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The Journal of the Antitrust, Unfair Competition, and Privacy Law Section of the California Lawyers Association

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Jill M. Manning

Editor's Column
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The Antitrust, Unfair Competition & Privacy Law Section of the California Lawyers Association is pleased to provide you with the 28th edition of *Competition Journal*. This edition is particularly intriguing, with articles focusing on cutting-edge antitrust issues, including the application of antitrust law to blockchains, algorithmic price-fixing, the intersection between antitrust law and new drug products, the challenges of demonstrating pass-through in IPP cases, and whether Apple's app store might constitute a monopoly. Special thanks to Editor-in-Chief, Anna Fabish, and her team of terrific authors and editors for their hard work in putting this compelling issue together.

The fall is typically a busy time for our section and this year is no exception. We have returned from our summer vacations rested, invigorated, and ready to get back to work! First, we just wrapped up the CLA Annual Meeting in San Diego. This three day event was chock full of timely and though-provoking educational panels, including three by our own section members on "Advising Clients on Antitrust Issues," "Best Practices for Lawyers and their Clients For Social Media Marketing," and "What U.S. Practitioners Need to Know About the EU's GDPR." A highlight of the event was a luncheon featuring Justice Kathryn Werdegar (Ret.). This event gets better and better each year.

Second, we are putting the finishing touches on our flagship annual event, the Golden State Antitrust, Unfair Competition & Privacy Law Institute, an all-day conference featuring panels on "Big Stakes" antitrust trials, a panel featuring three judges from the Northern District of California, a luncheon conversation with California Supreme Court Justice Mariano-Florentino Cuellar, and much, much more. Immediately following the conference is a reception, dinner, and ceremony honoring Bruce L. Simon of Pearson, Simon & Warshaw, as the 2018 "Antitrust Lawyer of the Year." Bruce has devoted his career to representing businesses and consumers in complex antitrust, securities and consumer cases. Mark your calendars now—you do not want to miss this event!

Third, I am pleased to report that we are winding down our first year as the California Lawyers Association. Although there were some bumps along the road, we are not just surviving but thriving. Our name has changed, but our mission has not. We continue working tirelessly to further the knowledge of our Section members by creating educational programs, materials and forums, and mentoring and networking programming. Please let us know how we can better serve you, and join us as we build a new future for our Section and its Members.

Fourth, I would like to take a moment to remember with gratitude and admiration two of our section advisors who passed away this year: Max Blecher and Don Hibner. Both were antitrust giants, from whom our section has benefited greatly over the years. Each has left an indelible mark on this organization, and will be sorely missed.

Finally, as the outgoing Chair of the Section for the 2017–2018 term, I have been pondering the successes we have had this year—too many to mention—and thinking about

the future of our Section. While we are small in numbers, we are mighty in the quality of the educational programs and materials we create, and the networking opportunities we provide to our Members. Competition Journal is just one of the many benefits you receive from membership in the Section. Now, it's time to start reading. . . .

EDITOR'S NOTE

Anna Fabish
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After receiving positive feedback on our healthcare and pharmaceuticals issue of Competition earlier this year, I am thrilled to present another topically-themed edition of our journal. This time around, we have set our sights on high-tech industries. Advances in technology present numerous complex and fascinating antitrust, unfair competition, and privacy law issues—and the list of these issues is growing. As an attorney who is by no means savvy in technology matters (high or low), it has been my great privilege to learn from this edition's team of authors and editors. That said, the articles that follow offer helpful and informative insights, regardless of whether you have a deep background in these areas, lack any experience with them, or fall somewhere in between.

First, the edition offers a series of articles discussing "big data" from various angles. In his article, "**Antitrust Is Already Equipped to Handle 'Big Data' Issues**," **Abiel Garcia** discusses how "big data" is in fact an imprecise term, and explores the types of conduct related to mass data sets that have generated antitrust concern. Garcia argues that current antitrust law is well equipped to handle such concerns, and questions the premise that data collection per se could be a source of anticompetitive activity. Next, in their article, "**D-Link Systems: Possible Signs for the Future of FTC Data Security Enforcement**," **Ronald Cheng and Mallory Jensen** discuss how the Federal Trade Commission has taken an increasingly active enforcement role regarding the collection and handling of personal data through Internet of Things (IoT) products. In discussing the FTC's action against D-Link Corporation, Cheng and Jensen explore the approaches the FTC has taken to this issue and the implications those approaches may have for IoT manufacturers in the U.S. and overseas. **Eliana Garcés and Daniel Fanaras** offer economists' perspectives on big data issues in their article, "**Antitrust, Privacy, and Digital Platforms' Use of Big Data: A Brief Overview**." Specifically, they discuss the role of data in creating value for businesses and consumers, and suggest a case-by-case assessment of related antitrust and privacy issues, rather than generalized conclusions.

High-tech industries present a rich host of intellectual property law issues as well, and these often intersect with antitrust and unfair competition laws in challenging ways. For example, antitrust practitioners, government enforcers, academics, and economists remain divided on the question of whether and how antitrust law should address concerns that owners of standard essential patents (SEPs) will leverage those patents to exclude competition in standardized markets. That split has only grown deeper in the first two years of the Trump administration, and these issues are arising in new and unanticipated contexts. **Ben Hendricks and Brian Quinn** explore this lack of consensus in their article, **"The Hold-Up Tug of War: Paradigm Shifts in the Application of Antitrust to Industry Standards**." **Robert McNary** offers a related discussion of SEPs and the fair, reasonable, and non-discriminatory (FRAND) licensing commitments that govern them in his article, "**Above FRAND Licensing Offers Do Not Support a California UCL Action in *TCL v. Ericsson*."** In the context of reviewing a recent California Unfair Competition Law

decision involving SEPs, McNary discusses an approach to SEP disputes that is based on contract, rather than antitrust law.

Our high-tech edition of *Competition* also includes articles addressing indirect purchaser issues. Indirect purchasers seeking monetary damages for state antitrust violations must show the alleged overcharge was passed on to them by intermediaries in the distribution chain. In **"The Difficulties of Showing Pass-Through in Direct Purchaser Component Cases," James Bo Pearl and Allison Smith** analyze the pass-through issues presented in the large body of cases alleging anticompetitive conduct by manufacturers of electronic components used in many everyday devices. **Ryan Sandrock** tackles an issue posed by federal indirect purchaser cases in his article, "**Applying *Illinois Brick* to E-Commerce: Who Is the Direct Purchaser from an App Store?"** which considers the application of the *Illinois Brick* rule to electronic marketplaces. He argues that the Supreme Court's decision to grant certiorari in *Apple v. Pepper* signals that there will be clarification of the direct/indirect purchaser paradigm as applied to app stores and on-line marketplaces.

Of course, advances in technology are not limited to computer technology and data. **Rosanna McCallips** addresses the antitrust implications of advancements in medical and pharmaceutical technology in her article, "**Antitrust Treatment of the Introduction of New Drug Products: The Tension Between Hatch-Waxman's Dual Goals of Cheaper Drugs and Better Drugs**." She argues that courts in so-called "product-hopping" cases should be reticent to conclude because of the risk of deterring welfare-enhancing innovation in the pharmaceutical industry.

We round out our high-tech issue with two pieces discussing, respectively, employment agreements for those responsible for many new technologies, and one important new technology in particular. **Jiamie Chen** offers a piece on no-poach agreements—commitments by two unrelated companies to not hire each other's employees—which have generated notable litigation in high-tech industries. The jurisprudence surrounding no-poach agreements as antitrust violations has progressed more in the past 10 years than in the preceding century. Chen surveys this remarkable evolution and discusses how that history will affect the future of the law in this area in **"'No-Poach' Agreements as Sherman Act § 1 Violations: How We Got Here and Where We're Going**." To complete our high-tech edition, **Ai Deng** offers an intuitive introduction to blockchain technology and smart contracts in his article, "**Smart Contracts and Blockchains: Steroid for Collusion?**" Deng discusses the implications of smart contracts and blockchain technology on both explicit and tacit collusion.

I hope that you enjoy reading these articles and pondering some of the antitrust, unfair business practices, and privacy law issues that advances in technology are creating at a rapid pace. I certainly did.

Finally, some words of thanks to those who helped make this edition possible. First and foremost, thank you to our authors for their insightful work, and to our team of talented and diligent editors for their contributions to that work. I would also like to express special gratitude to Sarah Trela for her invaluable efforts finalizing all articles.

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ANTITRUST IS ALREADY EQUIPPED TO HANDLE "BIG DATA" ISSUES

By Abiel Garcia[1]

The term "big data" is everywhere these days. Big data is often cited as an emerging issue that competition lawyers need to study and watch for potential competitive misuse. But what exactly is meant by "big data?" And does it warrant unique antitrust attention?

U.S. Department of Justice Deputy Assistant General Nigro recently offered one description of big data as "an imprecise, catch-all term that describes a broad range of ideas related to the collection and commercial use of large quantities of information."[2] While big data has no precise definition, this paper will focus on large data sets that track consumer actions and attempt to show that most competition questions raised by "big data" are generally addressed by the current antitrust structure and do not require new rules or frontiers of practice. However, recent comments by government representatives, such as FTC Chairwoman Ramirez, suggest that big data presents new challenges for antitrust law to address: for instance, barriers to entry created solely by mass data collection. In their dystopic view, major technology companies, solely by virtue of their data collection activities, could run afoul of competition laws and be deserving of extreme remedies like forced data sharing. First, this paper will describe how big data is created. Section 2 of this paper will describe some common characteristics of big data and, ultimately, attempt to create a working definition for it. In section 3, the paper will walk through various conduct-based examples involving big data and discuss how current antitrust law is well equipped to handle them.[3] Finally, Section 4 will question the premise that data collection *per se* could be a source of anticompetitive activity, and argue that antitrust laws are not well suited for dealing with companies compiling mass data sets.

I. HOW IS BIG DATA CREATED?

Data is created every moment of every day. As this is being written, data is being created by the computer used to write this article, the cell phone sitting next to the computer, and the wired network they are both sharing. It has been reported that there are three and one-half billion sensors out in the market place, with 18 billion connected devices around the world.[4] That number is estimated to grow to more than 30 billion by 2020.[5] It was reported in 2013 that almost 90% of the world's digital data that exists today

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1 Abiel Garcia is an associate attorney at Gibson, Dunn & Crutcher. The views expressed herein are his own.

2 Bernard A. Nigro, Jr., *" 'Big Data' and Competition for the Market: Remarks as Prepared for Delivery at The Capital Forum and CQ,"* at 2 (2017).

3 While data issues have arisen in both mergers and conduct-base cases, this paper will mostly focus on conduct-based issues that involve data.

4 Sam Lucero, IHS Technology, IoT Platforms: Enabling the Internet of Things 5 (Mar. 2016), available at https://cdn.ihs.com/www/pdf/enabling-IOT.pdf.

5 *Id.*

was generated in the past two years.[6] Every time someone clicks on a website, taps on a smartphone, logs into a website, uses his or her email as a username, or walks around with his or her phone in their pocket, the data is being collected and sent to various companies that users have agreed to share (or to not share) the data with. The exponential increase and ubiquitous collection of data partly stems from the plunging cost of data storage, but also from the integration of "smart" objects into daily life. Data, on its own, is comparable to a river or the wind, meaning that data flows easily and freely.[7] It is accessible to any that can capture it.

Generally speaking, old data is not as valuable as new data, especially for start-up companies, as data lessens in value over time when trying to compete in the digital age.[8] Unsurprisingly, as technology changes and shifts, data from two years ago is less helpful than current data for building consumer profiles or targeting ads, as people move, change jobs, climb socioeconomic classes, and shift their preferences.[9] Because data is available across multiple products, it is also nonexclusive and non-rivalrous.[10] Users create data across multiple platforms and products, by using various usernames, emails, and identifiers, and because of this, no one firm controls a significant portion of the world's data.[11] Data is also easy to collect, as anyone can create a website and begin tracking users through a variety of techniques, or create a Wi-Fi integrated product and track data through the product.[12]

Furthermore, if one uses the same email or device to interact with various devices, companies can track the data across devices and create more complete consumer profiles. Flash cookies, history sniffing, device fingerprinting, cross-app tracking, and cross-device tracking are all tools used to create consumer data profiles.[13] Every single one of these tools and pieces of technology relays data back to Amazon, Apple, Facebook, Google, Samsung, and other companies. The data is then sorted, but the bundle of all the data collected is called a "data set." These data sets are examples of what we now call "big data."

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6 Edith Ramirez, Chairwoman, Fed. Trade Comm'n, *Big Data: A Tool for Inclusion or Exclusion*, at 1 (Sept. 15, 2014), available at https://www.ftc.gov/public-statements/2014/09/big-data-tool-inclusion-or-exclusion-opening-remarks-chairwoman-edith.

7 Xavier Boutin and Georg Clemens, *Defining "Big Data" in Antitrust*, Competition Policy International: Antitrust Chronicle 2017, at *6 (Mar. 21, 2017), available at https://ssrn.com/abstract=293897.com.

8 Lockwood Lyon, *The End of Big Data*, Database J. (May 16, 2016), available at: https://www.databasejournal.com/features/db2/the-end-of-big-data.html.

9 Ajay Agrawal, Joshua Gans, & Avi Goldfarb, *Is Your Company's Data Actually Valuable in the AI Era?*, Harvard Business Rev., (January 17, 2018), available at https://hbr.org/2018/01/is-your-companys-data-actually-valuable-in-the-ai-era (stating that ongoing value of data usually comes from "the new data you accrue each day").

10 D. Daniel Sokol & Roisin Comerford, *Antitrust and Regulating Big Data*, 23 Geo. Mason L. Rev. 1129, 1137 (2016).

11 *Id.*

12 Catherine Tucker, *The Implications of Improved Attribution and Measurability for Antitrust and Privacy in Online Advertising Markets*, 20 Geo. Mason. L. Rev. 1025, 1030 (2013).

13 Edith Ramirez, *Deconstructing the Antitrust Implications of Big Data: Keynote Remarks of FTC Chairwoman Edith Ramirez,* at 5 (2016).

II. WHAT IS BIG DATA?

From an antitrust perspective, big data means nothing more than a very large data set. There is no big data as akin to big law or big oil, which generally refer to major corporations within those industries. In academia, however, the four big V's—volume, velocity, variety, and value—often characterize big data.[14] The four big V's are standardized characteristics of data sets that can be used to compare data sets easily. But make no mistake, each data set is unique, and built for a specific purpose using a specific technology.[15] Each of the four V's represents an objective characteristic of a specific data set:

- Volume: the volume of data refers to simply the amount of individual data points collected.
- Velocity: the velocity refers to how quickly the data is generated, but also to how quickly one can access the data.
- Variety: the variety refers to the amount of unique data points contained within the data set.
- Value: the value refers to the increased socioeconomic value to be obtained from the dataset.[16]

Thus, the four big V's provide useful characteristics to describe common elements in a data set, but the four big V's do not provide enough information to perform any sort of meaningful antitrust analysis. Arguably, the value of each data set is the most important characteristic, because companies would only keep such massive data sets if they could derive value from them. Data sets themselves are less valuable than the economic value a company can extract (such as consumer preferences, insights, or correlations) from said data sets. For instance, a data set containing all the information relating to TV viewing habits of senior citizens would be useless to a shoe manufacturer.

The colloquial references to "big data" in legal circles seem to refer to massive data sets that reflect complete consumer profiles that are unmatched, and which allegedly could lead to anticompetitive harms. FTC Chairwoman Edith Ramirez stated that "there is no question the aggregation of data may have important implications for competition."[17]

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14 Sometimes "big data" is characterized by three V's, which does not include value. Boutin and Clemens *supra* note 6, at 3. It could be posited that the four V's could help in analyzing whether data sets are similar for substitutability purposes.

15 Allen P. Grunes & Maurice E. Stucke, *No Mistake About It: The Important Role of Antitrust in the Era of Big Data*, The Antitrust Source 1–14 (2015), http://ssrn.com/abstract=2600051 (last visited June 25, 2018).

16 *Id.*

17 Ramirez, *supra* note 13, at 9.

Yet, there have not been wide spread situations in which "big data" has in fact lessened competition.[18] In fact, Deputy Assistant Attorney General Barry Nigro stated that:

> The term "big data" is not only imprecise but affirmatively unhelpful to the extent it is used to imply that data is different from other assets and carries with it special obligations. It is important to be precise when considering antitrust enforcement principles and to avoid general terms that may mean different things to different people depending on the circumstances.[19]

So, if there is no universal acceptance of a definition for big data, then what are people referring to when discussing it, especially if it is not the four big V's? As stated above, big data is nothing more than a reference to the data-gathering practices of technology companies, which feed into various data sets held by the companies. These various and unique data sets are constantly growing and changing, and these various and unique data sets are what make up "big data."

When referring to data sets used by companies, it is useful to distinguish between data gathered internally to help boost company efficiency and data sets that track consumer interactions with companies. Internal metrics data would include measuring various internal data points that a company has established as useful for improving company profits and bottom lines. These could include employee processing times, time spent on various tasks, and so on. On the other hand, data sets that track consumer habits and purchases on company websites are used to specifically tailor the customer experience, either through targeted ads, different visual representations on the companies' platforms, or customized sales experiences. These data sets could include figures like SKUs bought from a website, locations of customers, and average purchase price per customer.

Data sets that focus on consumer habits are the focus of this article, and while it may be feasible that internal company data sets could somehow be used in an anticompetitive way, data sets that describe consumer behavior and provide unique customer insights are the focus of antitrust practitioners today.

III. HOW ANTITRUST HAS TREATED "BIG DATA"

Since big data is nothing more than data sets made up of millions of individual data points, then big data can represent an asset for any given company. Big data, like other assets, can be used to leverage an existing network, build new products, or target specific consumers through ads. For example, website sales data can help Nike figure out what products to place in a new retail store by looking at the top 100 selling SKUs based on shipping locations within a 50 mile radius of the new retail store.

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18 There have been cases where data is the consumer good being sold, and data has been at the core of inquiry, but those cases are ones in which data is seen as product or "widget" rather than as a necessary resource to compete. *See* Andres V. Lerner, *The Role of "Big Data" in Online Platform Competition*, 4–5 (2014), available at http://ssrn.com/abstract=2482780 (describing that claims of "Big Data" presenting competitive concerns are unsupported by real world evidence).

19 Nigro, *supra* note 2, at 2.

Recently, antitrust practitioners and enforcers have expressed opinions that the action of amassing data, and not potentially sharing it with rivals, may be anticompetitive in and of itself.[20] Yet, this hypothetical is a departure from traditional antitrust fact patterns that involve "data." Typical fact patterns involving data have usually revolved around a dominant firm denying access to *previously accessible* data sets, such as the *Yellow Pages* cases, where previous access to the yellow pages was denied through the use of exclusive licenses.[21]

European Commissioner for Competition Margrethe Vestager stated that data could "foreclose the market—[it] can give the parties that have them immense business opportunities that are not available to others."[22] FTC Chairwoman Ramirez stated that there was "no question that the aggregation of data may have important implications for competition."[23] A 2016 Franco/German study on competition law and data stated that the "collection of data may result in entry barriers where new entrants are unable either to collect the data or to buy access to the same kind of data, in terms of volume and/or variety, as established companies."[24] The study cites examples such as Facebook and Google as entrenched market participants that could be using such data to stay in power.[25]

As their statements demonstrate, antitrust officials appear to be imagining a hypothetical, where a competitor proclaims they cannot compete due to a lack of access to data, regardless of whether that data has ever been publicly available. Yet this hypothetical is only one of multiple ways in which data has been used over the past years. The Franco/German study identifies a variety of ways that data could be used to stifle competition: 1) refusal to provide access to data; 2) discriminatory access; 3) exclusive contracts; 4) tied sales and cross-usage; and 5) discriminatory pricing.[26] Additionally, other practitioners have commented on how big data could affect competition.[27] The recent concern of companies having too much data seems to be true even with respect to companies who have never offered their data to the public. This distinction—between companies that sell or publicly offer their data and companies that only internally use their data—is a key one.

Until recently, antitrust cases that have involved data mostly contain fact patterns in which companies have previously offered data sets to the public, either for free or as a marketed product, and then later restricted access to the data or, in the context of mergers,

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20 Nigro, *supra* note 2, at 3.

21 *GTE New Media Svc In. v. Ameritech Corp.*, Case No. 1:97-v-02314 (D.D.C. October 6, 1997).

22 Babette Boliek, *Tech Companies, Big Data, and Competition: Diverging Views in the US and EU*, AEIdeas (Jan. 11, 2018), available at http://www.Aei.org/publication/tech-companies-big-data-and-competition-divering-views-in-the-us-and-eu.

23 Ramirez, *supra* note 13, at 9.

24 Autorité de la concurrence and Bundeskartellamt, *Competition Law and Data* (May 10, 2016), available at http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf.

25 *Id.* at 3.

26 *Id.* at 17–22.

27 *See generally* Grunes & Stucke, *supra* note 15.

acquisitions in which two dominant sellers of data are attempting to merge.[28] The novel concern enforcers are discussing is one in which companies create internal data sets that are never publicly shared, but then are claimed to be so necessary to competition that they create barriers to entry.

Both of these different scenarios can be handled by the current antitrust laws, but at least with respect to the second scenario, the question is: should antitrust be used to remedy the potential issues? In the first group of situations, where companies restrict access to public or marketed data sets, the antitrust laws are already adequately capable of handling any competitive issues, as they are akin to the same types of anticompetitive conduct seen in other industries. The second group of scenarios, where internal data sets are claimed to be necessary, may not be best addressed by the antitrust laws.

A. Data Offered Publicly

Most real world examples cited by the FTC, EU, and various other practitioners involve situations in which a company sells data as a product and then attempts to lock out, or restrict access to, other companies that rely on the data through a variety of means. In these scenarios, the data is no different than any widget sold in a typical transaction and as such, traditional antitrust analysis can easily apply and address any competitive concerns. None of these scenarios require a novel application of antitrust laws in order to alleviate potential competitive problems.

1. Discriminatory Access

One of the scenarios commonly raised when discussing issues with big data relates to the discriminatory access to data sets. In the Franco/German Study, one example cited is with respect to Cegedim, the leading provider of medical information databases in France.[29] Cegedim refused to sell its main database to customers who used the secondary software of its main competitor in the software market.[30] The French Competition authority considered such behavior discriminatory and concluded that since Cegedim's database was the leading market dataset, the practice had the effect of limiting competition between 2008 and 2012.[31]

While denying access to an asset can be a problematic practice, denying access to a necessary data set that others have relied upon does not present a novel antitrust issue. The antitrust laws have always been equipped to handle situations in which parties with market power in one area try to leverage said market power into another market. The situation described in the Franco/German study is very similar to *Eastman Kodak* or *Aspen Skiing*.[32] The situation cited by the Franco/German study does not propose a new theory

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28 *See GTE New Media Svc In.*, *supra* note 20; *Reed Elsevier NV, et al.*, File no. 081-0133 (filed Sept. 16, 2008), available at https://www.ftc.gov/sites/default/files/documents/cases/2008/09/080916reedelseviercpcmpt.pdf.

29 Competition Law and Data, *supra* note 24, at 18–19.

30 *Id.*

31 *Id.* at p. 19.

32 *Eastman Kodak v. Image Tech. Servs., Inc.*, 504 U.S. 451 (1992); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

of harm, rather repackages the theory of harm for when the essential or necessary product is a data set.

2. Exclusive Contracting

Another cited example in how data could be used to stifle competition is through the use of exclusive contracting. While real world examples seem to be exceedingly rare, the Franco/German Study cited to the use of a series of exclusive contracts by Google in the search-advertising market.[33] The public statements made by the EU Commission simply stated that Google imposed "exclusivity obligations on advertising partners, preventing them from placing certain types of competing ads on their websites . . . with the aim of shutting out competing search tools," but did not go further into the use of those contract provisions.[34] Other practitioners have posed similar hypothetical situations such as dominant third-party suppliers using exclusive contracts to foreclose competition from other third-party data providers or the use of exclusive contracts to foreclose a potential competitor to a particularized data stream.[35]

As discussed below, the use of exclusive contracting, through dominant firms such as Google, has always been an issue that has been addressed by antitrust laws and has been enforced over many years.[36] The concern with the above cited examples is not the data set itself, or even the amount of data being collected, but rather the actions of a dominant firm to foreclose others to a particular data set or stream they previously could access. Even assuming a dominant firm could foreclose a data stream to other competitors, a highly individualized review of the foreclosed data set would need to be undertaken since it would be necessary to show that the foreclosed data was so unique, the competitor could not access it anywhere else.

3. Tying Sales or Cross-Market Data Leveraging

Practitioners and the Franco/German study also propose another scenario in which data collection in one market could be used by a company to increase market power in another market.[37] Citing to the UK Competition and Markets Authority, the fact pattern conceived includes the possibility of tied sales "whereby a company owning a valuable dataset ties access to it to the use of its own data analytic services."[38] The Cegedim case above could be also be positioned as a tying case.

The Franco/German study also went further stating that monopolies that have access to unique data, such as a public utility that is also involved in selling secondary goods to utility consumers, could use the data to gain an undue competitive advantage.[39] The

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33 Competition Law and Data, *supra* note 24, at 19–20.

34 European Commission Press Release, *Antitrust: Commission probes allegations of antitrust violations by Google*, Nov. 30, 2010, available at http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en.

35 Jay Modrall, *Antitrust Risks and Big Data*, Competition World, 10-11 (2017).

36 *See Standard Oil Co. v. U.S.*, 337 U.S. 293 (1949); *U.S. v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

37 Competition Law and Data, *supra* note 24, at 20.

38 *Id.*

39 *Id.*

study cited to a French Competition Authority action that imposed interim measures on GDF-Suez, a regulated gas provider.[40] GDF-Suez was a gas supplier that had access to gas consumption data that other downstream secondary providers did not. This allowed GDF-Suez a competitive edge in making offerings to gas consumers in related secondary markets.[41]

Both of these scenarios still do not represent novel theories of harm, but rather fall into theories of harm that have already been considered by the antitrust laws. The usage of data as a product, at least in the tying context, is addressed by a standard tying analysis and should be treated no differently just because data is one of the products being tied.[42]

Interestingly enough, the French Competition Authority case involving the monopolistic gas provider does present a novel situation that will be addressed in the following section. Essentially, GDF-Suez had access to a unique data set that could not be accessed by any other competitors (the gas consumption data of consumers). Access to such a unique dataset could have downstream effects that could raise competitive concerns.

4. Price Discrimination

Finally, the last scenario that was poised by the Franco/German study is the possibility of companies using data to price discriminate.[43] The Franco/German study advances the proposition that data sets could be used to "set different prices for the different customer groups it has identified thanks to the data collected."[44]

Price discrimination is not a novel theory of harm, even if it is predicated on the usage of data to further price discriminate. Grocery stores and discount wholesale stores have been using data tracking to price discriminate since the early 2000s, with loyalty and memberships cards. The Franco/German study even concedes that "economic analysis also shows that the effects of price discrimination . . . are more ambiguous."[45] Some consumers could "end up paying higher prices for a given good or service but some others would receive better price offers than in the absence of discrimination."[46] Even though the pricing discrimination is a result from "collecting data about their clients" and purchasing habits, antitrust laws have always been in place to handle pricing discrimination.

Many of the hypotheticals and real world examples cited by the Franco/German study, and practitioners generally, arise from companies selling data as a product or widget, and then misusing its market power. In these scenarios, the antitrust laws are more than adequate to handle the typical competition issues that arise from market power abuses. The more interesting question, and the one that seems to be at the forefront of different

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40 *Id.*

41 *Id.*

42 *See Jefferson Parish Hospital Dist. No. 2 et al. v. Hyde*, 466 U.S. 2, 12 (1984).

43 Competition Law and Data, *supra* note 24, at 21.

44 *Id.*

45 *Id.*

46 *Id.*

authorities' minds, is the possibility of acquiring so much data, that the amalgamation of said data in and of itself creates a barrier to entry for competitors, either actual or potential.

B. Data as a Barrier to Entry

The novel scenario that seems to be the elephant in the room is the possibility of one company, such as Amazon, Google, or Facebook, using its massive data stores to keep competition at bay. In an interview with Vanity Fair, Tim Berners-Lee, the man who is credited with creating the world wide web, stated "Facebook, Google, and Amazon now monopolize almost everything that happens online, from what we buy to the news we read to who we like."[47] He implies that the majority of all data produced on the internet is horded by these three companies. The question then becomes does access to this immense amount of data in and of itself create a barrier to entry?

The Franco/German study stated that "refusal to access to data can be anticompetitive if the data are an 'essential facility' to the activity of the undertaking asking for access."[48] Chairwoman Ramirez stated that "[w]hether there is a competitive advantage associated with access to a large volume of data will depend on the particular set of facts."[49] Other practitioners cite to the *US v. Bazaarvoice* merger challenge—in which company documents stated that the company's ability to "leverage the data from its customer base" was a key barrier to entry—as an example where data access created a barrier to entry.[50] Yet, all of these comments fail to take into account what exact data is being discussed and what was the exact barrier to entry.

The Franco/German study recognized the flaw in arguing that access to large amounts of data could create a barrier to entry, stating that in order to make the argument, it would need to be demonstrated that the data set creating the barrier to entry was "truly unique and there is no possibility for the competitor to obtain the data that it needs to perform its services."[51] Thus, for data to create a barrier to entry in and of itself, the dataset must be unique, unduly burdensome to gain access to, and necessary for competition or potential competition to continue. It would be akin to an essential facilities doctrine claim.

Only a very limited amount of fact patterns would be able to meet this high threshold. While some examples may cite to the entrenchment of Facebook, Google, and Amazon as companies that are data-driven, dominant market players that are entrenched due to their data collection, the companies did not become such large companies based on their data-driven techniques.

Facebook created a better social network and toppled the likes of Myspace and other social websites due to its network design. Google was not the incumbent search engine

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47 Katrina Brooker, *Tim Berners-Lee, The Man Who Created The World Wide Web, Has Some Regrets*, Vanity Fair (Aug. 2018), available at https://www.vanityfair.com/news/2018/07/the-man-who-created-the-world-wide-web-has-some-regrets.

48 Competition Law and Data, *supra* note 24, at 18.

49 Ramirez, *supra* note 13, at 8.

50 Grunes & Strucke, *supra* note 15 (citing *U.S. v. Bazaarvoice, Inc.*, No. 13-cv-00133-WHO, 2014 WL 203966, at *50 (N.D. Cal. Jan. 8, 2014) (internal quotation marks omitted)).

51 Competition Law and Data, *supra* note 24, at 18.

when it launched, but rather Microsoft and Yahoo were once the top search engines used. Google became what it is today due to a better search algorithm and network. Amazon became a dominant market force due to its improved delivery and logistics network.

All three of these companies emerged as dominant competitors not because of their ability to mine data and use that to exclude others, but because of their better networks and products. Their product-based success led them to use data to improve said networks and products.[52]

Now, the fact pattern imagined by big data commenters, which argues that data needs to be unique, unduly burdensome to access, and necessary for competition seem to have been shown in the case involving GDF-Suez. GDF-Suez was the monopolist gas provider that had access to a unique set of data, gas consumption information for a specific set of consumers. It then used this data to improve its market position in secondary markets; markets in which its competitors did not have access to the same data since they were not the monopolistic gas provider. Ultimately, the French authorities ordered the sharing of information between GDF-Suez and other competitors. But the circumstances in GDF-Suez appear to be unique to the particular market. To be analogous to Facebook, Google, or Amazon, a competitor would have to argue that the incumbent company had monopolistic access to a consumer data stream, which has already been shown to be highly unlikely.

IV. THE VALUE OF DATA

When discussing big data, it must be remembered that the real value behind companies like Amazon, Facebook, and Google is not in the data gathering itself, but in their use of data. The algorithms and analysis of said data create much more value than the data alone.[53] The next competitor to Amazon, Facebook, or Google could do just the same by creating a better network or algorithm that improves consumer results. Even if one ordered the sharing of data, under an essential facility doctrine claim, there is no proof that a competitor will not effectively compete if the competitor cannot extract value from the same data set.

A. Antitrust Remedies Would Not Help Create Value for Competitors

Putting aside the privacy law concerns of forcing companies to exchange data without asking for consumers' consent, "there are many reasons to be skeptical of using the antitrust

52 It could be argued that the data they acquire allows them to purchase companies that could become rivals. While this potentially could be true, the remedy for limiting acquisitions would require government authorities to change the way it analyzes mergers, not a new application of existing statutes. *See The World's Most Valuable Resource is No Longer Oil, but Data*, The Economist (May 6, 2017), available at https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data.

53 Shelly Blake-Plock, *Where's The Value in Big Data*, Forbes.com (April 14, 2017), available at https://www.forbes.com/sites/forbestechcouncil/2017/04/14/wheres-the-value-in-big-data/#1cdfda530dad (stating that a human brain is not well-suited to the digestion of big data but that AI is helping in "tackling the challenge of getting value out of big data").

laws to force the sharing of data."[54] First, there is no evidence that providing the same data set to competitors would yield better competitive results for consumers, or new products.

Another concern, as raised by Deputy Assistant Attorney General Nigro, is that if forced sharing of data sets were possible, then it would reduce the incentive to invest in innovation.[55] Usually, companies in the tech space aim to become the dominant solution for a given problem. Companies like Postmates, Uber, and others create a network or solution to a given problem and then can use the data from their consumers to reap profits rightfully earned. As stated by Deputy Assistant General Nigro, "the opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth."[56] Additionally, if firms know that their potential unique data set could be forced to become public, the incentive to innovate on their own is reduced.[57]

Finally, another reason to be hesitant to force sharing of data sets is because of the administrative challenges presented by such a remedy. As Justice Scalia pointed out in *Trinko*, "[e]nforced sharing also requires antitrust courts to act as central planners" since ordering forced sharing will require continuing court supervision, inquiry into what exact data must be shared, and a highly detailed decree.[58] "No court should impose a duty to deal that it cannot explain or adequately and reasonably supervise."[59]

While in some cases forced sharing may be deemed a potential remedy, it is too blunt of a tool to require companies to share data when there is no guarantee that it would help any competitor, potential or actual. Rather, in novel situations where the access to massive amounts of data is the supposed root of the problem, courts should be hesitant to apply a forced sharing remedy and look to other areas of the law to attempt to resolve any issues.

V. CONCLUSION

"Big data" is an imprecise term. It obscures and confuses practitioners and market participants alike when referring to what are essentially large data sets. These data sets are nothing more than very large data assets built by companies in an attempt to better understand their customers and users. The majority of issues that involve data sets are already contemplated by current antitrust theories of harm since many of the examples cited involve companies attempting to leverage data they sell into various markets or

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54 Nigro, Jr., *supra* note 2, at 3.

55 *Id.*

56 *Id.* at 4.

57 *Id.*

58 *Id.* at 5.

59 There are limited situations where the FTC has ordered the sharing of data, such as the sharing of Risk Evaluation and Mitigation Strategies in the pharmaceutical space. Requirements in this space facilitate compliance with mandates created by Congress in the Hatch-Waxman Act, rather than attempting to regulate a free market. Fed. Trade Comm'n, Brief as Amicus Curiae, *Mylan Pharmaceuticals, Inc. v. Celgene Corp.,* No. 2:14-cv-2094-ES (D.N.J. June 17, 2014); Fed. Trade Comm'n, Brief as Amicus Curiae, *Actelion Pharmaceuticals Ltd. v. Apotex Inc.*, No. 1:12-cv-05473-NLH-AMD (D.N.J. Mar. 11, 2013).

denying access to downstream competitors. The antitrust laws are properly set up to deal with these scenarios.

In contrast, antitrust law is not well equipped to handle situations where a company's internal data set is claimed to be essential for competition. This novel claim is similar to an essential facilities doctrine, but it differs in that most, if not all, data sets, are proprietary creations. There are unique situations in which the court may need to order proliferation of the data set in order to equalize the playing field among competitors, but in most circumstances, forced sharing of data sets should be discouraged for a variety of reasons. At the end of the day, the dominant internet companies that concern many antitrust practitioners owe their dominance to better networks or algorithms, not due to better data access. The data itself plays only a small part in determining competitive outcomes in a data-driven technology space.

D-LINK SYSTEMS: POSSIBLE SIGNS FOR THE FUTURE OF FTC DATA SECURITY ENFORCEMENT

by Ronald Cheng and Mallory Jensen[1]

I. INTRODUCTION

Enforcement actions by administrative regulators have been increasingly important for understanding the key requirements for data security compliance. In particular, the U.S. Federal Trade Commission (FTC or Commission) has asserted a major role, through its enforcement authority against unfair and deceptive practices under the Federal Trade Commission Act. Recently, as "Internet of Things" (IoT) products, such as security cameras, smart watches, and web-enabled refrigerators have proliferated in the marketplace, FTC enforcement action has adapted to address security issues that arise from the increased flow of data handled by these products.

Part of this trend is the FTC's civil action for injunctive relief against the Taiwanese IoT manufacturer, D-Link Corporation, and its U.S. subsidiary, D-Link Systems, Inc. (collectively "D-Link").[2] D-Link has fought the charges, and trial is pending for early next year in San Francisco federal court. This article describes the FTC's recent approach to data security enforcement, with examples from the *D-Link* case to illustrate those enforcement practices.

II. THE FTC AND DATA SECURITY

The Federal Trade Commission Act empowers the Commission to prevent "unfair or deceptive acts or practices."[3] In the area of data privacy, the FTC typically has investigated whether the privacy policy and other representations to the public by manufacturers and service providers fail to account for security deficiencies. The FTC has brought civil complaints in federal courts, which to a great degree have been resolved through consent decrees. Areas that have been the subject of FTC actions include safeguards for customer personal information, protections against outside attacks and other compromise, remote access, and supervision of service providers.

From its experience, the FTC has issued "Start with Security,"[4] a summary of "lessons learned" that have been distilled from over 50 enforcement actions, organized by the following topics:

1. Start with security.

2. Control access to data sensibly.

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2 *Federal Trade Commission v. D-Link Corp.*, No. 3:17-cv-00039-JD (N.D. Cal.) (complaint filed Jan. 5, 2017).

3 15 U.S.C. § 45(a)(1).

4 Federal Trade Commission, "Start with Security," *available at* https://www.ftc.gov/system/files/documents/plain-language/pdf0205-startwithsecurity.pdf.

3. Require secure passwords and authentication.

4. Store sensitive personal information securely and protect it during transmission.

5. Segment your network and monitor who's trying to get in and out.

6. Secure remote access to your network.

7. Apply sound security practices when developing new products.

8. Make sure your service providers implement reasonable security measures.

9. Put procedures in place to keep your security current and address vulnerabilities that may arise.

10. Secure paper, physical media, and devices.

"Start with Security" illustrates each of these topics with examples from specific enforcement actions. For instance, one principle under the heading of "Apply Sound Security Practices" is the advice to "[t]rain your engineers in secure coding." The FTC notes that in several cases, including one against a telecom company, the FTC had alleged that the companies failed to train employees in secure coding practices, leading to "questionable design decisions, including the introduction of vulnerabilities into the software." In particular, the FTC notes that the telecom company "failed to implement readily available secure communications mechanisms in the logging applications it pre-installed on its mobile devices," making it possible for malicious third party apps to communicate with the logging apps so that consumers' data was at risk.

To illustrate the principle that service providers include appropriate security standards in contracts, the FTC cites the case of a company that hired service providers to transcribe audio files containing sensitive health information, but did not require those third parties to take reasonable security measures, with the result that the files were exposed on the internet. And in discussing the FTC's recommendation that companies must keep safety standards in place when data is en route, the pamphlet cites another FTC case in which unencrypted backup tapes, a laptop, and an external hard drive, all of which contained sensitive information, were stolen from an employee's car, when the company should have had a policy limiting employees' ability to transport such material.

The FTC has updated and expanded the summary provided in the "Start with Security" pamphlet through a series of blog entries, "Stick with Security," which has entries on the same topics.[5] The "Stick with Security" series is also illustrated by examples from the FTC's enforcement actions, though company names are not used.

Although the FTC is careful in these publications not to provide any insider or nonpublic information about these cases, or to make any statements that would prejudice its position in active cases, these commentaries are nonetheless useful indicators of the direction of the FTC's interest in specific types of companies and privacy violations—that is, how it is interpreting what is "unfair" and "deceptive" in the area of data security

5 Federal Trade Commission, "Stick with Security: A Business Blog Series," *available at* https://www.ftc.gov/tips-advice/business-center/guidance/stick-security-business-blog-series.

and what kinds of companies and violations might be targets. In particular, companies that handle large amounts of consumer data and that make any representations about the security of that data, then arguably—at least in the FTC's view—do not live up to the strength of those representations, will have cause for concern.

III. THE *D-LINK* LITIGATION

In early 2017, the FTC filed a complaint in federal court against the D-Link parent company and a U.S. subsidiary.[6] D-Link manufactures internet routers and Internet-Protocol (IP) cameras and sells those devices in the U.S.

The FTC alleged in its complaint that D-Link failed to conduct software testing and take corrective measures to protect against various security flaws that exposed these products to outside attackers. The FTC's complaint also alleged that D-Link failed to protect adequately the private key for its software—which resulted in exposure of the key on a public website for about six months—and failed to use publicly available software to secure mobile app login credentials.

The FTC claimed that as a result these goods were subject to attacks and were vulnerable to being conscripted into "botnets," or networks of malware-infected computers. Separately, a compromised router could lead to consumers being redirected to malicious websites and thereby providing sensitive information. Conversely, an attacker could obtain sensitive documents stored on devices accessible through the compromised router. Similarly, a compromised IP camera could give an attacker the ability to monitor surreptitiously consumers and their families.[7]

As part of its complaint, the FTC asserted that D-Link made false representations about product security, including after reports of security flaws. These representations included claims that the products incorporated the latest wireless security features and were protected by advanced network security.

The FTC sought injunctive relief against D-Link, with charges based on D-Link's allegedly unfair acts in not securing device software and its allegedly deceptive acts in representing that the devices—including the Graphical User Interface (GUI) through which customers used them—were adequately secured from unauthorized access.

A. D-Link's Challenge to Suit Against the Taiwanese Parent

D-Link first contended, in a motion to dismiss for lack of jurisdiction, that the FTC lacked jurisdiction over the parent corporation located in Taiwan. The parent asserted that it had structured its operations to separate itself from its U.S. operations, which were operated by D-Link Systems, Inc. The parent asserted that it acted only to coordinate

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6 *D-Link*, No. 17-cv-00039-JD, ECF No. 44 (unredacted complaint filed Mar. 20, 2017).

7 As part of its investigation, the FTC engaged employees to create accounts on a search engine, Shodan, to determine the online presence of devices, including presumably those at issue in this case. *Id.*, ECF No. 108 (FTC's letter brief filed Feb. 15, 2018 to limit D-Link subpoena on Shodan, LLC to protect FTC's work product and statutory rights under the Stored Communications Act, 18 U.S.C. §§ 2701–2712). D-Link contended that the search engine is a controversial tool used by hackers. *Id.*, ECF No. 110 at p. 2 (D-Link opposition letter brief filed Feb. 27, 2018).

between that U.S. subsidiary and third-party vendors based in Asia that manufactured and tested its products.

The FTC in turn asserted that the parent had satisfied the requirements for exercise of personal jurisdiction. A federal court may exercise jurisdiction over a foreign defendant where:

> (1) the defendant either "purposefully direct[s]" its activities or "purposefully avails" itself of the benefits afforded by the forum's laws; (2) the claim "arises out of or relates to the defendant's forum-related activities; and (3) the exercise of jurisdiction [] comport[s] with fair play and substantial justice, i.e. it [is] reasonable."[8]

With regard to the first requirement, the FTC asserted that the D-Link parent purposefully availed itself of the U.S. market through, among other things, finalizing the requirements of its products in coordination with the U.S. subsidiary and by addressing security issues for those products offered for sale in the U.S.[9] Alternatively, the FTC contended that the parent purposefully directed its activities to the U.S. by designing the products, assuming responsibility for their manufacture, and directing the security testing, with the intent to distribute the products in the U.S. through the U.S. subsidiary.[10]

Ultimately, the parties agreed by joint stipulation to an order dismissing the Taiwanese parent without prejudice, with counsel for the U.S. subsidiary agreeing to accept discovery requests on behalf of the parent.[11] Nevertheless, the motion to dismiss for lack of jurisdiction presented an issue likely to arise again with other foreign manufacturers that structure their design, manufacture, and sales operations through separate U.S. subsidiaries. That is particularly true as companies assert that the resolution of these data security-related claims depends on foreign law.

The issue whether exercise of U.S. jurisdiction over a foreign entity is reasonable may depend on:

> (1) the extent of the defendant's purposeful interjection into the forum state, (2) the burden on the defendant in defending in the forum, (3) the extent of the conflict with the sovereignty of the defendant's state, (4) the forum state's interest in adjudicating the dispute, (5) the most efficient judicial resolution of the controversy, (6) the importance of the forum to the plaintiff's interest in convenient and effective relief, and (7) the existence of an alternative forum.[12]

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8 *Dole Food Co. v. Watts*, 303 F.3d 1104, 1111 (9th Cir. 2002).

9 *Federal Trade Commission v. D-Link Corp.*, No. 3:17-cv-00039-JD (N.D. Cal.), ECF No. 58 at 9:12–18 (FTC opposition filed April 17, 2017 to D-Link's motion to dismiss).

10 *Id.* at 10:1–4.

11 *Id.*, ECF No. 75 (Joint Stipulation and Order Dismissing D-Link Corporation without Prejudice entered May 15, 2017).

12 *Bancroft & Masters, Inc. v. Augusta Nat'l Inc.*, 223 F.3d 1082, 1088 (9th Cir. 2000).

The third and fourth factors, involving foreign sovereignty and a foreign state's interest in the dispute, could become relevant when, for example, manufacturers in China assert conflicting data security obligations in China. That is, a Chinese manufacturer may assert that what a U.S. regulator deems a "vulnerability" is in fact a disclosure or means of access that is necessary to comply with China's Cybersecurity Law. Specifically, the law imposes requirements on manufacturers that certain network products and services must undergo a state security assessment and that network operators cooperate with Chinese public security and state security bureaus.[13] To the extent a foreign jurisdiction has an interest in the future in resolving the issues raised in an FTC complaint, these issues may demonstrate a "conflict with the sovereignty of the defendant's state" or "the forum state's interest in adjudicating the dispute." A foreign company could highlight these conflicts to a court to explain why an FTC action against it should be dismissed.

B. D-Link's Challenge to the FTC's Enforcement Authority Over the Security of Its Devices

D-Link brought a separate motion to dismiss the complaint that challenged the FTC's power to seek injunctive relief, based on what the FTC asserted were inadequately identified risks of harm from the alleged security flaws. D-Link attacked both the FTC's "unfairness" claim and the "deception" claims.

The court dismissed the unfairness claim. The court initially rejected D-Link's claim that the FTC did not have authority under Section 5 of the FTC Act to regulate data security practices, given that Congress deliberately made the provision "open-ended."[14] Interestingly, the court's order did not state that the FTC had articulated what constituted unfairness in the data security context, perhaps in recognition that, at least at this stage, fairness "is a flexible concept with evolving content."[15] Indeed, the court then rejected D-Link's claim that the FTC had not provided fair notice, since, as the court noted, "to require the FTC in all cases to adopt rules or standards before responding to data security issues faced by consumers is impractical and inconsistent with governing law."[16]

But after rejecting these claims, the court addressed the complaint's allegation of the likelihood of substantial injury for the unfairness claim under Section 5(n) of the FTC Act.[17] The court noted that the FTC's claim depended on the allegation that outside hackers could avail themselves of available tools to exploit known vulnerabilities in D-Link devices.[18] The court deemed this allegation to "make out a mere possibility of injury at best."[19] Importantly, the complaint did not allege that anyone had suffered harm

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13 China Cybersecurity Law, arts. 23, 28.

14 *D-Link*, No. 3:17-cv-00039-JD, ECF No. 90 at 6:6–7:1.

15 *Id.* at 6:22–23 (citing *FTC v. Bunte Bros., Inc.*, 312 U.S. 349, 353 (1941)) (internal quotation marks omitted).

16 *Id.* at 7:17–18.

17 *Id.* at 8:10–9:28.

18 *Id.* at 8:20–23.

19 *Id.* at 8:25–26.

from the alleged security flaws. This was in contrast to other cases that alleged an actual theft of personal information that went along with identified fraudulent activity.[20]

The court noted in passing that the FTC could have based its unfairness claim on representations as to data security that D-Link made to consumers. If the FTC had done so, the alleged purchase of an unsecure device or a device not as secure as advertised "would likely be in the ballpark of a 'substantial injury,' particularly when aggregated across a large group of consumers."[21] But that was not the approach taken by the FTC. Accordingly, the court dismissed the unfairness count.

The court also analyzed the FTC's claims alleging deceptive practices by D-Link with respect to advertising and labeling its products. In particular, the court addressed D-Link's claim that a disclaimer to the consumer in its security policy frustrated the FTC's ability to allege fraud to survive its motion to dismiss.[22] The court rejected this claim, noting that "[d]isclaimers, moreover, do not as a matter of law immunize statements that are otherwise deceptive."[23] The court then pointedly remarked:

> That point is particularly apt here, where the D-Link disclaimer attempts a sweeping abandonment of responsibility that purports to dump on the consumer all of the risk that D-Link may be wrong, reckless or outright lying about its data security features.[24]

While the court rejected this general attack on the deceptive statement counts, the court dismissed some of the complaint's counts involving particular alleged misrepresentations, given that the support for those counts did not contain specific statements that were likely to be misleading to consumers. The only representation was the single word "SECURITY" printed on the brochure, in contrast to exhibits in support of other counts that contained particular statements regarding data security.[25] Nevertheless, the court supported other alleged misrepresentations regarding routers and IP camera GUIs.[26]

This partial defeat for the FTC is instructive in many ways. The court basically concluded that the FTC did not adequately allege that D-Link's security flaws actually led to misuse of data. Without such an allegation, the court found, there was not the requisite element of "substantial injury" needed for the FTC to bring an action on the "unfairness" claim. This ruling should be read together with the Eleventh Circuit's recent rejection of the FTC's data security cease and desist order against LabMD, Inc.[27] After

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20 *D-Link*, No. 3:17-cv-00039-JD, ECF No. 90 at 8:26–9:12 (citing *FTC v. Wyndham Worldwide*, 799 F.3d 236, 242 (3d Cir. 2015)).

21 *Id.* at 9:22–28 (citation omitted).

22 *Id.* at 5:4–16. D-Link's disclaimer states: "It is up to the reader to determine the suitability of any directions or information in this document." *Id.* at 5:6–7.

23 *Id.* at 5:10–13 (citing *FTC v. Brown & Williamson Tobacco Corp.*, 778 F.2d 35, 42–44 (D.C. Cir. 1985)).

24 *Id.* at 5:13–16.

25 *Id.* at 5:21–6:4.

26 *Id.* at 5:17–20.

27 *LabMD, Inc. v. FTC*, 894 F.3d 1221, 1237 (11th Cir. 2018).

someone installed LimeWire, a file-sharing application, on a computer used by the billing manager at LabMD, a medical laboratory, the FTC filed an enforcement action, asserting that LabMD's data-security program was inadequate and constituted an unfair practice under Section 5(a) of the FTC Act.[28] The FTC's complaint alleged that LabMD failed to employ a variety of security measures, resulting in the improper exposure of consumer data.[29] The Eleventh Circuit held that the order's absence of any prohibitions and lack of instruction to stop specific acts or practices rendered the order unenforceable based on lack of specificity.[30]

In particular, the court disapproved the injunctive provision requiring that LabMD "establish and implement, and thereafter maintain, a comprehensive information security program that is reasonably designed to protect the security, confidentiality, and integrity of personal information collected from or about consumers."[31] In the court's view, this requirement impermissibly exposed LabMD to the prospect of dueling experts who asserted or contested that a particular component "x" was "a necessary component of a reasonably designed data-security program."[32] This effective modification of the injunction at future hearings for an order to show cause would subject LabMD to "micromanaging . . . beyond the scope of court oversight contemplated by injunction law."[33]

In light of these rulings, the FTC will need to plead that there has been an actual misuse of data. This may be difficult in many cases, particularly with IoT devices, as discussed below. To the extent allegations of substantial injury depend on theft of personal information, perpetrators of IoT hacks do not necessarily seek the data from the IoT device, nor do they do anything with it if they obtain it. Rather, they simply want the computing power of the device in order to attack others. This suggests, for instance, that the FTC would have a difficult time pursuing a company such as Hangzhou Xiongmai, which manufactured many of the webcams that were used in a notorious botnet that took down a major internet infrastructure service provider in 2016.[34] While the webcams were hijacked so that malicious actors could use their computing power to engage in a Distributed Denial of Service (DDoS) attack, it is highly unlikely that the hackers were interested in any of the data stored and transmitted on the devices. Even if they siphoned off some of the data, given the massive size and geographic spread of the attack, showing (or even alleging) that any of the data was actually misused would be a difficult task.

Nevertheless, at the same time, the *D-Link* court provided insight into its thinking about how the unfairness claim was alleged and what could be done differently in the future. For example, the FTC could tie such claims to the representations underlying the deception claims, which would make the injury allegation more plausible: that is, a

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28 *Id.* at 1224-25.

29 *Id.* at 1225 n.8, 1229.

30 *Id.* at 1236-37.

31 *Id.* at 1236.

32 *Id.*

33 *Id.* at 1237.

34 Michael Kan, *Chinese firm admits its hacked DVRs, cameras were behind Friday's massive DDOS attack*, PC World, Oct. 23, 2016, *available at* https://www.pcworld.com/article/3134039/hacking/chinese-firm-admits-its-hacked-products-were-behind-fridays-massive-ddos-attack.html.

consumer who purchases a device that is not as secure as advertised is likely to be able to show substantial injury. Hints such as this dicta in the court's order on D-Link's motion to dismiss are likely to guide the FTC's approach going forward, as discussed below, particularly with respect to IoT devices.

IV. IMPLICATIONS FOR FOREIGN IOT MANUFACTURERS

Trial in the *D-Link* case is currently scheduled for January 2019.[35] It is likely that the volume of FTC enforcement activity against overseas IoT manufacturers and distributors will continue to increase. Enforcement could include claims similar to those in *D-Link*, but the FTC has also taken action to enforce the Children's Online Privacy Protection Act of 1998 (COPPA).[36] COPPA generally sets requirements for the collection of information of children under 13 years of age, including providing notice of such collection to the child's parent and obtaining consent from the parent.

This year, the FTC entered into a consent decree with the Hong Kong-based children's electronic learning products manufacturer, VTech Electronics Ltd., and its U.S. subsidiary ("VTech") to enjoin the collection of information in violation of the FTC's own COPPA rule.[37] VTech provided a "Kid Connect" online app on these products, so that child users could communicate with other children and adults who also had the app. The FTC alleged that VTech failed to link its privacy policy to each area of Kid Connect that collected personal information from children. The FTC also alleged VTech failed to develop and implement an adequate information security program and that, in November 2015, VTech learned that a hacker had compromised consumer information, including personal information of children who used Kid Connect.[38]

The consent decree enjoined VTech from violating COPPA, particularly with regard to requiring notice to parents of its data collection practices and obtaining parental consent for that collection. The decree also required VTech to pay a $650,000 judgment, to establish an information security program, and to undergo data security assessments conducted by a qualified third-party professional.[39] State regulators have followed in kind,

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35 *D-Link*, No. 3:17-cv-00039-JD, ECF No. 149 (amended scheduling order). Each side recently moved for summary judgment. *D-Link*, No. 3:17-cv-00039-JD (N.D. Cal.), ECF Nos. 178 and 183. The FTC argued that D-Link made certain representations regarding the security of its routers and cameras, and that those devices contained serious vulnerabilities, but that D-Link sold the devices anyway. *D-Link*, No. 3:17-cv-00039-JD (N.D. Cal.), ECF No. 178 at 2:1-6. D-Link, for its part, argued that the allegedly deceptive statements were all made in the past, and are no longer being made, while any device vulnerabilities have been resolved, and its current security practices are reasonable. *D-Link*, No. 3:17-cv-00039-JD (N.D. Cal.), ECF No. 183 at 5-11. D-Link also contended that there are "no consumer victims" and that the FTC has failed to present any evidence of any consumers who were actually harmed. *Id.* at 2:9-15. The motions are pending for hearing on November 1, 2018. *Id.* at 1:3.

36 15 U.S.C. §§ 6501–6506.

37 *United States v. VTech Electronics Ltd.*, No. 18-cv-00114 (N.D. Ill.), ECF No. 2 (FTC motion for entry of stipulated order; attaching FTC COPPA Rule, 16 C.F.R. §§ 312.1–312.13).

38 *Id.*, ECF No. 1, ¶¶ 10–28 (complaint filed Jan. 8, 2018).

39 *Id.*, ECF No. 2-1 at 8–14.

including a recent consent decree that the New Jersey Division of Consumer Affairs entered into with a Chinese mobile app developer, Meitu, Inc.[40]

The more general scrutiny given to IoT and other technology products connected to China by U.S. regulators suggests that similar enforcement actions are forthcoming. For example, the U.S.-China Economic and Security Review Commission recently commissioned a report on the U.S. federal information and communications technology (ICT) supply chain, which identified risks based on China's encouragement of indigenous ICT capacity, as well as pressures on U.S. industry to reveal source code, submit to security audits, and require storage of data in China. As a result, the report's authors recommended a national strategy for supply chain risk management for supply chain vulnerabilities for ICT, with a special emphasis on procurement linked to China.[41]

Similarly, in reviewing foreign acquisitions of U.S. businesses, the Committee on Foreign Investment in the United States (CFIUS) has noted its focus on certain proposed acquisitions of U.S. businesses engaged in "cryptography, data protection, Internet security, and network intrusion detection."[42] It is not too much of a leap to infer that CFIUS may have a similar interest in the ability of a foreign acquirer to secure sensitive personal data of U.S. citizens by way of a transaction, and that CFIUS' scrutiny could hinder the parties' ability to pursue or complete the deal.

V. CONCLUSION

The procedural history thus far in the *D-Link* matter provides two lessons for IoT manufacturers and regulators. First, the scope of the FTC's enforcement activity includes the vigorous exercise of its long-arm power over overseas manufacturers that conduct activity in the U.S. As *D-Link* and some of the other cases discussed here suggest, Asian manufacturers and suppliers have claimed a growing share of the IoT market. With that growth, the FTC has demonstrated an interest in their data security policies and practices. While the D-Link parties avoided a court ruling on the jurisdictional issue over the Taiwanese parent through a stipulation in which the parent agreed to provide discovery in exchange for dismissal, there are likely to be future cases presenting this issue, particularly if the parent conducts its activities in the U.S. through agents or third parties.

Second, as discussed above, an FTC unfairness claim in the context of IoT device vulnerability will likely present disputes as to whether there is a "substantial injury." If the FTC is unable to show anything more than possible unauthorized access to personal information without actual theft, the FTC is left with the dicta in *D-Link* that the deficiency may be cured where the alleged vulnerability is connected to a deceptive representation. The FTC did not allege an actual botnet takeover of D-Link devices. If it

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40 *In re Meitu, Inc.*, Consent Order, New Jersey Dep't of Law and Public Safety, Division of Consumer Affairs (Apr. 17, 2018), *available at* https://www.njconsumeraffairs.gov/News/PressAttachments/05082018-press-attachment.pdf.

41 Interos Solutions, Inc., Supply Chain Vulnerabilities from China in U.S. Federal Information and Communications Technology (prepared for U.S.-China Economic and Security Review Comm'n), ch. 4 (Apr. 2018), *available at* https://www.uscc.gov/sites/default/files/Research/Interos_Supply%20Chain%20Vulnerabilities%20from%20China%20in%20U.S.%20Federal%20ICT_final.pdf.

42 Guidance Concerning the National Security Review Conducted by the Committee on Foreign Investment in the United States, 73 Fed. Reg. 74567, 74571 (Dec. 8, 2008).

could make that showing, perhaps the court would then confront a different basis to find at least a prima facie showing of a substantial injury. To await such an event, however, is inconsistent with the FTC's enforcement program, which seeks preventative action from IoT manufacturers.

ANTITRUST, PRIVACY, AND DIGITAL PLATFORMS' USE OF BIG DATA: A BRIEF OVERVIEW

By Eliana Garcés and Daniel Fanaras[1]

The role of data in the provision of services on digital platforms has been attracting a lot of attention by consumers, businesses, and regulators alike. Data collection and usage is becoming central to many digital platforms, some of which reach and connect hundreds of millions of users. While these businesses have become significant conduits for commercial and social interactions, there are concerns that the access and management of user data is further cementing their power over many aspects of business-to-consumer relations. This article discusses the current challenges that extensive data collection and usage pose for antitrust regulators that aim to preserve competition and service quality for users. After describing the factors underpinning the success of many digital businesses, which include the efficient use of data, we discuss the relation between data, market power, and market entry as well as the implications for merger review. We also assess the relation between data, foreclosure and monopolization. Finally, we discuss the extent to which antitrust regulation may be useful in addressing online privacy concerns. We conclude that the impact of data collection on the competitive environment is not subject to generalizations and must in all instances be subject to a case-by-case assessment. Moreover, because data collection simultaneously affects a variety of interdependent activities on a platform, regulators should take into account the multi-sided nature of digital businesses. We also find that antitrust is probably not the right instrument to address issues raised by privacy concerns.

I. THE ROLE OF DATA IN PLATFORM VALUE CREATION

Online digital platforms are businesses that rely on technology to aggregate content and services and connect users for the purposes of communicating, transacting or sharing.[2] Examples of platforms range from ones with diverse offerings—such as Amazon, Google Android, or Facebook—to those with narrower functions such as PayPal, Uber, YouTube or Booking.com. Digital platforms have dramatically reduced transaction costs in a large number of markets. They have reduced the search costs, information costs, and costs of service delivery compared to their offline counterparts by creating efficiencies that usually are idiosyncratic to platform design and technology.[3] Well-designed platforms provide instantaneous, large-scale connectivity between users, thereby providing a multitude of possible counterparties for transacting or sharing information within the same environment. They can also organize vast amounts of information in a tractable and useful way. This connectivity and level of service is typically provided at little or no cost to the end-user. As platforms grow in size, so does the number of interconnections that are possible between users and the number of valuable potential exchanges among

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2 We use the term "users" here to refer to any type of user who engages in activities on the platform. This can include individual end-users as well as individual or business actors on the other side of the platform, such as service providers, media content suppliers and advertisers.

3 *See generally* Avi Goldfarb & Catherine Tucker, *Digital Economics* (Nat'l Bureau of Econ. Research, Working Paper No. 23684, Aug. 2017) (forthcoming, *Journal of Economic Literature*).

them. Having a large number of interconnected users makes it attractive for a platform to diversify its offerings by expanding into new areas over time. Platforms often benefit from economies of scope, meaning that they obtain efficiencies through offering multiple services simultaneously. Examples of such efficiencies are the provision of content delivery and communication services, retailing and payment services, or professional networking and recruiting services. Examples of growth with diversification are pervasive and include Amazon—then solely a shopping platform—launching video content in 2006 or Uber's expansion from a ride hailing service to offering food delivery services in 2014.[4]

Platforms collect data in different ways. They are able to observe the specific behavior of users while they are engaged in the different activities on the platform. A platform may also elicit information by asking users to log-in or may establish partnership with other services to access or exchange user information. Whether it is searching for a particular type of product, reading a particular type of content, or voluntarily disclosing information, the behavior of users can provide platforms with valuable data revealing specific preferences and tendencies that signal the compatibility of certain users with others, including merchants and content providers. A platform that can effectively analyze this data can create additional efficiencies by creating more efficient matching between counterparties or itself providing better offers. For example, a car manufacturer will be able to advertise to a specific set of users who have been searching for cars or even to people possessing characteristics that correlate with car purchases. Knowing this, a platform will incentivize and elicit user engagement, which in turn can improve the quality of its demographic and behavioral data.

The richer the data, the higher the likelihood will be of obtaining valuable information. But the value of data is limited when considered on a standalone basis. Rather, it is the collective interplay between the data, data analytics, and the resulting innovations in content and services that creates value for a platform and its users. Know-how and data-analytics capabilities thus play a fundamental role in turning data into actionable information. A platform's effective use of data analytics can drive innovation and help create new services using the data. For example, Google relies on user data to populate real-time traffic information within its Google Maps services. However, the relative contribution of data analytics to the value generation and success of a platform will vary depending on the nature of the services provided. Similarly, the extent to which a platform's use of data provides a competitive advantage will vary across activities and businesses.

II. DATA ACCUMULATION, ENTRY BARRIERS, AND MARKET POWER

The relation between data and market power is based on the idea that data can generate a "virtuous loop." As a platform expands and diversifies, it obtains a greater ability to compile different types of data from an increasing number of users. The benefits of these additional data will provide the platform with the opportunity to develop even

4 Press Release, Amazon.com, Amazon.com Launches Amazon Unbox(TM), a Digital Video Download Service with DVD-Quality Picture (Sept. 6, 2006), *available at* http://phx.corporate-ir.net/ phoenix.zhtml?c=176060&p=irol-newsArticle&ID=903244. *See also* Jenn Harris, *Uber Launches $3 Food Delivery Service UberFresh*, Los Angeles Times, Dec. 8, 2014, *available at* http://www.latimes.com/food/ dailydish/la-dd-uber-launches-food-delivery-service-uberfresh-20141208-story.html.

more services and make enhancements to existing ones. Efficiency improvements further grow the user base and extent of collectible data. In this way, the platform may very well find itself in a sustained virtuous loop where success in one type of service leads to large scale data collection, which leads to more positive enhancements in services, then to further expansion, and so-on. As a result, the platform's services become superior to the similar services offered on other smaller platforms, which in some instances can turn into a significant advantage vis-à-vis rivals and perhaps a disincentive for entry. Although this "virtuous circle" has been assimilated to a network effect in some literature—because it tends to be associated with increases in the number of users—the phenomenon described here is rather the result of increasing returns to scale (and scope) in data. It operates for as long as additional data serves to make a service more efficient to every user. Note that the importance of this effect and how soon it may exhaust is a matter for empirical assessment and should not be presumed.

Rival services can face disadvantages in those cases where access to data provides efficiency advantages. The challenging part from a regulatory perspective is that rapid growth resulting from the dynamics just described, is not the result of any typical anticompetitive conduct and, as a result, does not in principle provide grounds for intervention. From a consumer welfare perspective, the size of a platform business should not be a concern if there is confidence that a more efficient service can still enter or expand and attract users. The question that appears to concern some regulators is whether some platforms benefit from an access to data such that their efficiency advantage cannot be replicated by rivals or potential entrants. Such concerns have prompted discussion in some jurisdictions (generally, non-U.S.) about whether certain types of data should be considered essential facilities for entry and operation in some markets. But even in Europe the bar is high, as regulators would have to show that a particular data is indispensable, with no actual or potential substitute available for operators wishing to enter a market.[5] This is likely to be a very challenging exercise in most cases as one would have to show that the entrant cannot itself collect the data.

We next examine in more detail (i) the extent to which data can represent a barrier to entry, (ii) how this needs to be taken into account in merger review, and (iii) whether data collection and usage can, in some instances, give rise to anticompetitive conduct.

A. Data As Barrier To Entry

Some antitrust enforcers have already expressed fears that very large platforms have an insurmountable advantage in some important online sectors due to the vast amount of behavioral information they can gather.[6] Search and social media services are often deemed to gather highly valuable data for the purpose of targeting and user profiling as are large retail sites or navigation services. Such data, and the targeting they allow, give large platforms superior access to advertising revenues, which in turn can enable them to provide superior quality in their offers. But, when thinking about entry, it is important

5 Case C-7/97, Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, 1998 E.C.R. I-7791.

6 See, for example, the joint article by the French and German antitrust enforcers: Bruno Lasserre & Andreas Mundt, *Competition Law and Big Data: The Enforcers' View*, 4 Italian Antitrust Rev. 87 (2017), *available at* http://iar.agcm.it/article/view/12607/11417.

not to succumb to generalizations, as this may lead to overstating the role of data in a platform's initial and continued success. User data does not play the same role in the quality and attractiveness of all types of services, and many services have started without it and have managed to attract traffic. Likewise, there are examples of services that have managed to attain critical mass after starting from scratch, even when the quality of service depended on the amount of user generated data or network effects.[7] A platform does not always need to start big and can utilize different strategies to attract its first users and motivate their engagement.

For example, a platform can promote the platform among technology enthusiasts, reward the initial users, or create behavioral incentives such as 'gamification.'[8] The strategy used will depend on the type of user participation needed for the platform's growth. A shopping platform, for example, is more likely to use financial rewards, while another may elicit user engagement with more behavioral strategies. So whether data represents a barrier to entry in a particular market will depend on the possibility to attract the first users without the benefit of much previous user data. Important factors for successful entry include the benefits the new service provides, such as lower transaction costs, a superior interface, or novelty, as well as a firm´s management skills. And some online services, irrespective of initial volume and available data, will succeed because they provide an easier, faster or better alternative or just better commercial management. These benefits may be more important to the user than the benefits brought about by the use of data and data analytics. In order to assess whether access to data represent a barrier to entry, the contribution of data to the overall quality of the service must be weighed against these factors.

In those instances where access to a particular set of data is crucial for the viability of the service, as may be the case for a particular type of advertising or targeting, one would want to examine whether it is possible to acquire the necessary data from third parties or to contract an integrated solution to improve targeting or relevance. Online publishers, for example, may contract integrated ad-serving companies that are able to target their readers with third party information.[9] There also is a vibrant industry of data brokers that commercialize data collected through cookies and internet tracking.[10] Accordingly, an assessment of whether data is indispensable to compete in a market must look at the different types of data and the different types of data sources that might be used to provide

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7 Examples are the apps Waze and WhatsApp. *Succeeding Because of Social; Learn from The Must-Try App Waze*, Peformline, http://silverbacksocial.com/succeeding-social-learn-must-try-app-waze; *A Year Later, $19 Billion For WhatsApp Doesn't Sound So Crazy*, TechCrunch (Feb. 20, 2015), https://techcrunch.com/ 2015/02/19/crazy-like-a-facebook-fox/?guccounter=1.

8 Gamification is the practice of framing a platform's interface as a game while offering incentives and rewards for participation. *See* Juho Hamari, Jonna Koivisto, & Harri Sarsa, *Does Gamification Work?—A Literature Review of Empirical Studies on Gamification*. 2014 Proc. Ann. Hawaii Int'l Conference on System Sciences (Jan. 2014), *available at* https://www.researchgate.net/publication/256743509.

9 Fed. Trade Comm'n, Data Brokers: A Call for Transparency and Accountability (May 2014).

10 For a description of the data broker industry, see Matthew Crain, *The Limits of Transparency: Data Brokers and Commodification*, 20 New Media & Society 88 (Jan. 2018).

the service in question with equal success.[11] The ability of users to multi-home may help new or alternative services collect user data as users can try and use their services without having to incur the potential costs of giving up the old one. In sum, whether data represents a barrier to entry in a particular market necessarily is a case specific analysis. This analysis must examine the relevance of the data for the quality and success of the service provided, the alternative sources of data and the alternative types of data that could be used to enhance a comparable service to the same effect, as well as consumer behavior in terms of switching and multi-homing.

B. The Consideration Of Data During Merger Assessment

When considering the competitive effects of data in a merger context, a first consideration is whether the merger would result in an increase in market power due to the potentially increased advantages to the two merging parties by the combined data. Some have expressed concerns about whether the combined data incrementally creates or increases entry barriers such that rivals would "be required to collect a larger dataset in order to compete effectively with the merged entity than absent the merger."[12] However, possessing more data in and of itself, including due to a merger: (i) does not necessarily increase the market power of a firm (as explained in the discussion of barriers above), and (ii) can also be viewed as procompetitive efficiency relating to scale and/or scope. It is possible, however, that the merging companies were competing with each other pre-merger on the basis of their data and this competition would now be eliminated by the merger.[13] If true, this concern would be more about the nature and extent of pre-merger competition over innovation and quality of the platform's services than it would be about market power derived from data. And while one could theorize that a firm (or firms) has some form of market power derived from unique access to data combined with analytics, one would still have to balance that notion against the incentives of the parties to enhance their services and capabilities due to the opportunities for scope economies (see virtuous loop discussion above).

There are also discussions about whether certain data could be viewed as constituting a product market in its own right. If so, one could then consider the competitive effects of a merger in such a market, for example by looking at changes in the combined "market share" of the two parties. However, viewing the data as a product market would be difficult unless the data were actually being sold as a product to consumers or third parties—without such sales it would be challenging to perform basic demand substitution analyses between products for the purposes of defining the boundaries of the relevant market.[14] Unless the data are actually sold, the data are best viewed as an input, which often raises the question of whether the merger involves complementary assets. Combining

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11 For a detailed discussion on data as a barrier to entry, see Daniel L. Rubinfeld & Michal S. Gal, *Access Barriers to Big Data*, 59 Ariz. L. Rev. 339 (2017).

12 Comm'n Decision, Case M.8124 (*Microsoft/LinkedIn*) ¶ 179 (Dec. 6, 2016).

13 *Id.* ¶ 179.

14 For a discussion of these considerations, see Darren S. Tucker & Hill B. Wellford, *Big Mistakes Regarding Big Data*, Antitrust Source, Dec. 2014, at 4-6; *see also* Etienne Chassaing, Charlotte Breuvart, & Anne-Sophie Perraut, *Big Data and Competition Law in the Digital Sector: Lessons from the European Commission's Merger Control Practice and Recent National Initiatives*, 3 Concurrences 41, 43-44 (2016).

complementary inputs between the parties does not translate directly into an increase in market power.

A second consideration is whether combining data between the parties can increase the risk of meaningful foreclosure by cutting off access to data for rivals or "raising rivals' costs." For example, due to concerns about Microsoft's ability to foreclose LinkedIn's rivals in professional networking services, the European Commission imposed access remedies involving pre-installed software when approving the Microsoft-LinkedIn merger in late 2016.[15] However, it is worth noting that this remedy did not involve providing anyone with access to the newly-acquired LinkedIn's data—the remedy was akin to an interoperability remedy and involved granting LinkedIn´s rivals access to some data collected on the Windows platform.[16] In a more recent transaction, when announcing its in-depth review of the Apple-Shazam merger, the Commission expressed concern that Shazam's data could give Apple unfair access to sensitive behavioral data.[17] Shazam is a developer of music recognition applications which earns commissions from referring users to digital music streaming and download services, such as Apple Music, Spotify and Deezer.[18] By acquiring Shazam, Apple will have access to the tastes and behavior of its rivals' customers, which may prompt commercial targeting and give it unfair advantage on the market. The deal was ultimately cleared without conditions on the basis of the finding that Apple would not be able to foreclose rival music streamers.[19] As part of their scrutiny, authorities may have considered whether there are merger-specific efficiencies generated by the data and whether the combined use of data by the parties can promote innovation and consumer welfare. This assessment of efficiencies is particularly relevant for the assessment of conglomerate mergers. As data collection and analytics become the critical activity in many value chains, traditional businesses are acquiring access to user interface and user data in order to remain relevant and efficient in fast changing markets. In approving the recent vertical merger between AT&T and Time Warner, which had been challenged in court by the U.S. Department of Justice, the U.S. District Court highlighted the efficiencies that data would create for the parties stating that the data possessed by the parties individually would create synergies post-merger that would allow the combined company to better compete with innovative rivals, such as the subscription-

15 Comm'n Decision (*Microsoft/LinkedIn*) ¶ 437.

16 The remedy involved granting rivals access to the application programming interface (API) or "all core [Microsoft] Office products" as well as Microsoft Graph, a gateway that enables developers "to build applications and services that can, subject to user consent, access data (such as contact information, calendar information, email and files) from Microsoft's cloud services." *Id.* ¶ 437 (a)-(b).

17 The Commission's press release stated "at this stage, the Commission is concerned that, following the takeover of Shazam, Apple would obtain access to commercially sensitive data about customers of its competitors for the provision of music streaming services in the EEA. Access to such data could allow Apple to directly target its competitors' customers and encourage them to switch to Apple Music." *See* European Commission Press Release IP/18/3505, Mergers: Commission Opens In-Depth Investigation into Apple's Proposed Acquisition of Shazam, (Apr. 23, 2018), *available at* http://europa.eu/rapid/press-release_IP-18-3505_en.htm.

18 *Id.*

19 European Commission Press Release IP/18/5662, Mergers: Commission clears Apple's acquisition of Shazam (Sept. 6, 2008), *available at* http://europa.eu/rapid/press-release_IP-18-5662_en.htm

based video programming services Netflix and Hulu.[20] Also, the multi-faceted use of data allows business to use data collected by acquired businesses to improve their own offer or propose new ones. In this way, a merger that combines data between two firms could also benefit from the same efficiencies that a platform experiences when it grows via additional users or expansion of new services.

C. Data and Conduct Considerations

If platforms can successfully monetize data, they will organize their business in a way that favors data collection. This can be done by adopting strategies that increase traffic, for example by offering tracking and profiling as a service (as is done in many 'log-in' environments that provide a customized interface) or by promoting engagement so that users volunteer personal information. One way to increase traffic and user data is to offer low and even zero prices, a practice that has sometimes been characterized as predatory.[21] Extensive multi-sided market literature, however, explains that optimal pricing decisions may incorporate the indirect benefits to the service provider generated by a customer transaction.[22] When this happens, the price deviates from predictions based on average variable or marginal costs. For example in the presence of network effects, a price may be lowered to account for the fact that a customer may not only provide a direct monetary benefit to the seller but will also indirectly increase profits by increasing the overall value of the service to other customers. In a similar way, a platform that can monetize data will optimally lower prices, potentially to zero or below, if the resulting additional traffic increases profits by the monetization of data. The low price to users may well be the result of a profit maximization exercise that takes all the mechanisms of monetization of the platform into account. For example, an online platform may price a service to maximize profits taking into account the cost of the sale, the direct benefit from the transaction, the benefits from the monetization of the data, and any benefits from further user engagement such as 'eyeballs' for advertisers. The fact that the resulting price may be zero, and even negative, does not mean that the price is predatory as it may be profitable once one accounts for all aspects of the business in question. This does not invalidate the fact that low or zero pricing may sometimes be motivated by an exclusionary strategy. But to establish an antitrust violation, one should assess the pricing behavior in light of all the profit channels that are impacted by an additional customer or transaction.[23] The U.S. Supreme Court has already ruled that both sides of a market need to be considered

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20 The Court's opinion stated: "Watching vertically integrated, data-informed entities thrive as television subscriptions and advertising revenues declined, AT&T and Time Warner concluded that each had a problem that the other could solve: Time Warner could provide AT&T with the ability to experiment with and develop innovative video content and advertising offerings for AT&T's many video and wireless customers, and AT&T could afford Time Warner access to customer relationships and valuable data about its programming." *United States v. AT&T Inc.*, 310 F. Supp. 3d 161, 164 (D.D.C. 2018). As of the time of writing, this case is on appeal.

21 Drew Sandholm, *Amazon's Predatory Pricing Questioned*, CNBC (Jun. 30, 2014), https://www.cnbc.com/2014/06/30/amazons-predatory-pricing-questioned.html; Charles Arthur, *Google Faces Complaints to European Regulator over Predatory Pricing*, The Guardian (Apr. 9, 2013), https://www.theguardian.com/ technology/2013/apr/09/google-faces-complaint-european-regulator-pricing.

22 *See, e.g.,* Julian Wright, One-Sided Logic in Two-Sided Markets, 3 Rev. Network Econ. 44 (2004); David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 Yale J. Reg. 325 (2003).

23 For a comprehensive discussion of zero pricing, see Michal S. Gal & Daniel L. Rubinfeld, D. L., *The Hidden Costs of Free Goods: Implications for Antitrust Enforcement*, 80 Antitrust L.J. 521 (2016).

for the analysis of markets characterized by strong indirect network effects.[24] In fact, a proper assessment of platform conduct should account for all types of interdependencies irrespective of their source.

Besides being used for advertising-related profiling, user data is increasingly used to increase the targeting capabilities of the platform's service. Targeting users with relevant news, relevant products, and adequate prices is bound to improve the service quality for the customer and increase profits. In the case of digital platforms that provide both a service and serve as online intermediaries for competitors, such as retail platforms or ad serving publishers, questions arise about the differential access to relevant data. In some jurisdictions a platform favoring its own service by providing differential access to user data for different business partners might create some antitrust risk if this behavior demonstrably limits competition in the market. But the standards to be met for an antitrust violation would likely be high and may require showing that the intermediary service is unavoidable and that the discrimination has a material effect on the market. Finally, the use of dominance or bargaining power to extract one sided data sharing agreements from business partners is likely to attract regulatory attention.

III. COMPETITION, PRIVACY, AND CONSUMER WELFARE

Well before data became a source of possible antitrust concern for platforms, antitrust regulators had already looked at the privacy implications of data collection in this context. For example, in 2008 the FTC mentioned it had looked at "non price attributes of competition such as consumer privacy" in the context of the Google/DoubleClick transaction, although it found no issues.[25] The European Commission also noted that privacy was a dimension of competition in the Facebook/WhatsApp and Microsoft/LinkedIn clearance decisions.[26] The assessment of any possible detrimental effect of a merger on privacy is similar to the traditional analysis of the price effect of mergers. It centers on the analysis of incentives and ability by the service provider to degrade the privacy of its users. Privacy degradation is defined in the above mentioned merger decisions as the usage of newly accessible user data for targeted commercial services, notably advertisement. The implicit assumption is that this would be seen as a negative development by at least some of the users. Until now, however, no merger investigation of which we are aware has been imperiled by privacy concerns as a quality factor.

The FTC has been more active than the European Commission in addressing privacy effects of acquisitions, most likely because it is directly responsible for consumer protection. Under that hat, and in the context of the WhatsApp acquisition, it reminded Facebook that it needed to continue to honor WhatsApp's privacy commitments if it

24 *Ohio v. American Express Co.*, 138 S. Ct. 2274 (2018).

25 Statement of Federal Trade Commission Concerning Google/DoubleClick FTC, File No. 071-0170. The European Commission stated that its appraisal concerned exclusively the rules of competition law without prejudice of the application of privacy laws. Comm'n Decision Case M.4731 (*Google/DoubleClick*) ¶ 368 (Mar. 11, 2008).

26 Comm'n Decision Case M.7217 (*Facebook/WhatsApp*) ¶¶ 87, 102 (Oct. 3, 2014); Comm'n Decision Case M.8124 (*Microsoft/LinkedIn*) ¶ 350 (Dec. 6, 2016).

wanted to avoid a violation of Section 5 of the Federal Trade Commission Act.[27] In doing so, the FTC was not identifying any harm to competition, but rather simply enforcing consumer protection legislation against misinformation and deceit.[28] The FTC order against Facebook is reminiscent of the newly adopted General Data Protection Regulation (GDPR) in the EU in that it requires explicit user consent for any usage of personal data. Adopted in May 2016 and in force since May 2018, the GDPR is the most ambitious privacy regulation currently in effect. It addresses any company's processing of the personal data of subjects residing in the European Union, regardless of the company's location or line of activity, and establishes that data can only be collected for specified purposes and cannot be further processed in a manner that is incompatible with those purposes, unless explicit consent is given by the data subject.[29] Although there is no equivalent legislation in the United States, California has recently approved a Consumer Privacy Act that would allow consumers to obtain information from a business about the personal information that is collected and the purposes for which it is being used.[30] These legislative initiatives are indicative of policies that try to guarantee that consumers receive transparent and truthful information about data collection and usage, and also represent an attempt to put some control of such usage in the hand of users. This "notice and choice" approach has been the general approach by U.S. regulators that have traditionally relied on transparency as the key to consumer protection.[31] The hypothesis is that, by making consumers more aware of the privacy implications of the digital services they use, they will make choices that impose an optimal discipline on the market. But there is currently little evidence on the relative importance of the privacy dimension in consumers' choice of digital services. Despite some digital services' attempt to build a privacy-friendly image, as of now, there does not seem to be a "race to the top" on privacy issues. The extent of users' preferences for privacy remains unclear, which complicates the integration of the privacy dimension into antitrust and merger control.

There is one interesting instance where an antitrust authority used antitrust law to address conduct relating to data collection. In March 2016, the German competition authority opened an investigation into Facebook for a possible abuse of market power

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27 Letter from Jessica L. Rich, Director, Federal Trade Commission Bureau of Consumer Protection, to Erin Egan, Chief Privacy Officer, Facebook, and to Anne Hoge, General Counsel, WhatsApp Inc. (Apr. 10, 2014). The letter also reminded Facebook of its 2012 obligations under the order against it preventing it from misrepresenting to its users the extent of its privacy and security protection and its obligation to obtain consumers' affirmative express consent before sharing their nonpublic information in a manner that materially exceeds any privacy setting signed up by users. *See* Fed. Trade Comm'n, *In re Facebook. Inc.*, Decision and Order, No. C-4365 (2012), *available at* http://www.ftc.gov/enforcement/cases-proceedings/092-3184/facebook-inc.

28 For the FTC analysis of the consumer protection angle of privacy, see Fed. Trade Comm'n, Big Data: A Tool for Inclusion or Exclusion? Understanding the Issues (Jan. 2016).

29 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, 2016 O.J. (L. 119) 1.

30 Assembly Bill 375, (Cal. Jun. 28, 2018), *available at* https://leginfo.legislature.ca.gov/faces/billTextClient. xhtml?bill_id=201720180AB375.

31 Fed. Trade Comm'n, Data Brokers: A Call for Transparency and Accountability (May 2014).

incurred by an inappropriate data collection from its users.[32] The novelty of the case, which is being attentively followed by other antitrust authorities, lies in the attempt to establish a link between Facebook´s alleged market power in the market for social networks and the procedure it follows to obtain users' agreement for data collection, which is suspected of being in violation of data privacy or consumer protection laws.[33] The implicit assumption is that users' lack of alternatives to Facebook leads them to accept unfavorable terms they would otherwise not accept. Presumably, the investigation is also looking at the types of consent given by users on platforms that are clearly not dominant in their markets or how the link between the abusive nature of the consent procedure and the alleged market power of Facebook is being demonstrated. Under German competition law, antitrust intervention is warranted when a contracting party is so powerful as to be able to impose contract terms in a way that abolished the contractual autonomy of the other party.[34] The assessment in this case consists of whether some elements of the contract violate some constitutional rights of the signing party.[35] Other jurisdictions may be less inclined to adopt similar standards to address privacy issues.

Moreover, linking privacy terms to harm to consumer welfare in an antitrust sense may be difficult. Privacy as a public right falls under the remit of specific regulation, which does not necessarily implicate an analysis of consumer welfare. Such an analysis requires two inquiries. First, the regulator must predict how the access to new data, the new combination of data sets, or the new usage of data by an undertaking, will affect "privacy" as a quality parameter. Second, regulators must then determine the impact of this change on consumer welfare—or at least the direction of such impact. The change in the "privacy parameter" can be approximated by changes in the amount of data collected or changes in the potential usage of that data, or both.[36] One could in principle assign an intrinsic value to privacy, as we do with leisure, so that a decrease in privacy, evidenced by more data being collected or used, would be considered *per-se* detrimental. Quantifying this effect would require a measurement of what users would be willing to pay to keep their privacy.[37] The inconsistent attitude of consumers vis-a-vis privacy complicates any attempt to quantify the value of privacy: although many consumers claim to highly value privacy, they often are quite lax about releasing personal information and are often

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32 *Bundeskartellamt Initiates Proceeding Against Facebook on Suspicion of Having Abused Its Market Power by Infringing Data Protection Rules*, (Mar. 2, 2016), https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/ Pressemitteilungen/2016/02_03_2016_Facebook.html.

33 The case is focusing on the collection of data by Facebook on third party sites, for which the German competition authority believes proper consent was not obtained.

34 Bundeskartellamt, *Background Information on the Facebook Proceeding* (Dec. 2017) https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/2017/Hintergrundpapier_Facebook.pdf?__blob=publicationFile&v=6.

35 *Id.*

36 There is ongoing research on possible privacy indicators that could be uses by digital platforms. *See, e.g.*, Tran Hong Ngoc et al., *New Approach to Quantification of Privacy on Social Network Sites,* 2010 24th IEEE Int'l Conference on Advanced Information Networking and Applications, 556 (Apr. 2010).

37 *See, e.g.*, Serge Egelman, Adrienne Porter Felt, & David Wagner, *Choice Architecture and Smartphone Privacy: There's a Price for Th*at, *in* The Economics of Information Security and Privacy 211 (Rainer Böhme ed., 2012); Juan Pablo Carrascal et al., *Your Browsing Behavior for a Big Mac: Economics of Personal Information Online*, *in* Proc. 22nd Int'l Conference on World Wide Web 189 (2013).

unwilling to pay for privacy.[38] Behavioral biases in privacy related decisions and consumer heterogeneity in privacy preferences may produce a market outcome in which the privacy dimension is inconsistently valued, making it difficult to measure consumer welfare.[39] This inconsistent and heterogeneous behavior may also explain why privacy may not become an important factor of competition.

If there are no grounds to assign an intrinsic value to privacy for antitrust purposes, then there may still be an indirect potential harm related to the disclosure of personal data, whether consumers are aware of it or not. Revealing personal information may produce economic harm if it facilitates commercial discrimination when this discrimination is detrimental to the consumer.[40] There is some research about bias in commercial offers that substantiates this concern.[41] Conversely, there is also evidence that consumers may benefit from increased targeting of commercial offers or advertising. The impact of data collection on overall consumer welfare is likely to be ambiguous, and consumers with different characteristics may experience a positive or negative impact. It is not clear whether antitrust authorities are well equipped to do a welfare analysis that would take into account such customer segmentation, even assuming regulators would be able to tell which consumers are affected in what way. More research is needed on the impact of data collection on individual commercial offers and this research will be inextricably linked to a better understanding of the use of algorithmic targeting by different services. It is probable that the usage of big data for commercial discrimination is not the exclusive remit of large platforms with market power, which brings us back to the question of whether antitrust policy is the right instrument to tackle economic harm brought about by profiling and access to personal data.

The above illustrates that the link between competition, the extent of data collection, and consumer harm is not obvious. There is instead an additional emerging tension between privacy regulations and competition. The new privacy regulation in the EU requires explicit consent for the use of personal data for any additional purpose.[42] There are two main implications for the competitive landscape. First, many digital services, and in particular smaller ones, rely on third party data to improve their offerings. Access to such data may become more difficult if consent needs to be obtained for such access and subsequent usage. The ability of new businesses to innovate with third party data will also be limited. Some antitrust authorities have already expressed concerns that the GDPR in Europe may actually cement rather than limit the dominant position of the large

38 Spyros Kokolakis, *Privacy Attitudes and Privacy Behaviour: A Review of Current Research on the Privacy Paradox Phenomenon*, 64 Computers & Security 122 (2017).

39 *See, e.g.*, Flavius Kehr et al., *Blissfully Ignorant: the Effects of General Privacy Concerns, General Institutional Trust, and Affect in the Privacy Calculus*, 26 Info. Systems J. 607 (2015); Leslie K. John, Alessandro Acquisti, & George Loewenstein, *Strangers on a Plane: Context-Dependent Willingness to Divulge Sensitive Information*, 37 J. Consumer Research 858 (2010); Alice Marwick & Eszter Hargittai, *Nothing to Hide, Nothing to Lose? Incentives and Disincentives to Sharing Information with Institutions Online*, Information, Communication & Society 1(2018).

40 *See* Wolfgang Kerber, *Digital Markets, Data, and Privacy: Competition Law, Consumer Law and Data Protection*, 11 J. Intellectual Prop. L & Practice 856 (2016).

41 AnikoHannak et al., *Measuring Price Discrimination and Steering on E-commerce Web Sites*, *in* Proc. 2014 Conference on Internet Measurement Conference 305 (Nov. 2014).

42 *See* Regulation (EU) 2016/679, *supra* note 28, at ¶ 32.

platforms. Second, the requirement to obtain consent for any new purpose in the use of data puts a strong premium on having access to an interface with the user and being able to directly interact on one's own terms with him or her. The risk exists that the role of large platforms as gatekeepers of digital markets is reinforced with these consent provisions.[43] Similarly, strong privacy restrictions may limit the ability of competition authorities to extract remedies in the form of access to data by competitors in those cases where data may operate as a barrier to entry.

IV. CONCLUSION

The extensive use of data by large platforms has prompted calls for antitrust scrutiny on the assumption that massive data collection by platforms leads to harmful entrenchment in their respective markets. But platforms, in part by use of data and related analysis, have been successful in reducing transactions costs while delivering new services to customers. The relative contribution of data to the quality of a service is a matter to be assessed on a case-by-case basis, but it is a leap too far to universally equate access to data to entry barriers. Similarly, although a merger among parties that possesses access to large data sets merits scrutiny, the essentiality of the merged data for operating in the market must be considered as well as the innovation efficiencies that the combined data may facilitate. There is still much to be learned about the use of data for commercial discrimination and the scope for unfair competition and abuse. So far, the only behavior that is evidently an antitrust issue is the possible foreclosure of competition by restricting access to commercially important data. But showing a material impact on the market may be difficult. Finally, antitrust seems to be a very imperfect tool to address privacy concerns in online markets. The inconsistent behavior of consumers with respect to their privacy and disclosure of data makes any evidence-based determination of harm or welfare analysis very difficult. The link between market power and privacy policies is also rather tenuous. In sum, although massive data collection raises many questions, it does not seem that antitrust scrutiny is the most adequate tool to address the privacy implications of data collection.

43 For example, in its March 2018 report on online advertisement, the French competition authority called for vigilance to ensure the implementation of privacy norms does not interfere with the competitive process. In particular, the concern is that the legislation risks favoring platforms that operate on a 'log-in' basis at the expense of businesses that collect data through cookies and for which obtaining consent is more difficult. *See* Autorité de la Concurrence, Opinion No. 18-A-03 on the Data Processing in the Online Advertising Sector (Mar. 6, 2018), *available at* http://www.autoritedelaconcurrence.fr/doc/ avis18a03_en_.pdf

THE HOLD-UP TUG-OF-WAR—PARADIGM SHIFTS IN THE APPLICATION OF ANTITRUST TO INDUSTRY STANDARDS

By Benjamin Hendricks & Brian P. Quinn[1]

I. INTRODUCTION

The oft-debated question of whether to apply competition law to the use and abuse of standard essential patents ("SEPs") has divided academics, private practitioners, and public officials along familiar battle lines: some are skeptical of the legal and factual underpinnings of antitrust enforcement in the context of SEP licensing negotiations, others view standard-setting and negotiations over fair, reasonable, and non-discriminatory ("FRAND") licenses as areas in which antitrust enforcement acts as a critical safeguard, and still others come down somewhere in the middle.[2] SEP-owners often view their FRAND commitments as contractual and beyond the reach of competition law, while those that must license SEPs to implement an industry standard often advocate for the robust application of the antitrust laws to safeguard against excessive royalties or the outright exclusion of competitors. The arguments for applying competition law to guard against the abuse of FRAND-encumbered SEPs are rooted in "hold-up"—the theory that SEP-owners may leverage their position and power to exclude competition in standardized markets in which compatibility, interconnection, and network effects play essential roles.

With the two camps at odds and seemingly far apart, the common law approach under the U.S. antitrust laws has yet to provide a bright line (or workable) rule to guide SEP-owners and implementers in standardized markets. The crux of the debate is whether hold-up is exclusionary market conduct cognizable under the antitrust laws, or whether the right to pick and choose licensees and royalty rates are sticks in the bundle of property rights that ownership of an SEP confers on its owner, any waiver of which is governed exclusively by private contract law. The answer to that riddle is beyond the scope of this article, which instead examines recent developments in the law with respect to the application of antitrust law to patent hold-up and provides a prospective look at the future of hold-up in the patent context and elsewhere. Given the rapid development of the Internet of Things ("IoT"), the onset of the 5G mobile standard, and the torrid pace of development in networked industries, it is more than likely that courts, antitrust enforcers, and policymakers will need to grapple with the practical, legal, and economic underpinnings of hold-up outside of the formal standard-setting context.

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1 The authors are attorneys at O'Melveny & Myers LLP. Ben Hendricks is counsel and Brian Quinn is an associate in the Washington, D.C. office. Any opinions expressed herein are the authors' alone and do not necessarily reflect those of O'Melveny & Myers LLP or any of its clients. The authors offer a special thanks to Ian Simmons, who has guided them through many of these issues.

2 The diversity of viewpoints on this issue is at least partly attributable to the fact that many, if not most, technology firms are both "innovators" and "implementers," to use the parlance of Assistant Attorney General for Antitrust Makan Delrahim. *See generally* Makan Delrahim, *Take It to the Limit: Respecting Innovation Incentives in the Application of Antitrust Law*, Remarks as Prepared for Delivery at USC Gould School of Law at 3 (Nov. 10, 2017), *available at* https://www.justice.gov/opa/speech/file/1010746/download. These firms own *and* license SEPs, a trend that is likely to accelerate as technological standards touch on more and more consumer goods.

II. THE ECONOMIC RATIONALE OF HOLD-UP

Industry standards are critical in a variety of contexts, given their general tendency to promote interoperability, more evenly distribute the costs of innovation, and engender vigorous price competition between implementers.[3] Notwithstanding their salutary effects, standards necessarily require a trade-off: firms and consumers either explicitly or implicitly agree to be "locked-in" to (i) a particular technological or methodological framework and (ii) the network of products and services that comply with, and are therefore reliant on, the standard.[4] Especially with respect to widely-adopted or industrywide standards, the fact that competitors and consumers must make standard-specific investments (or risk becoming locked-out or stranded on an inferior network) creates the conditions for opportunistic behavior that economists have termed "hold-up."[5]

In the words of former FTC Commissioner Terrell McSweeny: "the theory of patent 'holdup' is simple and straightforward," after a standard-setting organization ("SSO") incorporates patented technology into a standard and thereby commits all future implementers to practice the relevant SEPs, the "bargaining position of [the] patent-holder [in licensing negotiations] may increase considerably. . . ."[6] These bargaining asymmetries—the product of "a gap between economic commitments and subsequent commercial negotiations"[7]—may enable SEP-owners to leverage their control over access to the standard to either seek monopoly rents from SEP licensors in the form of supracompetitive royalties or exclude prospective implementers from entering markets to provide products and services that adhere to the standard.[8] This dynamic is not necessarily limited to the SEP-licensing context. As the ongoing dispute over Google's use of Oracle's copyrighted application programming interfaces ("APIs") enters its eighth

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3 *See* Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* 230 (1999); *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 308 (3d Cir. 2007) (explaining that standards "ensure the interoperability of products" and "facilitate the sharing of information among purchasers of products from competing manufacturers").

4 *See* Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation*, 76 Am. Econ. Rev. 940, 940 (1986) (describing the high switching costs and network effects that cause standards implementers to become "locked-in").

5 *See* Shapiro & Varian, *supra* note 2, at 230; Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up: A Troublesome Mix*, 74 Antitrust L.J. 603, 603–04 (2007) ("Hold-up can arise, in particular, when one party makes investments specific to a relationship before all the terms and conditions of the relationship are agreed.").

6 Terrell McSweeny, *Holding the Line on Patent Holdup: Why Antitrust Enforcement Matters* at 2 (Mar. 21, 2018), *available at* https://www.ftc.gov/system/files/documents/public_statements/1350033/mcsweeny_-_the_reality_ of_patent_hold-up_3-21-18.pdf.

7 Farrell et al., *supra* note 4, at 603.

8 *See* A. Douglas Melamed & Carl Shapiro, *How Antitrust Law Can Make FRAND Commitments More Effective*, 127 Yale. L.J. 2110, 2115 (2018) (noting that FRAND commitments address the possibility that SEP holders will use their bargaining leverage to "extract[] monopoly premiums by selective licensing or, more important, migrat[e] their monopoly power from the FRAND-regulated market to unregulated standard-implementing product markets by licensing to only one or a few implementers or licensing to selected implementers on discriminatorily favorable terms"); Shapiro & Varian, *supra* note 2, at 231, 257 (explaining that standards can be "'hijacked' by companies seeking to extend [them] in proprietary directions," one of "the worst outcomes for consumers").

year of litigation, copyrights that read on *de facto* or *de jure* industry standards may become an additional source of dispute.[9]

The question of whether hold-up is cognizable under the antitrust laws is hotly debated: does hold-up injure competition such that it constitutes exclusionary conduct, or is it merely a potential breach of a private contract to the extent it exists at all? Critics question the existence of hold-up as an empirical matter, and advocate for narrowing the availability of a hold-up cause of action under Section 2 of the Sherman Act and Section 5 of the Federal Trade Commission Act.[10] But another group of economists, antitrust scholars, intellectual property experts, and policymakers have expressed their disagreement; this group points to government reports, court decisions, and testimony from SSOs themselves in support of its position that hold-up exists and warrants continuing antitrust scrutiny under the Sherman and FTC Acts.[11] Broadly, this group argues that hold-up has the potential to harm the competitive process in two ways: *First*, rights holders who engage in hold-up may raise their rivals' costs by extracting excessive and non-FRAND royalties in licensing negotiations, or even block their competitors from entering standardized markets at all.[12] *Second*, downstream consumers may pay higher prices that reflect supra-FRAND royalties, a diminished diversity of products and services, or a cumulative loss of upstream and downstream innovation in standardized technologies.[13]

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9 *See Oracle Am., Inc. v. Google LLC*, 886 F.3d 1179, 1185 (Fed. Cir. 2018) (holding that Google's incorporation of APIs from the Java Standard Edition coding platform into its Android mobile coding platform was not fair use, and infringed Oracle's copyrights); *see also* Farrell et al., *supra* note 4, at 608 n.26 (noting that a rights-holder can acquire "market power beyond that intended by copyright policy" when copyrighted coding interfaces become a *de facto* standard); Andrea Pacelli, Note, *Who Owns the Key to the Vault? Hold-up, Lock-out, and Other Copyright Strategies*, 18 Fordham Intell. Prop., Media & Ent. L.J. 1229, 1239–40 (2008) (describing the possibility of copyright hold-up).

10 *See* Makan Delrahim, *The "New Madison" Approach to Antitrust and Intellectual Property Law*, Remarks as Prepared for Delivery at the University of Pennsylvania Law School at 9 (Mar. 16, 2018), *available at* https://www.justice.gov/opa/speech/file/1044316/download ("Since hold-up theories gained traction in the early 2000s, it is striking that they still remain an empirical enigma in the academic literature."); David J. Teece, *Pivoting Toward Schumpeter: Makan Delrahim and the Recasting of U.S. Antitrust Towards Innovation, Competitiveness, and Growth*, 32 Antitrust 32, 37 (2018) ("The lack of empirical support for the proposition that hold-up is anything more than a theoretical possibility is striking."); *see also* Maureen K. Ohlhausen, *The Elusive Role of Competition in the Standard-Setting Antitrust Debate*, 20 Stan. Tech. L. Rev. 93, 128 (2017) ("[T]o the extent that a RAND-licensing assurance limits ex post royalties, its evasion or violation does not in itself implicate antitrust law without additional conduct, such as deception of an SSO."); *id*. at 136–42 (advocating for the exclusion of most forms of hold-up from the ambit of enforcement under § 5 of the FTC Act).

11 *See generally* Letter from 77 former government officials and professors of law, economics, and business to Makan Delrahim, Assistant Attorney General, (May 17, 2018), *available at* https://law.rutgers.edu/f/mc-05-18-2018.pdf; McSweeny, *supra* note 5; Melamed & Shapiro, *supra* note 7.

12 *See* Janusz Ordover & Allan Shampine, *Implementing the FRAND Commitment*, The Antitrust Source 1–11 (Oct. 2014), *available at* https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/oct14_full_ source.authcheckdam.pdf.

13 *See* Farrell et al., *supra* note 4, at 607–10; Carl Shapiro, *Setting Compatibility Standards: Cooperation or Collusion*, *in* Expanding the Boundaries of Intellectual Property: Innovation Policy for the Knowledge Society 81, 91 (Rochelle Cooper Dreyfuss et al. eds., 2001) (explaining that hold-up that "block[s] others from adhering to the standard" generates anticompetitive effects).

III. THE APPLICATION OF ANTITRUST LAW TO HOLD-UP IN THE STANDARD-SETTING CONTEXT

Many U.S. courts have been open to allowing hold-up-focused antitrust claims if the SEP-holder (1) possesses market power and (2) abuses that market power by leveraging control over access to the standard to exclude rivals or extract supra-FRAND royalties. Courts have grappled with both questions, and—with some nuances—have been willing to consider claims that seek to satisfy both requirements.

A. SEPs Can Confer Market Power

A patent, no matter how valuable, does not automatically endow its owner with monopoly power in the market for the patented technology and its applications.[14] As the Third Circuit explained in *Broadcom v. Qualcomm, Inc.*, 501 F.3d 297, 314 (3d Cir. 2007), non-essential patents do not invariably confer monopoly power upon their owners because the value of the patents "is limited when alternative technologies exist."[15] But courts have shown willingness to hold that SEPs can (and often do) confer market power on their holders because they are *essential* to practicing a particular standard: as one district court summarized, "a number of courts have recognized a legal distinction between a normal patent—to which antitrust market power is generally not conferred on the patent owner, and a patent incorporated into a standard—to which antitrust market power may be conferred on the patent owner."[16] The U.S. Court of Appeals for the Ninth Circuit, for example, concluded in *Microsoft Corp. v. Motorola, Inc.,* 696 F.3d 872 (9th Cir. 2012), that "[t]he catch with standards is that it may be necessary to use patented technology in order to practice them. As a result, standards threaten to endow holders of standard-essential patents with disproportionate market power."[17] Indeed, in its successful appeal to the U.S. Court of Appeals for the D.C. Circuit, one SEP-owner did not even dispute that "its patent rights in the . . . relevant technologies g[a]ve it monopoly power. . . ."[18]

Antitrust enforcers have recognized this possibility as well. Over twenty years ago, the U.S. Federal Trade Commission ("FTC") concluded that a standard that gains wide acceptance "effectively confer[s] market power upon . . . the patent holder[s]" whose technology holds the key to implementing it.[19] The reasoning underpinning this conclusion is straightforward: standardization necessarily "eliminate[s] alternatives to [certain] patented technology,"[20] and when a consumer (or licensee) has little or no access to alternatives, the seller (or licensor) is well-positioned to exercise market power. This is not to say that ownership of an SEP invariably confers market power, especially if there

14 *See, e.g., Ill. Tool Works, Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 45–46 (2006); DOJ-FTC Antitrust Guidelines for the Licensing of Intellectual Property (Jan. 12, 2017), *available at* https://www.justice.gov/atr/IPguidelines/download (noting that one of their three basic principles is that "the Agencies do not presume that intellectual property creates market power in the antitrust context").

15 *Broadcom v. Qualcomm, Inc.*, 501 F.3d 297, 314 (3rd Cir. 2007).

16 *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846, 2012 WL 1672493, at *6 (N.D. Cal. May 14, 2012).

17 *Id.* at 876 (internal citations and quotations omitted).

18 *Rambus Inc. v. FTC*, 522 F.3d. 456, 463 (D.C. Cir. 2008).

19 *In the Matter of Dell Computer Corp.*, 121 F.T.C. 616, 618 (May 20, 1996).

20 *Broadcom Corp.*, 503 F.3d at 317.

are competing standards that enable the same functionality. But the authors are not aware of any claimant bringing SEP-based antitrust claims that omit an allegation of power in the market for standardized technology or its applications.[21] Accordingly, while it may not be the case that all SEPs confer market power, courts at the very least recognize that "[e]ssential patents are very different from normal patents" and require more exacting treatment in any antitrust analysis.[22]

B. FRAND as the Competitive Safeguard for a Horizontal Agreement with Significant Procompetitive Justifications

To protect technology and related product markets from the exercise of market power that may flow from control over SEPs, SSOs have adopted protections aimed at constraining attempts to extract supra-FRAND royalties or exclude putative SEP implementers (as opposed to good-faith attempts to collect a reasonable royalty based on the merits of the invention embodied in the patent). These protections—embodied in FRAND commitments—are fundamental to standard setting, which at its root is an agreement among competitors to operate under a single technological framework. Typically, a horizontal agreement that has the potential to partially exclude competing technologies would raise competitive concerns. This is especially true given the "lock-in" effect that channels all implementations of the standard into a single technological configuration to the exclusion of all others.

An agreement to stifle competition among technologies could be construed as a violation of Section 1 of the Sherman Act. To that end, the Supreme Court once condemned concerted action within an SSO that resulted in the exclusion of polyvinyl chloride electrical conduits in favor of traditional steel conduits.[23] In that case, the Supreme Court noted that "private standard-setting by associations comprising firms with horizontal and vertical business relations is permitted at all under the antitrust laws *only on the understanding that it will be conducted in a nonpartisan manner offering procompetitive benefits*."[24]

In high-tech industries, the benefits of standard setting in downstream markets—including interoperability and network effects—are generally understood to outweigh the competitive harm from any upstream foreclosure. In other words, antitrust law should not condemn foreclosure of upstream competition for base technologies (*e.g.*, standards like WiFi) so long as the agreement to standardize facilitates competition on downstream products (computers, smartphones, or any other product that uses the standard to connect to WiFi). With that bargain in mind, and to ensure that power in an upstream market cannot be leveraged into downstream markets, most SSOs have devised intellectual property policies designed to safeguard the industry from anticompetitive harm, including patent hold-up. A typical SSO's intellectual property policy requires any owner of a patent

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21 How to properly define the relevant market is less clear. Plaintiffs have both asserted market power in related product markets, *FTC v. Qualcomm Inc.*, No. 17-CV-00220, 2017 WL 2774406, at *23–24 (N.D. Cal. June 26, 2017), and technology markets, *see Rambus*, 522 F.3d at 463.

22 *Research In Motion Ltd. v. Motorola, Inc.*, 644 F. Supp. 2d 788, 793 (N.D. Tex. 2008).

23 *Allied Tube Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988) (emphasis added).

24 *Id.* at 506–07.

that would be "essential" to practicing a standard to (1) disclose the patents and (2) license the patents on "fair, reasonable, and non-discriminatory," or "FRAND" terms. Any member of an SSO that wants the organization to adopt a standard that incorporates one or more of their patents must agree to these terms.

FRAND commitments can serve as a continuing and "important safeguard against monopoly power."[25] While promises to license on FRAND terms are enforceable under contract law principles, their purpose is deeply intertwined with competition policy, and a violation of FRAND may—but not always—implicate the antitrust laws. Indeed, in one ongoing case litigated by the FTC, a court held that the "FTC has adequately alleged that [the Defendant] had an ***antitrust*** duty to license its FRAND-encumbered SEPs to its competitors."[26] In other words, the court held that a FRAND contract plausibly included an antitrust commitment not to snuff out the procompetitive benefits that flow from standard setting by excluding competition in markets for the standardized technology and its applications.

C. Hold-Up as Anticompetitive Harm

Just as a patent does not automatically confer market power on its holder, the mere possession of market power does not necessarily implicate the antitrust laws. To be actionable under the antitrust laws, market power must be coupled with exclusionary conduct. Enter hold-up. As explained in Part I above, hold-up is the exercise of market power in standardized technology (most often embodied in a significant portfolio of SEPs) to exclude licensees or extract supracompetitive royalties from licensees that are locked into a specific technology due to the standardization process.

Again, a number of courts have recognized that this conduct can be actionable under the antitrust laws. For example, in *Research In Motion Ltd. v. Motorola, Inc.*, RIM alleged that "Motorola refused to negotiate reasonably and w[ould] not re-license the patents at a FRAND price."[27] The district court denied Motorola's motion to dismiss because it found that RIM sufficiently alleged that Motorola's SEPs made it a "gatekeeper" to competition under the relevant standard, and that "[i]f Motorola licenses only at exorbitant rates, it will force its competitors to increase prices in the downstream market in order to make a profit. This increase in prices for all products except Motorola's will harm competition."[28] Other courts have agreed that "monopoly power can lead standard-essential patent owners to overvalue their patents. . . ."[29]

But the U.S. Court of Appeals for the D.C. Circuit has raised significant questions about the showing that an antitrust plaintiff must make to demonstrate actionable conduct and antitrust injury under a hold-up theory. Without specifically addressing

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25 *Broadcom*, 501 F.3d at 314; *see also RIM*, 644 F. Supp. 2d at 791 ("'FRAND commitments' are intended to prevent owners of essential patents from acquiring too much of the market power that would otherwise be inherent in owning an essential patent.").

26 *Qualcomm*, 2017 WL 2774406, at *20 (emphasis added).

27 *RIM*, 644 F. Supp. 2d at 791.

28 *Id.* at 794.

29 *TCL Comm. Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson*, Case No. 14-cv-0341, 2017 WL 6611635 at *54 (C.D. Cal. Dec. 21, 2017).

patent hold-up, Judge Williams in *Rambus, Inc. v. FTC*, held that the mere danger of "avoiding limits on its patent licensing fees" only "enable[d] a monopolist to charge higher prices than it otherwise could have charged," conduct that "would not in itself constitute monopolization."[30] *Rambus* appears to stand for the proposition that hold-up that results in ***exclusion***, as opposed to merely higher-than-preferred royalties, is necessary to create antitrust liability, and that antitrust enforcers and civil plaintiffs must prove exclusion under Section 2 of the Sherman Act by establishing that a different standard or technology *could* have existed but for the hold-up.[31] After *Rambus*, the boundaries of hold-up, the charging of supra-FRAND royalties, the exclusion of competitors, and actionable antitrust conduct is less clear.

D. Competition Enforcers Have Also Recognized Hold-Up as an Anticompetitive Harm

Notwithstanding the lack of clarity in the case law, government enforcers have recognized the need for protections against patent hold-up as a means of exclusion. These entities range from the DOJ and FTC in the United States to antitrust enforcers in other jurisdictions with a significant stake in technology markets, such as the Korean Free Trade Commission and the Directorate General for Competition in the European Union.[32]

In the United States, the most explicit recognition of the hold-up problem in the standard-setting context manifests itself in a DOJ Business Review Letter that analyzed pending changes to the intellectual property licensing policy for SEPs of a prominent SSO, the Institute of Electrical and Electronics Engineers or "IEEE." The IEEE proposed a revision of its intellectual property policy that prohibited SEP-owners from seeking injunctions or "prohibitive orders" during good faith negotiations with putative licensors.[33] In stating that the IEEE's proposed revisions did not likely violate U.S. antitrust laws, the DOJ letter explained:

> The threat of exclusion from a market is a powerful weapon that can enable a patent owner to hold up implementers of a standard. Limiting this threat reduces the possibility that a patent holder will take advantage of the inclusion of its patents in a standard to engage in hold up, and provides comfort to implementers in developing their products.[34]

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30 522 F.3d 456, 459 (D.C. Cir. 2008).

31 *Id.* at 463–64.

32 *See* European Commission, Public Consultation on patents and standards - a modern framework for standardisation involving intellectual property rights, Summary Report (Oct. 27, 2015), *available at*, http://ec.europa.eu/DocsRoom/documents/14482/attachments/1/translations/en/renditions/native; Korea Fair Trade Commission, *In re Alleged Abuse of Market Dominance of Qualcomm Inc.*, Decision No. 2017-0-25 at 130 (Jan. 20, 2017), *available at* http://www.theamericanconsumer.org/wp-content/uploads/2017/03/2017-01-20_KFTC-Decision_2017-0-25.pdf.

33 Letter from Renata B. Hesse, Acting Assistant Attorney General to Michael Lindsay, Dorsey & Whitney LLP (Feb. 9, 2015), *available at* https://www.justice.gov/atr/response-institute-electrical-and-electronics-engineers-incorporated. The force of the IEEE Business Review Letter is uncertain under the new administration, *see infra* Section IV.

34 *Id.* at 9.

Critically, the DOJ grounded its concern about hold-up in the "threat of exclusion from a market" that can become a "powerful weapon" for SEP-owners.[35] This policy formulation is consistent with the both the view that an abuse of FRAND can be anticompetitive conduct and the narrower application of hold-up articulated in *Rambus*.

The FTC has also recognized hold-up as an antitrust concern in the context of SEP-holders seeking injunctions against putative licensees. For example, the FTC has enjoined SEP-owners from seeking injunctions excluding alleged infringers from national markets, a policy that reflects the agency's concern that the threat of an injunction and exclusion will cause putative licensees to pay supra-FRAND royalties.[36] This bipartisan focus on injunctive relief addresses a less controversial form of patent hold-up, given that injunctions preclude a party from practicing an SEP and therefore exclude the party from implementing the standard.[37]

More recently, the FTC explicitly recognized that hold-up can extend beyond the injunction context to "opportunistic patent holders" that "insist on patent licensing terms that capture not just the value of the underlying technology, but also the value of standardization itself."[38] The FTC recognized that "[t]o address this 'hold-up' risk, SSOs often require patent holders to disclose their patents and commit to license standard-essential patents on fair, reasonable, and non-discriminatory ('FRAND') terms."[39] The FTC explained that the FRAND commitment was an agreement "not to exercise any market power resulting from its patents' incorporation into that standard."[40] The FTC is litigating these issues in the Northern District of California, in a case that may shape the law in this area for years to come.[41]

United States antitrust enforcers are not the only antitrust agencies concerned with hold-up. In a recent finding against Qualcomm, the Korean Fair Trade Commission recognized hold-up as an antitrust issue in the context of an investigation into the market for modem chipsets. The KFTC ultimately recognized that hold-up "led to the effect of exclusion in the modem chipset market and innovation market."[42]

The European Union has similarly recognized the competitive consequences of patent hold-up in a "Competition Policy Brief," stating:

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35 *Id.*

36 Decision and Order, *In the Matter of Motorola Mobility LLC and Google Inc.*, Case No. C-4410 (July 23, 2013); Consent Order, *In the Matter of Dell Comp. Corp.*, Case No. C-3658 (May 20, 1996).

37 *See* Timothy Muris, Chairman, Fed. Trade Comm'n, Speech at the Milton Handler Annual Antitrust Review, Looking Forward: The Federal Trade Commission and the Future Development of U.S. Competition Policy (Dec. 10, 2002), *available at* https://www.ftc.gov/public-statements/2002/12/looking-forward-federal-trade-commission-and-future-development-us; DOJ Business Review Letter, *supra* note 33.

38 Complaint, *FTC v. Qualcomm, Inc.*, Dkt. 5:17-cv-00220, ECF No. 1 (Jan. 17, 2017).

39 *Id.* ¶ 48.

40 *Id.* ¶ 50.

41 *Id.*

42 Korea Fair Trade Commission, *In re Alleged Abuse of Market Dominance of Qualcomm Inc.*, Decision No. 2017-0-25 at 130 (Jan. 20, 2017), *available at* http://www.theamericanconsumer.org/wp-content/uploads/2017/03/2017-01-20_KFTC-Decision_2017-0-25.pdf.

> SEPs . . . can confer significant market power on their holders. Once a standard has been agreed and industry players have invested heavily in standard-compliant products, the market is *de facto* locked into both the standard and the relevant SEPs. This gives companies the potential to behave in anti-competitive ways, for example by 'holding up' users after the adoption of the standard by excluding competitors from the market, extracting excessive royalty fees, setting cross-licence terms which the licensee would not otherwise agree to, or forcing the licensee to give up their invalidity or non-infringement claims against SEPs.[43]

More recently, the European Commission recognized the threat of patent hold-up when SEP-owners seek injunctions against companies seeking to implement a standard when it concluded that "safeguards are needed against the risk that good faith technology users threatened with an injunction accept licensing terms that are not FRAND, or in the worst case, are unable to market their products (hold-ups)."[44] Notably, the European Commission did not discuss hold-up beyond the injunction context, in contrast to the more expansive view expressed in the prior Competition Policy Brief quoted above. Accordingly, there is ambiguity with respect to the European Commission's treatment of hold-up as an anticompetitive danger independent of the injunction context.[45]

Given the developments in the case law and enforcement policy statements, there was some feeling in recent years that a global convergence of some basic ideas regarding SEPs, hold-up, and antitrust enforcement was underway. But that has changed.

IV. THE DOJ'S RECENT SHIFT ON STANDARDS HOLD-UP

While hold-up has been recognized as a competitive concern by courts and antitrust enforcers around the world, the U.S. DOJ—and Assistant Attorney General for Antitrust Makan Delrahim in particular—has recently called this erstwhile consensus into question. In a recent speech, AAG Delrahim commented that "advocates of reducing the power of intellectual property rights cite the so-called 'hold-up' problem in the context of SSOs. As many of you know, I believe these concerns are largely misplaced."[46] Delrahim went on to argue that "hold-up is fundamentally not an ***antitrust*** problem, and therefore antitrust law should not be used as a tool to police FRAND commitments that patent-holders make to standard setting organizations."[47] Instead, AAG Delrahim argued that higher royalty fees "through hold-up simply reflect[] basic commercial realities," and that "ignoring equal incentives of implementers to 'hold-out[]' risks creating 'false-positive' errors of

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43 *Standard Essential Patents*, Competition Policy Brief (June 2014) at 1, *available at* http://ec.europa.eu/competition/publications/cpb/2014/008_en.pdf.

44 European Commission, Communication From The Commission to the European Parliament, the Council and the European Economic and Social Committee, Setting out the EU Approach to Standard Essential Patents, COM(2017) 712 (Nov. 29, 2017), *available at* https://ec.europa.eu/docsroom/ documents/26583.

45 For additional analysis of the European Commission's communication setting out the EU Approach to SEPs see Ian Simmons, Benjamin Hendricks, and Philippe Nogues, *The EC Communication on SEPs: Convergence, Divergence, or Silence?*, 32 Antitrust 41 (2018).

46 Delrahim, *supra* note 9.

47 *Id.* (emphasis in original).

over-enforcement that would discourage valuable innovation."[48] As for the FRAND promise, Delrahim contended that these commitments are "enforceable by contract laws" and that "contract or common law remedies would be adequate" to prevent harm from hold-up.[49]

As such, the DOJ has shifted focus to what it calls "collective hold-out." Delrahim has advised "enforcers [to] carefully examine and recognize the risk that SSO participants might engage in a form of buyer's cartel, what economists call a monopsony effect. When implementers act together within a standard-setting organization as the gatekeeper to sales or products including a new technology, they have both the motive and means to impose anticompetitive licensing terms. At the extreme, they can shut down a potential new technology in favor of the status quo, all to the detriment of consumers."[50] While this theory of anticompetitive harm is not particularly controversial from a legal standpoint, it is unclear whether Delrahim's concerns are rooted in factual support for the proposition that "hold-out" is a significant concern.[51] Although the DOJ has recently launched multiple investigations into possible collusive behavior by members of SSOs,[52] the authors are not aware of any judicial finding of hold-out, and it is unclear why concerns over "collective hold-out" should predominate over concerns about hold-up.

AAG Delrahim's policy positions and statements from other antitrust officials have prompted speculation about a split between the FTC and DOJ on the proper treatment of hold-up under the antitrust laws. Indeed, after AAG Delrahim made these remarks, former FTC Commissioner Terrell McSweeny delivered a speech urging the U.S. antitrust agencies to "hold[] the line on patent hold-up" and laying out U.S. antitrust enforcers' "record of challenging holdup on antitrust grounds [that] stretches back over two decades."[53] Recently confirmed FTC Chairman Joseph Simons has tried to reconcile the FTC's position with the DOJ's recent statements on SEP's, stating that "[w]e agree with the [DOJ] leadership that a breach of a FRAND commitment standing alone is not sufficient to support a Sherman Act violation," and adding that "[w]hether hold-up or hold-out is more likely to occur in the real world is not something that we are focusing on. If either one occurs, they can be problematic."[54]

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48 *Id.*

49 *Id.*

50 Makan Delrahim, *Assistant Attorney General Makan Delrahim Delivers Remarks at the USC Gould School of Law's Center for Transnational Law and Business Conference* (Nov. 10, 2017), *available at* https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-usc-gould-school-laws-center.

51 Melamed & Shapiro, *supra* note 47, at 2120 ("[W]e know of no instance in which the feared 'collective hold-out' has happened in the context of modern communications and information industries.").

52 Cecilia Kang, *U.S. Investigating AT&T and Verizon Over Wireless Collusion Claim*, N.Y. Times (Apr. 20, 2018), *available at* https://www.nytimes.com/2018/04/20/technology/att-verizon-investigate-esim.html; Joshua Sisco & Leah Nylen, *DOJ Probes Role Of Special Interest Group in New WiFi Standard*, MLEX Market Insight (Jan. 26, 2018), *available at* https://mlexmarketinsight.com/insights-center/editors-picks/antitrust/north-america/doj-probes-role-of-special-interest-group-in-new-wifi-standard.

53 *See* McSweeny, *supra* note 5, at 6.

54 Leah Nylen, *FTC, DOJ agree that breach of Frand commitments aren't antitrust violations, Simmons says,* MLex (Sept. 25, 2018).

When pressed, Chairman Simons seemed to invoke the D.C. Circuit's *Rambus* decision, stating "[t]he way I think about it is to compare the but-for world with the actual world. If the but-for world and the actual world are the same, then there's no antitrust problem."[55]

In short, it appears that Chairman Simons is attempting to forge a middle-path, preserving the FTC's ability to investigate and sanction hold-up but also recognizing some of the limitations of the antitrust laws as applied to breaches of FRAND commitments and SEP licensing.

V. THE LIMITS OF HOLD-UP AS AN ANTITRUST THEORY OF HARM

While most of the battles over hold-up have played out against the backdrop of formal standard-setting processes and negotiations over licenses to SEPs, a recently settled antitrust case with the potential to test the limits of the theory in the copyright context unfolded in the Northern District of California. That action, *Arista Networks, Inc. v. Cisco Systems Inc.*,[56] shared many factual similarities with Oracle's longstanding copyright battle with Google. Cisco and Arista—the parties to that action—are competitors in the market to manufacture Ethernet switches, and each company has developed an operating system that enables engineers to configure and manage hardware products via a software-based command-line interface ("CLI").[57] By typing "text commands into the CLI," engineers "can instruct the Ethernet switches to perform specific functions."[58]

Documents adduced in discovery tended to show that (i) some of Cisco's competitors (including Arista) "began to use 'Cisco-like' CLI[s]" during the early 2000s, (ii) Cisco realized that the popularity of its CLIs had spawned the creation of copycats, and (iii) Cisco embraced and touted the fact that its CLI had become "the [] de-facto standard" for the industry.[59] After Cisco sued Arista for infringing its patents and copyrights in the CLIs in 2014,[60] Arista filed a separate antitrust action accusing Cisco of "carr[ying] out a long-time policy that encouraged customers and competitors to use Cisco's CLI but reversed its policy and engaged in tactics to hinder competition to monopolize the Ethernet switches market," a course of conduct Arista dubbed the "'open early, closed late' scheme."[61]

After holding that there was a genuine issue of material fact as to Cisco's monopoly power in the relevant markets,[62] Judge Beth Labson Freeman answered the key questions—whether Arista's "open early, closed late" theory of monopolistic conduct had a sufficient

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55 *Id.*

56 No. 16-cv-00923-BLF (N.D. Cal.) (filed 2/24/2016).

57 *Arista Networks, Inc. v. Cisco Sys. Inc.*, No. 16-cv-00923-BLF, Order (1) Denying Plaintiff's Motion for Partial Summary Judgment and (2) Granting in Part and Denying in Part Defendant's Motion for Summary Judgment, ECF No. 281, slip op. at 1 (N.D. Cal. May 9, 2018). [hereinafter Arista SJ Opinion].

58 *Id.*

59 *Id.* at 2.

60 *Cisco Sys., Inc. v. Arista Networks, Inc.*, No. 14-cv-05344-BLF (filed 12/5/2014).

61 Arista SJ Opinion at 4–5.

62 *Id.* at 14.

basis in antitrust law to warrant a trial,[63] and whether Arista had sufficiently demonstrated that Cisco's conduct "harmed competition in the alleged market" to create a genuine issue for trial—in the affirmative, sending the case on a path to trial.[64]

Critically, Judge Freeman held that the anticompetitive conduct typically associated with hold-up theory is not tethered to the "'hold-up' or 'lock-in' of standards set by an SSO" in a *de jure* standard-setting process.[65] To the contrary, she explained that hold-up or the analogous "open early, closed late" conduct was also cognizable in the context of *de facto* standards, at least where the rights holder voluntarily engaged in a "prior course of dealing . . . with its competitors."[66] Analogizing to the Supreme Court's decision in *Eastman Kodak*, the court rejected Cisco's argument that Arista's Section 2 claims were without any legal basis because "there was [no] formal contractual relationship" between the two competitors,[67] and instead held that "a formal contractual relationship" laying out the terms of the voluntary course of Cisco's dealing with its competitors was not a prerequisite to an "open early, closed late"-style of antitrust claim.[68]

With respect to the other major hurdle to a hold-up-based Section 2 claim—the requirement that a plaintiff demonstrate causal antitrust injury to competition and not merely harm to the plaintiff[69]—the Court held that Arista had done enough to create a triable issue as to whether Cisco's "'open early, closed late' scheme harmed [Arista] and the competition by slowing down Arista's acquisition of new switch customers and the spread of innovative products."[70] Drawing all reasonable inferences in Arista's favor, the court held that a jury could infer that Cisco's purported scheme excluded Arista from the *de facto* CLI standard, thereby "restrict[ing] . . . customers from making free choices between different products" and "stymie[ing] innovation in the alleged markets," both antitrust injuries.[71]

That Cisco's purported "open early, closed late" approach to enforcing its copyrighted CLIs was novel would not necessarily suffice to shield it from condemnation under the

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63 *Id.* at 26–28.

64 *Id.* at 35–36.

65 *Id.* at 26–27.

66 Judge Freeman pointed to Cisco's statements acknowledging and touting its CLI as the "current de-facto standard" as sufficient to create a genuine issue of material fact on the question whether it had entered into a voluntary course of dealing with its competitors. *Id.* at 26 (citing *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451 (1992) and discussing a similar "open early, closed late" strategy that Kodak used to exclude competitors from the aftermarkets for photocopier parts and services).

67 *Id.* at 27 ("*Kodak* does not indicate that a contractual relationship between Kodak and the ISOs was a prerequisite to Kodak's liability. In fact, some ISOs purchased replacement parts from OEMs and thus would not have had a formal relationship with Kodak.") (citing *Kodak*, 504 U.S. at 458).

68 *See id.*; *cf. Qualcomm*, 2017 WL 2774406, at *21 ("FTC's allegations that Qualcomm voluntarily participated in the standards setting process and voluntarily committed to license its SEPs to its . . . competitors are sufficient to allege that Qualcomm altered a voluntary and profitable course of dealing.").

69 *See* Arista SJ Opinion at 35.

70 *Id.* at 35.

71 *Id.* at 35–36.

antitrust laws, had the case gone to trial.[72] In *United States v. Microsoft*, for example, the U.S. Court of Appeals for the D.C. Circuit held that Microsoft's conduct—which did not fit neatly within any of the conceptual boxes that courts generally use to characterize anticompetitive behavior—nevertheless injured competition and resulted in the exclusion of rivals without countervailing procompetitive justifications.[73] Courts addressing similar claims, albeit in the SEP context, have been especially sensitive when market-share leaders use intellectual property rights "not only as a shield to protect [their] invention, but as a sword to eviscerate competition unfairly. . . ."[74] Given that the parties settled in *Cisco*, it remains to be seen whether a jury, the U.S. District Court for the Northern District of California, and appellate courts will arrive at similar conclusions when addressing forms of hold-up that transpire outside of the formal *de jure* standard-setting context.

VI. CONCLUSION

While the *Arista* court may be among the first to recognize copyright-based "open early, closed late" conduct as another "variant of the classical 'hold-up problem,'"[75] the general debate about whether hold-up can qualify as actionable antitrust conduct rages on without a clear rule defining the reach of the antitrust laws. Whereas the DOJ's enforcement focus has shifted toward concerted conduct and the threat of "hold-out" and away from unilateral SEP-based hold-up, many federal courts and the FTC do not appear to have embraced that shift in thinking and have been willing to apply antitrust scrutiny to hold-up issues, especially when there is evidence of exclusion. Moreover, at least one court has applied the economic concepts underpinning hold-up outside of the formal standard-setting framework, to conduct that does not necessarily map on to a traditional category of anticompetitive behavior. As the global economy becomes more reliant on interconnection, standardization, SEPs, and FRAND licensing to facilitate the creation of networked infrastructure, hold-up and its proper place under the antitrust laws will assume even greater importance.

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72 *See United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001) (*en banc*) (*per curiam*) ("[T]he means of illicit exclusion, like the means of legitimate competition, are myriad.").

73 *Id.* at 65–67.

74 *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990); *see, e.g.*, *Broadcom*, 501 F.3d at 314 (deception of an SSO with respect to FRAND licensing is cognizable under Sherman Act Section 2); *Qualcomm*, 2017 WL 2774406, at *21–*22 (repudiation of a FRAND promise as part of a broader scheme to raise rivals' costs is cognizable under Section 2); *Apple*, 2012 WL 1672493, at *4–*8 (declining to dismiss Section 2 counterclaims alleging false FRAND promises and failure to disclose patents to an SSO).

75 *See* DOJ-FTC Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition at 35 n.11 (April 2007), *available at* https://www.ftc.gov/reports/antitrust-enforcement-intellectual-property-rights-promoting-innovation-competition-report.

ABOVE FRAND LICENSING OFFERS DO NOT SUPPORT A CALIFORNIA UCL ACTION IN *TCL V. ERICSSON*

By Robert B. McNary[1]

> "There needs to be some other conduct . . . than mere breach of . . . FRAND obligations"[2]

Disputes involving standards essential patents arise when contributors of proprietary technology to industry standards and standards implementers wishing to make use of that proprietary technology fail to agree on fair, reasonable, and nondiscriminatory ("FRAND") licensing terms for proprietary technology that reads on the standard. Resolving these FRAND disputes in a fair and efficient manner is highly important for the continued expansion of global technology networks. The proper role of antitrust and competition laws in this process—if any—has been an ongoing topic of discussion.

In recent remarks regarding innovation policy, Assistant Attorney General for Antitrust Makan Delrahim stated his general preference for using contract law—not antitrust law—for disputes involving standard essential patent licensing commitments:

> Where a patent holder has made commitments to license on particular terms, a contract theory is adequate and more appropriate to address disputes that may arise regarding whether the patent holder has honored those commitments. The Division will not hesitate to bring a sound antitrust case, but as competition advocates, we must strive to ensure that we use the antitrust laws for their intended purpose, which is to address practices that harm competition. Using the antitrust laws to impugn a patent holder's efforts to enforce valid IP rights risks undermining the dynamic competition we are charged with fostering. So when it comes to disputes that arise between intellectual property holders and implementers regarding the scope of FRAND commitments, we advocate for the application of more appropriate theories, other than the blunt instrument of antitrust.[3]

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2 *TCL Comms. Tech. Holdings, Ltd. v. Telefonaktienbolaget LM Ericsson*, No. SACV 14-0341 JVS (DFMx), 2016 WL 7049263, at *6 (C.D. Cal. Aug. 9, 2016).

3 Makan Delrahim, Assistant Attorney General, Antitrust Division, U.S. Dep't of Justice, "The Long Run: Maximizing Innovation Incentives Through Advocacy and Enforcement," Keynote Address at the LeadershIP Conference on IP, Antitrust, and Innovation Policy, Washington, DC (April 10, 2018), *available at* https://www.justice.gov/opa/speech/file/1050956/download. *See also*, "Take It To The Limit: Respecting Innovation Incentives In The Application Of Antitrust Law," Makan Delrahim, Assistant Attorney General, Antitrust Division, U.S. Dep't of Justice, Remarks as Prepared for Delivery at USC Gould School of Law, Los Angeles (November 10, 2017), *available at* https://www.justice.gov/ opa/speech/file/1010746/download; Andrew Finch, Principal Deputy Assistant Attorney General, Antitrust Division, U.S. Dep't of Justice, "Trump Antitrust Policy After One Year," Remarks Delivered at the Heritage Foundation (February 23, 2018), *available at* https://www.justice.gov/opa/speech /file/1028906/download.

This preference for contract law, as opposed to antitrust and unfair competition laws, follows the opinions of several enforcement officials and commentators, including former FTC Chairman Deborah Platt Majoras in her 2008 *N-Data* dissenting opinion,[4] former FTC Commissioner Joshua Wright,[5] and former FTC Commissioner Maureen Ohlhausen in multiple speeches, articles, and agency opinions.[6]

This article summarizes how this contract law approach was recently reflected in a decision in private litigation in the Central District of California. In *TCL v. Ericsson*, Judge James Selna dismissed TCL's California Unfair Competition Law ("UCL") claim on two grounds: (1) a lack of standing for an unlicensed seller of standard-compliant devices, and (2) a lack of harm to competition, absent evidence of an intentionally false promise to a standards development organization. As discussed below, the TCL case proceeded on contract-only grounds, an approach consistent with both the current Assistant Attorney General's view and the California Supreme Court's general guidance that the California UCL is "not an all-purpose substitute for a tort or contract action."[7]

I. COMPETITION CLAIMS IN *TCL V. ERICSSON*

The *TCL v. Ericsson* case involved plaintiff TCL, a Chinese mobile phone company selling devices around the world, and Ericsson, a major contributor to and developer of global 3G (third generation) and 4G (fourth generation) telecommunications standards developed by the European Telecommunications Standards Institute ("ETSI"). As a major holder of patents essential to those standards, Ericsson had signed over 150 licensing agreements with more than one hundred telecommunications industry participants. TCL sold mobile phones relying on cellular standards but it had never taken a license for Ericsson's 3G or 4G patents. After many years of unsuccessful negotiations in which Ericsson tried to get TCL to take a license, in March 2014, TCL filed a lawsuit against Ericsson in Santa Ana, California federal court. TCL's suit alleged that Ericsson breached its voluntary contractual commitment to ETSI to license its 3G and 4G patents on fair, reasonable, and non-discriminatory terms, including that Ericsson's royalty demands violated this FRAND commitment.

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4 *In the Matter of Negotiated Data Solutions LLC*, FTC File No. 0510094, Dissenting Statement of Chairman Majoras at 4 (FTC January 23, 2008), *available at* https://www.ftc.gov/sites/default/files/documents/cases /2008/01/080122majoras.pdf. Then-Commissioner William Kovacic joined the dissent. *See* Dissenting Statement of Commissioner William Kovacic (FTC January 23, 2008), *available at* https://www.ftc.gov/ sites/default/files/documents/cases/2008/01/080122kovacic.pdf.

5 Joshua D. Wright, "SSOs, FRAND, and Antitrust: Lessons from the Economics of Incomplete Contracts," Remarks at the George Mason University School of Law, Arlington, VA (September 12, 2013), *available at* https://www.ftc.gov/sites/default/files/documents/public_statements/ssos-frand-and-antitrust-lessons-economics-incomplete-contracts/130912cpip.pdf.

6 *See, e.g.*, Maureen Ohlhausen, "The Elusive Role of Competition in the Standard-Setting Antitrust Debate," 20 Stan. Tech. L. Rev. 93, 97 (2017); *In the Matter of Motorola Mobility LLC and Google Inc.*, FTC File No. 1210120, Dissenting Statement of Commissioner Ohlhausen (FTC January 3, 2013), *available at* https://www.ftc.gov/sites/default/files/documents/public_statements/statement-commissioner-maureen-ohlhausen/130103googlemotorolaohlhausenstmt.pdf.

7 *Korea Supply Co. v. Lockheed Martin Corp.*, 63 P.3d 937, 948 (Cal. 2003) (quotation omitted).

TCL also alleged Ericsson's royalty demands violated the California UCL.[8] Ericsson moved for summary judgment on the UCL claim in June 2016, asserting that TCL had produced no evidence in discovery of harm to competition or exclusion of rivals, including no evidence that Ericsson made any false promises to any standard-setting organization in undertaking its FRAND obligations. After briefing and argument, the court agreed, granting summary judgment for Ericsson on the UCL claim.[9] The court ruled for Ericsson on two grounds: (1) that an unlicensed implementer of a standard has lost no money or property, and therefore has no standing for a California UCL claim; and (2) that harm to competition in an unlicensed implementation case requires an intentionally false promise to a standards-development organization. For both reasons, TCL's UCL claim was dismissed.

II. TCL'S LACK OF STANDING FOR A CALIFORNIA UCL CLAIM

Ericsson's motion asserted that TCL lacked standing to assert a private action under the California UCL, as TCL had never "lost money or property as a result of the unfair competition."[10] To satisfy the UCL's standing requirements, a plaintiff must establish, at minimum: (1) that the plaintiff sustained an economic injury—that is, a "loss or deprivation of money or property"; and (2) that the challenged business practice caused that economic injury.[11]

A. A Possibility of Paying Higher Royalties Was Not a Loss of Money or Property

First, Ericsson argued there was no evidence that TCL experienced any loss of money or property from the Ericsson licensing practices at issue. As an unlicensed implementer, TCL had not paid licensing fees to Ericsson for the use of Ericsson's 3G or 4G patents. Having not paid any higher royalties or suffered any higher costs, TCL did not offer any expert testimony showing any increased costs, decreased profits, or loss of business, according to Ericsson.

In response, TCL argued that a "threat" of paying royalties and business "uncertainty" stemming from Ericsson's alleged licensing practices qualified as economic injury. Ericsson replied that the California Supreme Court has held that an "intangible" injury does not suffice—the injury must specifically involve lost money or property.[12]

Ericsson also argued that the same issue had recently been decided in standard essential patent licensing litigation between Apple and Motorola, with highly similar factual allegations.[13] Apple had alleged that the defendant "engaged in unfair competition when it promised standards-setting organizations that it would disclose essential patents

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8 Unfair Competition Law, Cal. Bus. & Prof. Code §§ 17200 *et seq.*

9 *TCL Comms. Tech. Holdings, Ltd. v. Telefonaktienbolaget LM Ericsson*, No. SACV 14-0341 JVS (DFMx), 2016 WL 7049263, at *7 (C.D. Cal. Aug. 9, 2016).

10 Cal. Bus. & Prof. Code § 17204; *Clayworth v. Pfizer, Inc.*, 233 P.3d 1066, 1086 (Cal. 2010).

11 *Kwikset Corp. v. Super. Ct.*, 246 P.3d 877, 884-85 (Cal. 2011).

12 *Id.* at 886.

13 *Apple, Inc. v. Motorola Mobility, Inc.*, 886 F. Supp. 2d 1061, 1077 (W.D. Wis. 2012).

and license those patents on reasonable and nondiscriminatory terms, . . . refused to offer [the plaintiff] a reasonable and nondiscriminatory license, and sued [the plaintiff] for patent infringement."[14] Like TCL, Apple complained that the defendant had offered it a license with "exorbitant royalty rates," but had refused to pay royalties and nevertheless continued to manufacture and sell infringing products incorporating the defendant's patented technologies.[15] The court granted summary judgment for Motorola, for Apple's failure to show any injury from the alleged breach of licensing commitments.[16]

Judge Selna similarly rejected TCL's argument that there was "other economic injury" caused by Ericsson. The court noted that "TCL only points to hypothetical injury that TCL might have incurred if it had entered into a non-FRAND license" and "never entered into a non-FRAND license."[17] Furthermore, the court explained, "business uncertainty alone does not count as 'economic injury' under the UCL because it is not 'money or property.'"[18] Under these circumstances, the court held, an unlicensed implementer cannot show "other economic injury" for purposes of a California UCL claim.[19]

B. Infringement Litigation Defense Costs Were Not Sufficient Economic Injury

TCL also opposed Ericsson's lack of standing argument by noting Ericsson's multiple patent infringement actions against TCL in multiple countries. TCL argued its "significant expense" incurred as a result of litigation in which Ericsson sought to enjoin TCL from practicing Ericsson's standard essential patents.

Again, Ericsson argued that the same issue had arisen in *Apple v. Motorola*, and that court had determined the First Amendment of the Constitution protects parties who petition the government for redress, including through private litigation.[20] Like TCL, Apple also claimed litigation costs for defending against the defendant's patent infringement litigation.[21] The argument failed for Apple, as the court concluded the plaintiff's UCL claim necessarily sprung from the defendant's "attempt to enforce its patent," and under the *Noerr-Pennington* doctrine, the First Amendment protected that litigation conduct against both antitrust and UCL liability.[22] Ultimately, the court granted Motorola's motion for summary judgment on Apple's antitrust claim, its California UCL claim, and its claims for declaratory relief based on antitrust or unfair competition theories of liability, because "Motorola is immune from liability for these claims under the *Noerr-Pennington* doctrine."[23]

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14 *Id.*

15 *Id.*

16 *Id.*

17 *TCL*, 2016 WL 7049263 at *4.

18 *Id.*

19 *Id.*

20 *Apple*, 886 F. Supp. 2d at 1076–77.

21 *Id.*

22 *Id.*

23 *Id.* at 1079.

TCL argued that a "sham litigation exception" to the *Noerr-Pennington* doctrine may apply. Ericsson noted that such claims require "clear and convincing evidence" that the defendant pursued the infringement suits "pursuant to a policy of starting legal proceedings without regard to the merits and for the purpose of injuring a market rival."[24] Ericsson argued that TCL had not introduced evidence of either requirement, and TCL responded that Ericsson's infringement suits were "causally connected" to anticompetitive behavior and therefore part of an anticompetitive "scheme." Ericsson responded that the Supreme Court has made clear that "genuine petitioning activities are 'not illegal, either standing alone *or as part of a broader scheme itself violative of [antitrust law].*'"[25]

Judge Selna ultimately agreed with Ericsson, holding that spending "millions of dollars defending against actions by Ericsson seeking injunctions or exclusion orders" cannot be the basis for TCL's "economic injury" due to the Noerr-Pennington doctrine.[26] The court noted that

> [a]lthough there is evidence in the record that TCL spent millions of dollars defending against actions by Ericsson seeking injunctions or exclusion orders, such injury cannot be the basis for TCL's "economic injury" due to the *Noerr-Pennington* doctrine. [¶] The *Noerr-Pennington* doctrine provides absolute immunity for statutory liability for conduct when petitioning the government for redress.[27]

Relying on the Supreme Court's opinion in *Professional Real Estate Investors v. Columbia Pictures,* Judge Selna explained that "[t]hose who petition government for redress are generally immune from antitrust liability."[28] Applying the Ninth Circuit's opinion in *Sosa v. DirecTV,* he also distinguished certain California "cases that have found UCL standing based on prior litigation costs" as having omitted "discussion of the *Noerr-Pennington* doctrine," but credited the decisions which "directly considered the doctrine," and "have found that injury flowing solely from previous, protected litigation activity cannot be the basis of standing under the UCL."[29]

As to sham litigation claims, the court explained that TCL must also have proof that Ericsson's lawsuits were objectively baseless, or were started without regard to their merits, or involved making intentional misrepresentation to a Court. The court found no evidence of any of those factors. The court also concluded that TCL's claim that Ericsson's

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24 *Kaiser Found. Health Plan, Inc. v. Abbott Labs., Inc.*, 552 F.3d 1033, 1044, 1046 (9th Cir. 2009).

25 *Oregon Nat. Res. Council v. Mohla*, 944 F.2d 531, 534 (9th Cir. 1991) (quoting *United Mine Workers of Am. v. Pennington*, 381 U.S. 657, 670 (1965)) (emphasis in original).

26 *TCL*, 2016 WL 7049263, at *2.

27 *Id.* (citing *Sosa v. DirecTV, Inc.*, 437 F.3d 923, 929 (9th Cir. 2006)).

28 *Id.* (quoting *Prof'l Real Estate Inv'rs, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 56 (1993)).

29 *Id.* at *3 (citing *James R. Glidewell Dental Ceramics, Inc. v. Keating Dental Arts, Inc.*, No. SACV 11-1309-DOC ANX, 2013 WL 655314, at *13-14 (C.D. Cal. Feb. 21, 2013) ("[B]ecause Defendant's only attempt to establish economic injury rests on the allegation that Plaintiff's lawsuit caused it to lose business, the Court finds that the . . . *Noerr-Pennington* doctrine appl[ies]")).

litigation is "causally connected" to Ericsson's anticompetitive behavior would still not deprive the litigation of its First Amendment protection.[30]

III. TCL'S LACK OF EVIDENCE OF HARM TO COMPETITION REQUIRED FOR ITS UNFAIR COMPETITION CLAIM

As a separate and independent ground for summary judgment, Ericsson also argued that TCL had not submitted sufficient evidence to show "conduct that threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition."[31] This harm to competition—not just a single market participant—is the hallmark of unfair competition claims under the California UCL, especially as "a UCL action based on a contract is not appropriate where the public in general is not harmed by the defendant's alleged unlawful practices."[32]

Ericsson's motion argued that TCL must prove an impact on competition in a relevant market—not just harm to TCL.[33] Under this view, TCL's failure to produce substantial evidence proving a relevant market, and an injury to competition within that market, entitled defendant to judgment on an unfair competition claim.[34] TCL argued in response that "supracompetitive prices and restricted output" allowed an antitrust plaintiff to skip establishing a cognizable relevant market. Ericsson's reply was that TCL had not identified any distortion of competition by alleged "supracompetitive" prices and "restricted" output—by neglecting to provide any expert analysis of any actual market.

Ericsson also asserted that TCL's UCL claim relied on an allegation of an "intentionally false FRAND commitment," yet TCL had failed to establish such intent. TCL's claim did generally follow *Broadcom Corp. v. Qualcomm Inc.*, a decision on the pleadings in the Third Circuit, which held that (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with a standard development organization's reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, could be actionable anticompetitive conduct.[35] Ericsson argued that TCL failed to meet this standard by failing to adduce evidence of intent, including failing to offer any expert opinion on intent or motive.

The court agreed with Ericsson, concluding that TCL points to "absolutely no evidence in the record" from which it could be reasonably concluded that Ericsson made an intentionally false promise.[36] Thus, the court held, "[w]ithout any evidence of an

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30 *Id.*

31 *Cel-Tech Commc'ns, Inc. v. Los Angeles Cellular Tel. Co.*, 20 Cal. 4th 163, 187 (1999).

32 *Rosenbluth Int'l, Inc. v. Super. Ct.*, 124 Cal. Rptr. 2d 844, 847 (Cal. Ct. App. 2002).

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

34 *T.W. Elec. Serv., Inc. v. Pacific Elec. Contractors Ass'n*, 809 F.2d 626, 635 (9th Cir. 1987); *ChriMar Sys., Inc v. Cisco Sys., Inc*, 72 F. Supp. 3d 1012, 1017-20 (N.D. Cal. 2014); *Sidibe v. Sutter Health*, 51 F. Supp. 3d 870, 884-87 (N.D. Cal. 2014).

35 *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 314 (3d Cir. 2007).

36 *TCL*, 2016 WL 7049263, at *5.

intentionally false promise to a standard setting organization, TCL cannot satisfy *Broadcom*'s test to show anticompetitive behavior by Ericsson with regard to its participation in the development of a standard."[37]

Importantly, in so holding, the court rejected TCL's argument that its alleged evidence that Ericsson has breached FRAND was sufficient evidence that Ericsson has necessarily done so in an anticompetitive way. Ericsson argued that the importance of an intentionally false promise for an unfair competition claim—*i.e.*, deception during standards development—is that it premises the harm to competition distinguishing a UCL claim from a breach of contract claim.[38] The court agreed, holding that there was no authority "for this kind of bootstrapping of a breach of contract case, without more, into a violation of the policy or spirit of antitrust laws." The court specifically noted that, "as the *Broadcom* court made the 'intentionally false promise' and subsequent 'breach of that promise' two separate elements, it is clear that there needs to be some other conduct by Ericsson than mere breach of its FRAND obligations."[39]

IV. CONCLUSION

The district court's grant of summary judgment to Ericsson on TCL's UCL claim highlights an important development in FRAND litigation: the central role of contract-based private litigation claims. The primacy of contract claims is consistent with the fundamental goals of the California UCL, which requires economic injury and harm to competition, and the competition goals of antitrust and unfair competition laws generally, as recently stated by Assistant Attorney General Delrahim. As licensing disputes continue to reach courts with both contract and competition claims, however, litigants must pay close attention to all requirements of an additional competition claim. In most cases, the proper approach is a contract case alone.

37 *Id.*

38 *See Broadcom*, 501 F.3d at 314; *Apple Inc. v. Samsung Elecs. Co., Ltd.*, No. 11-cv- 01846, 2012 WL 1672493, at *7 (N.D. Cal. May 14, 2012); *Microsoft Mobile Inc. v. Interdigital, Inc.*, No. 15-723-RGA, 2016 WL 1464545, at *1-2 (D. Del. Apr. 13, 2016).

39 *TCL*, 2016 WL 7049263, at *6.

THE DIFFICULTIES OF SHOWING PASS THROUGH IN INDIRECT PURCHASER COMPONENT CASES

By James Bo Pearl and Allison Smith[1]

Over the last decade, California federal courts have heard a number of antitrust suits alleging price fixing and other anticompetitive conduct by cartels of electronic component manufacturers. These alleged conspiracies have touched various components of everyday electronics that allow the devices to perform basic tasks.

The component cases almost invariably include claims by indirect purchasers seeking damages from the alleged cartelists, even though they did not purchase products directly from defendants. In most of these cases, the indirect purchaser class purchased finished products incorporating the electronic component at issue, such as a laptop computer.[2] The electronic component generally will have passed through multiple intermediaries in the distribution chain between the defendant manufacturer and the indirect purchaser plaintiff ("IPP"). Given the volume of commerce associated with these commonplace consumer products, the damages claims in these cases are often substantial.

Establishing damages incurred by indirect purchasers is complicated by their attenuated commercial relationship with the conspirators.[3] To recover, indirect purchasers must show that the original increase in price charged by the component manufacturer to a direct purchaser because of the conspiracy (the overcharge) made its way through all stages of the distribution chain. That is, "plaintiffs must demonstrate that defendants overcharged their direct purchasers . . . and that those direct purchasers passed on the overcharges to plaintiffs."[4]

The issue becomes more complex for large classes of indirect purchasers who purchased disparate finished products. The classes are generally defined based on the products purchased and time period of that purchase; they do not consider the diversity of upstream transactions involving the electronic component or the intermediaries from which the indirect purchaser bought the end product.[5] Although the electronic component cases have generally limited classes to indirect purchasers who purchased for their own use,

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2 One notable exception is the ongoing resistors litigation, where the proposed indirect purchaser class definition included purchasers of resistors from an intermediary between the purchaser and the defendant, but not finished products containing resistors. *See* Complaint, *In re Resistors Antitrust Litig.*, No. 5:15-cv-03820 (N.D. Cal. Aug. 20, 2015).

3 *See* Michelle M. Burtis et. al., *Pass-through, Common Impact, and Structural Modeling in Indirect Purchaser Class Certification*, 10 Econ. Comm. Newsl. 3, 3 (Summer 2010); Pierre Y. Cremiux et. al., *Assessing Conflict, Impact, and Common Methods of Proof in Intermediate Indirect-Purchaser Class Action Litigation*, 6 Econ. Comm. Newsl. 4, 6 (Spring 2006).

4 *In re Graphics Processing Units Antitrust Litig.*, 253 F.R.D. 478, 499 (N.D. Cal. 2008) ("*GPU*").

5 *See, e.g.*, *In re TFT-LCD (Flat Panel) Antitrust Litig.*, 267 F.R.D. 583, 590 (N.D. Cal. 2010), *amended in part*, No. M 07-1827 SI, 2011 WL 3268649 (N.D. Cal. July 28, 2011) ("*LCD*"); *In re Static Random Access Memory (SRAM) Antitrust Litig.*, 264 F.R.D. 603, 608 (N.D. Cal. 2009) ("*SRAM*").

rather than for resale, this still leaves heterogeneity among class members, along factors such as customer size, customer type, and procurement channel.[6]

Given the complexity of some of the finished products at issue in these suits and their complicated routes to market, both plaintiffs and defendants need to carefully study the issue of pass through and plaintiffs' ability to show pass through on a class-wide basis. A recent case study, the lithium ion battery litigation, provides an example of the difficulty of showing pass through on a class-wide basis.

I. LEGAL BACKGROUND

Indirect purchaser suits for monetary damages are barred under federal antitrust law. In *Illinois Brick Co. v. Illinois*, the Supreme Court held that indirect purchasers do not have standing to pursue damages claims.[7] This holding built on the Court's prior decision in *Hanover Shoe, Inc. v. United Shoe Machinery Corp.* that a pass-on defense is normally not available to defendants, meaning they cannot reduce damages by proving that plaintiffs passed through some part of the anticompetitive overcharge to their customers.[8] The *Illinois Brick* Court reasoned that if defendants are liable for the full overcharge to the direct purchasers, they should not also be liable for the same overcharge to the downstream purchasers. In addition to this "serious risk of multiple liability," the Court was also concerned about the "evidentiary complexities and uncertainties" involved in demonstrating how much of the overcharge was passed on "at each point at which the price-fixed goods changed hands before they reached the plaintiff."[9]

Dissatisfied with this bar on recovery, numerous states passed so-called "*Illinois Brick* repealer" statutes, allowing indirect purchasers to bring damages claims under state antitrust laws. The Supreme Court later rejected arguments that these state statutes were preempted by federal law, and held that indirect purchasers may recover damages under state laws even if direct purchasers also have a right to recover damages under federal law for the same conduct.[10]

Pass through is central to showing impact and damages for a proposed class of indirect purchasers. At the class certification stage, the class representatives must be able to show class-wide impact using common proof.[11] At the merits stage (whether at summary judgment or trial), IPPs must show injury for the entire class, rather than only some class members or the class in the aggregate.[12] The pass through determination requires

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6 *See California v. Infineon Techs. AG*, No. C 06-4333 PJH, 2008 WL 4155665, at *11 (N.D. Cal. Sept. 5, 2008) (denying class certification).

7 *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977).

8 *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, 392 U.S. 481 (1968).

9 *Illinois Brick*, 431 U.S. at 732-33.

10 *California v. ARC America Corp.*, 490 U.S. 93 (1989).

11 *See* Fed. R. Civ. P. 23; *In re Optical Disk Drive Antitrust Litig.*, No. 3:10-MD-2143 RS, 2016 WL 467444, at *11 (N.D. Cal. Feb. 8, 2016) ("The crucial point is that whether the IPPs theory is right or wrong, it is something that can be decided on a class-wide basis."); *GPU*, 253 F.R.D. at 505.

12 *See* Chris S. Coutroulis & D. Matthew Allen, *The Pass-on Problem in Indirect Purchaser Class Litigation*, 44 Antitrust Bull. 179, 185 (1999); *see also In re Optical Disk Drive Antitrust Litig.*, No. 10-MD-02143-RS, 2017 WL 6503743, at *8-9 (N.D. Cal. Dec. 18, 2017).

first identifying the "particular channel applicable to the class member's purchase, and tracing the overcharge through the various intermediaries that lie between the particular Defendant and the member."[13] The complexities of showing uniform pass through at each level of a complex distribution chain via common proof have often thwarted proposed indirect purchaser claims, including in electronic component cases.[14]

II. PASS THROUGH ANALYSIS IN ELECTRONIC COMPONENT CASES

The need to "trace the complex economic adjustments to a change in the cost of a particular factor of production" was one reason the Supreme Court barred indirect purchaser actions—seeking damages—under federal law.[15] Econometric analysis in litigation has become more sophisticated since the time of *Illinois Brick*, but proving pass through of overcharges through sometimes elaborate distribution chains can still be a formidable task.

The extent to which an overcharge caused by defendants' conduct affects an indirect purchaser plaintiff depends on the pricing decisions of the direct purchaser and other indirect purchasers further up the distribution chain from the plaintiff, that is, intermediaries between the direct purchaser and the indirect purchaser class members.[16] Each firm in the chain must balance a possible price increase to offset the higher cost from the overcharge on the component with the resulting lower demand for the product it sells.[17] The relative magnitudes of these effects could cause the firm to fully pass through the overcharge, or choose to absorb some or all of the overcharge. These decisions are also informed by the competitive situation in the firm's industry. Firms also may consider substituting other inputs to replace the price-fixed component, if possible. In short, pass through decisions are a function of the elasticity of supply and elasticity of demand, which differ among firms and stages of the distribution chain.[18]

To win class certification, a proposed indirect purchaser class must show class-wide impact from defendants' anticompetitive conduct using a common method and common

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13 *In re Flash Memory Antitrust Litig.*, No. C 07-0086 SBA, 2010 WL 2332081, at *11 (N.D. Cal. June 9, 2010) (denying class certification) ("*Flash Memory*"); *see GPU*, 253 F.R.D. at 499.

14 *See, e.g.*, *In re Dynamic Random Access Memory (DRAM) Antitrust Litigation*, 516 F. Supp. 2d 1072 (N.D. Cal. 2007); *GPU*, 253 F.R.D. 478.

15 *Illinois Brick*, 431 U.S. at 732.

16 *See* George Kosicki & Miles B. Cahill, *Economics of Cost Pass Through and Damages in Indirect Purchaser Antitrust Cases,* 51 Antitrust Bull. 599, 601 (2006).

17 *See Illinois* ex rel. *Hartigan v. Panhandle Eastern Pipe Line Co.*, 852 F.2d 891, 894 (7th Cir. 1988) (describing determination of direct purchaser's trade-off between a higher price and lower demand as hard, "even by sophisticated techniques of economic analysis").

18 *See* Kosicki & Cahill, *supra* note 16, at 606-19 (discussing the economics of pass through in different market structures); William Landes & Richard Posner, *Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws? An Economic Analysis of the Rule of Illinois Brick*, 46 U. Chi. L. Rev. 602, 619 (1979); Fei Deng, John H. Johnson, & Gregory K. Leonard, *Economic Analysis in Indirect Purchaser Class Actions*, 26 Antitrust 51, 52 (2011); *see also SRAM*, 264 F.R.D. at 613.

evidence.[19] IPPs generally use econometric models to show an overcharge was passed through various steps in the distribution chain to their final purchases. These models must take into account real world behaviors, which depart from the classical assumptions underlying economic models and may cause actual pricing decisions to differ from the predicted responses.[20] These include, for example, buyer power for certain large buyers, market power for certain sellers, heterogeneous products, price protection contracts for buyers, promotional pricing by buyers, and barriers to entry in the seller's market.[21]

A number of factors affect the ease with which plaintiffs can show pass through and appropriately account for relevant market characteristics. One district court grouped these factors into "five classes" to consider: "temporal relationships, pricing practices, directness of affected costs, supply[,] and demand."[22] As examples:

- if a retailer uses price points, it may not shift a product to the next highest price point in response to a small increase in the cost of a component, decreasing the pass through rate;
- if a downstream firm can substitute to different inputs, the pass through rate will be lower than 100%;
- if the overcharge is on a component comprising a small amount of the finished product's total cost, the overcharge may not be passed through at all because it is "virtually unnoticeable" to the seller of the final product; and
- if customers are not sensitive to a change in price, the seller may be able to pass through more of the overcharge.[23]

With variances in demand, cost, and competitive conditions at different levels of the supply chain, indirect purchasers may be affected differently depending on the exact supply chain their finished product traveled along.[24]

The electronic component cases exhibit many of the factors that make estimating pass through, particularly on a class-wide basis, more difficult to show. In some instances, though, these difficulties have not prevented IPPs from obtaining class certification.

- Heterogeneity of the components

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19 *See GPU*, 253 F.R.D. at 504, 505 (addressing burden at class certification); *In re Cathode Ray Tube (CRT) Antitrust Litig.*, No. C-07-5944-SC, 2013 WL 5391159, at *5 (N.D. Cal. Sept. 24, 2013) ("*CRT*") (stating that at class certification, indirect purchaser plaintiffs need to show "a reasonable method for determining, on a classwide basis, the antitrust impact's effects on the class members," not that every class member was injured).

20 *See* Burtis et. al., *supra* note 3, at 6 (describing empirical studies showing that firms' pricing strategies may depart from economic theory and modeling).

21 *See* Coutroulis & Allen, *supra* note 12, at 200.

22 *In re Lithium Ion Batteries Antitrust Litig.*, No. 13-MD-2420 YGR, 2017 WL 1391491, at *9 (N.D. Cal. Apr. 12, 2017) ("*Lithium Ion Batteries*") (citing *SRAM*, 264 F.R.D. at 613).

23 *See* Deng, Johnson, & Leonard, *supra* note 18, at 52-54.

24 *Id.* at 54.

- In litigation over flash memory, the court noted that the defendants collectively produced about 2,000 different types of NAND flash memory chips, and the prices ranged from 1 cent to over $200 during the period at issue. The court denied class certification because the plaintiffs could not show class-wide injury.[25]

- In the optical disc drive ("ODD") litigation, IPPs removed CD drives and Blu-Ray drives from the components at issue for the second round of class certification. This cured one of the defects noted by the district court in denying the first attempt at class certification.[26]

- Heterogeneity of the finished products

  - The finished products at issue in the lithium ion batteries action included "devices ranging from smartphones to laptop computers to cameras to cordless power tools." The court denied class certification.[27]

  - Similarly, products incorporating graphics processing units "were particularly customized to the needs of a specific purchaser, meaning they could not be interchanged with any other GPU product sold by defendants." The court denied class certification.[28]

  - In contrast, cathode ray tubes were "not so variable as . . . graphics processing units," and their prices depended on a small number of variables. That minor heterogeneity did not defeat class certification.[29]

  - In litigation over ODDs, IPPs narrowed the scope of the class to reduce the types of finished products at issue. The class was limited to purchases of "computers containing ODDs and stand-alone ODDs only, removing videogame consoles such as the Xbox." The court certified the more limited class.[30]

- Cost of the input as a percentage of the total cost of the finished product

  - The low relative cost of an ODD to the total cost of a computer, given retailers' common use of price points, was a factor in IPPs' inability to show

25 *Flash Memory*, 2010 WL 2332081, at *1.

26 *In re Optical Disk Drive Antitrust Litig.*, 2016 WL 467444, at *3.

27 *Lithium Ion Batteries*, 2017 WL 1391491, at *2.

28 *GPU*, 253 F.R.D. at 491.

29 *CRT*, 2013 WL 5391159, at *8.

30 *In re Optical Disk Drive Antitrust Litig.*, 2016 WL 467444, at *3.

pass through and common injury to the proposed class during the first round of class certification briefing in the *ODD* litigation.[31]

- CRT and LCD components represented a large portion of the cost of the finished product, and IPPs successfully sought class certification of both classes. CRTs "are the most expensive component in the finished products into which they are incorporated," and account for over 50% of the retail price of the finished product."[32] Likewise, LCD panels constituted "50%-80% of the price of computer monitors, 33%-70% of the price of televisions . . ., and 10%-25% of the cost of a notebook computer."[33]

- Number of levels in the distribution chain and competitive conditions at each level

  - The court denied class certification for indirect purchasers of flash memory, finding that a typical chain of distribution involved "five different transactions," and NAND flash was "typically resold (by itself or as altered) several times before reaching the final end-consumer."[34]

  - The *SRAM* court explained that IPPs "must find a way to account for the decision-making of a variety of resellers and manufacturers in an intricate distribution chain." To prove class-wide injury, IPPs had to account for sales of SRAM as a component of an end product, as a stand-alone product, and as part of a bundle with other products. Despite these challenges, the IPPs successfully moved to certify their proposed class.[35]

- Type of procurement methods and pricing negotiations

  - Defendants mostly sold NAND flash memory through frequent negotiations with purchasers, and this militated against a finding of common impact to the proposed class. Further, IPPs did not show pass through for the various channels through which indirect purchases bought the products at issue; their approach did not study the intermediaries in the distribution chain.[36]

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31 *In re Optical Disk Drive Antitrust Litig.*, 303 F.R.D. 311, 324-25 (N.D. Cal. 2014) ("Among other things, the IPPs have not presented a persuasive explanation as to why it would be reasonable to assume a uniform pass through rate given that ODDs typically make up a relatively small portion of the cost of the products into which they are incorporated, and given the existence of price points—i.e., the common practice in the industry of selling products costing in the hundreds of dollars at prices just under the next $100 mark."). The court later certified a revised IPP class, after additional analysis by the IPPs' expert.

32 *In re Cathode Ray Tube (CRT) Antitrust Litig.*, MDL No. 1917, 2013 WL 5429718, at *2 (N.D. Cal. June 20, 2013), *report and recommendation adopted*, No. C-07-5944-SC, 2013 WL 5391159 (N.D. Cal. Sept. 24, 2013).

33 *LCD*, 267 F.R.D. at 588.

34 *Flash Memory*, 2010 WL 2332081, at *2.

35 *SRAM*, 264 F.R.D. at 613.

36 *Flash Memory*, 2010 WL 2332081, at *11-12.

- Rigid pricing
    - In finding that IPPs could not show class-wide pass through, the *Flash Memory* court noted that prices varied across the hundreds of retailers at issue, and for the same retailer at different points in time, as different firms used different pricing strategies. Further, it acknowledged that "different retailers respond to cost changes in different ways, with some choosing not to pass-through cost changes in the form of higher prices for the end-user."[37]
    - In certifying the ODD indirect purchaser class, the court expressed concern that price points presented an issue that IPPs would have to account for at the merits stage. Inability to show pass through because of focal point pricing was a main reason for the grant of summary judgment against IPPs.[38]

III. CASE STUDY: LITHIUM ION BATTERIES

The recent class certification decision in the lithium ion batteries antitrust litigation turned on pass through and illustrates the economic challenges faced by indirect purchasers to establish injury. Lithium ion batteries are used to power a number of common portable electronics. Groups of direct and indirect purchasers filed suit in 2013, alleging that multiple electronics manufacturers conspired to maintain artificially high prices for these batteries. A sprawling multi-district litigation resulted, and some defendants settled prior to or during the class certification proceedings.

The indirect purchaser class first sought class certification in early 2016, but the court denied the motion in part because the proposed class did not demonstrate the alleged "antitrust impact is 'passed on' to each level of the indirect purchasers in the distribution chain."[39] The court explained that the plaintiffs' expert had not adequately accounted for the effects of bundling, rebates, discounts, and focal point pricing in his pass through analysis. The court also faulted the expert's pass through analysis for insufficiently capturing "the variety of different types of class members and product categories," including "packers" of cylindrical batteries because IPPs had not obtained any data from packers.[40] But the court allowed the IPPs to revise their analysis and renew their motion for class certification.

The indirect purchasers did so, with a motion supported by additional economic analysis designed to address the court's concerns from the first round of class certification. Despite the additional data and updated analysis, the court found that the IPPs still had not shown pass through to establish class-wide impact and damages, and again denied the motion for certification.[41]

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37 *Flash Memory*, 2010 WL 2332081, at *11.

38 *In re Optical Disk Drive Antitrust Litig.*, 2017 WL 6503743, at *8-10.

39 *Lithium Ion Batteries*, 2017 WL 1391491, at *12.

40 *Id.* at *12.

41 *In re Lithium Ion Batteries Antitrust Litig.*, No. 13-MD-2420 YGR, 2018 WL 1156797, at *3 (N.D. Cal. Mar. 5, 2018).

The court focused on the prevalence of focal point pricing, particularly at the retail level. It credited defendants' argument that retailers will not pass through small cost changes, as estimated by plaintiffs' expert, because retailers would have to price at the next higher price point, *e.g.*, $10 higher to retain a price that ends in the digit "9."[42]

IPPs countered the focal point pricing argument by asserting that the overcharge on the battery is instead passed through as a reduction in the quality of other components in the finished product. For example, if manufacturers design a notebook computer for a certain price point and the cost of the battery increases, they will reduce the quality (and therefore cost) of other components to deliver a finished product for the same price point.[43]

The court rejected plaintiffs' theory of a quality reduction injury because it was "theory without factual support."[44] The court was also troubled by the seeming conflict between the asserted quality reductions (rather than price of cost changes) and the expert's previous pass through regression calculations, which were based on actual price and cost data for entities at different levels of the distribution chain.[45] Additionally, the plaintiffs' expert did not explain how the quality adjustments, which would take place at the OEM level, would affect pass through later in the distribution chain, especially at the retail level where focal point pricing is most prevalent and pricing is most volatile.[46] The indirect purchasers did not adequately explain the effect of focal point pricing on their pass through analyses and thus could not show antitrust injury to the class on a common basis.[47]

IV. CONCLUSION

Pass through continues to be a hurdle to showing antitrust injury for a class of indirect purchasers of an allegedly price-fixed component, although the record in electronic component cases is somewhat mixed. While not dispositive, certain market characteristics impede indirect purchasers' ability to show pass through of an overcharge on a class-wide basis, particularly heterogeneity of the component or finished product and pricing strategies and pressures that influence intermediaries' pricing decisions.

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42 *Id.* at *4.

43 *Id.*

44 *Id.* The *ODD* court rejected for lack of factual support a similar argument that indirect purchasers were injured from purchasing lower-quality finished products. *In re Optical Disk Drive Antitrust Litig.*, 2017 WL 6503743, at *9. Likewise, the *GPU* court stated that indirect purchasers needed to show that they paid a higher price for their graphics card or computer than they would have without the alleged conspiracy. *GPU*, 253 F.R.D. at 505.

45 *Id.* at *5.

46 *Id.*

47 *Id.*

APPLYING *ILLINOIS BRICK* TO E-COMMERCE: WHO IS THE DIRECT PURCHASER FROM AN APP STORE?

By Ryan M. Sandrock[1]

Fifty years after *Hanover Shoe*, the Supreme Court will decide a case that could confirm the existing *Hanover Shoe/Illinois Brick* framework or create some new structure for private antitrust enforcement. The core Supreme Court decisions on the "direct purchaser" rule considered facts regarding shoe manufacturing machinery and concrete blocks. The case on which the Supreme Court will next hear argument on the this rule—*Apple v. Pepper*—involves facts regarding the iPhone and Apple's App Store. And whether the sale of apps is comparable (or not) to the sale of concrete blocks could have a substantial impact on not just the law of antitrust and internet commerce but also alleged anti-competitive activity in any industry. In the view of Assistant Attorney General Makan Delrahim and others, *Hanover Shoe* and *Illinois Brick* should be reconsidered. If the Supreme Court follows that path, there could be a new *Apple* rule regarding who can sue and a new framework for private antitrust enforcement that could make it easier for indirect purchasers (including end-user consumers) to bring claims. Alternatively, the Court could reaffirm its precedent, thereby allowing antitrust defendants to continue to use *Illinois Brick* to fend off liability under federal law to indirect purchasers.

I. THE LONG-STANDING *ILLINOIS BRICK* WALL TO INDIRECT PURCHASER CLAIMS

The Supreme Court's 1977 decision in *Illinois Brick*[2] provides that only those plaintiffs who purchased directly from antitrust defendants are entitled to sue for damages under federal law—"indirect purchasers" cannot recover under federal antitrust laws. A variety of state laws, however, do allow for such damages claims.

In *Illinois Brick*, the State of Illinois sued a concrete block manufacturer for fixing the price of those blocks. The manufacturers had sold the blocks to contractors, who used the blocks to build structures for the State. The State alleged that the contractors had passed on the manufacturer's overcharge to the State. The Supreme Court refused to permit the State to assert damages claims against the concrete block manufacturer under the Sherman Act claim. A primary focus of the Court's analysis was the correlating rule established in *Hanover Shoe* that an antitrust defendant could not assert as a defense that a plaintiff passed on overcharges to its customers. Given the bar on "defensive pass through," the Court concluded that a bar on "offensive pass through" was required. The Court focused on practicality, explaining that it would be impossibly complex to trace anti-competitive effects down the distribution chain.[3]

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2 *Illinois Brick Co. v. Illinois,* 431 U.S. 720 (1977).

3 *Id.* at 745–46.

The *Illinois Brick* rule means that "only the first party in the chain of distribution to purchase a price-fixed product has standing to sue."[4] A plaintiff does not have standing because it paid supra-competitive prices that an intermediary initially bore but then "passed-on" to the plaintiff.[5]

The *Illinois Brick* decision came nine years after the Supreme Court's decision in *Hanover Shoe*.[6] In that case, a shoe manufacturer alleged that a machinery corporation had used its monopoly over shoe-manufacturing machinery to charge the manufacturer supra-competitive prices. As a defense, the machinery corporation argued that the shoe manufacturer had not suffered any damages because it had "passed-on" any overcharge to consumers. The Court rejected that argument, holding that a direct purchaser is injured by the amount of its overpayment, regardless of who eventually bears the cost of that injury.[7]

II. NORTHERN DISTRICT OF CALIFORNIA GRANTS APPLE'S MOTION TO DISMISS

Plaintiffs—purchasers of iPhone apps—alleged violations of Section 2 of the Sherman Act regarding the market for iPhone apps. Plaintiffs alleged that:

1. Apple had monopolized and attempted to monopolize an alleged market for iPhone apps;

2. the apps at issue in the case were manufactured by app developers and were only sold through Apple's App Store;

3. for every third-party app sold through the App Store, Apple received 30% of the revenue and the developer received the remaining 70%;

4. payment was made directly to the App Store;

5. Apple prohibited developers from selling iPhone apps through any means other than the App Store; and

6. if an iPhone user purchases and installs an app on an iPhone from a source other than the App Store, Apple will void the warranty for that iPhone.[8]

Apple moved to dismiss. Apple asserted that plaintiffs are indirect purchasers of apps from the app creators, and the App Store is simply the store in which the apps are purchased. The app creators set the prices to charge for their apps, and Apple is charging the app creators—not the plaintiffs—a 30% commission of the total price of the app. Apple also argued that plaintiffs' claims necessarily give rise to the difficult issues of pass-through damages as they would require a court to determine what price the app creators would

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4 *In re Cathode Ray Tube Antitrust Litig.*, 911 F. Supp. 2d 857, 864 (N.D. Cal. 2012).

5 *Id.; In re ATM Fee Antitrust Litig.,* 686 F.3d 741, 748 (9th Cir. 2012).

6 *Hanover Shoe v. United Shoe Mach. Corp.*, 392 U.S. 481 (1968).

7 *Id.* at 494.

8 *In re Apple iPhone Antitrust Litig.*, No. 11-cv-06714-YGR, 2013 WL 4425720, at *2-12 (N.D. Cal. Aug. 15, 2013).

charge if they were to sell through a different venue than the App Store or if the App Store had different policies.

The Honorable Yvonne Gonzalez Rogers granted the motion to dismiss with leave to amend, finding that plaintiffs had not provided sufficient allegations that they were the direct purchasers of any unlawfully-priced app.[9]

Plaintiffs amended their complaint in an attempt to address the Court's *Illinois Brick* concerns. Plaintiffs' amended complaint alleged that plaintiffs were, in the Court's words, "straightforward direct purchasers" because Apple collects fees from consumers and takes 30% of that fee for itself.[10] Apple conceded that "(i) there is a 30% fee, (ii) the fee is Apple's, (iii) Apple collects said fee, and (iv) consumers pay the fee for every App they purchase."[11] Apple argued that the consumers were merely asserting a prohibited "pass-on" theory—that they were injured by developers passing-on the 30% fee to consumers in the form of higher prices.[12]

The Court agreed with Apple, finding that the complaint "is fairly read to complain about a fee created by agreement and borne by the developers to pay Apple 30% from their own proceeds—an amount which is passed-on to the consumers as part of the purchase price."[13] The Court relied heavily on *In re ATM Fee Antitrust Litigation,* in which the Ninth Circuit had found that inflated ATM fees paid by banks and then passed-on to consumers could not be the basis for direct purchaser claims by bank customers.[14]

III. NINTH CIRCUIT REVERSES

The Ninth Circuit rejected the District Court's reasoning and reversed.[15]

The Court framed its analysis by reviewing the holdings in *Hanover Shoe* and *Illinois Brick,* emphasizing that the transactions in both cases had the "same structure" in which "a monopolizing or price-fixing manufacturer sold or leased a product to an intermediate manufacturer at a supracompetitive price" and the intermediate manufacturer then "used that product to create another product, which was ultimately sold to the consumer."[16]

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9 *Id.* at *12.

10 *In re Apple iPhone Antitrust Litig.*, No. 11-cv-06714-YGR, 2013 WL 6253147, at *4 (N.D. Cal. Dec. 2. 2013).

11 *Id.*

12 *Id.* at *4–5.

13 *Id.* at *6.

14 *Id.* at *5; *ATM*, 686 F.3d at 745–750.

15 *In re Apple iPhone Antitrust Litig.*, 846 F.3d 313 (9th Cir. 2017). Apple's first two motions to dismiss were brought under FRCP 12(b)(7) and argued that Plaintiffs needed to add AT&T Mobility as a necessary party. Apple's third and fourth motions raised the *Illinois Brick* argument under FRCP 12(b)(6). Plaintiffs argued that those motions were late-filed because FRCP 12(g)(2) provides that "a party that makes a motion under this rule must not make another motion under this rule raising a defense or objection that was available to the party but omitted from its earlier motion." The Court found that Apple's motion was timely but that, even if it was not, it was harmless error for the Court to consider the argument. If the Court had not allowed it, Apple simply could have made the same argument in a FRCP 12(c) motion or later. *Id.* at 320.

16 *Id.* at 322.

The Court then explained factors that it did *not* consider in its analysis, including: (1) whether app developers are direct purchasers of distribution services from Apple, (2) that Plaintiffs pay Apple, (3) that Apple does not take ownership of the apps, and (4) who sets the ultimate price.[17] Instead, the Court rested its decision "on the fundamental distinction between a manufacturer or producer, on the one hand, and a distributor, on the other."[18] The Court concluded that "Apple is a distributor of the iPhone apps, selling them directly to purchasers through its App Store" and therefore "Plaintiffs have standing under Illinois Brick to sue Apple for allegedly monopolizing and attempting to monopolize the sale of iPhone apps."[19] The bright-line rule for the Ninth Circuit appeared to be that a distributor can be sued by purchasers.

The Court conceded that its decision was at odds with the Eighth Circuit's decision in *Campos v. Ticketmaster Corp.*[20] That case concerned an allegation that Ticketmaster had a monopoly over ticket distribution services that resulted in inflated ticket prices to consumers. The Eighth Circuit concluded that concert venues were the direct purchasers from Ticketmaster, and any injuries to consumers were derivative of those injuries.[21]

IV. APPLE SEEKS CERTIORARI ON AN ISSUE OF "EXCEPTIONAL NATIONAL IMPORTANCE"

Apple petitioned for a writ of certiorari, presenting the question of "whether consumers may sue for antitrust damages anyone who delivers goods to them, even where they seek damages based on prices set by third parties who would be the immediate victims of the alleged offense." Apple described itself as a "marketplace sponsor" who "interacts with and delivers goods 'directly' to consumers" but only as an "agent" on behalf of third-party sellers.[22]

Apple emphasized the importance of the decision "in the era of electronic commerce," pointing to the age of the leading decisions.[23] Apple argued:

> The Ninth Circuit's decision implicates issues of exceptional national importance. This is not a one-off case that can be dismissed as an outlier. Along with *Campos*, it is the most important case to have come along testing the application of *Illinois Brick* to electronic marketplaces. Those marketplaces serve hundreds of billions of dollars in commerce annually, and they are growing fast. The Ninth Circuit's new test essentially treats operators of electronic marketplaces as if they were the owners and direct sellers of every item that passes through their marketplaces, and

17 *Id.* at 324.

18 *Id.* at 324.

19 *Id.*

20 140 F.3d 1166 (8th Cir. 1998).

21 *Id.* at 1174.

22 Apple's Petition for Writ of Certiorari, *Apple, Inc. v. Pepper*, No. 17-204, p. i.

23 *Id.* at 2.

> as if a commission that sellers have agreed to pay is actually charged to and paid by buyers.[24]

Plaintiffs' brief argued that the Ninth Circuit did not in fact create a test based on "distributor function" and that there was no conflict with *Ticketmaster.*[25] The Supreme Court asked for the opinion of the Solicitor General. The Solicitor General filed a brief largely in line with Apple's brief, contending that the Ninth Circuit erred and the Supreme Court should hear the case.

The Solicitor General's brief did break from Apple's brief in one paragraph suggesting that the Court could reconsider *Illinois Brick*. The leading advocate for the position that *Illinois Brick* should be overruled has been Assistant Attorney General Makan Delrahim. Mr. Delrahim and other current members of the Antitrust Division have made statements that *Illinois Brick* and *Hanover Shoe* should be overruled, and that *Pepper* provides an opportunity to do so.

Mr. Delrahim's views on these issues appear to be informed in large part by his role on the Antitrust Modernization Committee ("AMC"). In 2007, the AMC recommended that *Hanover Shoe* and *Illinois Brick*, be overruled.[26] The AMC concluded that "[d]uplicative federal direct purchaser and state indirect purchaser litigation imposes undue burdens on the judicial system and the parties, wastes resources, increases the risk of duplicative recoveries, skews the parties' incentives to settle, and hinders efficient global settlements."[27] The solution to this problem, the AMC continued, is to "[o]verrule *Illinois Brick* and *Hanover Shoe* to the extent necessary to allow both direct and indirect purchasers to sue to recover for actual damages from violations of the federal antitrust laws."[28] As a member of the AMC, Delrahim supported this recommendation (with one exception that is not relevant to the current discussion).

The AMC-line is reflected in a paragraph of the Solicitor General's brief that many attribute to Mr. Delrahim:

> That regime of parallel federal and state antitrust litigation has proved to be complex and inefficient. *Inter alia,* suits by direct and indirect purchasers seeking to recover the same overcharge create a risk of inconsistent results or duplicative awards. In addition, some commentators have concluded, based the courts' experience with state-law indirect purchaser claims, that the evidentiary complexities associated with pass-on analysis are not as great as this Court believed them to be when it decided *Hanover Shoe* and *Illinois Brick*. The parties have litigated this case within the framework established by *Hanover*

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24 *Id.* at 13–14.

25 Respondents' Opposition to Petition for Writ of Certiorari, *Apple, Inc. v. Pepper*, No. 17-204, p. 7, 15.

26 Antitrust Modernization Commission, Report and Recommendations, April 2007 at p. 271.

27 *Id.*

28 *Id.* at 275.

Shoe and *Illinois Brick*, however, and have not asked this Court to revisit those decisions.[29]

This paragraph suggests that a better enforcement regime would allow one court to consider the claims of direct and indirect purchasers and apportion liability that would not exceed the overcharges (trebled).[30]

V. SUPREME COURT BRIEFING

Apple submitted its brief on August 10, 2018. Apple framed the question of the case as "whether end-user consumers have standing to seek antitrust damages based on allegedly monopolistic commissions on app distribution—a service that iOS developers, not end-users, buy from Apple."[31] Apple said that the answer to the question was found in *Hanover Shoe* and *Illinois Brick,* confirming the Solicitor General's statement that the parties are litigating the case within the framework of the two cases (notwithstanding the Assistant Attorney General's apparent interest in moving outside that framework).

Apple argued that the core problem with the Ninth Circuit's decision is that it ignores the problems about pass-through and duplicative recovery that the Supreme Court identified in *Hanover Shoe* and *Illinois Brick*. Apple noted that the Ninth Circuit's decision followed Justice Brennan's dissent in *Illinois Brick* in that the goal of both opinions seemed to be to make sure that end-users had some damages remedy. Apple cited Judge Fletcher's comment at oral argument that he thought "Justice Brennan got it right in *Illinois Brick*."[32]

A slew of amici followed with briefs supporting Apple's position: the R Street Institute, Washington Legal Foundation, Computer & Communications Industry Association, and Chamber of Commerce of the United States. Most importantly, the United States filed an amicus brief in support of Apple's position, with the Solicitor General and Makan Delrahim listed as counsel.

The Government's brief provides straightforward support for Apple's position: *Illinois Brick/Hanover Shoe* bar all forms of pass-on; Pepper's complaint is premised on pass-on allegations; the proper plaintiff for an action against Apple would be the app developers—the first purchasers from Apple; allowing consumers to recover from Apple would risk duplicative recovery; any pass-on analysis seeking to determine what overcharge if any was passed on from the app developer to consumer would be highly complex.

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29 Brief of the United States as Amicus Curiae, *Apple, Inc. v. Pepper*, No. 17-204, pp. 12–13 (citations omitted).

30 *See* AMC Report at p. 275 ("To the maximum extent possible, a single federal court should hear all proceedings relevant to actions by direct and indirect purchasers alleging the same antitrust violation. To accomplish this, federal law should permit direct and indirect purchasers to recover the actual damages they suffer as the result of antitrust violations. The first step toward these goals is to overrule *Illinois Brick* and *Hanover Shoe* legislatively to the extent necessary to allow both direct and indirect purchasers to sue under federal law to recover for actual damage they suffer from antitrust violations resulting in an overcharge.").

31 Petitioner's Brief, *Apple, Inc. v. Pepper*, No. 17-204, at p. 3.

32 *Id.* at p. 5.

But the brief does contain a paragraph that sticks out from this analysis and advances the AMC's position and Mr. Delrahim's views:

> The regime of parallel federal and state antitrust litigation has proved to be complex and inefficient, and some commentators have concluded that the evidentiary complexities associated with pass-on analysis are not as great as this Court believed them to be. The parties have not asked the Court to revisit *Illinois Brick* or *Hanover Shoe*, however, and the only question presented is how to apply those precedents here.[33]

Like the government's prior brief, this brief suggests a need for reform to eliminate confusion and possible *duplicative* recovery but not does not explain in detail how this could be accomplished.

VI. POTENTIAL IMPACT

The Supreme Court's decision will be significant because it will apply long-standing rules regarding who may recover for anti-competitive behavior to the internet economy. As the Solicitor General argued, the decision will have impact on "existing and emerging e-commerce platforms," an issue of particular importance in the Ninth Circuit, the "home to a disproportionate share of the Nation's e-commerce companies."[34] In addition, there is the possibility that the Court could take up Mr. Delrahim's suggestion to reconsider the entire direct purchaser framework and set forth new rules. Should the Court in fact go on to overrule *Hanover Shoe* and *Illinois Brick*, it could create a blank slate regarding the process of civil antitrust enforcement, leaving it unclear as to which plaintiffs can pursue civil Sherman Act claims and the potential scope of total liability for defendants in such cases.[35] Or the Court could simply apply the existing rules, leaving the present regime unchanged.

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33 Brief for the United States as Amicus Curiae Supporting Petitioner, *Apple v. Pepper*, No. 17-204, p. 19 (citations omitted).

34 Brief of the United States as Amicus Curiae, *Apple, Inc. v. Pepper*, No. 17-204, p. 21.

35 Steve Williams and Jiamie Chen, "Should 'Hanover Shoe' and 'Illinois Brick' Be Discarded'?" The Recorder, August 15, 2018.

ANTITRUST TREATMENT OF THE INTRODUCTION OF NEW DRUG PRODUCTS: THE TENSION BETWEEN HATCH-WAXMAN'S DUAL GOALS OF CHEAPER DRUGS AND BETTER DRUGS

by Rosanna K. McCalips[1]

Much has been said about the cost savings generated by generic drugs made more widely available by the Drug Price Competition and Patent Term Restoration Act (commonly known as the Hatch-Waxman Act or the Hatch-Waxman Amendments). The Association for Accessible Medicines (formerly known as the Generic Pharmaceutical Association) reported that generic drug use saved the U.S. healthcare system $253 billion in 2016.[2] But consumer welfare also has risen tremendously from the innovation the Hatch-Waxman Act spurred. Indeed, studies show that the use of new outpatient prescription drugs lengthened life expectancy in the United States by more than a year from 1991 to 2004.[3] In addition to extending life, innovations in prescription drugs have also enhanced the quality of life for many Americans. New and improved drugs have enabled the elderly to perform daily functions such as eating, dressing, and bathing with greater ease.[4] And new drugs have decreased the percentage of Americans receiving Social Security Disability.[5]

These benefits are not due entirely, or even mostly, to new "blockbuster" drugs, but rather result in large part from incremental improvements of existing therapies. One study in the peer-reviewed journal *PharmacoEconomics* found that "innovation that takes the form of improved formulations, delivery methods and dosing protocols may also generate substantial benefits associated with improved patient compliance, greater efficacy as a

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2 Association for Accessible Medicines, Generic Drug Access & Savings in the U.S. (2017) at 20, available at https://accessiblemeds.org/sites/default/files/2017-07/2017-AAM-Access-Savings-Report-2017-web2.pdf (last accessed 7/13/2018).

3 Frank R. Lichtenberg, *The Impact of Biomedical Innovation on Longevity and Health*, 5 Nordic J. Health Econ. 45, 51 (2017) (finding use of newer outpatient prescription drugs increased life expectancy by 0.96 to 1.26 years between 1991 and 2004).

4 *Id*. at 54; *see also* Frank R. Lichtenberg, *The Effect of Pharmaceutical Innovation on the Functional Limitations of Elderly Americans: Evidence from the 2004 National Nursing Home Survey* (Nat'l Bureau of Econ. Research, Working Paper No. 17750, 2012) at 14 (finding the ability of nursing home residents to perform activities of daily living such as eating, bathing, and dressing is positively related to the number of newer, i.e., post1990, medications they consume).

5 Frank R. Lichtenberg, *The Effect of Pharmaceutical Innovation on the Functional Limitations of Elderly Americans: Evidence from the 2004 National Nursing Home Survey* (Nat'l Bureau of Econ. Research, Working Paper No. 17750, 2012) at 8; *see also* Frank Lichtenberg, *Has Pharmaceutical Innovation Reduced Social Security Disability Growth*, 18(2) Int'l J. Econ. Bus., 293-316 (2011) (estimating that in the absence of newer drugs, social security disability rate would have been 30% larger between 1995 and 2004).

result of improved pharmacokinetics, reduced adverse effects or the ability to effectively treat new patient populations."[6]

Congress, through the Hatch-Waxman Act, intended both to "incentivize drug manufacturers to invest in new research and development" as well as to "encourage generic entry into the marketplace."[7] The potential tension between these two goals is apparent in antitrust cases alleging a brand-name pharmaceutical company made "trivial" changes to its product to thwart generic competition—a practice called "product hopping." This article examines how the two Circuit Court opinions issued to date in product-hopping cases have reconciled the dual goals of the Hatch-Waxman Act—both of which enhance consumer welfare but in different ways—in assessing product-hopping claims.

I. HATCH-WAXMAN ACT BACKGROUND

To put product-hopping cases in context, one must understand how drug approval in the United States works. Under the Federal Food, Drug, and Cosmetic Act (FDCA),[8] before a drug may be lawfully sold in the United States, the sponsor of the drug must demonstrate to the Food and Drug Administration (FDA) that the drug is safe and effective for the intended use and that the benefits of the drug exceed its risks.[9] The Hatch-Waxman Act is a federal law that became effective in 1984 and amended the FDCA.[10] The Hatch-Waxman Act has been described as "a compromise between two competing sets of interests: (1) those of innovative drug manufacturers, who had seen their effective patent terms shortened by the testing and regulatory processes; and (2) those of generic drug manufacturers, whose entry into the market upon expiration of the innovator's patents had been delayed by similar regulatory requirements."[11] The dual purposes of the Hatch-Waxman Act were "to make available more low cost generic drugs by establishing a generic drug approval procedure for pioneer drugs first approved after 1962" and "to create a new incentive for increased expenditures for research and development of certain products which are subject to premarket government approval."[12]

The goal of expediting generic entry is achieved by providing an abbreviated pathway for approval of generic drugs. Rather than having to perform the "long, comprehensive, and costly testing process" necessary in the first instance to prove a drug is safe and effective for its intended use, generic drug companies can submit Abbreviated New Drug Applications (ANDAs) that "piggy-back" on the safety and efficacy studies contained

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6 Ernst R. Berndt, Iain M. Cockburn & Karen A. Grépin, *The Impact of Incremental Innovation in Biopharmaceuticals: Drug Utilisation in Original and Supplemental Indications*, 24 PharmacoEconomics 69, 71 (2006).

7 *In re Modafinil Antitrust Litig.*, 837 F.3d 238, 242-43 (3d Cir. 2016).

8 21 U.S.C. § 301 et seq. (1938).

9 *See* Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 355(d) (2017); Applications for FDA Approval to Market a New Drug, 21 C.F.R. §§ 314.50(d)(5)(viii) & 314.105(c) (2018).

10 Drug Price Competition and Patent Term Restoration Act of 1984, P.L. 98-417, 98 Stat. 1585 (1984) (codified at 21 U.S.C. §§ 301, 355, 360cc; 35 U.S.C. § 156) (more commonly referred to as the Hatch-Waxman Act or the Hatch-Waxman Amendments to the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301 et seq. (1938)).

11 *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1358 (Fed. Cir. 2003).

12 H.R. Rep. No. 98-857(I), at 14-15 (1984), *reprinted in* 1984 U.S.C.C.A.N. 2647, 2647-48.

in the approved New Drug Application (NDA) submitted by the innovator company.[13] The generic company must demonstrate that its generic product contains the same active ingredient as the innovator product and is bioequivalent to the innovator product, meaning "the rate and extent of absorption" of the active ingredient in the body is the same as that of the brand drug.[14] In addition to providing for a shortened pathway to approval, the Hatch-Waxman Act further incentivizes generic entry by making available a period of 180 days of exclusivity (during which no other generic will be approved) to the first generic company to submit an ANDA that challenges the validity or infringement of the brand company's patents on the drug.[15] This 180-day exclusivity can be extremely lucrative for generic companies.[16]

State laws also provide an additional benefit to generic drug companies in the form of automatic substitution of therapeutically equivalent generic drugs in place of prescribed brand-name drugs. Specifically, if the generic drug is therapeutically equivalent to the innovator product—meaning it has the same active ingredient, dosage form, strength, and route of administration as the brand drug—the FDA will designate the generic drug as "AB-rated" in an FDA publication commonly known as the "Orange Book."[17] All 50 states and the District of Columbia have enacted laws that permit or require pharmacists to substitute generic drugs that are listed in the Orange Book as AB-rated to the brand (or meet other criteria for therapeutic equivalency as specified in the statute) when filling prescriptions written for the brand-name drug unless the doctor writes on the prescription "dispense as written" (known as "automatic substitution").[18] The AB-rating "carries a considerable corollary benefit for generics under state law"[19] because it allows the drug to be automatically substituted when a prescription is written for a brand-name drug, thereby providing generic drug companies access to an established source of demand without any marketing efforts. Importantly for product-hopping cases, generic copies of the old version of a drug will not be AB-rated to the new version (due, for example, to differences in strength or dosage form). Thus, a pharmacist presented with a prescription for the new drug cannot automatically substitute a generic version of the old drug. Importantly, however, ordinarily a pharmacist is permitted (and in some states is required) to automatically substitute an available generic version of the old drug if the prescription is written for the brand-name version of the old drug even if the brand-name version of the old drug is no longer available.

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13 *F.T.C. v. Actavis, Inc.*, 570 U.S. 136, 142 (2013).

14 21 U.S.C. § 355(j)(8)(B)(i) (2017).

15 21 U.S.C. § 355(j)(5)(B)(iv) (2017).

16 *See Picone v. Shire PLC*, No. 16-CV-12396-ADB, 2017 WL 4873506, at *9 (D. Mass. Oct. 20, 2017) ("In short, it is well recognized that a generic monopoly during the 180-day exclusivity period is highly lucrative."); *Hi-Tech Pharmacal Co. v. U.S. Food & Drug Admin.*, 587 F. Supp. 2d 1, 4 (D.D.C. 2008) ("The 180-day exclusivity period is a highly-coveted and lucrative benefit, as evidenced by the recurrence of litigation regarding the entitlement to it.").

17 The Orange Book is formally entitled *Approved Drug Products with Therapeutic Equivalence Evaluations*.

18 *See New York ex rel. Schneiderman v. Actavis PLC (Namenda)*, 787 F.3d 638, 644-45 (2d Cir. 2015) (citing Jesse C. Vivian, *Generic-Substitution Laws*, U.S. Pharmacist (June 19, 2008), *available at* http://www.uspharmacist.com/content/s/44/c/9787).

19 *Mylan Pharms. Inc. v. Warner Chilcott Pub. Ltd. (Doryx)*, 838 F.3d 421, 428 (3d Cir. 2016).

The Hatch-Waxman Act achieves its second goal of incentivizing the development of new drugs by extending the length of patent protection to compensate for the length of time it took to obtain FDA approval for the drug (known as "patent-term restoration").[20] In addition, the Hatch-Waxman Act provides periods of regulatory exclusivity (meaning the FDA cannot approve a generic drug) of five years for a drug whose active ingredient is a new chemical entity not previously approved for use in the United States.[21] And, of particular relevance to the product-hopping issue, Congress expressly amended the proposed legislation to provide three years of regulatory exclusivity for existing drugs containing "nonnew chemical entities . . . which have undergone new clinical studies essential to FDA approval."[22] This exclusivity is available for newly filed NDAs as well as supplements to previously approved NDAs.[23] The Hatch-Waxman Act also provides an additional six months of patent exclusivity in exchange for performance of pediatric studies requested by the FDA.[24] In addition, Congress passed the Orphan Drug Act of 1983 to provide a greater incentive to develop so-called "Orphan Drugs" that treat (a) rare conditions affecting fewer than 200,000 people in the United States each year; or (b) conditions affecting more than 200,000 people in the United States each year but for which there is no reasonable expectation that the cost of developing the drug will be recovered from commercial sales.[25] The Orphan Drug Act provides seven years of regulatory exclusivity during which generic versions will not be approved.[26]

II. PRODUCT-HOPPING: THE INTERSECTION OF FDA LAWS AND REGULATIONS AND THE ANTITRUST LAWS

Antitrust cases based on the introduction of a new drug product and (typically) the cessation of sales of the old version of the drug (called "product-hopping cases") pit the two goals of the Hatch-Waxman Act against each other. They also require courts to balance various goals of the antitrust laws because the antitrust laws recognize that consumer welfare is enhanced not only through cheaper prices but also through better quality products:

> Today it seems clear that the general goal of the antitrust laws is to promote "competition" as the economist understands that term. Thus we say that *the principal objective of antitrust policy is to maximize consumer welfare* by encouraging firms to behave competitively while yet permitting them to take advantage of every available economy that

20 35 U.S.C. § 156 (2015). The length of the patent term remaining after patent-term restoration may not exceed fourteen years from the date of drug approval. 35 U.S.C. § 156(c)(3). Also, for patents obtained after enactment of the Hatch-Waxman Act, the period of extension cannot exceed five years. 35 U.S.C. § 156(g)(6)(A).

21 21 U.S.C. §§ 355(c)(3)(E)(ii), (j)(5)(F)(ii).

22 130 Cong. Rec. 24,425 (Sept. 6, 1984).

23 21 U.S.C. §§ 355(c)(3)(E)(iii)-(iv), (j)(5)(F)(iii)-(iv).

24 21 U.S.C. § 355a (2017).

25 P.L. 97-414, 96 Stat. 2049 (1983) (codified at 21 U.S.C. §§ 301, 360aa-360ee).

26 21 U.S.C. § 360cc(a); 21 C.F.R. § 316.20(b)(8).

> comes from internal or jointly created production efficiencies, *or from innovation producing new processes or new or improved products*.[27]

The Supreme Court has recognized that exclusivities like those provided by the Hatch-Waxman Act incentivize innovation: "The opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth."[28] Moreover, "[a]ntitrust scholars have long recognized the undesirability of having courts oversee product design, and any dampening of technological innovation would be at cross-purposes with antitrust law."[29] But, "[b]ecause, speaking generally, innovation inflicts a natural and lawful harm on competitors, a court faces a difficult task when trying to distinguish harm that results from anticompetitive conduct from harm that results from innovative competition."[30]

In a traditional product-hopping antitrust case, introduction of a new product and the related removal of an old product may constitute exclusionary conduct under Section 2 of the Sherman Act if it reduces consumer choice. But proving such conduct is only the first step in establishing antitrust liability. Once this conduct is proven, the burden then shifts to the defendant to prove a non-pretextual, pro-competitive justification for the conduct, under the *Microsoft* burden-shifting, rule-of-reason test that some courts have applied

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27 IIIB Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 100a (CCH Incorporated 4th ed. Cum. Supp. 2018) (emphasis added); *see also* United States Department of Justice Antitrust Division Mission Statement, *available at* https://www.justice.gov/atr/mission (last accessed 7/13/2018) ("Competition in a free market benefits American consumers through lower prices, better quality and greater choice. Competition provides businesses the opportunity to compete on price and quality, in an open market and on a level playing field, unhampered by anticompetitive restraints.").

28 *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP,* 540 U.S. 398, 407 (2004).

29 *United States v. Microsoft Corp*., 147 F.3d 935, 948 (D.C. Cir. 1998).

30 *In re TriCor Antitrust Litig.*, 432 F. Supp. 2d 408, 421 (D. Del. 2006).

in the Section 2 context.[31] Ultimately, the plaintiff must show that the anticompetitive harm outweighs the non-pretextual, procompetitive benefits of the product innovation.[32] Moreover, a plaintiff also must prove the other elements of an antitrust claim, including market power in a relevant market, antitrust injury, causation, and damages. But even if antitrust liability is not ultimately imposed, subjecting new drugs to expensive antitrust litigation risks deterring innovation and further driving up the cost of drugs. Thus, courts must carefully consider product-hopping cases at the motion-to-dismiss stage and only allow to proceed those cases that plausibly allege exclusionary conduct as opposed to consumer-welfare-enhancing conduct that harms competitors merely because the new product competes with generic versions of the old product.

Two Circuit Court have recently struggled with these concepts when faced with product-hopping cases, as discussed below.

III. SUMMARY OF PRODUCT-HOPPING APPELLATE DECISIONS

There are only two Circuit Court decisions addressing product-hopping claims. The first was *New York ex rel. Schneiderman v. Actavis PLC (Namenda)*, 787 F.3d 638 (2d Cir.

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31 The *Microsoft* burden-shifting test is as follows:

> First, to be condemned as exclusionary, a monopolist's act must have an "anticompetitive effect." That is, it must harm the competitive *process* and thereby harm consumers. In contrast, harm to one or more *competitors* will not suffice. . . .
>
> Second, the plaintiff, on whom the burden of proof of course rests . . . must demonstrate that the monopolist's conduct indeed has the requisite anticompetitive effect.
>
> Third, if a plaintiff successfully establishes a *prima facie* case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a "procompetitive justification" for its conduct. . . . If the monopolist asserts a procompetitive justification—a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal—then the burden shifts back to the plaintiff to rebut that claim. . . .
>
> Fourth, if the monopolist's procompetitive justification stands unrebutted, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefit.

253 F.3d 34, 58-59. Importing the Section 1 rule-of-reason balancing test to the Section 2 context is problematic. After all, unilateral conduct is afforded greater latitude under our antitrust laws. *See Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 767-68 (1984). Moreover, a balancing test risks subjecting to antitrust scrutiny a new product innovation that improves consumer welfare merely because that benefit is "outweighed" by the effect on generic competitors. Nonetheless, many courts have applied the *Microsoft* test to assess product-hopping claims. *See, e.g.*, *Mylan Pharmaceuticals Inc. v. Warner Chilcott Pub. Ltd. (Doryx)*, 838 F.3d 421, 438 (3d Cir. 2016) ("In addressing allegations of anticompetitive conduct based on Defendants' product hops, the District Court properly applied the 'rule or reason' burden-shifting framework set forth by the D.C. Circuit in *United States v. Microsoft Corp.*").

32 As of the time this article was drafted, no product-hopping claims had prevailed on the merits at trial or on summary judgment. Thus, it remains to be seen what evidence would be sufficient to prove that the anticompetitive effect of a product change outweighs the procompetitive benefits. But in light of econometric research showing the tremendous increase to consumer welfare from drug innovation, even from incremental innovation such as formulation changes, it would appear to be a heavy burden.

2015), and the second was *Mylan Pharmaceuticals Inc. v. Warner Chilcott Public Ltd. (Doryx)*, 838 F.3d 421 (3d Cir. 2016). The Second Circuit in *Namenda* held that the defendant's conduct in introducing a new version of a drug and discontinuing sales of the old version was anticompetitive because it coerced doctors and patients into using the new product. By contrast, the Third Circuit in *Doryx* held the product introductions and discontinuations alleged in that case did not exclude generic competition and thus did not violate the antitrust laws.

A. *New York Ex Rel. Schneiderman v. Actavis PLC (Namenda)*, 787 F.3d 638 (2d Cir. 2015)

In *Namenda*, the brand manufacturer, facing the expiration of its patent for Namenda IR, an immediate-release product for treating mild to moderate Alzheimer's disease, introduced Namenda XR, an extended-release version of the drug. Whereas Namenda IR had to be taken twice daily, Namenda XR was a once daily treatment. The brand company sold Namenda IR and Namenda XR side by side at first but later announced plans to effectively withdraw Namenda IR from the market prior to generic entry by limiting distribution of Namenda IR to a single mail-order pharmacy that would only distribute it if the patient's doctor certified that it is "medically necessary."[33] The brand company also asked Medicare & Medicaid Services to remove Namenda IR from its formulary.[34]

The Second Circuit affirmed the Southern District of New York's grant of a preliminary injunction requiring the brand company to "continue to make Namenda IR (immediate-release) tablets available on the same terms and conditions applicable since July 21, 2013," to "inform healthcare providers, pharmacists, patients, caregivers, and health plans of this injunction . . . and the continued availability of Namenda IR," and to "not impose a 'medical necessity' requirement . . . for Namenda IR" until "thirty days after July 11, 2015 (the date when generic memantine will first be available)."[35] Importantly, the Second Circuit did not take issue with the introduction of Namenda XR itself:

> As long as Defendants sought to persuade patients and their doctors to switch from Namenda IR to Namenda XR while both were on the market (the soft switch) and with generic IR drugs on the horizon, patients and doctors could evaluate the products and their generics on the merits in furtherance of competitive objectives.[36]

Rather, it was the "hard switch" that the court found objectionable under the antitrust laws:

> Here, Defendants' hard switch—the combination of introducing Namenda XR into the market and effectively withdrawing Namenda IR—forced Alzheimer's patients who depend on memantine therapy to

33 *New York ex rel. Schneiderman v. Actavis PLC (Namenda)*, 787 F.3d 638, 648 (2d Cir. 2015).

34 *Id.*

35 *Id.* at 650.

36 *Id.* at 654.

switch to XR (to which generic IR is not therapeutically equivalent) and would likely impede generic competition by precluding generic substitution through state drug substitution laws.[37]

The court viewed this conduct as coercive because it was taken "with the knowledge that transaction costs would make the reverse commute by patients from XR to generic IR highly unlikely."[38] Specifically, "the nature of Alzheimer's disease makes moderate-to-severe Alzheimer's patients especially vulnerable to changes in routine, and makes doctors and caregivers very reluctant to change a patient's medication if the current treatment is effective."[39] In this context, the court concluded that defendant's introduction of a new product and removal of an old product before generic entry for the old product could occur interfered with the "free choice of consumers" and, as such, was actionable under the antitrust laws.[40]

B. *Mylan Pharmaceuticals Inc. v. Warner Chilcott Public Ltd. (Doryx)*, 838 F.3d 421 (3d Cir. 2016)

In *Doryx,* the Third Circuit affirmed the district court's grant of summary judgment for the defendants on a product-hopping claim.[41] Mylan, a generic competitor, challenged four product changes to the acne medication Doryx (delayed-release doxycycline hyclate) including a change from capsule form to tablet form and later changes to the strength and scoring of the tablets.[42]

The court held that the product changes were not exclusionary because (a) a generic company other than the plaintiff was able to launch a generic version of the old capsule product; (b) the plaintiff Mylan was able to launch generic versions of the single-scored 75mg and 100mg tablets; and (c) Mylan obtained 180-days of regulatory exclusivity for being the first generic to successfully challenge the patents covering Doryx, enabling Mylan to earn $146.9 million on sales of its generic versions of Doryx 75mg and 100mg tablets (at times even charging a higher price for its generic than the brand price).[43]

As the following timeline shows, generic companies (shown below the timeline) were able to launch competing versions of Doryx capsules and the various tablet versions of Doryx. The brand manufacturer's conduct (shown above the timeline) did not interfere with generic entry and consumer choice but rather introduced new products and allowed the market the opportunity to choose.

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37 *Id.*

38 *Id.* at 655.

39 *Id.* at 656. The district court found that Defendants engaged in the hard switch because they predicted "that only 30% of memantine-therapy patients would voluntarily switch to Namenda XR prior to generic entry" whereas the "hard switch was expected to transition 80 to 100% of Namenda IR patients to XR prior to generic entry." *Id.* at 654.

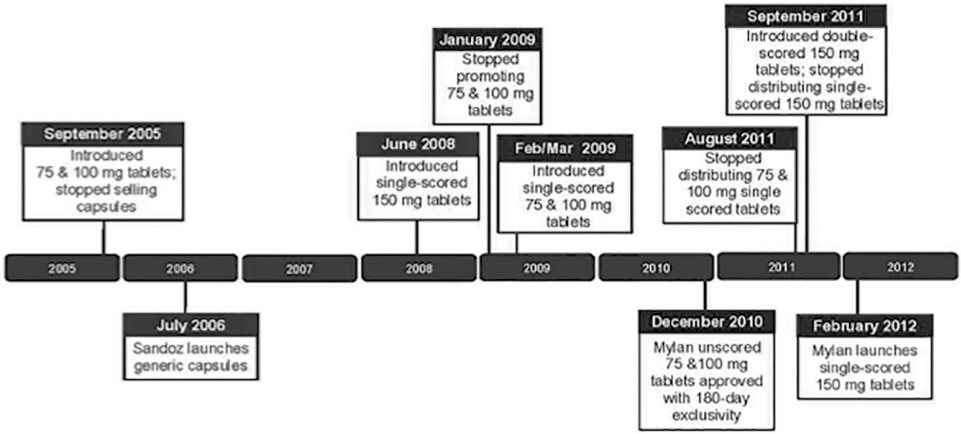
40 *Id.* at 654-55 (citing *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 287 (2d Cir. 1979)).

41 *Mylan Pharms. Inc. v. Warner Chilcott Pub. Ltd. (Doryx)*, 838 F.3d 421, 441 (3d Cir. 2016).

42 Specifically, the challenged changes were: (1) from 75mg and 100mg capsules to 75mg and 100mg tablets; (2) introduction of a single-scored 150mg tablet; (3) adding a single score to the 75mg and 100mg tablets; and (4) changing from a single score to a dual score on the 150mg tablet.

43 838 F.3d at 438-39.

***Doryx* Timeline**



Although the court's determination that the defendant did not engage in exclusionary conduct was a sufficient basis for dismissal in *Doryx*, the court went on to find that the defendant also had presented unrebutted evidence of procompetitive justifications for the product changes including (a) esophageal problems related to the capsules (which resulted in a product liability lawsuit in the United States and the capsules being banned in two European countries); (b) shelf-life problems that led to a massive recall of the capsules; and (c) allowing "consumers to more effectively self-dose at patient-specific levels" by adding scores to the tablets (which make it easier to evenly break the pills).[44] Thus, it appears the defendant in *Doryx* also would have prevailed at the subsequent stages of the *Microsoft* burden-shifting rule-of-reason test.

IV. TO ACHIEVE THE GOALS OF THE HATCH-WAXMAN ACT AND THE ANTITRUST LAWS, COURTS MUST NOT DETER INNOVATION

To be sure, generic competitors may be harmed by the introduction of an improved version of a drug because the new version will compete with the generic version. But, it must always be remembered that the antitrust laws "were enacted for 'the protection of *competition*, not *competitors*.'"[45] To that end, courts considering product-hopping cases must be careful to ensure that the antitrust laws are applied "not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself."[46] If a small change to a drug is of sufficient value to the doctors and patients who actually use the drug on a daily basis, consumer welfare is enhanced by that innovation.

Cheaper products are, of course, one of the goals and benefits of competition, but "product superiority is one of the objectives of competition" as well.[47] Although

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44 *Id.* at 439.

45 *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977) (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962)) (emphasis in original).

46 *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993).

47 IIIB Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 781a (CCH Incorporated 4th ed. Cum. Supp. 2018).

"[i]nnovation necessarily disadvantages rivals who do not keep up,"[48] it is axiomatic that "[t]he attempt to develop superior products . . . is an essential element of lawful competition."[49] Congress did not amend this fundamental principle of antitrust law when enacting the Hatch-Waxman Act. Indeed, Congress enacted the Hatch-Waxman Act with the dual goals of speeding the availability of lower-cost generic versions of drugs *and* incentivizing innovation in the pharmaceutical industry. While generic drugs have their role in making drugs cheaper, it must be remembered that companies that launch generic versions of existing drugs are not introducing innovative products. Rather, by statute, a generic drug must have the same active ingredient, route of administration, dosage form, and strength as the brand-name drug.[50] It is because generics bear no expense or risk in developing a new drug but instead copy already successful (and profitable) brand-name drugs that they can sell their generic versions at a steep discount off the brand price. Thus, to preserve the consumer welfare gains that come from innovation, which was undeniably one of the goals of the Hatch-Waxman Act, courts must be careful not to discourage brand-name drug companies from introducing new drug products.[51] After all, Congress, in what is "quintessentially a matter for legislative judgment," struck "a balance between incentives, on the one hand, for innovation, and on the other, for quickly getting lower-cost generic drugs to market."[52] As the Third Circuit in *Doryx* noted, "Congress could have chosen to bar or significantly restrict name-brand drug manufacturers from making changes that would delay generic entry, but it did not do so."[53]

Namenda rejected the argument that subjecting new-product introduction to antitrust scrutiny will deter innovation because defendants "presented no evidence to support their argument that antitrust scrutiny of the pharmaceutical industry will meaningfully deter innovation."[54] Importantly, however, *Namenda* considered the deterrent effect on innovation only *after* holding that the conduct at issue was exclusionary (at the third step of the *Microsoft* test that weighs the procompetitive benefits of the exclusionary conduct against its anticompetitive effects). In cases in which there is no exclusionary conduct

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48 I Herbert Hovenkamp et al., *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law*, § 12.02 (CCH Incorporated 3rd ed. 2017 Supp.); *see also In re Suboxone*, 64 F. Supp. 3d 665, 679 (E.D. Pa. 2014) ("New and improved products are one of the benefits brought about by healthy competition.").

49 *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 286 (2d Cir. 1979).

50 *See* 21 U.S.C. § 355(j)(2)(A).

51 Moreover, subjecting the introduction of a new product that may improve consumer welfare to potential antitrust liability not only risks deterring procompetitive innovation but also turns the courts into "tribunals over innovation sufficiency." *Mylan Pharmaceuticals Inc. v. Warner Chilcott Pub. Ltd. (Doryx)*, 838 F.3d 421, 440 (3d Cir. 2016). It is simply "unadministrable" for a court "to weigh the benefits of an improved product design against the resulting injuries to competitors" because "[t]here are no criteria that courts can use to calculate the 'right' amount of innovation, which would maximize social gains and minimize competitive injury." *Allied Orthopedic Appliances, Inc. v. Tyco Health Care Grp. LP*, 591 F.3d 991, 1000 (9th Cir. 2010). That determination is best left to the market. *See* IIIB Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 781c (CCH Incorporated 4th ed. Cum. Supp. 2018) ("We doubt that the court has any choice but to accept consumer sovereignty, especially in the absence of any criteria or calculus for deciding otherwise.").

52 *Teva Pharm. Indus. Ltd. v. Crawford*, 410 F.3d 51, 54 (D.C. Cir. 2005).

53 *Doryx*, 838 F.3d at 440 n.88.

54 787 F.3d at 659.

because consumers are not coerced, the risk of deterring innovation by imposing the prospect of expensive and burdensome antitrust scrutiny merely because a new product is introduced and a prior version of the product is retired remains a valid concern. Moreover, the *Namenda* court credited an argument in an amicus brief submitted by the American Antitrust Institute (AAI) that "immunizing product hopping from antitrust scrutiny may deter significant innovation by encouraging manufacturers to focus on switching the market to trivial or minor product reformulations rather than investing in the research and development necessary to develop riskier, but medically significant innovations."[55] This argument, however rests on the premise that only entirely new drugs constitute "medically significant" innovations and ignores the significant consumer benefit that comes from incremental improvements to existing drug therapies.[56] The argument also relies on an outdated view that the pharmaceutical market has a "defect" due to a "price disconnect" between those who choose but do not pay for the drug (i.e., doctors) and those who pay for the drug but do not choose it (i.e., patients and their insurers).[57] This view of the pharmaceutical market ignores the fact that patients and doctors are now highly aware of the existence of generic drugs and the cost savings they generate.[58] Indeed, more recent surveys show that many patients routinely ask their doctors for generic drugs.[59] Moreover, the AAI would have courts substitute their judgment for that of doctors and patients, turning courts into "tribunals over innovation sufficiency,"[60] a task for which they are ill suited.[61]

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55 *Id.*

56 *See supra* at 1.

57 Brief of the American Antitrust Institute as *Amicus Curiae* in Support of Appellees at 3, *New York ex rel. Schneiderman v. Actavis PLC (Namenda)*, 787 F.3d 638 (2d Cir. 2015) (No. 14-4624). The AAI amicus brief relies on studies from the 1970's and 80's regarding the price insensitivity of doctors. *Id.* at 7. But a lot has changed in the intervening decades in terms of the amount of information available to doctors and consumers about prescription drugs and their costs (e.g., through the internet). More recent studies have shown that doctors do sense their patients' price sensitivities and adjust their prescribing practices accordingly. *See, e.g.*, Mariana Carrera, Dana P. Goldman, Geoffrey Joyce & Neeraj Sood, *Do Physicians Respond to the Costs and Cost-Sensitivity of Their Patients?* 10 Am. Econ. J.: Econ. Pol. vol. 1, 113-52 (2018) (finding doctors can perceive the price sensitivities of their patients and adjust their initial prescriptions in response to large and universal price changes such as that associated with the expiration of patents). Thus, the market may not be as "flawed" as some once thought and the choice regarding which products are "real innovations" should not be usurped by the courts but instead given back to doctors and patients who are in the best position to assess the value of a drug product change.

58 *See generally*, William H. Shrank et al., *Physician Perceptions About Generic Drugs*, 45 Annals Pharmacotherapy 31, 34 (Jan. 2011) (survey of more than 500 physicians reports they become aware of generic market entry through pharmaceutical representatives (75%), medical journals (42%), colleagues (40%), and pharmaceutical mailings or literature (38%)).

59 *See, e.g.*, William H. Shrank et al., *Patients' Perceptions of Generic Medications*, 28 Health Aff. (Millwood) 546-56 at 549-51 (2009) (finding 33.2 % of patients surveyed ask their doctors to substitute generics for brand-name medications most or all of the time and 66.5% of patients surveyed reported feeling comfortable asking their doctors to substitute a generic for a branded medication).

60 *Mylan Pharms. Inc. v. Warner Chilcott Pub. Ltd. (Doryx)*, 838 F.3d 421, 440 (3d Cir. 2016).

61 *See generally* IIIB Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 775c (3d ed. 2018) ("[C]ourts are poorly equipped to evaluate the motives, significance, usefulness, or competitive or other effects of innovation.").

V. CONCLUSION

Because "the error costs of punishing technological change are rather high"[62] and "any dampening of technological innovation would be at cross-purposes with antitrust law,"[63] courts should tread carefully before imposing their value judgments on doctors, patients, and payers in the form of antitrust scrutiny of new product introductions. As long as consumers are generally free to choose between the old product and the new product, courts should leave to the market the determination of whether a product change is "sufficiently innovative." If instead of profiting from the lawful monopoly prices attendant to new drug development, drug companies are subjected to expensive and protracted antitrust litigation, the incentives to innovate provided by Congress through the Hatch-Waxman Act are lessened and there is a risk of deterring valuable innovation that extends and improves the quality of life for many Americans.

62 I Herbert Hovenkamp et al., *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law* § 12.1 (3rd ed. CCH Incorporated 2016).

63 *United States v. Microsoft Corp.*, 147 F.3d 935, 948 (D.C. Cir. 1998).

"NO-POACH" AGREEMENTS AS SHERMAN ACT § 1 VIOLATIONS: HOW WE GOT HERE AND WHERE WE'RE GOING

By Jiamie Chen[1]

I. INTRODUCTION

These days you can't talk to an antitrust lawyer for three sentences without hearing about no-poach. But it certainly wasn't always like that. The early cases challenging no-poach agreements as antitrust violations fought for each step into the courthouse, including to establish that horizontal agreements not to hire could in fact harm competition. Federal courts turned a corner in recognizing that the proper competitive harm analysis in no-poach cases should be aimed at competition in the labor market for the employees' services rather than competition among companies in the industry. The punctuated equilibrium of evolving antitrust law entered the current phase of rapid development in the 2000s, when the first no-poach antitrust class actions came before federal appeals courts, and the Department of Justice Antitrust Division ("DOJ") at the same time took a sudden and keen enforcement interest in no-poach agreements. This pace has only accelerated in the intervening years and placed no-poach at the forefront of developing antitrust jurisprudence. But to best understand where this is all going, we need to take a look back, at where we started and how we got here.

II. HOW DID WE GET HERE? THE EARLY CASES

The earliest federal antitrust cases involving no-poach agreements were brought by individual plaintiffs who were personally denied employment or terminated on the basis of the agreements. Because no authority had yet recognized no-poach agreements as unlawful, and the courts themselves expressed doubt as to the viability of an antitrust claim based on no-poach agreements, none of the defendants in these cases contested the existence of the agreements as alleged. Rather, the defendants challenged as a matter of law whether the no-poach agreements as alleged could even amount to an antitrust claim. Meanwhile, the courts, in analyzing competitive harm resulting from the agreements, focused on harm to the industry or to companies participating in the industry rather than to the employees subject to the agreements. Nonetheless, the early era of no-poach antitrust cases was buttoned in the beginning and at the end with two strong cases that each set the stage for the next phase of development in no-poach antitrust jurisprudence.

In perhaps its first encounter with a Sherman Act § 1 claim based on agreements directed at hiring practices, the Supreme Court in *Anderson v. Shipowners' Association of the Pacific Coast* paved the way for the line of antitrust litigation discussed herein.[2] The plaintiff, a seaman, alleged that the owners of substantially all registered merchant vessels on the Pacific Coast agreed not to employ any seamen unless certain conditions were met.[3] The plaintiff further

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2 272 U.S. 359 (1926).

3 *Id.* at 361-62.

claimed that seamen who did not meet those conditions were excluded from employment as a result of the agreement, and he was in fact denied employment for that reason.[4] In a surprisingly strong ruling on first impression, the Court held that prohibitions against unreasonable restraint of trade apply no less to individuals—particularly, to employees—than to products, as they are both instrumentalities of commerce:[5]

> If the restraint thus imposed had related to the carriage of goods in interstate and foreign commerce—that is to say, if each shipowner had precluded himself from making any contract of transportation directly with the shipper, and had put himself under an obligation to refuse to carry for any person without the previous approval of the associations—the unlawful restraint would be clear. But ships and those who operate them are instrumentalities of commerce, and within the commerce clause, no less than cargoes.

Reversing the lower court's dismissal of the complaint, the Court further held, with practically no explanation, that the "effect" of the of alleged agreement is "precisely" what is "condemn[ed]" by the Sherman Act's prohibition against "'undu[e] interfere[ence]'" with "'the right of freedom of trade.'"[6] As discussed further below, this ruling arguably went further than any other Supreme Court or federal court of appeals opinion for the next 40 years.

The Second Circuit in *Union Circulation Company v. Federal Trade Commission* seemed to take a step back from the Supreme Court's ruling in *Anderson*.[7] Here, the petitioners, agencies that sell magazine and periodical subscriptions via door-to-door solicitation, allegedly agreed with each other not to hire any salesman who had been employed by another agency within the preceding year.[8] The Second Circuit had no trouble holding that such "no switching agreements" as alleged categorically do not constitute per se antitrust violations.[9] The court found that, unlike per se violations, "no-switching" agreements are not inherently anticompetitive because they are "directed at the regulation of hiring practices and the supervision of employee conduct, not at the control of manufacturing or merchandising practices."[10] Along this line of reasoning, the court further stated as follows:

> These agreements are not designed to coerce retailers, or other independent members of an industry, into abandoning competitive practices of which the concerted parties do not approve. Rather, they are ostensibly directed at 'housecleaning' within the ranks of the signatory organizations themselves. Because a harmful effect upon competition is not clearly apparent from the terms of these agreements, we believe

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4 *Id.*

5 *Id.* at 362-63 (citing *Second Employers' Liability Cases*, 223 U. S. 1, 47, 49 (1912)).

6 *Id.* at 363 (quoting *United States v. Colgate & Co.*, 250 U.S. 300, 307 (1919)).

7 241 F.2d 652 (2nd Cir. 1957).

8 *Id.* at 655.

9 *Id.* at 656-57.

10 *Id.*

them to be distinguishable from those boycotts that have been held illegal per se.[11]

Nevertheless, the Second Circuit found that the agreement at issue unreasonably restrained trade. The court recognized that "no-switching agreements could '"freeze' the labor supply" and "discourage labor mobility."[12] However, the actual competitive harm the court considered was that such agreements would foreseeably "impair or diminish competition between existing subscription agencies" and "prevent would-be competitors from engaging in similar activity," and that "the magazine-selling industry may well become static in its composition to the obvious advantage of the large, well-established signatory agencies and to the disadvantage of infant organizations."[13]

Thus, the court threw the cloak of antitrust protection over existing and potential magazine agencies rather than over the door-to-door salesmen in their employment opportunities and mobility, relegating them to "housecleaning" issues relevant to antitrust only to the extent they affect an agency's competitiveness in the industry.[14]

In *Nichols v. Spencer*,[15] decided 10 years after *Union Circulation Company*, the Seventh Circuit seems to return to the fold of *Anderson* but ultimately maintains the focus of antitrust protection on the industry rather than on the employees. In *Nichols*, the defendants, two companies that sell encyclopedias and reference books, entered into a "no-switching" agreement where each company would not hire any employee of the other company for six months after termination of that employment.[16] Again, defendants here did not dispute the existence of the agreement as alleged.[17] Rather, the defendants argued that the "no-switching agreements" do not amount to an antitrust violation and that the plaintiff's "inability to obtain employment" did not constitute an injury to "in his business or property," as required for recovery under antitrust law.[18] Addressing the second argument first, the Seventh Circuit took a clear stance: "[W]e readily conclude that one who has been damaged by loss of employment as a result of a violation of antitrust laws is 'injured in his business or property' and thus entitled to recovery under 15 U.S.C.A.

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11 *Id.*

12 *Id.* at 658.

13 *Id.*

14 *Id.* at 657-58.

15 371 F.2d 332 (7th Cir. 1967).

16 *Id.* at 333-34.

17 *Id.*

18 *Id.* at 334.

§ 15."[19] However, court found determining the requisite violation of antitrust laws based on the admitted "no-switching" agreement to be "more difficult." Specifically, the court distinguished *Radovich* and other cases where "there were, or were assumed to be, a monopoly of an agreement in restraint of trade in the service or commodity supplied by the particular enterprises."[20] Here, by contrast, "the only allegedly unlawful agreement among defendants is the so-called 'no-switching' agreement[.]"[21] But the defendants overreached by arguing that such agreements as a matter of law cannot amount to antitrust violations and prompted the court to issue this key holding:

> Granting that the antitrust laws were not enacted for the purpose of preserving freedom in the labor market, nor of regulating employment practices as such, nevertheless it seems clear that agreements among supposed competitors not to employ each other's employees not only restrict freedom to enter into employment relationships, but may also, depending upon the circumstances, impair full and free competition in the supply of a service or commodity to the public.[22]

Nevertheless, in reversing the trial court's grant of summary judgment, Seventh Circuit, like the Second Circuit in *Union Circulation Company*, returned the focus of antitrust protection to the industry rather than the employees: "We cannot say, as a matter of law, that the effect of the 'no-switching' agreement, challenged in this case, *upon the business of supplying encyclopedias and reference books* is so negligible that the agreement is not a restraint of trade in such products."[23]

Nine years after *Nichols*, the Fifth Circuit took up the issue in *Quinonez v. National Association of Securities Dealers*.[24] The Fifth Circuit, in a seemingly conflicted opinion,

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19 *Id*. The court relied on the Supreme Court's opinion in *Radovich v. National Football League*, 352 U.S. 445 (1957). In *Radovich*, a football player alleged antitrust violations on the basis that the NFL and its member teams agreed to blacklist, or not hire, any player under contract with a member team who signs a contract with another team without the consent of the team holding his contract. *Id*. at 448-49. The main issue in Radovich, however, was whether federal antitrust law applies to professional football. The Court answered in the affirmative, finding that the volume of interstate business involved in organized professional football brought it within the scope of the Sherman Act and the Clayton Act. *Id*. at 452-53. But the Court gave only cursory treatment to evaluating the sufficiency of Radovich's complaint under antitrust law, such that the Seventh Circuit was left to read between the lines of the opinion. *Nichols*, 371 F.2d at 334 ("Radovich's claim did, however, rest upon his loss of opportunity to be employed, and the court and the parties must have assumed that such loss falls within the type of injury for which damages may be recovered under 15 U.S.C.A. § 15.") (citing *Radovich*, 352 U.S. at 454 for the statement that federal antitrust laws "protect the *victims* of the forbidden practices as well as the public.") (emphasis added).

20 *Nichols*, 371 F.2d at 335.

21 *Id*.

22 *Id*. at 335-36. Both *Nichols* and the Supreme Court in *Radovich*, as discussed above, note that federal antitrust laws as applied to the labor market protect both the "victims" or employees as well as the "public," meaning consumers and customers. *Id*.; *Radovich*, 352 U.S. at 454. For an in-depth discussion of interplay between these, which is beyond the scope of this article, see Clayton J. Masterman, *The Customer is Not Always Right: Balancing Worker and Customer Welfare in Antitrust Law*, 69 Van. L. Rev. 1387 (Oct. 2016).

23 *Nichols*, 371 F.2d at 337 (emphasis added).

24 540 F. 2d 824 (1976).

reached a strong legal holding that solidified *Nichols* while warning that the plaintiff's victory at this stage may be short-lived and ultimately empty. In *Quinonez*, the defendant securities companies reached a "no-switching" agreement analogous to the blacklisting agreement in *Radovich* and agreed that they would not hire any applicant who had been denied employment or been terminated by any other member company.[25] Relying on *Radovich* and *Nichols*, but providing little analysis beyond emphasizing the leniency of the (now outdated) pleading standards, the Fifth Circuit nevertheless unambiguously held that "no-switching agreements, which allegedly impair competition among the defendants and others *are sufficient as a matter of law* to state a claim under the Sherman Act."[26] But, in a concluding section ominously titled "Not Over Yet But It Soon May Be," the court closes with the warning that its holding reversing dismissal was all but dictated by the extremely lenient *Conley* pleading standards, and that, once "the Court sees what the real facts are, it may well wash out on summary judgment, or if not then, then later on motion for directed verdict[.]"[27]

Nearly 20 more years passed before a federal court of appeals again grappled with this issue—but, when it happened, a new paradigm emerged. The Tenth Circuit in *Roman v. Cessna Aircraft Co.*, issued the most modern opinion in the early era of no-poach antitrust cases, and set the stage for the current era of antitrust class actions.[28] Here, airplane manufacturer defendants Cessna and Boeing agreed not to hire each other's engineers.[29] In an analysis that signaled a paradigm shift, the Tenth Circuit relied on and interpreted *Radovich*, *Quinonez*, and a recent antitrust treatise to place the focus of antitrust protection squarely on the employees in a no-poach case:

> The relevant cases hold that plaintiffs whose opportunities in the employment market have been impaired by an anticompetitive agreement directed at them as a particular segment of employees have suffered an antitrust injury under the governing standard.
>
> [. . .]
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> "Antitrust law addresses employer conspiracies controlling employment terms precisely because they tamper with the employment market and thereby impair the opportunities of those who sell their services there. Just as antitrust law seeks to preserve the free market opportunities of buyers and sellers of goods, so also it seeks to do the same for buyers and sellers of employment services. It would be perverse indeed to hold that the very object of the law's solicitude and the persons most directly concerned—perhaps the only persons concerned—could not challenge the restraint.[30]

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25 *Id.* at 827-28.

26 *Id.* at 829 (emphasis added).

27 *Id.* at 830 (citing *Conley v. Gibson*, 355 U.S. 41 (1957)).

28 55 F.3d 542 (10th Cir. 1995).

29 *Id.* at 542-43.

30 *Id.* at 544 (citing *Radovich*, 352 U.S. 445; *Quinonez*, 540 F. 2d 824) (quoting *Phillip Areeda & Herbert Hovenkamp, Antitrust Law* ¶ 377c (rev. ed. 1995)).

The court, by framing the antitrust harm in a no-poach case as occurring in the subject labor market and borne primarily, if not exclusively, by the group of subject employees, effectively invited such employees to bring antitrust no-poach lawsuits as class actions. And, as discussed below, that is exactly what happened.

III. THE MODERN ERA OF NO-POACH

A. First Attempts at No-Poach Antitrust Class Actions

That only six years passed before a no-poach antitrust class action made its way before a federal court of appeals reflects the paradigm shift touched off by *Cessna Aircraft*. And, while the first two attempted class actions, both before the Third Circuit, failed, their shortcomings were fact-specific and limited to those particular cases. These two decisions indicated that it was only a matter of time before a case with sufficiently different facts wins class certification.

In *Eichorn v. AT&T Corp.*, a series of business acquisitions and reorganizations (indeed, a "trivestiture") contained no-hire terms applicable to certain employees of the involved companies.[31] Plaintiffs based their antitrust claims on the competitive harm suffered by the subject employees in the labor market resulting from defendants' no-hire agreements, and the Third Circuit analyzed them accordingly, following the framework established in *Cessna*.[32] However, in assessing the no-hire agreement that survived *Copperweld*,[33] the court sided with the defendants as to both the applicable legal standard and the merits of plaintiffs' antitrust claims. First, the court held that, based on the clear weight of prior case law and acknowledging "judicial hesitance to extend the per se rule to new categories of antitrust claims," rule of reason, rather than per se, analysis applied.[34] The court then evaluated the no-hire agreement under rule of reason, and found that the agreement as a covenant not to compete ancillary to the sale of a business, was a lawful rather than unreasonable restraint of trade.[35] The court further found that the eight-month duration of the agreement was reasonable and did not go further than necessary to ensure the successful transition of ownership.[36] Accordingly, based on these case-specific facts, the Third Circuit affirmed the district court's grant of the defendants' pre-certification summary judgment motion as to plaintiffs' antitrust claims.

Progress is made in steps. The next step was made by the plaintiffs in *Weisfeld v. Sun Chemical Corp.*, who reached the class certification stage when they landed before the Third Circuit a scant three years after the court grappled with *Eichorn*.[37] The defendants here controlled a dominant market share in the manufacturing of print inks and allegedly agreed not to hire each other's employees. The court declined to address whether rule

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31 248 F.3d 131 (2001).

32 *Id.* at 140-142. In fact, the court quoted the same passage from Areeda & Hovenkamp, *Antitrust Law*, to hold that the plaintiffs had antitrust standing, reversing the district court. *Id.*

33 *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752 (1984).

34 *Eichorn*, 248 F.3d at 143-144.

35 *Id.* at 144-46.

36 *Id.* at 146-47.

37 84 Fed. App'x. 257 (2004).

of reason or per se analysis applied as it was "irrelevant" to the issue of whether the requirements of Fed. R. Civ. P. 23(b)(3) have been met.[38] The plaintiffs lost certification before both the trial court and the Third Circuit because the plaintiffs' expert, in his three-page declaration in support of class certification, "provide[d] no independent analysis or evidence to support his conclusions of common impact" and offered only "'naked conclusions' that common proof would demonstrate injury to class members."[39] However, further setting the stage for successful certification of an antitrust no-poach class, the Third Circuit readily acknowledged that "multiple regression and yardstick analyses have been widely accepted in this Circuit," presumably to model class-wide damages.[40]

B. And Then—*In Re High Tech Employee Antitrust Litigation*

On September 24, 2010, DOJ Antitrust Division filed a civil complaint, along with a concurrent proposed final judgment and competitive impact statement, against six Silicon Valley companies.[41]

On May 23, 2011, a group of plaintiffs filed what would become the first successfully certified no-poach antitrust class action against those same companies.[42]

And, just like that, the game had changed. There were some differences in the precise conduct at issue in the DOJ case and the class action, but the enforcement target was the same: agreements among the defendant companies to not recruit or compete for each other's employees that were not ancillary to any procompetitive venture or collaboration—that is, the agreements were "naked" restraints of trade.

With these cases, there can no longer be any doubt that the focus of antitrust protection in no-poach cases is, and should be, the employees subject to the agreement. In particular, the allegations in both the government case and the class action made clear that, where defendant companies compete with each other for employees, such agreements disrupt the normal competitive mechanisms in the labor market and substantially diminish competition for the employees' services to the detriment of the affected employees.[43] Accordingly, both charge such "naked" no-poach agreements as per se violations of the Sherman Act § 1.[44]

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38 *Id.* at 260.

39 *Id.* at 260-62.

40 *Id.*

41 *United States v. Adobe Systems, Inc., et al.*, 1:10-cv-01629 (D.D.C. filed Sept. 24, 2010). A similar complaint, also with concurrent proposed final judgment and competitive impact statement, was filed against a seventh company, Lucasfilm, three months later. *United States v. Lucasfilm, Ltd.*, 1:10-cv-02220 (D.D.C. filed Dec. 21, 2010).

42 *In re: High-Tech Employee Antitrust Litigation*, 5:11-cv-02509 (N.D. Cal. filed May 23, 2011). The Joseph Saveri Law Firm served as co-lead counsel in this matter.

43 *See, U.S. v. Adobe Systems, Inc. et al.*, Complaint, U.S. Department of Justice, Sept. 24, 2010, https://www.justice.gov/atr/case-document/complaint-0; *U.S, v. Adobe Systems, Inc. et al.*, Competitive Impact Statement, U.S. Department of Justice, Sept. 24, 2010, https://www.justice.gov/atr/case-document/competitive-impact-statement-0; Consolidated Amended Complaint, *In re: High-Tech Employee Antitrust Litigation*, 5:11-cv-02509 (N.D. Cal. filed May 23, 2011), ECF No. 65.

44 *Id.*

Moreover, having both the DOJ and a nationwide class action squarely and strongly target no-poach agreements made clear that such agreements are far from triggering only the rare or experimental cases brought by single plaintiffs for individual damages, as in the early era. Rather, as discussed below, no-poach agreements have taken center stage in both federal government and private antitrust enforcement.

1. High Tech Employee Antitrust Class Action

In the *High Tech Employees* class action, the defendants tellingly did not attempt to argue, as past defendants did, that federal antitrust laws do not apply to no-poach agreements, or that no-poach agreements do not harm competition because they merely seek to regulate defendants' own hiring practices.[45] Instead, the defendants in seeking dismissal treated the no-poach antitrust claims like allegations in traditional Sherman Act § 1 cartel cases.[46] For example, the defendants argued that the conspiracy allegations lacked specificity, the allegations failed to allege sufficient parallel conduct "plus factors," and that the plaintiffs' allegations of a single overarching conspiracy were implausible, each of which was unsuccessful.[47] In addition, old habits die hard, and the defendants took another shot at arguing that the plaintiffs failed to allege antitrust injury.[48] The court noted that, under Ninth Circuit law, "where, as here, an employee is the direct and intended object of an employer's anticompetitive conduct, that employee has standing to sue for antitrust injury."[49] The court then disposed of the defendants' argument in seven sentences of analysis:

> Plaintiffs have asserted that their salary and mobility were suppressed by Defendants' agreements not to cold call, and that the alleged agreements were entered into to suppress competition for skilled labor. Plaintiffs have specifically alleged that they were injured by Defendants' alleged anticompetitive conduct; have explained the means by which Defendants allegedly caused this injury; and have suggested how this injury should be quantified. In alleging that Defendants conspired to fix salaries at artificially low levels, Plaintiffs have alleged an example of the type of injury the antitrust laws are meant to protect against. Plaintiffs have further alleged that Defendants' attempts to suppress competition had the intended effect of fixing the compensation of [Plaintiffs] at artificially low levels. Plaintiffs have thus also alleged that their injury is a direct result of Defendants' conduct.

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45 Order Granting in Part and Denying in Part Defendants' Joint Motion to Dismiss; Denying Lucasfilm Ltd.'s Motion to Dismiss, *In re: High-Tech Employee Antitrust Litigation*, 5:11-cv-02509 (N.D. Cal. filed May 23, 2011), ECF No. 119.

46 *Id.* at 11-24.

47 *Id.*

48 *Id.* at 23-24.

49 *Id.*, citing *Ostrofe v. H.S. Crocker Co., Inc.*, 740 F.2d 739, 742-43 (9th Cir. 1984); *Eichorn*, 248 F.3d at 140-41, *Cessna Aircraft Co.*, 55 F.3d 542.

> Thus, Plaintiffs have adequately pled antitrust injury. Accordingly, Defendants' motion to dismiss Plaintiffs' Sherman Act claim and Cartwright Act claim is DENIED.[50]

Moreover, the parties as well as the court agreed that the court need not reach, and the court in fact did not reach, the issue of whether rule or reason or per se analysis applies to the no-poach agreements at issue.[51]

On October 24, 2013, Judge Lucy Koh, in a lengthy and detailed opinion, certified a nationwide class of employees who were subject to the defendants' no-poach agreements to proceed with their antitrust claims.[52] The court evaluated and held that the purported class met each requirement of Fed. R. Civ. P. 23(a), even though the defendants did not contest this issue.[53] The defendants did, however, hotly contest predominance under Rule 23(b)(3).[54] After noting the lack of clear case law across the Supreme Court and federal courts of appeal on the applicable legal standard for predominance, Judge Koh, relying on the plaintiffs' extensive evidence obtained from, civil discovery, and, indirectly, from the DOJ investigation, as well as from plaintiffs' class experts, found that the purported class satisfied predominance as to antitrust violation, antitrust impact, and estimated measure of damages.[55] Notably, the Court rejected the defendants' argument that individualized inquiries predominate as their compensation practices were highly individualized and varied widely, and the subject employees' compensation was set by hundreds of different managers with individual discretion to differentiate and reward high achieving employees.[56] Finally, Judge Koh found that the purported class also satisfied superiority under Rule 23(b)(3) and rejected the defendants' suggestion for "bellwether" trials because the plaintiffs' case rises and falls with their common evidence.[57] Within one week of certification, three defendant companies had reached tentative settlements with the plaintiff class.[58]

After class certification, a lighter order denying the remaining defendants' motion for summary judgment followed on March 28, 2014.[59] The court's analysis relied on much less evidence to reach its conclusion here as the question was neither novel nor close.[60] At this point, the remaining defendants capitulated and reached a tentative settlement

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50 *Id.* at 24 (internal citations, quotations, and footnote omitted).

51 *Id.* at 22-23.

52 *Id.*, Order Granting Plaintiffs' Supplemental Motion for Class Certification, ECF No. 531.

53 *Id.* at 86.

54 *Id.* at 85-86.

55 *Id.* at 84-86.

56 *Id.*

57 *Id.*

58 *Id.*, Order Granting Plaintiffs' Motion for Conditional Class Certification and Preliminary Approval of Partial Class Action Settlements With Defendants Intuit, Inc., Lucasfilm, Ltd., and Pixar, ECF No. 540.

59 *Id.*, Order Denying Defendants' Individual Motions for Summary Judgment, ECF No. 771.

60 *Id.*

with the plaintiff class.[61] However, in a final twist, Judge Koh rejected as insufficient the proposed $324.5 million settlement between the class and the four remaining defendants.[62] In September 2015, Judge Koh gave final approval to a revised settlement between the class and the four remaining defendants for $415 million.[63]

Six months after the class certification opinion in *High Tech*, and having read the writing on the wall, another group of plaintiffs brought a related no-poach action against California-based animation studios.[64] Judge Koh again sided with the plaintiffs regarding dismissal, [65] and, on May 25, 2016, after engaging in similarly detailed analyses, certified a second nationwide no-poach class to proceed with its antitrust claims.[66] Shortly after class certification, all remaining defendant companies reached tentative settlement with the plaintiff class.[67] Settlements in *Animators* totaled $169 million for the class.[68]

2. Governmental Enforcement Against EBay

While the private enforcement world broke new ground with *High Tech* and *Animators*, government regulators doubled down on no-poach prosecutions against eBay.

Following closely on the heels of its landmark civil prosecution against six Silicon Valley high tech companies, the DOJ filed a similar no-poach complaint against eBay on November 16, 2012.[69] In a coordinated enforcement action, the state of California on the same day filed a related action against eBay for antitrust violations based on its no-poach agreement with Intuit.[70] Trying a different tactic, eBay moved for dismissal in the DOJ case on the basis that the Intuit executive involved in the no-poach agreement was an overlapping board member of both companies, and, therefore, incapable as a matter of law of conspiring with eBay under *Copperweld*.[71] Judge Davila neatly disposed of this argument, finding that the key issue is whether that board member was acting on behalf of eBay or

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61 *Id.*, Declaration of Kelly M. Dermody in Support of Plaintiff's Motion for Preliminary Approval of Class Action Settlement, Ex. 1, ECF No. 920.

62 *Id.*, Order Denying Plaintiffs' Motion for Preliminary Approval of Settlements With Adobe, Apple, Google, and Intel, ECF No. 974.

63 *Id.*, Order Granting Plaintiffs' Motion for Final Approval of Class Action Settlement With Defendants Adobe Systems Incorporated, Apple Inc., Google Inc., and Intel Corporation, ECF No. 1111.

64 *Nitsch v. Dreamworks Animation SKG Inc. et al*, 5:14-cv-04062 (N.D. Cal. filed Sept. 8, 2014).

65 *Id.*, Order Denying Defendants' Joint Motion to Dismiss, ECF No. 147.

66 *Id.*, Order Granting-In Part and Denying-In-Part Plaintiffs' Motion for Class Certification, ECF No. 289.

67 *Id.*, Order Granting Plaintiffs' Motion for Preliminary Approval of Class Action Settlement With Sony Pictures Imageworks Inc. and Sony Pictures Animation Inc., Granting Plaintiffs' Motion for Preliminary Approval of Class Action Settlement With Blue Sky Studios, Inc., and Approving Notice of Settlements and Certification of Litigation Class, ECF No. 305.

68 *Id.*, Order Amending Settlement Notice and Granting Motion for Preliminary Approval of Class Action Settlement, ECF No. 382.

69 *United States v. eBay, Inc.*, 5:12-CV-05869 (N.D. Cal. filed Nov. 16, 2012).

70 *The People of the State of California v. eBay, Inc.*, 5:12-cv-05874 (N.D. Cal. filed Nov. 16, 2012).

71 Order Denying eBay's Motion to Dismiss the United States' Complaint, *United States v. eBay, Inc.*, 5:12-CV-05869 (N.D. Cal. 2013), ECF No. 39 at 5-6 (citing *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 768-69, 771 (1984)).

Intuit in relation to the no-poach agreement, and concluded that the complaint sufficiently alleges an actionable conspiracy between eBay and Intuit.[72] eBay further sought dismissal on the basis that the DOJ's complaint failed to allege an unreasonable restraint of trade because the no-poach agreement should be analyzed under the rule of reason standard, and the complaint fails to include any allegations sufficient to state a rule of reason claim.[73] Like Judge Koh in the *High Tech* order on defendants' motion to dismiss, Judge Davila held that he need not reach, and did not reach, the question of the appropriate standard at the motion to dismiss stage, rejecting eBay's argument.[74] Not long after its motion to dismiss was denied, eBay settled with both the DOJ and the state of California in 2014.[75] Notably, eBay's settlement with California provides for a $3.75 million payout, most of which will go to employees and prospective employees of eBay and Intuit.[76]

C. Current Enforcement Spotlight on No-Poach Agreements

1. 2016 Federal Antitrust Guidance

In October 2016, the DOJ and the FTC jointly issued Antitrust Guidance for Human Resource Professionals.[77] While ostensibly targeted at HR professionals, the most significant messages in the Guidance seem geared toward attorneys and employers. First, and perhaps more alarming to some, DOJ Antitrust announced for the first time that it plans to criminally prosecute naked no-poach agreements:

> Going forward, the DOJ intends to proceed criminally against naked wage-fixing or no-poaching agreements. These types of agreements eliminate competition in the same irredeemable way as agreements to fix product prices or allocate customers, which have traditionally been criminally investigated and prosecuted as hardcore cartel conduct. Accordingly, the DOJ will criminally investigate allegations that employers have agreed among themselves on employee compensation or not to solicit or hire each others' [sic] employees. And if that investigation uncovers a naked wage-fixing or no poaching agreement, the DOJ may, in the exercise of its prosecutorial discretion, bring criminal, felony charges against the culpable participants in the agreement, including both individuals and companies.[78]

By equating the nature and seriousness of no-poach agreements' harm to competition with that of price-fixing and market allocation agreements, the Guidance makes a marked departure from the *Union Circulation* line of cases which viewed hiring practices

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72 *Id.* at 5-8.

73 *Id.* at 9.

74 *Id.* at 10-13.

75 Melissa Lipman, EBay Settles DOJ, California Hiring Suits, Law 360, May 1, 2014, https://www.law360.com/articles/533703/ebay-settles-doj-california-antitrust-hiring-suits.

76 *Id.*

77 Antitrust Guide for Human Resource Professionals, Department of Justice Antitrust Division and Federal Trade Commission, Oct. 2016, https://www.justice.gov/atr/file/903511/download.

78 *Id.* at 4.

agreements as merely "housecleaning" matters within the member companies and not inherently anticompetitive.[79] In a way, the Guidance brings us full circle back to the path of *Anderson* nearly a century later, by extending the same level of antitrust protection to individuals and employees as to products in interstate commerce.[80] Further, the Guidance seeks to answer the question left open by *Eichorn* and *Weisfeld* and that the courts expressly declined to reach in *High Tech*, *Animators*, and *eBay*—does the limited category of conduct amounting to per se antitrust violations now include naked agreements not to recruit or hire employees? More on this later.

Second, the Guidance re-establishes federal regulators' enforcement focus on no-poach agreements, including by highlighting the recent actions brought by DOJ Antitrust Division and by the FTC, and reiterating that federal regulators consider naked no-poach agreements to constitute per se antitrust violations.[81] Although perhaps less jarring than the first announcement, this message, which both state and federal antitrust regulators have since reinforced, carries much more widespread impact, as discussed below.

2. Getting the Message Across: No More No-Poach

Since the Guidance, DOJ Antitrust Division has placed its prosecutorial crosshairs squarely on no-poach agreements and has ensured our awareness of it, particularly in 2018.

On January 19, 2018, Assistant Attorney General Markham Delrahim, speaking at a conference, warned that, "'[i]n the coming couple of months you will see some [DOJ] announcements [about no-poach cases.]'"[82] He further warned that the number of no-poach prosecutions may be surprising: "'[T]o be honest with you, I've been shocked about how many of these there are, but they're real[.]'"[83] AAG Delrahim also reinforced the DOJ 's plans to criminally prosecute no-poach conduct that began or continued after the issuance of the Guidance: "'If the activity has not been stopped and continued from the time when the DOJ's policy was made, a year and a couple of months ago, we'll treat that as criminal.'"[84]

A few days later, Principal Deputy Assistant Attorney General Andrew C. Finch delivered a speech with the same message that "the Division expects to initiate multiple no-poach enforcement actions in the coming months" and that "[f]or agreements that began after [the Guidance], or that began before but continued after that announcement, the Division expects to pursue criminal charges."[85]

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79 241 F.2d 656-57.

80 272 U.S. 362-63.

81 Antitrust Guide for Human Resource Professionals, Department of Justice Antitrust Division and Federal Trade Commission, Oct. 2016, https://www.justice.gov/atr/file/903511/download.

82 Matthew Perlman, *Delrahim Says Criminal No-Poach Cases Are In The Works*, Law 360, Jan. 19, 2018, https://www.law360.com/articles/1003788/delrahim-says-criminal-no-poach-cases-are-in-the-works.

83 *Id.*

84 *Id.*

85 Principal Deputy Assistant Attorney General Andrew C. Finch Delivers Remarks at the Heritage Foundation, Washington, D.C., Jan. 23, 2018, https://www.justice.gov/opa/speech/principal-deputy-assistant-attorney-general-andrew-c-finch-delivers-remarks-heritage.

On April 3, 2018, DOJ Antitrust announced its first no-poach prosecution following the Guidance, as discussed further below.

The following day, Kate Patchen, Section Chief of the San Francisco Office of the DOJ, stated at a Federal Bar Association event that their top prosecutorial priorities are no-poach agreements (listed first), along with large international cartels, obstruction of justice cases, and fraud or bid-rigging conduct involving taxpayer funded contracts and projects.[86]

And, in case we still missed the point, DOJ's Antitrust Division Update for Spring 2018 is titled "NO MORE NO-POACH: THE ANTITRUST DIVISION CONTINUES TO INVESTIGATE AND PROSECUTE 'NO-POACH' AND WAGE-FIXING AGREEMENTS."[87] After again explaining the competitive harm no-poach agreements cause in labor markets and, specifically, to employees, and affirming that naked no-poach agreements amount to per se antitrust violations, the Update leaves us with a clear warning:

> Market participants are on notice: the Division intends to zealously enforce the antitrust laws in labor markets and aggressively pursue information on additional violations to identify and end anticompetitive no-poach agreements that harm employees and the economy.[88]

Indeed, DOJ's highly public campaign against no-poach agreements has placed more than market participants on notice of the Division's intent. But how DOJ will carry out its intent and, perhaps more importantly, how these prosecutions will affect the continuing evolution of no-poach jurisprudence, remain in development.

3. First Post-Guidance Enforcement Actions

a. DOJ Enforcement: Rail Industry Employees

To date, federal antitrust regulators have brought one no-poach case after the announcement of the Antitrust Guidance on no-poach. On April 3, 2018, the DOJ filed a complaint, with concurrent proposed final judgment and competitive impact statement, against rail equipment supplier companies for engaging in three different no-poach agreements beginning in 2009, 2011, and 2014.[89] The complaint charged that the companies entered into "naked" no-poach agreements with each other, even though one company was acquired by another company within two years of the alleged start date

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86 Ms. Patchen spoke at an event presented by the Northern District of California Chapter of Federal Bar Association entitled "Views from the Top: Hot Issues & Trends in White Collar Fraud Enforcement," on April 4, 2018. The author attended the event and noted Ms. Patchen's remarks. The author also spoke with Ms. Patchen about how DOJ Antitrust generally discovers the conduct or evidence that leads to no-poach prosecutions.

87 https://www.justice.gov/atr/division-operations/division-update-spring-2018/antitrust-division-continues-investigate-and-prosecute-no-poach-and-wage-fixing-agreements.

88 *Id.*

89 *United States v. Knorr-Bremse AG and Westinghouse Air Brake Technologies Corp.*, 1:18-cv-00747 (D.D.C. filed April 3, 2018).

of the no-poach agreement between them.[90] Interestingly, even though the complaint does not state any end date, or even end year, for the no-poach agreements, DOJ apparently determined that each agreement ended before the 2016 Antitrust Guidance was issued, and therefore prosecuted the companies civilly instead of criminally.[91]

Over a dozen purported nationwide antitrust class actions were filed in Maryland, Pennsylvania, and South Carolina in the wake of the DOJ's prosecution becoming public.[92] On August 13, 2018, the Judicial Panel on Multidistrict Litigation finalized transfer of these actions to the Western District of Pennsylvania, where they are now proceeding before Chief Judge Joyce Flowers Conti.[93]

b. No-Poach Private Enforcement

So far, two major nationwide no-poach class action lawsuits have made their way into federal court with no related publicly disclosed government investigation.

Shortly after the conclusion of the *High Tech* class action, a Duke University radiologist brought a purported class action alleging that the medical schools of Duke and UNC agreed beginning in 2012 not to hire each other's employees for positions of the same rank.[94]

As much of the conduct producing evidence of the agreement occurred before the *High Tech* prosecution and class action and before the Antitrust Guidance, the defendants did not conceal the agreement perhaps as carefully as they would following those warnings. In fact, the UNC Chief of Cardiothoracic Imaging stated in emails to plaintiff Seaman that he "received confirmation today from the Dean's office that lateral moves of faculty between Duke and UNC are not permitted," that the "guideline" was "agreed upon between the deans of UNC and Duke a few years back," and that it "was generated in response to an attempted recruitment by Duke a couple of years ago of the entire UNC bone marrow transplant team" where "UNC had to generate a large retention package to keep the team intact."[95]

Unsurprisingly, the defendants based their dismissal arguments on state action immunity rather than on insufficiency of allegations as to the no-poach agreement. The

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90 *United States v. Knorr Bremse AG et al.*, Complaint, filed April 3, 2018, https://www.justice.gov/atr/case-document/file/1048866/download.

91 *United States v. Knorr Bremse AG et al.*, Competitive Impact Statement, filed April 3, 2018, https://www.justice.gov/atr/case-document/file/1048891/download, at p. 12 ("The United States has pursued the agreements at issue in the Complaint by civil action rather than as a criminal prosecution because the United States uncovered and began investigating the agreements, and the Defendants terminated them, before the United States had announced its intent to proceed criminally against such agreements.").

92 *In Re: Railway Industry Employee No-Poach Antitrust Litigation*, MDL No. 2850 (JPML filed April 25, 2018).

93 *Id.*, Conditional Transfer Order Finalized, ECF No. 94.

94 *Seaman v. Duke University et al.*, 1:15-cv-00462 (M.D.N.C. filed June 9, 2015).

95 *Id.*, First Amended Complaint—Class Action, ECF No. 15 at 15-16.

court handily denied dismissal in a four-page memorandum opinion after taking oral argument primarily on immunity.[96]

In January 2018, following the completion of class discovery, the court granted final approval of the settlement between the UNC defendants and the purported class.[97]

On February 1, 2018, the court certified the third nationwide class to proceed with their antitrust no-poach claims.[98] As in *High Tech*, the defendants vigorously disputed the Rule 23(b)(3) requirements of predominance and superiority rather than the Rule 23(a) threshold requirements.[99] The court found plaintiffs sufficiently showed that antitrust violation, antitrust impact, and measure of damages are susceptible to proof by plaintiffs, and contrary proof by defendants, on a class-wide basis to meet predominance as a faculty class.[100] In particular, the court noted that such class-wide proof consisted of the testimony of the defendants' employees, defendants' internal and external correspondence, including the email communications described above, and expert evidence, including from the same expert witness considered by the court in *High Tech*.[101] However, the court found that including both faculty and non-faculty in the class would defeat predominance, as the common evidence among faculty plaintiffs is not the same as the common evidence among non-faculty plaintiffs.[102] The court further found that including non-faculty as well as faculty could cause confusion at trial and raise significant manageability and fairness issues to defeat superiority.[103] Accordingly, the court certified a class of over 5,000 faculty members, and denied certification otherwise.[104] The class action is currently proceeding against the remaining Duke defendants.

Meanwhile, on the eve of the Antitrust Guidance, a group of plaintiffs brought a purported class action against LG and Samsung for agreeing not to recruit or hire each other's employees.[105] Here, the direct admission of the agreement to a plaintiff came from a recruiter acting as an agent on behalf of Samsung Electronics America. The recruiter for Samsung contacted plaintiff A. Frost, then an LG employee, about open positions at Samsung's U.S. headquarters in New Jersey, and then stated in a written message to plaintiff Frost that "I made a mistake! I'm not supposed to poach LG for Samsung!!! Sorry! The two companies have an agreement that they won't steal each other's employees. Sorry 'bout that!!!"[106] In addition, another plaintiff, Jose Ra, alleges that, when he sought employment at Samsung while an employee of LG, a Samsung manager told him that LG and Samsung

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96 *Id.*, Order, ECF No. 39.

97 *Id.*, Order Granting Final Approval of Class Action Settlement, ECF No. 185.

98 *Id.*, Memorandum Opinion and Order, ECF No. 189.

99 *Id.* at 5-21.

100 *Id.*

101 *Id.*

102 *Id.* at 14-16, 18-21.

103 *Id.* at 18-21.

104 *Id.* at 21, 25.

105 *Frost v. LG Corp., et al.*, 5:16-cv-05206 (N.D. Cal. filed Sept. 9 2016).

106 *Id., Second Amended Consolidated Class Action Complaint,* ECF No. 159 at 18.

do not hire each other's employees.[107] Plaintiff Ra further alleges that his co-workers at LG told him about a "gentlemen's agreement" reached between LG and Samsung in Korea not to hire each other's employees and that the agreement "trickles down" to the respective U.S. subsidiaries.[108] In addition, the head of HR at another LG subsidiary confirmed in a major business publication that the companies have an "understanding" not to hire from each other across levels because they have the biggest product portfolio in the market.[109] The allegations also describe the corporate control structure of the defendants' corporate families and how it facilitates defendants' headquarters' control over the human resources functions of its subsidiaries to enforce the no-poach agreement.[110] Nonetheless, the court found the pleadings insufficient on their face.[111]

The case is currently on appeal to the Ninth Circuit.[112] After 14 years of silence from the federal appellate courts, the first no-poach antitrust case since *Eichorn* and *Weisfeld*, and first in the modern era of enforcement, may land before the Ninth Circuit in 2019.[113]

No-poach agreements now occupy center stage in both government and private enforcement with the common goal of protecting employees from competitive harm—that is, loss of job opportunities, mobility, information, and the ability to use that information as well as competing offers to negotiate better terms of employment. Never in the evolution of no-poach antitrust jurisprudence has it been more clear, and courts more ready to accept and recognize, that "[t]he same rules apply when employers compete for talent in labor markets as when they compete to sell goods and services" because "workers, like consumers, are entitled to the benefits of a competitive market."[114] In some ways, we found our way back to the path that the Supreme Court set us on in *Anderson* in 1926, with the added benefit of the class action device. So where do we go from here?

IV. THE NEW ENFORCEMENT FRONTIER

A. Criminal Prosecutions

Not that anyone is counting, but, at press time, nearly two years have passed since the DOJ announced in the Antitrust Guidance that criminal no-poach prosecutions are coming. In the interim, the Antitrust Division has brought one civil case against the rail

107 *Id.* at 19.

108 *Id.*

109 *Id.* at 19-20

110 *Id.* at 20.

111 *Id.*, Judgment, ECF No. 198.

112 *Id.*, Notice of Appeal, ECF No. 200.

113 *Id.*, Time Schedule Order, ECF No. 201.

114 No More No-Poach: The Antitrust Division Continues to Investigate and Prosecute "No-Poach" and Wage-Fixing Agreements, U.S. Department of Justice Spring Update 2018, https://www.justice.gov/atr/ division-operations/division-update-spring-2018/antitrust-division-continues-investigate-and-prosecute-no-poach-and-wage-fixing-agreements.

equipment suppliers, likely based on evidence from existing discovery previously obtained during the Wabtec-Faiveley merger process.[115]

However, that may soon change. On May 17, 2018, Deputy Assistant Attorney General Barry Nigro, delivering a prepared keynote speech at an ABA conference, stated that:

> We are investigating other *potential criminal antitrust violations* in this industry, including market allocation agreements among healthcare providers and *no-poach agreements restricting competition for employees*. We believe it is important that we use our *criminal enforcement authority* to police these markets, and to promote competition for all Americans seeking the benefits of a competitive healthcare marketplace.[116]

DAAG Nigro's remarks are more of a promise more than a hint. The Antitrust Division likely would not make such a statement in such a forum unless a public announcement is imminent. Viewed in combination with AAG Delrahim's statements in January that public announcements of no-poach prosecutions will be made "[i]n the coming couple of months" that he is "shocked about how many of these there are," and reinforcing that "they're real," we should expect at least one, possibly more, additional no-poach prosecutions, and very likely a criminal prosecution, announced before long. And that may be just the beginning.

B. Franchises and Fast Food No-Poach

1. Government Enforcement

State regulators have taken the lead from federal regulators in no-poach antitrust enforcement in at least one important area. While the federal prosecutions in *High Tech*, *Animators*, and *Knorr-Bremse* have all focused on skilled workers in specialized or technical industries, state regulators are now extending antitrust protection to more vulnerable low-wage workers.

In a letter to various fast food companies released on July 9, 2018, the Attorneys General of seven states, including California, requested documents about no-poach provisions in the companies' franchise agreements that would "impact some employees' ability to obtain higher paying or more attractive positions with a different franchisee."[117] The letter states the state regulators "are concerned about the use of No Poach Agreements among franchisees and the harmful impact that such agreements may have on employees

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115 Justice Department Requires Divestiture of Faiveley Transport's U.S. Freight Car Brakes Business Before Wabtec Acquisition, U.S. Department of Justice Office of Public Affairs, Oct. 26, 2016, https://www.justice.gov/opa/pr/justice-department-requires-divestiture-faiveley-transport-s-us-freight-car-brakes-business.

116 Justice Department Requires Divestiture of Faiveley Transport's U.S. Freight Car Brakes Business Before Wabtec Acquisition, U.S. Department of Justice Office of Public Affairs, Oct. 26, 2016, https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-barry-nigro-delivers-keynote-remarks-american-bar (emphasis added).

117 Office of New York State Attorney General Barbara D. Underwood, https://ag.ny.gov/ sites/default/files/npnh_letter_redacted.pdf.

in our States and our state economies generally."[118] The letter further states, perhaps ominously for the companies, that "[w]hen taken in the aggregate and replicated across our States, the economic consequences of these restrictions may be significant."[119]

Five days later, seven fast food companies, including McDonald's, Arby's, and Jimmy John's, entered into binding agreements with the state of Washington to drop no-poach provisions from their franchise agreements and to stop enforcing no-poach provisions in existing franchise agreements at all of their locations nationwide.[120] More fast food companies are likely to follow suit.

2. Private Enforcement

In the past two years, four no-poach class actions against fast food companies have been filed in federal court.[121] One was voluntarily dismissed in July 2018. One of the remaining cases, *Deslandes*, is proceeding in the Northern District of Illinois and recently survived a motion to dismiss and could be poised to create important new antitrust law.[122]

In *Deslandes*, the plaintiff brought her case under both a per se theory and, in the alternative, a quick-look theory. On June 25, 2018, the court denied defendants' motion to dismiss. In an unpublished opinion, a federal district court ruled for the first time that, because no-poach agreements are essentially agreements to divide a market, a naked horizontal no-poach agreement is a per se violation of antitrust law.[123] The court also found that McDonald's franchise agreements are procompetitive because they increase the output of burgers and fries.[124] The court further concluded that, because the no-poach provision at issue is a competitive restraint in one market that is ancillary to a procompetitive franchise agreement in another market, the provision should be analyzed under the intermediate quick-look analysis.[125] Deslandes' no-poach antitrust claims easily survived quick-look.[126]

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118 *Id.* citing "Non-compete Contracts: Economic Effects and Policy Implications," Report Issued by the Office of Economic Policy, U.S. Department of the Treasury, Mar. 2016. https://www.treasury.gov/resource-center/economic-policy/Documents/UST%20Noncompetes%20 Report.pdf; and Alan B. Krueger and Orley Ashenfelter, Theory and Evidence on Employer Collusion in the Franchise Sector, (July 18, 2017) for their finding that 80 percent of quick service restaurant franchise contracts (i.e., 32 out of 40) contained no poach provisions.

119 *Id.*

120 Office of Washington Attorney General Bob Ferguson, https://www.atg.wa.gov/news/news-releases/ag-ferguson-announces-fast-food-chains-will-end-restrictions-low-wage-workers.

121 *Deslandes v. McDonald's USA, LLC*, No. 17-4857 (N.D. Ill. June 28, 2017); *Ion v. Pizza Hut, LLC*, No. 17-788 (E.D. Tex. Nov. 3, 2017); *Butler v. Jimmy John's Franchise, LLC*, No. 18-133 (S.D. Ill. Jan. 24, 2018); *Ogden v. Little Caesar Enterprises et al.*, No. 18-12792 (E.D Mich. Sept. 7, 2018).

122 In *Butler*, the other remaining case, the motions to dismiss have been fully briefed as of May 10, 2018, but no order has issued.

123 *Deslandes v. McDonald's USA, LLC,* 2018 U.S. Dist. LEXIS 105260, at *18, 2018 WL 3105955 (N.D. Ill. June 25, 2018).

124 *Id.* at *20.

125 *Id.*

126 *Id.* at *20-24.

Moreover, the court's threshold finding in *Deslandes* that McDonald's restaurants can and do compete with each other such that they are capable of conspiring within the meaning of the Sherman Act § 1 is significant.[127] It at least scrapes the edges of the Supreme Court's reasoning in *Copperweld* that put an end to the intra-enterprise conspiracy doctrine in federal jurisprudence.[128] In fact, the district court's reasoning brings it closer to the line of cases invoking the intra-enterprise conspiracy.[129]

Further, the court's finding directly contradicts established law in at least one federal circuit. The Ninth Circuit held since the early 1990s that franchises within the same fast food company do not compete with each other and are incapable of conspiring within the meaning of § 1.[130] Nonetheless, if given the opportunity to consider another no-poach case involving a franchise or related corporate entities, Ninth Circuit today perhaps may reach a different conclusion and may not again declare that "[the] case is essentially an effort to turn a labor dispute into an antitrust action for treble damages."[131] In fact, the Ninth Circuit could very well become the first federal appeals court finally to rule on whether naked no-poach agreements amount to per se antitrust violations.[132]

V. CONCLUSION

The jurisprudence surrounding no-poach agreements as antitrust violations has progressed more in the past 10 years than in the preceding century. This remarkable evolution was made possible by both the government and private enforcement attorneys who came to recognize that workers deserve the same antitrust protection for competition for their services as consumers do for competition for their purchases—but this story is still developing.

In the meantime, please do not participate in unlawful no-poach agreements.

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127 *Id.* at *2-5.

128 467 U.S. at 761-66.

129 *See United States v. Yellow Cab Co.*, 332 U.S. 218 (1947); *Kiefer–Stewart Co. v. Joseph E. Seagram & Sons, Inc.*, 340 U.S. 211 (1951); *Timken Roller Bearing Co. v. United States*, 341 U.S. 593 (1951); *Perma Life Mufflers, Inc. v. Int'l Parts Corp.*, 392 U.S. 134 (1968).

130 *Williams v. I.B. Fischer Nevada*, 999 F.2d 445, 447 (9th Cir. 1993) (citing to and agreeing with the district court's reasoning and conclusions in *Williams v. Nevada*, 794 F. Supp. 1026 (D. Nev. 1992). In that case, the plaintiff employee of Jack-in-Box brought antitrust claims against the restaurant franchisee and franchisor based on "no-switching" provisions in the franchise agreement. In granting the defendants' motion for summary judgment, the district court found, and the Ninth Circuit later affirmed, that:

> [T]he cornerstone of the Ninth Circuit analysis for a § 1 violation—competition between entities—does not exist in this case. In a fast-food franchise the franchisor does everything to promote a uniform, non-competitive environment between the franchises: . . Additionally, here, as in *Thomsen*, the "no-switching" agreements do not involve anyone outside the Jack-in-the-Box system.

Id. at 1031 (citing *Thomsen v. Western Elec. Co.*, Inc., 680 F.2d 1263 (9th Cir. 1982) for its finding that the defendants, subsidiaries of the same corporate parent, were part of the same "corporate enterprise" and were incapable of conspiring within with meaning of the Sherman Act § 1).

131 680 F.2d at 1267.

132 *Frost v. LG Corp., et al.*, 5:16-cv-05206 (N.D. Cal. filed Sept. 9 2016).

SMART CONTRACTS AND BLOCKCHAINS: STEROID FOR COLLUSION?

By Ai Deng[1]

I. WHAT IS A SMART CONTRACT?

It is late afternoon. Our stomachs are calling. We walk up to a vending machine. We stare at the selection for a minute, swipe a card or insert some cash, and make our choice. The machine (usually) gets us the snack we want and also figures out how much change to give back. It is such a routine part of life that most of us probably don't realize that we and the vendor just engaged in a transaction that is based essentially on a *smart* contract. Smart contracts are those that self-execute as soon as certain contractual terms are met.

The idea is not new. Every time we set up an automatic recurring bank transfer or payment, we effectively create a smart contract with the financial institution. Of course, a smart contract can do a lot more. For example, given the inevitability of smart vehicles in the not-so-distant future, it is easy to imagine a smart insurance contract where sensors on the vehicle detect who is at fault in an accident, insurance rates are adjusted accordingly, and an insurance payment is made automatically—all with minimal human involvement.[2]

The idea of "smart contracts" was conceptualized by computer scientist Nick Szabo in 1994:[3]

> A smart contract is a computerized transaction protocol that executes the terms of a contract. The general objectives of smart contract design are to satisfy common contractual conditions (such as payment terms, liens, confidentiality, and even enforcement), minimize exceptions both malicious and accidental, and minimize the need for trusted intermediaries. Related economic goals include lowering fraud loss, arbitration and enforcement costs, and other transaction costs.

As indicated by the quote from Szabo, in its simplest form, a smart contract is written as a machine-readable computer program. For example, on the popular smart contract

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2 Some have further generalized the concept of a smart contract to mean any computer program that can be executed on a blockchain.

3 Nick Szabo (1994), "Smart Contracts," available at http://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart.contracts.html.

platform Ethereum, smart contracts are created using a particular programming language called Solidity.

II. WHAT IS A BLOCKCHAIN, AND WHY DO WE NEED IT FOR A SMART CONTRACT?

We began by asking whether smart contracts and blockchains might be a catalyst for collusion. To answer that question, we must first understand blockchains. One can think of a blockchain as a particular type of information management system or, more specifically, a ledger system. It is also the technology that underpins the much-talked-about Bitcoin and other cryptocurrencies. A blockchain has three key characteristics: *distributed*, *trustless*, and *consensus*. Let's use a simple example to build an understanding of how a blockchain works.[4]

Imagine that you have just signed a contract to rent an apartment. As is typically done today, both you and the building management would keep an identical copy of the contract. The idea is that neither party can unilaterally modify any of the terms without revealing a discrepancy. You don't have to trust your landlord, nor does your landlord have to trust you. Obviously, both parties are free to make additional copies of the contract. You may decide to ask one or more friends or family members to keep a copy because you are concerned about theft or simply about the possibility of losing your copy. Your landlord may do the same. When a contract is "distributed" in this way, neither party has an incentive to manipulate the agreement. You have created an environment that works for both parties without necessarily trusting each other.[5] This is exactly what the blockchain enables us to do. One can think of a block in the blockchain as a collection of these contracts. The blocks are distributed in an analogous way.

There is, however, more to worry about. Suppose you have a pet dog that has a history of destroying your important documents, or that some of your friends may want to mess with you by changing terms (say, your monthly rent amount) in their copies. Your landlord may have a similar concern. At least one way to get around such a problem is to rely on *consensus*. That is, we are going to believe the version that is consistent with at least 51% of the copies. This is how blockchain works as well, that is, the "truth" on a blockchain is based on consensus.[6] For this reason, the so-called *decentralized consensus* is a fundamental feature of a blockchain.

Where does the "chain" part of the blockchain come from? Let's consider the perspective of the landlord for a moment. The landlord may want to track the property you are renting over time. He or she may have rented the same apartment to someone else before you. The "chain" simply refers to the sequence of transactions or blocks of

4 For a more rigorous discussion of blockchain and cryptocurrency, *see* Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, and Steven Goldfeder (2016), *Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction*, Princeton, NJ: Princeton University Press.

5 Of course, a conventional way to operate in a trustless world is to involve a trusted third party such as a bank or other financial institution. The use of a blockchain eliminates the need for such a trusted third party.

6 We are abstracting from the actual mechanism of reaching a consensus. The consensus mechanism is an active area of research and debate in the blockchain field. Some readers may have heard about "proof of work" or "proof of stake" as potential mechanisms.

transactions that are recorded in the system. The current block is always linked to the previous block. This allows one to track back all the way to the origin of a transaction, or the ownership history of a property. And thanks to the ingenuity of a design feature of the blockchain, people have little incentive, and for practical purposes are unable, to change the information in a block.[7] This is known as the "immutability" of the blockchain. And because the blockchain is immutable, the transactions are also "auditable." The relevance of this auditable feature will become clear when we discuss cartels and blockchains in the next section. Finally, it should be clear that although we use a rental contract as our example, any transaction or any information can be recorded on a blockchain.

Now that we have an understanding of what a blockchain is and some of its most important features, such as "distributed consensus" and "immutability," we can understand why a blockchain is an ideal platform for smart contracts. Most obviously, once a contract is written and "posted" in a block, parties have confidence that it won't be (easily) altered or manipulated, either inadvertently or maliciously (say, by a hacker). Of course, as still a relatively new technology, smart contracts on blockchains are not without their limitations.[8]

III. IMPLICATIONS FOR COLLUSION

Companies can collaborate to form a so-called blockchain consortium. And these consortia are growing at a fast pace. According to a Deloitte report from August 2017, more than 40 consortia have been formed globally—most of them in the six months preceding that time.[9] Well-known business-focused blockchain consortia include **PTDL** (post-trade distributed ledger group), **DTC** (digital trade chain), **B3i** (blockchain insurance industry initiative), and **R3**. The blockchains in these consortia can be made private and require permission to join and use. To continue our rental contract example, a private blockchain is analogous to the situation in which you send the contract to only your five closest friends, instead of everyone you know. This is in contrast to a public blockchain, such as the one for cryptocurrency Bitcoin. On these private or permissioned blockchains, only members have access to the hosted information. Economists and courts recognize that

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7 More technically, each block contains a unique identifier, known as the "hash," of the previous block. This identifier is a mathematical compression of all of the information in the block. If anything changes, the identifier also changes. Therefore, if someone tries to alter the information in the block, any change would reveal itself through the hash values. With the hash values, the system does not need to "remember" the entire history of the information or transactions on a blockchain to validate a transaction and ensure immutability. Of course, immutability is to some extent still relative. For an interesting perspective, *see* Gideon Greenspan (May 9, 2017), "The Blockchain Immutability Myth," *CoinDesk*, available at https://www.coindesk.com/blockchain-immutability-myth/.

8 For example, a smart contract would implement exactly what the computer program tells it to, regardless of whether there are any programming errors; software problems could also cause errors in the smart contract. *See* Mark Gates (2017), *Ethereum: Complete Guide to Understanding Ethereum, Blockchain, Smart Contracts, ICOs, and Decentralized Apps* (audiobook). Other recent research identified a number of security issues with the existing smart contracts. *See* Ivica Nikolíc, Aashish Kolluri, Ilya Sergey, Prateek Saxena, and Aquinas Hobor (2018), "Finding the Greedy, Prodigal, and Suicidal Contracts at Scale," available at https://arxiv.org/pdf/1802.06038.pdf.

9 Peter Gratzke, David Schatsky, and Eric Piscini (August 16, 2017), "Banding Together for Blockchain." *Deloitte Insights*, available at https://www2.deloitte.com/insights/us/en/focus/signals-for-strategists/ emergence-of-blockchain-consortia.html.

information sharing and transparency can facilitate collusion.[10] Let's take a closer look at the smart contracts on a blockchain and how they might do that.

Let's start with the case of explicit collusion. A cartel can take advantage of a private/permissioned blockchain's distributed system in two ways to efficiently implement a cartel agreement. The first is what I call the "traditional way," where cartel members engage in traditional "off-line" discussions to implement an agreement and use the blockchain solely to share competitively sensitive information (production, sales, prices, etc.) to enable monitoring of cartel member behavior and hence reduce the incentive to "cheat." Arguably, there is not much new here from the perspective of an antitrust authority.

The second way is much more sophisticated and largely blockchain and smart contract driven. In addition to using the private blockchain to share information, a cartel could codify its agreement into a smart contract. For example, a smart contract could automate interfirm transfer, *i.e.*, side payments (as a way to maintain the cartel agreement) when certain conditions are met, and punishment upon detection of cheating. Using the Internet of Things (IoT), firms in a cartel could even grant other cartel members access to artificial intelligence (AI)-based sensors to automatically monitor, say, a competitor's production activity. If the AI detects any deviation from the cartel agreement, it could trigger an automatic retaliatory response codified in the smart contract. Recall that because the smart contract is built on a blockchain, in theory, no party could modify the smart contract without the other cartel members knowing. This significantly increases the credibility of a punishment.

As we can see, smart contracts and blockchains give an explicit cartel a whole new and efficient way to implement an agreement. It may be tempting to think it is a "no-brainer" that an explicit cartel would seek to take full advantage of this ability. But is it? In most jurisdictions, an explicit cartel is illegal, which explains why in many price fixing cases, the cartel members have taken pains to avoid detection. They meet in private hotel rooms and strictly limit their discussions to a small circle of people. Seldom does a cartel have a formal agreement or contract. A smart contract, albeit being a set of computer codes, leaves a paper trail just like a traditional paper contract. This is related to the "auditable" feature of a blockchain we noted above. Of course, specific programming expertise (say, with Solidity on Ethereum) will be required to understand fully these computer code-scripted contracts.

Let's turn now to the more interesting case of tacit collusion. Certain types of information sharing and transparency can facilitate tacit collusion. There is some empirical evidence that increased transparency has indeed led to tacit collusion in real markets.[11] Firms should think carefully about the information they share on a blockchain

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10 David C. Kully and Josias N. Dewey (March 2017), "Blockchain Collaborators Should Be Attuned to Potential Antitrust Issues." Corporate Counsel Connect article, Thompson Reuters, available at https://legalsolutions.thomsonreuters.com/law-products/news-views/corporate-counsel/blockchain-collaborators-attuned-to-potential-antitrust. *See also* Izabella Kaminsak (May 11, 2015), "Exposing the 'If We Call It a Blockchain, Perhaps It Won't Be Deemed a Cartel?' Tactic" *Financial Times*.

11 *See* Jorge Lemus and Luco Fernando (2017), "Pricing Dynamics, Leadership, and Misreporting: Evidence from a Mandatory Price-Disclosure Intervention" (Working paper).

and whether their information sharing may be construed as a tacit way to coordinate to harm competition.

In certain situations, (tacit) collusion could also be facilitated in a more subtle way. Suppose competitors form a blockchain consortium and intend to take full advantage of smart contracts in their business operations. For example, they plan to deploy a smart contract that automatically transfers funds from the customer to the seller if a shipment arrives at the designated port of delivery. To implement such a smart contract, external information (for example, the verification that the shipment has been delivered) is needed. Such external information is provided by what's known as an "oracle service."[12] Assuming that other firms in the blockchain consortium also have a presence at the customer's delivery location, the consortium members may choose to rely on each other as "record keepers" for the oracle service. That is, firm A could make requests to firms B, C, D, etc., to confirm whether a shipment has arrived.[13] The extent of a confirmation could range from a simple yes or no to estimating the quantity shipped using AI sensors and the IoT. Clearly, such oracle services are crucial to unlock fully the value of smart contracts for their intended use.

In such an environment, two economists from the University of Chicago's Booth School of Business have shown in a recent article that collusive outcomes can be more easily reached.[14] The intuition comes from the seminal paper of Green and Porter (1984).[15] Green and Porter show that imperfect monitoring of cartel members' behavior coupled with demand uncertainty could lead to price wars, disrupting the plan to raise or maintain the prices of a cartel. When a cartel member does not observe a competitor's behavior (say, production or sales), it does not know whether its own declining sales are caused by the cheating behavior of others or simply by an unlucky negative aggregate demand shock. The more volatile the aggregate demand is, the more difficult this inference becomes. To *internalize* the demand uncertainty, Green and Porter show that disruptive price wars can be a rational and disciplinary course of action by the cartel members. Going back to our new smart contract and blockchain environment in which competitors provide "oracle services" for each other, we notice that, as a byproduct, competitors now have an excellent

12 Lauslahti et al. describe the oracle service, also known as "API router," in the following way: in this type of smart contract, a program based on blockchain technology collects data from one or more third-party software interfaces or other sources and relays the collected information as a report to a pre-determined recipient. *See* Kristian Lauslahti, Juri Mattila, and Timo Seppala (2017),"Smart Contracts—How Will Blockchain Technology Affect Contractual Practices?" ETLA Report no. 68, Research Institute of the Finnish Economy.

13 In a trustless world, a customer's own verification will not be sufficient.

14 Lin William Cong and Zhiguo He (2018), "Blockchain Disruption and Smart Contacts" (Working paper). I focus on the intuitions. Readers interested in technical details are encouraged to read the article for more in-depth discussions.

15 E.J. Green and R.H. Porter (1984), "Noncooperative Collusion under Imperfect Price Information," *Econometrica*, 52 (1): 87–100.

opportunity to monitor the aggregated demand and even individual firm sales.[16] This could mitigate the destabilizing effects of aggregated demand uncertainty.[17]

How do we address this potential side effect of smart contracts on a blockchain consortium? An intuitively appealing approach is simply to keep the competitors and the record keepers separate. But in practice, doing so may present difficulties, especially when no alternative record keepers are available.[18] Another possibility is to institute independent third-party oracle service providers, potentially funded by the competitors in the consortium. If complete separation is impossible or too costly, yet another possibility is to explore the feasibility of establishing firewalls within the firms to separate their record-keeping function from other business operations. This is an area worthy of further exploration. Lastly, note that the oracle services provided by competitors may be viewed as a type of (collusion-) "facilitating practice" that antitrust authorities around the world have wrestled with for many years.[19]

IV. CONCLUSION

In this article, we introduced the concepts of a smart contract, a blockchain, and a blockchain consortium. While there are other antitrust considerations with a blockchain consortium, such as standard setting and unfair competition, we focused on the implications these emerging technologies have on both explicit and tacit collusion. We argue that although smart contracts offer an efficient way to enforce any agreement, an explicit cartel may find it unpalatable to codify its illegal agreement in the form of a smart contract. Of course, this does not mean that cartels would never take advantage of smart contracts to carry out their operations. To uncover smart contract-based collusion, antitrust agencies will need readily accessible expertise in smart contract design and programming.

We also discussed how collusion may arise in more subtle ways, as highlighted by recent academic research. An open question is how to achieve the efficiency of distributed consensus made available by record keepers without increasing the antitrust risk of collusion.

It is encouraging that many antitrust practitioners have already advised corporations to exercise care when joining a blockchain consortium and deciding which information to share. While the directions of technologies are notoriously hard to predict, it is safe to assume that as more companies and governments continue to explore what blockchain technology has to offer, more subtle antitrust issues will arise for those of us in the antitrust and economics community to think about and debate. It is an exciting time.

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16 The blockchain may be set up so that competitors do not know which firm is making the request. In that case, the consortium members would still be able to infer, possibly imperfectly, the aggregate demand. If the identity of the seller is also revealed in the consensus-generating process, competitors would have much more information about each other.

17 Note that blockchain technology per se does not give rise to the issue discussed here.

18 As noted by Cong and He, on some blockchains such as Symbiont, record keepers tend to be a separate group from the end users. *Supra* note 14, at 33.

19 For an international perspective, *see* 2007 OECD Roundtable on Facilitating Practices in Oligopolies, available at https://www.oecd.org/daf/competition/41472165.pdf.

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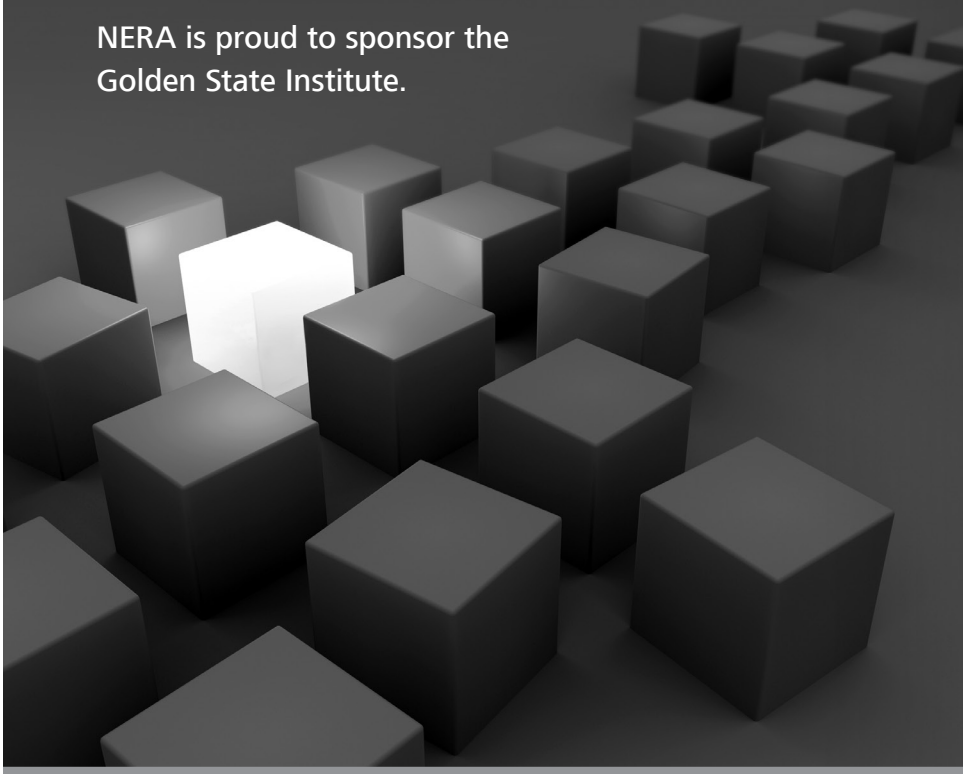

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