COMMENT

BREAKING UP BIG TECH: LESSONS FROM AT&T

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INTRODUCTION

It’s no secret that antitrust law is having its moment in the sun—and technology is the target. In recent years, Senator Elizabeth Warren proposed breaking up the “Big Tech” companies as part of her presidential campaign platform, and former Assistant Attorney General Makan Delrahim spoke passionately about addressing competition issues in the technology industry in his parting speech. Constituents and politicians on both sides of the aisle are in favor of breaking up Big Tech companies, making this an issue with bipartisan support.

However, opinions by experts on whether the breakup of Big Tech is a valuable and viable solution are far-ranging. Despite strong advocacy by some that breaking up Big Tech companies is the best solution to the competition issues present in the technology sector, these proposals are often stated in basic terms with little specificity. Likewise, opposition to breaking up Big Tech often cites administrability by the courts as a key obstacle but does not provide specificity as to why this undertaking is out of the court’s abilities.

In this Comment, I will explore in detail whether a breakup of the “Big Tech” companies is feasible given the unique nature of the technology business. Characteristics that are central to today’s technology companies, such as zero-price business models and advantageous network effects, were not present during the last breakup in United States antitrust history with

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1 “Big Tech” is used in this Comment to refer collectively to the four major technology companies referenced herein: Facebook, Google, Apple, and Amazon.
3 Makan Delrahim, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Just., “A Whole New World”: An Antitrust Entreaty for a Digital Age (Jan. 19, 2021), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-final-address [https://perma.cc/2L6R-PFYL] (“The events of recent days have laid bare the extraordinary influence of tech giants in matters of public policy. But if we don’t find a way to harness that market power into partnership with democratic policy-making, we risk devastating outcomes for our civil democratic society.”).
5 See Warren, supra note 2 (stating which companies should be broken up but giving little detail on how assets should be divided).
6 See Robert W. Crandall, The Failure of Structural Remedies in Sherman Act Monopolization Cases 4 (AEI-Brookings Joint Ctr. for Regul. Stud., Working Paper No. 01-05, 2001) (describing how the courts could be slow to anticipate changes in technology and the industry); see also Rory Van Loo, In Defense of Breakups: Administering a “Radical” Remedy, 105 CORNELL L. REV. 1955, 1965 (2020) (“Much of the intellectual foundation of the opposition to breakups comes from the Chicago School. These scholars have theorized that it is quite difficult to know what makes a firm appeal to consumers. . . . Since courts and regulators are unlikely to be able to figure such questions out, a governmental breakup would risk ruining what consumers value most about the company.”).
the divestment of Bell from AT&T. These novel factors should thus be taken into account when evaluating any proposal to break up Big Tech.

This Comment also uses specific examples from the business models of each of the four Big Tech companies to determine how a division of resources in a breakup could hypothetically affect those operations. Based on those scenarios, I will draw inferences on whether a structural remedy like a breakup or spinoff is advisable and whether the resulting companies would be able to function properly in the market after the divestiture. Since there has been so much recent endorsement for utilizing structural remedies in the current Big Tech federal antitrust lawsuits, advocates should appropriately analyze the mechanics of breakups and spinoffs and the potential effects they could have on companies and consumers alike.

Part I discusses the application of structural remedies in United States antitrust history as well as the abundance of support for these remedies when discussing market competition issues in the technology sector. Following that background, Part II delves into the specific factors involved in a breakup. It discusses the different challenges in dividing up physical and intangible assets as well as the post-divestiture monitoring and oversight that will be required. It also evaluates whether breakups are the most effective solution to the antitrust violations alleged in the technology industry and discusses alternative remedies that could be used instead.

I. THE HISTORY OF BREAKUPS: PRESENT AND PAST

In the United States, the purpose of antitrust law is to preserve competitive markets and produce a high output of goods in a sustainable market. Promoting economic welfare is the main focus rather than solving social or political issues. Two types of remedies can be applied by courts in response to antitrust violations: behavioral, which try to limit firms from engaging in specific anticompetitive behaviors, and structural, which essentially dismantle companies so that the anticompetitive behavior is no longer possible or beneficial. Structural remedies have been sparingly used in the United States, but recently have become a popular solution to suggest in response to Big Tech's dominance of the technology sector.

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10 See, e.g., id. at 973-74 (advocating for the use of structural separations, prohibitions, and remedies); Warren, supra note 2 (calling for structural remedies in the context of antitrust).
A. The Call to Break Up Big Tech

Over the last few decades, tech companies have become prominent players in the economy. Since 1995, when the companies at the top of the Fortune 500 list like Exxon Mobil, General Electric, and Coca-Cola represented manufacturing and consumer products industries, there has been a huge shift towards the technology sector. In 2020, the top five companies were all tech industry giants and Google, the fourth highest company, almost doubled the market capitalization of the first non-technology company, Berkshire Hathaway, which placed sixth on the list. These companies rose to power through innovative means, but critics argue that the methods they use to retain their dominant market positions often violate antitrust regulations.

Each of the major tech companies, Alphabet (Google), Amazon, Facebook, Microsoft, and Apple are often accused of using anticompetitive business methods and wielding their dominant market position to stifle competitors. In 1998, Microsoft was involved in a notable antitrust lawsuit which resulted in the court ordering a breakup of the company. However, Microsoft settled with the Department of Justice (“DOJ”) and agreed to share its technology with other companies, so the DOJ abandoned the breakup requirement. Currently, two of these four Big Tech giants, Google and Facebook, are currently facing federal antitrust lawsuits in the United States. The remaining two, Amazon and Apple, are facing investigations by the Federal Trade Commission (“FTC”) and DOJ along with several state Attorney Generals and are also facing scrutiny abroad from the European Union’s

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12 Id. (listing the top five companies, Microsoft, Apple, Amazon, Google, and Facebook, in that order).


15 Revised Proposed Final Judgment at 2-3, United States v. Microsoft Corp., No. 98-1232 (D.D.C. Nov. 6, 2001) (“Microsoft shall disclose to ISVs, IHVs, IAPs, ICPs, and OEMs, for the sole purpose of interoperating with a Windows Operating System Product, via the Microsoft Developer Network (‘MSDN’) or similar mechanisms, the APIs and related Documentation that are used by Microsoft Middleware to interoperate with a Windows Operating System Product.”).

antitrust regulators.\textsuperscript{17} Below is a description of commonly cited antitrust concerns relating to each of the Big Tech companies as well as examples of proposals to break them up. This is simply an overview; a further exploration on whether these proposals are feasible or favorable given the unique nature of the technology industry will be addressed in Part II of this Comment.

\section*{1. Facebook}

In the case of Facebook, one of the most common concerns is the use of killer acquisitions—an aggressive acquisition strategy where the dominant company buys up small competitors in the market before they have a chance to evolve into larger threats.\textsuperscript{18} Suitably, the policy solution to this has often been to undo these mergers, such as Facebook’s acquisitions of Instagram and WhatsApp, platforms predicted to be a substantial competitive threat if they were spun-off from the company.\textsuperscript{19} Furthermore, this kind of structural remedy would be easy to find legal reasoning for, since the federal government “explicitly reserved the right to take another look at the mergers” when they approved them in the first place.\textsuperscript{20}

In the FTC’s current lawsuit against Facebook, the Commission argues for the “divestiture or reconstruction of businesses” and specifically names Instagram and WhatsApp as targets to restore competition in the social media platform industry.\textsuperscript{21} The industry itself has a high barrier to entry; social networks can retain their market power in part because of strong network effects—the fact that more users are using a given platform is what makes it appealing to consumers, which also makes it difficult for new entrants to compete.\textsuperscript{22} This is why when a competitive threat emerges, acquiring the

\begin{footnotesize}
\begin{enumerate}
\item See Wu, supra note 13 (“During the 2010s, the idea that they could ‘always just buy any competitive start-ups’ (Mr. Zuckerberg’s words) became the default strategy for dealing with new threats.”); Warren, supra note 2 (discussing how Facebook’s purchase of potential competitors Instagram and WhatsApp exemplified the use of a merger to limit competition).
\item See Van Loo, supra note 6, at 1964 (“Instagram—if Facebook was forced to divest it—would reportedly fetch a price over a hundred billion dollars.”).
\item Wu, supra note 13.
\item Id. at 3.
\end{enumerate}
\end{footnotesize}
competitor is often easier than trying to compete.\textsuperscript{23} This is the core of Facebook’s alleged antitrust violations and the main focus of proposals to break up the company.\textsuperscript{24} However, since WhatsApp and Instagram remain viable as independent companies, spinning off these assets will be a much easier task than it would be to break up internally developed assets.\textsuperscript{25}

2. Google

The focus on Google’s violations is around using its search function to limit competition and promote its own services. Senator Warren’s proposal to break up Google states that “Google allegedly snuffed out a competing small search engine by demoting its content on its search algorithm, and it has favored its own restaurant ratings over those of Yelp.”\textsuperscript{26}

In addition, Google also faces similar criticism to Facebook regarding killer acquisitions, with Waze, Nest, and DoubleClick being commonly cited as mergers that should be spun-off into separate companies.\textsuperscript{27} Additionally, many proponents of a Google breakup call for a spinoff of YouTube, Chrome, Android, Google Search, and Google’s advertising capabilities, claiming that its dominant position in the search market is “unfairly supported through its advertising business and software offering such as Chrome and the Android mobile operating system.”\textsuperscript{28} Critics of Google’s practices state that bundling its advertising tools makes it difficult for rivals to compete on cost, and that owning both the search function as well as the end-use application websites that users are trying to reach—such as YouTube and Gmail—also stifles competition.\textsuperscript{29} Additionally, the power that Google Search has as a “horizontal” (or general) search engine to promote its own “vertical” (or specific category) search functions over third-party vertical search products like Yelp and TripAdvisor makes these third-parties heavily disadvantaged.

\begin{itemize}
  \item \textsuperscript{23} See id. at 2 (“[Facebook] CEO Mark Zuckerberg’s view, expressed in a 2008 email . . . ‘it is better to buy than compete.’”) (emphasis added).
  \item \textsuperscript{24} See Warren, supra note 2 (describing how Facebook purchased its potential competitors, Instagram and WhatsApp, in an attempt to limit its competition).
  \item \textsuperscript{25} See infra note 106 and accompanying text.
  \item \textsuperscript{26} Warren, supra note 2.
  \item \textsuperscript{27} See id. (claiming that the unwinding of these killer acquisitions would prevent Google from demoting their competitors’ products on Google Search).
  \item \textsuperscript{29} Lauren Hirsch & Megan Graham, States Are Leaning Toward a Push to Break Up Google’s Ad Tech Business, CNBC (June 5, 2020, 1:32 PM), https://www.cnbc.com/2020/06/05/states-lean-toward pushes-to-break-up-googles-ad-tech-business.html [https://perma.cc/SSR5-DVLA].
\end{itemize}
even if they were the preferred search method by consumers in the vertical category.\textsuperscript{30}

An issue unique to digital platforms when considering antitrust remedies is that many of these technology companies operate using a business model wherein they do not charge users anything to use their service and then supplement operations costs and garner profit through advertisement revenue.\textsuperscript{31} This business model makes it difficult to determine whether an antitrust violation has taken place\textsuperscript{32} but, more relevant to this Comment, will also make it difficult to break apart the companies in a way that allows this business model to continue in its current state. The revenue that comes from the advertising side of the market depends on the presence of consumers and their data which allows the platform to provide its product to the consumers without charging them a fee.\textsuperscript{33} If a breakup remedy suggests splitting off these two sides of the market into separate entities, it will be difficult for the product to remain profitable without beginning to charge consumers a fee.

3. Apple

The primary violations alleged against Apple are more closely related to the complaints against Google than the complaints against Facebook. Rather than focusing on prior acquisitions, critics against Apple state that its exclusive control of its iOS and Apple App Store require third-party apps to unfairly compete with Apple’s apps.\textsuperscript{34} For example, Apple has been accused

\textsuperscript{30} See Khan, supra note 9, at 998-99 (describing how Google’s control of the horizontal search allowed it to display its “Universal Search” results at or near the top of the ranking page and provide “eye-catching interfaces” to attract users to Google vertical properties, which disadvantaged its vertical rivals by demoting their results and failing to provide them with a similar embellishing interface).

\textsuperscript{31} If Google is Free, How Does it Make So Much Money?, CHANNEL 4 (Nov. 27, 2012), https://www.channel4.com/news/if-google-is-free-how-does-it-make-so-much-money [https://perma.cc/6XZB-S8VZ].

\textsuperscript{32} John M. Newman, Antitrust in Zero-Price Markets: Foundations, 164 U. PA. L. REV. 149, 162-63 (2015) (discussing how it is difficult to apply above marginal cost pricing analysis to zero-price products such as platforms).

\textsuperscript{33} See If Google is Free, How Does it Make So Much Money?, supra note 31 (describing the central role of user data to the operation of platforms).

\textsuperscript{34} See Khan supra note 9, at 1006-07 (discussing how Apple uses its vertically integrated model to privilege its own apps by charging competing apps a fee on in-app purchases, preventing competitors from communicating directly with Apple-based users, and rejecting the app enhancements and bug fixes of competing apps in Apple’s app marketplace); Nilay Patel, Elizabeth Warren Wants to Break Up Apple, Too, VERGE (Mar. 9, 2019, 6:19 PM), https://www.theverge.com/2019/3/9/18235965/elizabeth-warren-break-up-apple-monopoly-antitrust [https://perma.cc/XiH2-SZFE] (explaining how Apple apps have a comparative advantage over third-party apps sold on the Apple App Store due to Apple’s ability to obtain buyer and seller information from these third-party developers before placing its own apps in the store).
“by rival Spotify that it unfairly pushed its own music streaming service,”
which led to European Union antitrust scrutiny.35

Unlike the other Big Tech companies, Apple is infrequently the target of
calls to break up the company, and critics are more eager to allow third parties
to host their own App Stores than to siphon off Apple's App Store into a
separate company.36 Instead, the antitrust remedy frequently requested for
this problem is a mandatory injunction forcing Apple to host third-party app
stores, rather than a structural remedy.37 This is likely due to the fact that
hosting an App Store and hosting apps for its own hardware are
straightforward business practices that go hand in hand rather than separate
businesses hosted under the same parent company, as with Instagram and
Facebook. However, Apple is beginning to delve into other industries as well
and use its dominance in its current industry to bolster these new business
ventures, which may mean that more demands for a breakup will emerge in
the near future.38

4. Amazon

Amazon faces antitrust criticism for both hosting the marketplace on its
platform while also operating as merchant in that platform. Combined, these
features disadvantage third-party merchants due to Amazon favoring its own
products over rivals’ and, in some cases, delisting certain third-party
merchants so that only Amazon has exclusive ability to sell certain products.39
In addition, third-party merchants on Amazon have stated concerns about
“suspend[ed] or shut down accounts” and “with[held] merchant funds,
change[d] page displays, and throttle[d] or block[ed] favorable reviews.”40

Another concern about Amazon’s marketplace practice is its widespread
collection of merchant data, which it then uses to shape its own retail

35 Foo Yun Chee, Exclusive: Apple Faces EU Charges Over Spotify Complaint - Sources, REUTERS (Mar.
36 See Russel Brandom, Three Questions That Will Decide Epic v. Apple, VERGE (Apr. 8, 2021, 1:00
lawsuit [https://perma.cc/CZXW-TTCS] (discussing the lawsuit between Epic and Apple over complaints about the App Store business model).
37 See, e.g., Apple Inc. v. Pepper, 139 S. Ct. 1514, 1520 (2019) (alleging that Apple’s iOS App Store is an example of attempted monopolization in the market for iPhone apps); Epic Games, Inc. v. Apple Inc., 493 F. Supp. 3d 817, 827 (N.D. Cal. 2020) (arguing against Apple’s right to exclusive
distribution of applications through the iOS App Store).
38 Cale Guthrie Weissman, It’s Time to Break Up Apple, FAST CO. (Mar. 26, 2019),
39 See Khan, supra note 9, at 988-89 (discussing the Marketplace policies implemented by
Amazon that detrimentally impact third-party rival sellers).
40 Id. at 992.
strategy.\textsuperscript{41} This allows it to aggregate data on a scale that is “unrivaled” by any other retail seller and use this data as the core marketing strategy when selling its own goods, such as Amazon Basics products.\textsuperscript{42} While many may agree that this practice is deserving of antitrust scrutiny and regulation, the sharing of data between Amazon’s marketplace and private-label retail goods may pose an issue when structuring a breakup of the two.

Finally, another frequent topic is the potential spinoff of Amazon Web Services (AWS), Amazon’s cloud computing business, from its consumer-facing retail marketplace business. Many cite AWS as the main source of Amazon’s value.\textsuperscript{43} AWS is also thought to be subsidizing Amazon’s retail business and the profit from AWS allows Amazon to pursue projects such as Alexa and Kindle without fear of financial failure.\textsuperscript{44} In this way, the business models of AWS and other Amazon businesses are closely connected in the same way that Amazon marketplace is connected to Amazon Basics—another consideration when structuring a divestment.

Although the idea of divesting two parts of a company with different business models or simply unwinding a merger sounds simple in theory, the policy proposals to break up the Big Tech companies raise many questions about the specifics of the breakup. It is vital to consider what the details of such breakups would look like, and how regulators intend to implement such breakups in practice. For example, while spinning off prior mergers may seem simple, there may be unforeseen challenges now that the companies have been integrated for years and borrowed from each other’s intellectual property.\textsuperscript{45} There is little historical precedent to act as a guideline for breaking up a company and no precedent for breaking up a modern-day technology giant, so regulators will have a host of novel issues to grapple with from a business organization standpoint.

B. A History of Structural Remedies in Antitrust Law

Despite the infrequent usage of breakups in antitrust lawsuits, a 2004 antitrust guide written by the Justice Department stated that structural remedies are preferable “because they are relatively clean and certain, and generally avoid costly government entanglement in the market” while

\begin{itemize}
  \item \textsuperscript{41} See id. ("In addition to implementing Marketplace policies that favor Amazon’s direct sales, Amazon appropriates Marketplace merchants’ data to shape its own retail strategy.").
  \item \textsuperscript{42} See id. at 992-93 ("Reports suggest Amazon uses this trove of Marketplace data to inform both its retail business and its private labels.").
  \item \textsuperscript{43} Fergus McKeown, Should Amazon Spin-off AWS?, MEDIUM (Aug. 23, 2019), https://medium.com/swlh/should-amazon-spin-off-aws-e15d6e307906 [https://perma.cc/7MAC-TNRj] (using data to illustrate the value of AWS to Amazon).
  \item \textsuperscript{44} Id.
  \item \textsuperscript{45} See infra Section IIA.2.
\end{itemize}
behavioral remedies are “typically ... more difficult to craft, more cumbersome and costly to administer, and easier than a structural remedy to circumvent.”

However, this guide is almost two decades old and predates a lot of the competitive issues related specifically to the technology industry. Further, the guide itself states that “The Remedy Should Promote Competition, Not Competitors.”

Before delving into the novel issues that breaking up a technology company may entail, it would be beneficial to first review the most well-known structural remedies that have previously been applied in the United States and how they affected competition. Although these remedies are rare, they can provide some insight when evaluating whether they would be an effective remedy in the present situation.

The first well-known monopoly breakup in the United States was in 1911 when Standard Oil was broken up into 34 companies. Many believe that the Standard Oil breakup was unsuccessful. Since the breakup reallocated stock amongst the same associates of the original parent company, it did little to alter the wealth of the monopolists. It is difficult to quantify the competitive effects of the Standard Oil dissolution on the industry, because the breakup happened at the same time the market was becoming more competitive generally. However, some analysis done on the oil market after the breakup showed a decrease in output and increase in gasoline prices, so there is little evidence that the breakup itself had any positive effects on market competition.

The AT&T breakup in 1984 represents another major structural remedy in United States history. The DOJ utilized this breakup to separate AT&T’s long-distance phone service from its regional phone service, which was divided up into a group of carriers called the Bell Operating Companies (BOCs). Faced with antitrust violations and the prospect of a breakup, AT&T voluntarily submitted a proposed plan of reorganization as a Consent

47 Id. at 5.
50 Id.
51 See Crandall, supra note 6, at 26 (explaining that the oil industry was becoming more competitive due to the success of new entrants).
52 Id. at 22.
53 See Phillips, supra note 49, at 10 (recounting the history of the AT&T breakup).
Decree to settle the lawsuit.\textsuperscript{54} The proposed Consent Decree, which was later approved by the court, is nearly 500 pages long and details virtually every aspect of the breakup. Looking in depth at this breakup in particular is helpful when drafting a Big Tech breakup proposal, since it is widely considered to be a “successful divestiture.”\textsuperscript{55} “Judge Posner called the breakup of AT&T ‘arguably the most successful structural remedy in U.S. antitrust history’” and there is compelling evidence to suggest that competition in the telecommunications industry increased after the breakup.\textsuperscript{56}

Although these case studies provide only a few notable instances, they illustrate how structural remedies have been applied in practice, which may provide guidelines for how to structure a proposal to break up Big Tech.

II. BREAKING DOWN A BUSINESS

Before diving into the specifics of a divestiture or spinoff—which assets will be assigned to which company, how proprietary information will be dealt with, how trade secrets can be protected, etc.—it is important to consider some general issues that may arise. As mentioned, the policy proposals to break up Big Tech companies are typically high-level overviews and often lack specificity as to how the resulting companies will function. However, there has been some discussion on how Big Tech companies might divest or spin off a company.

For example, scholar Rory Van Loo has suggested that a breakup enforcement should include “not only leveraging the monopoly’s resources, but also involving independent third-party M&A consultants” in a way that promotes “collaborative governance” rather than an “adversarial law enforcement procedure,” suggesting that this will be effective because voluntary spinoffs are often undertaken as part of their business strategy.\textsuperscript{57} Van Loo is right that spinoffs are part of the ordinary course of business, and therefore companies would know how to structure a spinoff if ordered by the court.\textsuperscript{58} However, there are some notable issues with this proposal. First,
voluntary spinoffs are conducted in order to increase the competitive advantage of each standalone company, not to curtail their market power, and parent companies are free to re-acquire the spinoff if it is strategically beneficial. Second, putting the responsibility of structuring spinoffs in the hands of company executives and trusting them to do so in a way that is beneficial to the market competition and not their individual firm puts a lot of faith in the same businesses that committed the antitrust violations in the first place. This has the potential to lead to self-dealing issues and a breakup that is not as effective as it should be. Even with bringing in third-party M&A specialists, the risk of an ineffective breakup remains high. Specialists are trained to prioritize business strategy, not antitrust, and if the firm breakup does not do enough to improve market competition, it was probably not the best remedy to use.

Another example to consider when conceptualizing a Big Tech breakup is to look at previous structural remedies used in the United States. The AT&T breakup in 1984 would be the most helpful when orchestrating a tech platform breakup, since telecommunications is more analogous to technology than oil production. However, it is important to remember the vast differences between AT&T’s business model as a telecommunications company and the business model of modern technology corporations. Although the Consent Decree voluntarily submitted to the court by AT&T is detailed and thorough, there are inevitably many aspects of the proposal that would not apply to a Big Tech breakup as well as many issues central to a Big Tech breakup that AT&T did not need to consider. Identifying where the AT&T proposal falls short will mark brand-new, uncharted territory for Big Tech, leaving companies to form a solution themselves without any precedent. Of course, this is not an impossible feat; after all, AT&T created many of these solutions from scratch. However, it will require an increased level of scrutiny from any court overseeing the breakup to avoid the self-dealing problems described earlier. The following Section presents a detailed investigation of the potential mechanics for a Big Tech breakup, using the AT&T Consent Decree as a starting guideline.

announced that it would be spinning off its six-year-old self-driving project into a standalone business called Waymo.


60 See supra, Section I.B (providing a history of structural antitrust remedies in the United States).
A. Corporate Breakups in Practice

When looking at the actual mechanics of the breakup, we must consider how different assets will be divided between the separating companies. Different resources will have varying levels of importance in the business structure and therefore should be dealt with differently.

1. Dividing Up Physical Assets

The simplest part of structuring a Big Tech breakup would be dividing up the physical assets. Throughout the limited history of antitrust breakups in the United States, most of the companies involved were in the manufacturing industry, and their business models revolved around the sale of physical goods. Although some Big Tech platform companies such as Facebook and Google reside mostly online, Amazon and Apple have large manufacturing components to their businesses. The calls to break up tech companies often involve plans to separate physical goods from the platform, such as divesting the Amazon Basics brand and the Amazon marketplace or unlinking Apple's manufactured products from their iOS and digital business. Therefore, using a past divestiture such as the AT&T Consent Decree can serve as a blueprint for navigating the breakup as it relates to physical assets and manufacturing capabilities.

For example, the AT&T guidelines use a consistent formula for separating physical resources: simply assign the asset to whichever entity can claim predominant use and expand on the methodology for determining predominant use in cases where it is not easily decided. As a result, it was also relatively simple to divide data and personnel resources that were linked to physical resources and separate AT&T from the BOCs, each of which was “to be reconfigured as [an exchange company] and spun off from AT&T.”

An equivalently straightforward method could be used when dividing physical assets in a Big Tech breakup. However, the ease of dividing physical resources in a Big Tech breakup is hardly the whole story. Since these companies are primarily platforms like Facebook, and even products-focused companies like Apple rely heavily on technology and data, the ability to

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61 See supra Section I.B (providing a history of structural antitrust remedies in the United States).
62 See supra Section I.A (summarizing specific proposals to breakup Big Tech companies due to antitrust concerns).
63 See, e.g., Consent Decree, supra note 54, at 42-43 (“Ownership . . . will be determined based on the projected predominant use of each center as of January 1, 1984. The predominant user of each center will be identified by calculating which entity will have the greatest number of data base entries . . . in that center as of that date.”).
64 Id. at 3.
divide up intangible assets will be the primary determinant in whether a Big Tech breakup is feasible.

Another important aspect of the AT&T breakup was that there were inevitable interactions between the Bell Companies and AT&T after the divestiture since they were both in the same industry and needed to access the same telecommunications lines. Similarly, any Big Tech breakup of a platform from a subsidiary that utilizes that platform, such as an Amazon Marketplace and Amazon Basics divestiture, would also run into this interaction issue. The AT&T Consent Decree addresses this problem by posing contracting-for-use as a frequent solution to assets with multifunctional capabilities. A more in-depth consideration of these post-divestiture contracts is conducted in Subsection II.A.3.a of this Comment.

2. Dividing Up Intangible Assets

What makes Big Tech different from the types of companies that have been broken down in the past is the intangible nature of the technology industry and its products. Even AT&T, with a strong technology aspect to its business model, mostly dealt with physical resources when aiding their breakup. The telecommunications industry during the AT&T breakup era, although advanced for its time, did not rely on algorithms and massive amounts of consumer data when running its business, which differs greatly from a social network such as Facebook or search engine such as Google. In the AT&T Consent Decree, mentions of proprietary data and intellectual property are scarce compared to discussions about facilities and hardware.

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65 Lauren Cahn, *This Is Why AmazonBasics Products Are So Cheap*, READER’S DIG. (Dec. 20, 2018), https://www.rd.com/article/amazonbasics-products-so-cheap [https://perma.cc/LC8J-RYGM] (“[T]hey decide which items to include in the AmazonBasics line based on their analysis of actual customer demand. ‘You can be pretty certain that anything in the AmazonBasics line is a product Amazon has already deemed essential to its customers.’” (quoting Brittney Mayer)).

66 Consent Decree, supra note 54, at 49 (“InterLATA backbone routes, including mid-links, will be assigned to AT&T, and the BOCs will be able to contract for capacity on them.”).

67 See supra Subsection II.A.1 (describing the mechanics of the AT&T breakup with respect to physical assets).

68 Ronald Shamah, 11 Trends Defining Telecommunications, Media and Technology in a Digital World, PUBLICIS SAPIENT, https://www.publicissapient.com/insights/11-trends-defining-telecommunications-media-and-tech [https://perma.cc/ND54-ME24] (“For the past three decades, the telecommunications, media and technology (TMT) industries have been at the center of the revolution in how consumers and businesses react, interact and transact with each other and the world. The models of society, work and value creation developed post-World War II and prevalent through the Third Industrial Revolution, are being challenged and replaced by the new models brought forth by the Fourth Industrial Revolution.”); id. (“Much of the artificial intelligence/machine learning conversations to date have focused on the need for access to huge amounts of data to feed algorithms and neural networks, an area dominated by companies such as Google, Amazon, Microsoft, and Facebook . . . .”).

69 See generally Consent Decree, supra note 54.
As mentioned, aspects like network effects and zero-price models are unique to Big Tech business strategy. Intellectual property and proprietary algorithms make up the core of these businesses, and thus should be a central consideration in any developing proposal to break up a technology company.

a. **Proprietary Information and Trade Secrets**

A successful breakup completed by fully separating a Big Tech giant into two unrelated companies would ideally treat intangible assets like physical assets and assign them to one company or the other. Indeed, this process was used in the AT&T breakup, which stated that “[w]herever practical, [proprietary] information in the data bases belonging to one party will be masked or rendered mechanically inaccessible to the other party.” It also states that when this is not possible, “the contract will require that such proprietary information of the other party be held in confidence.” In the case of Big Tech, most data will probably fall into the latter category because it will be difficult to render data completely inaccessible to one party in the breakup without curtailing its basic functions. For example, Google AdSense relies on the Google Search algorithm and its resulting consumer data, since its entire business model is targeted advertising to specific audiences. The same applies to Amazon's Marketplace and private-label goods. Thus, breaking up Big Tech companies with interdependent data would result in companies simply holding the other party's information “in confidence” from outside companies or the public, but still possessing it to potentially use internally. This is not a sufficient solution to the antitrust problems that that breakup intends to solve, as these companies can still use that proprietary data to the detriment of third parties that do not possess it.

As a result of this deep integration within technology corporations, a section of the company that may have been otherwise well-suited for a spinoff may simply have to be dissolved instead if its business model cannot survive without the proprietary data. Even if we can keep proprietary data together as one singular asset, this may not cure the antitrust issues that the breakup

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70 Supra notes 6–7, 22 and accompanying text.
71 Consent Decree, supra note 54, at 108.
72 Id. at 108-09.
73 See If Google is Free How Does It Make So Much Money?, supra note 31 (describing how Google makes money through targeted advertising). Some social media platforms and other big tech companies have been intentionally designed to make themselves hard to separate. For an explanation of how Facebook has integrated functionalities and data with Instagram to avoid being broken up by regulators, see Aaron Mak, How Facebook Tried to Make Itself Antitrust-Proof, SLATE (Dec. 9, 2020, 6:22 PM), https://slate.com/technology/2020/12/facebook-antitrust-ftc-breakup-whatsapp-instagram-zuckerberg.html [https://perma.cc/52CQ-ZC26].
74 See supra Section I.A.4.
intended to solve. This is because network effects will make the data more valuable as a whole, and whichever entity gets to keep this block of data going forward may not have its business affected in any substantial way. The breakup would therefore have very little pro-competitive benefits, and its only real result would be dissolving periphery aspects of the business that were not the main threat in the market to begin with. The resulting effect on consumer welfare will be “unambiguously negative” if the resulting firms are unable to survive the divestment. This is easy to see in the Big Tech context as well; if Google Search fails or must start charging users because its zero-price model was being subsidized by its other business, consumers would be harmed by the breakup.

Even if the business was structured in a way where the data could easily be split up between the two companies, this would only remedy the antitrust violation if the resulting standalone companies would actually operate as competitors. Antitrust scholar Hebert Hovenkamp explained this concept through the following example:

“[B]reaking apart noncompeting units does not necessarily increase the amount of competition. If a manufacturer makes 80% of the world’s toasters and 75% of the world’s blenders, compelling divestiture of one will yield one firm that makes 80% of the world’s toasters and a second firm that makes 75% of the world’s blenders. Because the two divisions are not competitors to begin with, we have done nothing to increase the amount of competition.”

Therefore, if the new companies are going to have the dominant market share in each of their products or services, nothing has been done to cure the anticompetitive nature of their respective markets, and the breakup has not furthered any substantial antitrust goals.

b. Intellectual Property and Licensing

Another central feature of tech companies is that intellectual property rights are often at the heart of their businesses. Design patents, patented algorithms, and trademarks are all examples of Big Tech’s abundant usage of patents. Some have even argued that patents are the reason that antitrust

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75 Phillips, supra note 49, at 18. See also id. at n.62 (“Along with reestablishing the acquired firm, it is also necessary that this ‘new’ firm be made viable; a mere shadow of its former self is not acceptable. Indeed, reestablishing ‘new’ firms that are unable to stand on their own would make any relief efforts farcical.” (internal quotes omitted) (citing Kenneth G. Elzinga, The Antimerger Law: Pyrrhic Victories, 12 J.L. & ECON. 43, 45 (1969)).


remedies often fall short in regulating technology companies, since patents in a way grant legal monopolies.78

The AT&T Consent Decree recognized that patents can be essential to the business operations of both companies in a breakup and granted the regional companies “nonexclusive and personal royalty-free licenses to use . . . equipment and operational methods covered by existing United States patents owned or controlled by AT&T.”79 Dividing up patents poses less of an issue than proprietary information because patents would relate to the mechanics of obtaining data, not the data itself.80 Likewise, copyrights were given similar treatment under the AT&T Consent Decree, and the regional companies were “granted rights under copyrights owned by AT&T.”81

This approach is straightforward and allows each standalone company to utilize essential patents and copyrights, which is theoretically a feasible strategy to implement in a tech company breakup. The ability to share intellectual property royalty-free is especially important because tech companies often integrate their acquisitions quickly—for example, when Facebook bought Instagram it enabled the acquiree to utilize Facebook’s photo tagging feature and allowed cross-posting between the social networks, both of which are now essential features of the platform.82 One concern is that this method of splitting up intellectual property relies heavily on licensing, which means that the companies will have contractual ties after the breakup. The monitoring and regulation of these post-divestiture interactions will be crucial to the success of the breakup and the furtherance of any antitrust goals.83 A potentially more effective remedy for the problem would be to focus on placing restrictions around intellectual property-based acquisitions prior to their integration, rather than focusing on structural remedies after the fact. For example, limiting acquisitions of intellectual property to nonexclusive licenses or requiring that dominant firms license


79 Consent Decree, supra note 54, at 411.

80 Here, the term “patents” is used primarily to describe utility patents. Design patents should be divided up with the same considerations as trademarks and trade names, which are discussed later in this section.

81 Consent Decree, supra note 54, at 415.

82 See Elizabeth Dwoskin, Regulators Want to Break Up Facebook. That’s a Technical Nightmare, Insiders Say., WASH. POST (Dec. 11, 2020, 2:05 PM), https://www.washingtonpost.com/technology/2020/12/11/facebook-breakup-antitrust [https://perma.cc/4KQQ-7HQZ] (“Instagram’s growth was supercharged by its integration with Facebook, which happened almost immediately after Facebook bought the company for $1 billion in 2012.”).

83 An in-depth exploration of post-divestiture mechanics will be addressed later in this section.
certain technology on reasonable terms could help share the market growth associated with that technology with other firms in the sector.\textsuperscript{84} Finally, the Consent Decree also devotes a significant portion to discussing trademarks and trade names. It strictly states that AT&T and the regional operating companies were no longer permitted to use any common corporate name after the breakup.\textsuperscript{85} It argues that this is because the essence of trademark protection requires that a trademark's owner “control the quality of the product or service associated with it,” which is incompatible with the breakup’s requirement that the regional companies perform functions completely independent of AT&T after the separation.\textsuperscript{86} The prohibition against using a common corporate name would work in the case of a company like Facebook divesting Instagram or WhatsApp. But when breaking apart companies currently using common names, such as divesting Amazon Basics from Amazon Marketplace, this requirement would be more problematic.

Also, in the event that a breakup requires splitting up one solid entity rather than unwinding a merger, the post-breakup entity that gets to keep the trademarked name will have a competitive advantage over the other companies.\textsuperscript{87} An example of this restructuring would be breaking up Google Search into three smaller search engine companies. Even ten years ago, Google’s trademark was estimated to be valued at forty-four billion dollars, which accounted for 27\% of the firm’s overall value at that time.\textsuperscript{88} So, in a case such as this one, the company awarded the trademarked name in the breakup would be granted an enormous asset, and may even be able to retain close to the same market share the parent company had prior to the breakup. In such a disproportionate situation, retiring the trademark altogether may be the only acceptable option.

3. Post-Divestiture Interactions

Administrators have previously considered structural antitrust remedies to be one-time enforcement actions, whereas behavioral remedies “require ongoing government oversight of the monopolist.”\textsuperscript{89} But, it will be important

\textsuperscript{84} See Hovenkamp, supra note 76, at 2043-44 (discussing in depth the remedy of using nonexclusive licenses to address intellectual property concerns in antitrust).
\textsuperscript{85} Consent Decree, supra note 54, at 416.
\textsuperscript{86} Id. at 415.
\textsuperscript{89} Van Leeuwen, supra note 6, at 1958.
for the court to dictate the specific details surrounding the interactions between the divested companies, since they will necessarily be in contact frequently. This post-divestiture monitoring is essential when crafting an effective breakup.

a. Contracts

A recurring element throughout AT&T’s breakup proposal is the reliance of post-divestiture contracts between AT&T and the BOCs that will be used to regulate the business relationships between the newly separated entities. The use of post-divestiture contracts is likely an essential ingredient of a successful breakup of the companies, as some level of interaction between the new entities is inevitable for at least an initial period, and these interactions are best addressed through predetermined contractual provisions. Waiting until after the breakup is approved to iron out the details of these contracts would be inadvisable since the specifics would be determined without any oversight from the court or regulatory agency. Therefore, while these post-divestiture contracts are an important takeaway from the AT&T breakup proposal, it is essential that any Big Tech breakup proposal consider certain details and dictate specific provisions within those contracts. Since these contracts would have to be implemented immediately post-breakup, it is essential that the court scrutinize not only the breakup proposal as a whole for antitrust issues, but also consider whether or not any future contracts included between the parties are absolutely necessary and akin to contracts issued to outside competitors.\footnote{For example, the AT&T Consent Decree allows for contracts between the parties to contain an indemnity provision. Consent Decree, supra note 54, at 68. The court must inquire whether this kind of indemnity provision is common in AT&T’s contracts with outside competitors and, if parallel contracts do not exist, whether such a provision is in pursuit of the breakup’s procompetitive goals.}

The AT&T court failed to consider the competitive impact of the contracts. For instance, one provision that was approved by the court stipulates that:

\[\text{[the non-owning party [of a multifunction facility] will have the right to require changes in multifunction facilities (other than increases in capacity) which will not impair the use of that facility by the owning party, provided that the costs of any such changes will be borne by the non-owner, unless the parties otherwise agree . . .} \]

Here, the divestiture had not even occurred and already the court has approved a provision that could enable a spinoff company to obtain a

\footnote{Id. at 63.}
favorable contract provision from its former parent company. The court approved this provision even though such favorable contract terms may never have been offered by the company to an outside competitor that was attempting to do business with that company under ordinary market conditions. Such a provision—or any other provision that similarly gives any kind of contractual benefit that a competitor would otherwise not receive—should be avoided completely.

Some may argue that forcing these contract terms to adhere so closely to standard contracts with competitors will cause unnecessary stress on the parties during the breakup period. However, the Supreme Court already determined that “the Government cannot be denied the [divestiture] remedy because economic hardship, however severe, may result.”92 Per the doctrine, financial or other hardship is not a valid consideration when drafting the structure of a breakup, and it is important to remember that a breakup is a legal remedy for antitrust violations committed by the company. If the terms issued during the breakup cause excessive hardship on the divested corporations to the point where they may fail and cause consumer harm, it is likely a sign that a breakup is not the correct remedy— not that the terms of the breakup need to be made more favorable. Therefore, the level of rigor when scrutinizing whether contract provisions resemble the ones given to outside competitors should not be lessened due to financial considerations, especially when they appear in contracts that are not intended or scheduled to expire by a certain date post-breakup.

Indeed, the expiration of these contracts is an important aspect to consider thoroughly. In the AT&T Consent Decree, it is stated that “AT&T and the BOCs intend to cease sharing network facilities as promptly as is reasonably feasible.”94 At first glance, this seems like a key provision in promoting competition after the breakup and thoroughly separating the companies’ business interests. However, applying this kind of provision to Big Tech companies may prove difficult and presents its own unique set of challenges.95 It is important to consider whether these kinds of provisions are feasible when the contracts relate to sharing an intangible item such as consumer data or intellectual property like a proprietary algorithm, as

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92 United States v. E.I. du Pont de Nemours & Co., 366 U.S. 316, 327 (1961). But see Van Loo, supra note 6, at 1990 (describing how the court of appeals overturned Microsoft’s breakup order because it believed testimony about shareholder value should have been considered).
93 See infra Section II.C.
94 Consent Decree, supra note 54, at 56.
95 In the case of physical assets or easily divisible or easily recreated intangible assets, an expiration provision is still advisable, because it balances the fact that certain post-breakup contracts are a practical necessity while also acknowledging that sharing facilities for too long could pose antitrust problems that negate the breakup’s desired procompetitive goals. Any platform breakup proposal should still utilize these types of expiration provisions where possible.
opposed to the physical assets they were used for in the AT&T Consent Decree. As discussed previously in this Comment, intangible assets like data and intellectual property create an additional set of concerns to consider when formulating a breakup proposal. Since some of these intangibles may be so central to the business model of the company as well as proprietary and therefore difficult to recreate or separate, there may not be a way for the companies to exist without having contracts in perpetuity. One may argue that certain agreements for intangible assets, like those for sharing intellectual property, are akin to a standard licensing agreement and therefore do not need an expiration date to avoid antitrust issues. However, since the agreements will need to be drafted while the companies are still together and may involve data or algorithms that would never have ordinarily been shared with a competitor, it could be easy for the divesting company to slip in sweetheart provisions that afford it a favorable position in the market and therefore frustrate the procompetitive goals of the breakup. Furthermore, the fact that there will now be two competing companies in possession of an intangible asset that previously belonged to a single company is not enough to promote competition. Recall the example of Google advertising and Google Search discussed in Subsection II.A.2. In a case like this where the separated companies both rely on the same algorithm but will compete in different markets after the separation, there is little antitrust benefit in the resulting market, since even though Google will be made into two smaller firms, the resulting firms will still have the same dominant position in the market that they held prior to the breakup. As a result, additional consideration will be needed when dealing with contracts related to sharing intangible assets. Again, if the divested corporations are unable to exist as wholly separate entities and require having certain contracts that will tie them together indefinitely, it may be another sign that a breakup is not the correct remedy for that case.

b. Dispute Resolution

In addition to ongoing contracts and post-divestiture interactions between the companies, there will inevitably be a need to review these interactions. The AT&T Consent Decree proactively addresses this need by establishing an Intercompany Review Board that would act as a standing committee for immediate dispute resolution for minor disputes arising out of

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96 *Infra* Subsection II.B.2.

97 See Hovenkamp, *infra* note 76, at 2006 (“An antitrust remedy should be evaluated by its success in increasing output, decreasing prices, improving product quality, or spurring innovation . . . . It is not antitrust’s purpose to make firms smaller, unprofitable, or less efficient . . . .”).
the agreement. The Intercompany Review Board is comprised of executives from each company and is primarily for resolving business disputes that might arise from the ongoing contracts rather than serving any antitrust function.

While the use of an Intercompany Review Board to solve post-divestiture disputes between the companies has benefits, it also raises some concerns. As mentioned previously, it is crucial that any post-divestiture contracts between the companies that will be used for a significant amount of time are as close as possible to contracts issued to outside competitors. On one hand, the use of a review board such as this could be helpful in resolving minor disagreements that require immediate resolution, as the decree intends it to. This is helpful because the companies will have contact after the breakup as a matter of necessity, and there will be an inevitable transition period before they can act as fully autonomous companies. A review board is well-suited to serve its function during this interim period. However, the AT&T Consent Decree makes no mention of an end date for this Board yet simultaneously allows for informal resolution of disputes related to the restructuring, a combination that could be dangerously anticompetitive without any oversight.

Additionally, the AT&T Consent Decree’s dispute resolution process allows for disputes not solved by the Board within ten days to be submitted for binding arbitration. Arbitration contracts are popular contract provisions and likely could be found in contracts with outside competitors as well. However, since these contracts were a result of an antitrust remedy, it is advisable that true legal disputes arising out of these contracts face full legal scrutiny in court, as arbitration is often favorable to corporate interests and could result in lower settlement amounts or other benefits that a court would not have otherwise approved. Further, the removal of any arbitration

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98 Consent Decree, supra note 54, at 72-73.
99 See id. at 72 (“Any dispute . . . arising out of the provisions of this Agreement, or any dispute regarding interpretation of any of its provisions, or any other dispute . . . will be referred within two working days to the Intercompany Review Board.”).
100 See supra Subsection II.A.3.a.
101 See Consent Decree, supra note 54, at 72 (“Because many of the disagreements . . . will be minor in nature but will require immediate resolution, the contracts will provide [procedures for dispute resolution, including the Intercompany Review Board].”).
102 Id. at 73.
103 Id.
105 See Ross Eisenbrey, Mandatory Arbitration Unfairly Tilts the Legal System in Favor of Corporations and Employers, ECON. POL’Y INST. (Jan. 28, 2016), https://www.epi.org/publication/mandatory-arbitration-unfairly-tilts-the-legal-system [https://perma.cc/6J3D-NCJH] (“Private arbitration can forbid class actions, limit damages, allow the employer to choose the arbitrator, and cut off appeals, resulting in a system unfairly tilted in the employer’s favor.”).
clause would allow the court to monitor and potentially rework some of the provisions added to ensure that the court’s procompetitive goals were being met, something even an unbiased arbitration court would be ill-suited to do.

A well-crafted Big Tech breakup proposal should include some variation of an Intercompany Review Board to smooth things over during the transition period, but it is advisable that such a Board include either third-party persons who can act as a guidepost for industry standards or regulators who can confirm that none of the resolutions are leading to anticompetitive benefits. Since such a board has many benefits during the immediate post-divestiture period, the court might as well take advantage of the board’s existence by using it for ongoing antitrust oversight.

B. Are Breakups the Answer?

Based on the analysis above, it is clear that orchestrating the breakup of a Big Tech company would be extremely complex and much more challenging than the AT&T breakup was. This does not mean that courts should not pursue breakups as a remedy just because it would be complicated, it only means that care should be taken to make sure that a breakup is the best solution for efficiently remedying antitrust violations.

Some scholars have posited that breakups are most useful when reversing acquisitions and spinning off previously acquired companies that would be competitive in the market. This is supported by the analysis above, which demonstrates how difficult it is when one intangible resource is central to the business model. However, the degree of integration of an acquired company will also factor into whether it is a good candidate for a spinoff at all. For example, in the case of Facebook, Instagram was so immediately and heavily integrated that it would likely take years for a breakup to be finalized. A former Facebook engineer stated that “Instagram is no longer viable outside of Facebook infrastructure. They spent six years moving things over.” Again, the fact that a breakup would be cumbersome and lengthy is not alone a reason not to utilize a structural remedy, but time comes with a cost. A multi-year breakup would mean a lot of time for anticompetitive harms to take place, and a lot of time for companies to find clever ways to retain their competitive advantage. Also, in an industry like technology that changes so

106 See generally Hovenkamp, supra note 76 (discussing breakups and spinoffs as one of the possible remedies for technology platform monopolies).

107 See id. at 2008 (“In some cases, acquired assets are eventually so completely integrated into the acquiring firm that the spinoff problem is not materially different from that of internally developed assets.”).

108 See Dwoskin, supra note 82 (stating the opinion of a former Facebook engineer who supports a breakup but admits that “[i]t would take years”).

109 Id.
rapidly, the spinoff company—or the entire market for that matter—could be obsolete by the time the breakup is complete, and the Big Tech parent company’s business model could look completely different. On the other hand, a less integrated and more recently acquired asset like WhatsApp “would be more like a six-month technical project.”\footnote{Id.} However, even though WhatsApp is less integrated, another source argued that spinning it off while maintaining the quality of service would actually “take years.”\footnote{Id.} If courts believe this would be a beneficial spinoff, there are few compelling reasons, in addition to the lengthy timelines discussed, not to advocate for a breakup in this instance.\footnote{See id. (describing how a breakup would be inadvisable because of the way Facebook “integrated the back-end technology” to deeply intertwine the functionalities of Facebook and Instagram).} For example, some have speculated that “[t]he practice of retroactively unwinding mergers will spark caution and uncertainty among businesses and presumably dim merger activity,” which is another factor that may affect the competitiveness of the market and should be considered.\footnote{Susie Kim, The Warren Proposal to Break Up Big Tech, COLUM. BUS. L. REV. (Aug. 13, 2019), https://journals.library.columbia.edu/index.php/CBLR/announcement/view/202 [https://perma.cc/ZP4F-E649].}

For divestitures that don’t involve unwinding mergers but rather require dividing up an entity that has always functioned as one company, the analysis in Part II.A shows the extraordinary difficulty this will present. Even in historical antitrust cases where the divestiture involved a manufacturing company—which, based on the prior analysis in this Comment, would be the simplest kind of business to separate as it does not involve many intangible assets—dividing up integrated physical assets was deemed too difficult to separate according to the court.\footnote{Phillips, supra note 49, at 17-18.} The judge in that case stated that “with one set of jigs and tools, one foundry, one laboratory for machinery problems, one managerial staff, and one labor force[,] [i]t takes no Solomon to see that this organism cannot be cut into three equal and viable parts.”\footnote{United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 348 (D. Mass. 1953).} In cases where one business is split up into smaller competitive companies, it will be difficult to ensure that the resulting companies are all functional, and “[t]he goal is to maintain the competition that the merger would have eliminated, which requires that the divested assets remain in the market at their current competitive strength for the foreseeable future.”\footnote{Phillips, supra note 49, at 18.} Finally, the remedy of breaking up a company also involves heavy costs to the efficiency of that company, which in turn can lead to an increase in prices or decrease in quantity, which is antithetical to the goals of antitrust under
the consumer welfare standard.\textsuperscript{117} When suggesting a structural remedy, it is important to keep in mind the benefits afforded by economies of scale and economies of scope. It is better to promote remedies that address antitrust violations while still preserving the benefits of economies of scale and scope.\textsuperscript{118}

C. Alternate Remedies

Since breakups will be a challenging remedy to implement regardless of whether it is a spinoff unwinding a merger or a divestiture breaking up one business into competitive parts, it is best to explore alternative remedies that may provide the same procompetitive benefits as a breakup without the challenges.

For example, recent scholarship has highlighted the possibility of expanding the use of the essential facilities doctrine,\textsuperscript{119} which seems to be especially beneficial when monopolists possess intangible essential facilities, as is frequently the case in the technology industry.\textsuperscript{120} Additionally, if a structural remedy is still preferable to a behavioral one, structural separation could be a viable solution to cure anticompetitive harms by prohibiting businesses from entering certain industries while not necessarily requiring that they be broken up.\textsuperscript{121} In addition, mandating interoperability could increase competition while still preserving economies of scale and scope.\textsuperscript{122} Finally, the best remedy in a larger sense would be to increase enforcement of currently available antitrust regulations. For example, heavily increasing the scrutiny of mergers and acquisitions at an earlier stage would save agencies from having to go through lengthy lawsuits to undo them once they prove anticompetitive.

Although all these alternate remedies present their own difficulties, they avoid the high risk that breaking up companies would make the resulting businesses too inefficient to compete, therefore harming consumers and doing little to improve

\\textsuperscript{117} See Hovenkamp, supra note 76, at 2020 (“[B]reakups may impair efficient operation and harm consumers in the process.”).

\textsuperscript{118} See id. at 2032-33 (discussing the benefits of remedies such as interoperability which can address competitive concerns while still allowing for economies of scale and scope).

\textsuperscript{119} The essential facilities doctrine requires an entity with control of an essential asset or infrastructure to allow competitors to access that resource. The doctrine is not commonly invoked by the courts, and the standard for being an essential facility is high. U.S. DEP’T OF JUST., Unilateral, Unconditional Refusals to Deal with Rivals, in COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT 119, 127-29 (2008).

\textsuperscript{120} Sandheep Vaheesan, Revising an Epithet: A New Way Forward for the Essential Facilities Doctrine, 3 UTAH L. REV. 911, 913 (2010) (“Prudent application of the doctrine to intangible essential facilities . . . can improve market outcomes.”).

\textsuperscript{121} See Khan, supra note 9, at 980 (suggesting prohibitions on market entry as one means of increasing the viability of structural separations).

\textsuperscript{122} See Hovenkamp, supra note 76, at 1992 (“[A] high degree of interoperability . . . facilitates competition inside the network.”).
competition in the market. Furthermore, these alternate solutions are all well-suited to the technology sector and are thus more likely to be successful.

CONCLUSION

The rise of the technology industry and the dominance of a small concentration of Big Tech firms in that sector has led to increased antitrust scrutiny by regulators, politicians, and the general public. Demands to break up the Big Tech companies and restore competition in the market have been heard frequently but often with little specificity as to how this will be accomplished and a lack of consideration for the unique business practices utilized in the technology sector. Structural remedies like breakups have been used infrequently in the history of United States antitrust regulation, but previous blueprints for breakups—especially the AT&T breakup of 1984 which was widely considered to be a success—can act as a starting point for drafting a Big Tech breakup proposal.

When looking in depth at the mechanics of separating companies, we must consider three major categories: physical assets, intangible assets, and post-divestiture monitoring. First, physical assets are the most straightforward to split up. On the other hand, intangible assets will be much more difficult to divide, which is problematic. Proprietary algorithms and large amounts of consumer data are central aspects of the business model of a technology company, because many firms use data collected by one prong of their business to aid another prong. This interdependence among different subsidiaries will make it difficult for the businesses to stand alone if separated, or alternatively cause them to start charging consumers for services rather than focusing on data collection. Additionally, assigning the trademark to one of the companies after a divestiture will severely disadvantage the others to the point where they may not remain viable. Finally, post-divestiture interactions will be frequent and inevitable, so courts will have to carefully draft these specific provisions before the divestiture is approved to avoid issues of self-dealing or sweetheart deals among the firms after they are split up.

Administering a breakup would be difficult regardless of whether it was a spinoff or a divestiture, so it is advisable to look toward other remedies that do not pose as much risk to consumers. Propositions tailored to the technology industry like the expansion of the essential facilities doctrine, structural separation by prohibiting business in certain markets, and increased scrutiny during the merger approval process are all suitable alternatives to breakups that may be even more efficient in restoring competition. The ultimate goal is to bring procompetitive benefits to the technology sector's markets, so rather than using the remedy that feels the most punitive, it is better to find the remedy that is most beneficial.