The Big Tech Antitrust Paradox: A Reevaluation of the Consumer Welfare Standard for Digital Markets

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ABSTRACT

In the contemporary American technology landscape, companies such as Apple, Amazon, Google, Meta, and Microsoft exercise unparalleled influence by offering ostensibly "gratis" services. This Article interrogates the veracity of this "free" paradigm, contending that consumers engage in a de facto quid pro quo by tendering personal data. We critically examine the application of the consumer welfare standard in antitrust jurisprudence, a standard that has enabled such corporations to amass significant market power without triggering traditional antitrust scrutiny. Courts have abstained from applying extant antitrust principles to these firms, largely due to an overreliance on consumer price as the litmus test for competitive harm under the consumer welfare standard. We posit that this misapplication perpetuates market concentration, thereby inhibiting innovation and disproportionately impacting vulnerable consumer demographics and small enterprises. To rectify this interpretive misstep, we advocate for the reconceptualization of data as a currency. Such a doctrinal shift would ameliorate the prevailing incongruities in the application of the consumer welfare standard, furnishing regulatory agencies and state Attorney Generals with a more nuanced metric for antitrust and consumer protection enforcement. The Article is segmented into four

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sections: (1) a reconceptualization of "free services" in the digital age, (2) an empirical analysis of burgeoning market concentration and its concomitant impact on technological innovation, (3) a historical exegesis of the consumer welfare standard's integration into antitrust law, and (4) a critique of the standard's role in diminishing consumer welfare. We conclude by proffering a suite of methodological frameworks designed to recalibrate the assessment of consumer welfare and market competition in technology sectors. This reevaluation is pivotal for the invigoration of competition and innovation within the American tech industry.

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I. INTRODUCTION

Without a doubt, the tech sector in the United States is in a league of its own. The tech industry has revolutionized how we receive and send information. In an instant, we can stay in touch with our loved ones, meet up with friends, order food, find articles, and engage with our politicians, all with the convenience of a device, most of which nestle neatly in our pockets. What's the cost of such invaluable services? Nothing. These companies provide almost all of these services for "free."

Or do they?

As Milton Friedman once said, "[t]here's no such thing as a free lunch";¹ this is true for so-called "free" tech services. Every day, consumers increasingly pay tech companies with an invaluable resource to access so-called "free services" from companies. These consumers are investing their personal information through digital footprints. For at least the past two decades, regulators, courts, and legislatures have taken an almost laissez faire approach to the tech industry by letting them set their own terms and rules. In doing so, the law, as it is currently written and interpreted, has encouraged a few tech firms to concentrate the tech market. We argue that courts and regulators have

¹ MILTON FRIEDMAN, THERE'S NO SUCH THING AS A FREE LUNCH (1975).

used the commonly cited consumer welfare standard to avoid pursuing antitrust enforcement. Such avoidance has enabled large tech companies to monopolize key portions of the tech sector via their alleged free services (e.g., Google's Search, YouTube, or free apps² on Apple's App Store).

The debate concerning regulating or enforcing antitrust laws against the major tech companies has been mired in false premise and opacity by ignoring data ownership and its value. Courts have had a strong resistance to enforcing current antitrust laws against these large tech firms because of their application of the consumer welfare standard on what they feel are emerging markets.

Originally proposed by Judge Robert Bork, the consumer welfare standard requires courts to examine whether consumers benefit from a firm's action, even if it means they lose a competitor as a result.³ Although the consumer welfare standard considers many factors, courts treat consumer price differences as a preeminent indication of monopolization or competitive harm.⁴ But the absence of explicit prices has led many courts to develop, as we argue, rulings that have led to a decline in the rate of innovation in the tech space and a degradation of consumer welfare that has been hard to empirically measure.

Even those in the Big Tech community agree that the nature of their services is inherently inconsistent with the concept of consumer welfare. For example, in their seminal paper introducing the algorithm behind Google search, Sergey Brin and Lawrence Page remark that "the goals of the advertising business model do not always correspond to providing quality search to users," and "advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers." Technology executives have telegraphed their objectives.

This misapplication of the consumer welfare standard is especially prevalent for those tech-related services that we consider free, such as social media services, search engines, or app stores. However, we also argue that the consumer welfare standard, when applied faithfully, can assist courts and regulators in evaluating whether a free offering from the major tech players is

² For purposes of this Article, the term "free app" also includes apps that are free to download and use but offer subscriptions for premium subscriptions. Examples of such apps include music streaming apps, gaming apps, and dating apps.

³ See Robert H. Bork, The Antitrust Paradox 107–15 (The Free Press 1993) (1978).

⁴ Christine S. Wilson, Welfare Standards Underlying Antitrust Enforcement: What You Measure is What You Get, FED. TRADE COMM'N, at 5, https://perma.cc/RE6K-P3NF.

⁵ Sergey Brin & Lawrence Page, *Reprint of: The Anatomy of a Large-scale Hypertextual Web Search Engine*, 56 COMPUT. NETWORKS 3825, 3831–32 (2012).

acting in a way consistent with consumer welfare principles, particularly when it comes to evaluating the consumer-side of a tech two-sided market.

To apply the standard more aptly to free services, we counter the premise that these services are, in fact, free. There is an exchange that is relatively straightforward—the firm offers an online service without an explicit price, and, in return, consumers forfeit personal data in lieu of monetary tender.

We place particular emphasis on the economic evidence that points toward growing concentration and its adverse consequences, particularly from vulnerable consumer groups, small businesses, and innovation at large. To reverse this trend, we argue that courts should view data as a type of currency. Treating data as a form of currency resolves much of the confusion surrounding the consumer welfare standard and can assist agencies and state Attorney Generals when bringing consumer protection and antitrust cases. Consumer protection and antitrust enforcement are integral to a free market. But consumers can only avail themselves to greater competition and innovation at large once courts and regulators adopt the premise that data is in fact currency.

This Article has four goals. First, we discuss what we mean by "free services." Second, we review the empirical evidence about rising market concentration and its adverse effects on innovation. Third, we provide a descriptive account of how modern-day antitrust law adopted the consumer welfare standard. Fourth, we discuss how this rising concentration has led to a decrease in consumer welfare. Finally, we propose a sample of methodological approaches that courts can leverage to ensure that we are evaluating tech markets and consumer welfare in the tech space more accurately.

II. "FREE SERVICES"

Most consumer interactions online involve these so-called free services. Notably, when you are conducting research on Google Search, making a reservation with OpenTable, downloading an app from Apple's App Store, or posting on Instagram, you are engaging in a free service. Tech companies have led consumers to believe that these services are truly at no cost to them. And from a certain perspective, they are right. Consumers are not required to provide payment to use most search engines, nor does Apple charge you to use its App Store when downloading apps. The same is true with most social media account subscriptions, such as Instagram, TikTok, or Snapchat.

However, consumers are still giving something up—their data—to these companies. Before delving into what consumers are paying or how much they are paying in data, it is important to identify the type of market in which these companies operate.

Tech companies, much like credit cards and newspapers, frequently operate in a two-sided market. "Two-sided platforms" refer to applications that "direct interaction between suppliers and customers, creating value through an intermediary platform." For example, credit card networks, such as Visa or American Express, are two-sided platforms that enable merchants and customers to transact.

Within the category of two-sided platforms, products can further be divided into those, tech companies either allow their users to interact (interactive platforms) or not (non-interactive platforms). Social media two-sided platforms are a prime example of an interactive platform. For example, Instagram attracts users by enabling them to communicate and share content with other users. In addition, social companies like Meta—its parent company—typically monetize their sites by enabling advertisers to reach certain types of users based on the data the users provide in their profiles. This is because Meta connects suppliers to customers and allows them to interact, but it is still a two-sided platform.

Whereas, prime examples for non-interactive platforms are search engine platforms and app stores. For instance, Google's Search and Microsoft's Bing are two-sided platforms that connect users seeking information from websites and advertisers who can provide information or products responsive to the users' search terms. However, the users themselves do not use Google's Search or Microsoft's Bing to interact with one another when search for content. The same is true for app stores. Google's Play Store or Apple's App Store, too, operate in a two-sided market. Generally, app-store platforms connect consumers to developers' apps. However, app-store users also do not interact with other users of Apple or Google when downloading apps.

The distinction between interactions on one side of the platform versus inter-platform interactions can be important; however, analyzing these applications from our current antitrust perspective can be difficult. The reason being that our current frameworks do a fairly good job at evaluating the business-to-business side of each of these markets (e.g., developer-to-platform,

⁶ What Is a Two-Sided Market and Why Does It Matter?, GetSmarter (Aug. 4, 2022), https://perma.cc/LU6F-XP53.

ad network-to-platform, etc.), but we fail at evaluating the tradeoffs made on the consumer—to-platform side, most especially when consumers bear no monetary cost for those services. This ultimately creates a paradox when applying the current version of consumer welfare where consumers are giving more data for less innovation or quality of services.

This Article contends that treating data as currency can ameliorate that issue, and that there are existing methods for pricing consumer data.

III. AN ECONOMIC REVIEW OF THE FACILITATION OF TECH MONOPOLIES

This Section uses economics to describe a cautionary tale of what happens when governments are too lax in their enforcement or operate under a complete misunderstanding of how these tech firms compete.

A. Empirical Evidence Suggests that Weak Antitrust Enforcement Is the Cause of Lack of Competition and Market Concentration in the Tech Sector

Having identified the type of market in which these firms operate, we now survey the literature about competition and market concentration. Price-adjusted gross domestic product (GDP) grew by 9.8% in the digital economy versus 5.9% overall, accounting for \$3.7 trillion in 2021, according to the Bureau of Economic Analysis. However, United States regulation on the digital economy has remained nearly identical over the past two decades. In particular, no major legislation has been passed into law since the Communications Decency Act of 1996 and the Digital Millennium Copyright Act of 1998. Perhaps counterintuitively, these two pieces of legislation were passed before the expansion of the internet and the technology boom that followed in the early 2000s—before anyone ever could have anticipated what it would become.

Unfortunately, this lack of legislation, together with lax enforcement, have led to a wide array of abuses within the digital economy, ranging from monopoly power to flagrant exploitation that has ultimately hurt consumers.

⁷ Tina Highfill & Christopher Surfield, New and Revised Statistics of the U.S. Digital Economy, 2005–2021 (2022), https://perma.cc/8V5H-JAGA.

1. Growing Market Concentration and Declining Competitiveness

There is a large body of empirical evidence that points toward growing market concentration in the past three decades, driven in part by the upper tail of the distribution of firms. Using a combination of data on publicly traded firms and administrative data from the Census Bureau, available indicators suggest that the economy is becoming more, not less, concentrated. Moreover, profitability among these companies has increased substantially, rising from an average profit rate of 1% to 8% between 1955 and 2016 among publicly traded firms. Although overhead costs have undoubtedly grown over time, the rise in concentration cannot be accounted for by changes in overhead.

The conventional approach to measuring concentration nonetheless faces some challenges—what matters for consumers is their ability to substitute across products—that is, a product's own and cross-price elasticities. However, North American Industry Classification System (NAICS) codes define industries on production, not consumption. For example, all metal cans are treated in the same way within a NAICS code, whereas glass and plastic bottles get separate codes. The groupings, however, are not as helpful for antitrust analyses since consumers cannot substitute equally across all types of bottles—say, paint cans. Moreover, the NAICS categories are broad in many instances, particularly for emerging service categories. Finally, industries are defined nationally, but many products are inherently local, calling into question how markets are measured.¹¹

These are valid reasons to think critically about the available evidence on concentration, but are they reasons to discard the result on growing concentration altogether? Recently, Benkard et al. used annual consumer survey data on consumers' brand choices across 475 product markets between 1994 and 2019 to introduce a new methodological strategy for measuring

⁸ Sam Peltzman, *Industrial Concentration under the Rule of Reason*, 57 J.L. & Econ. S101, S120 (2014); Gustavo Grullon et al., *Are US Industries Becoming More Concentrated?*, 23 Rev. Fin. 697 (2019); Simcha Barkai, *Declining Labor and Capital Shares*, 75 J. Fin. 2421 (2020); David Autor et al., *The Fall of the Labor Share and the Rise of Superstar Firms*, 135 Q. J. Econ. 645 (2020); Matias Covarrubias et al., *From Good to Bad Concentration? US Industries over the Past 30 Years* (NBER Macroeconomics Ann., Working Paper No. 25983, 2020); Sharat Ganapati, *Growing Oligopolies, Prices, Output, and Productivity*, 13 Am. Econ. J.: Microeconomics 309 (2021).

 $^{^{\}rm 9}$ Jan De Loecker et al., The Rise of Market Power and the Macroeconomic Implications, 135 Q. J. Econ. 561, 565 (2020).

¹⁰ *Id*.

¹¹ Esteban Rossi-Hansberg et al., *Diverging Trends in National and Local Concentration*, 35 NBER MACROECONOMICS ANN. 155 (2020).

concentration.¹² They find a decrease in median product market concentration across a range of goods and services since 1994. The combination of rising sectoral concentration and decreasing product market concentration means that firms are entering into adjacent product markets within the same sector. Nonetheless, they find that the level of concentration is still much higher than previously thought with 44.4% of sampled markets classified as "highly concentrated" according to the U.S. Horizontal Merger Guidelines.¹³ Importantly, however, none of their data measures digital goods and services, meaning that their results on declining concentration do not assuage the concerns about growing concentration in the tech sector—separate data is required.

Unfortunately, the difficulty in measuring digital goods and services has limited empirical research on concentration in the technology sector. However, there is some evidence. For example, Calligaris et al. used data between 2001 and 2014 across 26 countries in Europe through the Bureau van Dijk. In particular, they find that the markup rate grew from roughly zero in 2001 to 6% in 2014 within digitally intensive sectors, whereas it has only grown to 4% in other sectors. But the rise in markups was driven nearly exclusively by firms in the top of the markup distribution and by firms in more digitally intensive sectors, consistent with the view that concentration has grown in the aggregate. Is

Furthermore, Azar et al. used job posting data to construct new measures of concentration based on the insight that labor markets are local (at least pre-2020 absent high remote work rates). They find that 17% of employees work in highly concentrated markets. Furthermore, many of the most concentrated occupations are tech jobs, including computer systems analysts, financial analysts, information security analysts, web developers, and software developers, among others. Although their measure of concentration focuses more on monopsony in the labor market, it is nonetheless informative about

¹² C. Lanier Benkard et al., *Concentration in Product Markets* at 3 (Nat'l Bureau of Econ. Rsch., Working Paper No. 28745, Apr. 2021, Revised Sept. 2023).

¹³ *Id.* at 3.

 $^{^{14}}$ Sarah Calligaris et al., *Mark-Ups in the Digital Era* 7 (OECD Sci., Tech. & Indus., Working Paper No. 2018/10, 2018).

¹⁵ Id. at 15.

 $^{^{16}}$ José Azar et al., Concentration in US Labor Markets: Evidence from Online Vacancy Data 66 Lab. Econ. Art. 101886, at 4.

¹⁷ *Id.* at 2.

the effects in consumer markets too, suggesting that the tech sector—which employs higher shares of tech workers—has become less competitive. 18

2. Market Concentration Is Not a Natural Consequence of Technological Change

Many proponents of the current regulatory regime argue that technological change enabled significant improvements in economic and social well-being that otherwise would not have been available. While technological change has led to sustained growth in economic output and even worker well-being, markets do not inevitably become more concentrated. ¹⁹ Indeed, Benkard et al. point out that concentration in the non-tech sector actually declined in the economy in these same years of economic growth. ²⁰ Instead, it is the market structure that determines whether technological gains lead to greater productivity and reallocation or whether they accrue to market incumbents. ²¹

In a sophisticated model with oligopolistic competition, Akcigit and Ates show that the profit share of GDP has increased, consistent with larger tech companies also extracting greater rents,²² and the share of income going towards labor has declined.²³

Take the news industry, for example. Specifically, Google has coerced news publishers into using "Accelerated Mobile Pages" (AMP). AMP make use of a stripped-down version of HTML that prioritizes loading speed simultaneously with dozens of proprietary extensions. ²⁴ The main issue is that Google built out AMP outside the context of Open Standards principles, presumably, to have more control over the content AMP host. ²⁵ AMP served as a gatekeeper for

¹⁸ *Id.* at 1.

¹⁹ Gary D. Hansen & Edward C. Prescott, *Malthus to Solow*, 92 Am. Econ. Rev. 1205 (2002); see also Christos Makridis & Joo Han, Future of Work and Employee Empowerment: Evidence from a Decade of Technological Change, 173 Tech. Forecasting & Soc. Change 1 (2021).

²⁰ See Benkard et al., supra note 12, at 32.

²¹ See Benkard et al., supra note 12, at 22.

²² See generally Ufuk Akcigit & Sina T. Ates, *Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory*, 13 Am. Econ. J.: Macroeconomics 257 (2021).

²³ See Loukas Karabarbounis & Bremt Neiman, *The Global Decline of the Labor Share*, 129 Q. J. ECON. 61 (2014); see also Michael W.L. Elsby et al., *The Decline of the U.S. Labor Share*, BROOKINGS PAPERS ON ECON. ACTIVITY, Fall 2013, at 1 (2013).

²⁴ News Media All., How Google Abuses Its Position as a Market Dominant Platform 6 (Sept. 2022 update), https://perma.cc/E6B3-3YD3.
²⁵ Id.

news outlets if Google decided that those outlets did not conform to its AMP specifications.²⁶

Although Google has retired the program, Google's use of AMP is a primary example of how some tech companies use technical specifications to harness control over their platforms and who or what is on them. There was no other meaningful reason for Google to create this unique HTML solution otherwise. Given that the news industry has similar market characteristics as that of the social media outlets and, at least for ad revenue, directly compete with one another, this could be interpreted as Google using its tech to harm its competitors in the news space. Google also refuses to share its page views with its competitors, arguing that it would violate various privacy laws or suggesting that the data it collects is proprietary. In this instance, Google used its algorithm to directly harm competition in the ad revenue space.

Google also struck against competing technologies that would pull users away from its search features. Adam and Shivaun Raff developed a search engine that—they hoped—would rival Google.²⁷ The New York Times reported that the Raff's search engine was so precise that it could figure out which websites charged hidden shipping fees and which offered truly good deals."²⁸ Their searches were able to achieve this level of accuracy because they leveraged vertical search algorithms while Google exclusively relied horizontal search methods.²⁹ However, the Raffs required Google's services to promote their product on Google's Search as it "account[ed] for an estimated 87 percent of online searches worldwide. It processes trillions of queries each year, which works out to at least 5.5 billion a day, 63,000 a second."³⁰ The other issue is that once Google identified the Raff's technology as a competitive threat, Google digitally buried their product by placing it as far as 170 pages down from the first page irrespective of how many people directly searched for their product—even if one were to search the exact name of the Raff's company (i.e.,

²⁶ See id at 7

²⁷ Charles Duhigg, *The Case Against Google*, N.Y. TIMES (Feb. 20, 2018), https://perma.cc/Q33D-87Y2.

²⁸ Id.

²⁹ Id.

³⁰ *Id*.

Foundem.com).³¹ Additionally, other search engines (e.g., MSN Search and Yahoo) ranked Foundem high.³²

Built-in mobile app stores have similarly led to concentration within the mobile application market. There are three key factors that have contributed to this: dominant app stores are built into mobile operating systems, the mobile device market is itself concentrated, and the operating systems lack interoperability. In general, there are realistically only two app store providers, Google's Play Store and Apple's App Store.³³ Apple's App Store is the leader in revenue by a significant margin, accounting for "more than 62% of the global revenue share in 2022."³⁴

Akin to Microsoft's strategy in the browser market, the primary reason for this concentration is both Apple and Google tethering their stores to their respective devices' operating systems. Apple is becoming even more of the dominant player in the mobile app space because of its choice to engage in a closed system while enjoying nearly a 60% market share in the mobile phone market (not including tablets or wearables).³⁵

B. Inaccurately Assessing Anticompetitive Effects When Granting Mergers or Acquisitions for Tech Platforms

This Section examines significant mergers within the tech market. Antitrust agencies typically treat these mergers as vertical mergers—mergers with firms that do not directly compete—as opposed to horizontal mergers—mergers concerning firms that directly compete. The practical distinction between a vertical and horizontal merger is that the former is typically treated as a procompetitive arrangement because the law does not view these companies as direct competitors; where the government agencies more highly scrutinize horizontal mergers as the law looks at them as direct competitors. However, mergers have directly contributed to Big Tech's dominance in the tech-

³² Id.

³¹ *Id*.

³³ Christopher T. Marsden & Ian Brown, *App Stores, Antitrust and Their Links to Net Neutrality: A Review of the European Policy and Academic Debate Leading to the EU Digital Markets Act*, INTERNET POL'Y REV., Jan. 17, 2023, at 2.

³⁴ Mobile Application Market Size, Share, & Trends Analysis Report by Store Type (Google Store, Apple Store, Others), By Application, By Region, And Segment Forecasts, 2023-2030, Grand View Research, https://perma.cc/3783-GKTY.

³⁵ Ash Turner, *US Smartphone Market Share (Nov 2023),* BANKMYCELL, https://perma.cc/M6VT-5G4W.

economic space, because antitrust agencies have, in our view, mischaracterized these mergers as vertical mergers as opposed to horizontal mergers.

One reason legislatures and regulators mischaracterize these mergers could be because they are potentially using the wrong metric to measure the competitive effects of a merger between tech firms. There is significant disagreement on how to evaluate competitors in social media markets. Some reports suggest that Meta's Instagram may not even be in competition with a company like Snapchat based on their respective services. They argue that "although Instagram and Microsoft's LinkedIn are both typically viewed as social networking services, it is unlikely that users would substitute one platform for the other." However, this is an inappropriate way to evaluate these types of mergers because evaluating platforms based on their services alone misunderstands these companies' business models, which are predominately ad revenue via enormous data sets from individual users. For these models, the greater the data set—and thus the predictive power of their algorithms—the superior the product and, by extension, the more dominant the platform.

Unfortunately, many acquisitions receive little scrutiny. Out of roughly 800 acquisitions among Google, Amazon, Facebook, and Apple since 2000, only three received significant publicity (i.e., Waze, WhatsApp, and Instagram). The phenomenon of "stealth consolidations" is due to low antitrust guidance over the conditions that would require notification and broader antitrust scrutiny by the DOJ and FTC. This review demonstrates why it may be time for the United States to rethink how it evaluates tech mergers and why it may be more appropriate to evaluate the amount of data consumers directly forfeit to a particular platform as the dispositive metric to review these mergers.

Below are a few examples of how tech companies have used stealth consolidations to achieve extraordinary market power in their respective tech silos.

³⁶ See, e.g., Clare Y. Cho, Cong. Rsch. Serv., R46739, Mergers & Acquisitions in Digital Markets 14 (2021).

³⁷ Id. at 12.

³⁸ Luís Cabral, *Merger Policy in Digital Industries*, 54 INFO. ECON. & POL'Y, Mar. 2021, Art. 100866 at 5 (2021).

³⁹ Thomas Wollman, Stealth Consolidation: Evidence form an Amendment to the Hart-Scott-Rodino Act, 1 Am. Econ. Rev.: Insights. 77 (2019).

1. Apple Acquisitions

Apple's history is rich with acquisitions, which have allowed it to monopolize various segments of the tech market. Arguably, these acquisitions and the monopolistic power that came with them have been a double-edged sword—while they have solidified its market dominance, they have also made the company a regular subject of anti-competition investigations. Their turning point was in 2008 with the launch of the App Store—an online marketplace for iOS users to download applications—which set the stage for Apple to become a monopolist in the digital app marketplace. With control over the platform, Apple could decide which apps to host, which to promote, and how much to charge developers for this service, creating a sort of "walled garden."

Apple began an aggressive acquisition strategy over software, starting with their 2009 purchase of Lala Media, an online music store, to strengthen its position in the digital music market. It eventually led to the creation of Apple Music. Apple also acquired Quattro Wireless in 2010, entering the mobile advertising industry and competing with Google's AdMob through the launch of iAd. Another acquisition was in 2013 over Topsy Labs, a social media analytics company, which allowed Apple to improve its performance of Siri and Spotlight Search, increasing Apple's competitive edge in these areas. Arguably its most significant acquisition was of Beats Electronics in 2014, which allowed Apple to expand into the headphones and music streaming market and laid the groundwork for Apple Music. In Finally, Apple acquired Voysis, an Al voice tech company, in 2020 to improve Siri and make it a more formidable competitor to Google Assistant and Amazon Alexa.

Each acquisition helped strengthen Apple's dominance in the market and create a powerful network effect with consumers and developers becoming increasingly dependent on the Apple ecosystem. In fact, the legal dispute with

⁴⁰ Ethan Smith & Yukari Iwatani Kane, *Apple Acquires Lala Media*, WALL St. J. (Dec. 6, 2009, 12:36 PM ET), https://perma.cc/CW5S-PX8A.

⁴¹ Chris Foresman, *Apple to Fold Lala into iTunes, Transform into Web Service*, ARS TECHNICA (Dec. 10, 2009, 11:50 AM), https://perma.cc/RWD4-R5LL.

⁴² Gabriel Madway, *Apple Acquires Mobile Ad Company Quattro Wireless*, Reuters (Jan. 5, 2010, 9:49 AM PST), https://perma.cc/9JFD-EU2M.

⁴³ Angela Moon & Melissa Fares, *Two Years After Acquisition, Apple Shuts Social Analytics Platform Topsy*, Reuters (Dec. 16, 2015, 7:13 PM PDT), https://perma.cc/HE5N-RPCR.

⁴⁴ Press Release, Apple, Apple to Acquire Beats Music & Beats Electronics (May 28, 2014), https://perma.cc/U3ZL-TYNB.

⁴⁵ Mark Gurman, *Apple Acquires AI Startup to Better Understand Natural Language*, BLOOMBERG (Apr. 3, 2020, 2:17 PM PDT), https://perma.cc/29UU-D66K.

Epic Games over App Store policies highlights the contentious nature of Apple's market power. Epic Games challenged Apple's 30% commission rate for in-app purchases and its mandate that apps use its proprietary payment system, arguing that such practices are monopolistic and stifle competition.⁴⁶ The concern here is that, by controlling significant portions of the tech industry, from hardware to software, music streaming to advertising, Apple can potentially manipulate prices, limit consumer choice, and stifle innovation. Critics argue that the tech giant can effectively block new entrants, not based on superior product offerings but by using its monopolistic power.⁴⁷ However, from Apple's perspective, this control is necessary to maintain the high-quality, seamless user experience it is known for. Apple argues that its integrated ecosystem ensures product and service reliability, security, and privacy that consumers appreciate and pay a premium for.⁴⁸

2. Google/DoubleClick

Given most of social media companies' reliance on digital advertising, it is important to examine how courts and agencies view mergers in the digital-ad space. Google sought to buy DoubleClick, an internet advertising server, for \$3.1 billion. The FTC investigated the acquisition and found that Google's acquisition of DoubleClick would not substantially lessen competition.⁴⁹ To reach that conclusion, the Commission focused on its and the DOJ's Horizontal Merger Guidelines, general competition policies, and relevant case law in evaluating non-horizontal theories.⁵⁰ The key issue before the Commission was whether Google's acquisition of DoubleClick threatened to eliminate "direct and substantial competition" between the two companies.⁵¹

In this case, the FTC leveraged three principal theories of potential competitive harm. The Commission examined whether: (1) "Google's acquisition of DoubleClick threatened to eliminate direct and substantial competition between the two companies"; (2) "the implications of Google's continuing efforts to enter the third-party ad serving markets, because mergers

⁴⁶ Federal Trade Commission Closes Google/DoubleClick Investigation, FED. TRADE COMM'N (Dec. 20, 2007), https://perma.cc/8MSA-CZHK.

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ Id.

⁵¹ *Id*.

and acquisitions may also eliminate beneficial potential competition"; and (3) "Google's acquisition of DoubleClick could harm competition by allowing Google to exploit DoubleClick's position in the third-party ad serving markets to the benefit of Google's ad intermediation product, AdSense." ⁵²

The agency found that neither company directly competed with one another in any relevant antitrust market it examined. Moreover, the FTC found that, even with the acquisition, Google, at that time, continued efforts to enter the third-party ad-serving markets, which implied there was still ample competition. Moreover, the FTC found Google's entry, even if it were to be successful, likely would not have a significant impact on competition. The evidence failed to show that DoubleClick had significant market power in the third-party ad-serving markets; it is unlikely that Google could effectively foreclose competition in the related ad intermediation market following the acquisition. Thus, the Commission could not find evidence to support its conditions on the merger. ⁵³

As explained below, that was a gross miscalculation of the effects of this merger. Google is now being sued by the DOJ for monopolizing the ad-tech market where this specific acquisition is listed as a key feature for Google to do so. 54

3. Facebook/Instagram

In 2012, Facebook acquired Instagram, which competed with Facebook's primary social media platform. By September 2011, Facebook's CEO, Mark Zuckerberg, realized that Instagram was growing rapidly and the tech giant simply could not keep up with Instagram's pace. ⁵⁵ The company felt that it was easier to purchase a competitor than to compete. Since the acquisition, Instagram has been adding two hundred million users each year as of 2018. ⁵⁶ Although it is unclear as to how many unique users Instagram has brought to

⁵² *Id*.

⁵³ Id.

⁵⁴ Justice Department Sues Google for Monopolizing Digital Advertising Technologies, U.S. DEP'T OF JUST., https://perma.cc/D43D-XLM2 (Feb. 2, 2023).

⁵⁵ Complaint at 4, FTC v. Facebook, Inc., No. 1:20-cv-03590 (D.D.C. Jan. 13, 2021) (quoting an email from Mark Zuckerberg reading "[i]n the time it has taken us to get ou[r] act together on this[,] Instagram has become a large and viable competitor to us on mobile photos, which will increasingly be the future of photos.").

⁵⁶ Emil Protalinski, *ProBeat: Instagram's 1 Billion Users Make Facebook's \$1 Billion Acquisition Look Brilliant*, VentureBeat (June 22, 2018, 10:30 AM), https://perma.cc/NE9Z-6BWQ.

Facebook, what is clear is that Facebook can now gather far more unique personal data with Instagram's migration onto each one of its servers.

In 2012, the FTC reviewed the acquisition and closed its investigation without taking action.⁵⁷ The FTC may have been overly distracted by analyzing whether Facebook and Instagram's services were true competitors, rather than evaluating how much more personal data Facebook would have directly received as a result of the merger; however, the FTC has refused to release the internal documents that illuminate how it came to its decision over this merger, thus, we can only infer as to how the agency made its decision.⁵⁸ Again, this highlights the fundamental importance of thinking about data as currency, particularly for technology companies that drive revenue from ads.

4. Facebook/WhatsApp

Facebook acquired WhatsApp in February 2014 for an approximate total of \$16 billion, broken down into \$4 billion in cash and about \$12 billion in Facebook shares. As part of the deal, the government mandated WhatsApp's founders and employees to provide an additional \$3 billion in restricted stock units. At the time of the purchase, WhatsApp was "leading and rapidly growing real-time mobile messaging service." At the time of the acquisition, WhatsApp was a formidable competitor to Facebook's Messenger, as it hosted over 450 million monthly subscribers and was adding 1 million new registered users per day. Facebook then gains access to these mobile user bases; this is important as, at the time of acquisition, WhatsApp users used various functions of the app significantly more than Facebook users used Facebook applications. Moreover, WhatsApp had a stronger presence in developing markets, which made Facebook a key international player.

When evaluating both WhatsApp and Facebook on the value of the increase of the direct personal data available as a result of the merger, the anticompetitive effects become clear. For one, with this acquisition WhatsApp

⁵⁷ Cho, *supra* note 36, at 7.

⁵⁸ See Cho, supra note 36, at 11–12; see also The Editorial Board, Opinion, *The FTC's Facebook Secrecy*, WALL St. J. (July 27, 2022, 6:33 PM ET), https://perma.cc/4FW3-2CWU.

⁵⁹ Facebook to Acquire WhatsApp, FACEBOOK (Feb. 19, 2014). https://perma.cc/N4RR-YL2V. ⁶⁰ See id.

⁶¹ Alison L. Deutsch et al., WhatsApp: The Best Meta Purchase Ever, INVESTOPEDIA (Mar. 29, 2022), https://perma.cc/Y8NJ-TG5N.
⁶² Id.

users' and their behaviors are now on Facebook's servers that it can include into its ad-generating algorithms. Given that Facebook already had Messenger, WhatsApp's only true value was entering into new markets, diverting user time away from a competitor to Facebook, and providing a new data vector to increase the efficiency of its advertising algorithms.

5. Amazon/Whole Foods

Amazon acquired Whole Foods Market, a grocery retailer, for approximately \$13.2 billion on August 28, 2017. The FTC reviewed the merger, but ultimately decided not to challenge it. However, since 2007, Amazon offered Amazon Fresh—an online grocery delivery system. Even more recent than that, Amazon launched Prime Pantry in 2014 that performed a similar services to that of Amazon Fresh, which provided "every day package sizes" of shelf food, cleaning supplies and non-perishables to consumers. Outside of a few Amazon Fresh locations, Whole Foods Market not only provided Amazon with more brick-and-mortar stores, but also allowed the company to integrate its online services and data collection systems.

The merger allowed Whole Foods' shoppers who had an Amazon Prime membership to be eligible for discounts and free pickup or delivery in particular store locations.⁶⁷ For example, Amazon Prime members availed themselves to "free two-day shipping on items bought on Amazon and access to Amazon Prime videos, unlimited photo storage, and a free Kindle e-book each month."⁶⁸ Amazon even provided its newly acquired Whole Foods locations with Amazon Hub Lockers that hosted consumers' products that they purchased while on Amazon's website.⁶⁹

⁶³ AMAZON.COM INC., 2018 ANNUAL REPORT (FORM 10-K) 52 (Jan. 23, 2019).

⁶⁴ Press Release, F.T.C., 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) (on file with author).

⁶⁵ JeeYoon Park, *Amazon Gets Fresh Challenges with New Grocery Business*, CNBC (Aug. 27, 2007), https://perma.cc/J5MF-LH6N; Greg Bensinger, *Amazon Expands Grocery Business*, WALL ST. J. (June 5, 2013, 5:58 PM), https://perma.cc/BSN3-9ZNS.

⁶⁶ Grace Kay, Amazon Shuts Down Prime Pantry, Its First Foray into Online Food Delivery, in a Move Towards Simpler Shopping, Business Insider (Jan. 8, 2021, 12:18 PM), https://perma.cc/9HF5-AY8Y?type=image.

⁶⁷ Amazon.com Inc., Everything You Need to Know about Amazon Hub Locker, PRIME INSIDER (June 21, 2018), https://perma.cc/P5DS-F6SA?type=image.

⁶⁸ Cho, *supra* note 36, at 8 n.52.

⁶⁹ Amazon Hub Lockers are also available in other locations, such as convenience stores and

The mistake the FTC made here was that it evaluated Amazon's market share within the grocery market as opposed to evaluating how the acquisition would increase Amazon's network effects—the concept that a product or service gains additional value as more people use the service—due to the new data-inputs form everyday Whole Foods's customers it would inevitably receive. The acquisition of Whole Foods is more appropriately evaluated by how this acquisition would increase the amount of its data inputs for its ad-based algorithms and how that increase would augment its market share in that relevant market where the primary competitors are Facebook, Google, and, to a lesser degree, Apple.

C. Effects of Mergers and Acquisitions on Innovation

There is a large literature on the effects of mergers and acquisitions ("M&A") on firms. Takeovers tend to occur in periods of economic recovery, rapid credit expansion, and in response to regulatory and/or technological changes. ⁷⁰ This means that naïve comparisons of organizations before and after a merger will produce especially large statistical bias that prevents a causal interpretation; the acquired companies are not only non-random and correlated with underlying firm fundamentals but also more likely to be acquired during periods of higher economic output and, therefore, more likely to be associated with growth.

However, the empirical evidence points towards seemingly positive productivity effects in the short run and negative effects in the medium and long run. For example, Cunningham et al. follow over 16,000 drug projects across over 4,000 companies for over twenty-five years. They find that drug projects that are acquired by an incumbent with an overlapping drug are 23.4% less likely to have continued development activity, relative to those that are acquired by non-overlapping incumbents. They also find that these incentives to acquire and terminate overlapping innovation are stronger in less competitive markets. These acquisitions are also both intentional and strategic,

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apartment buildings. See Amazon Hub Apartment Locker: Package Management Made Easy, Amazon, https://perma.cc/5G9J-XFV3.

⁷⁰ Marina Martynova & Luc Renneboog, *A Century of Corporate Takeovers: What Have We Learned and Where Do We Stand?*, 32 J. BANKING & FIN. 2148, 2148–49 (2008).

⁷¹ Colleen Cunningham et al., Killer Acquisitions, 129 J. Pol. Econ. 649, 649–52 (2021).

⁷² *Id.* at 652.

implying that the acquisitions are not simply a result of "chance" encounters in the marketplace but of targeted actions.

The empirical literature shows that some mergers adversely impact innovation, particularly when there is overlap between the products and services of the acquired and acquiring firm. The Further, Cabral builds a theoretical model where a soft antitrust policy toward dominant firms, in part by preventing acquisition of smaller, fringe firms, leads to greater radical innovation, even though it leads to less incremental innovation. The main contrasting model comes from Guadalupe et al. who focus on acquisitions by international companies. However, these situations are distinct since multinational companies tend to have much greater productivity than their domestic counterparts.

Why do acquisitions in the technology sector, including drug discovery, have a seemingly negative effect on innovation even though M&As more generally can have positive effects? Cabral notes that the inventions among entrants are often more useful for the incumbent firm than for the actual entrant, so the incentive to acquire and integrate the intellectual property into the incumbent's operations is especially strong. Consider, for example, AdSense as a standalone service versus a service that leverages Google's search engine optimization capabilities. If the entry receives a share of the increase in profits, then there can be a net positive increase in innovation; however, if the incumbent firm receives all the rents, then innovation can be squashed.

Unfortunately, many acquisitions receive little scrutiny. For example, as noted earlier, Cabral points out that only three out of nearly eight hundred acquisitions Google, Amazon, Facebook, and Apple since 2000 received significant publicity (Waze, WhatsApp, and Instagram. Wollman explains that the phenomena of "stealth consolidations" is the result of weak antitrust guidance over the conditions that would require notification and broader scrutiny by the DOJ.⁷⁷

⁷³ Justus Haucap et al., *How Mergers Affect Innovation: Theory and Evidence*, 63 INT'L J. INDUS. ORG. 283 (2019); Massimo Motta & Emanuele Tarantino, *The Effect of Horizontal Mergers, When Firms Compete in Prices and Investments*, 78 INT'L J. INDUS. ORG. 102774 (2021).

⁷⁴ Cabral, *supra* note 38, at 4.

⁷⁵ Maria Guadalupe et al., *Innovation and Foreign Ownership*, 102 Am. Econ. Rev. 3594 (2012).

⁷⁶ James R. Markusen, *The Boundaries of Multinational Enterprises and the Theory of International Trade*, 9 J. ECON. PERSPECTIVES 169, 173 (1995).

⁷⁷ Thomas G. Wollman, *Stealth Consolidation: Evidence from an Amendment to the Hart-Scott-Rodino Act*, 1 Am. Econ. Rev.: INSIGHTS 77 (2019).

D. Aggregate Implications

Even though there has been an increase in productivity due to a reallocation of resources toward more productive firms, De Loecker et al. show that these firms have used their market power in ways that have ultimately hurt consumers, such as by producing markups above marginal cost.⁷⁸ Their estimates are an underestimate because they do not include non-pecuniary factors, such as the violations of free speech through censorship and the infringement of privacy through data ownership.⁷⁹

We can also learn from the consolidation among local newspapers toward national outlets. For example, Ying Fan found that the consolidation between Star Tribune and St. Paul Pioneer Press, both located in Minneapolis, would have led to a \$3.28 million reduction in consumer welfare. ⁸⁰ Given that there were thousands of local newspapers, the aggregate amount—to the extent this amount is representative—would be much larger.

But how did this market concentration occur? Why haven't we corrected this? As we explain in the next couple of sections, the issue may be the underlying philosophy regulators and courts have taken when evaluating the tech sector, the consumer welfare standard specifically. Before delving into our criticism of courts and regulators' interpretation of the consumer welfare standard, we believe it requires some understanding on why and how it became the primary tool to assess antitrust concerns.

IV. THE ROAD TO CONSUMER WELFARE

In Judge Bork's seminal book, *The Antitrust Paradox*, he describes the role of antitrust law is to "maximiz[e] the consumer welfare."⁸¹ He discusses that the structure of the antitrust statutes and caselaw either implicitly or explicitly suggests that any antitrust action should be through the prism of consumer welfare. In other words, it is an assessment that pushes back on the idea that big is always bad and instead focuses on whether the firm's "particular practice or structure creates or reflects a restrictions of output or efficiency."⁸² It

⁷⁸ De Loecker, *supra* note 9, at 562.

⁷⁹ See De Loecker, supra note 9, at 567–68.

⁸⁰ Ying Fan, Ownership Consolidation and Product Characteristics: A Study of the US Daily Newspaper Market, 103 Am. Econ. Rev. 1598, 1619 (2013).

⁸¹ Bork, supra note 3, at 48.

⁸² *Id.* at 113.

requires courts and, by extension, antitrust regulators to go beyond the size of the firm or the size it will become post acquisition or merger, and to look to whether any transaction, merger, acquisition, or even enforcement benefit the consumer as opposed to looking purely through a lens of promoting competition or protecting the "little guy." 83

But what is that standard, how is it measured, and how is it enforced? Bork's book provides a framework that we discuss further in this Section, but it does not provide clear and, at times, provides contradictory guidance when applied to Internet services, such as Google's Search or Apple's app distribution services (i.e., its App Store). However, that does not mean that Bork failed to present a meaningful framework, but there has been a clear gap in courts' and regulators' application (to the extent any such regulator has cited to the standard as a guidance—there are very few) when it comes to the tech industry.

Before getting into the merits of the consumer welfare standard as applied to tech companies, it is important to understand what came before the consumer welfare standard and why it exists.

A. Treatment of Monopolization Pre-Antitrust Statutes

Antitrust law has its roots in general commercial and trade law that dates to English common law. From the late sixteenth century to the seventeenth century, government endorsed or sanctioned monopolies "plagued" England. As Adam Smith points out in his 1776 book, *The Wealth of Nations*, "monopolists, by keeping the market constantly under-stocked, . . . sell their commodities much above the natural price, and raise their emoluments, whether they consist in wages or profit, greatly above their natural rate."

This skepticism of private centralized power bled over into the American colonies and, later, the nation. Indeed, the founders, especially Thomas Jefferson, sought to include an anti-monopoly clause in the Bill of Rights. ⁸⁶ James Madison considered monopolies as "among the greatest nuisance in

⁸³ Susan Hutton et al., When Should We Look Out for the Little Guy? An Examination of the Inconsistencies in Antitrust Enforcement of Monopsony Power in Canada and the United States, 35 CAN. COMPETITION L. REV. 1 (2022).

⁸⁴ Steven G. Calabresi & Larissa C. Leibowitz, *Monopolies and the Constitution: A History of Crony Capitalism*, 36 HARV. J. L. & Pol'y 983, 985 (2012).

⁸⁵ ADAM SMITH, THE WEALTH OF NATIONS 78 (R.H. Campbell et al. eds., Oxford University Press 1979).

⁸⁶ Letter to James Madison from Thomas Jefferson, NATIONAL ARCHIVE (Dec. 20, 1787), https://perma.cc/HW37-Q5C6.

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government."87 Some state constitutions even included an anti-monopoly statute.88

However, they decided against including any such clause in the Bill of Rights because some shared the view that our system overall could override the harms of any firm's monopoly. As Madison put it, "encouragements to literary works and ingenious discoveries" coupled with democracy (assuming that "the power . . . is in the many, not in the few"), monopolists' "danger cannot be very great."

Nonetheless, the debate concerning government's role in regulating monopolies did not end there and experienced a tortured history up until 1890 when the United States enacted the first antitrust statute, namely the Sherman Antitrust Act of 1890 ("Sherman Act"). Before the Sherman Act, courts relied on common law doctrines and various state laws in trade and commercial law to define the contours of what we now refer to as antitrust law. 90

Naturally, courts viewed such unlawful transactions through the lens of the effect on competition more so than the effect of consumer welfare. For example, in *Gibbons v. Ogden*, the Supreme Court found that the State of New York could not provide a 20-year exclusive monopoly over its water navigation to Robert Livingston and Robert Fulton's steamboat company over the state's water, because it violated the newly minted federal Commerce Clause due to the grant's effect on interstate trade. ⁹¹ Read in historical context, the Court seriously evaluated the effects such a grant would have on interstate trading competitors, specifically those relying on navigational rights. ⁹² Indeed, as Justice John Marshall explained, the issue with New York providing this sort of exclusive right would impose on "[a]ny vessel, therefore, . . . coming into any of [New York's] waters, without a license, whether from another state, or from

⁸⁷ Letter from Thomas Jefferson to James Madison (Oct. 17, 1788), *in* THE PAPERS OF JAMES MADISON, (Willian T. Hutchinson et al. eds. 1977).

⁸⁸ Michael A. Glenn & Peter J. Nagle, *Article I and the First Inventor to File: Patent Reform or Doublespeak?*, 50 IDEA 441, 445 n.6 (2010).

⁸⁹ See Letter from Thomas Jefferson to James Madison, supra note 87.

⁹⁰ See generally Laura Phillips Swayer, US Antitrust Law and Policy in Historical Perspective (Harv. Bus. School, Working Paper 19-110, 2019); see also William Markham, How the Consumer-Welfare Standard Transformed Classical Antitrust Law, 31 J. Antitrust & Comp. L. Section Cal. Laws. Ass'n, Fall 2021, at 3.

⁹¹ Gibbons v. Ogden, 22 U.S. 1, 24 (1824).

⁹² Gibbons v. Ogden, Britannica, https://perma.cc/66VT-7955.

abroad, whether it be a public or private vessel, is instantly forfeited to the grantees of the monopoly."⁹³

Similarly, in *Proprietors of Charles River Bridge v. Proprietors of Warren Bridge*, the Supreme Court permitted the State of Massachusetts to build a competing bridge, i.e., the Warren Bridge, to Charles River Bridge.⁹⁴ But why would the owners of the Charles River Bridge have any interest in challenging the building of another bridge? Well, they owned the only bridge and extracted tolls from those wishing to cross it. Hence, a competing bridge that people could use for free diverts some of those tolls away from the Charles River proprietors. Interestingly, the Court said the following as a partial justification for allowing the legislature to build a competing bridge: "[n]o one will question, that the interests of the great body of the people of the state, would, in this instance, be affected by the surrender of this great line of travel to a single corporation, with the right to exact toll and exclude competition for seventy years." ⁹⁵

These cases are emblematic of how courts addressed harms monopolization brings to trade, competition, and democracy via constitutional principles without a formalized, targeted structure. And they are not outliers. For the next few decades after these cases, the United States continued to grapple over issues concerning monopolization's effects on the implementation of aspects of the Constitution, such as President Andrew Jackson's concerns with the First Bank of the United States⁹⁶ or the interpretations of the Fourteenth Amendment under the so-called economic liberty cases (e.g., *Slaughter-House, Lochner*). ⁹⁷

Nevertheless, more "trusts"—groups of firms or industries formed to concentrate power and reduce competition—emerged with the Gilded Era where the natural resources and transportation were owned by a few companies. As historian H.W. Brands describes, "[d]emocracy emerg[ed] at the

⁹³ Gibbons, 22 U.S. at 25.

 ⁹⁴ Proprietors of Charles River Bridge v. Proprietors of Warren Bridge, 36 U.S. 420, 420 (1837).
 95 Id. at 423.

⁹⁶ President Jackson's Veto Message Regarding the Bank of the United States (July 10, 1832), reprinted in AVALON PROJECT, https://perma.cc/K2KW-HBCQ.

⁹⁷ Steven G. Calabresi & Larissa C. Leibowitz, *Monopolies and the Constitution: A History of Crony Capitalism*, 36 HARV. J.L. & POLICY 983, 985 (2012) (writing that the 14th Amendment included "recognizing both the right to be free from monopolies and the right to one's property in his or her labor").

same time that capitalism emerg[ed]. And there's a built in tension." A tension which required a more direct law to break up the trust.

B. The Enactment of Antitrust Laws and Early Monopolization Cases

Congress codified general doctrines of competition law and clarified the role the Commerce Clause plays in managing anticompetitive harms or monopolizations in the Sherman Act. ⁹⁹ Senator John Sherman, the writer of the law, explained the Sherman Act's underlying principle was that monopolies are "inconsistent with our form of government . . . If we will not endure a king as a political power[,] we should not endure a king over the production, transportation, and sale of any of the necessaries of life." ¹⁰⁰ In no uncertain terms, Senator Sherman argued that the Act represented an American policy that holds "[i]f we would not submit to an emperor[,] we should not submit to an autocrat of trade" ¹⁰¹ It is more than a fair assessment that Congress created the Sherman Act to combat the issue of monopolization.

Indeed, the Sherman Act outlawed arrangements like those described in *Gibbons* and *Charles River Bridge* with prohibitions against "every contract, combination, or conspiracy in a restraint of trade." Section 2 of the Sherman Act turned an "attempt to monopolize" into a felony. Their fixation on concentrated authority implied a natural remedy to quell it: competition. As Justice Black wrote in his opinion for *Northern Pacific Railroad v. United States*, Congress created the Sherman Act "to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade."

Even so, the Court expressed some apprehension in invoking the law every time there were trusts with a clear monopoly involved. Instead, they sought to place limits on the newly enacted law. In *United States v. E.C. Knight Co.*, the

⁹⁸ Stegano Kotsonis & Meghna Chakrabarti, *More Than Money: Antitrust Lessons of the Gilded Age*, WBUR (Dec. 28, 2022), https://perma.cc/9W9H-WQZH.

⁹⁹ Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 1 (1911) (finding that Congress could appropriately enact the Sherman Act under authorities provided under the Commerce Clause).

¹⁰⁰ 21 CONG. REC. 2457 (1890).

¹⁰¹ *Id*.

¹⁰² 15 U.S.C. § 1.

¹⁰³ Id. § 2.

¹⁰⁴ N. Pac. R.R. v. United States, 356 U.S. 1, 5 (1958).

Court decided against holding E.C. Knight's sugar trust liable under the Sherman Act. ¹⁰⁵ The Court reasoned that even though the sugar trust's holding company enjoyed a 98% market share of the United State's sugar refining capability, the charges levied against them were intrastate in nature due to the holding company's offending actions being limited to manufacturing within a state and the Sherman Act only applied to restraints on interstate trade. ¹⁰⁶ The Court even went as far as to say that the "mere existence" of the Sherman Act does not make every type of monopolization illegal; only ones that impact interstate trading affairs. ¹⁰⁷ However, even within the Court's action to place an express limit, their underlying concern regarding a "restraint on trade" meant cartel-like behavior, such as price-fixing.

Arguably, *E.C. Knights's* focus on cartels' behaviors as opposed to addressing monopoly may have been the first real application of the concept of consumer welfare because it shifted the focus from the monopolization to the effects of monopolization that impact consumers, like price fixing. One caveat, the initial cases limited price fixing offenses in a horizontal competition scenario—those that compete directly with each other in the same market. In *Trans-Missouri Freight Association*, the Court struck down a railroad cartel that contracted together to set fixed rates for the transport of goods over the railways.¹⁰⁸

Nevertheless, the government used the statutory language of the Sherman Act as the primary vessel to break up monopoly trusts. For instance, the Act played a critical role in President Theodore Roosevelt's "trust busting" campaign, which started with the decision in *Northern Securities Co. v. United States* to break up the railroad trust in 1904. Even in *Trans-Missouri Freight Association*, the Court made clear that it was addressing competitive harms based on the Court's response to the Association's justification. The Court said outright that the price-fixing arrangement was unreasonable even if its justification was to avoid pricing wars or "destructive competition." Hence, the idea of effect of consumer welfare may have existed, but it was certainly an afterthought.

¹⁰⁵ United States v. E.C. Knight Co., 156 U.S. 1, 1 (1895).

¹⁰⁶ *Id.* at 17, 44.

¹⁰⁷ *Id.* at 44.

¹⁰⁸ United States v. Trans-Missouri Freight Ass'n, 166 U.S. 290, 290 (1897).

¹⁰⁹ N. Sec. Co. v. United States, 193 U.S. 197 (1904).

¹¹⁰ Trans-Missouri, 166 U.S. at 360.

Some years after, *Standard Oil* also created the controversial "rule of reason" test. ¹¹¹ To understand why there is a divide among antitrust legal thought between those that favor a consumer welfare standard versus those favoring a Brandeisian, competition-focused approach, one must first understand how courts implemented the rule of reason in that era.

C. The Paradox Revealed: The Rise of Brandeis

In Standard Oil, the Court found that Standard Oil violated both Section 1 and Section 2 of the Sherman Act, which led them to impose the ultimate structural remedy—a company breakup amounting to the company being divided into about thirty-four parts. However, the real impact from this decision is Justice White's "Rule of Reason" test. Keep in mind, the Court ruled that Standard Oil's actions did not amount to a *per se* violation—statutory violation—under the Sherman Act. It instead found that *per se* violations were not necessary if there were clear anticompetitive harms within a well-defined, relevant agreement. That same day, the Court then doubled down on its rule of reason analysis by issuing similar structural remedies to American Tobacco, which was broken up into four firms. 113

The rule of reason shifts a court's decision away from statutory analysis and, instead, focuses on impacts to competition, which is a highly fact-specific analysis. Generally, the rule of reason requires an analysis of (1) the definition of the relevant product or geographic market; (2) the market power of the firm(s) in the relevant market; and (3) the existence of anticompetitive effects. If plaintiffs demonstrate all three factors, the court shifts the burden over to the defendant(s) to show an objective procompetitive justification. The significance of the rule-of-reason doctrine cannot be overstated, the Court's decision in *Standard Oil* imbued itself with an incredible amount of interpretative authority that opens the door for political whims (e.g., Neo-Brandeisian hawks or strict libertarian Borkian views) to guide the caselaw.

The Standard Oil decision came on the heels of another important per se case, Dr. Miles Medical Co. v. John D. Park & Sons Co. In that case, the Court

¹¹¹ Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 67 (1911). Several earlier cases referenced rule-of-reason type analysis. *See, e.g.*, Addyston Pipe & Steel Co. v. United States, 175 U.S. 211, 246 (1899).

¹¹² Standard Oil, 221 U.S. at 81-82.

¹¹³ United States v. American Tobacco Co., 221 U.S. 106 (1911).

held that price fixing was a *per se* violation under the Sherman Act for agreements that concerned downstream resellers (i.e., vertical arrangements). ¹¹⁴ *Dr. Miles, Standard Oil*, and *American Tobacco* brought immense amount of confusion regarding the United States' antitrust policy, because it became almost a judicial coinflip for companies to determine whether their agreements fell into a strict *per se* analysis or a flexible "rule of reason" analysis. ¹¹⁵

Case-in-point, even with Section 2 of the Sherman Act's mandate, the *Standard Oil* decision "made [the Sherman Act] a good tool for targeting multiple cartels but less useful for combatting monopolization." However, that all changed once Woodrow Wilson assumed the presidency. Where President Theodore Roosevelt and President William Taft sought to find more to regulate monopolies' behaviors, President Wilson sought to use antitrust law to "regulate competition." Wondering where he got that perspective? As it turns out, it was a young, up-and-coming lawyer and activist—who also served as his campaign advisor—that provided then-candidate Woodrow Wilson with the idea. His name? Louis D. Brandeis. 118

During Wilson's time in office, he signed two major pieces of legislation in 1914—the Federal Trade Commission Act and the Clayton Act. The FTC Act created the FTC and sanctioned it with an overly broad mission to ensure consumers were protected from a firm's unfair and deceptive acts and anticompetitive behaviors. Whereas the Clayton Act provided the FTC, state attorney general offices, and the Department of Justice, with the authority to prevent against "unlawful tying contracts, corporate mergers and acquisitions, and interlocking directorates." These statutes, the rule-of-reason, and President Wilson's appointment of Louis Brandeis to the Supreme Court are the backdrop for the role of antitrust law, as there was an increase in agency actions to promote competition in the markets.

In regard to enforcing antitrust statutes, Justice Brandeis "believed that legislators creating antitrust laws should consider broad economic and social

¹¹⁴ Dr. Miles Med. Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911).

¹¹⁵ Laura Phillips Sawyer, *US Antitrust Law and Policy in Historical Perspective* 9–10 (Harv. Bus. Sch., Working Paper No. 19-110, 2019).

¹¹⁶ *Id.* at 7.

¹¹⁷ Id. at 10.

¹¹⁸ *Id*.

¹¹⁹ 15 U.S.C. § 45.

¹²⁰ 15 U.S.C. §§ 12–27.

issues."¹²¹ Brandeis felt Congress's concern, when enacting these laws, was not limited only to the economics, but also the amount of political power these companies could amass. ¹²² Justice Brandeis was an institutionalist, which informed his view on agencies and other law enforcers playing a significant role in the regulations of markets. ¹²³ He also favored, and may have even influenced, Wilson's anti-monopoly agenda over Teddy Roosevelt's "New Nationalism" that he felt made all monopolization legal. ¹²⁴ However, he did not necessarily believe in so-called big government being the response to private firms monopolizing markets. Instead, he believed that "sectoral regulation should be used when justified by specific industry circumstances" ¹²⁵ This was especially the case when local utility monopolies were present or in markets where competition was virtually impossible, such as the telecommunications market or energy market.

The effects of Brandeis-type of antitrust regulation and enforcement come full swing during President Franklin D. Roosevelt's tenure in the White House. There were key events occurring during that period to push the "big is bad" approach to antitrust. In 1933, Congress passes the National Industrial Act, which created the National Recovery Administration (NRA) that sought to regulate markets via its "codes of fair competition." ¹²⁶ In 1936, Congress passed the Robinson-Patman Act, which outlawed large firms and chains from engaging in price fixing that would impede competition. ¹²⁷

The NRA played a key role in President Roosevelt's plans to have large corporate players coordinate and seek permission from the government before engaging in any particular deal. As former FTC Chairman Tim Muris lamented, this centralized-planning-style regulatory framework led to "[m]any contradictions" in policy if the goal was truly to break up centralized authority over markets, because all these policies did was shift the noun from

¹²¹ Jonathan Sallet, *Brandeis' Framework for Antitrust and Competition*, Benton Inst. for Broadband & Soc'y (Oct. 30, 2018), https://perma.cc/TGL6-K6BP.

¹²² Id.

¹²³ Id.

¹²⁴ Id.

¹²⁵ Id.

 $^{^{126}}$ Leverett S. Lyon et al., The National Recovery Administration: An Analysis and Appraisal 313 (The Brookings Inst., 1935).

¹²⁷ 15 U.S.C. § 13.

monopolists to government-sponsored monopolists.¹²⁸ Ultimately, the Supreme Court found Congress's creation of the NRA to be an unconstitutional delegation of its authority,¹²⁹ which only shifted the antitrust responsibility to the FTC and the DOJ.

To affect his plans to regulate competition post-NRA, FDR appointed Robert Jackson to head the Department of Justice's Antitrust Division in 1937, who took a hawkish approach to antitrust enforcement. In 1938, President Roosevelt increased spending on antitrust enforcement to stop the "concentration of private power without equal in history." The combination did that; Jackson was effective at leveraging the DOJ's authority to break up companies' political influence over markets. 131

What is more, this competition-focused form of antitrust made mergers very difficult to get through antitrust review, even when there was scant evidence of there being true market concentration. Nonetheless, President Roosevelt wanted more authority over markets. To make his case, he requested that Congress commission joint study comprised of the FTC, DOJ, and other factions of the Administration to find market concentration. Congress also created the Temporary National Economic Committee (TNEC), originally an investigatory committee, to create progressive industrial policy that included breaking up monopolies and providing legislative solutions to give the Administration and the FTC more authority to break up mergers.

It worked. TNEC's findings led to Congress amending the Clayton Act that required its Section 7 substantive standard to evaluate whether the effect of a merger and acquisition would "substantially lessen competition . . . or tend to create a monopoly." This change, in effect, created the radical "potential competition" theory—a justification to prevent a merger on the premise that

¹²⁸ Timothy J. Muris, *Neo-Brandeisian Antitrust: Repeating History's Mistakes* (Am. Enter. Inst., Working Paper No. 2023-02, 2023).

¹²⁹ A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495 (1935).

¹³⁰ Franklin D. Roosevelt's Message to Congress on Curbing Monopolies (Apr. 29, 1938), reprinted in Am. Presidency Project, https://perma.cc/CS5G-6552.

¹³¹ E.g., United States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940) (prohibiting Socony-Vacuum from engaging in price-fixing); see also, United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945) (finding that Alcoa unlawfully monopolized the aluminum market).

¹³² See Muris, supra note 128, at 46.

¹³³ Id.

¹³⁴ Id

¹³⁵ Id. at 47; see also 15 U.S.C. § 18.

there is an actual or perceived threat that this merger will discourage or eliminate future competition. ¹³⁶

This ethos carried through the 60s as demonstrated in the Supreme Court's decision in *Brown Shoe Co. v. United States*. There, the Court outright said that the purpose of antitrust was to protect "small locally owned businesses." ¹³⁷

This trend continued all the way through the mid-70s. This statutory change, coupled with the application of the rule of reason, created more reliance on agency actions and opened the door to have antitrust enforcers evaluate harms to "potential competitors." This shift to potential competition added even more complexity to merger analysis and created convoluted and, at times, contradictory conclusions on what constitutes competition in markets. It no doubt created a lot of confusion related to what companies could merge, but also what constituted an unfair competitive advantage and what competitors the law was meant to protect. For example, IBM was not even a major competitor in the emerging electronic data processing market—it merely sold machines to process data from punch cards, but the DOJ required it to sell off its equipment as a prophylactic to open future competition in the electronic data processing sector. 139

This approach also informed the breakup of AT&T in 1984¹⁴⁰, which certainly added more competition—even though cable operators were already becoming a competitive threat to AT&T organically—but also ironically made the company even more dominant in the communications space because the so-called "Baby Bells" that were created as a result of the breakup still had to rely on AT&T and pay it to use its national networks. ¹⁴¹ Worse, as some argue, that "[i]f AT&T had kept control of local phone lines, many consumers might

¹³⁶ Steven Cernak, Actual Potential Competition: FTC v. Meta/Within Court Validates Odd-Sounding Theory, WASHINGTON LEGAL FOUND. (Feb. 24, 2023), https://perma.cc/43KN-EPC8.

¹³⁷ Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962).

¹³⁸ Herbert Hovenkamp, *Reclaiming the Antitrust Law of Potential Competition Mergers*, PROMARKETS (Feb. 27, 2023), https://perma.cc/SBG5-EXUW.

¹³⁹ Peter Passell, *I.B.M. and the Limits of a Consent Decree*, N.Y. TIMES (June 9, 1994), https://perma.cc/YQ65-WD3F.

 $^{^{140}}$ We acknowledge that there were multiple governmental attempts to rein AT&T prior to the 1984 breakup, but this occurrence has been leveraged more frequency by so-called neo-Bradeisian thought leaders as a seminal victory for their perspective of antitrust law.

¹⁴¹ Matthew Stuart, How AT&T Conquered All Forms of Communication After the Government Forced It to Break Up, INSIDER (Mar. 5, 2018), https://perma.cc/5P3W-4ZTV.

have gained access to high-speed internet connections earlier."¹⁴² Moreover, the Baby Bells delayed deployment, which allowed cable operators and wireless carriers to control nearly all of the data service market.¹⁴³

There are myriad examples of these types of spurious, yet well-intentioned, decisions that caused real issues for consumers, emerging markets, and competitors. Our antitrust enforcement was in a real paradoxical crisis by regulating in the name of competition but instead created more monopolies and market inefficiencies. This antitrust paradox required scholars to rethink the tact and goals of antitrust, which came about in the mid-80s with Judge Robert Bork's theory of consumer welfare.

D. The Paradox Resolved? The Rise of the Consumer Welfare Standard

Concurrent to the Brandeisan movement in the late 60s to late 80s, a scholarly revolution had also been occurring in the University of Chicago due to the rather convoluted results occurring from courts and regulators' enforcement. The general concept was that the Brandeis approach, also described as the "Harvard School," presupposed that markets could not self-correct. Rather, the Chicago School's ethos was that the market maintained emergent properties that would ultimately allow it to self-regulate. Practically, this had scholars evaluating the market's efficiencies rather than the size of the overall firm. The analysis was an economic-intensive enterprise in contrast to other factors, such as the political or societal implications of any particular firm's action or size.

The Supreme Court also found this particular view persuasive. In *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, the Court stated affirmatively that "antitrust laws . . . were enacted for 'the protection of competition, not competitors.'" ¹⁴⁵ This new framing informed Judge Robert Bork's view on antitrust enforcement. Judge Bork reasoned that the legislative history of antitrust statutes was not necessarily concerned only with the size of a particular firm or even promoting competition for competition's sake. Instead, he felt that those factors only

¹⁴² Andrew Beattie, *AT&T's Successful Spinoffs*, InvestopedIA, https://perma.cc/K5FX-2VZ8 (last updated Dec. 6, 2022).

¹⁴³ Id

¹⁴⁴ Jay L. Levine & Porter Wright, *1990s to the Present: The Chicago School and Antitrust Enforcement*, ANTITRUST L. SOURCE (June 1, 2021), https://perma.cc/LG23-DW4D.

¹⁴⁵ Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 488 (1977).

matter if they offended or inhibited the overall welfare of consumers. ¹⁴⁶ In other words, antitrust law enforcement only makes sense if it is to address market behaviors that directly harm consumers.

Bork's influence continued to show up in cases. In *Reiter v. Sonotone Corp.*, the Supreme Court cited to Judge Bork's book *the Antitrust Paradox* when claiming that the Sherman Act is a "consumer welfare prescription." This influence popped up again in *Continental T.V., Inc. v. GTE Sylvania, Inc.* in which the Supreme Court relied more heavily on economic analysis when evaluating rule-of-reason cases. And just like that, economic analysis was now the limiting principle for an otherwise unbound rule-of-reason test.

Frankly, Bork's idea makes sense—albeit took significant liberties with Congress's intent when crafting antitrust statutes. Take a competition question for instance. Under a consumer welfare standard, competition's value must be viewed in the context of providing better outcomes for consumers. The consumer welfare standard forces a court to evaluate the following: which is more preferable to the consumer, one company that provides low prices and high-quality services? Or two hundred companies that provide the same low price but offer lower quality services? In our example, both scenarios may yield lower prices, but having the one firm is preferable because it provides a better-quality product to the consumer also.

In many ways, the consumer welfare standard harkens back to Teddy Roosevelt's New Nationalism where the focus is more on the cartel behavior and resolving market efficiencies than it was to encourage competition for the sake of competition. Some argue that the standard itself requires soft enforcement of antitrust laws. We feel that critique is fair but overstated. We posit that the standard itself is sound and even preferable to neo-Brandeisan but has been hijacked to encourage a pure laissez faire approach to antitrust enforcement that we feel is an inappropriate application and understanding of the consumer welfare standard.

Indeed, Bork himself was a strong proponent of enforcing the antitrust laws. In discussing the DOJ's case against Microsoft in 1999, Judge Bork strongly encouraged the agency to seek an unlawful monopolization case for the tech

¹⁴⁶ Bork, *supra* note 3, at 107–16.

¹⁴⁷ Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979).

¹⁴⁸ Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 58–59 (1977).

giant's anticompetitive behavior in the browser market. As he puts it, [o]nly a knee-jerk conservative would say that there's never a case for antitrust.... Granted he did not advocate for a breakup of any sort, but Bork did call for a curtailing of the monopolistic behaviors as exhibited by Microsoft, such as leveraging its dominate position in the operating system market to prevent computer manufacturers from including competing browsers to Microsoft's Explorer, like Netscape.

However, as we describe in Section IV of this Article, by overlooking the value of data and calling it "free," we have not properly applied Bork's approach in Microsoft to today's Big Tech companies. Courts and regulators' interpretation of the consumer welfare standard has been a "hands off" approach. On the one hand, this approach has turned tech startups into the world's first set of trillion-dollar companies. But on the other, it has also encouraged tech companies to have centralized control over our information, personal data, and our markets. Moreover, Big Tech is acquiring companies with such unsatiable voracity that antitrust regulators, such as the Federal Trade Commission or the Department of Justice's Antitrust Division, are becoming increasingly overwhelmed. 151

As we will discuss in more detail in the next sections, we have failed to appropriately apply the consumer welfare standard to these tech companies. Ironically, contemporary applications of consumer welfare have done more to hurt consumers by giving them fewer choices, increased costs on items bought online, decreased their privacy, and caused less innovation.

V. HOW RECENT COURT DECISIONS AND PRICE-FOCUSED APPLICATIONS OF THE CONSUMER WELFARE STANDARD ASSIST BIG TECH'S MARKET CONCENTRATION FURTHERING A NEW ANTITRUST PARADOX

As explained above, since the 1980s, courts have used the consumer welfare standard to evaluate whether the actions of a firm with market power violate federal antitrust law. Of course, that standard considers prices. But it also considers other harder to measure factors. As the U.S. Court of Appeals for the D.C. Circuit in *United States v. AT&T, Inc.* put it, the standard extends

¹⁴⁹ Robert Bork: Antitrust Case Strong Against Antitrust, CNN INTERACTIVE (Apr. 26, 1998, 8:39 PM), https://perma.cc/RMC7-4HXP.

¹⁵¹ Gerrit De Vynck & Cat Zakrzewski, *Tech Giants Quietly Buy Up Dozens of Companies a Year. Regulators Are Finally Noticing*, WASH. POST (Sept. 22, 2021, 7:59 PM), https://perma.cc/8GW4-KPY3.

"beyond higher prices for consumers, including decreased product quality and reduced innovation." 152 Or as former FTC Commissioner Christine Wilson explained, the standard considers the effect of "[c]ompetition on quality . . . in the analysis of vertical restraints" and requires an evaluation of the "effects on innovation." 153

However, there have been twin assaults on the consumer welfare standard in recent years. On the one hand, some progressives have argued for neo-Brandeisian approach that refocuses antitrust law to almost exclusively help the little guy. On the other hand, Big Tech has repeatedly argued that price is the only factor that matters—meaning that "free to the consumer" services are effectively immune from antitrust scrutiny.

Past court decisions do not appear to adopt either approach. The Supreme Court, for example, has rejected the neo-Brandeisian approach and made clear that "antitrust laws... were enacted for 'the protection of competition, not competitors.'" And the D.C. Circuit also makes clear in *United States v. Microsoft* that price is not the only factor when evaluating consumer welfare. 155

Irrespective of this, there are those still under the impression that applying the consumer welfare standard when applied to digital markets implies a laissez faire approach. But where did we get this "hands off" perspective?

Well, Bork himself. In 2012, Judge Bork wrote a law review outlining how Google's monopoly over Search was not anticompetitive, which we believe is emblematic of how we have approached the consumer welfare standard in regard to tech for the past decade. In the article, he hammered in again that "antitrust law exists to protect consumers, not competitors. That guiding principle led Judge Bork to argue further that Google is not an internet gatekeeper, because consumers can switch to other search engines at "zero cost," and Google's participation in a two-sided market (i.e., a market where a

¹⁵² United States v. AT&T, Inc., 916 F.3d 1029, 1045 (D.C. Cir. 2019).

¹⁵³ Christine S. Wilson, Welfare Standards Underlying Antitrust Enforcement: What You Measure is What You Get, FED. TRADE COMM'N, https://perma.cc/RE6K-P3NF.

¹⁵⁴ Brunswick Corp. v. Pueblo Bowl-O-Mat Inc., 429 U.S. 477, 488 (1977).

¹⁵⁵ United States v. Microsoft Corp., 253 F.3d 34, 76 (D.C. Cir. 2001) (acknowledging reduced innovation and consumer choice as acceptable antitrust harms).

¹⁵⁶ Robert H. Bork & Gregory Sidak, What Does the Chicago Teach About Internet Search and the Antitrust Treatment of Google?, 8 J.L. & Econ. 663, 700 (2012), https://perma.cc/B2Z7-CPSK.

¹⁵⁷ *Id.* at 663.

firm serves as an intermediary to serve two separate markets) naturally prevents anticompetitive behavior. To make sense of this argument, it's important to understand that, for Bork, the latter informs the former. Bork felt that Google's position as an intermediary in the online search market was counteracted due to "search users' and advertisers' joint demand for search create[d] a powerful incentive for Google to compete by continuously enhancing the quality of its services." 159

Furthermore, the Supreme Court recently provided a framework to antitrust harms in the context of two-sided markets in *Ohio v. American Express* (*Amex*). ¹⁶⁰ Although *Amex* provides us some helpful guidance on how to apply the consumer welfare standard to the tech sector, it will inevitably make antitrust enforcement more difficult for free services if we continue to leverage traditional currency valuations to measure the consumer welfare. This is especially true for two markets where there are almost undoubtably significant market concentrations and ones that involve free services to demonstrate the next-generation antitrust paradox in which we are. Specifically, we raise the ad tech market and app store market as acute examples. We discuss all in turn.

A. Amex and How It Impacts Antitrust Enforcement on Tech

Although the Supreme Court in *Amex* analyzed the two-sided market for credit card transactions, we can use the *Amex* case as an analogy to see how courts might handle issues related to tech platforms given that Judge Bork invoked the concept when discussing Google. According to the Supreme Court, a "two-sided platform" provides services to two different groups (for American Express, cardholders and merchants) that depend on the platform to intermediate between the enterprises. ¹⁶¹ The key feature of transaction platforms is that they cannot make a sale to one side of the platform without simultaneously making a sale to the other. ¹⁶²

Unlike traditional markets, two-sided platforms exhibit "indirect network effects," which exist where the value of the platform to one group depends on how many members of another group participate.¹⁶³ In this case, the Court

¹⁵⁸ *Id.* at 667.

¹⁵⁹ Id.

¹⁶⁰ Ohio v. Am. Express Co., 138 S. Ct. 2274 (2018).

¹⁶¹ See id. at 2276–77.

¹⁶² See id.

¹⁶³ *Id.* at 2280.

decided that American Express operated in a two-sided market that included merchants on one side and cardholders on the other.¹⁶⁴ The Court held that courts must consider the market as a whole for a party to show that a firm's action in a two-sided market is anticompetitive.¹⁶⁵

In this case, the Court evaluated whether American Express's anti-steering provisions—a provision in American Express's contracts with merchants proscribing them from discouraging customers from using company's cards—had anticompetitive effects on both sides of the credit card market. The Court examined the effects of the provision under a rule of reason analysis. The Court went on to state that courts must include both sides of the "credit card network" platform (i.e., merchants and cardholders) when articulating whether an unlawful restraint on trade that is not per se violations of the Sherman Act. ¹⁶⁶

The Amex decision becomes very problematic when it comes to free online services. In the pertinent part of the case, the Court acknowledged that "vertical restraints,"—in this case prohibiting merchants from steering consumers to a competing card—can prevent retailers from free riding and thus increase the availability of "tangible or intangible services or promotional efforts" that enhance competition and consumer welfare."¹⁶⁷ But what did the Court mean by "enhance the consumer welfare"? According the to the Court, "[p]erhaps most importantly, antisteering provisions do not prevent Visa, MasterCard, or Discover from competing against American Express by offering lower merchant fees "¹⁶⁸

Again, we see the Court endorse monopolistic restrictions when it presents lower fees for consumers. This view is problematic if applied to social media companies, search engines, or app stores when the majority of services have no monetary costs for consumers. In other words, Google or Apple can apply any vertical restriction it wants on the developer side because the cost to consumers will remain at a flat zero rate.

However, without more guidance from courts, the best view on how *Amex* corresponds with the consumer welfare standard is how Judge Bork himself

¹⁶⁴ See id. at 2280-81.

¹⁶⁵ See id. at 2286 (holding that "[p]rice increases on one side of the platform likewise do not suggest anticompetitive effects without some evidence that they have increased the overall cost of the platform's services").

¹⁶⁶ See id. at 2286–87.

¹⁶⁷ *Id.* at 2290 (citing Leegin Creative Leather Products Inc. v. PSKS, Inc., 551 U.S. 877, 890–91 (2007)).

¹⁶⁸ *Id*.

articulated it. As we discuss below, there are some clear issues with applying it to free services in highly concentrated markets, such as the ad-tech and appstore markets.

The primary issue with using Bork's justification over tech two-sided markets is that it encourages courts to evaluate only one side of tech's two-sided markets well. Put another way, although today's consumer welfare standard is efficient at evaluating the business-to-business side of each of these markets (e.g., developer-to-platform, ad network-to-platform, etc.), it fails at evaluating the tradeoffs made on the consumer-to-platform side, most especially when consumers bear no monetary cost for those services. This ultimately creates a paradox when applying the current understanding of consumer welfare where consumers are giving more data for less innovation or quality of services.

B. Ad Tech Market

The first issue with Bork's perspective is that it assumes tech companies, like Google, want to innovate as opposed to just buying smaller companies' innovation. For the past couple of decades, the federal government has "green lit" nearly every merger or acquisition Big Tech wanted, which created a slow creep effect for Big Tech to silently amass more control and market concentration. Since 2000, Google, Amazon, Facebook, and Apple collectively acquired over eight hundred companies.

Although Bork is correct that customers can go to competitors of Google's Search, such as Microsoft's Bing or DuckDuckGo, at no monetary cost, it is untrue that they will still not be paying Google in data. Even if a consumer does not use Google's browser, consumers will still be using Google because 99.0% of relevant websites use Google Ads. What is more, Apple and Google have arranged to have Google's Search as Apple's Safari's default search engine. Hence, it is impossible to escape Google's Search's reach, unless a consumer literally builds a localized Internet network that only they use, which has a

¹⁶⁹ Chris Alcantara, Kevin Schaul, Gerrit De Vynch, & Reed Albergotti, *How Big Tech Got So Big: Hundreds of Acquisitions*, WASH. POST (Sept. 26, 2023), https://perma.cc/E35X-RFSJ. ¹⁷⁰ Id

¹⁷¹ Usage Statistics and Market Share of Google Ads for Websites, W3TECHS, https://perma.cc/JC2U-K7XN (Dec. 27, 2023).

¹⁷² Lauren Feiner, Google Paid \$26 Billion in 2021 to Become the Default Search Engine on Browsers and Phones, CNBC, https://perma.cc/HV3H-ANFT (Oct. 27, 2023, 3:38 PM EDT).

switching cost of around \$5,540 for an average twenty-four-port network, which is an estimation on the low end. 173

On the advertiser side of the market, Google's acquisition of DoubleClick gave it a 90% market share of the sale of digital ads. ¹⁷⁴ According to the DOJ, not only does Google's DoubleClick own 90% of all sales of digital ads, Google Ads also owns 80% of all ad buyers, and Google AdExchange is one of two platforms to make ad tech sales—the other being Meta's Advantage. ¹⁷⁵ This means Google has control over almost all sellers of ads, almost all buyers of ads, and the exchange platform on which the sales take place. Hence, any barrier to anticompetitive harm in a two-sided market is moot here because Google totally controls both the consumer side and enterprise side of this two-sided market.

This all hurts the consumer welfare as Google's monopolization of all aspects of the ad-tech stack allows it to arbitrarily inflate the cost on the products sold over their platforms (e.g., Search, YouTube, etc.). The concrete harm here is borne on the consumers who bear all the advertising costs that are baked into the price of those products. Worse, when Google arbitrarily raises rates, those seeking to buy or sell ads have nowhere else to go. ¹⁷⁶ Who pays for that? In short, consumers pay for it because all those advertising costs are baked into the price of those products for the end-user.

Even so, a court using a price-focused approach to the consumer welfare standard can justify this monopolization for the consumer side of the market because these services are still free and the sale of those ads allows the company to buy up smaller innovators, like YouTube, to provide more consumer-facing offerings for free.

But this shallow analysis does not consider how this concentration of user data contributes to real consumer harms that range from privacy violations, limitations on content, and avenues to engage in the digital public square. Nor does it ask whether the consumer is getting the full value of their data

¹⁷³ Thomas Kinsinger, *How Much Does a Small Network Setup Cost in 2023?*, E-N COMPUTERS (Mar. 8, 2023), https://perma.cc/N8UY-WL9S.

¹⁷⁴ Steve Lohr, *This Deal Helped Turn Google into an Ad Powerhouse. Is That a Problem?*, N.Y. TIMES, Oct. 20, 2020, https://perma.cc/2EFS-SFGL; *see also* Press Release, Dep't of Just., Justice Department Sues Google for Monopolizing Digital Advertising (Jan. 24, 2023), https://perma.cc/8999-K98Q.

 $^{^{175}}$ Complaint, United States v. Google LLC, No. 1:23-cv-00108, 2023 WL 2486605 (E.D. Va. Mar. 14, 2023).

¹⁷⁶ Dep't of Just., supra note 174.

compared to Google's offering. Frankly, evaluating those harms is almost irrelevant to the application of today's consumer welfare standard. Worse, it encourages them with market efficiencies as a justification.

C. App Store Markets

Applying Bork's logic, coupled with the reasoning in *Amex*, regarding two-sided markets does not fare much better in the free-app market. The Ninth Circuit has held that app stores are a two-sided market—third-party developers on the one side and app users on the other.¹⁷⁷ In that market, there are functionally only two operating systems ("OS") that make up the two most popular app stores, i.e., Google's Android for Google Play and Apple's iOS for its App Store. Both big tech companies control nearly 99.32% of the global mobile operating systems market—and by extension, app stores.¹⁷⁸ Google's acquisition of Android came with almost no antitrust scrutiny, which gave Google its market share.¹⁷⁹

On the developer side, Apple uses their dominance in the app-store market to take market share from smaller competitors. On the consumer side, consumers are left with fewer meaningful choices of devices and apps—as many as 90% of apps offered on Apple's App Store are "low-quality"—this includes scam apps, apps that are unusable due to bugs, and "ripoff apps" that are heavily overpriced. ¹⁸⁰

The first problem on the developer side is that app developers are, in effect, limited to Apple and Google if they want to bring their apps to market. It follows

¹⁷⁷ Epic Games, Inc. v. Apple, Inc., 67 F.4th 946, 1001 (9th Cir. 2023).

Android holds 69.74% market share, while Apple has 29.58%. *Android vs iOS: Mobile Operating System Market Share Statistics You Must Know*, APP MY SITE (Jan. 23, 2024), https://perma.cc/9CEZ-JUCB.

¹⁷⁹ John Callaham, *Google Made Its Best Acquisition Nearly 17 Years Ago: Can You Guess What It Was?*, Android Authority (May 13, 2022), https://perma.cc/WCT5-X7MG; *see also* Niclolás Rivero, *The Acquisitions That Made Google a Search Monopoly*, Quartz (Oct. 20, 2020), https://perma.cc/5G4W-5E8M; David Bassali, Adam Kinkley, & Katie Ning, *Google's Anticompetitive Practices in Mobile: Creating Monopolies to Sustain a Monopoly*, Yale University Thurman Arnold Project, at 43–44 (2020), https://perma.cc/K5W2-9KXJ (writing that Google's acquisition of Android allows the company to maintain its monopoly by "forcing OEMs to install certain versions of Android software to access its proprietary suite of apps, it attempts to gain share in the market for mobile operating systems on a basis other than the price or quality of the underlying software").

¹⁸⁰ Ben Lovejoy, Comment: *Apple's Failure to Deliver on Its App Store Promise is Coming Back To Bite It*, 9TO5MAC (Mar. 9, 2021, 5:39 AM), https://perma.cc/599G-KLNR.

that if Apple and Google deny or remove an app, then it spells death for that app company.

This market concentration means that Apple and Google can legally kick a developer off its app store without warning. As the CEO of the child safety app Qustodio, Eduardo Cruz, lamented, "In a matter of minutes, the app business that you've grown over the years can be shut down with little or no warning, and without alternatives "¹⁸¹ Additionally, most developers don't forge complaints in fear of Google or Apple retaliating against them either in the form of removing their app from their stores or imposing harsher restrictions on them. As the CEO of the health app Clue, Ida Tin, put it, "You don't want to annoy the milkman when you only have one milkman." ¹⁸²

Although Apple's walled garden approach is far more of an issue here, Google too has similar problems. In July 2021, thirty-six states and the District of Columbia sued Google for using its dominant position to steer developers and consumers away from third-party app stores by it adding technical barriers on apps attempting to migrate to an outside app store. In short, even if an app company wants to leave, it can't because Apple and Google control not just their app stores but also their OSs on which all device functions run (including competing third-party app stores, if allowed).

App stores also maintain almost exclusive control over developers' relationship with their customers, which make developers further rely on them and their services. Apple and Google like this level of control over their stores to give them a significant competitive advantage. The advantage being that Apple and Google sit in a dual position with outside app developers, both as a platform provider and a direct competitor, and they take full advantage of it. This dual position allows Apple and Google to self-preference their own products more easily. For example, Apple only allowed its AirTags access to its iPhone's ultra-wideband detection capabilities, giving itself an advantage over its third-party competitors' apps' capabilities, which is what happened to lost-

¹⁸¹ Julian Chokkattu, *Email App Maker Begs Apple CEO to Get Back on the App Store*, WIRED (Nov. 22, 2019, 1:23 PM), https://perma.cc/JX8S-SRDS.

¹⁸² Reed Albergotti, *How Apple Uses its App Store to Copy the Best Ideas*, WASH. POST (Sept. 5, 2019, 8:00 AM EDT), https://perma.cc/HP3P-LPUL.

¹⁸³ Leah Nylen, 36 States, *D.C. Sue Google for Alleged Antitrust Violations in Its Android App Store*, Politico (July 7, 2021, 4:52 PM), https://perma.cc/ERK6-N6EB; *see also* Press Trust of India, *36 US States File Lawsuit Against Google; Allege Violation of Antitrust Law*, Bus. Standard (July 10, 2023, 12:45 AM), https://perma.cc/JY7Q-N7VT.

item tracker app Tile.¹⁸⁴ In addition, Apple used its dominant position on its App Store to inundate iPhone users with negative pop-up notifications against Tile asserting that it is surreptitiously tracking its users.¹⁸⁵ However, Apple made no mention that its own AirTags tracked its users in almost the exact same way as Tile.

Apple and Google's dominate position even allows them to copy core functionality from the third-party apps they host. Blix, the creator of the email app BlueMail, claimed Apple copied BlueMail's anonymous email sign-in feature to enhance its default mail app. ¹⁸⁶ Blix claimed Apple kicked BlueMail off the Mac App Store for five months and manipulated its mobile App Store rankings to ensure BlueMail posed no competitive threat to it. ¹⁸⁷ Blix's experience is not unique. This Apple practice is so common that developers have a name for it: "Sherlocking."

Apple did the same to another email app, HEY, in which the company claimed that Apple "block[ed] updates to HEY for iOS until [they gave] them a cut of [its] business." HEY asserted that Apple did so to force the company to use Apple's payment system—entitling Apple to up to 30% of all HEY's subscription fees. Peen though Apple did end up approving the app, HEY had to completely change its offerings to accommodate Apple's demands, such as offering a free temporary email with a "randomized address" just so its app could function and shift its focus away from iOS consumers to enterprise users. Per page 1911

"Getting Sherlocked"—i.e., Apple stealing your app—is just the cost of doing business with the tech giant. ¹⁹² The genesis of the term dates back to 2001, in which Apple incorporated several features from a third-party app, aptly

¹⁸⁴ Hal Singer, *Rep. Cicilline's Nondiscrimination Bill Would Offer a Lifeline to Independent App Developers*, ProMarket (July 2, 2021), https://perma.cc/WDY5-KZFE.

¹⁸⁵ *Id.* ("iPhone also allegedly bombards users with pop-up notifications that the Tile app is tracking your location in the background, while allowing Apple's apps to similarly track users without prompting the same notifications.").

¹⁸⁶ Jon Porter, *Developer Suing Apples for Stealing Idea Calls on Others to Join the Fight*, THE VERGE (Feb. 5, 2020, 10:59 AM), https://perma.cc/V3JH-BDT9.

¹⁸⁷ BlueMail, Open Letter to Apple (Nov. 22, 2019), https://perma.cc/Q6KU-A9AV.

¹⁸⁸ Justin Pot, What Does It Mean When Apple "Sherlocks" an App?, How-To-Geek (Mar. 14, 2017), https://perma.cc/Q32H-YR72.

¹⁸⁹ Apple vs. HEY: Apple's App Store Policies Are Anti-Competitive, and Have Been for Years Now. Our Response, HEY, https://perma.cc/RA6X-55F7.

¹⁹⁰ Nilay Patel, Apple Approves Hey Email App, but the Fight's Not Over, VERGE (June 22, 2020,

Nilay Patel, Apple Approves Hey Email App, but the Fight's Not Over, VERGE (June 22, 2020, 7:01 AM PDT), https://perma.cc/C2NE-5DSG.

¹⁹² Albergotti, supra note 182.

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called "Watson," into its desktop search tool called "Sherlock." Apple neither asked the developer's permission nor offered any compensation for it using Watson's functions. According to Dan Wood—Watson's developer—when confronting Steve Jobs on the issue, Jobs' position was "this is our market" and we can take it if we want it. 193

Here's how getting Sherlocked looks in today's world: Apple monitors a third-party app's performance via the consumer data it receives on its App Store, then the tech giant copies that app by incorporating the third-party app's functionality into an existing Apple app. The third-party app is now antiquated or even obsolete, which allows Apple to be the sole or primary provider or user of that feature. For example, Apple updated its software to have its iPhone and iPad keyboards include a swiping feature that apps like SwiftKey initially developed—now, these apps are obsolete. ¹⁹⁴ Once Apple duplicates an app, Apple's version is usually the only one that benefits from the new functionality.

Apple is also attempting to leverage its centralized control over its App Store to compete in the ad-tech market. Recently, Apple unveiled its App Tracking Transparency ("ATT") feature. 195 Apple's ATT, in spirit, is an attempt to bring more transparency on what apps track you while you're on your Apple device. This is a laudable goal, but the practical effect may run afoul of antitrust law because it pushes consumer data away from the app and funnels it only to Apple. Practically, this feature means that developers must petition Apple when attempting to verify the age of their users or find a user engaging in illegal activities occurring in their app (e.g., botnet attack, sex trafficking, or moderation of child pornography). Nevertheless, Apple's ATT—in conjunction with its walled garden—appears to be more oriented towards Apple getting a foothold in the ad tech market than it has to do with privacy. This is because the ATT seeks to concentrate the data obtained on iPhones to be funneled to Apple only, which enables it to sell more harvested data to digital ad platforms. This makes the free services that Apple provides via its App Store and iOS even more an issue given that our devices follow us everywhere.

¹⁹³ Dan Wood, *The Long Story Behind Karelia's New Logo*, Karelia Software (Jan. 7, 2006), https://perma.cc/T5EW-B3MU.

William Gallagher, *Microsoft Scraps SwiftKey for iPhone, Stops Support*, APPLEINSIDER (Sept. 29, 2022), https://perma.cc/R458-N94K.

¹⁹⁵ Seb Joseph, *The Rundown: Apple's ATT Privacy Crackdown, a Year on*, DIGIDAY (Apr. 26, 2022), https://perma.cc/NR34-PEP2.

Even applying the rather pro-market framework of *Amex*, all of these actions on the developer side present significant issues for the consumer side as well. This is particularly the case for Apple's walled-garden strategy. Unlike Google's Play Store, Apple's walled garden not only locks users into its software but also its devices. This is because, as alluded to above, Apple owns the App Store, the underlying operating system, and the device on which they operate. More concerning for consumers is that Apple's iOS and, by extension, devices are not interoperable with other devices and OSs. This means that consumers are forced to use only Apple products—linked to their Apple ID—if they want to use some of their software-based services, e.g., all apps downloaded on its App Store or Apple Music.

This means when Apple decides to change or enforce its developer guidelines to kill free apps, like Parler or BlueMail, or will not allow a subscriber to download gaming apps or streaming apps from another app store with a more favorable rate, they're stuck. Apple's walled-garden approach on the consumer level makes switching costs to Android extremely expensive because, if a consumer disagrees with Apple's policy to deplatform an app, they cannot just get rid of their phone. They would have to change out their MacBook, iPad, and resubscribe to every app they downloaded.

Candidly, recent court decisions ensure we will not see a real enforcement against these practices. In particular, the ruling in *Epic v. Apple* makes challenging these app-store practices on antitrust grounds more difficult. The ruling, in effect, narrowly defines Apple's relevant market based off the specific app transactions. In this case, the court found that Apple did not have market dominance in mobile gaming transactions as opposed to its dominance as an app store platform generally. ¹⁹⁶ This extremely attenuated definition of app markets makes it nearly impossible for a court to find that Apple has significant market dominance over any type of app, which is necessary to find antitrust harm.

There are some positive aspects to the case. The Ninth Circuit did clarify that to apply *Amex* to Apple's actions, it only requires plaintiffs to "establish that a practice is anticompetitive in certain two-sided markets, the plaintiff must establish an anticompetitive impact on the 'market as a whole." Moving the *Amex* standard from showing "harm" to "impact" does allow more cases to go forward, but it does not resolve the rather radical take on Apple's

 $^{^{196}}$ Epic Games, Inc. v. Apple, Inc., No. 21-16506, 2023 WL 3050076 (9th Cir. Apr. 24, 2023). 197 $\it Id.$ at 49.

market definition that ultimately shifts this from an antitrust case to a mere "breach of contract" case.

There are also some other positive developments for consumer groups seeking to sue Apple for antitrust harm. For example, the Supreme Court did clarify that the *Illinois Brick* doctrine—a principle that antitrust injury is limited to a direct buyer or seller of the monopolists or monopsonist—does not foreclose a consumer antitrust suit for issues concerning the price of an app in *Apple v. Pepper*.¹⁹⁸ However, it is unclear whether the ruling extends beyond apps with subscriptions or in-app purchases. At this time, we still need the Pepper case to play out, as the Supreme Court remanded it to the lower courts to be heard on the merits, but the merits of that case are almost exclusively focused on whether Apple charging its 30% app store rent on developers for subscriptions or in-app purchases is a demonstration of unlawful monopolization. It will not resolve issues that concern free apps, such as deplatforming.

What is clear, is that the results in *Epic*, the framework of *Amex*, lack of antitrust enforcement from the DOJ or FTC, and our view of consumer welfare—a view predominately focused on price—will make it almost impossible to get a ruling on such issues due to the no-monetary cost feature of the service.

VI. RESOLVING THE NEW ANTITRUST PARADOX MEANS ACKNOWLEDGING THAT, FOR FREE TECH SERVICES, CONSUMER DATA IS THE CURRENCY: HOW TECH MONOPOLIZES DATA FLOWS TO DECREASE THE CONSUMER WELFARE

As explained above, the consumer welfare standard considers more than just price. It also considers, *inter alia*, the quality of a product and competitive effects. Privacy violations can be a key indicator of reduced product quality under a consumer welfare analysis. As some have argued, "privacy harms can lead to a reduction in the *quality of a good or service*, which is a standard category of harm that results from market power."¹⁹⁹

However, there is a persistent push from tech companies and their proxies for antitrust enforcement to only evaluate consumer price under a consumer

¹⁹⁸ Apple, Inc. v. Pepper, 139 U.S. 1514 (2019).

¹⁹⁹ Peter Swire, *Protecting Consumers: Privacy Matters in Antitrust Analysis*, CTR. FOR AM. PROGRESS (Oct. 19, 2007), https://perma.cc/ZZ2A-VY7K.

welfare analysis, which, as we discuss above, has led to a laissez faire approach to antitrust enforcement. 200

The fact is that Big Tech would prefer that the consumer welfare standard ignore the implicit transaction—since pricing is often introduced subtly without consumers realizing what they are giving up—between tech companies and consumers. The good news is that the transaction is not complicated. Tech companies (e.g., Meta, Apple, Google, or Twitter) provide users access to their platforms—or at least a subset of the services—without a dollar amount, but in exchange, they receive access to user data, ranging from personal information to digital footprints in the form of cookies. In turn, these platforms use the data and "securitize it" into a format that can be sold to advertisers who want to put their products or services in front of very specific groups—much like banks would securitize loans.

These platforms obtain not only standard demographic information (e.g., age, education, sex) but also a mountain of additional digital footprints that can be mined with sophisticated data science tools to learn about user preferences. Such footprints include, for example: what sites or apps a user frequents, how long the user spends on the site or app, what time of day the user frequents the site or app. All these digital footprints are tracked by digital platforms and mined into actionable information that can be monetized by advertisers who want to target users with specific ads.

There has been some progress around notifying consumers about what platforms are doing, such as through the General Data Protection Regulation (GDPR) in Europe. However, these notifications are generally viewed as ineffective because consumers generally consent to using cookies without reading terms and conditions because they simply want to get to the page of interest, and often believe they cannot get to the content of interest if they do not consent.²⁰¹

In short, the implicit transaction makes clear that the more data Big Tech companies can amass, the more revenue they enjoy. This is where evaluating a firm's network effects become so important, because, ultimately, they need more users from which to mine data to increase their profit margins. This means the consumers are ultimately the product. Hence, decentralizing the data

²⁰⁰ E.g., Leah Samuel & Fiona S. Martin, What Economists Mean When They Say "Consumer Welfare Standard", PROMARKET (Feb. 16, 2022), https://perma.cc/UFX5-VTDD.

²⁰¹ Josh Koebert, *Cookies Study: 40% of Americans Blindly Accept Internet Cookies, But Most Don't Know What They Do*, ALL ABOUT COOKIES, https://perma.cc/N7ZQ-QXBF (Jan. 24, 2024).

funneled to a few Big Tech companies through antitrust enforcement can already enhance the consumer welfare by preventing tech privacy violations, because such enforcement would take the financial incentive out of data mining.

The data show that privacy laws without market guardrails help Big Tech firms keep their dominant market positions. The European Centre for Economic Policy Research found that "[w]ith the introduction of GDPR, the dominant firm in many markets for web technologies, Google, increases its market share whereas all other firms that supply web technology either do not see a change in market share or suffer losses." The primary reason is that the tech market is highly vertically integrated where smaller companies are inextricably reliant on these larger platforms to either house their data, host their apps or even promote their services. All of these factors increase the number of users from whom Big Tech can pilfer data, and, in turn, increase their network effects to keep their dominant position.

Google is not the only company to weaponize privacy against its competition and, in turn, harm consumers. Apple's ATT gives the trillion-dollar giant an undeniable competitive advantage over app monetization while augmenting its footprint in the digital ad market. For instance, Apple's ATT forces users to consent to track them outside apps, which provides Apple with more control over key data points free apps use to provide ads. Additionally, if a user does not consent to Apple's outside app tracking, Apple pushes the user to paid apps, which allows it to collect rent from all in-app purchases (i.e., Apple's App Store tax). Hence, more privacy controls with no antitrust enforcement equals more profit for Apple.

Frankly, privacy laws with no antitrust enforcement will not stop the blatant violations of user privacy, because the profit these companies obtain from their network effects exceed any penalty an E.U. Member State privacy enforcer or the FTC can impose. Indeed, in the last six years 2018–23 alone, the FTC has brought eighty-three cases against companies for violating their users' privacy

²⁰² Christian Peukert et al., *European Privacy Law and Global Markets for Data* 2 (Ctr. for L. & Econ., Working Paper No. 2020/1), https://perma.cc/NZZ2-TCGB.

²⁰³ Reinhold Kesler, *The Impact of Apple's App Tracking Transparency on App Monetization* (Univ. Zurich & ZEW Mannheim, Working Paper, 2022), https://perma.cc/SRD2-7D45.

or security, including cases against Twitter,²⁰⁴ Facebook,²⁰⁵ Zoom,²⁰⁶ Google,²⁰⁷ YouTube,²⁰⁸ Uber, and PayPal.²⁰⁹ Candidly, none of these actions have seemed to deter these companies from violating consumers' privacy. Privacy violations are simply a cost of doing business for these firms and consumer get low-quality, dangerous products.

If the goal of antitrust law is to enhance the consumer welfare, then product quality must be evaluated in the appropriate transactional context—the exchange of data for services.

A. How Courts Can Evaluate Data as a Form of Currency for Market Power Analysis

There is now an emerging theoretical economics literature on the value of data for organizations, but much of the analysis has not entered into the legal debate about digital platforms and their actions in monetizing consumer data without corresponding remuneration.²¹⁰ This Section explores a simple approach on how courts can evaluate the role data plays in traditional antitrust analysis.

As the Supreme Court held in *Amex*, "[t]o determine whether a restraint violates the rule of reason . . . [a] burden-shifting framework applies" where "the plaintiff has the initial burden to prove that the challenged restraint has a substantial anticompetitive effect that harms consumers in the relevant market."

But how does a person apply a rule of reason analysis to assess antitrust harm where data is the primary currency?

Lesley Fair, Twitter to Pay \$150 Million Penalty for Allegedly Breaking Its Privacy Promises – Again, Feb. Trade Comm'n (May 25, 2022), https://perma.cc/2RXR-4694.

²⁰⁵ FTC Imposes \$5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook, FED. TRADE COMM'N (July 24, 2019), https://perma.cc/Z74Y-HKWN.

 $^{^{206}}$ Cases Tagged with Privacy and Security, FeD. TRADE COMM'N, https://perma.cc/RZ6S-E4Z5 (listing thirty cases July 13, 2020, to Dec. 6, 2023).

²⁰⁷ Google LLC and YouTube, LLC, FED. TRADE COMM'N, https://perma.cc/SC2F-C668.

²⁰⁸ Cases Tagged with Privacy and Security, Feb. Trade Comm'n, https://perma.cc/V5VM-876L (listing thirty cases July 31, 2019, to July 6, 2020).

²⁰⁹ Cases Tagged with Privacy and Security, FED. TRADE COMM'N, https://perma.cc/5QMN-9MQ9 (listing twenty-three cases Jan. 8, 2018, to July 2, 2019).

²¹⁰ E.g., Laura Veldkamp & Cindy Chun, *Data and the Aggregate Economy*, J. Econ. Lit. (forthcoming 2024) (providing a detailed review of the macroeconomic literature on how data has been integrated into models of aggregate growth).

²¹¹ Ohio v. Am. Express Co., 138 S. Ct. 2274, 2284 (2018).

We argue that the following framework developed by Sivinski et al. is helpful in addressing the issue of finding "market power" and conducting merger analysis based on the personal data these companies directly take in, particularly for those tech companies generating revenues for ads. The plaintiff must:

- 1. Find what data is relevant to the market competitors.
- 2. Determine whether the data is commercially available as a "product" or as an "input" for downstream competitors.
- 3. Determine whether the market participant owns the data or only has access to the data.
- 4. Determine whether the data is unique to the market participant.²¹²

We discuss each element in turn.

1. Determining the Data Relevant to the Market Competitors

Shifting the focus on the amount and type of data the company takes in is far more dispositive of a company's relevant market and market share than evaluating whether a particular streaming service is a comparable substitute for a search engine. Ad-revenue-based tech companies generate revenue from their perceived effectiveness of their algorithms—directly determine by the firm's network effects, not necessarily whether the company provides a comparable service. This analysis would be particularly useful in merger analysis to distinguish between a horizontal merger versus a vertical merger or to determine whether consumers are getting a fair deal when tech companies request more data from them.

The primary relevant-market analyses for a court or regulator to conduct is to determine how these firms buy and sell data, and how a particular restriction, merger, or acquisition by a firm increases data inputs.

²¹² Greg Sivinski et al., *Is Big Data a Big Deal? A Competition Law Approach to Big Data*, 13 EUR. COMPETITION J. 199, 199 (2017).

2. Determining Whether the Data Is Commercially Available as a "Product" or as an "Input" for Downstream Competitors

There are some promising economic models that address this issue. For example, Jones and Tonetti built a model where data is non-rivalrous (i.e., data can be used by multiple firms concurrently) and an input to production.²¹³

Moreover, Farboodi et al. propose a simpler and less intensive process to valuing data and may propose a solution to lack of insight into how tech companies' network effects augment or decrease its market share. They consider an environment where there are many investors who invest in different risky assets that are subject to some uncertainty. The value of data, in this model, comes in through a reduction in the conditional variance of an investor's forecast—the more data that a user (or investor) has, the more data can be used to obtain a credible forecast about the performance of an asset in the future. Smaller forecast errors, in turn, allow investors to buy more assets that have higher returns, conferring greater consumption. Farboodi et al. then show that the value of data is equal to the difference in utility with versus without data, although different types of data could have very different types of valuation depending on the investor and level of wealth.

The limitation here, however, is that the model is suited for valuing financial data, not necessarily any type of consumer data. Nonetheless, the approach highlights one reason that data might contain value—it can reduce the noise associated with forecasts. Digital platforms, such as Google and Apple, value data for broader reasons, but much of the value comes back to how it is used to predict consumer behavior, which is subsequently used and packaged into products to advertisers. Further, Veldkamp introduces the concept of the "knowledge production triangle," starting with raw data that behaves as an input turned into structured data with the help of data manager labor and subsequently turns into knowledge through analyst labor each with their own production function and parameters. ²¹⁹ When coupled with information on firm

 $^{^{213}}$ Charles I. Jones & Christopher Tonetti, *Nonrivalry and the Economics of Data*, 110 Am. Econ. Rev. 2819, 2831 (2020).

²¹⁴ Maryam Farboodi et al., *Valuing Financial Data* 2–5 (Nat'l Bureau Econ. Rsch., Working Paper No. 29894, 2022).

²¹⁵ *Id.* at 8.

²¹⁶ *Id.* at 10.

²¹⁷ *Id.* at 12–13.

²¹⁸ Id at 13_1/

²¹⁹ Laura Veldkamp, *Valuing Data as an Asset*, 27 Rev. Fin. 1545, 1551 (2023).

revenues and other inputs, the value of data—not just in finance—can be simulated and backed out based on observed firm decisions.

Unfortunately, we will never know the answer to that unless we get more transparency from the companies themselves. Such answers can be secured through discovery during various suits or, more practically, through legislation requiring transparency on these points.

3. Determining Data Ownership

As alluded to before, economic models currently exist to evaluate this. For instance, Jones and Tonetti's model expresses the primary tension: who owns the data will influence how much is used (and monetized) in the production of goods. Jones and Tonetti show that the socially optimal amount of data sharing is 56%, whereas when consumers own their own data, they sell less than 49%. In contrast, when firms own the data, rather than consumers, they require 100% of the data and ignore the privacy concerns of their customers, and they do not share data with other firms because it is hoarded as an asset. The Jones and Tonetti model is, as far as we know, the most comprehensive approach to valuing data ownership, but it also comes with an important cost in tractability—it is a large, dynamic model that would be difficult for practitioners and policymakers to apply to specific markets.

4. Determining Data's Uniqueness

This will be the primary fact finding for a court or regulator. As Sivinski et al. explain, data is unique when it "is necessary to compete in a relevant product market" and no reasonably available substitutes exist. ²²³ This fact-finding analysis will be particularly helpful in assessing market dominance for app store and search engine providers in particular, because the more unique data amassed from mergers and acquisitions can demonstrate how including that data or restricting access to that data can increase a firm's network effects and, in turn, its market share.

²²⁰ Jones & Tonetti, *supra* note 213, at 2834–35.

²²¹ *Id.* at 2853–54.

²²² *Id.* at 2854.

²²³ Sivinski et al., *supra* note 212, at 201.

The assessment is not easy. As Jones and Tonetti's model shows, the fact that data is non-rival does not mean it is also non-excludable;²²⁴ indeed, data is excludable—Google's internal data can be guarded, and other companies can lay hold of it. As Sivinski et al. explain, "[t]he challenge for enforcers and courts will be to separate cases requiring closer scrutiny from the bulk of cases where data ownership and usage is economically beneficial, drives innovation and is competitively benign."²²⁵ Hence, the competition question in relation to a firm's market share is: what data is not possible to buy?

At any rate, this framework will help plaintiffs, regulators, and courts (via their subpoena power) to better assess a firm's position in a market.

B. How Evaluating Data as a Form of Currency Is Consistent with the Consumer Welfare Standard

At the heart of the consumer welfare standard is consumer equity. Put simply, Judge Bork's standard requires courts to examine whether consumers benefit from a firm's action, even if it means consumers lose a competitor as a result. When applying the consumer welfare standard, courts have mainly focused on a transaction's effect on price. However, in the case of Big Tech, judges' reliance on price has led them to ignore the nature of transactions involving supposedly free online services, like social media, search engines, or app stores.

As discussed above, courts and regulators must recognize that consumers are in fact paying for these "free" services. As the late economist Milton Friedman once said, "there's no such thing as a free lunch." In the digital age, Friedman is as correct as ever, because companies like Facebook, Twitter, or Google don't want users' money; they want data. To better analyze consumer harm, courts could treat that data as a form of currency in this context. The transaction between users and tech platforms is straightforward; users provide tech companies their personal information and, in exchange, tech companies provide those users a license to use their services.

Users' data have a measurable value tantamount to a traditional currency. Scholars have evaluated the consumer-tech relationship and found that data

²²⁴ Jones & Tonetti, *supra* note 213.

²²⁵ Sivinski et al., *supra* note 212, at 201.

²²⁶ See discussion supra Section II.

FRIEDMAN, *supra* note 1.

function as an alternative currency. Additionally, economists have developed models that can identify values on user data for a company as we demonstrated in the previous section. Tech companies already treat their users' data as currency—that is how they can monetize their ad services in the first place. Adopting the same metrics may help courts accurately assess a tech company's market share or whether a company unlawfully requires data from consumers under an antitrust theory.

A consumer-welfare analysis under this paradigm rests on a simple question—are consumers receiving more value from a tech company's services when they provide more data to that company? Suppose a tech platform started requiring more data from the user than it initially required and did not give comparable value to that user in exchange. In that case, a court could find antitrust injury under an unlawful monopolization theory because users had to give more data for the same product or service without a pro-consumer justification.

For example, Google required far fewer data points from users when it made its "search" service available in 1997. However, Google's search now effectively requires its users to provide the company with near-constant access to their geolocation, their spending habits on other sites, their time spent on other sites even when not using the search function and so much more. By providing more of their information, are consumers getting more from Google's search relative to what they received initially? Probably not. A judge could find that Google is arbitrarily requiring its users to provide more data for the same service solely to avail itself of ad revenues.

This type of framework can even work with *Amex* in play. In *Amex*, the Court did outline circumstances in which courts could ignore both sides of a two-sided market.²³⁰ Justice Thomas noted lower courts could consider only one side of the market for newspapers that sell advertisements because "the indirect networks effects operate in only one direction; newspaper readers are largely indifferent to the amount of advertising that a newspaper contains."²³¹ This is a rather interesting distinction given that many "free" internet services, such as

²²⁸ Knowledge at Wharton Staff, *Data As Currency: What Value Are You Getting?*, Knowledge at Wharton (Aug. 27, 2019), https://perma.cc/Z4XL-UEPX.

²²⁹ Kean Birch et al., *Data As An Asset? The Measurement, Governance, and Valuation of Digital Person Data by Big Tech*, 8 Big Data & Soc'y (2021).

²³⁰ See Ohio v. Am. Express Co., 138 S. Ct. 2274, 2284 (2018).

²³¹ See id. at 2287.

social media platforms and search engines, rely on consumer data to sell to online advertisement agencies. However, what this does indicate is that Justice Thomas may be receptive to a comparative analysis between tech platforms—Google's Search or Meta's Instagram—and the economic models of traditional news outlets. But the Court did leave the door open for lower courts to disregard Judge Bork's two-sided market justification entirely and, instead, focus on whether the exchange of data for the free services promotes the consumer welfare.

In the app-store context, courts can ask: whether consumers are harmed when they lose an app due to either Apple or Google deciding that they no longer want to host Twitter, Meta, Parler? Or smaller competitors to Apple's homegrown apps, like BlueMail or Tile after they've provided those companies a trove a valuable personal data of which they derive profit one way or another? This creates a much more representative analysis between the quality of the output (e.g., innovation, competition, efficiency, etc.) warrant the amount of data collected. In this context, does a walled-garden approach better serve consumers given the concentration of all of the data occurring over the top of the device? Or do more open systems better serve consumers? This is an essential question now as most consumers access all these free services on mobile devices (e.g., mobile phones and tablets) over the traditional, static personal computer.

It is worth noting, however, that the Supreme Court in *Apple, Inc. v. Pepper* did not raise the issue of a two-sided market in the case even though the case concerned Apple's alleged anticompetitive acts within its App Store. ²³² In fact, the opinion does not even mention the concept of a two-sided market in any part of the opinion. ²³³ Again, this could signal to courts that they need not evaluate Bork's two-sided market justification and, instead, focus on whether the outputs of the data sharing to app-store providers advance the consumer welfare.

As consumers navigate online platforms, they generate a wealth of information about their behaviors, preferences, and habits. However, while companies have learned to monetize this data, consumers often provide it without financial compensation. From a competition and consumer welfare perspective, there is a growing debate about whether consumers should be compensated for their data, considering it as a form of currency. This shift in

²³² Apple, Inc. v. Pepper, 139 U.S. 1514 (2019).

²³³ Id

perspective can be consistent with the consumer welfare standard that underpins most competition law and policy.

If the Consumer Welfare Standard's main goal is to protect consumers rather than to ensure a competitive environment for businesses, then, under this standard, it should recognize that consumer data has value to the digital economy. What is more, the standard should also recognize that treating consumer data as currency aligns with promoting the consumer welfare in several ways:

- Fair Value Exchange: Treating data as currency would promote a more
 equitable exchange between consumers and businesses. Instead of
 offering their data for free, consumers would receive compensation or
 a tangible benefit. This approach would not necessarily involve direct
 financial transactions but could involve improved services, enhanced
 features, or a superior user experience. Such benefits directly enhance
 consumer welfare, aligning with the principles of the consumer welfare
 standard.
- Informed Consent: By treating data as a valuable asset, consumers may
 become more aware of its worth and, therefore, more careful about
 how they share it. Informed consent would then become a more
 meaningful process, with consumers better understanding the value
 exchange in data transactions. This increased transparency could lead
 to more trust in digital markets, again improving consumer welfare.
- Encouraging Competition: A market that recognizes data as currency could encourage competition between firms to provide the best value in exchange for consumers' data. Increased competition often leads to innovation, better services, and lower prices, all of which enhance consumer welfare.
- Data Portability: If data is recognized as a form of currency, consumers
 might have increased rights to move their data between platforms
 (data portability), effectively "spending" their data with companies
 that offer them the most value. This ability to switch providers can
 stimulate competition and offer consumers more choice, both key
 aspects of consumer welfare.

One of the most significant challenges that will need to be addressed involves the proper pricing of data. Overcoming this would require establishing robust and fair mechanisms for data valuation.

VII. CONCLUSION

In sum, many have misinterpreted Judge Bork's standard to advance a laissez-faire approach to Big Tech. That was a mistake. Judge Bork supported antitrust enforcement when firms provide the consumer with a raw deal. If courts were to begin treating a user's data as a form of currency, the bargain from the perspective of consumers would prove one-sided in favor of the tech giants. Recognizing this imbalance may lead to more equitable results without having Congress throw out the antitrust baby with the bathwater.