

Yale University

Thurman Arnold Project

Digital Platform Theories of Harm
Paper Series: 3

The Section 2 Case Against Facebook

May 2020

Jackson Busch
Michael Enseki-Frank
Natalie Giotta
Joe Linfield
Przemyslaw Palka
Emily Wang

Introduction

Facebook is currently facing four separate antitrust investigations by the DOJ, the FTC, a group of state attorneys general, and the House Judiciary Committee.¹ Should one or more of these entities bring a monopolization claim against Facebook, they will need to provide robust evidence that Facebook possesses market power in a relevant antitrust market and that Facebook has acted anticompetitively in acquiring or maintaining that power. In this paper we show that, based solely on publicly available data, enforcement agencies have sufficient grounds to bring a strong case against Facebook under Section 2 of the Sherman Act.

To show that Facebook has violated Section 2, the Supreme Court has laid out a two-part test. Plaintiffs must show “(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.”² This report follows the *Grinnell* framework in organizing the Section 2 case against Facebook. Part I shows that Facebook possesses monopoly power in a relevant antitrust market. Because Facebook is a two-sided non-transactional market, we analyze the social media market and the digital advertising market separately. We discuss why each side of the platform constitutes a relevant antitrust market and provide “indirect evidence” that Facebook has market power by showing high market shares and barriers to entry. We also discuss “direct evidence” of monopoly power, which allows plaintiffs to show monopoly power without needing to precisely define the relevant antitrust market.³

Part 2 shows that Facebook’s conduct meets the second part of the *Grinnell* test, having willfully acquired or maintained its monopoly power through anticompetitive conduct. This section presents three theories of harm: (1) Facebook has misrepresented its privacy protections to its users, (2) Facebook has depreciated its APIs, and (3) Facebook has serially acquired nascent competitors.

Part 3 discusses the harms to consumer welfare that are the result of Facebook’s anticompetitive behavior. Consumers have suffered from reduced innovation in the social media sector, lower privacy protections, and various cognitive and behavioral harms. On the advertiser side the result has been higher prices for less effective advertisements – costs that may ultimately be passed on to consumers. Facebook’s distortion of the advertising market has been especially harmful to the news industry, reducing the vital externality of an informed citizenry in a democratic society.

I. Possession of Monopoly Power in a Relevant Market

A Section 2 case begins with a showing that the defendant possesses monopoly power in a relevant antitrust market. In most cases, the plaintiff must first define the relevant antitrust

¹ Diane Bartz, *U.S. Justice Department to Open Facebook Antitrust Investigation: Source*, REUTERS, September 26, 2019, <https://www.reuters.com/article/us-facebook-probe-antitrust-idUSKBN1WA35M>.

² *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966).

³ *Infra* Part I.B.3.

market so that they may demonstrate that the defendant has monopoly power in that market. Defining the market can be difficult in the case of digital platforms like Facebook because they are often involved in multi-sided markets spanning a variety of overlapping products and services.⁴

Generally speaking, there are two possible approaches for defining markets with respect to multi-sided platforms: (1) define each side of the market as a separate antitrust market, or (2) define one market that encompasses all of the customer groups of the platform.⁵ Wismer and Rasek of the German competition authority (Bundeskartellamt) laid out a strategy for choosing how to define the market depending on whether a platform is a *transaction* market, in which both user groups come to the platform with the intent to transact with one-another, or a *non-transaction* market in which one user group does not come to the platform with the intent to transact with the other user group. Because non-transaction markets do not always exhibit bilateral positive network effects, and because enabling direct interaction between the two user groups is not always an integral part of a non-transaction platform's service, Wismer and Rasek argue that enforcers should define separate antitrust markets for non-transaction platforms.⁶

Wismer and Rasek make a second distinction between a *matching platform* for which the platform's objective is to "enable the best possible match between different user groups"⁷ and an *audience providing platform* for which the platform provides one user group with the audience of another user group.⁸ Like with non-transaction markets, the cross-platform network effects are often unidirectional for audience providing platforms, leading Wismer and Rasek to again suggest defining distinct antitrust markets for audience providing platforms.

Facebook is a non-transaction platform because Facebook users do not come to the platform with the purpose of transacting with advertisers. Rather, they access Facebook to interact with other users. Facebook is also an audience providing platform because its business model revolves around providing advertisers with the attention of its users. Under Wismer and Rasek's methodology, both of these characteristics counsel in favor of defining distinct antitrust markets on each side of the platform.

The Supreme Court is likely to affirm this reasoning even in the face of their controversial decision in *Ohio v. Amex*. Writing for the majority, Justice Thomas found that both sides of the credit-card market - the merchant side and the cardholder side - should be defined as

⁴ In this paper we define a multi-sided market as one that serves "at least two distinct customer groups" and for which "there are indirect network effects between these two or more customer groups." Sebastian Wismer & Arno Rasek, *Market definition in multi-sided markets*, in RETHINKING ANTITRUST TOOLS FOR MULTI-SIDED PLATFORMS 55 (OECD 2018).

⁵ *Id.* at 56.

⁶ *Id.* at 58. The Supreme Court endorsed this perspective in *Ohio v. American Express Company (Amex)*, 138 S. Ct. 2274, 2280-2281 (2018). See *infra* n.9-11 and accompanying text.

⁷ Wismer & Rasek, *supra* note 4, at 58.

⁸ *Id.*

a single antitrust market.⁹ Some feared that Justice Thomas’s reasoning might make antitrust enforcement against digital platforms difficult. But enforcers can argue that Facebook falls into an exception that Thomas carves out for markets with unilateral indirect network effects:

A market should be treated as one sided when the impacts of indirect network effects and relative pricing in that market are minor. Newspapers that sell advertisements, for example, arguably operate a two-sided platform because the value of an advertisement increases as more people read the newspaper. But in the newspaper-advertisement market, the indirect networks (sic) effects operate in only one direction; newspaper readers are largely indifferent to the amount of advertising that a newspaper contains. Because of these weak indirect network effects, the market for newspaper advertising behaves much like a one-sided market and should be analyzed as such.¹⁰

Like newspapers, Facebook’s indirect network effects are mostly unilateral. Advertisers benefit from an increase in the number of users, but users generally do not experience the same benefit from an increase in the number of advertisers. Thus, even the Supreme Court that decided the *Amex* decision is likely to find two separate markets in an antitrust case against Facebook.¹¹

A. Defining the Market

The two major factors that courts have traditionally considered in defining the relevant product market have been the extent to which characteristics of the defendant’s product make it interchangeable with alleged alternative products and the cross-elasticity of demand between the defendant’s product and alleged substitutes.¹² Enforcement agencies will generally use the “hypothetical monopolist” test as a formal means of defining the relevant product market. As outlined in the *Horizontal Merger Guidelines*, the enforcer asks whether a hypothetical monopolist could profitably impose a small but significant non-transitory increase in price (SSNIP) in the proposed market.¹³ While the *Horizontal Merger Guidelines* are only intended for use in merger cases under Section 7 of the Clayton Act, courts have also approved of the SSNIP test for defining the relevant product market in Section 2 cases.¹⁴ In two sided markets, for the side of the market where there is monetary payment (the advertising side for Facebook), a SSNIP

⁹ *Amex*, 138 S. Ct. 2274.

¹⁰ *Id.* at 2286.

¹¹ See also Tim Wu, *The American Express Opinion, the Rule of Reason, and Tech Platforms*, 7 J. ANTITRUST ENFORCEMENT 117 (2019) (arguing that Facebook is not covered by the *Amex* opinion).

¹² WILLIAM HOLMES & MELISSA MANGIARACINA, ANTITRUST LAW HANDBOOK § 3:4 & n.3 (2019).

¹³ U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES 8-13 (2010).

¹⁴ HOLMES & MANGIARACINA, *supra* note 12, at § 3:4 & n.11 (2019) (citing *McWane, Inc. v. F.T.C.*, 783 F.3d 814, 829 (11th Cir. 2015); *In re Southeastern Milk Antitrust Litigation*, 739 F.3d 262, 282 (6th Cir. 2014)).

test can be performed.¹⁵ But for the non-paying side (the user side for Facebook) the SSNIP test is not possible because no price is being charged. One proposed alternative is to use the “small but significant non-transitory decrease in quality” (SSNDQ) test, which is discussed below.¹⁶

Once the market has been defined, the plaintiff must show that the defendant possesses market power in that market. The court has recognized two types of evidence that a plaintiff may use to show market power: indirect and direct evidence.

A plaintiff can make an “indirect” showing of market power by “showing market characteristics . . . indicating that [the] defendant is likely to have the ability to control prices or exclude competition.”¹⁷ The two major doctrinally recognized forms of indirect evidence of market power are high market share and high barriers to entry.¹⁸ The courts have held that a market share as low as 55% may constitute prima facie evidence of market power, but the usual threshold is between two thirds and 70% market share.¹⁹ The higher the barriers to entry, the lower the market share will need to be to show market power.²⁰

Alternatively, a plaintiff can use “direct” evidence to show market power. Direct evidence includes the defendant’s ability to charge supra-competitive prices or exclude competitors.²¹ If a plaintiff can provide direct evidence of market power, it is no longer required to precisely define the relevant antitrust market in order to meet the first part of the monopolization test.²² This approach is advantageous in cases against digital platforms like Facebook in which precisely defining the market can be difficult.

¹⁵ Lapo Filistrucchi, *Market definition in multi-sided markets*, in RETHINKING ANTITRUST TOOLS FOR MULTI-SIDED PLATFORMS 45, 47 (OECD 2018).

¹⁶ *Id.* at 47-49; Raymond Hartman et al., *Assessing Market Power in Regimes of Rapid Technological Change*, 2 INDUSTRIAL AND CORPORATE CHANGE 317 (1993).

¹⁷ New York ex rel. Schneiderman v. Actavis PLC, 787 F.3d 638 (2d Cir. 2015).

¹⁸ Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195 (9th Cir. 1997) (“To demonstrate market power by circumstantial evidence, a plaintiff must: ‘(1) define the relevant market, (2) show that the defendant owns a dominant share of that market, and (3) show that there are significant barriers to entry and show that existing competitors lack the capacity to increase their output in the short run’”), *aff’d* 504 U.S. 451 (1992).

¹⁹ See HOLMES & MANGIARACINA, *supra* note 12, at §3:4 n.39. See also, U.S. DEP’T OF JUSTICE, COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT 21-22 (2008), <https://www.justice.gov/atr/competition-and-monopoly-single-firm-conduct-under-section-2-sherman-act-chapter-2>.

²⁰ See, e.g., Tops Mkts. v. Quality Mkts., 142 F.3d 90, 98-99 (2d Cir. 1998) (finding that low entry barriers meant the defendant did not have market power even with over 70% market share); Lenox MacLaren Surgical Corp. v. Medtronic, Inc., 762 F.3d 1114, 1123 (10th Cir. 2014) (finding that a 62% market share in a market with high entry barriers was sufficient to raise a triable issue that the defendant had market power).

²¹ U. S. v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956); McWane, Inc. v. F.T.C., 783 F.3d 814, 830 (11th Cir. 2015).

²² J. Douglas Richards, *Is Market Definition Necessary in Sherman Act Cases when Anticompetitive Effects Can Be Shown with Direct Evidence?*, 26 ANTITRUST 53, 53 & n.9-10.

B. Facebook's Antitrust Markets and Market Power

We define social media and digital advertising to be the primary relevant antitrust markets. Facebook's market power and the barriers to entry in these markets are discussed below. Facebook is also involved in several smaller markets that competition authorities may consider analyzing separately from the social media and digital advertising markets.²³ Among the primary candidates for alternative markets are messaging services and photo-sharing services. Consumers might consider SMS and iMessage to be substitutes for Facebook Messenger but not Instagram or Pinterest. Conversely, consumers may view Instagram and Pinterest to be substitutes for Facebook's photo-sharing services, but not SMS or iMessage. Enforcers may find that defining alternative markets will help show that Facebook has monopoly power, especially given the high bar for finding monopoly power in American antitrust jurisprudence.²⁴

1. Social Media

Facebook is most widely recognized as a social media company. Precisely defining the concept of 'social media' is notoriously difficult, and there is no universally agreed upon set of features or uses that define the term.²⁵ Major functions of social media may include facilitation of user interaction and communication, content sharing, and content discovery.²⁶ Social media platforms may also have a common set of affordances²⁷ such as user profiles or accounts, 'friends' or connections, personalized content feeds, content sharing, commenting, private messaging, and liking or other reactions.²⁸

²³ Courts will sometimes define these separate smaller markets as "submarkets." The Supreme Court took this approach in *Brown Shoe Co. v. U.S.*, 370 U.S. 294, 325 (1962). The Supreme Court later approved the use of the *Brown Shoe* factors for defining submarkets in Section 2 cases. See HOLMES & MANGIARACINA, *supra* note 12, at §3:4 & n.12-16. However, the current status of submarkets in antitrust jurisprudence is uncertain. See *id.*

²⁴ Compare U.S. DEP'T OF JUSTICE, *supra* note 19, at 21-22 (finding that many U.S. courts require at least 70% market share for a showing of monopoly power), with Case-62/86 AKZO Chemie BV v. Commission of the European Communities (finding that market share of greater than 50% was sufficient for a presumptive finding that a firm had a dominant position).

²⁵ COMPETITION AND MARKETS AUTHORITY, ONLINE PLATFORMS AND DIGITAL ADVERTISING: MARKET STUDY INTERIM REPORT [hereinafter INTERIM REPORT] 44-46 & Box 2.4 (2019) (laying out common features of social media platforms and comparing different definitions used by various other competition authorities).

²⁶ *Id.* at 44.

²⁷ An "affordance" is usually described as "what material artifacts such as media technologies allow people to do." T. Bucher and A. Helmand, *The Affordances of Social Media Platforms*, in THE SAGE HANDBOOK OF SOCIAL MEDIA 233, 235 (J. Burgess, A. Marwick, & T. Poell eds. 2018) (discussing different ways that the affordances of social media platforms can be conceptualized).

²⁸ INTERIM REPORT, *supra* note 25, at 45.

Some have argued that “free” social media services can never constitute a relevant antitrust market.²⁹ We disagree. As the Stigler Center argues, “‘Free’ is not a special zone where economics or antitrust do not apply.”³⁰ The text of the federal antitrust statutes specifies that they apply to anticompetitive conduct affecting “trade” and “commerce.”³¹ John Newman shows that the legal definition of these terms include “almost every activity from which [an] actor anticipates economic gain” whether or not money changes hands in that transaction.³² For “trade” or “commerce” to exist, customers must exchange something of value for the “free” product that they receive, so that both parties anticipate economic gain.³³ Facebook users exchange both attention and personal data in return for Facebook’s services. Facebook is then able to monetize this attention and data through targeted advertising. Newman labels these costs “market-signaling costs” because they signal the existence of a relevant antitrust market.³⁴

Even given that social media services constitute a relevant antitrust market, establishing the boundaries of that market using the SSNIP test is not feasible because the SSNIP test requires firms to charge a price in money terms. As mentioned previously, we propose that enforcers use an alternative to the SSNIP test designed for zero-price markets, known as a “small but significant non-transitory decrease in quality” (SSNDQ) test.³⁵ The intuition behind the SSNDQ is similar to that behind the SSNIP test. If a hypothetical monopolist for a proposed market can profitably impose a small but significant non-transitory decrease in the quality of its product or service, then the proposed market is a relevant antitrust market.

²⁹ John M. Newman, *Antitrust in Zero-Price Markets: Foundations*, 164 U. PA. L. REV. 149, 160-163 (2015) (compiling numerous scholars and practitioners arguing that there are no consumer welfare harms and no antitrust violations in zero-price markets).

³⁰ STIGLER CENTER COMMITTEE FOR THE STUDY OF DIGITAL PLATFORMS, MARKET STRUCTURE AND ANTITRUST SUBCOMMITTEE, REPORT 55 (2019) [hereinafter STIGLER CENTER].

³¹ 15 U.S.C. §1 & 2 (2018) (prohibiting restraints and prohibiting monopolization or attempted monopolization “of trade or commerce”); 15 U.S.C. §18 (2018) (prohibiting mergers and acquisitions that may substantially lessen competition “in any line of commerce or in any activity affecting commerce”).

³² Newman, *supra* note 29, at 160 (citing *Agnew v. NCAA*, 683 F.3d 328, 340 (7th Cir. 2012)).

³³ *Id.* at 160, 163.

³⁴ Newman, *supra* note 29, at 167 n.94-97 (2015) (citing Cotton Delo, *Here’s My Personal Data, Marketers. What Do I Get for It?*, ADVERT. AGE (Nov. 28, 2011), <http://adage.com/article/digital/web-data-startups-bank-consumers-controlling-data/231208/>); David Zax, *Is Personal Data the New Currency?*, MIT TECH. REV. (Nov. 30, 2011), <http://www.technologyreview.com/view/426235/is-personal-data-the-new-currency/>; Edward Wyatt, *Raising the F.T.C.’s Voice, Softly*, N.Y. TIMES, Dec. 22, 2014, at B2; Chris Jay Hoofnagle & Jan Whittington, *Free: Accounting for the Costs of the Internet’s Most Popular Price*, 61 UCLA L. REV. 606, 625 (2014)).

Courts have recognized personal information as a form of consideration in cases outside the antitrust context. Newman, *supra* note 29, at 168 (citing *Gottlieb v. Tropicana Hotel & Casino*, 109 F.Supp.2d 324, 327 (E.D.Pa.2000) (holding that the plaintiff’s action permitting the defendant casino to gather information about her when she swiped her card in their machine was adequate consideration for the casino providing her a chance to win \$1 million)).

³⁵ See Filistrucchi, *supra* note 15, at 47-49.

The SSNDQ test is based on the observation that firms compete based on quality in a manner similar to the more traditionally understood competition based on price. In fact, in zero-price markets, quality is the primary dimension on which competition takes place. To account for the role that quality plays in competition, economists have developed a metric known as “quality-adjusted price”³⁶ The Stigler Center explains: “[i]f a platform’s price is fixed at zero and the quality of the service improves, then its quality-adjusted price has fallen. Conversely, if a platform’s price remains zero but its quality falls, its quality-adjusted price has risen.”³⁷ Courts have recognized an increase in quality-adjusted price as a valid antitrust harm.³⁸

In practice, it may be difficult for enforcers to employ the SSNDQ test because economists have less experience with and fewer tools for measuring quality-adjusted price than money prices. One measure of quality is privacy. Consumers have a well-documented preference for privacy, and social media firms have aggressively competed on the level of privacy they can offer consumers.³⁹ Another measure of Facebook’s quality is the saturation, intrusiveness, and relevance of its advertisements.⁴⁰ Precisely measuring privacy or advertising quality-adjusted prices may be difficult, but enforcers can use the Cambridge Analytica scandal as a natural SSNDQ in lieu of attempting to calculate precise changes in quality-adjusted price.

In 2018, several news outlets broke the story that Facebook had sold millions of its users’ personal data to Cambridge Analytica, data that the Trump campaign subsequently used to target its political advertising.⁴¹ In response to these revelations, **Figure 1** shows that user trust in Facebook sharply declined, and the #deletefacebook movement went viral. Initially, a large percentage of users reported increasing their privacy settings or reducing the time they spent on the site.⁴² But the number of monthly active Facebook users in the U.S. did not decrease over the course of the scandal.⁴³ Mark Zuckerberg himself claimed that a “meaningful number of people”

³⁶ STIGLER CENTER, *supra* note 30, at 32.

³⁷ STIGLER CENTER, *supra* note 30, at 32.

³⁸ *In re Qualcomm Antitrust Litigation*, 328 F.R.D. 280, 309-10 (2018).

³⁹ See *infra* Part III.B.1. See generally, Dina Srinivasan, *The Antitrust Case Against Facebook: A Monopolist’s Journey Towards Pervasive Surveillance in Spite of Consumers’ Preference for Privacy*, 16 BERKELEY BUS. L.J. 39, 54-81 (2019).

⁴⁰ See, e.g., Mark Inskip, *Ad Saturation and Over-Targeting Are Putting the Industry at Risk*, KANTAR (Apr. 9, 2019), <https://uk.kantar.com/business/brands/2019/ad-saturation-and-over-targeting-putting-industry-at-risk/>.

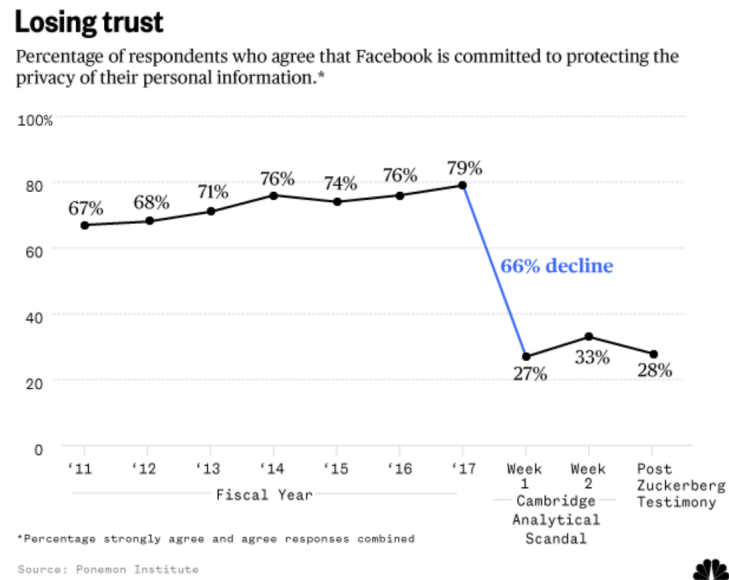
⁴¹ Matthew Rosenberg et al., *How Trump Consultants Exploited the Facebook Data of Millions*, N.Y. TIMES, Mar., 18, 2018, <https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html>.

⁴² Andrew Perrin, *Americans Are Changing Their Relationship with Facebook*, PEW RES. CTR.: FACT TANK (Sep 5, 2018), <https://www.pewresearch.org/fact-tank/2018/09/05/americans-are-changing-their-relationship-with-facebook/>; Alex Hern, *Facebook Usage Falling after Privacy Scandals, Data Suggests*, GUARDIAN, Jun 20, 2019, <https://www.theguardian.com/technology/2019/jun/20/facebook-usage-collapsed-since-scandal-data-shows>.

⁴³ Chaim Gartenberg, *Facebook Keeps Growing Despite Scandals and Privacy Outrage*, VERGE, Jan 30, 2019, <https://www.theverge.com/2019/1/30/18204186/facebook-q4-2018-earnings-user-growth-revenue-increase-privacy-scandals>

had not acted on their threat to delete their Facebook accounts.⁴⁴ Further, Facebook actually exceeded its revenue expectations for that year.⁴⁵ In other words, Facebook was able to profitably impose a significant non-transitory decrease in the quality of its service.

Figure 1: Trust in Facebook following the Cambridge Analytica Scandal⁴⁶



It may not be necessary to conduct a formal SSNDQ test in order to define the market to the satisfaction of the court.⁴⁷ Defining the market ultimately rests on determining whether two products are reasonably interchangeable from the perspective of a buyer.⁴⁸ In the interim report for its market study on online platforms and digital advertising, the UK Competition and Markets Authority compared Facebook with other leading social media sites and found that no other social media platform was a viable substitute.⁴⁹ YouTube was the largest potential competitor

⁴⁴ Jessica Guynn, *Delete Facebook? It's A Lot More Complicated Than That*, USA TODAY, Mar. 29, 2018, <https://www.usatoday.com/story/tech/news/2018/03/28/people-really-deleting-their-facebook-accounts-its-complicated/464109002/>.

⁴⁵ Gartenberg, *supra* note 43.

⁴⁶ Herb Weisbaum, *Trust in Facebook Has Dropped By 66 Percent since the Cambridge Analytica Scandal*, NBC NEWS, Apr. 18, 2018, <https://www.nbcnews.com/business/consumer/trust-facebook-has-dropped-51-percent-cambridge-analytica-scandal-n867011>.

⁴⁷ U.S. DEP'T OF JUSTICE, *supra* note 19, at 27 ("courts often are able to draw sound conclusions about the relevant market based on the facts and circumstances of the industry.").

⁴⁸ Jonathan B. Baker, *Market Definition: An Analytical Overview*, 74 ANTITRUST L.J. 129, 132 (2007).

⁴⁹ INTERIM REPORT, *supra* note 25, at 94-96.

with the highest share of user time spent on social media.⁵⁰ But the CMA found that YouTube was not a substitute for Facebook because it was “heavily oriented toward content, rather than communication,” was viewed primarily as a platform for video consumption, had a paid-for music and video streaming service (YouTube Premium), and did not have a social graph that identified connections between consumers.⁵¹ The CMA also found that no other social media platform was a substitute for Facebook because each potential competitor provided a specialized service that competed with only one portion of Facebook’s broader portfolio of services.⁵² Consumer cross-visiting behavior provided further evidence on the lack of substitutability between Facebook and other social media sites. Over 90% of both Instagram and Snapchat users also access Facebook, indicating that Facebook has a unique set of functions or features that consumers cannot find on Snapchat or Instagram.⁵³

While it is relatively uncommon, the Supreme Court has found that a single brand could constitute a relevant antitrust market.⁵⁴ If the court accepts that Facebook constitutes its own antitrust market, enforcers will have shown that Facebook has market power, thereby fulfilling the first part of the Section 2 test.

a. Market Shares

Suppose that the court rejects the argument that Facebook is its own antitrust market. Even under a broader market definition, Facebook has sufficient market shares to constitute indirect evidence of market power, especially given the social media industry’s high barriers to entry.

In zero-price markets like the user side of Facebook, there are several metrics that can be used to measure market share. In the CMA’s Interim Report, it uses Facebook’s share of both “monthly active users” and “time spent on social media platforms” in the UK as measures of Facebook’s market share.⁵⁵ A fundamental problem with using active users to measure market share is that social media platforms do not compete for users so much as they compete for user attention. From a platform’s perspective, having two users that spend three hours per day on their site is preferable to having ten users that log on once a month. The insight that social media

⁵⁰ *Id.* at 92 fig.3.7.

⁵¹ *Id.* at § 3.121

⁵² *Id.* at § 3.125 (2019) (“Snapchat is used as a platform for interacting with close friends and therefore seems to compete most closely with Facebook.com’s Messenger product that allows consumers to communicate privately. Reddit is a ‘network of communities’ and in this respect appears to compete most closely with Facebook.com’s ‘Group’ features. TikTok is used to create and share short form videos that are set to music. It seems to compete most closely with Facebook.com’s ‘Facebook Watch’ offering.”).

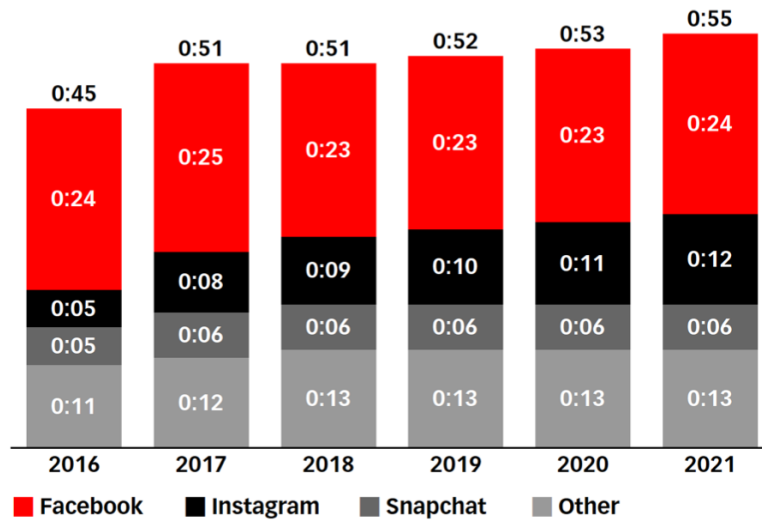
⁵³ *Id.* at 94 fig.3.9.

⁵⁴ *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 481-2 (1992).

⁵⁵ INTERIM REPORT, *supra* note 25, at § 3.113.

platforms compete for user attention has given rise to new terms like “attention markets” or the “attention economy.”⁵⁶ Under this framework, the Furman Report’s suggestion that “time spent using each service” be used to measure market power seems more appropriate.⁵⁷ **Figure 2** shows that Facebook’s attention market share is close to the various doctrinal thresholds for showing market power even in a broadly defined market.

Figure 2. Average Time Spent in the US on Social Media by Platform⁵⁸



Units are average minutes per day among the entire U.S. population.

b. Barriers to Entry

Barriers to entry can also constitute evidence of market power.⁵⁹ The social media industry’s low entry over the last decade indicates that it has high barriers to entry. Of the eleven major social media sites identified by the CMA, only three were founded in the last decade: Instagram (2010), Snapchat (2011), and TikTok (2016).⁶⁰ As discussed above, none of these services are good substitutes for Facebook.⁶¹

The single largest barrier to entry in the social media industry is probably the direct network effects created by Facebook’s large user base. As **Figure X** shows, only YouTube is

⁵⁶ See, e.g., Tim Wu, *Blind Spot: The Attention Economy and the Law*, 82 ANTITRUST L. J. 771 (2017).

⁵⁷ UK DIGITAL COMPETITION EXPERT PANEL, UNLOCKING DIGITAL COMPETITION 26 (2019).

⁵⁸ DEBRA AHO WILLIAMSON, EMARKETER, US TIME SPENT WITH SOCIAL MEDIA 2019 (2019).

⁵⁹ See *supra* n.20 and accompanying text.

⁶⁰ INTERIM REPORT, *supra* note 25, at 88 tbl.3.1 (listing major social media sites and their affordances).

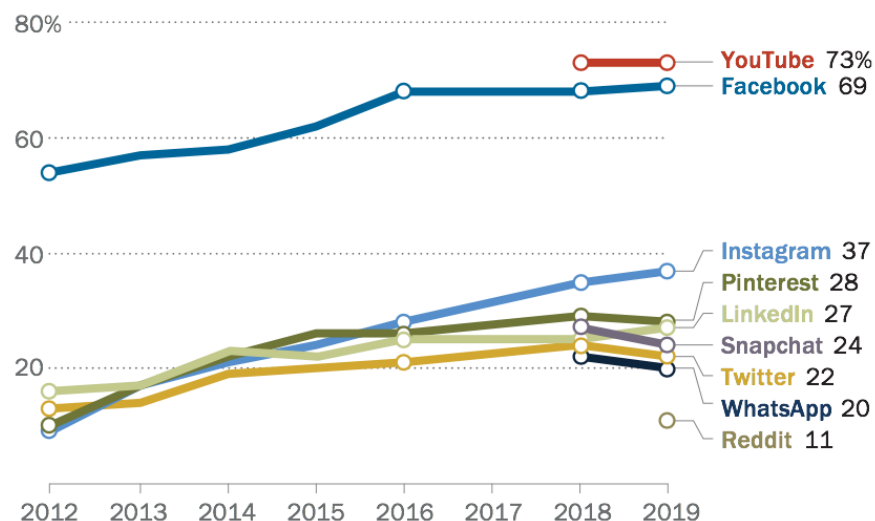
⁶¹ *Supra* Part I.B.

comparable in terms of the size of its user base. But YouTube is not a substitute for Facebook. This leaves Facebook as the only option for users who want to interact with family, friends, and institutions on one platform.

Figure 3. U.S. User Base by Platform⁶²

Facebook, YouTube continue to be the most widely used online platforms among U.S. adults

% of U.S. adults who say they ever use the following online platforms or messaging apps online or on their cellphone



Note: Pre-2018 telephone poll data is not available for YouTube, Snapchat and WhatsApp.

Comparable trend data is not available for Reddit.

Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

The Stigler Center categorizes network effects as a type of “cost and benefit” barrier to entry, i.e. a barrier that gives the incumbent platform an advantage in its cost structure and the benefits it receives from operation.⁶³ The Stigler Center Report also identifies two other categories of barriers to entry that are common to digital platforms: consumer behavior barriers, and barriers to entry created by an incumbent rival.⁶⁴ Each category of barriers to entry is discussed below.

i. Cost and Benefit Barriers to Entry

⁶² Andrew Perrin & Monica Anderson, *Share of U.S. Adults Using Social Media, Including Facebook, Is Mostly Unchanged since 2018*, PEW RES. CTR.: FACT TANK (Apr 5, 2019), <https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/>.

⁶³ STIGLER CENTER, *supra* note 30, at 17.

⁶⁴ *Id.* at 17-21.

Cost and benefit barriers to entry include network effects, economies of scale and scope, and barriers to equivalent data resources. Facebook's market power is substantially enhanced by all of these barriers. Digital platforms are characterized by increasing returns to scale because they are often involved in producing goods that have little to no variable costs.⁶⁵ Low variable costs allow firms like Facebook to scale and achieve market power quickly.⁶⁶ The Stigler Center explains how increasing returns to scale raise barriers to entry:

[I]ncreasing returns to scale lead companies to invest in fixed costs in order to have the best product to attract customers. Then, with a larger customer base, the firm can enjoy lower average costs per consumer, allowing it to make an offer to consumers that is attractive in both quality and price. The increasing returns to scale create barriers to entry: New firms cannot offer the quality of the incumbent without the same large-scale operation to pay for the fixed costs. But the firm can only achieve a large scale if quality is high. Thus, a potential entrant, foreseeing that it will not be profitable at the smaller scale, will not enter the market to challenge the incumbent.⁶⁷

Digital platforms are also characterized by significant "economies of scope" where the marginal cost of producing one good is reduced by the production of a complementary good. The massive scale of Facebook's social media platform allows it to collect data resources that are inaccessible to potential competitors.⁶⁸ These data resources allow Facebook to develop superior algorithms and AI software that allows them to raise product quality and expand into new areas in ways that smaller firms that lack these data resources cannot.⁶⁹ The data procured from these expansions and the resources procured from more effectively targeted advertising can be reinvested, creating a positive feedback loop that raises high barriers to entry.⁷⁰

ii. Consumer Behavior Barriers

Research into consumer behavior shows that psychological biases may also raise barriers to entry.⁷¹ Research in behavioral economics has found that "nudges," or small differences in the way that choices are presented, can lead to large effects on behavioral outcomes.⁷² For example, because consumers often opt to keep default settings in place, companies can "nudge" its users

⁶⁵ *Id.* at 13.

⁶⁶ *Id.* at 13.

⁶⁷ *Id.* at 14.

⁶⁸ *Id.* at 14, 18.

⁶⁹ *Id.* at 14.

⁷⁰ *Id.*

⁷¹ *Id.* at 19-20.

⁷² *Id.* at 20.

towards certain commercially advantageous behaviors simply by instating favorable default settings. In the case of Facebook, the platform’s default sharing settings bias users towards enabling broader data collection and more permissive sharing settings. These default settings then allow Facebook to gather additional user data or grant broader access to data to third parties, re-entrenching its advantage over its competitors in the advertising market. For instance, default settings permit advertisers to target advertisements based upon the user’s “use of websites and apps,”⁷³ granting advertisers access to the vast amount of the user data that Facebook collects.

Consumers also tend to overweight their immediate welfare relative to future welfare.⁷⁴ For instance, while consumers claim care about data privacy, they continue to purchase goods and use services they find “creepy” out of convenience or consumer preference. In a 2019 survey conducted by Consumers International and the Internet Society, seventy-five percent of respondents did not trust data handling and data sharing policies of connected devices, yet nearly seventy percent of respondents owned one or more connected devices, and connected device sales grew by twenty-five percent in 2018.⁷⁵ While users may believe their future welfare will be jeopardized by repeated privacy violations, they overweight their immediate welfare and continue to use the service they believe threatens their long term welfare. These harms, like the erosion of user privacy or the destabilization of electoral systems, occur over a longer time horizon. Meanwhile, in the near-term, these platforms promise enticing benefits like image sharing and instant messaging. The tendency of consumers to prioritize their immediate welfare lessens pressure for services like Facebook to meaningfully respond to the long-term harms they introduce.

Consumers also often “single-home” by restricting their use of social media to a particular platform even if they might benefit from using multiple platforms.⁷⁶ Such single-homing effects are amplified by network effects: if a user’s friends also prefer to single-home on a network of choice, alternate platforms are unlikely to gain sufficient traction to become useful consumer alternatives. The CMA’s Interim Report found that Facebook benefits from single-homing.⁷⁷ While users may visit other social media platforms such as Snapchat and LinkedIn, these platforms cater to different purposes and therefore do not act as close substitutes for Facebook.⁷⁸

iii. Barriers to Entry Created by an Incumbent Rival

⁷³ Brian Barrett, *The Complete Guide to Facebook Privacy*, WIRED (March 21, 2018) <https://www.wired.com/story/facebook-privacy-apps-ads-friends-delete-account>.

⁷⁴ STIGLER CENTER, *supra* note 30, at 20.

⁷⁵ Rani Molla, *People Say They Care About Privacy but Continue To Buy Devices That Can Spy on Them*, VOX (May 13, 2019) <https://www.vox.com/recode/2019/5/13/18547235/trust-smart-devices-privacy-security>.

⁷⁶ STIGLER CENTER, *supra* note 30, at 20.

⁷⁷ INTERIM REPORT, *supra* note 25, at § 3.142 –143.

⁷⁸ *Id.*

Facebook is also able to raise barriers to entry by limiting data interoperability and portability.⁷⁹ APIs that facilitate the transfer of social graph data—for instance, a structured list of friends or an event history of prior interactions with other accounts—ease the process of switching between competing social media services. Thus, APIs enabling interoperability and portability mitigate strong network effects that otherwise serve as near-insurmountable barriers to entry. In recent years, Facebook has rolled back developer access to Facebook’s APIs, citing the need to respond to privacy concerns.⁸⁰ Yet these rollbacks severely hampered Facebook’s interoperability with other services. For example, the deprecation of Facebook’s Events API prevents users from using other applications to RSVP to events, and the deprecation of Facebook’s Logins API no longer allows the use of other applications to create posts on behalf of a user. Blocking third-party access to these API endpoints prevents users from communicating across social media platforms, making the creation of competing social platforms extremely difficult.

In addition to a lack of interoperability, Facebook’s extremely limited tools for data portability further inhibit free movement of consumers between services. When data is portable, a user’s costs of switching from one platform to another are lower. However, the vast majority of data that a user creates through Facebook is not portable. Although Facebook recently rolled out tooling enabling users to download their Facebook photos for use in Google Photos,⁸¹ no analogous functionality exists for other user data on Facebook. For instance, users cannot export their Facebook Messenger history and contacts into another messaging service. Users seeking to leave Facebook are given the option to download their data, but this information is presented in a form that is unusable for the purposes of switching to a competitor. When Anna Wiener, a technology journalist, requested the full record of her Facebook data, she found her data lacked underlying structure:

Download Your Information didn’t offer a coherent narrative. Instead, it presented a cascade of references, but few of the referents. Under “Timeline,” I found comments left by friends on the feature formerly known as the “wall,” written with the candor of people who had not yet heard about Edward Snowden or the ad-tech industry. But because the Facebook download displayed them without links to the original post or images, the comments were also completely decontextualized.⁸²

A PDF or .zip file containing unstructured or decontextualized information is insufficiently “portable.” Users cannot download their information from Facebook and re-upload it to a competitor. The absence of meaningful data portability on Facebook, coupled with its deprecation of interoperability features, imposes high barriers to entry for competitors. The

⁷⁹ STIGLER CENTER, *supra* note 30, at 18.

⁸⁰ Rob Lefebvre, *Facebook Continues To Limit Access to User Data for Third-Party Apps*, ENGADGET (Apr. 24, 2018) <https://www.engadget.com/2018-04-24-facebook-limit-access-user-data-third-party-apps.html>.

⁸¹ *Data Transfer Project (DTP)* (last visited May 2, 2020) <https://datatransferproject.dev>.

⁸² Anna Wiener, *What It’s Like to Wallow in Your Own Facebook Data*, ATLANTIC (Sept. 2018) <https://www.theatlantic.com/magazine/archive/2018/09/download-your-facebook-data/565736>.

entrenched network effects and lack of data portability leave users extremely reluctant to abandon Facebook, even for a competitor's superior product.

2. Digital Advertising

The previous sections were focused on Facebook's cultivation of market power on the user side of the market. The following sections focus on how Facebook has cultivated market power and erected entry barriers in the digital advertising market. Unlike with the user side of the platform, understanding Facebook's market power in the digital advertising market requires an analysis of market shares and barriers to entry on both the advertiser and user sides of the market. This is because platforms that compete for advertisers require users to attract those advertisers, so having a large share of user attention will allow a platform to better attract advertisers. Facebook's market power in the digital ad market has hampered competition and harmed consumers.

a. Market Shares

Like with the social media industry, Facebook's share of the digital advertising industry largely turns on market definition. Broadly speaking, there are three categories of digital advertising: search (in which advertisements are tailored to a given search query), display (in which advertisements are tailored to a given user), and classified. If the relevant market is narrowly defined as advertising on social media sites, then Facebook's 80% share will be sufficient to show the court that it possesses market power.⁸³ Even if the market is expanded to all display advertisements, Facebook has a high market share.⁸⁴

Whether or not Facebook has market power may thus depend on whether search advertising is included in the relevant market. If it is, then Google's dominant share of search advertising revenue will push Facebook's market share below the doctrinal threshold necessary for showing market power.⁸⁵ Enforcers could support an argument that search advertising is not a substitute for display advertising by citing the FTC's decision in the Google/DoubleClick case, in which the FTC determined that contextually targeted ads sold through intermediaries were not substitutes for directly purchased display ads.⁸⁶ The Commission reasoned that display and search advertising are used for different purposes.⁸⁷ Search and contextual advertisements are

⁸³ *Social Media Advertising*, Statista (2020), <https://www.statista.com/outlook/220/109/social-media-advertising/united-states#market-arpu>.

⁸⁴ Agnieszka Guttmann, *Digital Display Ad Revenue in the U.S. 2016-2019, by Company*, STATISTA, (Apr. 24, 2018), <https://www.statista.com/statistics/686939/digital-display-ad-revenue-comapny-usa/>.

⁸⁵ Spencer Weber Waller, *Antitrust and Social Networking*, 90 N.C. L. REV. 1771, 1783 (2012).

⁸⁶ FED. TRADE COMM'N, FTC NO. 071-0170, STATEMENT OF FEDERAL TRADE COMMISSION CONCERNING GOOGLE/ADMOB 5 (2010), https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf 5. *But see* John M. Yun, *Understanding Google's Search Platform and the Implications for Antitrust Analysis*, 14 J. COMPETITION L. ECON 311, 319 (2018) (arguing that search and display advertisements are substitutes).

⁸⁷ *Id.* at 5.

used for “direct response advertising” intended to induce the user to click on the advertisement and purchase the advertised product. Generally, search advertisements rely on a “cost-per-click” payment model to reflect this purpose. By contrast, display advertising is generally used for brand advertising – intended to raise general awareness about the advertisement. Cost is thus premised on number of times the ad is served rather than number of clicks.

b. Barriers to entry

There are high barriers to entry in the digital advertising industry. The barriers to entry identified above on the user side, including cost and benefit barriers, consumer behavior barriers, and barriers created by Facebook, also inhibit competition in the digital advertising market.⁸⁸ If competitors are unable to overcome those barriers, they will be unable to obtain a sufficient share of the attention economy to effectively compete. Facebook’s network effects are an especially important barrier to entry in the digital advertising market. New entrants to the digital advertising market have difficulty attracting new users, who are tied to Facebook by the presence of other users. Facebook is able to mine data from its large user base to target ads to consumers. Facebook can then combine this data with user data acquired through its strategic acquisition of nascent competitors like Instagram and WhatsApp, and with other data collected through its own information-collection initiatives to create detailed profiles on its users’ demographics, interests, personal preferences, and buying habits. Without access to Facebook’s user base or data, new entrants are unable to offer the same precision or scope in their display advertising services. Facebook is thus able to raise the quality-adjusted price of its advertising service without losing advertisers to its competitors.

3. Direct Evidence

Market share and high barriers to entry are varieties of “indirect” evidence of market power. Enforcers may also prove that Facebook has market power by using “direct” evidence.⁸⁹ In *FTC v. Indiana Federation of Dentists* the Supreme Court found that “proof of actual detrimental effects, such as a reduction of output,” can obviate the need for an inquiry into market power, which is but a “surrogate for detrimental effects.”⁹⁰ But the Supreme Court left to lower courts the task of determining what constitutes direct “proof of actual detrimental effects.” Daniel Crane reviewed the caselaw and found seven criteria that lower courts have held constitute direct evidence of market power:

(1) evidence of restricted output and supracompetitive prices; (2) the presence of entry barriers; (3) the exclusion of competition; (4) control over prices; (5) the defendant’s

⁸⁸ See *supra* I.B.1.b.

⁸⁹ See WILSON C. FREEMAN & JAY B. SYKES, CONG. RESEARCH SERV., R45910, ANTITRUST AND BIG TECH 31 (Sep. 2019).

⁹⁰ *FTC v. Ind. Fed’n of Dentists*, 476 U.S. 447, 460-61 (1986) (quoting 7 PHILLIP E. AREEDA, ANTITRUST LAW, ¶ 1511, at 429 (1986)).

ability to engage in price discrimination; (6) “sustained supranormal profits;” and (7) abrupt changes in practices following the elimination of competitors.⁹¹

There is evidence that Facebook meets many of these criteria.⁹² For example, evidence of Facebook charging supracompetitive quality-adjusted prices include its privacy violations,⁹³ cognitive and behavioral harms,⁹⁴ high ad placement fees, poorly targeted ads, lack of transparency regarding targeted ads, and sheer ad saturation.⁹⁵ The Cambridge Analytica scandal is a particularly strong form of direct evidence, as Facebook could only profitably impose such a substantial decrease in the quality of its product if it possessed market power.⁹⁶

Because the caselaw on “direct” evidence is unclear,⁹⁷ and some of these elements are based on shaky economic reasoning,⁹⁸ enforcers should not rely solely on direct evidence of market power. But enforcers should still present direct evidence as additional grounds upon which the court can rule that Facebook has market power.

⁹¹ Daniel Crane, *Market Power Without Market Definition*, 90 NOTRE DAME L. REV. 1, 45. (2014) (citations omitted).

⁹² Aside from supracompetitive quality-adjusted price, *see supra* Part I.B.1.b., I.B.2.b (showing high barriers to entry); *infra* Part II.A.1, II.A.2 (showing Facebook excluding competition by depreciating its APIs and acquiring nascent competitors); Jessica Clement, *Facebook: annual revenue and net income 2007-2019*, STATISTA, (Feb. 3, 2020), <https://www.statista.com/statistics/277229/facebooks-annual-revenue-and-net-income/> (showing Facebook’s sustained high profit levels). Evidence that Facebook abruptly changed its privacy practices following the elimination of its competitors may be a particularly strong source of direct evidence. *See infra* Part II.A.1; Srinivasan, *supra* note 39, Part II.

⁹³ *See infra* Part II.A.1, III.B.1.

⁹⁴ *See infra* Part III.B.2, III.B.3; Mozilla, *We Asked People How They Feel About Facebook. Here’s What They Said*, MEDIUM, May 7, 2018, <https://medium.com/read-write-participate/we-asked-people-how-they-feel-about-facebook-heres-what-they-said-4a548dfeabd>.

⁹⁵ *See infra* Part III.C.

⁹⁶ *Supra* 8-9.

⁹⁷ *Compare* *Re/Max Intern., Inc. v. Realty One, Inc.*, 173 F.3d 995, 1018 (6th Cir.1999) (accepting direct evidence as a method of showing monopoly power in a Section 2 case), *with* *Christy Sports, LLC v. Deer Valley Resort Co.*, 555 F.3d 1188, 1198 (10th Cir. 2009) (noting that the Tenth Circuit has never explicitly ruled whether direct evidence can be used to show monopoly power in a Section 2 case).

⁹⁸ *See* Crane, *supra* note 91, at Part II.

II. Willful Acquisition or Maintenance of Monopoly Power

Merely showing that Facebook has monopoly power in a relevant antitrust market is insufficient to prove a violation of Section 2.⁹⁹ The plaintiff must also show that Facebook has acquired or maintained its monopoly power through anticompetitive conduct rather than through “a superior product, business acumen, or historic accident.”¹⁰⁰ The courts have long struggled to precisely distinguish conduct that is anticompetitive and therefore prohibited, and vigorous competition, which is not only legal but encouraged.¹⁰¹ This distinction is further complicated by the fact that the same conduct will often lead to both anticompetitive effects and procompetitive efficiencies.¹⁰² Neither the Supreme Court nor lower courts have set forth a generally applicable test for determining whether conduct is prohibited.¹⁰³ Among the factors that courts have used to determine whether conduct violates Section 2 are: procompetitive and anticompetitive effects, consumer welfare effects, whether the firm had a “valid business justification” or the conduct made “no-economic sense,” whether the conduct would tend to exclude an “equally efficient competitor,” and evidence of a firm’s anticompetitive intent.¹⁰⁴

Facebook has been accused of acquiring or maintaining monopoly power through anticompetitive conduct based on its misrepresentations to consumers regarding data privacy, its depreciation of APIs, and its serial acquisition of nascent competitors. This section examines Facebook’s conduct under the factors listed above and concludes that Facebook has willfully acquired and maintained its monopoly power through anticompetitive conduct, thereby meeting the second part of the Section 2 monopolization test.

A. Anticompetitive Conduct

1. Degradation and Misrepresentations Surrounding Data Privacy

As explained by Dina Srinivasan,¹⁰⁵ while the social media industry was competitive between 2004 and 2012, competitive forces restrained Facebook from degrading user privacy to

⁹⁹ See *Pacific Bell Telephone Co. v. Linkline Communications, Inc.*, 129 S. Ct. 1109, 1116 (2009) (“Simply possessing monopoly power and charging monopoly prices does not violate § 2”).

¹⁰⁰ *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966).

¹⁰¹ U.S. DEP’T OF JUSTICE, *supra* note 19, at 12-13.

¹⁰² *Id.* at 13.

¹⁰³ *Id.* at 33.

¹⁰⁴ *Id.* at 36-47; IRVING SCHER AND SCOTT MARTIN, ANTITRUST ADVISER §2:11 (discussing the use of direct expressions of the defendant’s intent as evidence of anticompetitive conduct) (citing *Continental Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690, 699, 82 S. Ct. 1404, 8 L. Ed. 2d 777 (1962); *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254 (3d Cir. 2012), cert. denied, 133 S. Ct. 2025, 185 L. Ed. 2d 886 (2013); *McWane, Inc. v. F.T.C.*, 783 F.3d 814, 840 (11th Cir. 2015)).

¹⁰⁵ Srinivasan, *supra* note 39.

obtain higher profits. In fact, one of Facebook's early strategies to compete with MySpace was to present itself as a privacy-centered alternative.¹⁰⁶

Srinivasan describes two key examples that demonstrate Facebook's initial responsiveness to user privacy concerns prior to its monopolization of the market. The first example concerned Facebook's rollout of Beacon in 2007. Beacon was a program intended to increase ad revenue, but which required lower privacy standards and surveillance across sites other than Facebook.¹⁰⁷ Although Facebook claimed that without a user's consent, it did not track the user's activity, that claim was shown to be false.¹⁰⁸ After user outcry and the competitive pressure from other social media services like MySpace and Bebo, Facebook terminated Beacon.¹⁰⁹ The second example was Facebook's introduction of social plugins in 2010. Like Beacon, social plugins enabled Facebook to collect data across partner sites.¹¹⁰ Again, Facebook maintained that the social plugins were not used to track user activity across the partner sites.¹¹¹ However, once that claim was shown to be false and that Facebook was indeed using the social plugins to surveil users, social outcry caused Facebook to discontinue the program, as occurred with the rollout of Beacon.¹¹²

By 2014, Facebook's former competitors had exited the market, and Facebook had effectively established its monopoly. Facebook proceeded to deceptively reverse privacy policies instituted from 2004 to 2012, in spite of clearly-expressed user preference for stronger privacy protections. For example, Facebook reinstituted social plugins, established unique user IDs and re-identification technology to track user activity across the web, and ignored Do Not Track settings¹¹³ - all while subtly eliminating the possibility for users to vote on privacy changes.¹¹⁴ Thus, Facebook's monopoly power allowed it to deteriorate user privacy in order to extract valuable user data without the risk that users would flee to more privacy-oriented competitors. While there exists a circuit split on whether deceptive conduct, such as false advertising,

¹⁰⁶ *Id.* at 48.

¹⁰⁷ *Id.* at 56-58.

¹⁰⁸ *Id.* at 57-58.

¹⁰⁹ *Id.* at 60.

¹¹⁰ *Id.* at 63-64.

¹¹¹ *Id.* at 64.

¹¹² *Id.* at 65-67.

¹¹³ *Id.* at 73-81.

¹¹⁴ *Id.* at 94.

constitutes anticompetitive behavior,¹¹⁵ several antitrust cases have been premised on such behavior,¹¹⁶ including the FTC's antitrust case against Intel in 2009.¹¹⁷

2. Depreciation of APIs

Facebook's second course of anticompetitive conduct relates to its granting and subsequent revocation of applications programming interfaces (APIs) to third-party application developers. Facebook initially granted third-party application developers APIs, which allowed the developers to access Facebook's network. This arrangement was mutually beneficial. Facebook was able to innovate on its platform by offering more applications without expending the resources to develop the applications, engage and attract more users to its platform, leading to more ad revenue, and charge the third-party developers for access to its network. In turn, by having access to Facebook's formidable network, the third-party developers were able to expand the reach of their applications.

After granting access to its network to third-party application developers to remain competitive with other mobile applications, Facebook then revoked the APIs that granted the access. As explained in a recent class-action lawsuit filed against Facebook:

Removing access to these APIs halted the growth of tens of thousands of third-party applications that relied on these essential APIs and were, in Facebook's view, threatening Facebook's dominance by eroding the [social data barrier to entry] that protected Facebook's business. Facebook's plan prevented any competitive third-party application from buying social data from Facebook, either through its Platform APIs or through its advertising Platform. . . . Facebook thus refused to sell its social data to any competitive third-party developer, sacrificing significant profits in exchange for a competitive advantage in the Social Data and Social Advertising markets. If not for the prospect of driving these competitors out of the markets in which Facebook competed, the decision to refuse to sell social data to third-party developers made no economic, technical, or business sense. Third-party developers with successful applications increased the value of Facebook's overall network by increasing engagement and generating the very Social Data Facebook sold through its targeted advertising channels, including to developers. . . . Refusing API and social data access to third parties meant that they could not develop the applications that were vital to Facebook's growth, engagement, and advertising revenue. Facebook decided to deliberately sacrifice the value its third-party developers provided to secure dominance in the Relevant Markets.¹¹⁸

¹¹⁵ See, e.g., Brief of Law Professors and Economics Professors as Amici Curiae in Support of Petitioners at 4-10, *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, No. 16-953 (5th Cir. Feb. 28, 2017).

¹¹⁶ See e.g., *Caribbean Broad. Sys., Ltd. v. Cable & Wireless P.L.C.*, 148 F.3d 1080, 1082 (D.C. Cir. 1998).

¹¹⁷ See Complaint in the Matter of Intel Corp., Case 0610247 (F.T.C. 2009) (No. 9341); Decision and Order in the Matter of Intel Corp. No. 9341 (F.T.C. 2009); see also Srinivasan, *supra* note 39, at 93.

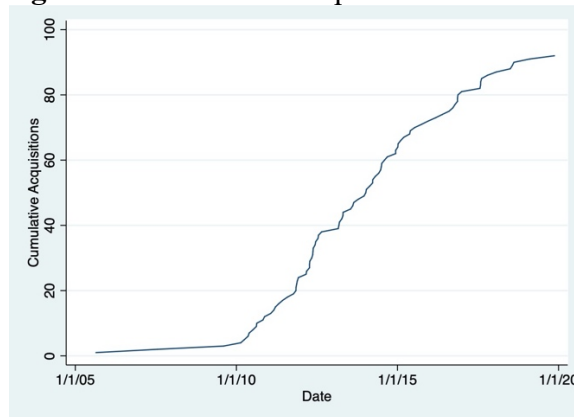
¹¹⁸ Class Action Complaint at 32, *Reveal Chat Holdco LLC v. Facebook, Inc.*, No. 3:20-cv-363 (N.D. Cal. Jan. 16, 2020).

Facebook’s course of conduct is anticompetitive. Although *Trinko* established that a monopoly does not have a duty to aid its competitors,¹¹⁹ a significant exception exists from *Aspen Skiing*.¹²⁰ Under *Aspen Skiing*, a firm cannot terminate a profitable course of business for no reason other than to harm a competitor.¹²¹ Facebook’s API strategy with the third-party application developers was profitable. Its subsequent termination of a preexisting course of business to prevent the application developers from creating platforms that could rival Facebook’s was therefore anticompetitive under *Aspen Skiing*.

3. Acquisitions

Our third theory of harm is that Facebook has injured competition by serially identifying and acquiring nascent competitors in order to maintain its dominant position. The Thurman Arnold Project compiled data on Facebook’s acquisitions from several different databases and cross-referenced it with a recently published article by Tim Wu and Stuart Thomas.¹²² Based on this analysis, **Figure 3** shows that Facebook acquired somewhere between 92 and 102 firms between 2003 and 2019. Of those firms, TAP concluded that between 32 and 46 of the acquired firms may be fairly characterized as competitors of Facebook. Facebook’s acquisitions range widely in their product offerings, but they are most commonly in the packaged software or internet software/services industries.

Figure 3. Facebook’s Acquisitions over Time



Facebook has received antitrust scrutiny over many of these acquisitions – especially its high-profile acquisitions of Instagram in 2012 and WhatsApp in 2014. Traditionally, mergers and acquisitions are challenged under Section 7 of the Clayton Act, which prohibits mergers and acquisitions where “the effect of such acquisition may be substantially to lessen competition, or

¹¹⁹ *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 410 (2004).

¹²⁰ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

¹²¹ *Id.* at 603-04; *see also* *FTC v. Qualcomm Inc.*, 411 F.Supp.3d 658, 758 (N.D. Cal. 2019).

¹²² Tim Wu and Stuart A. Thompson, *The Roots of Big Tech Run Disturbingly Deep*, N.Y. TIMES, June 7, 2019, <https://www.nytimes.com/interactive/2019/06/07/opinion/google-facebook-mergers-acquisitions-antitrust.html>. Other databases we used include CapitalIQ, Factset, and Techwyse. The spreadsheet is on file with the authors.

to tend to create a monopoly.”¹²³ But antitrust enforcers have not used Section 7 to challenge any of Facebook’s acquisitions.

There are several reasons why enforcers might have trouble using Section 7 to regulate Facebook’s acquisitions. First, many of these acquisitions fall below the Hart-Scott-Rodino threshold, meaning they do not need to be reported to the FTC or DOJ for pre-merger review. Even when they are reported, Section 7 analysis tends to focus on ongoing competition between the acquiring and acquired firm (prior to the acquisition), whereas a nascent competitor, by definition, does not yet compete with the incumbent acquiring firm.¹²⁴ Further, it is exceptionally difficult to show that a given acquisition of a nascent competitor will substantially lessen competition in violation of Section 7. Finally, enforcers often are unable to avail themselves of their most powerful tool under Section 7: the “structural presumption.” The structural presumption in merger cases shifts the burden of proof from the plaintiffs to the defendants upon a showing that the transaction will increase the Herfindahl-Hirschman Index (HHI) score by more than 200 points and leave the relevant market with an HHI above 2500.¹²⁵ But the structural presumption may not be available in challenging Facebook’s acquisitions both because acquiring nascent competitors may not sufficiently increase the HHI score, and because market definition is notoriously difficult in digital platform markets. Thus, a dominant incumbent like Facebook can make a series of acquisitions that less competition in the aggregate without receiving a challenge to any individual acquisition.¹²⁶

For antitrust enforcers to use Section 7 to challenge Facebook’s serial acquisition of nascent competitors, they will need to develop novel legal arguments. One proposed solution is for courts to give a structural presumption to plaintiffs challenging an incumbent acquisition of a nascent competitor.¹²⁷ An alternative proposal is to allow enforcers a stronger ability to conduct

¹²³ 15 U.S.C. §18 (2012).

¹²⁴ In particular, establishing a presumption of illegality in a Section 7 case requires showing that the acquiring and acquired firm must operate in the same product market. C. Scott Hemphill, *Disruptive Incumbents: Platform Competition in an Age of Machine Learning*, 119 COLUM. L. REV. 1973, 1988 (2019) (citing *United States v. Phila. Nat’l Bank*, 374 U.S. 321, 363 (1963)). Hemphill argues that without the presumption of illegality component, a Section 7 analysis would “roughly track the Section 2 inquiry in substance.” *Id.* at 1989 n.111.

¹²⁵ U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, *supra* note 13, at 19.

¹²⁶ Jeffrey M. Wilder, Acting Deputy Assistant Attorney General, U.S. Department of Justice Antitrust Division, Potential Competition in Platform Markets, Remarks as Prepared for the Hal White Antitrust Conference (June 10, 2019), <https://www.justice.gov/opa/speech/acting-deputy-assistant-attorney-general-jeffrey-m-wilder-delivers-remarks-hal-white>.

¹²⁷ See Doni Bloomfield, *Getting to “May be”*, (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3589820. Cf. Wilder, *supra* note 141, at 2-3 (expressing concern that if the burden of proof is shifted to defendants, innovation by entrepreneurs who had innovated with the plan of being acquired by dominant incumbents may be stifled.), <https://www.justice.gov/opa/speech/acting-deputy-assistant-attorney-general-jeffrey-m-wilder-delivers-remarks-hal-white>.

stronger post-closing merger reviews and require merging firms to write a “living will” break-up plan in the case that the merger turned out to be anticompetitive.¹²⁸

Given the difficulty using Section 7 to challenge Facebook’s acquisitions, some have proposed using Section 2 of the Sherman Act instead.¹²⁹ These commentators point to the *Microsoft* for support that Section 2 encompasses acquisitions of nascent competitors. In *Microsoft*, the D.C. Circuit found that “it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will.”¹³⁰

Section 2 has several advantages over Section 7 if applied to acquisitions of nascent competitors. Hemphill identifies three such advantages:

First, the competitive threat posed by the target need not be fully fledged . . . the relevant question is whether the targets “reasonably constitut[e] nascent threats.” Second . . . the target need not operate in the same market as the monopolist . . . Third, monopolizing conduct can take the form of collaboration rather than pure exclusion.¹³¹

Section 2 also has the advantage of being able to address the larger pattern of conduct rather than being restricted to considering a specific merger or acquisition.¹³² For example, the Tenth Circuit’s decision in *Aspen Skiing* held that each of six potentially anticompetitive practices that the defendant had engaged in might be insufficient to support a §2 claim, but in the aggregate they could support such a claim.¹³³ The Areeda and Hovenkamp treatise concurs with this reasoning:

In a monopolization case conduct must always be analyzed “as a whole.” A monopolist bent on preserving its dominant position is likely to engage in repeated and varied exclusionary practices. Each one viewed in isolation might be viewed as de minimis or an error in judgment, but the pattern gives increased plausibility to the claim.¹³⁴

¹²⁸ See Melody Wang, *Unscrambling the Eggs: How to Restore Competition When Harmful Mergers Have Closed* (forthcoming) (on file with authors).

¹²⁹ See, e.g., Hemphill, *supra* note 124; Terrell McSweeney & Brian O’Dea, *Data, Innovation, and Potential Competition in Digital Markets—Looking Beyond Short-Term Price Effects in Merger Analysis*, ANTITRUST CHRONICLE 5-7 (Competition Policy International, Feb. 2018).

¹³⁰ *United States v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001) (en banc) (per curiam).

¹³¹ Hemphill, *supra* note 124, at 1985.

¹³² See Wilder, *supra* note 126, at 4-5; Hemphill, *supra* note 124, at 1987.

¹³³ PHILLIP E. AREEDA (LATE) & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶310c7. (4th Edition 2013-2018) (citing *Aspen Highlands Skiing Corp. v. Aspen Skiing Co.*, 738 F.2d 1509, 1517 (10th Cir. 1984), *aff’d on other grounds*, 472 U.S. 585 (1985)).

¹³⁴ *Id.* at ¶310.

The Supreme Court’s reasoning in *Continental Ore* and D.C. District Court dicta in *Microsoft* provide further support for the argument that a pattern of anticompetitive conduct could amount to a Section 2 violation where each act in isolation might otherwise be found lawful.¹³⁵

If enforcers choose to use Section 2 to challenge Facebook’s mergers, they can borrow a tool from “pay-for-delay” cases in the pharmaceutical industry by using the price paid to show market power. As noted above, market definition is not necessary in Section 2 cases if the plaintiff can provide “direct evidence” of market power. The Supreme Court recognized that the size of a reverse settlement payment in “pay-for-delay” cases could be used to show market power.¹³⁶ The principle is that

[i]n a competitive market, the value of keeping a competitor out is close to zero, but becomes higher as price-cost margins increase. Further, in these cases the duration of the monopoly is not infinite but is limited by the remaining duration of the patent. A rational patentee would pay no more than the anticipated value of monopoly returns over the remaining period, so a large payment surely indicates power. Indeed, this form of more “direct” measurement is probably a better estimator of power than traditional market definition approaches.¹³⁷

In a sense, these payments can be a form of monopoly rent-sharing, akin to a situation in which two firms form a cartel, but one shuts down its operations and the other compensates it out of its monopoly rents.¹³⁸ The same basic principles apply to Facebook’s acquisitions of nascent competitors. The size of the payment indicates both Facebook’s existing monopoly power (and thus the size of the monopoly rents that it risks losing), and its estimated likelihood that the acquired firm would successfully capture market share absent the acquisition. We would expect Facebook to overpay to acquire firms that they consider to be potential threats to their monopoly power. By acquiring a smaller potential competitor, Facebook is able to share a fraction of its monopoly profits and end up in a better position than if it were to risk losing market share to an innovative competitor.

¹³⁵ See *Id.* at ¶310a (citing *Continental Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690 (1962) (“It is apparent . . . that the Court of Appeals approached Continental’s claims as if they were five completely separate and unrelated lawsuits. We think this was improper. In cases such as this, plaintiffs should be given the full benefit of their proof without tightly compartmentalizing the various factual components and wiping the slate clean after scrutiny of each.” . . . [T]he character and effect of a conspiracy are not to be judged by dismembering it and viewing its separate parts, but only by looking at it as a whole”)); *Id.* at ¶310 n.43 (citing (*United States v. Microsoft*, 87 F. Supp. 2d 30, 44 (D.D.C. 2000), *aff’d in part, rev’d in part*, 253 F.3d 34 (D.C. Cir.), *cert.denied* 534 U.S. 952 (2001) (“Only when the separate categories of conduct are viewed, as they should be, as a single, well-coordinated course of action does the full extent of the violence that Microsoft has done to the competitive process reveal itself”)). *But see Id.* at ¶310b (citing *Matsushita Elec. Indus. Co., Inc. v. Zenith Radio Corp.*, 475 U.S. 574 (1986)).

¹³⁶ See *F.T.C. v. Actavis, Inc.*, 570 U.S. 136, 157 (2013) (“the “size of the payment from a branded drug manufacturer to a prospective generic is itself a strong indicator of power”—namely, the power to charge prices higher than the competitive level.) (quoting 12 PHILLIP AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 2046 (3d ed. 2012)).

¹³⁷ AREEDA & HOVENKAMP, *supra* note 133, at ¶2045.

¹³⁸ *Id.*

Courts should approach with skepticism the inevitable claims that a given acquisition of a nascent competitor has merger-specific efficiencies that outweigh its anticompetitive effects. Facebook has both a strong incentive and ability to acquire smaller firms solely or primarily for the purpose of squashing competition in its incipiency. The “leapfrog competition” nature of the digital platforms market heavily incentivizes Facebook to take advantage of its dominant position to stifle nascent competitors. Unlike many other markets that can support multiple competitors at once, the market for digital platforms is prone to “tipping” in that it appears to be “winner-take-all” or at least “winner-take-most.”¹³⁹ Nascent competitors may therefore be one of the only real sources of competition for Facebook. As the Stigler Center notes, “[a]cquisition by a dominant platform of a much smaller and possibly nascent firm could be very damaging to competition if, absent the acquisition, the smaller firm would develop into a major competitive threat or would lead to significant change in the nature of the market.”¹⁴⁰ Thus the development of a nascent competitor into a fully-fledged competitor may pose an existential risk to Facebook. As the Stigler Center notes, “potential competition from very small entrants may be the most important source of competition faced by the incumbent.”¹⁴¹

Facebook’s incentive to identify and squash nascent competitors is heightened in a wide variety of tech industries because of the high “product plasticity” that characterizes many innovative technologies. In fact, nascent competitors will often sell themselves to investors as complements to digital platforms like Facebook because it makes the investment appear less risky, even if the nascent competitor could one day become a substitute for Facebook. Tech companies’ ability to quickly pivot or expand to other technology markets makes many different products potential competitors, incentivizing Facebook to acquire or drive out small firms which, at the time of purchase, do not offer a competing product or service.

This incentive is especially dangerous with incumbent firms like Facebook that are well-positioned to stifle nascent competition. Facebook’s superior access to various resources allows it to either acquire nascent competitors or quickly develop analogous products. Facebook in particular has a strong ability to identify nascent competitive threats, due in part to its 2013 acquisition of the mobile analytics company Onavo Mobile Ltd.¹⁴² Given that Facebook has the incentive and ability to identify and acquire nascent competitors, and that it has aggressively acquired smaller tech firms over the past decade, enforcers can present a persuasive narrative that Facebook has engaged in a broad strategy of predatory acquisitions intended to stifle competition and maintain their monopoly power.

Two of Facebook’s most controversial acquisitions were Instagram in 2012 and Whatsapp in 2014. In arguing that Facebook had behaved anticompetitively through its predatory

¹³⁹ STIGLER CENTER, *supra* note 30, at 67.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² FREEMAN & SYKES, *supra* note 89, at 30 n.218.

acquisitions, enforcers should highlight these acquisitions. Below we present evidence that Facebook's acquisitions of Instagram and Whatsapp meet the second part of the Section 2 test.

1. Instagram

Whether Facebook's acquisition of Instagram has harmed consumer welfare by reducing competition in the social media and photo sharing service industries turns largely on the likelihood of Instagram's future as a competitor of Facebook absent the acquisition. If Instagram would have been a viable alternative, Facebook would have been forced to compete by offering a better quality product, which may have included better privacy practices, fewer advertisements, and increased innovation. Facebook characterizes Instagram as a firm with an uncertain future, having only 30 million users and zero revenue when it was acquired by Facebook.¹⁴³ But evidence indicates that Instagram had a high chance of succeeding even if it had not been acquired by Facebook.

As discussed above, social media markets are prone to "tipping." As a result, social media sites that become successful usually experience rapid growth over a short period of time. This was the case with Instagram as indicated in **Figure 4**.

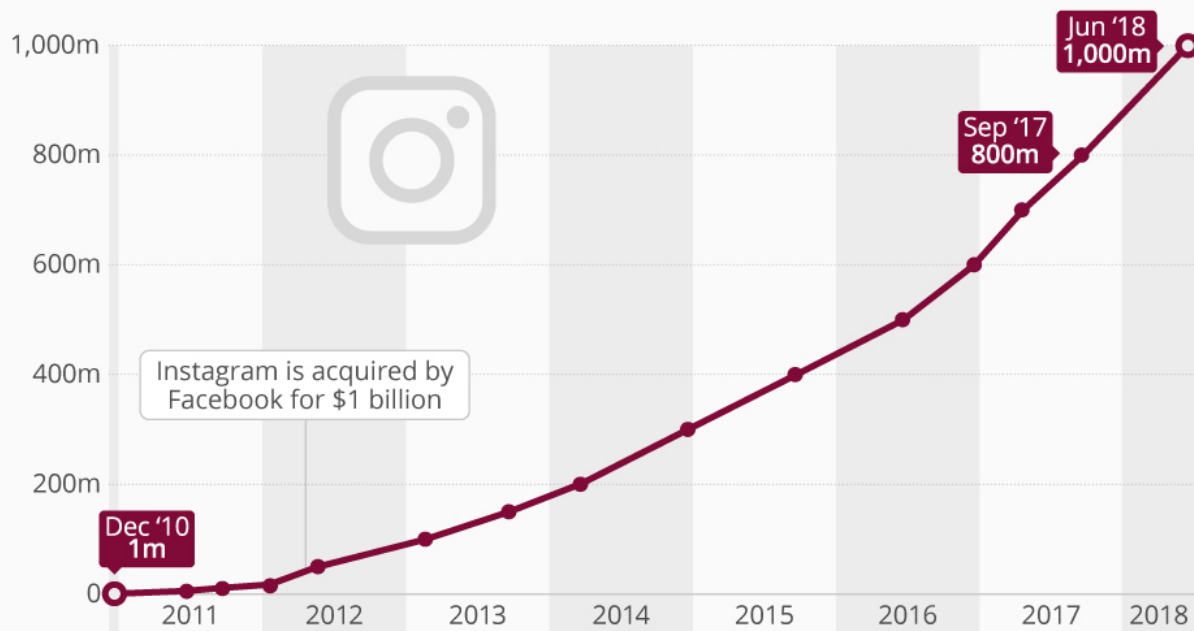
Figure 4. Instagram's Growth over Time¹⁴⁴

¹⁴³ B. RAJESH KUMAR, WEALTH CREATION IN THE WORLD'S LARGEST MERGERS AND ACQUISITIONS: INTEGRATED CASE STUDIES 322 (2019), <http://link.springer.com/10.1007/978-3-030-02363-8> (last visited Dec 31, 2019).

¹⁴⁴ Felix Richter, *Instagram's Rise to 1 Billion*, STATISTA, (Jun 21, 2018), <https://www.statista.com/chart/9157/instagram-monthly-active-users/>.

Instagram's Rise to 1 Billion

Instagram's worldwide monthly active users



@StatistaCharts Source: Instagram

statista

Several pieces of evidence suggest that Instagram would have been successful independent of Facebook. During the year it was acquired, Instagram's user growth rate was outpacing Facebook's growth rate in its prime.¹⁴⁵ Instagram was both more popular on- and better designed for - use on mobile devices.¹⁴⁶ This preceded an explosion in the use of mobile devices to access social media. By 2015, 80% of time spent on social media was done so on mobile devices.¹⁴⁷ Facebook will argue that Instagram would not have been successful without its acquisition. But as Hemphill points out, Instagram had several alternative sources of funding at its disposal, including a \$525 million acquisition offer from Twitter.¹⁴⁸

¹⁴⁵ Tim Wu, *The Case for Breaking Up Facebook*, WASH. POST, Sep. 28, 2018.

¹⁴⁶ Nicholas Carlson, *Instagram Was Facebook's Biggest Threat*, BUSINESS INSIDER (Apr 9, 2012), <https://www.businessinsider.com/instagram-was-facebooks-biggest-threat-2012-4>

¹⁴⁷ COMSCORE, CROSS-PLATFORM: FUTURE IN FOCUS 30 (2016), <https://www.comscore.com/Insights/Presentations-and-Whitepapers/2016/2016-US-Cross-Platform-Future-in-Focus>.

¹⁴⁸ Hemphill, *supra* note 124, at 1987; Jay Yarow Smith Kevin, *REPORT: Twitter Offered To Buy Instagram for \$525 Million, Contrary to Testimony from Instagram's CEO*, BUSINESS INSIDER, 2012, <https://www.businessinsider.com/twitter-offered-to-buy-instagram-for-525-million-2012-12> (last visited Jan 15, 2020).

Enforcers could also present as evidence internal documents and testimony indicating that Facebook intended to acquire Instagram out of fear that it would develop into a viable competitor. Recent articles indicate that former employees of Facebook may be willing to testify that the intent behind Facebook’s acquisition of Instagram was not to stifle a nascent competitor, but rather to help the company better compete with Twitter and Google+. ¹⁴⁹ On the other hand, a top Facebook official released an internal document stating that Facebook acquired Instagram to “eliminate a potential competitor” ¹⁵⁰ Discovery could compel Facebook to produce further internal documents explaining the intent behind its acquisition of Instagram. If these documents show predatory intent, they have the potential to provide powerful support for the Section 2 case against Facebook. ¹⁵¹

2. Whatsapp

Facebook’s acquisition of Whatsapp displays many of the characteristics of an acquisition designed to stifle a nascent competitor identified above. It is easy to see why enforcers would choose not to challenge this acquisition. At the time of acquisition, Whatsapp brought in a mere \$20 million in annual revenue by charging a \$1 subscription in certain countries and lacked an alternative revenue model. ¹⁵² It may also have appeared that Whatsapp was not a direct competitor to Facebook because it offered messaging services rather than social media services. The FTC’s decision not to challenge the Whatsapp acquisition reflects the inherent uncertainty in the technology industry about whether firms are – or might become – competitors.

Despite this uncertainty, there is substantial evidence that Facebook’s acquisition of Whatsapp eliminated one of Facebook’s primary nascent competitors. At the time of acquisition WhatsApp had over 600 million monthly active users. This large pre-installed user base positioned it to overcome the network effects that kept other firms from entering the social media market. Whatsapp was also growing at a rapid pace as indicated by **Figure 5**. And like Instagram, Whatsapp was better adapted than Facebook to the quickly growing mobile device segment.

Figure 5. WhatsApp’s Growth Over Time ¹⁵³

¹⁴⁹ Salvador Rodriguez, *As Calls Grow to Split Up Facebook, Employees Who Were There for the Instagram Acquisition Explain Why the Deal Happened* CNBC, Sep. 24, 2019, <https://www.cnbc.com/2019/09/24/facebook-bought-instagram-because-it-was-scared-of-twitter-and-google.html>; Salvador Rodriguez, *Facebook Exec Behind \$1 Billion Instagram Acquisition Goes on Defensive as Antitrust Probes Heat Up*, CNBC, Nov. 14, 2019, <https://www.cnbc.com/2019/11/14/facebooks-head-of-ma-recounts-1-billion-instagram-acquisition.html>.

¹⁵⁰ Josh Kosman, *Facebook Boasted of Buying Instagram to Kill the Competition: Sources*, N.Y. POST Feb. 26, 2019, <https://nypost.com/2019/02/26/facebook-boasted-of-buying-instagram-to-kill-the-competition-sources/>.

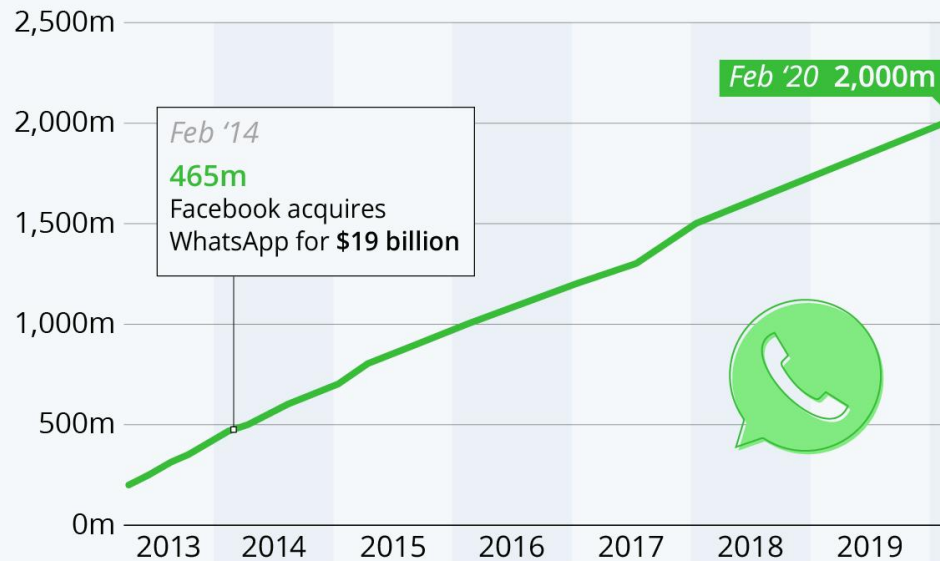
¹⁵¹ See *supra* n.104.

¹⁵² Parmy Olson, *Facebook Closes \$19 Billion WhatsApp Deal*, FORBES, 2014, <https://www.forbes.com/sites/parmyolson/2014/10/06/facebook-closes-19-billion-whatsapp-deal/>.

¹⁵³ Felix Richter, *WhatsApp Reaches 2 Billion Active Users*, STATISTA, (Feb 13, 2020), <https://www.statista.com/chart/4245/whatsapp-user-growth/>

WhatsApp Reaches 2 Billion Active Users

WhatsApp's monthly active users worldwide



Source: Company announcements



statista

Facebook appears to have leveraged its vast resources to identify and acquire Whatsapp out of a fear that it would develop into a fully-fledged competitor. Internal documents reveal that Facebook tracked Whatsapp using the Onavo technology. After determining that it was a competitive threat, Facebook acquired it for \$19 billion, \$9 billion higher than the next largest offer.¹⁵⁴ Internal documents leading up to Facebook's acquisition of Whatsapp can also be used to show Facebook's predatory intent.¹⁵⁵ Top executives are quoted as having described messaging apps as "trying to build social networks and replace us" and trying to "morph into Facebook."¹⁵⁶ The company's head of growth even stated that increased usage of mobile devices

¹⁵⁴ See Sam Schechner & Parmy Olson, *Facebook Feared WhatsApp Threat Ahead of 2014 Purchase, Documents Show*, Wall St. J., Nov. 06, 2019, <https://www.wsj.com/articles/facebook-feared-whatsapp-threat-ahead-of-2014-purchase-documents-show-11573075742>.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

alongside the rise of rival messaging apps was “the biggest competitive threat we face as a business.”¹⁵⁷

Enforcers can use the price that Facebook paid to acquire Whatsapp to demonstrate Facebook’s market power and the anticompetitive effects of the acquisition. In “pay-for-delay” pharmaceutical cases, overpaying to acquire a firm has been used as evidence to show that a firm is trying to share its monopoly profits to stave off a potential competitor. The premise is that both firms are better off splitting *monopoly* profits rather than splitting the lower *duopoly* profits that would result from competition. Facebook’s offer was a full \$9 billion higher than Google’s – indicating it may have overpaid to prevent Whatsapp from becoming a competitor.

Part III: Harms to Consumer Welfare

The last part of this paper discusses harms to consumer welfare that are the result of Facebook’s anticompetitive behavior. These harms include reduced quality of social media services and reduced innovation in the social media industry, as well as supracompetitive prices charged to advertisers.

A. Consumer: Innovation

Antitrust scholars have argued that innovation, even more than short-run price or quantity, is the primary determinant of consumer welfare.¹⁵⁸ Government agencies are in agreement that protecting innovation is a core goal of antitrust enforcement. For example, the DOJ and FTC’s Horizontal Merger Guidelines state that an agency may consider whether a merger is likely to diminish innovation.¹⁵⁹ The *Microsoft* case is a good example of how antitrust intervention against a dominant incumbent in the tech industry can unleash innovation.¹⁶⁰

Enforcers may have difficulty showing innovation harms from Facebook’s anticompetitive conduct because innovation, unlike price, is difficult to define and measure. They may rely on tools for measuring innovation that were developed for the merger context. The effects of a merger on a merged entity’s individual incentive to innovate is known as the “unilateral innovation effect” and can be measured by calculating the “innovation diversion ratio.”¹⁶¹ A merger may also lead to an increase in innovation by internalizing involuntary

¹⁵⁷ *Id.*

¹⁵⁸ AREEDA & HOVENKAMP, *supra* note 133, at ¶407.

¹⁵⁹ U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, *supra* note 13, at 23.

¹⁶⁰ Richard Blumenthal & Tim Wu, *What the Microsoft Antitrust Case Taught Us*, N.Y. TIMES, May 18, 2018, <https://www.nytimes.com/2018/05/18/opinion/microsoft-antitrust-case.html>. *But See*, James Pethokoukis, *The Microsoft Myth: We Shouldn’t Assume More Antitrust Will Give Us More Tech Innovation*, AMERICAN ENTERPRISE INSTITUTE: AEI IDEAS, March 14, 2019, <https://www.aei.org/economics/the-microsoft-myth-we-shouldnt-assume-more-antitrust-will-give-us-more-tech-innovation/>

¹⁶¹ Giulio Federico, Fiona Scott Morton, & Carl Shapiro, *Antitrust and Innovation: Welcoming and Protecting Disruption*, 20 INNOVATION POL’Y AND ECON. 125, 131-132 (2019).

spillovers, facilitating voluntary technology transfer between the merging firms, or by creating R&D synergies.¹⁶² These benefits to innovation must be merger-specific and must offset the reduction in innovation incentives and harm to market competition caused by the merger.¹⁶³

When Facebook acquires a nascent competitor there may be two effects on innovation. First, the threat that the nascent competitor poses to the dominant incumbent is lost, thereby reducing the incumbent's incentive to innovate.¹⁶⁴ Second, the product that the nascent competitor was developing may be aborted or altered by the merged entity, thereby depriving consumers of a new and innovative product.¹⁶⁵ These concerns also arise from Facebook's exclusionary conduct. For example, Facebook's exclusion of Vine through its depreciation of its APIs both stifled Vine's innovative product and reduced Facebook's incentive to innovate to defend against Vine's competition.¹⁶⁶

The merger's negative effect on innovation may be exacerbated by unilateral price effects from the merger.¹⁶⁷ If Firm A is able to increase the price of its product (Product A) after merging with Firm B, it will have a lower incentive to develop Firm B's product if developing that product would divert consumers away from the now more profitable Product A.¹⁶⁸

B. Consumer: quality-adjusted price

Aside from innovation, consumers have also suffered from Facebook's abuse of market power through increased quality-adjusted price. As discussed above, quality and price are interdependent elements of a product for which economists have developed the quality-adjusted price metric. Although product quality may be difficult to define and measure, it is still a vital and widely recognized component of consumer welfare.¹⁶⁹ Facebook's violations of user privacy are a form of quality degradation that is cognizable under the antitrust statutes. Facebook users also experience a variety of cognitive and behavioral harms.

1. Privacy

Section II.A.1 discusses the misrepresentation and ultimate degradation of privacy features on the Facebook platform as evidence of anticompetitive conduct. When Facebook was

¹⁶² *Id.* at 133-134.

¹⁶³ *Id.* at 135.

¹⁶⁴ *Id.* at 150.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* at 153.

¹⁶⁷ *Id.* at app. A.

¹⁶⁸ i.e., the innovation diversion ratio will be higher.

¹⁶⁹ See generally OECD, THE ROLE AND MEASUREMENT OF QUALITY IN COMPETITION ANALYSIS, (2013), <http://www.oecd.org/competition/Quality-in-competition-analysis-2013.pdf>.

competing for consumers, it misrepresented its commitment to user privacy in order to gain and preserve market share; once it achieved market dominance, Facebook quickly dispensed with such commitments.

The erosion of privacy protections is not merely a consumer protection harm: it is an antitrust harm as well. Though the current social media market contains few-to-no privacy-protective offerings, this is not because consumers overwhelmingly *prefer* privacy-invasive services. Rather, Facebook's market dominance, coupled with consumer difficulty of adequately pricing privacy controls, precludes it from having to compete for users on the basis of privacy.¹⁷⁰ In Frank Pasquale's analysis, "consumers have little to no real choice in the matter because the dominant services are so superior to also-ran competitors. Dominant firms see little to no reason to compete to improve their privacy practices when users are so unlikely to defect."¹⁷¹ Moreover, market interactions between social media platforms and users are not one-time, discrete interactions but rather continuous transactions; consumers may find it difficult to adequately understand the "price" of their data and instead are biased towards under-estimating price.¹⁷²

Facebook's expansive collection of user data extends beyond the primary platform. Facebook's third-party plugins facilitate collection of user data on external sites that allow for users to create accounts linked to their Facebook identities. Facebook's data collection raises the quality-adjusted price of these third party sites, as users must expose more of their personal data for the same services.¹⁷³

Consumers value their privacy, yet the underlying market conditions--namely, the absence of more privacy-protective alternatives, the difficulty of accurately assessing price during the long term "transactions" between the user and the platform, and the pervasiveness of Facebook third-party plugins--deprive Facebook users of meaningful alternatives.

2. Consumer Experience of Advertisements

In addition to privacy degradation, Facebook's anticompetitive conduct has also allowed it to decrease the quality of its service based on the advertisements it displays. The sheer saturation of advertisements itself constitutes a harm to consumers' experience.¹⁷⁴ There is a well-documented inverse relationship between advertising exposure and consumer

¹⁷⁰ Frank Pasquale, *Privacy, Antitrust, and Power*, 20 GEO. MASON L. REV. 1009 (2013).

¹⁷¹ *Id.* at 1022.

¹⁷² See generally Jan Whittington & Chris J. Hoofnagle, *Unpacking Privacy's Price*, 90 N.C. L. REV. 1327 (2012).

¹⁷³ Giuseppe Colangelo & Mariateresa Maggolino, *Data Accumulation and the Privacy-Antitrust Interface: Insights from the Facebook case for the EU and US*, (Stanford-Vienna Transatlantic Tech. L. F., Working Paper No. 31, 2018).

¹⁷⁴ INTERIM REPORT, *supra* note 25, at 57, 225.

satisfaction.¹⁷⁵ Almost every aspect of Facebook now has ads, including the News Feed, Facebook Stories, the sidebar, Facebook Watch, and Facebook Marketplace. On the News Feed, ad saturation has reached a point where there is now an ad after every four to five organic posts. And consumers have noticed – one survey found that 74% of social media users think there are too many ads, and 63% of users said that their ads were repetitive.¹⁷⁶ These ads saturate not only the consumer’s experience of Facebook, but her experience of large parts of the web, as Facebook continues to use its proprietary targeting data to serve her ads on its affiliated properties and third-party ad partner websites. There are a few effects: first, the quality of the consumer’s experience of the good is harmed by the high level of advertising she is exposed to. Secondly, the quality of the consumer’s experience of *other* Web products is harmed: continuing to see highly-targeted Facebook ads on non-Facebook properties degrades the experience of the consumer engaging in that content as well.

Consumers also report that online advertisements have generally become more intrusive.¹⁷⁷ On Facebook, ads are increasingly difficult to distinguish from organic content. **Figure 6.** shows an example of sponsored content that looks almost identical to organic content, with the word “sponsored” in light grey. Many ads are also inconvenient, forcing users to scroll down to access content they came to the platform seeking. Facebook allows ads to autoplay, seizing the users’ attention.

¹⁷⁵ *Id.* at 197; John Koetsier, *Only 17 of Consumers Believe Personalized Ads Are Ethical, Survey Says*, FORBES (Feb. 9, 2019), <https://www.forbes.com/sites/johnkoetsier/2019/02/09/83-of-consumers-believe-personalized-ads-are-morally-wrong-survey-says>.

¹⁷⁶ Jon Gitlin, *74% of People Are Tired of Social Media Ads - But They’re Effective*, SURVEYMONKEY, <https://www.surveymonkey.com/curiosity/74-of-people-are-tired-of-social-media-ads-but-theyre-effective/>. See Taylor Peterson, *Facebook Ads Aren’t What They Used to Be, So It’s Time for Smarter Social Ad Buying*, MARKETING LAND (June 11, 2019), <https://marketingland.com/facebook-ads-arent-what-they-used-to-be-so-its-time-for-smarter-social-ad-buying-262372>; Leanne Luce, *How Can Marketers Deal with an Oversaturated Digital Space? Turn Back to Physical Products*, ADWEEK (Aug. 2, 2018), <https://www.adweek.com/brand-marketing/how-can-marketers-deal-with-an-oversaturated-digital-space-turn-back-to-physical-products/>; *Overcoming Ad-Oversaturation: How Brands Can Stand Out and Build Relationships*, SOCIAL MEDIA NEW ZEALAND (Mar. 15, 2018), <https://socialmedianz.com/opinion2/2018/03/15/overcoming-ad-oversaturation-how-brands-can-stand-out-and-build-relationships/>.

¹⁷⁷ Melanie Mohr, *Ads are Becoming More Intrusive in 2019*, MEDIUM, Jan. 21, 2019, <https://medium.com/utopiapress/ads-are-becoming-more-intrusive-in-2019-5908d28db1e2>; Mimi An, *Why People Block Ads (And What It Means for Marketers and Advertisers)*, HUBSPOT, <https://blog.hubspot.com/marketing/why-people-block-ads-and-what-it-means-for-marketers-and-advertisers>.

Figure X. Facebook Advertisement Resembling Organic Content



Consumers also find that ads are poorly targeted and irrelevant to their interests, further degrading their experience on the platform. Data from various lawsuits show that Facebook users are routinely being served ads that based on demographic or other information, are unlikely to be relevant to their interests.¹⁷⁸ The irrelevance of ads – defined as ads which they are unlikely to be informed by and whose products they are statistically unlikely to purchase – damages the quality of the user experience.

3. Cognitive harms

Facebook inflicts cognitive costs on consumers by intentionally and unintentionally making them experience thoughts and emotions that, given a choice, they would prefer not to experience; or for which, in a competitive market, they would prefer to be compensated. Those include, among others, emotional manipulation and mental health problems.

¹⁷⁸ See, e.g., Complaint, Integrity Message Boards v. Facebook, Inc. (N.D. Cal. Aug 28, 2018)).

As far back as 2012, Facebook conducted an experiment on 689,003 of its users, aimed at testing whether the platform is capable of influencing what emotions its users experience, based on what content they are being displayed.¹⁷⁹ This capability is useful for Facebook given its business model. First, research suggests that the emotions we experience influence our engagement with content, including with ads. In particular, positive emotions lead to people “sharing” content more often; while negative emotions increase clicks on pages, including ads.¹⁸⁰ Second, the ability to influence users’ emotions leads to more data being generated. Jaron Lanier suggests that negative emotions like fear, anger and envy lead to people becoming more engaged, and reacting more to content than positive ones.¹⁸¹ Third, this ability can help Facebook make users spend more time on the platform.

Moreover, several studies suggest that Facebook (and other social media), increase the chance of experiencing psychological problems, including depression¹⁸² and feelings of loneliness.¹⁸³ Instilling such emotions in users need not be Facebook’s goal, but it does constitute an unintended and tolerated negative consequence. In a competitive market, if consumers did not like this side of the platform and had a choice, they could use social media of higher quality. Hence, negative emotions experienced by Facebook’s users as a side effect of using the platform constitute a lower quality of the product that could occur in a competitive market.

4. Behavioral harms

Facebook inflicts behavioral costs on its consumers by intentionally and unintentionally making them engage in conduct that they would prefer not to undertake, given a choice, or for which they would prefer to be compensated in a competitive market. This includes both “on the spot purchases” caused by Facebook’s ads; and spending more time on the platform than users would prefer to, including the possibility of addiction. Note that these costs are related, and to a certain extent depend upon the cognitive costs.¹⁸⁴

¹⁷⁹ See Adam D. Kramer, Jamie Guillory, Jeffrey T. Hancock, *Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks*, 111 PROC. NAT’L ACAD. SCI. 8788, <https://www.pnas.org/content/111/24/8788>.

¹⁸⁰ See Dan Baum, *How Emotion Influences Buying Behavior (And Marketers Can Use it)*, IMPACT, (April 13, 2017); <https://www.impactbnd.com/blog/emotion-influence-buying-behavior>; Peter Noel Murray, *How Emotions Influence What We Buy*, PSYCHOL. TODAY (February 26, 2013) <https://www.psychologytoday.com/us/blog/inside-the-consumer-mind/201302/how-emotions-influence-what-we-buy>.

¹⁸¹ See JARON LANIER, TEN ARGUMENTS FOR DELETING YOUR SOCIAL MEDIA ACCOUNTS RIGHT NOW 81-92 (2018).

¹⁸² See Denis Cambell, *Depression in girls linked to higher use of social media*, GUARDIAN (January 3, 2019) <https://www.theguardian.com/society/2019/jan/04/depression-in-girls-linked-to-higher-use-of-social-media>.

¹⁸³ See Melissa G. Hunt, Rachel Marx, Courtney Lipson, Jordyn Young, *No More FOMO: Limiting Social Media Decreases Loneliness and Depression*, 37 J. SOC. CLINIC. PSYCH. 751 (2018).

¹⁸⁴ For the longer discussion of various types of cognitive and behavioral costs that consumers need to endure as a result of Facebook’s business model, see Przemysław Pałka, *The World of Fifty (Interoperable) Facebooks* (February 2020) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3539792.

As Facebook's profits stem from advertising, it has an indirect incentive to prove that advertising through its channels increases sales. A *bona fide* way of proving that is documenting *actually* increasing sales (as opposed to lying about it to the advertisers, which is a separate problem). There is nothing inherently bad about increasing sales through ads, however, there are reasons to believe that ads in this environment sometimes lead consumers to engage in purchases *against* their preferences.

This last phenomenon has been theorized by economists under various labels, including “hyperbolic discounting” and “time inconsistency.”¹⁸⁵ Ramsi Woodcock argues that ads steering consumer behavior (given, among others, the possibility of on-the-spot purchases online) is potentially illegal under art. 2 of the Sherman Act.¹⁸⁶

Moreover, Facebook has incentives to have its users spend as much time on the platform as possible.¹⁸⁷ Acting upon that incentive through the design of the interface/newsfeed's algorithms might lead consumers to spend more time on the platform than they would otherwise choose to. Hence, service design increasing the engagement above the levels factually desired by the users constitutes a lower quality of the service. Finally, the unintended behavioral consequence of Facebook's activity might be social media addiction, demonstrated by researchers.¹⁸⁸

C. Advertisers

Facebook's abuse of its market power in the digital advertising market has led advertisers to pay supracompetitive prices for reduced-quality advertising services. Facebook markets its advertising service as a customizable service that can surgically target the relevant customers for a particular business. An advertiser purchasing ad space on Facebook can customize preferences such as the targeted user audience and campaign objective.¹⁸⁹

Facebook represents that an advertiser's daily spend budget, as it is set in the ad purchase portal, determines which users within the target audience will see the ad and when. But there is no transparency into Facebook's auction algorithm. There is no option for advertisers to precisely control how much money is spent each day. They can only set a maximum that may be spent each day. It is within Facebook's algorithmic discretion not to promote any of the

¹⁸⁵ See Geoffrey Heal, *Discounting: A Review of the Basic Economics*, 74 U. CHI. L. REV. 59 (2007); Matthew O. Jackson & Leeat Yariv, *Collective Dynamic Choice: The Necessity of Time Inconsistency*, 7 AMER. ECON. J. MICRO. 150 (2015).

¹⁸⁶ See Ramsi A. Woodcock, *The Obsolescence of Advertising in the Information Age*, 127 YALE L.J. 2204 (2017).

¹⁸⁷ See Jack M. Balkin, *Fixing Social Media's Grand Bargain* 4 (Hoover Working Grp. on Nat'l Sec., Tech. & Law, Aegis Series Paper No. 1814, 2018) (“The more digital companies know about people's emotional vulnerabilities and predispositions, the more easily they can structure individual end-user experience to addict end users to the site”).

¹⁸⁸ See Anindita Chakraborty, *Facebook Addiction: An Emerging Problem*, 11 AMER. J. PSYCHIATRY 7 (2016).

¹⁸⁹ BUY FACEBOOK ADS ON ANY BUDGET, <https://www.facebook.com/business/ads/pricing> (last visited May 31, 2020).

advertiser's campaign materials into users' feeds on a particular day. More crucially, there is no ability for the advertiser to understand, from Facebook, how their purchased service – ad targeting – is delivering the promised views and clicks.

There is evidence that Facebook does not deliver its targeting views and clicks as it promises in these materials. Several lawsuits have been filed alleging that Facebook does not deliver on its promises to effectively target ads. In one lawsuit, the plaintiff conducted a survey of over 2600 small businesses and found that Facebook was regularly showing advertisements to users who were *outside* the targeted demographic.¹⁹⁰ As much as 40% of the ads which these firms paid for were shown to users who did not match the particular characteristics the firms had specified in their initial ad purchases made through Facebook's own Ads Manager portal.¹⁹¹ Similar data abound for other small firms as well.¹⁹²

Facebook also charges high fees to its advertisers for its opaque and poorly targeted ad services. The average fee charged by a platform for ad placement is estimated at 18% of the total ad spend – for every \$100 spent on an advertising campaign, the platform service will retain \$18. But for small advertisers, Facebook retains 27% of ad spend on average.¹⁹³ Advertisers may pass on these costs in the form of higher prices to consumers. Though Facebook's rent-seeking may only increase consumer prices marginally for each individual consumer, in the aggregate, the downstream price increase resulting from high ad prices and ineffective targeting is large

The effect of Facebook's artificially high prices charged to advertisers is not limited to higher prices downstream. By charging high prices to other firms seeking to advertise on its platform, Facebook is indirectly harming the ability of those firms to put resources towards improving their products and engaging in innovative R&D.¹⁹⁴ Each extra dollar spent on an advertisement impression is a dollar which the advertising business could have spent elsewhere to promote or improve its business. represents a significant market inefficiency resulting from the Facebook monopoly. By sinking unnecessary money into Facebook advertising campaigns which are less effective than the platform claims, firms are not dedicating the time and resources to improving their core product in a way that would optimize consumer benefit. A theory of innovation harms that only accounts for Facebook's effects on the advertising market, and not its effect on the consumer economy more broadly, leaves out a large part of the platform's detrimental effects on the consumer experience.

¹⁹⁰ Complaint at 3, *Integrity Message Boards v. Facebook, Inc.* (N.D. Cal. Aug 28, 2018)).

¹⁹¹ *Id.*

¹⁹² See Joshua Sophy, *62% of Small Business Owners Say Facebook Ads Miss Their Targets*, *Weebly Reports*, SMALL BUSINESS TRENDS (Jan. 3, 2017), <https://smallbiztrends.com/2017/01/do-facebook-ads-work.html>; Muhammad Ali et al., *Discrimination Through Optimization: How Facebook's Ad Delivery Can Lead to Skewed Outcomes*, ARXIV (2019), <https://arxiv.org/pdf/1904.02095.pdf> (showing that Facebook sorts and targets ads based on creative and other components of the ad *regardless* of whether the advertiser specifies a targeting strategy).

¹⁹³ INTERIM REPORT, *supra* note 25, at 52.

¹⁹⁴ *Id.* at 57.

Finally, Facebook’s abuse of its market power in the digital advertising space reduces innovation in that industry itself. New firms cannot enter the market, and therefore are not innovating new advertising models that may better serve consumers. And because other firms are not entering the market to innovate, Facebook itself feels no pressure to innovate. Instead, Facebook’s recent moves in the ad space have been entirely directed towards protecting itself from legal liability (as when it removed mobile capability in the FAN network in response to regulatory action abroad) and collecting higher monopoly prices from advertisers (as when it changed its formula for calculating video advertising effectiveness).¹⁹⁵

D. News

Though the antitrust laws apply equally to all firms, regardless of industry, some jurists have recognized that the media’s centrality to healthy democratic discourse raises particular antitrust concerns. “[T]he widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public,” Justice Frankfurter wrote in his *Associated Press v. United States* concurrence, and “the incidence of restraints upon the promotion of truth . . . call[] into play considerations very different from comparable restraints in a cooperative enterprise having merely a commercial aspect.”¹⁹⁶ These “considerations” gain newfound salience as Facebook dominates the digital attention market, using news organizations’ content while siphoning away eyeballs and advertising revenue—creating an “Armageddon” for news outlet revenue in the process.¹⁹⁷

Our attention is a commodity,¹⁹⁸ and Facebook is claiming a large and increasing share of it—displacing the news organizations who create the news content that drives engagement. Over two-thirds of Americans get at least some of their news from social media; within that category, Facebook dominates, with 43% of Americans using it as a news source.¹⁹⁹ According to one metric, Facebook commands the second-highest attention share of any firm, trailing only News Corporation.²⁰⁰ By comparison, the *New York Times*, arguably the best-known news outlet in the

¹⁹⁵ Lara O’Reilly, *Facebook Will Shut Down Audience Network’s Mobile Arm*, DIGIDAY (Feb. 5, 2020), <https://digiday.com/media/facebook-plans-shut-facebook-audience-networks-mobile-web-arm/>; Alex Madrigal and Robinson Meyer, *How Facebook’s Chaotic Push Into Video Cost Hundreds of Journalists their Jobs*, ATLANTIC (Oct. 18, 2018), <https://www.theatlantic.com/technology/archive/2018/10/facebook-driven-video-push-may-have-cost-483-journalists-their-jobs/573403/>.

¹⁹⁶ *Associated Press v. United States*, 326 U.S. 1, 20, 28–29 (1945) (Frankfurter, J concurring).

¹⁹⁷ Matthew Ingram, *The Facebook Armageddon*, COLUM. JOURNALISM REV., 2018, https://www.cjr.org/special_report/facebook-media-buzzfeed.php.

¹⁹⁸ See, e.g., Wu, *supra* note 56.

¹⁹⁹ Eliza Shearer and Katerina Eva Matsa, *News Use Across Social Media Platforms 2018*, PEW RES. CTR., September 10, 2019, <https://www.journalism.org/2018/09/10/news-use-across-social-media-platforms-2018/>.

²⁰⁰ STIGLER CENTER COMMITTEE FOR THE STUDY OF DIGITAL PLATFORMS, MEDIA SUBCOMMITTEE, REPORT 11 (2019), <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/media---report.pdf?la=en&hash=B9C175BCDBF29606704740B23D290CD447D1F3BA>.

country, commands a share one third the size.²⁰¹ As a result, Facebook siphons attention—and by extension advertising revenue—from news organizations without producing content itself.

Even legacy newspapers depend on digital advertising for a significant share (35% in 2018) of their advertising revenue.²⁰² Despite the initial promise of online advertising, total advertising revenue for newspapers has declined sharply from its 2000s peak.²⁰³ Meanwhile, Facebook has claimed a large and steadily rising share of digital advertising revenue—40% of the market in 2018, more than any other firm and up from 25% in 2014.²⁰⁴ Facebook’s dominance is even more pronounced in mobile advertising revenue, 58% of which was claimed by Facebook in 2018.²⁰⁵ No other firm controls more than 10% of the mobile advertising market. Facebook’s strength in mobile advertising is particularly important given the segment’s rapid growth: it now accounts for 64% of all digital advertising revenue, up from 46% in 2014.²⁰⁶

This advertising revenue dominance has harmed news outlets in concrete and meaningful ways. First, Facebook’s News Feed algorithm is a black box to news organizations, and its shifting goalposts have led some news organizations to make costly investments (e.g. the “pivot to video”) that did not increase engagement, only to have Facebook change course later.²⁰⁷ Second, declining revenue has forced widespread layoffs: newsroom employment has declined by 25% between 2008 and 2018.²⁰⁸ The decline is concentrated in the newspaper sector, where employment dropped by 47%, but even digital media outlets have suffered.²⁰⁹ Despite modest employment gains in the digital media sector, “at least 23% of the highest-traffic digital-native news outlets . . . experienced layoffs between January 2017 and April 2018.”²¹⁰

²⁰¹ *Id.*

²⁰² *Newspaper Fact Sheet*, PEW RES. CTR. (July 9, 2019), <https://www.journalism.org/fact-sheet/newspapers/>.

²⁰³ *Id.*

²⁰⁴ *Digital News Fact Sheet*, PEW RES. CTR. (July 23, 2019), <https://www.journalism.org/fact-sheet/digital-news/>.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ Will Oremus, *The Big Lie Behind the “Pivot to Video,”* SLATE, Oct. 18, 2018, <https://slate.com/technology/2018/10/facebook-online-video-pivot-metrics-false.html>. *See also*, Ingram, *supra* note 1 (“In January, the company said that it would be de-emphasizing posts from media outlets in favor of ‘meaningful interactions’ between users, and suggested this could result in a significant decline in traffic for some publishers.”).

²⁰⁸ Elizabeth Grieco, *U.S. Newsroom Employment Has Dropped By a Quarter Since 2008, With Greatest Decline at Newspapers*, PEW RES. CTR.: FACT TANK (July 9, 2019), <https://www.pewresearch.org/fact-tank/2019/07/09/u-s-newsroom-employment-has-dropped-by-a-quarter-since-2008/>.

²⁰⁹ *Id.*

²¹⁰ Elizabeth Grieco et. al., *About a Third of Large U.S. Newspapers Have Suffered Layoffs Since 2017*, PEW RES. CTR.: FACT TANK (July 23, 2018), <https://www.pewresearch.org/fact-tank/2018/07/23/about-a-third-of-large-u-s-newspapers-have-suffered-layoffs-since-2017/>.