same reasons why breakup may not be a corrective remedy in markets with consumer-side network effects, breakup also may not be a corrective remedy in markets in which firms operate two-sided platforms.²⁷² A breakup of a two-sided platform into two distinct platforms, for instance, may ultimately undermine consumer welfare if the separated platform is replaced by an inferior platform that dominates the market.²⁷³ The bottom line is that while breakup may generally be a corrective remedy, there are important reasons why breakup may not necessarily be an

²⁶⁹ Some go further and argue that a breakup in a network effects industry may ultimately undermine total welfare. *See, e.g.,* Nicholas Economides, *Antitrust Issues In Network Industries* (2008), available at http://neconomides.stern.nyu.edu/networks/Economides_Antitrust_in_Network_Industries.pdf, at 15 (explaining that “[i]t is possible to have situations where a breakup of a monopoly into two competing firms of incompatible standards reduces rather than increases social surplus because network externalities benefits are reduced”).

²⁷⁰ In part because of these network effects, some have argued that some of the large technology companies should be regulated like public utilities. *See e.g.,* Dipayan Ghosh, *Don't Break Up Facebook – Treat it Like a Utility*, HARV. BUS. REV. (2019), available at <https://hbr.org/2019/05/dont-break-up-facebook-treat-it-like-a-utility>. There is a growing literature on the public utility regulation of information platforms and other technology companies. For discussion of some of the key reasons for and against the public regulation to technology companies, see Peter Swire, *Should the Online Tech Companies Be Regulated as Public Utilities*, LAWFARE (Aug. 2, 2017), available at <https://www.lawfareblog.com/should-leading-online-tech-companies-be-regulated-public-utilities>.

²⁷¹ *See* Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EUR. ECON. ASS'N 990, 990-91 (2003).

²⁷² *See, e.g.,* Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. ECON. PERSP. 125, 138 (2009) (evaluating the implications of two-sided markets on antitrust, including on the design of antitrust remedies, and observing that “a judge would probably not want to break up a platform into its constituent parts”). For additional discussion of the antitrust implications of two-sided markets, see Davis S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 YALE J. REG. 325 (2003).

²⁷³ *See, e.g.,* Rysman, *supra* note 272, at 137 (“Two-sided markets typically have network effects and as such are likely to tip toward a single dominant platform.”).

appropriate remedy for the technology mergers targeted for ex-post challenge and breakup.

E. Expanded Enforcement Resources

As a final policy observation, the article’s findings in Part III also provide strong support for increasing the antitrust budgets of the two antitrust agencies. As has been documented widely, agency budgets have been flat or decreasing.²⁷⁴ Many, including scholars,²⁷⁵ members of Congress on both sides of the aisle,²⁷⁶ and FTC Commissioners,²⁷⁷ have called for greater antitrust enforcement resources.

This article supports these calls for increasing federal antitrust enforcement resources and provides a number of compelling reasons for doing so. First, as the article shows, additional ex-post merger challenges, if conducted in a principled manner, potentially can improve consumer

²⁷⁴ See, e.g., Fed. Trade Comm’n & U.S. Dep’t of Justice, *Hart-Scott-Rodino Annual Report Fiscal Year 2017* (2018), available at https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-bureau-competition-department-justice-antitrust-division-hart-scott-rodino/p110014_fy_2017_hsr_report_c.pdf, at 2 (FTC and DOJ reporting “flat, or effectively decreasing, budgets and restrictions on hiring.”); U.S. Dep’t of Justice, *Assistant Attorney General Makan Delrahim Delivers Remarks at the 2018 Global Antitrust Enforcement Symposium* (2018) (transcript of speech by Makan Delrahim, Assistant Attorney General of DOJ’s Antitrust Division), available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-2018-global-antitrust> (“We have limited resources. . . . [O]ver the past ten years the Antitrust Division budget has stayed roughly constant in nominal terms, which means that it has declined in real terms, as salaries and other expenses have risen.”).

²⁷⁵ See, e.g., Carl Shapiro, *Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets*, 33 J. ECON. PERSP. 69, 78 (2019).

²⁷⁶ See, e.g., LAW306, *Bipartisan Sens. Float Bill to Update Merger Filing Fees* (2019), available at <https://www.law360.com/articles/1171518/bipartisan-sens-float-bill-to-update-merger-filing-fees> (discussing Merger Filing Fee Modernization Act of 2019, S. 1937, 116th Cong. (2019), a bill introduced by Sens. Grassley and Klobuchar that would increase the DOJ and FTC’s antitrust enforcement resources by increasing HSR filing fees, which have not been updated since 2001).

²⁷⁷ See Rebecca Kelly Slaughter, *Merger Retrospective Lessons from Mr. Rogers* (Apr. 12, 2019), available at https://www.ftc.gov/system/files/documents/public_statements/1513758/slaughter_remarks_at_ftc_retrospectives_hearing_4-12-19.pdf, at 4 (explaining the FTC’s need for additional antitrust resources). See also Kate Cox, CQ ROLL CALL, *FTC Simons Says Merger Review at All-Time High, Needs More Resources*, 2018 WL 6188782 (Nov. 28, 2018) (quoting testimony by FTC Chairman Joseph Simons stating, when asked about FTC resources, that “[o]ur staff is literally killing themselves. . . . They’re working so hard on these [merger] litigations. If that remains at historic high levels or increases, we would need more resources for that.”).

welfare substantially. These ex-post challenges and any agency investigations preceding them will necessitate antitrust resources, especially if any of the challenges proceeds to litigation and trial. Additional antitrust enforcement resources would enable the agencies to conduct any warranted ex-post challenges without having to offset other important areas of merger enforcement, such as valuable merger review occurring in connection with the Hart-Scott-Rodino process.

Additionally, even holding fixed the number of ex-post merger challenges, additional antitrust resources could substantially improve the competitive gains associated with the ex-ante merger review process. As the merger retrospectives discussed in Section II.A.2 show, many mergers, including mergers that undergo Hart-Scott-Rodino review, seemingly go on to generate competitive harm. While this manifestation of ex-post harm can be attributed in large part to the inherent uncertainty of the merger review process, the agencies' limited antitrust resources is a contributing factor. Merger review is costly, especially the second request process,²⁷⁸ and limited antitrust resources restrain the scope and depth of the agencies' merger review.

Increased antitrust resources would enable the agencies to more thoroughly review mergers during the Hart-Scott-Rodino process, which would generate both immediate competitive benefit and also nullify some of the need to amplify the number of ex-post merger challenges. This is an especially important consideration since the number of reportable mergers has significantly increased.²⁷⁹ Additional enforcement resources also would facilitate agency investigations and challenges to anticompetitive mergers that were not subject to Hart-Scott-Rodino review.²⁸⁰ One important area of inquiry is whether dominant firms, in and outside of the technology sector, have engaged in non-reportable acquisitions of nascent competitors in order to prevent those nascent competitors from blossoming into actual competitors.²⁸¹

²⁷⁸ See Section I.A, *supra*.

²⁷⁹ See, e.g., Fed. Trade Comm'n & U.S. Dep't of Justice, *Hart-Scott-Rodino Annual Report Fiscal Year 2017*, *supra* note 274, at 1 ("Over the past five years, the number of HSR reportable transactions has increased significantly."). Apart from the number of reportable transactions, merger review is become increasingly more involved because of the increasing volume of information and data generated by commercial entities in the ordinary course that may be pertinent to a merger's competitive effects.

²⁸⁰ As noted above, the agencies can and routinely do challenge competition-impairing mergers that were not reportable under Hart-Scott-Rodino. See *supra* note 46.

²⁸¹ See, e.g., Colleen Cunningham, Florian Ederer & Song Ma, *Killer Acquisitions* (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241707 (using pharmaceutical industry data to show that acquired drug projects are less likely to be developed when they overlap with the acquiring firm's existing product portfolio and that these "killer acquisitions" disproportionately occur just below the HSR reporting

Finally, additional antitrust resources would allow the FTC to conduct a greater number of merger retrospectives. Additional merger retrospectives would enable the agencies to identify which specific markets may include mergers that are generating pronounced competitive harm, which would enable the DOJ and FTC to better target any ex-post merger challenges. Additional retrospectives also would advance a number of beneficial objectives, such as enabling the agencies to better assess and refine their ex-ante review tools, which will improve ex-ante review and therefore also dampen some of the need for ex-post merger challenges.

CONCLUSION

The antitrust investigations of large technology companies are moving full speed ahead and calls for their breakup are amplifying almost daily. The dismantling of key mergers that have shaped the technological landscape is held out as one potential mechanism to curb the perceived competitive harm generated by those large technology companies. However, before embarking on a wide scale ex-post challenge to those mergers, it is important to pause and evaluate the fundamental antitrust question implicated by those specific breakup calls: will the goals of antitrust be advanced if the federal antitrust agencies increased the extent to which they challenged mergers that they previously reviewed and cleared pursuant to the federal merger review scheme?

This article's qualified affirmative response to that fundamental question flows directly from the core principles of antitrust and from compelling evidence demonstrating both the potential significant benefits of an increase in agency challenges to previously reviewed and cleared mergers and significant mitigating factors associated with an unprincipled expansion in such ex-post merger policy. The article's analysis and conclusions provide an antitrust roadmap going forward, not just with respect to the targeted technology mergers in particular, but the future trajectory of antitrust generally.

thresholds). See also Diana L. Moss, *The Record Of Weak U.S. Merger Enforcement in Big Tech* (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3417978, at 7 (arguing that large technology companies “may purposefully and strategically pursue deals that are unlikely to trigger antitrust concerns,” including transactions that are not reportable under Hart-Scott-Rodino); Anant Raut, *On Nascent Competition in Merger Analysis* (2019), available at https://www.ftc.gov/system/files/documents/public_comments/2019/01/ftc-2018-0088-d-0017-163741.pdf, at 3 (discussing serial acquisitions in the technology sector, including so-called “acqui-hires,” i.e., acquisitions involving dominant firms buying companies for their engineering talent and then abandoning the original product).