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Berkeley Technology Law Journal
University of California
School of Law
3 Law Building
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editor@btlj.org
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TABLE OF CONTENTS

ARTICLES

FOREWORD.....	919
<i>Chris D. Chuang & Katharine H. Cummings</i>	
THE SUPREME COURT DENIES REBUTTAL: <i>WESTERNGECO</i> AND SALVAGING EXTRATERRITORIAL BARS TO PATENT LIABILITY	925
<i>Nicholas E. Calcaterra</i>	
EXPLORING PATENT TAKINGS AFTER <i>OIL STATES</i>	963
<i>Concord Cheung</i>	
PATENT LITIGATION POST- <i>SAS</i> : NUANCED IMPLICATIONS OF BINARY IPR INSTITUTION	993
<i>Victoria Constance Huang</i>	
THE EVOLUTION OF PATENT VENUE IN THE AFTERMATH OF <i>TC</i> <i>HEARTLAND</i>	1023
<i>Alexander S. Krois</i>	
EYE SEE WHAT YOU'RE DOING: AN ANALYSIS OF ALLERGAN'S USE OF TRIBAL SOVEREIGN IMMUNITY TO EVADE IPR OF THEIR EYE PRODUCT, RESTASIS.....	1057
<i>Julea Lipitz</i>	
<i>ALICE</i> GETS A HAIRCUT: <i>BERKHEIMER</i> AND <i>AATRIX</i> RESTORE FACTUAL INQUIRY TO PATENT SUBJECT MATTER ELIGIBILITY UNDER § 101.....	1081
<i>Li Zhang</i>	
<i>WILLIAMS V. GAYE</i> : BLURRING THE LINES OF COPYRIGHT INFRINGEMENT IN MUSIC	1113
<i>Paymaneh Parhami</i>	
<i>BELMORA LLC V. BAYER CONSUMER CARE AG</i> : UNFAIR COMPETITION AS AN ALTERNATIVE APPROACH TO PENETRATE THE TERRITORIAL PRINCIPLE IN U.S. TRADEMARK LAW	1145
<i>Su Li</i>	
THE CLOUD ACT: CREATING EXECUTIVE BRANCH MONOPOLY OVER CROSS-BORDER DATA ACCESS	1177
<i>Miranda Rutherford</i>	

ERECTING A PRIVACY WALL AGAINST TECHNOLOGICAL ADVANCEMENTS: THE FOURTH AMENDMENT IN THE POST- <i>CARPENTER</i> ERA.....	1205
<i>Elle Xuemeng Wang</i>	
UNTANGLING SESTA/FOSTA: HOW THE INTERNET’S “KNOWLEDGE” THREATENS ANTI-SEX TRAFFICKING LAW	1239
<i>Megan McKnelly</i>	
THE FOREIGN RISK REVIEW MODERNIZATION ACT: HOW CFIUS BECAME A TECH OFFICE	1267
<i>Evan J. Zimmerman</i>	
DEFINING THE MARKET FOR TWO-SIDED PLATFORMS: THE SCOPE OF <i>OHIO V. AMERICAN EXPRESS</i>	1305
<i>Sanjana Parikh</i>	
SURVEY OF ADDITIONAL TOPICS IN IP LAW	1337

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FOREWORD

Chris D. Chuang[†] & Katharine H. Cummings^{††}

The Annual Review is a yearly publication of the *Berkeley Technology Law Journal* that provides a summary of many of the year's major developments at the intersection of law and technology. Our aim is to provide a valuable resource for judges, policymakers, practitioners, students, and scholars. Each Note provides a primer on a particular area of law, a development in that area of law, and commentary on that development.

The thirteen Notes in this Issue continue a tradition of covering a wide range of topics. The Notes address developments in patent, copyright, trademark, privacy, technology-focused regulations and legislature, and antitrust.

I. PATENT LAW

The first Note¹ in this Section examines the Supreme Court's decision in *WesternGeco v. ION Geophysical Corp.*² to uphold lost profit damages predicated on foreign, non-infringing actions following 35 U.S.C. § 271(f)(2) liability. This Note concludes that the Supreme Court's use of the RJR Nabisco framework in rebutting the presumption against extraterritoriality opens foreign lost profit liability across all modes of 35 U.S.C. § 271 infringement. Additionally, the Note argues that practitioners and judges may restore the presumption's role by importing comity concerns into a policy-driven proximate cause analysis for future infringement cases.

The second Note³ discusses the Supreme Court's *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*⁴ decision, which upheld the constitutionality under Article III and the Seventh Amendment of the inter partes review (IPR)

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† Senior Annual Review Editor, *Berkeley Technology Law Journal*; J.D., 2019, University of California, Berkeley, School of Law.

†† Senior Annual Review Editor, *Berkeley Technology Law Journal*; J.D., 2019, University of California, Berkeley, School of Law.

1. Nicholas E. Calcaterra, Note, *The Supreme Court Denies Rebuttal: WesternGeco and Salvaging Extraterritorial Bars to Patent Liability*, 34 *BERKELEY TECH. L.J.* 925 (2019).

2. 138 S. Ct. 2129 (2018).

3. Concord Cheung, Note, *Exploring Patent Takings After Oil States*, 34 *BERKELEY TECH. L.J.* 963 (2019).

4. 138 S. Ct. 1365 (2018).

process. This Note further explores the undecided issue of whether the Takings Clause applies to IPR proceedings and describes a framework for applying regulatory takings analysis to patent rights taken during IPR.

The third Note⁵ examines the patent litigation landscape after the Supreme Court's decision in *SAS Institute Inc. v. Iancu*.⁶ To explore the consequences of the decision, the Note analyzes 200 Inter Partes Review (IPR) decisions, district court orders on motions to stay pending IPR, and potential social and institutional ramifications of the decision. Based on this analysis, the Note also suggests pragmatic ways for practitioners to approach litigation strategy in the altered landscape.

The fourth Note⁷ examines how patent venue has continued to evolve in the aftermath of *TC Heartland LLC v. Kraft Foods Group Brands LLC*,⁸ which dramatically restricted where plaintiffs can bring patent infringement suits. Particularly, this Note looks at how both the Federal Circuit and litigants have reacted to the decision, and uses quantitative analysis to map the changes in the landscape of patent venue through the end of 2018.

The fifth Note⁹ evaluates the Federal Circuit's decision in *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals*,¹⁰ which found that tribal sovereign immunity was not an acceptable defense during inter partes review. This Note compares uses of state and tribal sovereign immunity during patent review procedures and patent litigation. Ultimately, this Note argues that sovereign immunity is an inapplicable defense during inter partes review and currently draws an unnecessary distinction between state and tribal immunity.

The sixth Note¹¹ examines recent Federal Circuit cases concerning the factual inquiry underlying the *Mayo/Alice* patent subject matter eligibility framework. The Note asserts that the Federal Circuit's decisions represent an overdue clarification of the uncertainty surrounding patent litigation that involves this framework. This Note also proposes guidelines for the application of an evidentiary principle in the adjudication of patent subject matter eligibility.

5. Victoria Constance Huang, Note, *Patent Litigation Post-SAS: Nuanced Implications of Binary IPR Institution*, 34 BERKELEY TECH. L.J. 993 (2019).

6. 138 S. Ct. 1348 (2018).

7. Alexander S. Krois, Note, *The Evolution of Patent Venue in the Aftermath of TC Heartland*, 34 BERKELEY TECH. L.J. 1023 (2019).

8. 137 S. Ct. 1514 (2017).

9. Julea Lipiz, Note, *Eye See What You're Doing: An Analysis of Allergan's Use of Tribal Sovereign Immunity to Evade IPR of Their Eye Product, Restasis*, 34 BERKELEY TECH. L.J. 1057 (2019).

10. 896 F.3d 1322 (Fed. Cir. 2018).

11. Li Zhang, Note, *Alice Gets a Haircut: Berkheimer and Aatrix Restore Factual Inquiry to Patent Subject Matter Eligibility Under § 101*, 34 BERKELEY TECH. L.J. 1081 (2019).

II. COPYRIGHT LAW

The Note¹² in this Section evaluates the Ninth Circuit's decision in *Williams v. Gaye*,¹³ where the court held that the global best-selling single of 2013, "Blurred Lines," infringed Marvin Gaye's copyright in his 1977 hit song "Got to Give It Up." The Note argues that the Ninth Circuit's decision fails to distinguish between legally protectable and unprotectable elements in music and thus imposes a chilling effect on musical creativity and innovation by allowing composers to seek copyright protection over entire styles and grooves. Specifically, this Note shows how a particular limiting doctrine of copyright law, the scenes a faire doctrine, constitutes an already-existing yet underutilized tool that can bring into legal consideration the tradition and necessity of sharing common elements in music.

III. TRADEMARK LAW

The Note¹⁴ in this Section focuses on the circuit split over the territoriality principle of U.S. trademark law in protecting non-registered and not-in-use foreign trademarks in the United States. The Note confirms the value of the *Belmora*¹⁵ decision that allows foreign trademark owners to use the unfair competition clause to fight against trademark abuse, while parsing out the considerations that led to the diverging court decisions using both legal and empirical analysis.

IV. PRIVACY LAW

The first Note¹⁶ in this Section analyzes the Clarifying Lawful Overseas Use of Data (CLOUD) Act, passed in March 2018. The CLOUD Act was designed to mitigate existing problems with cross-border data demands made by U.S. and foreign law enforcement. However, the Note argues that in doing so, the law gives the executive branch significant control over extraterritorial data access, which can lead to problems of due process and conflicts of values.

12. Paymaneh Parhami, Note, *Williams v. Gaye: Blurring the Lines of Copyright Infringement in Music*, 34 BERKELEY TECH. L.J. 1113 (2019).

13. *Williams v. Gaye*, 885 F.3d 1150 (9th Cir. 2018).

14. Su Li, Note, *Belmora LLC v. Bayer Consumer Care AG: Unfair Competition as an Alternative Approach to Penetrate the Territorial Principle in U.S. Trademark Law*, 34 BERKELEY TECH. L.J. 1145 (2019).

15. 819 F.3d 697 (4th Cir. 2016).

16. Miranda Rutherford, Note, *The CLOUD Act: Creating Executive Branch Monopoly Over Cross-Border Data Access*, 34 BERKELEY TECH. L.J. 1177 (2019).

The second Note¹⁷ is created in the wake of the *Carpenter v. United States*¹⁸ decision. *Carpenter v. United States* is probably the most significant privacy case of this generation. It has a huge impact on data privacy, the third-party doctrine, and Fourth Amendment searches. This Note summarizes this monumental decision, traces the history of data privacy and the third-party doctrine, and discusses the future of the Fourth Amendment in the Post-*Carpenter* era.

V. REGULATION AND LEGISLATION

The first Note¹⁹ in this Section discusses the history and text of the Allow States and Victims to Fight Online Sex Trafficking Act of 2018 (SESTA/FOSTA),²⁰ which creates new criminal and civil liability for interactive computer services (ICSs) involved in the facilitation of sex trafficking on the Internet. Most significantly for the purposes of this Note, SESTA/FOSTA interjects a “knowledge” standard in the existing sex trafficking statute.²¹ This Note asserts that this knowledge standard muddles the existing sex trafficking statute, concluding that courts should draw on other areas of the law as well as real-world ICS practices in defining ICS knowledge of user-posted, sex trafficking-related content.

The second Note²² analyzes and explains the Foreign Risk Review Modernization Act, tracing its history and analyzing its contents as perhaps the most consequential change in the history of the Committee on Foreign Investment in the United States, commonly known as CFIUS. Ultimately, it argues that Congress took an obscure national security committee and turned it into a quasi-agency technology regulator—but by accident, and without properly equipping CFIUS to do its new job.

17. Elle Xuemeng Wang, Note, *Erecting a Privacy Wall Against Technological Advancements: The Fourth Amendment in the Post-Carpenter Era*, 34 BERKELEY TECH. L.J. 1205 (2019).

18. 138 S. Ct. 2206 (2018).

19. Megan McKnelly, Note, *Untangling SESTA/FOSTA: How the Internet’s “Knowledge” Threatens Anti-Sex Trafficking Law*, 34 BERKELEY TECH. L.J. 1239 (2019).

20. See Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 (2018).

21. See *id.* at § 5.

22. Evan J. Zimmerman, Note, *The Foreign Risk Review Modernization Act: How CFIUS Became a Tech Office*, 34 BERKELEY TECH. L.J. 1267 (2019).

VI. ANTITRUST

The Note²³ in this Section examines the consequences of the Supreme Court's decision in *Ohio v. American Express*²⁴ on technology platforms. It applies an economic lens to the majority holding to understand how the decision affects the potential antitrust liability faced by platform companies. This Note analyzes the dynamics of commonly-recognized platform business models to argue that the ruling should not broadly confer antitrust immunity on two-sided platforms.

23. Sanjana Parikh, Note, *Defining the Market for Two-Sided Platforms: The Scope of Ohio v. American Express*, 34 BERKELEY TECH. L.J. 1305 (2019).

24. 138 S. Ct. 2274 (2018).

THE SUPREME COURT DENIES REBUTTAL: *WESTERNGECO* AND SALVAGING EXTRATERRITORIAL BARS TO PATENT LIABILITY

Nicholas E. Calcaterra[†]

I. INTRODUCTION

Since the 17th century, Westphalian sovereignty and comity have been influential fixtures in international law.¹ These doctrines, by prescribing mutual respect of exclusive control over one's country and citizens, compel governments to prevent global conflicts.² Likewise, the United States has adopted comity concepts in different areas of law.³

In recent years, the Supreme Court and Federal Circuit have wrestled with questions of how to evaluate domestic patent laws in conflict with the presumption against extraterritoriality, a comity-related doctrine.⁴ The presumption holds that courts should presume U.S. law is only valid within its territories.⁵ Unless the presumption has been rebutted, courts should wait for instruction from Congress before applying laws extraterritorially.⁶ Otherwise, the courts must ensure, or at least rationalize, that the law's extraterritorial effects come from a domestic application.⁷

The presumption against extraterritoriality has had a powerful role in limiting patent infringement liability. Along with causation and a patent's technical scope, the geographic scope of a patent defines the boundaries of

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[†] Nicholas E. Calcaterra, Ph.D., J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. Joel R. Paul, *The Transformation of International Comity*, 71 LAW & CONTEMP. PROBS. 19, 22 (2008).

2. *See id.*; *see also* STEPHEN D. KRASNER, SOVEREIGNTY, ORGANIZED HYPOCRISY 10 (1999).

3. *See* William S. Dodge, *International Comity in American Law*, 115 COLUM. L. REV. 2071, 2087 (2015).

4. *See* Am. Banana Co. v. United Fruit Co., 213 U.S. 347, 356 (1909).

5. *See* RJR Nabisco, Inc. v. European Cmty., 136 S. Ct. 2090, 2100 (2016) (“Absent clearly expressed congressional intent to the contrary, federal laws will be construed to have only domestic application.”).

6. *See id.*

7. *See id.*

infringement inquiries.⁸ In *Power Integrations v. Fairchild Semiconductor International*,⁹ the Federal Circuit solidified a patent's geographic scope as an independent limitation, barring damages predicated on foreign events.¹⁰ The Supreme Court in *WesternGeco LLC v. ION Geophysical Corp.*, however, has put this framework on precarious grounds.

In *WesternGeco*, ION was previously found liable for infringement under 35 U.S.C. § 271(f)(2).¹¹ In addition to a reasonable royalty, WesternGeco alleged they were entitled to lost profits due to lost contracts on the high seas.¹² The Federal Circuit denied the claim, arguing that a foreign lost profits award would create an extraterritorial application of U.S. patent laws.¹³

The Supreme Court reversed, utilizing the *RJR Nabisco* two-step inquiry for determining impermissible extraterritorial application of U.S. law.¹⁴ This inquiry first asks whether “the presumption . . . has been rebutted” by Congress when constructing the statute.¹⁵ If not, or if a court chooses to skip the first step, the court must then ask “whether the case involves a domestic application of the statute.”¹⁶ Skipping to the second step, the Court in *WesternGeco* found that the focus of § 284 was to regulate infringement.¹⁷ Noting that § 271(f) requires a defendant to supply components from the United States, the Court found that awarding lost profit damages for the infringement was a permissible domestic application of § 284.¹⁸ The Court reversed the Federal Circuit, awarding lost profit damages to WesternGeco.¹⁹

However, the majority's analysis under the *RJR Nabisco* framework seems arbitrary and counterintuitive. Construing the statutory focus of § 284 as only “infringement,” as opposed to “adequate . . . compensate[ion] for the infringement” appears to contradict much of the Court's own language and argument.²⁰ Furthermore, relegating the focus of the statute to only the

8. See Stephan Yelderman, *Proximate vs. Geographic Limits on Patent Damages*, 7 IP THEORY 2, 2, 7–9 (2018) (discussing how patent jurisprudence holds parties liable only if they caused infringement of the legal invention (technical scope) within U.S. jurisdiction (geographic scope)).

9. *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1371 (Fed. Cir. 2013) (“It is axiomatic that U.S. patent law does not operate extraterritorially to prohibit infringement abroad.”).

10. *See id.*

11. *See WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2135 (2018).

12. *Id.*

13. *WesternGeco LLC v. ION Geophysical Corp.*, 837 F.3d 1358, 1360 (Fed. Cir. 2016).

14. *See id.* at 2136; *see generally* *RJR Nabisco, Inc. v. European Cmty.*, 136 S. Ct. 2090, 2101 (2016) (promulgating a two-step framework for deciding extraterritoriality questions).

15. *RJR Nabisco*, 136 S. Ct. at 2101.

16. *Id.*

17. *See WesternGeco*, 138 S. Ct. at 2137.

18. *Id.* at 2138.

19. *Id.* at 2139.

20. 35 U.S.C. § 284 (2012).

infringement at issue insulates the statute from its purpose and other important jurisprudence.

Similarly, the Court failed to consider other prevailing doctrines and important questions. The Court explicitly chose to ignore questions of proximate cause.²¹ By skipping step one of the *RJR Nabisco* analysis of § 284, the Court also ignored *WesternGeco*'s assertion that the presumption against extraterritoriality did not apply to *any* damages provisions.²² But perhaps most perplexing is the Court's diminishment of damages statutes to "merely the means by which the statute achieves its end of remedying infringements," instead of considering how they affect parties in an extraterritorial patent enforcement context.²³ By neglecting these important aspects and questions, the Court sought to restrain their holding.²⁴

Yet the Court inadvertently exposed all modes of infringement to the recovery of foreign lost profits. By disregarding the context of § 284 to "affor[d] patent owners complete compensation" for infringement, the Court's analysis allows for easy application to other infringement scenarios.²⁵ It is likely that the Court accidentally overturned *Power Integrations*, terminating the presumption against territoriality as applied to damages.

The loss of geographic limitations on patent damages, however, may be rectified. Practitioners and judges can resurrect the purpose of the presumption against extraterritoriality by importing comity concerns in defining proximate cause. By stressing the important policy of respecting foreign sovereignty, geographic scope may again play a role in limiting patent liability in a manner amenable to both *WesternGeco* and the previous Federal Circuit holdings.

Part II of this Note gives a brief history of the presumption against extraterritoriality as applied to patent law. Part II also outlines the role of proximate cause in limiting patent liability and how this role interacts with the presumption against extraterritoriality. Part III details the procedural history of *WesternGeco* and the Supreme Court's decision. Part IV analyzes how the Court used the *RJR Nabisco* framework, rejected ION's arguments, and the consequences of the decision. Part IV also argues that the Supreme Court's demotion of damages statutes and use of the *RJR Nabisco* two-step inquiry were incorrect, leading to gaps in damages jurisprudence and recovery for infringement damages without territorial restraint. Part V argues that judges and practitioners may be able to limit a patent's geographical scope, in

21. *WesternGeco*, at 2139 n.3.

22. *Id.* at 2136.

23. *Id.* at 2138.

24. *Id.* at 2139 n.3 ("In reaching this holding, we do not address the extent to which other doctrines, such as proximate cause, could limit or preclude damages in particular cases.")

25. *Id.* at 2137 (quoting *Gen. Motors Corp. v. Devex Corp.*, 461 U. S. 648, 655 (1983)).

harmony with *WesternGeco*, by imputing comity as a policy consideration for determining proximate cause.

II. THE PRESUMPTION AGAINST EXTRATERRITORIALITY, PROXIMATE CAUSE, AND THEIR INEVITABLE CLASH IN PATENT LAW

The presumption against extraterritorial application of U.S. patent rights has precedent dating back to 1857.²⁶ Since then, the courts and Congress have mostly upheld the tradition of confining patent rights “within the limits of the United States.”²⁷ Even in instances of legislation by Congress to explicitly rebut that presumption, such as the creation of §§ 271(f) and (g), the courts have applied these statutes narrowly.²⁸ And although the scope of these exceptions continues to be adjusted, the presumption against extraterritoriality itself remains a stalwart of U.S. patent law.²⁹

Similarly, the doctrine of proximate cause as a limiting factor to patent infringement damages has been nearly as longstanding.³⁰ Defining “proximate cause,” however, has not been as simple and consistent as demarcating U.S. borders. Like its sister doctrine in torts, proximate causation of patent infringement has steadily evolved.³¹ Originally proximate cause was nebulously characterized, though the general notion was that courts should only award damages that were the “direct and immediate” result of the infringement.³² More recently, it has been defined to include damages that were “reasonably foreseeable” at the time of patent infringement.³³ Nevertheless, these

26. See *Brown v. Duchesne*, 60 U.S. 183, 195 (1857).

27. *Id.*; see Timothy R. Holbrook, *Boundaries, Extraterritoriality, and Patent Infringement Damages*, 92 NOTRE DAME L. REV. 1745, 1760–62 (2017).

28. See *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 442 (2007) (“Recognizing that § 271(f) is an exception to the general rule that our patent law does not apply extraterritorially, we resist giving the language in which Congress cast § 271(f) an expansive interpretation.”); see also *Bayer AG v. Housey Pharm., Inc.*, 340 F.3d 1367 (Fed. Cir. 2003) (holding that § 271(g) only applies to the importation of physical objects and not information); see generally *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734 (2017) (holding that § 271(f)(1) is limited quantitatively and not qualitatively thus the importation of a single component, of a necessary plurality, is not infringing).

29. See *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734 (2017); see also *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1371 (Fed. Cir. 2013) (“It is axiomatic that U.S. patent law does not operate extraterritorially to prohibit infringement abroad.”).

30. See *Carter v. Baker*, 5 F. Cas. 195, 202 (C.C.D. Cal. 1871) (No. 2,472).

31. See generally Patrick J. Kelley, *Proximate Cause in Negligence Law: History, Theory, and the Present Darkness*, 69 WASH. U. L. Q. 49 (1991) (discussing developments in proximate cause doctrine as applied to negligence law); Yelderman, *supra* note 8, at 1–5, 8–10 (citing early and more recent uses of proximate cause doctrine in patent law).

32. *Buerk v. Imhaeuser*, 4 F. Cas. 594, 595 (C.C.S.D.N.Y. 1876).

33. See *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546–47 (Fed. Cir. 1995).

standards do not address all considerations for proximate cause in patent law, especially policy-driven goals.³⁴

Unsurprisingly, cases that feature the interaction of both doctrines are more convoluted. Early Supreme Court precedent allowed for compensation based on sales to foreign customers while simultaneously barring similar remedies for sales wholly occurring outside the United States.³⁵ More recently the Federal Circuit attempted to set a bright-line rule, “cut[ting] off the chain of causation” at extraterritorial acts, preventing the award of damages predicated on those acts.³⁶ Therefore, the presumption against extraterritoriality applied to both questions of infringement liability and damages.

Although the Federal Circuit followed this reasoning again in *WesternGeco*, the Supreme Court reversed, allowing recovery of lost profit damages predicated on non-infringing foreign use.³⁷ In doing so, the Court prioritized the policy of fully compensating patent owners over the longstanding presumption against extraterritoriality. And despite petitioners raising the possible use of proximate cause analysis to reach this conclusion at oral argument, the Court did not examine the issue in its holding for concerns of its wide-reaching implications.³⁸ Thus, for the time being, the Court has recognized proximate cause and the presumption against extraterritoriality as two distinct inquiries.

But in an ever-connected global society, these two doctrines are fated to a head-on collision. Notwithstanding the Supreme Court’s decision to avoid the matter in *WesternGeco*, there may be room for the Federal Circuit to limit the lost profit damages by a novel proximate cause theory. But the individual jurisprudence of both doctrines, along with cues from cases involving their combination, may give hints at how courts will decide this inevitable conflict.

A. THE PRESUMPTION AGAINST EXTRATERRITORIALITY AND ENFORCING THE GEOGRAPHICAL SCOPE OF PATENT LAW

Justice Oliver Wendell Holmes, in his *American Banana Co. v. United Fruit Co.* opinion, accurately captured the philosophy of the presumption against

34. *See id.* at 1546 (“The general principles expressed in the common law tell us that the question of legal compensability is one to be determined on the facts of each case upon mixed considerations of logic, common sense, justice, policy and precedent.”) (quoting W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS § 42, at 279 (5th ed. 1984)) (internal quotation marks omitted).

35. *See Goulds’ Mfg. Co. v. Cowing*, 105 U.S. 253 (1882); *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641 (1915).

36. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1172 (Fed. Cir. 2013).

37. *See WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2139 (2018).

38. *Id.* at 2135, 2139 n.3; *see* Transcript of Oral Argument at 14, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011).

extraterritoriality: “the general and almost universal rule is that the character of an act as lawful or unlawful must be determined wholly by the law of the country where the act is done.”³⁹ Justice Holmes also gave prudent advice for its application, noting a court must interpret, “in case of doubt, [the] construction of any statute as intended to be confined in its operation and effect to the territorial limits over which the lawmaker has general and legitimate power.”⁴⁰ Although this sober approach has fallen out of favor over time in most areas of law, courts have long advocated for adhering to the presumption in patent law.⁴¹

1. *Brown v. Duchesne Drops the Presumption Anchor in Patent Law*

This regime in patent law marks its origin in 1856, with the Supreme Court’s decision in *Brown v. Duchesne*.⁴² Duchesne mastered a French ship that included a gaff-saddle, constructed using a method patented in the United States by Brown.⁴³

Brown discovered that Duchesne’s ship was used to conduct business in the port of Boston and subsequently sued for the use of the gaff-saddle without his consent.⁴⁴ Duchesne claimed, *inter alia*, that his use did not infringe because the saddle and its incorporation into the boat were constructed legally in France.⁴⁵ The Court construed the matter at hand to be whether a foreign ship could use a feature, constructed by a U.S.-patented method, while temporarily docked within U.S. jurisdiction, without the consent of the patentee.⁴⁶

Writing for the Court, Chief Justice Taney examined the Patent and Copyright Clause of the Constitution, portraying the right it granted as “domestic in its character, and necessarily confined within the limits of the United States.”⁴⁷ Concerning the immediate question, Taney elaborated that the clause “confers no power on Congress to regulate commerce, or the vehicles of commerce, which belong to a foreign nation, and occasionally visit

39. *Am. Banana Co. v. United Fruit Co.*, 213 U.S. 347, 356 (1909).

40. *Id.* at 357.

41. See William S. Dodge, *Understanding the Presumption against Extraterritoriality*, 16 BERKELEY J. INT’L L. 85, 85–86 (1998); *Subafilms, Ltd. v. Mgm-Pathe Commc’ns. Co.*, 24 F.3d 1088, 1097–98 (9th Cir. 1994). This adherence is, perhaps, due in part to the explicit language in the patent act, geographically limiting patent infringement. See 35 U.S.C. 271(a) (2012) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.”).

42. See *Brown v. Duchesne*, 60 U.S. 183, 195 (1857).

43. *Id.* at 193.

44. *Id.*

45. See *id.* at 193–94.

46. *Id.* at 194.

47. *Id.* at 195.

our ports in their commercial pursuits.”⁴⁸ Those powers were relegated to treaty-making, a distinct authority from the Patent Clause with a different purpose.⁴⁹ Thus, when Congress is legislating “to protect authors and inventors, their attention is necessarily attracted to the authority under which they are acting, and it ought not lightly to be *presumed* that they intended to go beyond it.”⁵⁰

Chief Justice Taney summarized that patent laws “do not, and were not intended to, operate beyond the limits of the United States.”⁵¹ Therefore, Duchesne’s use of the improved-method-derived gaff-saddle outside of the United States was not an infringement.⁵²

Although Duchesne’s ship traveled to U.S. ports, Chief Justice Taney noted that the advantage gained from the gaff-saddle was on the high seas outside of U.S. jurisdiction.⁵³ Still, bringing the ship to the United States created “technical damage, in the eye of the law.”⁵⁴ The Court dismissed this argument, reasoning that punishing lawful foreign use of inventions patented in the United States was not the “contemplation of Congress in enacting the patent laws.”⁵⁵ To believe otherwise, the opinion continued, would “exact damages where no real damage had been sustained, and would moreover seriously embarrass the commerce of the country with foreign nations.”⁵⁶

The Court further cautioned that grounding power over foreign entities in patent law would become a serious threat as “[r]ights of a party under a patent are his private property; and by the Constitution of the United States, private property cannot be taken for public use without just compensation.”⁵⁷ This expansion of patent rights would “embarrass the treaty-making power” of the United States and interfere with Congress’s ability to regulate commerce.⁵⁸ It was the duty of the legislature to regulate “commerce and intercourse with foreign nations,” not the courts.⁵⁹ Therefore, the Court could not grant a patent owner such power.

48. *Id.*

49. *See id.*

50. *Id.* (emphasis added).

51. *Id.*

52. *Id.* at 195–96 (“[Duchesne’s use] is not an infringement of [Brown’s] rights, and [Brown] has no claim to any compensation for the *profit* or advantage the party may derive from it.”) (emphasis added).

53. *See id.* at 196.

54. *Id.*

55. *See id.* at 196–97.

56. *Id.* at 197.

57. *Id.*

58. *See id.*

59. *See id.* at 198.

The Court concluded that it must base its interpretation of patent laws in the Constitution.⁶⁰ Accordingly, Brown's patent rights did "not extend to a foreign vessel lawfully entering [U.S.] ports."⁶¹

2. *The Supreme Court Guts Patent Enforcement in Deepsouth*

In confining the geographical boundaries of patent rights to less than the full territory of the United States, *Brown v. Duchesne* signaled a bright-line rule for adjudicating patent disputes involving foreign activities.⁶² Yet the Court would later find rigid application of the presumption to permit manufacturing loopholes, compromising domestic innovation incentives and patent enforcement.

This was the case in *Deepsouth Packing Co. v. Laitram Corp.*, where Deepsouth avoided infringement under 35 U.S.C. § 271(a) by domestically manufacturing non-patented components, before shipping them overseas for assembly into the invention described in Laitram's combination patents.⁶³

Deepsouth and Laitram had both patented shrimp deveining machines, capable of processing raw shrimp more efficiently than competing machinery.⁶⁴ These patents described the machines as novel combinations of otherwise rudimentary components.⁶⁵ Laitram sued Deepsouth for infringement, winning the better claim in district court.⁶⁶ The district court enjoined Deepsouth from further use and distribution of their deveining machines.⁶⁷ However, a portion of Deepsouth's business was manufacturing and shipping individual, non-infringing components overseas for later assembly and use.⁶⁸ As actual "making" and "using" of the patented invention would occur abroad, Deepsouth contended that domestic manufacturing of non-patented components did not impinge Laitram's rights.⁶⁹

In considering Laitram's protests that this conclusion could only be produced by a "hypertechnical reading of the patent code," the Supreme Court agreed with Deepsouth on appeal.⁷⁰ Although recognizing the inconsistency to incentivizing investment in innovation and technology, the Court echoed *Duchesne*, appealing to the presumption against extraterritoriality and the role

60. *See id.*

61. *Id.*

62. *See id.* at 195 ("The power thus granted is domestic in its character, and necessarily confined within the limits of the United States.").

63. *See Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 519–20, 531–32 (1972).

64. *Id.* at 519.

65. *See id.* at 520–21.

66. *See id.* at 519–21.

67. *Id.* at 523.

68. *See id.* at 524.

69. *Id.*

70. *Id.*

of Congress to define the scope of patent laws, rather than the courts.⁷¹ Accordingly, they would “require a clear and certain signal from Congress” before judicially closing the foreign assembly loophole.⁷²

3. *Closing the Deepsouth Loophole with 271(f)*

Such a signal came from Congress with the 1984 Patent Law Amendments Act.⁷³ On the heels of growing domestic concerns over slow innovation and competition with foreign manufacturers, Congress passed various patent-strengthening legislation in the early 1980s.⁷⁴ One statute in particular, 35 U.S.C. § 271(f), was a direct “response to the . . . *Deepsouth* decision . . .”⁷⁵

More precisely, § 271(f) created domestic infringement liability for exporting components of a U.S.-patented invention with the intent of their assembly abroad, in a way that the acts would infringe if they had occurred within the United States.⁷⁶ Similarly, the statute created liability for exporting components, specifically made for use in a patented invention, for later assembly that would constitute infringement if it had occurred domestically.⁷⁷

Thus, there are two main elements to § 271(f) infringement: exporting components overseas and intent to commit actions that would otherwise be infringement in the United States.⁷⁸ Both of these represent an explicit rebuttal of the presumption against extraterritoriality and expansion of the geographic—and in some sense, also the technical—scope of patent rights by Congress.

But this expansion is not unlimited. Examining the overall statutory scheme, one may interpret the two elements of § 271(f) through the lens of §§ 271(b)–(c).⁷⁹

While § 271(f) creates liability for actions taken abroad, in contrast to § 271(a), these actions must tie to components supplied “in or from the United

71. *See id.* at 529–31 (“[W]e note that what is at stake here is the right of American companies to compete with an American patent holder in foreign markets. Our patent system makes no claim to extraterritorial effect . . .”).

72. *See id.*

73. *See* Patent Law Amendments Act of 1984, Pub. L. No. 98-622, 98 Stat. 3383, 3383–93 (1984).

74. *See* Katharine H. Cummings, *Just out of Reach: Congress, Courts, and Industry Struggle to Define the Scope of U.S. Patent Law Overseas*, 33 BERKELEY TECH. L.J. 861, 867–68 (2018).

75. S. REP. NO. 98-663, at 2–3 (1984) (“Permitting the subterfuge which is allowed under the *Deepsouth* interpretation of the patent law weakens confidence in patents among businesses and inventors.”).

76. 35 U.S.C. § 271(f)(1) (2012).

77. 35 U.S.C. § 271(f)(2) (2012).

78. *See* Cummings, *supra* note 74, at 868–70.

79. *Id.*

States.”⁸⁰ Accordingly, the infringement is still rooted in the power of Congress over domestic affairs.

Similarly, the knowledge and intent requirements of § 271(f) borrow language from the inducement (§ 271(b)) and contributory infringement (§ 271(c)) statutes.⁸¹ Section 271(f)(1) takes the term “active inducement” from § 271(b).⁸² Section 271(f)(2) incorporates the knowledge element from the contributory infringement statute, § 271(c), requiring that the infringer know it supplied, *from the United States*, a component custom-made for a patented invention.⁸³ The analogous statutes also impute an intent requirement mirrored in § 271(f).⁸⁴

Therefore, where the legislature failed to define the boundaries of § 271(f) precisely, courts may look to the other infringement statutes for guidance. In doing so, it is apparent that § 271(f)’s narrow exception only partially rebuts the presumption against extraterritoriality. Yet the Supreme Court and Federal Circuit continue to shape the application of the statute.⁸⁵

4. *The Presumption Against Extraterritorial Damages*

While § 271(f) created an exception to the presumption against extraterritoriality, the doctrine has remained steadfast in defining the geographic boundaries of patent enforcement.⁸⁶ Although these boundaries were most often applied to questions of an injury-in-fact, the Federal Circuit more recently has explicitly applied the presumption to questions of resulting damages.

80. 35 U.S.C. §§ 271(a), (f)(1)–(2) (2012).

81. *See Cummings*, *supra* note 74, at 869–70.

82. 35 U.S.C. § 271(b) (2012) (“Whoever actively induces infringement of a patent shall be liable as an infringer.”).

83. 35 U.S.C. § 271(c) (2012) states:

Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer.

84. *See Cummings*, *supra* note 74, at 869–70.

85. *See generally* *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007) (holding that software in abstract form cannot constitute a § 271(f)-eligible component and that congressional intent alone cannot justify an “expansive interpretation” of the statute); *see also* *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734 (2017) (holding that § 271(f)(1) is limited quantitatively and not qualitatively, thus the importation of a single component, of a necessary plurality, is not infringing).

86. *See WesternGeco LLC v. Ion Geophysical Corp.*, 791 F.3d 1340, 1349–50 (Fed. Cir. 2015) (“The presumption against extraterritoriality is well-established and undisputed.”).

In *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*, Fairchild had manufactured and sold power supplies which contained chips that reduced electromagnetic interference and battery-wearing in-rush current, via “frequency-jittering” and “soft start” functions.⁸⁷ Power Integrations, however, originally patented these technologies, later suing Fairchild for infringement.⁸⁸ The district court found that Fairchild infringed on Power Integrations’ patent, and the jury awarded reasonable royalties and lost profit damages.⁸⁹

Fairchild challenged the lost profits award, claiming that it was estimated using their worldwide sales and therefore incorrectly predicated on Fairchild’s extraterritorial use and sale of the patented inventions.⁹⁰ The district court agreed with Fairchild, subsequently reducing the lost profits award by excluding the damages caused by the international activities.⁹¹

On appeal, Power Integrations argued that using foreign lost profits to determine the award amount was appropriate. They asserted that foreign lost profits were foreseeable consequences of the infringement and they were entitled to receive “full compensation for any damages suffered as a result.”⁹² Furthermore, their right to “full compensation” had no geographical limits per the Federal Circuit’s proximate cause theory of damages heralded by *Rite-Hite Corp. v. Kelley Co.*⁹³

The Federal Circuit disagreed. The court rooted its argument in the damages statute: “Our patent laws allow specifically damages adequate to compensate *for the infringement.*”⁹⁴ Because the foreign lost profits stemmed from extraterritorial activity, the court reasoned this would give remedy where there was no infringement.⁹⁵ Noting that “[i]t is axiomatic that U.S. patent law does not operate extraterritorially to prohibit infringement abroad,” the court emphasized that the presumption against extraterritoriality “cuts off the chain

87. *See* *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1357–58 (Fed. Cir. 2013).

88. *See id.* at 1354, 1357.

89. *Id.* at 1354–55.

90. *Id.* at 1369.

91. *Id.*

92. *Id.* at 1370 (quoting *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 654–55 (1983)) (internal quotation marks omitted).

93. *Id.* at 1371 (citing *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546 (Fed. Cir. 1995) (“If a particular injury was or should have been reasonably foreseeable by an infringing competitor in the relevant market, broadly defined, that injury is generally compensable absent a persuasive reason to the contrary.”) (internal quotation marks omitted)).

94. *Id.* at 1371 (quoting 35 U.S.C. § 284) (internal quotation marks omitted).

95. *Id.*

of causation initiated by an act of domestic infringement.”⁹⁶ Therefore, Power Integrations was not entitled to compensatory damages for acts that occurred outside the United States.⁹⁷

B. THE PATENT DOCTRINE OF PROXIMATE CAUSE AS A LIMITATION TO LIABILITY

The court rejected a dominating proximate cause theory to foreign lost profits in *Power Integrations*. Their decision, however, foreshadowed the doctrine’s recurrence in *WesternGeco*, noting that the petitioner’s “foreseeability theory of world-wide damages sets the presumption against extraterritoriality in interesting juxtaposition with the principle of full compensation.”⁹⁸

When deciding matters of liability, courts typically require a showing of both actual cause, or “cause-in-fact,” and proximate cause.⁹⁹ Imputing similar requirements for a showing of lost profits damages can be challenging for plaintiffs, resulting in less than “full compensation” for infringement.¹⁰⁰ Before reaching proximate cause inquiries, the existence of substitute goods or services, multiple competitors, and varying consumer preferences convolute counterfactual questions of cause-in-fact.¹⁰¹ Applying these factors to foreign profits only exacerbates their confounding effects. Making a showing of causation more difficult, a plaintiff with the burden of proof must also explain why they did not patent, manufacture, and sell the invention overseas.¹⁰²

If able to pass these hurdles, the plaintiff must still show that the infringement proximately caused the lost profits.¹⁰³ Proximate cause doctrine generally seeks to limit liability to those consequences which are not too remote from any cause.¹⁰⁴ As such, this is a tougher burden than a showing of actual cause and thus has often invited an even more difficult analysis.

96. *See id.* at 1371–72 (citing *Morrison v. Nat’l Austl. Bank Ltd.*, 561 U.S. 247, 130 S. Ct. 2869, 2884 (2010) (“But the presumption against extraterritorial application would be a craven watchdog indeed if it retreated to its kennel whenever *some* domestic activity is involved in the case.”)).

97. *See id.*

98. *Id.* (internal quotation marks omitted).

99. *See Legal Theory Lexicon 020: Causation*, LEGAL THEORY LEXICON (Nov. 12, 2017), https://lsolum.typepad.com/legal_theory_lexicon/2004/01/legal_theory_le.html [<https://perma.cc/U8LA-DGZX>].

100. *See* Stephan Yelderman, *Proximate vs. Geographic Limits on Patent Damages*, 7 IP THEORY: VOL 7: 2, 7–8 (2018).

101. *See id.*

102. *See id.* at 8.

103. *See id.*

104. *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1390 (2014) (“For centuries, it has been a well-established principle of the common law, that in all cases of loss, we are to attribute it to the proximate cause, and not to any remote cause.”) (internal quotation marks omitted).

1. *A Brief History of Proximate Cause as a Limitation to Patent Liability Damages*

For almost 150 years, theories of proximate cause have been used to deny damages claims that were too remote from the act of infringement.¹⁰⁵ These theories include not only importations from general theories of damages,¹⁰⁶ but also patent-specific situations.¹⁰⁷ For example, courts have previously denied accounting profit damages based on increased sales prices of a non-infringing product that uses a common input material as the infringing product made with a patented invention.¹⁰⁸

Conversely, the Federal Circuit in *Rite-Hite Corp. v. Kelley Co.* affirmed that a plaintiff could recover lost profits for sales affected by the infringement, although these sales were not of the patented invention themselves.¹⁰⁹ Appealing to a balance between “full compensation” and “reasonable limits of liability,” the court held that a plaintiff could recover lost profits that were a “reasonable, objective foreseeability” of the infringement.¹¹⁰

The application of the proximate cause doctrine, however, has not been consistent when applied to foreign activities. An often-cited, early case dealing with extraterritorial profits, *Goulds’ Mfg. Co. v. Cowing*, awarded lost profits to the patent owner, predicated on proximately-caused foreign sales.¹¹¹ The Supreme Court, noting that the lower court had already ruled for infringement, found that “[i]f the appellant kept the control of its monopoly under the patent” it would have dominated a geographically confined market.¹¹² As the infringement proximately caused the injury, the Court upheld the general lost profits damages theories advanced by the plaintiff.¹¹³ And although the Court awarded foreign lost profits, it did not directly discuss their foreign nature.¹¹⁴

In a similar clash between proximate causation and the presumption against extraterritoriality, the Supreme Court denied foreign lost profit

105. *See* Carter v. Baker, 5 F. Cas. 195, 202 (C.C.D. Cal. 1871) (No. 2,472); Buerk v. Imhaeuser, 4 F. Cas. 594, 595 (C.C.S.D.N.Y. 1876) (No. 2,107) (“The damages in such a case must be confined to the direct and immediate consequences of the infringement, and not embrace those which are both remote and conjectural.”).

106. *See* Yelderman, *supra* note 8, at 9.

107. *See id.*

108. *See generally* Piper v. Brown, 19 F. Cas. 722 (C.C.D. Mass. 1873) (holding that the accounting profits made from an increased market price indirectly caused by infringement was not recoverable).

109. *See* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1548–49 (Fed. Cir. 1995).

110. *Id.* at 1546.

111. *See* Goulds’ Mfg. Co. v. Cowing, 105 U.S. 253, 254–56 (1882).

112. *Id.* at 256.

113. *See id.* at 256–57.

114. The award was the estimated difference between sales price and production cost for Cowing, not the monopoly profits by the patent owner. *See id.*; *see also* WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2141 n.2 (2018) (Gorsuch, J., dissenting).

damages in *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*¹¹⁵ The defendants argued that the Court should have reduced the lost profits award because, *inter alia*, the evidentiary record did not support a proximate cause finding.¹¹⁶ The Supreme Court approved of only nominal damages, having identified that the defendant sold 261 of the infringing drills in Canada.¹¹⁷ The Court reasoned because “no part of the transaction occur[ed] within the United States,” there could be no “recovery of either profits or damages” for those sales.¹¹⁸

Yet on contrasting issues of proximate cause, the Court was silent.¹¹⁹ The omission is puzzling, given the extensive discussion of confounding competitors and substitute products.¹²⁰ The Court, however, was explicit in its choice: “The place of sale is therefore of controlling importance here.”¹²¹

This notion of the presumption against extraterritoriality’s dominance over proximate cause was solidified in *Power Integrations* and continued in *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*¹²² While the Federal Circuit sought to continue this regime in *WesternGeco*, the Supreme Court’s decision may have disrupted this hegemony.

III. WESTERNGECO V. ION GEOPHYSICAL

A. FACTUAL BACKGROUND

In June 2009, WesternGeco, a geophysical services company, filed suit for patent infringement against Ion Geophysical Corporation (ION). WesternGeco later claimed, *inter alia*, that ION had infringed upon five of its patents under 35 U.S.C. § 271(f).¹²³ These patents described towable marine seismic streamers that use acoustic signals to map ocean floors, facilitating exploration for oil.¹²⁴ WesternGeco’s technology utilized a positioning system, or “bird,” that allowed the streamer to adjust its location.¹²⁵ WesternGeco

115. *See* *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641 (1915).

116. *See id.* at 648–50 (“While the number of drills sold by the defendants was shown, there was no proof that the plaintiff thereby lost the sale of a like number of drills or of any definite or even approximate number.”).

117. The Supreme Court reversed the lower courts, but only to seek evidence for reasonable royalty damages incurred via domestic infringement. *See id.* at 650–51.

118. *Id.* at 650.

119. *See id.*

120. *See id.* at 648–50.

121. *Id.*

122. *See generally* *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*, 807 F.3d 1283 (Fed. Cir. 2015) (affirming the presumption against extraterritoriality precludes recovery of lost foreign microchip profits, but-for caused by domestic infringement); *see* *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1371–72 (Fed. Cir. 2013).

123. *WesternGeco v. Ion Geophysical Corp.*, 2009 U.S. Dist. LEXIS 100277, at *1, *4 (S.D. Tex. Oct. 28, 2009).

124. *See id.* at *1–2.

125. *See id.* at *2.

manufactured the invention and used it to perform surveys for oil companies.¹²⁶

ION manufactured components of an infringing product and shipped them overseas.¹²⁷ ION sold the components to companies that would assemble them and then use the resulting device to perform surveys on behalf of oil companies, in competition with WesternGeco.¹²⁸

WesternGeco believed ION's activity was infringing and prevented them from winning ten survey contracts, a loss of roughly \$90 million in profits.¹²⁹ They sued ION for reasonable royalties and lost profits damages under § 271(f) liability, incurred by supplying components of their invention overseas for assembly.¹³⁰

B. PROCEDURAL HISTORY

The district court granted WesternGeco's motion for summary judgment of infringement under § 271(f)(1).¹³¹ Likewise, the jury found infringement under §§ 271(f)(1) and (2), awarding \$93.4 million in lost profits and a reasonable royalty of \$12.5 million.¹³²

During post-trial proceedings, ION moved for judgment as a matter of law and a new trial, or remittitur, on damages.¹³³ ION asserted that the model for lost profits and reasonable royalties awards were defective and overlapping.¹³⁴ ION argued the court should have vacated the lost profits award, as the jury calculated the award on the estimates of revenues earned by WesternGeco's competitors for foreign non-infringing use.¹³⁵ ION elaborated that awarding lost profits based on foreign non-infringing use, as opposed to domestic infringement, is not permitted by 271(f), which covers supplying components, not making or using the patented invention. Furthermore, the lost profits award would give an "improper extraterritorial effect to U.S. law."¹³⁶

The district court denied the motion on the grounds that failure to award damages for lost foreign profits would re-open the loophole that § 271(f) was

126. *See* WesternGeco LLC. v. Ion Geophysical Corp., 791 F.3d 1340, 1343 (Fed. Cir. 2015).

127. *See id.* at 1349.

128. *See id.*

129. *See id.*

130. *See id.* at 1343.

131. WesternGeco LLC. v. ION Geophysical Corp., 2012 U.S. Dist. LEXIS 90755, at *17–18 (S.D. Tex. June 29, 2012).

132. *WesternGeco*, 791 F.3d at 1341–42.

133. *See* WesternGeco LLC. v. ION Geophysical Corp., 953 F. Supp. 2d 731, 755 (S.D. Tex. 2013)

134. *Id.*

135. *Id.*

136. *See id.* at 755–56.

meant to close.¹³⁷ The court further explained that foreign sales could be the basis for a lost profits award if the patentee can show “a reasonable probability that but-for the infringement,” it would have made the foreign sales that were made by the accused infringer.¹³⁸

On appeal, the Federal Circuit reversed the lost profits award.¹³⁹ In its decision, the court maintained the presumption against extraterritoriality as precluding foreign lost profits awards.¹⁴⁰ The court reasoned that Congress created § 271(f) with the purpose of holding manufacturers liable for the exporting of invention components, not their use.¹⁴¹ Citing *Power Integrations*, the court upheld its previous decision regarding lost profits from foreign use, holding that U.S. patent laws “do not thereby provide compensation for a defendant’s foreign exploitation of a patented invention, which is not infringement at all.”¹⁴²

Judge Wallach dissented from this holding, generally arguing that precedent requires the consideration of foreign sales in damages calculations.¹⁴³ While recognizing the presumption, Judge Wallach rejected the idea that foreign actions were “categorically disregarded” when determining issues of infringement.¹⁴⁴

Judge Wallach’s driving theory was that foreign actions are not only relevant for determination of infringement but also for damages to make the patent owner whole.¹⁴⁵ That is, we should not view WesternGeco’s lost profits as resulting from extraterritorial non-infringing use, but rather as being proximately caused by domestic infringement under § 271(f).¹⁴⁶

The Supreme Court granted certiorari, immediately vacating the Federal Circuit’s decision.¹⁴⁷ The Court remanded the case back to the Federal Circuit

137. See *Deepsouth Packing Co. v. Laitram Corp.*, 406 U. S. 518 (1972); *id.* at 755.

138. *WesternGeco*, 953 F. Supp. 2d at 756.

139. See *WesternGeco LLC v. Ion Geophysical Corp.*, 791 F.3d 1340, 1343 (Fed. Cir. 2015).

140. *Id.* at 1350 (“There is no indication that in doing so, Congress intended to extend the United States patent law to cover uses abroad of the articles created from the exported components.”).

141. See *id.* at 1351–52.

142. *Id.* (“[T]he entirely extraterritorial production, use, or sale of an invention patented in the United States is an independent, intervening act that, under almost all circumstances, cuts off the chain of causation initiated by an act of domestic infringement.”) (quoting *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1371–72 (Fed. Cir. 2013)).

143. See *id.* at 1354–64.

144. *Id.* at 1355.

145. See *id.* at 1361.

146. See *id.*

147. *WesternGeco LLC v. ION Geophysical Corp.*, 136 S. Ct. 2486 (2016).

for reconsideration in light of the recent *Halo Electronics* decision concerning enhanced damages.¹⁴⁸

Upon remand, the Federal Circuit noted that “[t]he Supreme Court’s *Halo* decision was solely concerned with the question of enhanced damages” and did not affect other aspects of *WesternGeco*’s ruling.¹⁴⁹ Therefore, the court chose to reinstate its other findings, including the rejection of lost profits damages.¹⁵⁰

Judge Wallach again dissented. This time he articulated the heart of the issue: “When a patent holder successfully demonstrates both patent infringement under United States law and foreign lost profits, what degree of connection must exist between the two before the foreign activity may be used to measure the plaintiff’s damages?”¹⁵¹ Likening the problem to one of determining proximate cause, Judge Wallach elaborated that the facts in *WesternGeco* were in between the extremes of sales independent of infringement, and a one-to-one correlation of infringing acts and sales.¹⁵² Nevertheless, the issue of deriving damages from this relationship is one for district court discretion. As the district court came to a decision, Judge Wallach believed *WesternGeco* was entitled to lost profits.¹⁵³

C. THE SUPREME COURT’S *WESTERNGECO* DECISION

WesternGeco appealed, and the Supreme Court again granted certiorari. In a 7–2 decision, the Court reversed the Federal Circuit concerning the lost profits award.¹⁵⁴ Generally, the Court took Judge Wallach’s view that any concerns about the lost profits being foreign were simply incidental to the actual infringement.¹⁵⁵

Delivering the opinion of the majority, Justice Thomas began by explaining the recently decided extraterritoriality inquiry framework announced in *RJR Nabisco*.¹⁵⁶ When deciding whether a statute applies to extraterritorial actions, a court must first ask whether “the presumption . . . has been rebutted.”¹⁵⁷ If not, the court must ask “whether the case involves a domestic application of

148. *See id.*; *see generally* *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016) (holding that the test for enhanced damages, as promulgated in *Seagate*, was not consistent with 35 U.S.C. § 284).

149. *WesternGeco LLC v. ION Geophysical Corp.*, 837 F.3d 1358, 1361 (Fed. Cir. 2016).

150. *Id.* at 1364.

151. *Id.* at 1365 (Wallach, J., dissenting).

152. *See id.* at 1368.

153. *See id.* at 1369.

154. *See WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2135–39 (2018) (Thomas, J., Roberts, C.J., Sotomayor, J., Alito, J., Kennedy, J., Ginsberg, J., & Kagan, J. Gorsuch, J. & Breyer, J., dissenting).

155. *See id.*

156. *Id.* at 2134, 2137; *see* *RJR Nabisco, Inc. v. European Cmty.*, 136 S. Ct. 2090 (2016).

157. *RJR Nabisco*, 136 S. Ct. at 2101.

the statute.”¹⁵⁸ Although not preferable, courts have the discretion to skip the first step and only focus on the second inquiry.¹⁵⁹ The Court exercised its discretion to begin with step two.¹⁶⁰ In doing so, the Court declined to address WesternGeco’s argument that the presumption against extraterritoriality should never apply to any damages provision.

When searching for a “domestic application” of the statute, a court must identify “the statute’s focus,” and then ask whether “the conduct relevant to that focus occurred in [the] United States.”¹⁶¹ Justice Thomas clarified further, explaining that the statute’s focus is the “object of its solicitude” in context with any cooperating provisions working in tandem.¹⁶² This includes “the conduct it seeks to regulate,” in addition to “the parties and interests it seeks to protec[t] or vindicate.”¹⁶³ If the identified conduct and purpose occurred in the United States, then the case involves a “permissible domestic application” of the statute.¹⁶⁴

Justice Thomas then recognized 35 U.S.C. § 284 as the relevant statute under the inquiry, identifying the act of “infringement” as the “statute’s focus.”¹⁶⁵ He further reasoned ION’s infringement, exporting components from the United States under 35 U.S.C. § 271(f)(2), was a domestic act and that the statute “vindicates domestic interests.”¹⁶⁶ Therefore, ION’s conduct under these two provisions, working in tandem, constituted a permissible application of the statute.¹⁶⁷ These conclusions, combined with echoing Judge Wallach’s appeal to complete compensation, per *General Motors*, permitted the lost profits award.¹⁶⁸

Likewise, the majority disagreed with ION’s argument that the award of damages was the focus of § 284. The Court reasoned that damages are “merely the means” by which the statute remedies infringement.¹⁶⁹ Additionally, the foreign activities by ION’s customers were “merely incidental to the infringement,” lacking the necessary “primacy” for a court to consider in a

158. *Id.*

159. *Id.* at 2101 n.5.

160. *WesternGeco*, 138 S. Ct. at 2136–37.

161. *Id.* at 2136.

162. *See id.* at 2137.

163. *Id.* (quoting *Superintendent of Ins. of N. Y. v. Bankers Life & Casualty Co.*, 404 U.S. 6, 10, 12 (1971)) (internal quotation marks omitted).

164. *WesternGeco*, 138 S. Ct. at 2137 (quoting *RJR Nabisco, Inc. v. European Cmty.*, 136 S. Ct. 2090, 2101 (2016)).

165. *Id.* at 2137; *see* 35 U.S.C. § 284 (2012) (“[T]he court shall award the claimant damages adequate to compensate for the infringement.”).

166. *WesternGeco*, 138 S. Ct. at 2138 (citing *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 457 (2007); *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734, 743 (2017)).

167. *See id.* at 2138.

168. *See id.* at 2137–38.

169. *Id.*

extraterritorial analysis.¹⁷⁰ In doing so, Justice Thomas asserted that ION misread *RJR Nabisco* by conflating an extraterritorial cause of action with a remedial damages provision for domestic infringement.¹⁷¹

Justice Gorsuch, followed by Justice Breyer, dissented.¹⁷² While agreeing with the majority on the question of extraterritoriality, Justice Gorsuch took exception to the Court awarding lost profits predicated on non-infringing foreign use. He believed the Patent Act prohibited the award of foreign lost profits, regardless of extraterritoriality inquiry.

Reiterating the statutory language of 35 U.S.C. § 154, Justice Gorsuch emphasized that the Patent Act grants a patent owner special monopoly privileges “throughout the United States.”¹⁷³ Actions taken outside the United States, therefore, do not infringe domestic patent rights. Furthermore, § 284 orders damages to compensate for the “infringement.”¹⁷⁴ Thus, a plaintiff may not recover for actions outside the United States as they do not constitute infringement.¹⁷⁵

Through this reasoning, Justice Gorsuch sought to divorce the exporting actions from their but-for causation of foreign sales.¹⁷⁶ Like the majority, he characterized infringement under § 271(f) as a domestically-incurred action, justifying the reasonable royalty award.¹⁷⁷ U.S. law, however, does not protect patent owners from competition outside of the U.S. borders. Therefore, foreign sales and uses were not acts of infringement. Likewise, the resulting profits were not a proper basis for awarding damages under § 284.

Justice Gorsuch argued the Court’s jurisprudence supported his analysis of the statutory text and conclusions. The Court had previously ruled in *Brown v. Duchesne* that use of an American invention on the high seas could not support awarding patent-infringement damages.¹⁷⁸ Justice Gorsuch asserted that the *Duchesne* Court held that a patent owner should only be compensated to the extent that it has “com[e] in competition with the [patent owner] where the [patent owner] was entitled to the exclusive use,” i.e., the United States.¹⁷⁹ Citing that *WesternGeco*’s only injury-in-fact was under § 271(f), Justice Gorsuch recalled *Birdsall v. Coolidge* where the Court similarly held that damages “shall be precisely commensurate with the injury suffered, neither more nor

170. *Id.* at 2138.

171. *See id.*

172. *Id.* at 2139.

173. *Id.*; see 35 U.S.C. § 154 (2012).

174. 35 U.S.C. § 284 (2012).

175. *See WesternGeco*, 138 S. Ct. at 2139–40.

176. *See id.*

177. *See id.*

178. *Id.* at 2140; see *Brown v. Duchesne*, 60 U.S. 183 (1857).

179. *WesternGeco*, 138 S. Ct. at 2140.

less.”¹⁸⁰ Justice Gorsuch also argued that the leading case on lost profits, *Yale Lock Mfg. Co. v. Sargent*, explicitly tied these types of damage awards to the extent a defendant interfered with a patent owner’s monopoly.¹⁸¹ Finally, he asserted that the history of § 271(f), as illustrated by *Deepsouth Packing*, reinforces that the focus of the statute is making and supplying the invention, not use.¹⁸² Therefore, ION’s sales, and its customers’ subsequent use, were not infringements upon WesternGeco’s monopoly rights.

If § 271(f) did preclude foreign use, Justice Gorsuch believed the majority’s logic would lead to unjust awards, de facto geographic expansion of all monopoly rights, and conflicts with other nations.¹⁸³ For example, he illustrated how the majority’s decision would create a “springboard for liability” based off of a single act of supply.¹⁸⁴ Typically damages should be tied to the instance of infringement, but now the liability would be seemingly uncapped by allowing compensation for any “foreseeable harm.”¹⁸⁵ Similarly, a plaintiff could argue that other acts of domestic infringement resulted in lost foreign profits.¹⁸⁶ Additionally, Justice Gorsuch stated that this decision constitutes an overreach into other sovereign nations’ control of their commerce.¹⁸⁷ A Supreme Court-mandated overreach would signal to other nations that they could similarly regulate U.S. commerce. Therefore, other nations could hold that their own patent rights should be able to command monopoly rents in the United States without the need for U.S. patent protection.

Justice Gorsuch concludes with a final attack on the majority’s but-for causation assumption for compensating the plaintiff to make them whole:

Allowing recovery for foreign uses, however, puts the patent owner in a *better* position than it was before by allowing it to demand monopoly rents outside the United States as well as within. . . . By failing to heed the plain text of the Patent Act and the lessons of our precedents, the Court ends up assuming that patent damages run (literally) to the ends of the earth. It allows U.S. patent owners to

180. *See id.* at 2140–41 (quoting *Birdsall v. Coolidge*, 93 U.S. 64 (1876)) (emphasis omitted).

181. *Western Geco*, 138 S. Ct. at 2131; *see Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 6 S. Ct. 934, 29 L. Ed. 954, 1886 Dec. Comm’r Pat. 172 (1886).

182. *Western Geco*, 138 S. Ct. at 2142; *see Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972).

183. *See WesternGeco*, 138 S. Ct. at 2142–43.

184. *Id.* at 2142 (Gorsuch, J., dissenting) (quoting *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 456 (2007)).

185. *Id.*

186. *Id.* (Gorsuch, J., dissenting) (suggesting that making a prototype chip to guide overseas manufacture of patent-owner-competing products would now trigger liability for lost profits from any amount of sales, under the majority’s decision).

187. *See id.* at 2143.

extend their patent monopolies far beyond anything Congress has authorized and shields them from foreign competition U.S. patents were never meant to reach.¹⁸⁸

Despite these protests, the Supreme Court made a clear decision in favor of patent rights expansion. For the first time since the passage of §§ 271(f) and (g), the Court had ruled in opposition to the presumption against extraterritoriality as applied to patent law.

IV. ANALYSIS

The Supreme Court held *WesternGeco's* lost profits award was a permissible domestic application of § 284. On its face, the scope of the holding and its subsequent effect on other worldwide damages theories is limited by the Court's reading of § 284 in context of § 271(f) and the specific facts of the case. A closer look at the reasoning behind Justice Thomas's opinion, however, reveals a less innocuous precedent.

By shaping the question of foreign lost profits into an extraterritorial liability analysis, the Supreme Court has drastically expanded the scope of acts eligible for damages, and thus patent rights.¹⁸⁹ The reasoning of this decision, however, is rooted in a rather arbitrary interpretation of § 284 and a deemphasized role of damages provisions at large. This Part argues that these two premises are flawed.

188. *Id.* at 2143–44.

189. Although the Court guised lost profits as a tack-on to domestic infringement, their decision effectively creates liability for extraterritorial use. The Patent Act, however, is clear in its explanation of the geographical scope of patent protection. Section 154 outlines the monopoly grant to the patentee: “The right to exclude others from making, using, offering for sale, or selling the invention throughout the United States.” 35 U.S.C. § 154(a)(1) (2012). U.S. territorial restrictions similarly qualify each caveat involving importation or process patents. *See* 35 U.S.C. § 271 (2012). Therefore, acts *outside* the United States do not create liability. As Justice Gorsuch notes in his dissent, nothing in the Act gives rights to foreign exclusion or liability, nor should the Court attempt to read in extraterritorial liability. *See WesternGeco*, 138 S. Ct. at 2139–42. But this is exactly what the Court has done.

That's not to say their overall policy decision is not rational. The Court wants to create a reliable connection between infringement and just compensation. This ensures trust in the monopoly-incentive system in place for patent owners. Certainly, strict adherence to the Act's language may result in loopholes, like in *Deepsouth* and *Bayer*. These loopholes can create additional risk for investment opportunities, weakening the trust in the patent system. Nevertheless, it is not the role of the courts to close these loopholes. Only Congress has that authority. The Court in *Deepsouth* recognized this, stating that courts “require a clear and certain signal from Congress” before extending patent privileges. *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972).

Still, the majority dismissed the Act's preclusion of recovery of lost profits because to do so would conflate legal injury and damages arising from the injury. But this conclusion seems myopic. To disregard the pragmatic outcomes of the decision, by divorcing § 284 from statutory injuries, looks to be an appeal to formalism without merit.

A. THE ARBITRARY APPLICATION OF THE PRESUMPTION IGNORED
STATUTORY CONTEXT AND OPENED FOREIGN LIABILITY ACROSS
ALL MODES OF INFRINGEMENT

Replete in the majority's opinion was the broader policy notion favoring a patent holder's right for full compensation: here, at the expense of geographic constraint outlined in the Patent Act.¹⁹⁰ Yet the Court limited its holding to damages occurring as a result of § 271(f) infringement.¹⁹¹ Likewise, the holdings in *Power Integrations* and *Carnegie Mellon* should be good law, preventing the recovery of foreign lost profits under § 271(a). But the Supreme Court may have created a hook for future cases, allowing judges to pull down the presumption for all infringement scenarios.

1. *Setting up the Hook: The Supreme Court's RJR Nabisco Step Two Analysis Ignores the Direct Cause of the Lost Profits*

The question for the Court was whether § 284 allowed for the recovery of foreign lost profits that ostensibly resulted from § 271(f) infringement.¹⁹² The Court could have applied the *RJR Nabisco* inquiry at the same point where the Federal Circuit had rested its decision: the geographic limit of lost profit damages. Instead, in the *RJR Nabisco* step two inquiry, the Court found the focus of § 284 to be solely “the infringement.”¹⁹³ In doing so, the Court shifted the question away from actions that incurred the foreign lost profit damages and back to the technical scope of the patent in an infringement analysis. Here, the technical scope under question was § 271(f) infringement: supplying the invention's components from the United States. In an incredible leap of logic, the Court then reasoned that because ION's actions were of domestic origin, foreign lost profits were recoverable.¹⁹⁴

The singular focus of “infringement” offers insight into the Court's use of *RJR Nabisco* step two. First, the Court finds a statute's focus to be what it regulates, rather than a broader notion of *what and how* it regulates.¹⁹⁵ Second, by only focusing on “the infringement,” inquiries into the appropriateness of foreign-occurring events cited in damages calculations are apparently not a

190. See *WesternGeco*, 138 S. Ct. at 2137–38; see also *WesternGeco LLC v. ION Geophysical Corp.*, 791 F.3d 1340, 1355–56 (Fed. Cir. 2015).

191. See generally *WesternGeco*, 138 S. Ct. at 2137–39, 2139 n.3 (choosing to limit the holding to the facts of the case without speaking on the pertinence of other doctrines).

192. See *WesternGeco*, 138 S. Ct. at 2135–39.

193. See *id.* at 2137.

194. See *id.* at 2138 (“In other words, the domestic infringement is the objec[t] of the statute's solicitude in this context. The conduct in this case that is relevant to that focus clearly occurred in the United States, as it was ION's domestic act of supplying the components that infringed *WesternGeco*'s patents. Thus, the lost profits damages that were awarded to *WesternGeco* were a domestic application of §284.”) (internal quotation marks omitted).

195. See *id.*

factor. That is, the Court's analysis would have been no different if foreign profits were not involved at all. Thus, it seems the Court was able to avoid the broader constitutional, economic, and foreign policy issues raised by the parties.¹⁹⁶ Instead, the Court attacked a strawman of whether any damages were appropriate for § 271(f) infringement at all.

2. *The Court Misidentified the Focus of § 284 During the RJR Nabisco Analysis*

The Court's "guidance" may be frustrating for practitioners and judges, but it is especially so for scholars who anticipated different approaches to the new *RJR Nabisco* framework.¹⁹⁷

The "statute's focus" determination seems counterintuitive given the interpretive instructions outlined in *Morrison v. National Australia Bank*, the statute's language, and the Court's application of the statute later in the opinion. The instruction from *Morrison*, in identifying a statute's "object of [its] solicitude," notes that the focus of the statute may include interests "the statute seeks to protect," in addition to conduct.¹⁹⁸ Yet § 284 not only regulates infringement, but also protects the interest in "adequately" compensating the infringement by offering numerous remedy modalities.¹⁹⁹ Thus, the plain text of § 284 offers much more than focusing on the infringement alone. Rather, it regulates *how* a court compensates that infringement.²⁰⁰

Although choosing not to use this interpretation, the majority inadvertently echoed this sentiment throughout the opinion. Continuing the *RJR Nabisco* step two inquiry, the majority identifies the § 271(f)-specific focus of § 284 to be "the act of exporting components from the United States."²⁰¹ Nevertheless, the Court also recognized the overriding purpose of § 284 "is to afford patent owners complete compensation for infringements," tying the scope of a § 271(f) infringement to damages.²⁰² In its response to the dissent, the Court stated that § 284's use of the term "adequate" signals a connection between the type and amount of damages to the infringement.²⁰³

196. See, e.g., *id.* at 2136–37 (refusing to rule on the whether the presumption should apply at all to damages statutes); Brief for Petitioner at 23–24, 25–26, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), 2018 LEXIS 788 at *74–78, *83–87 (arguing that comity concerns were not present in the case and that damages should be awarded to protect economic interests from unfair competition).

197. See Holbrook, *supra* note 27, at 177–85; Holbrook, *supra* note 243.

198. See *Morrison v. Nat'l Austl. Bank Ltd.*, 561 U.S. 247, 267 (2010).

199. See 35 U.S.C. § 284 (2012).

200. See *id.*

201. *WesternGeco*, 138 S. Ct. at 2138.

202. *Id.* at 2137 (internal quotation marks omitted).

203. *Id.* at 2139 ("Taken together, §271(f)(2) and §284 allow the patent owner to recover for lost foreign profits. Under §284, damages are adequate to compensate for infringement

Accordingly, § 284 is arguably focused on connecting an appropriate amount of damages to the infringement. The first line qualifies the award of damages as “adequate to compensate” for the infringement.²⁰⁴ The statute further envisions concepts of a reasonable royalty, interest, and even treble damages as to fit the award to the infringement.²⁰⁵ Therefore, the focus of the statute should be “award[ing] the claimant damages adequate to compensate for the infringement.”²⁰⁶

Given this focus, the Court would have needed to analyze each damages award within the step two inquiry. The reasonable royalty award would still find a domestic application, pointing to the infringement via domestic supplying under § 271(f).²⁰⁷ However, the Court could have analyzed the lost profits damages through two different lenses.

The first possible analytical framework argues foreign sales as a standalone injury necessitating recovery. This approach should be a straightforward application of the presumption, rejecting the award based on completely foreign events. This is similar to the reasoning in *Power Integrations*, finding the secondary effects to have occurred abroad and thus cutting off the proximate causation analysis chain. The second argues that the § 271(f) infringement proximately caused foreign profits, and thus the damages are connected to a domestic application of the statute. Under this approach, the Court would need to analyze the interaction of the presumption and proximate cause, settling the conflict between the two doctrines.

Either of these approaches would have appropriately considered the context of § 284. Likewise, they would sustain the holdings in *Power Integrations* and *Carnegie Mellon*, or at least leave room to distinguish. Yet the Court’s method, identifying “infringement” as the focus of § 284, appears to have done the opposite.²⁰⁸

3. *The Court Opened Foreign Lost Profit Damages to All Mechanisms of Infringement*

The Court attempted to limit its finding of domestic application to the focus of § 284, read in tandem with § 271(f).²⁰⁹ But the general method of excluding the means and adequacy qualifiers of § 284 leave few obstacles to expand the Court’s holding to all types of patent infringement.²¹⁰

when they plac[e] [the patent owner] in as good a position as he would have been in if the patent had not been infringed.”) (internal quotation marks omitted).

204. 35 U.S.C. § 284 (2012).

205. *Id.*

206. *Id.*

207. 35 U.S.C. § 271(f) (2012).

208. *WesternGeco*, 138 S. Ct. at 2137.

209. *See id.* at 2137–38.

210. *See id.*

An intuitive comparison suggests that § 271(f) should be the most difficult statute to derive foreign lost profits from, by finding a “domestic application.” After all, § 271(f) is a rare exception to the technical and geographic scope of patent rights. It would make sense that most other infringement provisions would point to a domestic application. And, as mentioned above, the Supreme Court’s analysis was agnostic to the specific facts and contentions concerning the lost profits.²¹¹ But there is no need to depend on intuitive reasoning from the Court’s methods, as they promulgated a concrete example of their approach to the *RJR Nabisco* inquiry.²¹²

Take § 271(a) as an example for the *RJR Nabisco* framework. A court need not use step one to see if the presumption has been rebutted. In step two, a court would find, again, the focus of § 284 to be “the infringement.” Now reading § 271(a) into the focus, a court would find the focus of § 284 to be the act of making, using, selling, or importing “any patented invention, within the United States.”²¹³ This focus clearly concerns a domestic application of the statute. So by the Supreme Court’s logic, this justifies awarding damages for any but-for caused foreign lost profits.

This framework would reach similar results for §§ 271(b), (c), and (g). While § 271(b) does not explicitly mention a domestic focus in its text, its ties to a finding of infringement by another party would likely cause the Court to read a domestic application into their inquiry for an inducer.²¹⁴ Similarly, the scienter requirements from §§ 271(f)(1) and (2) are taken from §§ 271(b) and (c), suggesting the willingness of the Court to interpret a parallel domestic application.²¹⁵ Section 271(g) explicitly requires domestic activity.²¹⁶

Despite the Supreme Court’s choice not to overturn *Power Integrations* and *Carnegie Mellon*, it is unlikely these cases are still good law. It remains to be seen whether the Court’s logic is used to unlock foreign profits under different infringement types, but it will not take long. The district court for the remanded damages trial in *Power Integrations* recently granted *Power Integrations*’ Rule 60(b)(6) motion for relief, along with certifying the case for interlocutory appeal back to the Federal Circuit.²¹⁷ In the order, the district court believed *WesternGeco* had overruled *Power Integrations*, finding the Court’s reasoning to have “equal applicability to the direct infringement allegations”

211. *See id.*; *see supra* Section IV.A.1.

212. *See id.*

213. 35 U.S.C. 271(a) (2012).

214. 35 U.S.C. 271(b) (2012).

215. *See Cummings, supra* note 74, at 868.

216. 35 U.S.C. 271(g) (2012) (“[I]mports into the United States . . .”).

217. *See Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 2018 U.S. Dist. LEXIS 171699 (D. Del. Oct. 4, 2018).

under § 271(a).²¹⁸ Thus it is likely that the Federal Circuit will follow the Supreme Court and reverse its prior holding in the *Power Integrations* appeal.

B. *WESTERNGECO'S* DIMINISHMENT OF DAMAGES STATUTES
ELIMINATES GEOGRAPHIC LIMITATIONS ON DAMAGES WHILE
LEAVING A ROLE FOR PROXIMATE CAUSE

Beyond the immediate influence on lost profit claims, *WesternGeco* has created new areas of legal tension. The Court's reasoning cut into the scope of the presumption against extraterritoriality, likely diminished the influence of remedial statutes, and opened a new role for proximate cause doctrine. In doing so, the Court has left much uncertainty in its wake. The Court's analysis, however, may offer clues on how courts will resolve these problems.

1. *Diminishing the Role of Damages Statutes Took the Wind out of ION's Sails*

The Court's *RJR Nabisco* conclusion stands in contrast to ION's assertion that the focus of § 284 was "self-evidently on the award of damages."²¹⁹ In its response to ION's brief, the Court further expanded on its rationale in awarding foreign lost profits.

The Court first dismissed ION's argument, saying "what a statute authorizes is not necessarily its focus," and that it may instead be the conduct, parties, or interests it is meant to protect.²²⁰ And interestingly, the Court diminished the importance of damages provisions, arguing they have no statutory focus in themselves.²²¹

Although again inadvertently admitting that the "ends" of the statute are "remedying infringement," the Court sought to justify its *RJR Nabisco* step two conclusion by devaluing the role of damages provisions.²²² The Court accomplished this by describing its view of remedial provisions as nothing more than tack-ons to findings of infringement: "Damages themselves are merely the means by which the statute achieves its end of remedying infringements."²²³ Consistent with the Court's agnosticism toward the foreign activity leading to lost profits, the Court tied the award's authorization to being determined only by the infringement inquiry.²²⁴ Labeling the foreign acts as "merely incidental" to the infringement, the Court found that they lacked the "primacy" to qualify for extraterritorial analysis.²²⁵ Therefore, the Supreme

218. *See id.* at *4.

219. *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2138 (2018).

220. *Id.*

221. *See id.*

222. *See id.*

223. *See id.*

224. *See id.*

225. *See id.*

Court restricted the presumption against extraterritoriality and the geographic scope of a patent to only questions of infringement.

This diminishment of damages statutes, and the presumption's role, obviated ION's arguments for upholding the Federal Circuit's decision. But at what cost? The Court may have opened the door for worldwide theories of damages under *any* infringement modality. Without an explicit appeal to proximate cause, with or without the geographic limitations in *Power Integrations*, any but-for caused effect could be identified as a reason to increase damages awards, necessary to "complete[ly] compensate" for the infringement.²²⁶ If there was an opportunity to cure the Court's devastating blow to the presumption and damages provisions, it would have been with a proximate cause ruling.

Instead, the Court continued to suggest that but-for caused injuries were enough to justify foreign-based damages, while dismissing ION's argument based on its holding in *RJR Nabisco*.²²⁷ ION argued that since the Court found against RICO damages claims based entirely on an injury caused abroad, the instant application of § 284 would require an extraterritorial use of the statute.²²⁸ The Court, however, implicitly distinguished the immediate situation as rooted in domestic activity.²²⁹ And still, the Court did not clarify what the scope of that domestic injury may be, begging for a proximate cause inquiry.²³⁰ But by choosing to limit the focus of § 284 to only infringement, the Court was able to ignore the proximate cause question, and eliminate the double duty of a patent's geographic scope.²³¹

2. *No More Double-Dipping for Territorial Limitations, and Losing Focus on Damages*

The Federal Circuit's ruling in *Power Integrations* briefly ushered in a powerful bright-line rule against recovery of extraterritorial lost profit damages.²³² While the technical scope of a patent and any but-for cause or proximate cause inquiries would only apply to questions of infringement liability, courts would enforce the geographic scope of a patent for both infringement and damages.²³³ With its decision in *WesternGeco*, the Supreme Court has, at the very least, relegated the geographic scope solely to questions of liability. But, its methods of doing so may have been heavy-handed, resulting

226. *Id.* at 2137.

227. *See id.* at 2138–39.

228. *Id.* at 2138.

229. *See id.* at 2138–39.

230. *See id.*

231. *See id.* at 2139 n.3.

232. *See generally* *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348 (Fed. Cir. 2013) (preventing the award of damages predicated on extraterritorial acts).

233. *See Yelderman, supra* note 8, at 2.

in the presumption being unable to apply to *any* damages provisions whatsoever.

WesternGeco argued in its brief that damages provisions should be universally free from the presumption against extraterritoriality.²³⁴ Still, the Court made a point to refrain judgment on this matter.²³⁵ This was the impetus for skipping *RJR Nabisco* step one.²³⁶ Knowing that this exercise could “implicate many other statutes besides the Patent Act,” the Court instead opted for dealing with § 284 in step two.²³⁷

Nevertheless, the Court’s characterization of damages as “merely the means by which the statute achieves its end,” encourages other courts to ignore the connection between damages and liability for *RJR Nabisco* step two.²³⁸ If damages are categorically ineligible as the “object of the statute’s solicitude,” then there is little stopping a case-by-case immunity from the presumption for *all* damages provisions: patents, torts, or otherwise.

This Note does not seek to examine every damages statute outlined in U.S. law, but one may imagine some exceptions. For example, a statute could have various remedial modifiers to “the infringement” equivalent, dragging those qualifiers into the focus of the statute. But it is uncertain what the aggregate effect of other interpreted statutes would have on these arguments.

3. *The Court Should Not Ignore the Weight of Damages Provisions*

Regardless of the Court’s analysis, awarding foreign lost profits signals liability for non-infringing actions. The profits, operations, and life of a company are affected by damages statutes. Therefore, these statutes play a bigger role in laws than being “merely the means by which the statute achieves its end[s].”²³⁹

Accordingly, courts should not separate cause of liability and the source of the corresponding damages for the purpose of extraterritoriality. They must work together to deliver justice, and they do. A liability provision without recourse is meaningless. An accurate determination of damages must look to the scope of liability. The Court acts as if there is a formalist basis for ignoring their combined effect in law, but there is none.

WesternGeco and scholars assured the Court that other doctrines, like proximate cause and reasonable certainty, would functionally take the place of

234. See Brief for Petitioner at 20–25, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), 2018 LEXIS 788, at *64–83.

235. See *WesternGeco*, 136 S. Ct. at 2136.

236. See *id.*

237. *Id.*

238. *Id.* at 2138.

239. *Id.* at 2134.

the presumption in properly awarding foreign-based damages.²⁴⁰ In fact, some have argued that the pre-*Power Integrations* regime under-compensated patent owners due to the difficulty of showing causation.²⁴¹ The Supreme Court's decision, therefore, may correct an injustice in not having owners "fully compensated." These points are reasonable, but Court failed to execute a replacement regime on their own. Indeed, the Court's refusal to settle the clash between proximate cause and the presumption of extraterritoriality is a glaring omission. Perhaps the Court is looking to lower courts for a solution.

4. *Lower Courts Will Likely Establish an Update to Rite-Hite in a Newer Proximate Cause Framework*

In *WesternGeco*, the Supreme Court expressly avoided ruling on the proximate cause doctrine as a means to limit patent damages.²⁴² In fact, Justice Thomas's opinion did not mention the connection of the survey contracts to ION's infringement at all. While it is unlikely that the Court was promoting an abandonment of proximate cause as a necessary hurdle to collect any asserted lost profits, they were careful not to opine on the matter. The Supreme Court may have omitted attention to proximate cause in hopes that lower courts would revisit the matter on remand.

At least some legal scholars have suggested the Federal Circuit may consider the issue in *WesternGeco* on remand.²⁴³ In the instant case, proximate cause was a major topic in both the petitioner's and respondent's Supreme Court briefs, in addition to various *amici curiae*.²⁴⁴ Notwithstanding the demotion of the issue to a footnote in the majority's opinion, the parties and the Court heavily discussed proximate cause during oral argument.²⁴⁵

WesternGeco's general appeal to proximate cause was that, beyond their lost profits being reasonably foreseeable, it should replace the application of the presumption against extraterritoriality in all remedial provisions for domestic infringement. Proximate cause, along with concepts of reasonable certainty and foreseeability, they argue, is sufficient to "keep damages awards within their proper scope."²⁴⁶ ION had asserted that the presumption applied

240. See Brief for Petitioner at 25, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), 2018 LEXIS 788, at *83.

241. See Yelderman, *supra* note 8, at 3–4 ("Taken to its logical conclusion, damages subjected to a geographic screen will fail to restore the patentee to her rightful position in all cases in which some portion of her lost profits would have come from overseas.").

242. *WesternGeco*, 138 S. Ct. at 2139 n.3.

243. Tim Holbrook, *Guest Post by Prof. Tim Holbrook: WesternGeco's Implications for Patent Law and Beyond*, PATENTLY O (2018), <https://patentlyo.com/patent/2018/06/holbrook-westerngecos-implications.html> [<https://perma.cc/DE8Q-BZ69>].

244. See *id.*

245. See *id.*

246. See Brief for Petitioner at 25, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), LEXIS 788, at *83.

even where plaintiffs proved proximate cause.²⁴⁷ Yet ION may rely on theories advanced in *amicus curiae* briefs, arguing that proximate cause analysis renders use of the patented technology as too remote to justify lost profits.²⁴⁸ Additionally, while the presumption will no longer apply to damages, the extraterritorial nature of the infringement may be considered in determining whether the lost profits were too remote.²⁴⁹ Upon remand, the Federal Circuit will have the opportunity to engage these arguments.

V. REBRANDING EXTRATERRITORIALITY AS COMITY CONSIDERATIONS FOR PROXIMATE CAUSE

WesternGeco has seemingly erased the presumption against extraterritoriality when awarding foreign lost profits. The Supreme Court, however, may have left an opportunity for courts to geographically limit a plaintiff's reach for damages. By refraining from ruling on the matter of proximate cause, practitioners are free to pursue an expanded policy-driven doctrine that includes values and concepts borrowed from the presumption against extraterritoriality. By importing geography, sovereignty, and comity into considerations of "remoteness," a refined proximate cause doctrine may salvage some familiar restrictions to worldwide damages recovery.

A. PROXIMATE CAUSE AS A POLICY-DRIVEN DOCTRINE

The doctrine of proximate cause, at its most elementary manifestation, seeks to answer the philosophical question of what is a liability-worthy causation.²⁵⁰ That is, what or who was *legally* responsible for an injury.²⁵¹ Yet relegating the connection between actions and liability to this philosophical inquiry has largely resulted in an unsatisfying discovery: causation cannot be reduced to a single concept.²⁵²

Although reasonable foreseeability via proximate cause is a commonly used approach in torts, some have argued that an economic efficiency torts regime is better served when liability is assigned to the party best able to internalize it.²⁵³ The latter approach largely does away with the notion of

247. Brief for Respondent at 26, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), LEXIS 1206, at *89.

248. Brief of Intellectual Property Law Scholars as Amicus Curiae in Support of Neither Party at 10, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), LEXIS 860, at *31.

249. *See id.* at *28–29.

250. *See* William M. Landes & Richard A. Posner, *Causation in Tort Law: An Economic Approach*, 12 J. LEGAL STUD. 109, 109 (1983); *see also* LEGAL THEORY LEXICON, *supra* note 99.

251. *See* LEGAL THEORY LEXICON, *supra* note 99.

252. *See* Landes & Posner, *supra* note 250, at 109.

253. *See id.* at 110.

causation altogether or at least excises it of normative notions.²⁵⁴ Scholars have criticized this utilitarian divorce of causation from ethics as leading to amoral assignment of liability.²⁵⁵ But even this appeal to righteous judgment fails to bring causation back to the realm of philosophy and first principles.

Rather, much of the conventional debate and causation jurisprudence, including proximate causation, interprets the doctrine as driven by policy goals.²⁵⁶ The Prosser and Keaton torts treatise notably expressed this view of proximate cause.²⁵⁷ In addition to characterizing proximate cause as a positivist tool, Prosser and Keaton take aim at foreseeability and directness as flexible concepts.²⁵⁸ Not only do these concepts poorly predict case results, they offer great leeway to judges and juries. This leeway leaves judges and juries as the ultimate gatekeepers for deciding liability, allowing them to freely rationalize even the most exceptional decisions.²⁵⁹ Others describe proximate cause more simply as a normative policy of line-drawing.²⁶⁰

Yet the prevailing view of proximate cause in patent infringement cases, as promulgated in *Rite-Hite*, is one solely characterized by “reasonable, objective foreseeability.”²⁶¹ In fact, the court in *Rite-Hite* denied the defendant’s policybased arguments for limiting their infringement liability.²⁶² And although that court seemed open to policy considerations, subsequent cases have only utilized the foreseeability inquiry.²⁶³

254. *See id.* at 134; Jules L. Coleman, *Doing away with Tort Law*, 41 LOY. L. REV. 1149, 1163–64 (2008).

255. *See id.*

256. *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 701 (2011) (“[T]he phrase proximate cause is shorthand for the policy-based judgment that not all factual causes contributing to an injury should be legally cognizable causes.”) (internal quotation marks omitted).

257. *See* W. KEETON, PROSSER AND KEETON ON THE LAW OF TORTS, 273 (5th ed. 1984) (describing proximate cause as “whether the policy of the law will extend the responsibility for the conduct to the consequences which have in fact occurred”).

258. *See* Kelley, *supra* note 31, at 52.

259. *See id.*

260. *See* Sandra F. Sperino, *Statutory Proximate Cause*, UNIVERSITY OF CINCINNATI COLLEGE OF LAW: FACULTY ARTICLES AND OTHER PUBLICATIONS, Paper 226, 1199, 1202 (2013).

261. *See* *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546 (1995).

262. *See id.* at 1547.

263. *See id.* at 1548–49 (“Kelley has thus not provided, nor do we find, any justification in the statute, precedent, policy, or logic to limit the compensability of lost sales of a patentee’s device that directly competes with the infringing device if it is proven that those lost sales were caused in fact by the infringement. Such lost sales are reasonably foreseeable and the award of damages is necessary to provide adequate compensation for infringement under 35 U.S.C. § 284.”); *see, e.g.*, *Micro Chem., Inc. v. Lextron, Inc.*, 318 F.3d 1119, 1125–26 (Fed. Cir. 2003) (holding that lost sales that were reasonably foreseeable were appropriate for damages calculations); *Stryker Corp. v. Intermedics Orthopedics, Inc.*, 96 F.3d 1409, 1417 (Fed. Cir. 1996) (upholding the district court’s use of reasonably foreseeable lost sales to calculate

Nevertheless, recent Federal Circuit causation jurisprudence does not preclude the court from revisiting the doctrine, nor is it binding upon the Supreme Court. The Federal Circuit has the opportunity on remand to reconsider the role of policy in proximate cause, following their initial recognition of Prosser and Keaton's view of the doctrine in *Rite-Hite*.²⁶⁴ Furthermore, there has been a recent trend within the Supreme Court to rein in the Federal Circuit's patent jurisprudence to more closely align with common law principles.²⁶⁵ Therefore, the time is ripe to proffer appropriate policy-based limitations to patent liability.

B. COMITY AS A POLICY LIMITATION ON PROXIMATE CAUSE OF PATENT INFRINGEMENT DAMAGES

Courts may salvage multiple policies from the presumption against extraterritoriality.²⁶⁶ One example is comity, as to facilitate predictable and amicable international relations and trade.

The doctrine of comity stems from the idea of Westphalian sovereignty, that nation-states have exclusive control over their territories and that foreign actors respect their hierarchal authority.²⁶⁷ Comity contends that laws of one

damages); *Minco, Inc. v. Combustion Eng'g, Inc.*, 95 F.3d 1109, 1118 (Fed. Cir. 1996) (“[T]he patent holder may recover for an injury caused by the infringement if it was or should have been reasonably foreseeable”) (internal quotation marks omitted).

264. See *Rite-Hite*, 56 F.3d at 1546 (quoting W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS § 42, at 279 (5th ed. 1984)) (“The general principles expressed in the common law tell us that the question of legal compensability is one to be determined on the facts of each case upon mixed considerations of logic, common sense, justice, policy and precedent.”) (internal quotation marks omitted).

265. See, e.g., *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060 (2011) (using the common law doctrine of willful blindness to hold an infringer liable, although they had intentionally avoided knowing whether a relevant patent existed); *Impression Prods. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1526 (2017) (holding that patent rights must yield to the common law principle against restraints on alienation of chattels). *But see* *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S. 915, 924–25 (rejecting the notion that § 271(b) should be read against an aiding and abetting common law background).

266. Other policy considerations for proximate cause as applied to *WesternGeco* have been suggested by Professor Holbrook. See Holbrook, *supra* note 27, at 1791–93. Another example would be the territorial location, or geographic remoteness, of the injury or source of damages. While not an absolute bar to recovery, this policy factor examines the proximity of the injury to domestic infringement. A combination of this inquiry with other findings of remoteness (such as a foreseeable, yet downstream but-for cause of lost profits) may be sufficient to reduce a defendant's overall liability.

267. See STEPHEN D. KRASNER, SOVEREIGNTY, ORGANIZED HYPOCRISY 20 (1999); Joel R. Paul, *The Transformation of International Comity*, 71 LAW & CONTEMP. PROBS. 19, 22 (2008). For further reading on the modern role of ideas of sovereignty, see generally JENS BARTELSON, A GENEALOGY OF SOVEREIGNTY (1995) (proposing a novel method of analyzing the evolution of various concepts of sovereignty in international law); GENE M. LYONS & MICHAEL MASTANDUNO, BEYOND WESTPHALIA? STATE SOVEREIGNTY AND

state should apply everywhere as long as they do not conflict with the laws of other nations.²⁶⁸ Said differently, nations should not interfere with the domestic laws of other nations. As such, comity has long been a policy interest of U.S. patent law.²⁶⁹ Therefore, it is reasonable to limit infringement liability on the grounds that enforcing U.S. patent laws, predicated on foreign activity, may disrupt international cooperation.²⁷⁰

But this policy consideration for proximate cause is not only reasonable; it also restores many jurisprudential values that have become vulnerable after *WesternGeco*. Echoing *Brown v. Duchesne*, comity-derived proximate cause deliberations may help reestablish separation of powers between the courts and Congress.²⁷¹ As some scholars have called for increased international cooperation in designing and enforcing intellectual property regimes, it is imperative that courts refrain from self-help and yield to Congress.²⁷² Enshrining comity also encourages the reciprocal relationship that courts should look to foreign patent regimes for guidance in determining the overall culpability of alleged infringers.²⁷³ This, in turn, facilitates mutual respect for U.S. domestic patent laws. The mutual respect for sovereign patent regimes is critical for predictability, which otherwise erodes state and individual economic efficiencies via confusing and clashing standards.²⁷⁴ In summary, it

INTERNATIONAL INTERVENTION (1995) (focusing on the shift of sovereignty policy away from the rights of individual states and toward membership of the international community).

268. Ernest G. Lorenzen, *Huber's De Conflictu Legum*, 13 ILL. L. REV. 375, 376 (1919) (“Sovereigns will so act by way of comity that rights acquired within the limits of a government retain their force everywhere so far as they do not cause prejudice to the powers or rights of such government or of their subjects.”).

269. See Holbrook, *supra* note 27, at 1786 (“All of the Supreme Court cases addressing the presumption specifically recognize that one reason for the presumption is to avoid such conflicts. At times, this concern is articulated as aspects of comity.”).

270. See Brief of Intellectual Property Law Scholars as Amicus Curiae in Support of Neither Party, *supra* note 248, at *15–16. For further reading on international IP agreements and coordination, see generally Daniel J. Hemel & Lisa Larrimore Ouellette, *Knowledge Goods and Nation-States*, 101 MINN. L. REV. 167 (2016) (arguing for a global knowledge-as-a-public-good promoting regime through uniform taxation).

271. See *Brown v. Duchesne*, 60 U.S. 183, 195, 198 (1857) (“[Patent law] confers no power on Congress to regulate commerce, or the vehicles of commerce, which belong to a foreign nation . . . [W]e must interpret our patent laws with reference to our own Constitution and laws and judicial decisions.”).

272. See Hemel and Ouellette, *supra* note 272.

273. See Timothy R. Holbrook, *Extraterritoriality in U.S. Patent Law*, 49 WM. & MARY L. REV. 2119, 2163–68 (2008).

274. If a state’s laws generally erode these efficiencies, being subject to multiple competing and clashing laws and sources only exacerbates the effect. See generally HANS-HERMANN HOPPE, A THEORY OF SOCIALISM AND CAPITALISM 27–29 (1989) (asserting that increasing the burden of laws on an individual reduces their ability to invest time in higher-return and long-term endeavors, i.e., increases time preference).

is not only reasonable to utilize a comity standard for proximate cause, it is necessary.

Although the implementation of a comity standard will be ultimately left to the discretion of the courts, some scholars have suggested that they may look to other comity uses in the law. For example, the Ninth Circuit recently contemplated various comity factors when evaluating the extraterritorial reach of the Lanham Act.²⁷⁵ Some scholars have suggested that these factors may play a role outside of the *RJR Nabisco* analysis, perhaps amenable to incorporation in proximate causation policy.²⁷⁶ Comity was explicitly raised as a guiding policy in employing proximate cause to limit antitrust liability in *Empagran S.A. v. F. Hoffmann-Laroche*.²⁷⁷ Although the court did not elaborate in great detail how they factored comity in proximate cause, they did criticize but-for causation tests as being deficient in matters where it would otherwise create “unreasonable interference with the sovereign authority of other nations.”²⁷⁸ This suggests, at least, that comity could be used to increase the burden on a plaintiff, requiring a stronger showing of proximate cause than for domestic damages.

C. A COMITY-DRIVEN GEOGRAPHIC LIMITATION TO PROXIMATE
CAUSE RECONCILES *WESTERNGECO* WITH FEDERAL CIRCUIT
JURISPRUDENCE

In addition to recovering liability protections lost to *WesternGeco* and having some precedent in guiding implementation, a comity-focused inquiry of proximate cause may be able to mend the lingering friction between the Supreme Court’s ruling and the Federal Circuit’s previous extraterritorial lost profit decisions.

As discussed previously, a strict application of the *RJR Nabisco* inquiry in *Power Integrations* would likely lead to a reversal and award of foreign lost profits. Some scholars, however, have suggested that traditional proximate cause considerations and jurisprudence would preclude recovery, without the need

275. See *Trader Joe’s Co. v. Hallatt*, 835 F.3d 960, 972–73 (9th Cir. 2016) (“[1] the degree of conflict with foreign law or policy, [2] the nationality or allegiance of the parties and the locations or principal places of business of corporations, [3] the extent to which enforcement by either state can be expected to achieve compliance, [4] the relative significance of effects on the United States as compared with those elsewhere, [5] the extent to which there is explicit purpose to harm or affect American commerce, [6] the foreseeability of such effect, and [7] the relative importance to the violations charged of conduct within the United States as compared with conduct abroad.”).

276. See Brief of Intellectual Property Law Scholars as Amicus Curiae in Support of Neither Party, *supra* note 248, at 17–18; Melissa Feeney Wasserman, *Divided Infringement: Expanding the Extraterritorial Scope of Patent Law*, 82 N.Y.U. L. REV. 281, 303–04 (2007).

277. See *Empagran S.A. v. F. Hoffmann-Laroche*, 417 F.3d 1267, 1271 (D.C. Cir. 2005).

278. *Id.* at 1271 (quoting *F. Hoffman-La Roche, Ltd. v. Empagran S.A.*, 124 S. Ct. 2359, 2366 (2004)).

for a strict geographic limit imposed by the presumption.²⁷⁹ Professor Yelderman argues that because the plaintiff's theory for foreign lost profits did not sufficiently account for non-infringing substitutes, Federal Circuit precedent analyzing the matter through proximate cause would have precluded recovery.²⁸⁰ Given a more stringent comity-based proximate cause analysis, a court would likely find the foreign lost profits even more remote.

Similar to *Power Integrations*, application of a policy-oriented proximate cause analysis in *Carnegie* would likely result in denial of foreign lost profits. The plaintiff asserted that the defendant would not have made foreign sales of foreign-manufactured chips—which could perform the patented *method*—if they had not infringed by domestically performing the method.²⁸¹ Professor Holbrook argues that a traditional view of proximate cause may have barred recovery of lost profits.²⁸² Again, the addition of comity to the analysis would further burden the plaintiff.

While both Federal Circuit case outcomes are consistent with a policy-based proximate cause inquiry, *WesternGeco* is slightly more nuanced. Holbrook argues the use of the infringed technology as the basis for the foreign profits is too removed from the infringing act of domestic supply to recover under a proximate cause analysis.²⁸³ Professor Yelderman disagrees, arguing that the plaintiff made an “extremely strong showing of proximate causation,” sufficient for recovery. *WesternGeco*, however, had only made a but-for causation assertion—although one appealing to foreseeability—without a proximate cause-specific counter to the attenuation between the infringing acts and foreign use of the invention.²⁸⁴ Still, the Court was well aware of these facts, and reversed the Federal Circuit. Furthermore, the use of the streamers occurred on the high seas, where there is no sovereign law or patent regime to usurp. Therefore, it is likely that a comity-driven proximate

279. See Yelderman, *supra* note 8, at 10.

280. See *id.* (citing *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1268 (Fed. Cir. 2008)).

281. See *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1305 (Fed. Cir. 2015).

282. See Brief of Intellectual Property Law Scholars as Amicus Curiae in Support of Neither Party, *supra* note 248, at *28–32; see also Timothy R. Holbrook, *Extraterritoriality and Proximate Cause after WesternGeco*, 21 YALE J.L. & TECH. 189, 222–23 (2019) (arguing that the lost profits in *WesternGeco* were removed from the infringing act).

283. See Holbrook, *supra* note 282, at 24.

284. See *generally* Reply Brief for Petitioner at 10–11; *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011), LEXIS 1458, at *35–36 (offering a conclusory statement that the lost profits were foreseeable from ION's act of infringement); Brief for Petitioner, *supra* note 246 (failing to present a specific showing of proximate cause between ION's acts and the lost profits); Transcript of Oral Argument, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011) (failing to present a specific showing of proximate cause between ION's acts and the lost profits).

cause doctrine would leave *WesternGeco* in place while simultaneously retaining the outcomes in *Power Integrations* and *Carnegie*.

VI. CONCLUSION

The Supreme Court set out to create a very narrow extraterritoriality holding, applied to the limited § 271(f) exception of domestic U.S. patent laws. Despite neglecting salient issues, they failed. The Court's decision in *WesternGeco* wrongly expanded patent rights, predicated on an arbitrary interpretation of § 284 that creates deep strains of uncertainty in the role of damages statutes, perhaps writ large. This uncertainty places the burden of its resolution on the shoulders of the Federal Circuit, other courts, and practitioners. A comity-influenced doctrine of proximate cause may be able to assist these parties.

But for the time being, *WesternGeco* likely produces mixed feelings for an economic audience. For some, this decision ends another loophole preventing full compensation for infringement. As of right now, worldwide sales do not seem to require a full proximate cause analysis, representing a potential boon for both practitioners and plaintiffs. In an ever-connected society, where copying and pirating technology continues to pace other technological developments, *WesternGeco* provides some much-needed relief for patent owners.

For other economic participants, *WesternGeco* represents a threat of near-endless liability. Without a proper proximate cause framework to reel in the uncapped nature of worldwide sales and lost profits theories, competitors may be less likely to produce ambiguously infringing technology, compete in previously safe jurisdictions, and contribute to lower consumer costs. The general vagueness of what is too remote to trigger infringement, and how state's borders temper this inquiry, only increases risk in the market. This, in turn, facilitates a centralization of organizations that can pragmatically take on entrepreneurial risks.²⁸⁵ Given the growing antitrust concerns in fields of technology, *WesternGeco* does little to quell the fears of neo-gilded age doomsayers.²⁸⁶

Nevertheless, the Federal Circuit has the opportunity to mend the open-ended decisions made in *WesternGeco*. First, the court will likely standardize the Supreme Court's *RJR Nabisco* inquiry as to allow foreign lost profits regardless of infringement type. Next, it will need to settle the clash

285. Increasing the burden of laws on individual actors raises barriers to entry into various economic activities. This disproportionately affects those with fewer resources. *See Hoppe, supra* note 274.

286. *See* Christopher Shay, *Tim Wu Goes After the Titans of the New Gilded Age*, NATION (Nov. 13, 2018), <https://www.thenation.com/article/tim-wu-interview-curse-bigness> [<https://perma.cc/P5RN-3BR5>].

between the presumption against extraterritoriality and proximate cause analysis. And finally, it will need to distinguish the Supreme Court's divorcing of damages provisions writ large from the presumption.

But it is likely that some of the burden will likely fall on the Supreme Court in the future. Congress and the Executive may take some interest in navigating patent issues in certain trade deals and other foreign affairs. Yet the role of damages provisions in the overall scheme of comity, if decided by a court, will need to be decided by the highest court in the land. As the Supreme Court has chosen to export U.S. law across the globe, it is imperative that it recognizes that responsibility instead of ignoring core issues.

EXPLORING PATENT TAKINGS AFTER *OIL STATES*

Concord Cheung[†]

Should patent owners be owed compensation when their patents are invalidated through inter partes proceedings? The Supreme Court left open this question when it held in *Oil States Energy Services, LLC v. Greene's Energy Group, LLC* that the inter partes review (IPR) process did not violate Article III or the Seventh Amendment.¹

Under the Takings Clause, the government must provide property owners with just compensation when it appropriates private property for public use. The regulatory takings doctrine encompasses a variety of property rights that government regulations have deprived. This doctrine should be extended to determine whether patents invalidated in the IPR process are takings that require just compensation.

This Note explores the ramifications of applying the regulatory takings jurisprudence to patent invalidations during IPR proceedings. Part I provides background information in patent post-grant proceedings and developments in regulatory takings. Part II discusses the *Oil States* opinions. Part III explores which patent rights should be eligible for takings analysis and a framework for performing this analysis.

I. LEGAL BACKGROUND

A. PATENT GRANTS AND REVIEWS

While the goal of the patent system “[t]o promote the progress of science and useful arts”² is a worthy one, the system has required continual adjustments. Over time, Congress has introduced additional requirements that applicants must satisfy in order to exclude unworthy inventions from being patented.³

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1378–79 (2018).

2. U.S. CONST. art. I, § 8, cl. 8.

3. In the current system, the United States Patent and Trademark Office issues patents for inventions that meet requirements such as patentable subject matter, utility, novelty, nonobviousness, and disclosure. *See* 35 U.S.C. §§ 101–103, 112.

In the early patent statutes, applicants only needed to register their invention to be granted patents.⁴ However, applicants quickly learned to abuse the system, resulting in a multitude of low-quality, “useless” patents that did little to advance the progress of science and the useful arts.⁵

Congress attempted to combat this issue by creating the Patent Office to examine applications before granting patents and more recently by adding post-grant procedures to fix erroneously granted patents.⁶ The IPR process is the most recently implemented of these post-grant proceedings.⁷ *Oil States* addressed the constitutionality of this latest effort by Congress to maintain the quality of issued patents.⁸ This Note further explores whether the IPR proceeding has gone too far and requires a constitutional check through the takings doctrine.

1. Early Post-Grant Procedures

The first post-grant procedure was the ex parte reexamination process enacted in 1980.⁹ This review process allowed both patent owners and third parties to request the U.S. Patent and Trademark Office (PTO) to review the validity of issued patents. Any third party can submit a piece of prior art reference that may affect the patentability of a patent claim and request the PTO to reexamine the claim.

The constitutionality of this first post-grant proceeding was affirmed by the Federal Circuit in *Patlex*.¹⁰ Appellant Patlex Corporation owned two patents granted prior to 1980. While Patlex was engaged in a patent infringement suit with a competitor, the ex parte reexamination statutes were enacted and applied retroactively to Patlex’s patents.¹¹ The PTO granted a reexamination request and Patlex immediately sued to stay the reexamination by raising a variety of challenges, including violations of the Due Process Clause, Seventh Amendment, Article III powers, and the statutory powers of Congress.¹²

The Federal Circuit dismissed the Seventh Amendment and Article III challenges, finding that “the grant of a valid patent is primarily a public

4. See, e.g., Patent Act of 1790, ch. 7, 1 Stat. 109 § 1 (1790) (repealed 1793).

5. See Edward C. Walterscheid, *Patents and Manufacturing in the Early Republic*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 855, 888 (1998) (quoting Letter from William Thornton to Amos Eaton (May 5, 1809)).

6. See Patent Act of 1836, ch. 357, 5 Stat. 117 §§ 1–2 (1836); Bayh-Dole Act, Pub. L. No. 96-517, ch. 30, 94 Stat. 3015 (1980).

7. 35 U.S.C. § 311 (2012).

8. See *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365 (2018).

9. Bayh-Dole Act, Pub. L. No. 96-517, ch. 30, 94 Stat. 3015 (1980).

10. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 607 (Fed. Cir. 1985).

11. *Id.* at 602 (“Congress, without apparent objection, applied the legislation to all unexpired patents.”).

12. *Id.* at 596.

concern” as only Congress, which has delegated authority to the PTO, can grant a patent.¹³ As the purpose of the reexamination proceeding is to correct government and not private mistakes, “[a] defectively examined and therefore erroneously granted patent must yield to the reasonable Congressional purpose of facilitating the correction of governmental mistakes.”¹⁴ Neither the Seventh Amendment nor Article III were found to be violated.¹⁵

The Federal Circuit also considered whether the granted patent conferred vested property rights protected by the Fifth Amendment that could not be retroactively taken by ex parte reexamination.¹⁶ In its reasoning, the court weighed the Congressional intent against the intrusion on property rights from the ex parte reexamination procedure.¹⁷ On one hand, Congress intended for the reexamination procedure to be retrospective for the public purpose of “restoring confidence in the validity of patents issued by the PTO.”¹⁸ On the other hand, the court considered the property rights associated with a patent to determine whether the ex parte reexamination procedure was an improper taking of these rights by the government.¹⁹ In particular, the Federal Circuit highlighted the reasonable, investment-backed expectation of the patent owner, noting that the potential benefits of owning a patent that survived reexamination was sufficient to offset the loss from an invalidity finding.²⁰ Ultimately, the court found the public purpose intended by Congress to be “overriding” and affirmed the constitutionality of ex parte reexamination.²¹

The next post-grant proceeding established by Congress was the inter partes reexamination, a predecessor to IPR that allowed third parties to comment on responses from the patent owner.²² The Federal Circuit has not ruled on the constitutionality of the inter partes reexamination process.

13. *See id.* at 604.

14. *See id.*

15. *See id.* at 605. In a subsequent challenge of the ex parte reexamination procedure on similar grounds, petitioner claimed that the reexamination process deprived him by publicly disclosing the claims that were found invalid. The court noted that the petitioner’s rights were not deprived because the patent survived the reexamination process even though in a weakened form. *See Joy Techs., Inc. v. Manbeck*, 959 F.2d 226, 227–29 (Fed. Cir. 1992).

16. *See Patlex*, 758 F.2d at 598–99 (“It is beyond reasonable debate that patents are property.”).

17. *See id.* at 601–02.

18. *See id.* at 601.

19. *See id.* at 602 (applying test from *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978)).

20. *See id.* at 602–03.

21. *See id.* at 603.

22. American Inventors Protection Act of 1999, Pub. L. No. 106-13, §§ 4601–08 113 Stat. 1501.

Despite these attempts, low-quality patents continued to be issued and the cost of patent litigation continued to increase.²³ Congress created another post-grant proceeding, the IPR process, to counteract this trend.

2. *Inter Partes Review*

In 2012, Congress authorized the PTO to reconsider issued patents via the IPR process.²⁴ The Patent Trial and Appeal Board (PTAB) was created to administer this process.

The IPR proceeding is more robust than previous post-grant procedures. Any third party can request review of a granted patent. The Director of the PTO may institute an IPR if there is “a reasonable likelihood that the requester petitioner would prevail with respect to at least [one] of the claims challenged in the petition.”²⁵ Under this scheme, a patent owner must demonstrate to a panel of PTAB judges that the challenged patent claims meet the statutory patentability standards of novelty and nonobviousness.²⁶

After its creation, IPR has surged in popularity as a vehicle for challenging patents.²⁷ One of the main reasons for this is that over 50% of challenged patents where IPR is instituted are invalidated in part or in whole.²⁸ The large number of patent invalidations from IPR proceedings highlights the importance of an unanswered question—whether these invalidations can be considered a deprivation of private rights by the government.

B. TAKINGS CLAUSE

The Takings Clause has traditionally played a vital role as a check on government power. As the nature of patents evolved from the English system

23. For an example of how rising patent litigation costs due to an increasing number of granted patents has caused the patent system to markedly deteriorate in recent decades, see JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 144 (2008).

24. In the Leahy-Smith America Invents Act of 2012, Pub. L. No. 112-29, 125 Stat. 284–341 (2011), Congress established three new procedures: IPR, covered business method review, and post-grant review. The IPR process is codified in 35 U.S.C. §§ 311–319 (2012).

25. 35 U.S.C. § 314(a).

26. *See* § 311.

27. United States Patent and Trademark Office, *Patent Trial and Appeal Board Statistics* (Oct. 31, 2015), <https://www.uspto.gov/sites/default/files/documents/2015-10-31%20PTAB.pdf> [<https://perma.cc/47L9-RR3X>] (showing that the number of IPR petitions filed increased from 514 in 2013, 1310 in 2014, to 1737 in 2015).

28. In aggregate from IPR's inception in 2012 up to 2018, for all patents challenged in IPR that reached a final written decision by the PTAB, only 19% were ultimately found to be entirely valid. *See* United States Patent and Trademark Office, *Trial Statistics IPR, PGR, CBM* (Dec. 31, 2018), https://www.uspto.gov/sites/default/files/documents/trial_statistics_201812.pdf [<https://perma.cc/7D2D-UQCN>].

to our current understanding, so has the role of takings.²⁹ In contrast to the current understanding of patents as mostly an exclusionary power, a compensable taking does not exclude certain government actions; instead, it forces the government to incur a cost for certain actions. In this way, unworthy goals that may not be the best use of public resources are filtered out; only the worthiest goals remain.

An examination of takings jurisprudence can shed light on the constitutional limits on the governmental taking of private property. In general, owners of property are granted basic rights such as the right to control the property's use, the right to transfer this use, and the right to enforce these rights against others.³⁰ These rights are especially important for patents since, unlike owners of real or other tangible forms of property, patent owners can license the use of the patented invention to others without limit. It has been proposed that patents, except for its time-limited duration, are essentially the same as other forms of property and should be afforded the same rights.³¹ When the government infringes on these rights, a constitutional taking has occurred.

The Takings Clause establishes the limits on the government's power to take private property. As "the most important protection of property rights in the Constitution,"³² the Takings Clause allows private property to be taken only when the taking is for "public use" and "just compensation" is provided.³³ A primary goal of the Takings Clause is "to bar [the] Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."³⁴ No bright-line test has been formulated to determine when a government action amounts to a taking, as the Court "has been unable to develop any 'set formula' for determining when 'justice and fairness' require that economic injuries caused by public action be

29. See Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689, 705–06 (2007) (noting that patents had evolved from the English understanding as a sovereign favor to an American understanding of a "mind-work which we term inventions").

30. See Robert P. Merges, *What Kind of Rights are Intellectual Property Rights?*, in THE OXFORD HANDBOOK OF INTELLECTUAL PROPERTY LAW 4–7 (Rochelle Dreyfuss & Justine Pila eds., 2017).

31. See Richard A. Epstein, *What Is So Special about Intangible Property? The Case for Intelligent Carryovers* 12–17 (John M. Olin Program in Law and Economics, Working Paper No. 524, 2010).

32. ERWIN CHEMERINSKY, CONSTITUTIONAL LAW 671 (5th ed. 2017).

33. U.S. CONST. amend. V ("nor shall private property be taken for public use, without just compensation").

34. *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994) (citing *Armstrong v. United States*, 364 U.S. 40, 49 (1960)).

compensated by the government.”³⁵ Rather, the Court has relied on a series of “ad hoc, factual inquiries” to determine when a taking has occurred.³⁶

While governmental seizure of privately-owned land is the classical taking, takings jurisprudence also recognizes certain types of regulatory actions as takings. In *Lingle*, the Court clarified that three categories of regulatory actions amounts to a taking: a *Loretto*-type permanent, physical invasion, a *Lucas*-type action that deprives the owner of all economic beneficial use of the property, and an action that meets a balancing test set forth in *Penn Central*.³⁷ Although the regulatory takings inquiry is not “unified,” each of these three tests “aims to identify regulatory actions that are functionally equivalent to the classic taking in which [the] government directly appropriates private property or outs the owner from his domain” and “focuses directly upon the severity of the burden that government imposes upon private property rights.”³⁸

1. *Property Subject to Takings*

Within the meaning of the Takings Clause, any government action that deprives all or most of an owner’s rights amount to a taking.³⁹ Thus, in addition to a deprivation of ownership, a taking includes damage, destruction, and depreciation of property.⁴⁰ Moreover, the property right subject to takings is not simply economic value.⁴¹ Instead, rights that can be taken include the rights that owners can exercise, such as the right to possess, use, and dispose of the property.⁴²

Thus, a broad array of property rights is subject to the Takings Clause. Patent rights should likewise be included.

In *Nollan*, the Supreme Court implied that government-mandated easements can qualify as a taking.⁴³ The petitioners owned a piece of beachfront property situated between two public beaches.⁴⁴ When they applied for a permit to replace a structure on their land, the California Coastal Commission conditioned the issuance of the permit on an uncompensated,

35. *See Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

36. *See id.*

37. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005) (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992), *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982), and *Penn Cent.*, 438 U.S. 104 (1978)).

38. *Id.* at 539.

39. *See United States v. Gen. Motors Corp.*, 323 U.S. 373, 378 (1945).

40. *See id.*

41. *See Phillips v. Washington Legal Found.*, 524 U.S. 156, 170 (1998).

42. *See id.*

43. *See Nollan v. California Coastal Comm’n*, 483 U.S. 825, 825 (1987).

44. *See id.* at 827–28.

permanent, public-access easement.⁴⁵ The Court held that the government-mandated easement was a taking that required compensation.⁴⁶

In *Lynch*, the property right at issue was payment from life insurance policies issued under a statute.⁴⁷ The Court found these life insurance policies to be valid contracts of the United States.⁴⁸ Annuling issued policies amounted to a taking for which the government must pay just compensation.⁴⁹

In *Horne*, a farmer's personal property was found to be a taking.⁵⁰ The Department of Agriculture imposed a reserve requirement wherein raisin farmers must set aside a percentage of their crop in certain years according to the government's allocation.⁵¹ The government's scheme was found to be a taking of the farmer's raisins and required just compensation.⁵² In so holding, the Court stressed that although the raisins were personal property, "[n]othing in the text or history of the Takings Clause, or our precedents, suggests that the rule is any different when it comes to appropriation of personal property."⁵³

In *Ruckelshaus*, the Supreme Court held that a trade secret is subject to the Takings Clause.⁵⁴ A federal statute permitted the Environmental Protection Agency to publicly disclose some of the data submitted by an applicant while seeking approval for a new pesticide.⁵⁵ The pesticide maker argued that the data was a trade secret and the public disclosure was an uncompensated taking by the agency.⁵⁶ The Court agreed, finding that the public disclosure "extinguished" the pesticide maker's property rights.⁵⁷

2. Regulatory Takings Analysis

In *Pennsylvania Coal*, the Supreme Court first recognized that "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."⁵⁸ The reason for this is that if a government regulation goes "too far," its effect on private property becomes so onerous that the regulation is essentially an appropriation of private property.⁵⁹ In this

45. *See id.* at 828–29.

46. *See id.* at 836–37.

47. *Lynch v. United States*, 292 U.S. 571, 574–75 (1934).

48. *Id.* at 576.

49. *See id.* at 579–80.

50. *See Horne v. Dep't of Agric.*, 135 S. Ct. 2419, 2421–22 (2015).

51. *See id.* at 2428.

52. *See id.* at 2428–29.

53. *Id.* at 2426.

54. *See Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002–04 (1984).

55. *Id.* at 990.

56. *See id.* at 998–99.

57. *See id.* at 1002–04.

58. *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

59. *See id.* at 415–16.

case, homeowners that owned surface property sued under a state statute to enjoin a company that owned the subsurface from mining.⁶⁰ While the “[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law,” the Court found that the state statute was a taking.⁶¹

Two categories of regulatory takings are per se takings: “where government requires an owner to suffer a permanent physical invasion of her property” and “where regulations completely deprive an owner of ‘all economically beneficial use’ of her property.”⁶² The first of these inquiries derives from *Loretto*.⁶³ There, a state statute required all landlords to permit the installation of a television cable box on their property.⁶⁴ The public purpose was “the rapid development of and maximum penetration by a means of communication which has important educational and community aspects.”⁶⁵ Despite the public purpose or the minimal impact of the cable box to the owner, the Court held that the “permanent physical occupation” was determinative to finding a taking.⁶⁶ Furthermore, the size of the permanently occupied area is a factor only for determining just compensation.⁶⁷

The second category of per se taking is when a complete deprivation of all economic use has occurred. In *Lucas*, legislation aimed at protecting the coast barred an owner of two beachfront properties from developing his land.⁶⁸ The Court explained that when the government strips a property of all economic value “in the name of the common good,” the property becomes essentially idle.⁶⁹ Since the property owner expected to construct residential structures on his property, the regulation has made his property economically worthless.⁷⁰ As the property owner was now deprived of “all economically beneficial or beneficial use” of the property, a taking was found that required just compensation.⁷¹

The third category of regulatory takings involves regulations that go “too far.”⁷² The multifactor balancing test for this category was introduced in *Penn Central*.⁷³ The petitioners were the owners of Grand Central Terminal in New

60. *See id.* at 412.

61. *See id.* at 413–16.

62. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 528 (2005).

63. *Loretto v. Teleprompter Manhattan Catv Corp.*, 458 U.S. 419, 426 (1982).

64. *Id.* at 419.

65. *Id.* at 425.

66. *See id.* at 427, 434.

67. *See id.* at 437.

68. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1007–08 (1992).

69. *Id.* at 1019.

70. *See id.* at 1027–29.

71. *Id.* at 1015.

72. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005).

73. *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

York City and were prevented from building a 20-story tower on top of the station due to restrictions from a landmark preservation act.⁷⁴ The Court stressed that there was no “set formula” for determining when a taking has occurred and that “ad hoc, factual inquiries” should be performed based on several factors: (1) the economic impact of the government action on the claimant; (2) the action’s interference with distinct investment-backed expectations; and (3) the character of the government action.⁷⁵ Of these, the Court highlighted distinct investment-backed expectations as an important factor and noted that Penn Central continued to earn a reasonable return on its investment in Grand Central Terminal.⁷⁶ Thus, the Court held that the restriction on building above the station was not a taking of the property owner’s airspace.⁷⁷ To date, *Penn Central* continues to serve as the catch-all test to analyze takings outside the two per se categories.⁷⁸

Thus, the regulatory takings jurisprudence lays out three categories of takings where just compensation is required: 1) permanent physical occupation; 2) deprivation of all economic use; and 3) regulation that goes “too far.”

3. *Other Takings Considerations*

The Supreme Court has also considered subsidiary takings issues that may apply when considering patent rights, including the effect of property acquisition post-regulation, a temporary restraint on property use, the scope of public use, and how just compensation should be considered.

The Court has held that property acquisition after a regulation is in effect does not bar a takings finding.⁷⁹ In *Palazzolo*, a landowner acquired title to a parcel of land that was mostly designated as protected coastal wetlands by regulation already in effect.⁸⁰ The owner was prevented from developing his land and challenged the regulation as a taking of his property.⁸¹ The Court held that automatically barring the takings claim would be akin to putting “an expiration date on the Takings Clause.”⁸² Owners who acquire property after a regulation is in effect still have the “right to challenge unreasonable limitations” on property rights.⁸³ Since some portion of the land could still be developed, the Court concluded that the regulation had not deprived the

74. *See id.* at 109–17.

75. *Id.* at 124.

76. *See id.* at 136.

77. *See id.* at 138.

78. *See* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 538 (2005).

79. *See* Palazzolo v. Rhode Island, 533 U.S. 606, 626–27 (2001).

80. *Id.* at 611.

81. *Id.*

82. *See id.* at 627.

83. *Id.*

owner of “all economic use” of the land and remanded the case for further consideration with the *Penn Central* factors.⁸⁴

In *Tahoe-Sierra*, the Court considered whether a time-limited moratorium on property development was considered a taking.⁸⁵ There, a regional planning agency prevented development near a lake for 32 months while they considered an environmental plan.⁸⁶ Landowners affected by this moratorium sought compensation.⁸⁷ The Court noted that the affected parcel should not be divided into temporal segments for consideration; instead, the regulatory takings analysis should focus on “the parcel as a whole.”⁸⁸ In assessing the *Penn Central* factors, the Court balanced the impact of the moratorium on the landowners’ investment-backed expectations against the public interest of having a sound development strategy; no taking was found.⁸⁹

Meanwhile, the public purpose for taking private property has been broadly interpreted. In *Kelo*, a city authorized a development agent to acquire land by using the city’s authority, citing a public purpose to further economic development.⁹⁰ The Court noted that while property may not be taken from one party for the sole purpose of transferring to another, transfer to a private party is allowed if the taking is related to future use by the public.⁹¹ Moreover, the Court concluded that legislatures have “broad latitude” to determine public use.⁹² Thus, the city’s actions did not violate the public use requirement.⁹³

Finally, the just compensation that the government must pay a property owner when a taking has occurred has been clarified by the Court to be “measured by the property owner’s loss rather than the government’s gain.”⁹⁴ In other words, the compensation is for the net loss to the property owner.⁹⁵ In *Brown*, a regulation required some funds to be held in a type of interest-free account and petitioners sought compensation for interests that they would have received if those same funds were held in an interest-paying account.⁹⁶ The Court looked to the lack of interest paid in the interest-free account and

84. *See id.* at 630–32.

85. *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 306 (2002).

86. *Id.* at 307–13.

87. *Id.*

88. *See id.* at 331.

89. *See id.* at 333–36.

90. *Kelo v. City of New London*, 545 U.S. 469, 469–71 (2005).

91. *See id.* at 477.

92. *See id.* at 483.

93. *See id.* at 489–90.

94. *See Brown v. Legal Found. Of Wash.*, 538 U.S. 216, 235–36 (2003).

95. *See id.* at 237.

96. *See id.* at 223–24.

determined that the net loss and just compensation to the petitioners was zero.⁹⁷

II. *OIL STATES V. GREENE'S ENERGY*

In *Oil States*, Justice Thomas (joined by Justices Kennedy, Ginsburg, Breyer, Alito, Sotomayor, and Kagan) wrote the 7–2 majority opinion holding that IPRs were constitutional, while Justice Breyer (joined by Justices Ginsburg and Sotomayor) issued a concurring opinion and Justice Gorsuch (joined by Chief Justice Roberts) issued a dissenting opinion.

A. FACTS AND PROCEDURAL HISTORY

In 2012, Oil States sued Greene's Energy for infringement of a patent Oil States acquired in 2001 for an apparatus and method related to hydraulic fracturing.⁹⁸ In response, Greene's Energy challenged the patent's validity and also petitioned the PTO to institute IPR to review two claims in the patent.⁹⁹

Parallel proceedings progressed in the PTAB and the District Court concurrently and reached contrary decisions.¹⁰⁰ Whereas the District Court interpreted the claims in such a way as to negate Greene's Energy's non-infringement arguments, the PTAB invalidated the two challenged claims. Oil States subsequently sought review of the PTAB decision in the Federal Circuit.¹⁰¹

In addition to arguing that the statutory patentability requirements were met, Oil States also challenged the constitutionality of IPRs, arguing that patents can only be revoked in an Article III court with the option of a jury trial.¹⁰² However, the Federal Circuit summarily affirmed the PTAB decision without issuing a written opinion after having considered the same constitutional arguments in *MCM Portfolio*.¹⁰³

In *MCM Portfolio*, the Federal Circuit found that the IPR proceeding did not violate Article III or the Seventh Amendment. The Federal Circuit considered *McCormick*, which stated that only the courts can revoke a patent: “upon the issue of the original patent, the Patent Office had no power to revoke, cancel, or annul it.”¹⁰⁴ However, the issue in *McCormick* was whether claims in a patent were still valid if they were rejected for novelty in a

97. *See id.* at 239–40.

98. *Oil States Energy Servs. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1372 (2018).

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 639 F. App'x 639 (Fed. Cir. 2016); *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294 (Fed. Cir. 2015).

104. *MCM Portfolio*, 812 F.3d at 1288–89 (citing *McCormick Harvesting Machine Co v. Aultman*, 169 U.S. 606, 609 (1898)).

subsequent patent reissue application.¹⁰⁵ Thus, the Federal Circuit found that *McCormick* was not a dispositive precedent as it “did not address Article III and certainly did not forbid Congress from granting the PTO the authority to correct or cancel an issued patent.”¹⁰⁶

Next, the Federal Circuit discussed the public rights nature of patents, citing both *Murray’s Lessee* and *Stern*.¹⁰⁷ The court found that the patent right “derives from a federal regulatory scheme” and thus is a public right for which Congress can delegate disputes to non-Article III courts.¹⁰⁸ As explained in *Stern*, “what makes a right ‘public’ rather than private is that the right is integrally related to particular Federal Government action.”¹⁰⁹ The court drew a parallel between patent reexamination in IPR and other permissible agency adjudications.¹¹⁰ Furthermore, the Federal Circuit recognized the Congressional intent to “utilize the expertise of the PTO for an important public purpose—to correct the agency’s own errors in issuing patents in the first place,” stating that “[i]t would be odd indeed if Congress could not authorize the PTO to reconsider its own decisions.”¹¹¹ Finding that patent rights are public rights, the Federal Circuit rejected the Article III and Seventh Amendment challenges.¹¹²

The Supreme Court granted certiorari on the issue of whether IPR is unconstitutional when it retroactively invalidates granted patents in a non-Article III court and when proceedings are not jury trials in accordance with the Seventh Amendment.¹¹³

B. SUPREME COURT OPINION

1. *The Majority Rejects Oil States’ Argument*

The Court considered the Article III question by looking to whether patents conferred public or private rights, since “matter[s] involving public rights . . . need not be adjudicated in Article III court.”¹¹⁴ Although the

105. *See id.*

106. *See id.* at 1289.

107. *See id.* at 1289–90 (citing *Stern v. Marshall*, 564 U.S. 462 (2011); *Murray’s Lessee v. Hoboken Land & Improvement Co.*, 59 U.S. 272 (1855)).

108. *See MCM Portfolio*, 812 F.3d at 1288–90.

109. *See id.* at 1290 (quoting *Stern*, 564 U.S. at 465).

110. *See id.* at 1289–90 (citing holdings that proceedings of the Commodity Futures Trading Commission and arbitration under the Federal Insecticide, Fungicide, and Rodenticide Act do not violate Article III); *see also* *Commodity Futures Trading Comm’n v. Schor*, 478 U.S. 833, 854 (1986); *Thomas v. Union Carbide Agricultural Products Co.*, 473 U.S. 568, 571 (1985).

111. *See id.* at 1290–91.

112. *See id.* at 1291–92.

113. *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 137 S. Ct. 2239 (2017).

114. *See Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018) (citations omitted).

distinction between public and private rights has not been “definitively explained,” the Court noted that Congress has “significant latitude to assign adjudication of public rights to entities other than Article III courts.”¹¹⁵ Moreover, the Court characterized patent owners’ right to exclude others from using their invention as “tak[ing] from the public rights of immense value[] and bestow[ing] them upon the patentee.”¹¹⁶ Thus, the Court found that patents are “squarely” a public right because they involve matters between the government and individuals.¹¹⁷ In labelling patent rights as public, Justice Thomas attempted to sidestep the heightened protection that a fundamental private right necessitates.

To support its finding that patents confer public rights, the Court looked to the PTO’s authority to grant patents.¹¹⁸ Congress, which is empowered by the Article I mandate to set up a patent system, has authorized the PTO to grant patents.¹¹⁹ When the PTO examines an invention’s patentability prior to granting a patent, it is exercising a power given by Congress.¹²⁰ Since Congress has given the PTO the authority to reexamine patents, the IPR’s post-grant consideration of patentability is proper.¹²¹

The Court found that the statutory requirements for patentability considered during IPR is the same as that considered during the initial grant of a patent. Both pre-grant and post-grant examinations by the PTO serve to protect “the public’s paramount interest in seeing that patent monopolies are kept within their legitimate scope.”¹²² Reiterating that patents grant public rights, the Court concluded that the reexamination of patents need not occur in an Article III court.¹²³

Next, the Court expressly rejected the challenges brought by Oil States. Oil States cited previous holdings stating that patents are private property and cannot be invalidated outside of an Article III court.¹²⁴ However, the Court interpreted the Patent Act to provide patent owners with notice that the rights associated with granted patents are subject to cancellation in IPR proceedings.¹²⁵

115. *See id.* (citing *Stern v. Marshall*, 564 U.S. 462, 488–92 (2011)).

116. *See id.* (citation omitted).

117. *Id.*

118. *Id.*

119. *Id.* at 1374.

120. *Id.*

121. *Id.*

122. *See id.* (citing *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016)).

123. *Id.*

124. *Id.* at 1375–76.

125. *See id.* at 1375 (citing 35 U.S.C. § 261 (2012) (“Subject to the provisions of this title, patents shall have the attributes of personal property.”)).

Moreover, the Court held that Congress properly delegated to the PTO the authority to reexamine patentability in post-grant proceedings even if this reexamination previously rested with the courts.¹²⁶ Although early patent statutes did not include post-grant proceedings, the Court found that Congress was not proscribed from implementing them via later statutes.¹²⁷

The Court also rejected Oil States' argument that IPR violated Article III because IPR has features similar to that of an Article III court.¹²⁸ Oil States claimed that because IPR includes features such as discovery, depositions, cross-examination, evidence procedures, and adversarial hearings, it is improperly exercising Article III judicial power.¹²⁹ However, the Court noted that the similarity between IPR and the courts is not an indication of the source of IPR's power, which is executive and not judicial.¹³⁰

Since Congress properly granted authority for IPRs, the Seventh Amendment challenge is likewise dismissed.¹³¹ Congress intended for IPR, a non-Article III tribunal, to take a second look at issued patents and so the Seventh Amendment right to a jury trial is not at issue here.¹³²

2. *Unaddressed Constitutional Challenges*

The Court emphasized "the narrowness of [the] holding."¹³³ Several areas were left open for future constitutional challenges: (1) "the retroactive application of [IPR]," (2) "a due process challenge," and (3) whether "patents are . . . property for purposes of the *Due Process Clause* or the *Takings Clause*."¹³⁴ For the latter point, the Court cited cases with such telling language as "[patents] are surely included within the 'property' of which no person may be deprived by a State without due process of law"¹³⁵ and "when it grants [patents] for a new invention or discovery in the arts, [the government] confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation."¹³⁶

3. *Justice Breyer's Concurrence*

Justice Breyer presented a brief concurrence stating that although IPR involves public rights and so does not violate Article III or the Seventh

126. *See id.* at 1378.

127. *See id.*

128. *See id.*

129. *Id.*

130. *Id.*

131. *Id.* at 1379.

132. *Id.*

133. *Id.*

134. *Id.*

135. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999).

136. *James v. Campbell*, 104 U.S. 356, 357–58 (1881).

Amendment, private rights can also sometimes be adjudicated by non-Article III courts.¹³⁷

4. *Justice Gorsuch's Dissent*

Justice Gorsuch voiced a strong dissent, describing the majority's opinion as one that “signals a retreat from Article III's guarantees.”¹³⁸ After finding granted patents to confer private rights, “no less than a home or farm,” Justice Gorsuch stressed that only independent judges should be able to revoke patents.¹³⁹ Justice Gorsuch further stated that only Article III judges are “endowed with the protections for their independence the framers thought so important.”¹⁴⁰ Although IPR may be “an efficient solution” to address the problem of having “too many low quality patents,” economic efficiency is not a “license for ignoring these—often vitally inefficient—[Article III] protections.”¹⁴¹

Furthermore, Justice Gorsuch noted that IPR's efficiency is achieved by “dispensing with constitutionally proscribed procedures.”¹⁴² The lack of independence in the PTAB starts with the Director of the PTO, a political appointee who “supervises and pays the Board members,” “select[s] which of these members, and how many of them, will hear any particular patent challenge,” and “can add more members to the panel—including himself—and order the case reheard.”¹⁴³ Thus, the PTAB lacks the independence of an Article III court to properly revoke granted patents.

Next, Justice Gorsuch looked to the historical treatment of patents to support the propriety of allowing only Article III judges to revoke granted patents. Unlike the majority, Justice Gorsuch found that “only courts could hear patent challenges in England at the time of the founding.”¹⁴⁴ Moreover, the importance of a granted patent is highlighted by its purpose: “the framers wrote the [Patent] Clause to protect only procompetitive invention patents that are the product of hard work and insight and add to the sum of useful knowledge.”¹⁴⁵ Thus, when a patent is granted, “the grantee is entitled to it *as a matter of right*” and “hold[s] a property in their inventions by as good a title as the farmer holds his farm and flock.”¹⁴⁶

137. *See Oil States*, 138 S. Ct. at 1379–80 (Breyer, J., concurring).

138. *See id.* at 1386 (Gorsuch, J., dissenting).

139. *See id.* at 1380.

140. *Id.* at 1381.

141. *Id.* at 1380.

142. *Id.*

143. *Id.* at 1380–81.

144. *Id.* at 1381, 1383 (noting that the cases described by the majority “represent the Privy Council's dying gasp in this area”).

145. *See id.* at 1383 (internal quotation marks omitted).

146. *See id.* at 1384 (internal quotation marks omitted).

Finally, Justice Gorsuch looked to decisions of the Court to find that the Executive branch does not have the power to revoke patents. In *McCormick*, which the majority dismissed as an interpretation of an old patent statute, Justice Gorsuch noted that invention patents, like land patents, “[have] become the property of the patentee” once issued and is subject to “the same legal protection as other property.”¹⁴⁷ Even if patents can be considered public rights, they cannot be revoked by the PTO. While “the Executive has always dispensed public lands[,] . . . it has never been constitutionally empowered to withdraw land patents from their recipients.”¹⁴⁸ Justice Gorsuch succinctly states of the government’s position: “[j]ust because you give a gift doesn’t mean you forever enjoy the right to reclaim it.”¹⁴⁹

III. PATENT INVALIDATION BY IPR CAN BE A REGULATORY TAKING

While Article III and Seventh Amendment challenges to IPR were addressed in *Oil States*, the Court left open due process and takings challenges from the Fifth Amendment.¹⁵⁰ This Note focuses on a future potential regulatory takings challenge to determine whether the IPR process has gone too far and just compensation is required. When the regulatory takings jurisprudence is applied to patents, it is apparent that a patent right invalidated by an IPR proceeding can be a regulatory taking. Some nuances of this application are discussed and a framework for approaching this question is offered.

A. PATENT RIGHTS ARE SUBJECT TO TAKINGS

1. *The Fundamental Nature of Patent Rights*

Even though scholars have traditionally struggled to justify the nature of private property rights, they nevertheless agree on the importance of these rights.¹⁵¹ An important protection afforded to private property rights is the Takings Clause, which has been justified via a series of fundamental principles:

- (1) Property pre-exists government;
- (2) Property pre-exists our government(s);

147. *Id.* (citing *McCormick Harvesting Machine Co. v. Aultman*, 169 U.S. 606, 608–09 (1898)).

148. *Id.* at 1385.

149. *See id.*

150. *See id.* at 1379 (majority opinion).

151. A myriad of theories, including natural rights, personhood, and utilitarianism, has been proposed to justify the concept of private property. *See generally* JOHN P. DWYER & PETER S. MENELL, PROPERTY LAW AND POLICY: A COMPARATIVE INSTITUTIONAL PERSPECTIVE (David L. Shapiro et al. eds., 1998).

- (3) People pre-exist government;
- (4) Property has a meaning that pre-exists the Constitution;
- (5) Property and rights therein supersede government power;
- (6) Government power supersedes property and rights therein;
- (7) Even the most important of public uses of property, e.g., constructing a military base, does not justify taking of property without express permission of the Constitution;
- (8) Even the most important of public uses of property do not justify using private property without express constitutional permission;
- (9) Government may not take private property without recognition of the right to property;
- (10) Government may not use private property without recognition of the right to property.¹⁵²

This constitutional protection of the Takings Clause for private property should be extended to intellectual property—specifically patents.¹⁵³ As Professor Robert Merges succinctly noted of intellectual property: “[i]t walks like property, talks like property, and acts like property. And, so it is.”¹⁵⁴ Thus, as private property, patents should also be protected by the Takings Clause.

Furthermore, the majority’s focus in *Oil States* on patents having aspects of public rights should not prevent a finding of takings. The government cannot take private patent rights without providing just compensation.¹⁵⁵ By calling patents a pure regulatory scheme, Justice Thomas equates the issuance of a patent as a grant wherein the owner takes something valuable from the public domain.¹⁵⁶ However, this is an incorrect conception. The totality of public knowledge is not a finite pie that is eaten up as each patent owner takes a slice. Rather, each patent embodies an invention that did not exist prior to its conception. Thus, whereas an owner’s patent rights can be taken, an inventor does not take the invention from the public when obtaining a patent. Moreover, just because patent rights are defined by statute does not

152. Stephen Durden, *Unprincipled Principles: The Takings Clause Exemplar*, 3 ALA. C.R. & C.L.L. REV. 25, 65 (2013).

153. For a discussion on patents (and copyright) having long been described as a form of property, see Justin Hughes, *Copyright and Incomplete Historiographies: Of Piracy, Propertization, and Thomas Jefferson*, 79 S. CAL. L. REV. 993, 1004–27 (2006).

154. Merges, *supra* note 30, at 3.

155. For a description of rights conferred to a patent owner, see 35 U.S.C. § 271 (2012).

156. *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018).

automatically make patents a pure regulatory scheme.¹⁵⁷ The underlying private rights remain.

There is historical support that patents are private property subject to the Takings Clause. Modern courts and scholars suffer from “modern myopia” when they ignore nineteenth-century jurisprudence that patents have historically been treated as private property subject to the Takings Clause.¹⁵⁸ Modern scholars have proposed that “if trade secrets are constitutional private property, then, all things being equal, ‘the same goes for patents’ because both are forms of intellectual property.”¹⁵⁹ However, a progression of cases from the nineteenth century show that patents are “a natural right to the fruits of mental labor” and that “the Takings Clause secured patents as constitutional private property.”¹⁶⁰ Chief Justice Roberts recognized this when he stated that a patent “confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser.”¹⁶¹

The modern regulatory takings jurisprudence affirms the importance of private property rights. Starting from the classical case of a taking, such as the government’s possession of a coal mine, the regulatory takings doctrine has become robust enough to apply to essentially any restriction on property rights. A compensable taking has occurred if a government action has gone too far.¹⁶² Despite potential philosophical or functional differences between real property and patents, the regulatory takings doctrine should be extended from the former to the latter.¹⁶³

Moreover, the government may not skirt the protections of the Takings Clause by conditioning the grant of a patent on the owner’s acceptance that the patent may be revoked at any point in the future in an IPR proceeding. Chief Justice Roberts discussed this briefly during oral arguments: “[Greene’s Energy’s] position, it strikes me, is simply that you’ve got to take the bitter with

157. See Merges, *supra* note 30, at 16 (“The need to apply for, secure, and maintain an IP right in no way undermines its status as a [private] right.”).

158. See Mossoff, *supra* note 29, at 693.

159. See *id.* at 698.

160. See *id.* at 700–11 (citing *James v. Campbell*, 104 U.S. 356 (1881); *Cammeyer v. Newton*, 94 U.S. 225 (1876); *United States v. Burns*, 79 U.S. 246 (1870); *McKeever v. United States*, 14 Ct. Cl. 396 (1878); *McClurg v. Kingsland*, 42 U.S. 202 (1843)).

161. See *Horne v. Dep’t of Agric.*, 135 S. Ct. 2419, 2427 (2015) (quoting *James v. Campbell*, 104 U.S. 356, 358 (1882)).

162. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005).

163. See generally Epstein, *supra* note 31 (finding parity between tangible and intangible property rights). But see Peter S. Menell, *The Property Rights Movement’s Embrace of Intellectual Property: True Love or Doomed Relationship?*, 34 *ECOLOGY L.Q.* 713, 741–52 (2007) (asserting that differences in characteristics should limit property concepts from applying to intellectual property).

the sweet. If you want the sweet of having a patent, you've got to take the bitter that the government might reevaluate it at some subsequent point."¹⁶⁴ The Chief Justice subsequently dismissed this supposition: "We've said you . . . cannot put someone in that position."¹⁶⁵ Along these lines, Justice Gorsuch illustrated the unfairness of the situation in his dissent:

After much hard work and no little investment you devise something you think truly novel. Then you endure the further cost and effort of applying for a patent, devoting maybe \$30,000 and two years to that process alone. At the end of it all, the Patent Office agrees your invention is novel and issues a patent. The patent affords you exclusive rights to the fruits of your labor for two decades. But what happens if someone later emerges from the woodwork, arguing that it was all a mistake and your patent should be canceled?¹⁶⁶

2. *The Vesting of Patent Rights*

But at what point in time does the constitutional protection of the Takings Clause apply? Surely, patent owners cannot be compensated for all instances of patent invalidations, especially before the patent is granted. There is a simple answer to this: patent rights are vested and are subject to the Takings Clause when the patent is granted.

Despite a potentially long and arduous patent prosecution process, applicants should not be assigned partial patent rights at any time before the patent is granted. Certainly, the scope of the granted patent may be significantly reduced from what the owner originally set out to claim. And the invention may be publicly disclosed when the application is published. However, by submitting a patent application, the applicant has agreed to abide by the prosecution process, including the fees, schedules, and publication of the application. What the applicant has not agreed to is the threat of invalidation from an IPR after the patent has been granted.

While an applicant may be uncertain of the outcome of the patent prosecution process, the grant of a patent marks a definitive point after which the owner may exercise patent rights. The Takings Clause applies when private property rights are vested. For patents, property rights are vested when the patent is granted.

164. *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*, No. 16-712, Oral Hearing Tr. at 32:1-16 (Nov. 27, 2017).

165. *Id.* In due process doctrine, this "bitter with the sweet" argument has been firmly rejected. *See Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 541 (1985) ("[I]t is settled that the 'bitter with the sweet' approach misconceives the [due process] constitutional guarantee."). Similarly, the bitter with sweet argument should be rejected in takings doctrine.

166. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1380 (2018) (Gorsuch, J., dissenting).

3. *Proper Protection of Patent Rights*

Prior to *Oil States*, the Federal Circuit hinted that the Takings Clause applies to patents. In *Patlex*, the Federal Circuit stated that “[i]t is beyond reasonable debate that patents are property,”¹⁶⁷ applying Jeremy Bentham’s classic definition of property as “a basis of expectations . . . that [owners] can depend on . . . which assure them that they will indeed be permitted to enjoy a substantial share of the product as the price of their labor or their risk of savings.”¹⁶⁸ In considering a takings challenge on the ex parte reexamination process, a process predating IPR, the Federal Circuit applied the *Penn Central* multifactor test for regulatory takings.¹⁶⁹ Although a compensable taking was not found, the application of the *Penn Central* test implies that patents are private property subject to the Takings Clause.¹⁷⁰

However, Article III courts provide constitutional protections that negate the necessity of applying the Takings Clause when a patent is invalidated there. There are a number of constitutional guarantees unique to Article III courts to ensure its independence and fairness, such as the lifetime tenure of judges and the guaranteed salary.¹⁷¹ Thus, it is this distinction that separates a patent invalidated in an Article III court and one that is cancelled in an IPR proceeding.

This is not to say that a patent invalidation during IPR is wholly improper. As noted in *Oil States*, both public rights and private rights can be adjudicated in a non-Article III setting.¹⁷² However, without the constitutional protections of an Article III court, extra care must be taken. In order to ensure that the broad powers of discretion inherent in an IPR proceeding are appropriately restricted, the Takings Clause should be applied.

167. See *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (Fed. Cir. 1985).

168. *Id.* (citation omitted).

169. See *id.* at 602. The court also applied regulatory takings doctrine in *Joy Tech., Inc. v. Manbeck*, 959 F.2d 226, 226 (Fed. Cir. 1992).

170. However, patents as private property rights subject to the Fifth Amendment are distinguished from consideration under the Seventh Amendment. While the Federal Circuit continues to present the view that patents are subject to the Takings Clause of the Fifth Amendment, this is not the case when the right to a jury trial under the Seventh Amendment is considered. In *Joy Technologies*, the Federal Circuit quotes *Patlex* in affirming that, under the Seventh Amendment, “the issuance of a valid patent is primarily a public concern and involves a ‘right that can only be conferred by the government.’” *Joy Tech.*, 959 F.2d at 228 (quoting *Patlex*, 758 F.2d at 604).

171. See U.S. CONST. art. 3, § 1 (“The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour, and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office.”).

172. The majority opinion found that public rights can be adjudicated outside of an Article III court while the concurring opinion noted that private rights can also be adjudicated outside of an Article III court. See *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373–75, 1379 (2018).

B. A TAKINGS ANALYSIS IS PROPER DURING IPR

There are several aspects of the IPR process that make its invalidation of granted patents susceptible to a takings analysis.¹⁷³

First, the potential for inconsistent findings weigh towards applying the takings framework. An example of the potential for abuse in IPR is the plenary power of the Director.¹⁷⁴ The Director has discretionary power to institute IPR or not. The Director can appoint the panel of judges that hear each case. Moreover, the Director has on occasion “packed” a panel to achieve a predetermined outcome.¹⁷⁵ All this is symptomatic of the problem with an IPR: that it can be abused by whoever happens to be the Director, a politically appointed individual. Thus, without Article III guarantees, the Takings Clause is proper for preventing abuse in the IPR process.

The inadequacies of the IPR process also stems from its origins. The IPR was created by Congress as an efficient means to correct the problem of too many low-quality patents being granted. However, rather than scrutinize the pre-grant examination process, Congress chose to employ an adversarial post-grant format, allowing third parties to challenge issued patents.¹⁷⁶ Resembling an Article III court, the IPR process allows parties to submit briefs and argue before PTAB judges who act as neutral arbiters and weigh the arguments of each side.¹⁷⁷

Despite this, the majority in *Oil States* maintains the notion that the IPR process is a second-look process for the PTO to fix its error of granting patents that did not meet the statutory requirements. The Court’s contention that the patent owner and the PTO are the true parties in contention in IPR despite the involvement of a third party is disingenuous.¹⁷⁸

The IPR process is a contentious proceeding between two private parties. Even though the majority in *Oil States* claims that the third party is acting on behalf of the PTO to reexamine an improperly granted patent, the third party likely petitioned for the IPR to be instituted in response to a patent infringement suit. Thus, the misalignment in motive between the third party (to strike down the patent) and the PTO (to carefully weigh the pros and cons

173. See Peter S. Menell, *Governance of Intellectual Resources and Disintegration of Intellectual Property in the Digital Age*, 26 BERKELEY TECH. L.J. 1523, 1555 (2011) (explaining that the “difficult question” is to determine when regulation of intellectual property triggers a taking).

174. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2134 (2016) (upholding that the discretion to institute IPR is “final and nonappealable”).

175. See Charles W. Shifley, *Don't Like Your PTAB Decision in IPR? Ask the PTAB to Pack the Court*, BANNER & WITCOFF PTAB HIGHLIGHTS (Sep. 11, 2017), <https://bannerwitcoff.com/wp-content/uploads/2017/09/Dont-Like-Your-PTAB-Decision-in-IPR.pdf> [<https://perma.cc/XP4G-RN3A>].

176. See *Oil States*, 138 S. Ct. at 1371.

177. See *id.*

178. See *id.* at 1378 n.5.

to determine whether an invention will advance the arts and sciences) leads to the conclusion that the protection of the Takings Clause is proper in an IPR setting.

Another hollow distinction noted by the Court in *Oil States* is the difference between the patentability considered during IPR and the invalidation considered during a district court case.¹⁷⁹ As the petitioner in *Oil States* posits, they are “two sides of the same coin.”¹⁸⁰ Both tribunals consider the same statutory issues of novelty and nonobviousness. Moreover, the same evidentiary standards exist in both tribunals.¹⁸¹ There is no meaningful distinction between the patentability issue in an IPR and the invalidity issue in district court. Both can result in patent invalidation.

Due to these defects of the IPR process, a takings analysis should be performed on every patent invalidation to determine whether the PTO has stepped over the line of justice and fairness such that the patent owner is owed just compensation.

C. TAKINGS ANALYSIS OF PATENTS

1. *Patent Rights Being Taken*

Although it is “ad hoc” in nature, a takings analysis must be performed with carefully defined rights so that there is a clear understanding of the rights that the government has taken. While Justice Thomas stated that an IPR can result in a revocation of a patent that should not have been issued, a clearing up of a mistake, a contrary perspective is that the revoked patent involves property rights that the patent owner had from the time of the initial grant to the time the patent was revoked.¹⁸² During this intervening period, a patent owner had the right to exclude others from using the invention. When the patent was invalidated, that right no longer existed. Something had been taken.

The facts in *Oil States* suggest that the IPR invalidation of patent claims warrant a takings analysis. The IPR was not instituted until years later, when *Oil States* had already commercially used its invention. Although the majority equated the IPR invalidation of a patent with the PTO not issuing the patent in the first place, the interim time when *Oil States* had patent rights was not considered. During this time, *Oil States* operated under an assumption that

179. The Court makes a distinction between the exercise of Executive power when the PTO invalidates a patent on patentability grounds as opposed to the exercise of judicial power when an Article III court invalidates a patent. *See id.* at 1373.

180. *See* Brief for Petitioner at 57, *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365 (2018) (No. 16-712).

181. Patent and Trademark Office; Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 197 (Oct. 11, 2018) (codified at 28 C.F.R. § 42.100, 42.200, 42.300).

182. *See Oil States*, 138 S. Ct. at 1374.

their patent was valid, that it had value.¹⁸³ Thus, in accordance with its patent rights, Oil States brought an infringement suit against Greene's Energy. However, the IPR proceeding resulted in the invalidation of the challenged patent claims. The associated patent rights were gone.

At a basic level, a patent owner has lost fees and costs associated with prosecuting the patent. This includes the myriad of filing fees as well as attorney costs associated with filing the initial provisional application, submission of the full application, responding to office actions, and filing possible continuations.

In addition, a patent invalidation during IPR extinguishes the patent owner's right to enforce claims against infringers. One of the hallmarks of private property is the freedom to do with it as one wishes. The owner is free to assign, license, and enforce claims against third parties. The granted patent led the patent owner to believe that the patent prosecution process was over. The owner relied on this to bring infringement actions against third parties to recover for profits and damages. The reduction of the patent owner's rights from an IPR proceeding should be subjected to a takings analysis to determine whether any part of this lost expectation is compensable.

2. Patent Takings Framework

The Takings Clause is concerned with whether a government action goes too far by imposing an undue burden on a private party. Run-of-the-mill changes are not considered takings.¹⁸⁴ For example, changes to the novelty and nonobviousness standards from new statutes or court holdings should not be considered takings. Otherwise, the government will be crippled if it must provide just compensation for every change in the law. The framework proposed here is limited to the IPR process. Essentially, for patents that are completely invalidated by an IPR proceeding, a compensable taking should be found. For patents that are partially invalidated, a more detailed analysis is required.

Applying the regulatory takings framework, the first step is to determine whether the IPR has resulted in a categorical per se taking. The first of these categories is a permanent physical occupation of the property.¹⁸⁵ Two scholars have presented the argument that a patent invalidation in IPR can fall in this category.¹⁸⁶ However, extending the category of permanent physical occupation to a patent, a time-limited grant of monopoly, requires ignoring the

183. *See id.*; 35 U.S.C. § 282(a) (2012) ("A patent shall be presumed valid.").

184. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 528 (2005).

185. *See Loretto v. Teleprompter Manhattan Catv Corp.*, 458 U.S. 419, 426 (1982).

186. *See Gregory Dolin & Irena D. Manta, Taking Patents*, 73 WASH. & LEE L. REV. 719, 789–91 (2016).

physical aspects of the doctrine. Therefore, the first category of regulatory takings does not readily apply to patents.

The second category of per se takings occurs when a government action deprives a property owner of all economic value.¹⁸⁷ In the case of patents, a distinction must be made between a weakened patent with some claims invalidated in an IPR proceeding and a patent that has been completely invalidated. In the first case, the owner still retains residual rights. Although the patent is weakened, it is still intact and the owner can still exercise rights to use, license, or exclude others. However, in the second case, wherein the entire patent has been invalidated, all patent rights are essentially eliminated and the owner can no longer exercise any patent rights. Any economic advantage the owner may have relied on, such as a marketplace advantage or confidence used to secure investment, is dissipated. The owner may have incurred excessive losses from reliance on the granted patent, such as substantial investments made to develop the previously patented technology. While the owner can continue to practice the invention even when the patent is invalidated, the invention described in the patent suddenly becomes freely available to the public, including any potential competitors. Patent owners undeniably suffer enormous losses when their patent is completely invalidated in an IPR proceeding. In such cases, a per se taking should be found.

Partially invalidated patents fall into the third category of regulatory takings, requiring a multifactor balancing test.¹⁸⁸ An example of this is the facts in *Oil States*, where only two of a multitude of claims were challenged.¹⁸⁹ However, a takings analysis in this third category must also consider whether to evaluate the patent as a whole or look to individual claims. For real property, the entire parcel must be considered.¹⁹⁰ Thus, even though patent claims are individually considered when invalidity is considered, a takings analysis should look to the whole patent and consider the effect of partially invalidated claims on the patent as a whole.

Three factors have been proposed for evaluating regulatory takings: the economic impact of the statute, interference with investment-backed expectations, and the character of the statute.¹⁹¹

The character of the IPR process is evidently for the public good. Establishing a patent system is an enumerated power given to Congress, and the IPR's goal of improving the quality of granted patents easily meets the public use requirement. However, this factor alone is not dispositive. For example, the Court in *Tahoe-Sierra* engaged in a full takings analysis even when

187. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1007–08 (1992).

188. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

189. See *Oil States Energy Servs. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1372 (2018).

190. See *Penn Cent.*, 438 U.S. at 130–31.

191. See *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538–39 (2005).

it ultimately held that the character of the government action outweighed the other factors.¹⁹²

The economic impact of an IPR invalidation is immediate, as the patent owner is immediately deprived of the ability to exclude competitors from making use of the invalidated claims. Thus, the importance of the invalidated claims to the function of the overall invention will be crucial in determining whether this factor favors the finding of a compensable taking.

The last, and likely most crucial factor, is the distinct investment-backed expectation of a patent owner. This factor takes into account the investments that an owner has made in reliance of the granted patent prior to a partial invalidation via an IPR proceeding. A patent owner may have solicited investments using the granted patent as a competitive edge. Business agreements, including partnerships, licenses, contracts, and other business maneuvers may have been made relying on the granted patent. In an extreme case, a patent owner may have used the granted patent to secure large investments for increasing the size of the company staff or producing the patented product. For small businesses, a granted patent may be the only protection against a large competitor. Depending on the duration from the grant of the patent to an invalidation from an IPR, the investments made in expectation of the patent may be significant. Thus, these considerations should be taken into account when determining whether distinct investment-backed expectations have been unduly affected by the IPR proceeding.

If a taking is found, the patent owner should bring suit against the government for just compensation in the Court of Federal Claims.¹⁹³

3. *Unique Issues with Taking Patents*

Several distinct issues unique to patents include just compensation, the time-limited duration of patents, and retroactivity.

The first of these issues is the difficult problem of determining the proper just compensation for a takings finding. Applying the Court's previous holding that just compensation refers to the harm suffered by the property owner, the just compensation for patents is the economic harm suffered by the patent owner.¹⁹⁴ This may be the patent maintenance fees or other expenditures made in reliance of the granted patent, as these are actual costs incurred by the owner. However, the compensation due an owner would not include expected revenue, as those are likely projected values and not actual losses. While a

192. *See* *Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 333–36 (2002).

193. A patent that has been taken is tantamount to one that is taken for use by the government without license and should be subject to the remedies under 28 U.S.C. § 1498 (2012).

194. *See* *Brown v. Legal Found. Of Wash.*, 538 U.S. 216, 235–36 (2003).

commentator has noted that the just compensation requirement would in most situations make an application of takings to patents “superfluous,” the difficulty in determining the proper just compensation should not prevent the finding of a taking.¹⁹⁵

Another unique aspect of patents is the time-limited monopoly they represent.¹⁹⁶ Since inventions can be easily copied once they are known, the limited duration of patents is essential for protecting inventions before they enter the public domain.¹⁹⁷ Thus, the invalidation of a patent is a significant event, as the public immediately gains unlimited use of the invention. The Court has only tackled time-related takings in one instance, where no compensable taking was found with a three-year moratorium on land development due to the limited duration of the government’s action.¹⁹⁸ For patents, the remaining years of enforcement cut short by an IPR invalidation should be considered in a takings analysis.

Finally, the issue of the retroactive application of IPR to invalidate patents issued prior to the enactment of the IPR process may also play a role in a takings analysis. Although the Court in *Oil States* did not address this issue, the Court may have shed light on this in *Lucas*: “in the case of personal property . . . [the property owner] ought to be aware of the possibility that new regulation might even render his property economically worthless.”¹⁹⁹ Therefore, this issue will likely have minimal effect on a takings analysis.

4. *Developments Since Oil States*

Three cases of interest have brought a takings claim since *Oil States* was decided.

In the first case, Advanced Audio Devices petitioned for writ of certiorari on the question of whether instituting IPR on patents granted before the process was established violates the Takings Clause.²⁰⁰ Five patents owned by the petitioner were affected in IPR proceedings and the Federal Circuit had affirmed the outcome of the IPR. Enumerating the *Penn Central* factors, the petitioner noted that (1) the economic impact was significant because “no reasonable return remains”; (2) the investment-backed expectations were

195. See Davida H. Isaacs, *Not All Property is Created Equal: Why Modern Courts Resist Applying the Takings Clause to Patents, and Why They are Right to Do So*, 15 GEO. MASON L. REV. 1, 2–3 (2007).

196. See 35 USC § 154 (2012).

197. See Richard A. Epstein, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455, 483 (2010).

198. See *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 332 (2002) (“Logically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use, because the property will recover value as soon as the prohibition is lifted.”).

199. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027–28 (1992).

200. Petition for Writ of Certiorari, *Advanced Audio Devices, LLC v. HTC Corp.*, 2018 WL 3819237 (2018) (No. 18-183).

impacted since, “practically overnight, the chance of patent invalidation in an adversarial proceeding has more than tripled, to a near certainty”; and (3) the character of the government action was “akin to a physical taking [by] permitting complete invasion by strangers of what were otherwise boundary lines reserved solely for the benefit of the patentee.”²⁰¹ However, the Court denied the petition.²⁰²

In the second case, petitioners sought compensation in the Court of Federal Claims for losses from IPR proceedings.²⁰³ At the conclusion of two earlier IPR proceedings, eighteen of twenty claims in the petitioner’s patent were cancelled and petitioner alleged that the federal government had taken the petitioner’s “property rights in the invalidated claims, along with the issuance and maintenance fees and the investments made in the patented technologies.”²⁰⁴ In considering a motion to dismiss by the government, the court determined that “patent rights are not cognizable property interests for *Takings Clause* purposes” and determined that the petitioner had failed to state a claim.²⁰⁵

In dismissing petitioner’s complaint as a matter of law, the court focused on the Congressional intent of the patent statute.²⁰⁶ Noting that “patent rights derive wholly from federal law,” the court used a public rights argument to rebut the plain language in the patent statute that “patents shall have the attributes of personal property.”²⁰⁷ Because the PTO has “continuing authority to review and potentially cancel patents after they are issued,” the court inferred a lack of Congressional intent to treat patents similarly to other forms of personal property.²⁰⁸ However, the court failed to convincingly address why patent property rights derive entirely from Congressional intent.

In the third case, petitioner argued that the retroactive application of IPRs to their patents issued before its enactment amounted to a taking.²⁰⁹ The Federal Circuit addressed this issue and found that IPRs did not differ sufficiently from other post-grant proceedings, *ex parte* reexamination and *inter partes* reexamination, that were available when the petitioner applied for and were granted their patents.²¹⁰ While acknowledging differences between these older proceedings and IPRs, the court found their similarities more

201. *See id.* at 9–12.

202. *Advanced Audio Devices, LLC v. HTC Corp.*, 139 S. Ct. 334 (2018).

203. *Class Action Complaint* at 4, 33, *Christy, Inc. v. United States*, No. 18-657C (Fed. Cl. 2018).

204. *Christy, Inc. v. United States*, 141 Fed. Cl. 641, 657 (2019).

205. *Id.* at 660.

206. *See id.* at 660.

207. *See id.* at 658–59 (citing 35 U.S.C. § 261 (2012)).

208. *See id.* at 559.

209. *See Celgene Corp. v. Peter*, 931 F.3d 1342 (Fed. Cir. 2019).

210. *See id.* at 1360.

significant: same substantive grounds, same evidentiary standard of proof, and same standard for claim construction.²¹¹ Moreover, the court equated these post-grant proceedings with district court proceedings to serve the purpose of reexamining patents that should not have been issued in the first place.²¹² Thus, determining that patent owners have always had the expectation that the validity of their patent may be reconsidered, the court found that there is no constitutional issue with retroactively applying IPRs.²¹³

These cases hint at upcoming developments to the regulatory takings doctrine as the courts consider its application to patents.

D. CHALLENGES TO THE APPLICATION OF TAKINGS IN IPR INVALIDATIONS

The application of takings in the case of a patent invalidation during an IPR proceeding is not without potential challenges.

A consequentialist argument can be made against applying the Takings Clause to patents. With millions of patents granted and an increasing number of IPRs instituted annually, must a takings analysis be applied to every proceeding? Moreover, what principle should limit the expansion of the regulatory takings doctrine from applying to invalidity findings by a district court or even to a rejected patent application? One limiting factor is that, as previously discussed, there is a narrow zone where a takings analysis is proper. Patent rights vest when the patent is granted and so rejected patent applications are not takings. Furthermore, the constitutional guarantees of Article III courts are sufficient without the protection of the Takings Clause.

An efficiency argument may also be made to prevent applying takings to patents. The IPR was created as a rapid proceeding to quickly adjudicate patent disputes. Thus, applying a takings analysis is antithetical to the Congressional intent. However, any economic analysis, whether in terms of monetary or judicial resources, is inappropriate. The Takings Clause is a constitutional protection of property rights and it cannot be dispensed with for efficiency gains. Similar to voting rights or civil rights, patent rights should not be diluted in favor of efficiency.²¹⁴

A variation of the efficiency argument states that the Takings Clause is not necessary because the marketplace has already priced in the possibility of patent invalidations from IPR proceedings.²¹⁵ Essentially, patent owners,

211. *See id.*

212. *See id.* at 1361.

213. *See id.* at 1362–63.

214. Scholars such as Richard Epstein have argued that property rights are as fundamental as civil rights and this likewise applies to patent rights. *See generally* RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN (1985).

215. This follows from a view of intellectual property mainly as a means of promoting innovation in the marketplace. *See, e.g.*, Peter S. Menell, *supra* note 163, at 726–28.

investors, and other parties already recognize the ever-present invalidity risk and have accordingly deployed resources appropriately. Sophisticated businesses and investors will seldom rely on a single patent; rather, investment decisions are made based on a portfolio of patents spanning multiple families.²¹⁶ The invalidity risk is already diversified through this investment strategy. However, this marketplace approach should not somehow replace the constitutional protection of the Takings Clause.

Moreover, by not applying a takings analysis, the government is tacitly agreeing with a lopsided outcome wherein low-quality patents remain active for a full twenty years while the most valuable patents are frequently challenged in IPRs and invalidated. The government is not in the business of choosing which patents can better advance the arts and sciences. Rather, it should encourage all inventions that can achieve this aim by granting all patents that add to the total body of public knowledge. Thus, the IPR process allows third parties to decide which patent should be scrutinized rather than promote a more even-handed approach.

An additional concern for applying takings to patents is that a savvy owner may attempt to somehow game the system. For example, a patent owner may attempt to make the patent unsusceptible to invalidation in IPR by seeking large investments so as to bolster the investment-backed expectation. However, this scenario is unrealistic. Patents are only one of many concerns for a successful business. Since there is always a possibility that a patent is invalidated by an Article III court, it is unrealistic to suggest that investors will over-invest across multiple patents, as even the most heavily-invested patent can be invalidated.²¹⁷ Moreover, as most patents are of low value, massively investing in every granted patent is an inefficient strategy.²¹⁸

IV. CONCLUSION

In *Oil States*, the Court opened the door to defining patents as property subject to the Takings Clause. As the regulatory takings doctrine has developed and expanded, it is inevitable that a future case may appear before the Court applying regulatory takings to patents. While constitutional guarantees ensure that outcomes from an Article III court are in the interest of fairness and justice, the same cannot be said of IPR proceedings due to its inherent

216. See Michael Risch, *Patent Portfolios as Securities*, 63 DUKE L.J. 89, 103 (2013).

217. Even patents that survive IPRs do not become invulnerable. See Gregory Dolin, *Dubious Patent Reform*, 56 B.C. L. REV. 881, 943–44 (2015) (discussing the strategy of “stacking” IPR petitions and noting that “there is little to nothing that the patentee can do to prevent such abuse”).

218. See BESSEN & MEURER, *supra* note 23, at 100 (“[M]ost patents have little value . . . the distribution pattern of a variety of measures of patents . . . tend to adhere to the ‘80-20’ rule: 80 percent of the total value is contributed by 20 percent of the inventions.”).

inconsistencies. Thus, a takings analysis is the proper check on the IPR process. As the makeup of the Court continues to change, a majority of the justices may soon be ready to apply the Takings Clause to patents.

PATENT LITIGATION POST-*SAS*: NUANCED IMPLICATIONS OF BINARY IPR INSTITUTION

Victoria Constance Huang[†]

I. INTRODUCTION

Modern patent litigation demands offensive and defensive maneuvering on multiple fronts. A single case may play out in district court and the Federal Circuit, in proceedings before the Patent Trial and Appeal Board (PTAB or Board), in investigations before the International Trade Commission (ITC), and in transnational and supranational forums across the globe.¹ Within the United States, one of the most prominent mechanisms for resolving patent disputes is inter partes review (IPR) before the PTAB. IPR allows a party to challenge a patent's validity before the PTAB in an expedited and adversarial process. This process, and the relationship between the Board and the petitioner, was significantly altered by *SAS Institute Inc. v. Iancu* in 2018.² In *SAS*, the Supreme Court held that the Board had the power to institute IPR only on all claims challenged in a petition. In other words, the PTAB possessed only the authority to decide whether or not to institute IPR in an all-or-nothing, binary manner. Partial institution of IPR on only some claims in a given petition is now prohibited.

How did *SAS* change the patent litigation landscape? This Note seeks to provide a response to this question in several parts. Section II.A and Section II.B of this Note describe the emergence of *SAS* by summarizing the short history of inter partes review. Section II.C turns to the case itself, detailing the story that led to the Supreme Court case and performing a close reading of the majority and dissenting opinions. Section II.D summarizes responses to *SAS* from the PTAB, the Federal Circuit, and Administrative Patent Judges. In Part III, the Note analyzes the post-*SAS* landscape. Section III.A summarizes the findings of the analysis. Section III.B presents new data on pre-*SAS* and

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law. Sincere thanks to Professor Robert Merges, Chris Chuang, Katharine Cummings, the participants of the Law & Technology Writing Workshop at Berkeley Law, and the Berkeley Technology Law Journal editors.

1. See generally Johann Pitz et al., *Survey, in* PATENT LITIGATION IN GERMANY, JAPAN AND THE UNITED STATES: A PRACTITIONER'S GUIDE 1, 1–16 (2015) (describing the patent systems of Europe, Japan, and the United States).

2. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018).

post-*SAS* IPR decisions. Section III.C examines motions to stay district court actions pending IPR to understand *SAS*'s consequences outside the PTAB context. Finally, Section III.D investigates some possible social and institutional ramifications of the data. Overall, this Note describes the nuanced post-*SAS* landscapes, and suggests practical ways to take advantage of those landscapes in patent litigation.

II. LEGAL BACKGROUND

A. INTER PARTES REVIEW

Congress designed IPR as a cheaper, faster alternative to conventional patent litigation in district courts.³ The structure of IPR is codified at Chapter 31 of Title 35 of the U.S. Code.

IPR trial proceedings are adversarial proceedings before the PTAB⁴ that allow any non-owner of a patent to petition for the cancellation of patent claims.⁵ Nine months after a patent is granted (or immediately after the termination of a post-grant review if one is instituted), any non-owner may petition for the institution of an IPR “to cancel as unpatentable [one] or more claims of a patent” on a ground available under § 102 or § 103 of 35 U.S.C.

3. See Anne S. Layne-Farrar, *The Cost of Doubling Up*, 10 LANDSLIDE 52, 1 (2018); H.R. REP. NO. 112-98, pt. 1, at 48 (2011) (stating the purpose of the PTAB's administrative processes is to “provid[e] quick and cost effective alternatives to litigation”).

4. In addition to inter partes reviews, the PTAB also presides over Post Grant Review and Covered Business Method proceedings. However, IPRs predominate with 92% of PTAB petitions seeking IPR institution. United States Patent and Trademark Office, *TRIAL STATISTICS: IPR, PGR, CBM 3* (Aug. 2018), https://www.uspto.gov/sites/default/files/documents/Trial_statistics_20180831.pdf [perma.cc/C38G-KQN3].

5. *Inter Partes Review*, USPTO.GOV, <https://www.uspto.gov/patents-application-process/appealing-patent-decisions/trials/inter-partes-review> [perma.cc/D3T6-NAP8] (last visited Dec. 23, 2019); see *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1352 (2018) (“The new [inter partes review] procedure allows private parties to challenge previously issued patent claims in an adversarial process before the Patent Office that mimics civil litigation.”). While any non-owner of a patent may challenge a patent through IPR, standing to appeal IPR decisions in the Federal Circuit is more complicated. See *E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1004–05 (Fed. Cir. 2018) (holding that an IPR petitioner operating a plant capable of infringing the challenged patent had “satisfied the injury in fact requirement for Article III standing”); *JTEKT Corp. v. GKN Auto., Ltd.*, 898 F.3d 1217, 1221, (Fed. Cir. 2018) (holding that an IPR petitioner with an evolving product concept failed to establish actual injury sufficient for Article III standing), *petition for cert. filed*, (U.S. Dec. 12, 2018) (No. 18-750); see also *Federal Circuit Update-October 2018: Intellectual Property and Appellate Practice Groups 4–5*, GIBSON, DUNN & CRUTCHER LLP (Oct. 1, 2018), <https://www.gibsondunn.com/wp-content/uploads/2018/10/federal-circuit-update-october-2018-1.pdf> [perma.cc/7KSP-TX8A] (noting that *JTEKT* and *DuPont* together “illustrate[] the fact dependent and uncertain nature of the standing inquiry”).

and “on the basis of prior art consisting of patents or printed publications.”⁶ The petition is similar to a civil complaint and must set forth the petitioner’s grounds for standing, the specific claim or claims challenged, the statutory grounds under § 102 or § 103 on which the challenges are based, the purported prior art, the proffered claim construction, and any relevant evidence.⁷ Once a petition is filed, a patent owner has three months to submit a preliminary response to the petition.⁸ Within three months of the filing of a preliminary response or the last date on which such a response may be filed, the Director of the Patent and Trademark Office (“Director”), through the PTAB,⁹ issues a decision on whether to institute an IPR.¹⁰ If the petition and response show “that there is a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition,” the Director may institute an IPR.¹¹ The Director’s decision whether to institute the IPR is final and nonappealable.¹²

Once instituted, IPR strongly resembles conventional civil litigation. The parties to an IPR may engage in limited discovery, including depositions; file briefs; present at an oral hearing; and even settle the dispute and dismiss the IPR.¹³ Unlike in civil litigation, however, during IPR, a patent owner may also move to amend the patent to cancel challenged claims or propose a reasonable number of substitute claims.¹⁴ Absent dismissal, the Board will issue a decision “with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under § 316(d).”¹⁵ Once a final decision is issued, IPR estoppel applies and a petitioner is barred from relitigating the claims before the PTAB.¹⁶

6. 35 U.S.C. § 311 (2012); *see id.* § 315(b) (“An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.”).

7. *See* 37 C.F.R. § 42.104 (2012).

8. *Id.* § 42.107(b).

9. *Id.* § 42.4(a).

10. 35 U.S.C. § 314(b) (2012).

11. 35 U.S.C. § 314 (2017).

12. *Id.* § 314(d); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016) (“[W]here a patent holder merely challenges the Patent Office’s ‘determin[ation] that the information presented in the petition . . . shows that there is a reasonable likelihood’ of success ‘with respect to at least [one] of the claims challenged,’ . . . § 314(d) bars judicial review.” (second alteration in original)).

13. 35 U.S.C. §§ 316–317 (2012).

14. *Id.* § 316(a)(9).

15. *Id.* § 318.

16. *See id.* § 315(e)(1) (prohibiting a petitioner from “request[ing] or maintain[ing] a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review”).

In general, IPR proceedings cost patent owners and petitioners far less than district court litigation and reach final decisions more quickly.¹⁷ In contrast to district court infringement cases, where patents are afforded a presumption of validity, in IPR proceedings, petitioners must only show by the preponderance of evidence standard that the claims are unpatentable.¹⁸ Further, because district courts and the PTAB applied different standards in claim construction until the Patent and Trademark Office's recent rule change, in IPRs filed prior to November 13, 2018, it was easier for evidence to be invalidating prior art in an IPR proceeding than in a district court proceeding.¹⁹

Patents are often subject to both district court litigation and PTAB proceedings. Approximately 85% of patents facing IPR challenges are also litigated in district court.²⁰ This “doubling up” can affect district court proceedings through IPR estoppel.²¹ IPR estoppel precludes a petitioner-defendant from later asserting a ground that the petitioner raised or reasonably could have raised during IPR.²² Prior to *SAS*, both the PTAB and district courts did not extend IPR estoppel to claims raised in a petition but not instituted.²³

17. In 2015, “the median cost of an IPR through a PTAB hearing was \$275,000 and through appeal was \$350,000.” Layne-Farrar, *supra* note 3, at 53 (2018). Patent infringement litigation typically cost \$1 million through discovery and \$2 million through final disposition, even for low stakes cases with \$1–\$10 million in dispute. *Id.*

18. 35 U.S.C. § 316(e); Layne-Farrar, *supra* note 3, at 54.

19. See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340 (USPTO Oct. 11, 2018) (to be codified at 37 C.F.R. pt. 42) [hereinafter *USPTO Changes to Claim Construction Standard*]; Layne-Farrar, *supra* note 3, at 55. Previously, the USPTO applied the “broadest reasonable interpretation” standard to claim construction, while federal courts and the ITC followed the claim construction standard first established in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). See *USPTO Changes to Claim Construction*, at 51341. For IPRs filed on November 13, 2018 or later, the PTAB applies the same standard as federal courts and the ITC, the *Phillips* standard. *Id.*

20. Layne-Farrar, *supra* note 3, at 53; Saurabh Vishnubhakat et al., *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH. L. J. 45, 69 (2016).

21. See 35 U.S.C. § 315(e)(2) (2017); Layne-Farrar, *supra* note 3, at 54.

22. See 35 U.S.C. § 315(e)(2); Layne-Farrar, *supra* note 3, at 54. IPR estoppel does not bind parties in district court litigation who were neither the petitioner, the real party in interest, nor a privy of the petitioner in the IPR proceeding. 35 U.S.C. § 315(e)(2) (2017); *cf.* *WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1320 (Fed. Cir. 2018) (holding that the PTAB's consideration of a party's opportunity to control IPR petition was appropriate for determining whether the party was a privy of the petitioner for the purposes of § 315(b)'s time bar).

23. See Barbara Clarke McCurdy & Arpita Bhattacharyya, *Continuing Uncertainty on Scope of IPR Petitioner Estoppel*, LAW360 (Jan. 4, 2018), <https://www.law360.com/articles/997725/continuing-uncertainty-on-scope-of-ipr-petitioner-estoppel> [perma.cc/PJT8-QMCK] (noting that the PTAB and district courts do not apply IPR estoppel to noninstituted claims, and that *SAS* would “likely bear heavily on estoppel against noninstituted claims”).

B. PARTIAL INSTITUTION OF IPR

Prior to *SAS*, the PTAB recognized the practice of partial institution, whereby the Board could authorize IPRs to proceed on “all or some of the challenged claims and on all or some of the grounds of unpatentability asserted for each claim.”²⁴ In other words, the PTAB could choose to institute an IPR in part and allow only some of the challenges in a given petition to proceed. For example, the PTAB could choose to only address some claims challenged in a petition, on only some grounds of unpatentability raised in the petition. In early 2018, approximately 14% of institution decisions were partial institutions.²⁵

C. *SAS INST., INC. V. IANCU*

On April 24, 2018, the Supreme Court issued its opinion in *SAS Inst., Inc. v. Iancu*, holding that the PTAB may only make IPR institution decisions on a binary basis, and not in part.²⁶ In *SAS*, the defendant in the underlying patent infringement case had petitioned for IPR to challenge certain claims of the plaintiff’s patent and the PTAB instituted on some challenged claims. Following an appeal from the PTAB’s decision and the Federal Circuit’s decision affirming the PTAB’s partial institution rule, the Supreme Court granted certiorari and ultimately abolished partial IPR institution. Justice Gorsuch delivered the opinion of the Court and was joined by Chief Justice Roberts and Justices Kennedy, Thomas, and Alito.²⁷ Justice Ginsburg wrote a dissenting opinion, which was joined by Justices Breyer, Sotomayor, and Kagan.²⁸ Justice Breyer wrote an additional dissent, in which Justices Ginsburg and Sotomayor joined, and in which Justice Kagan joined in part.²⁹

Years before the Supreme Court decision, the case started as a patent infringement suit in district court, then an IPR before the PTAB. ComplementSoft LLC was the assignee of U.S. Patent No. 7,110,936.³⁰ The ’936 patent protected an “Integrated Development Environment for generating and maintaining source code . . . in particular, programmed in data manipulation languages.”³¹ ComplementSoft filed a suit against SAS Institute

24. 37 C.F.R. § 42.108(a) (2017).

25. John B. Pegram, *Inter Partes Review Survival Rates Based on Decision Statistics—A Preliminary Report*, FORDHAM IP INST. (2018), <http://fordhamipinstitute.com/wp-content/uploads/2018/03/Inter-Partes-Review-Decision-Statistics-2018-04-03.pdf> [perma.cc/BUV5-EQFH].

26. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1353 (2018).

27. *Id.* at 1352.

28. *Id.* at 1360.

29. *Id.* Justice Kagan joined the Breyer dissent except as to Part III-A.

30. *SAS Inst., Inc. v. ComplementSoft, LLC.*, 825 F.3d 1341, 1343 (Fed. Cir. 2016) [hereinafter *SAS (Federal Circuit)*], *rev’d*, 138 S. Ct. 1348 (2018).

31. *Id.* at 1343 (quoting U.S. Patent No. 7, 110, 936 col. 2 ll. 8–11).

in the Northern District of Illinois for infringing the '936 patent.³² SAS filed a petition for IPR of the '936 patent with the PTAB, challenging all sixteen of '936's claims as anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103.³³ A year after instituting IPR of claims 1 and 3–10, the PTAB issued its decision, finding that SAS had “shown, by a preponderance of evidence, that claims 1, 3, and 5–10 [were] unpatentable,” but had “not met its burden to show that claim 4 [was] unpatentable.”³⁴

SAS appealed to the Federal Circuit from the PTAB's decision, arguing that “the Board misconstrued a claim term and that the Board erred by not addressing in the decision claims SAS petitioned against, but that the Board did not institute as part of the proceeding.”³⁵ ComplementSoft cross-appealed two of the Board's claim constructions.³⁶ Following oral argument, the Federal Circuit found that the Board had not erred in any of the claim constructions and held that “the Board did not need to address in its final written decision claims it did not institute.”³⁷ Nonetheless, the Federal Circuit vacated the PTAB's determination that claim 4 was patentable and remanded the matter.³⁸

Following the denial of petitions for panel rehearing and rehearing en banc,³⁹ SAS petitioned for a writ of certiorari on January 21, 2017, presenting the question:

Does 35 U.S.C. § 318(a), which provides that the Patent Trial and Appeal Board in an inter partes review “shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner,” require that Board to issue a final written decision as to every claim challenged by the petitioner, or does it allow that Board to issue a final written decision with respect to the patentability of only some of the patent claims challenged by the petitioner, as the Federal Circuit held?⁴⁰

32. Complaint for Patent Infringement at 2, *ComplementSoft LLC v. SAS Inst., Inc.*, No. 1:12-cv-7372 (Sept. 14, 2012).

33. Petition for Inter Partes Review under 37 C.F.R. § 42.100, *SAS Inst., Inc. v. ComplementSoft, LLC.*, 825 F.3d 1341 (Fed. Cir. 2016) (No. IPR2013-00226), 2013 WL 5402630; *SAS (Federal Circuit)*, 825 F.3d at 1346.

34. *SAS Inst., Inc. v. ComplementSoft, LLC.*, No. IPR2013-00226, (P.T.A.B. Aug. 6, 2014).

35. *SAS (Federal Circuit)*, 825 F.3d at 1343; see Petitioner SAS Institute, Inc.'s Notice of Appeal, 825 F.3d 1341 (Fed. Cir. 2016) (No. IPR2013-00226), 2015 WL 113813.

36. *SAS (Federal Circuit)*, 825 F.3d at 1343.

37. *Id.* at 1343.

38. *Id.*

39. Order Denying the Petition for Rehearing En Banc, *SAS Inst., Inc. v. ComplementSoft LLC*, 2016 WL 9330462, at 2 (Fed. Cir. Nov. 7, 2016).

40. Petition for a Writ of Certiorari, at i, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 491052.

In its opening Supreme Court brief, SAS argued that the Federal Circuit's decision was contrary to § 318(a) and the America Invents Act (AIA) and its purpose.⁴¹ In response, the Director⁴² reframed the questions presented as:

1. Whether the USPTO may agree to institute inter partes review regarding the patentability of a subset of the patent claims of which review is requested.
2. Whether, if the USPTO institutes review of some but not all of the claims that are challenged in a petition for inter partes review, the Board must address the unreviewed claims in its final written decision.⁴³

The Director argued that PTAB's claim-by-claim determination was proper because the AIA foreclosed judicial review of the decision not to institute review of certain claims, the AIA's language supported a claim-by-claim institution, the U.S. Patent and Trademark Office (USPTO) regulation was entitled to deference, and the Board properly issued decisions addressing instituted claims only.⁴⁴ Specifically, the Director argued that under *Chevron*, the PTAB's choice to allow partial institution was entitled to deference because it was a reasonable interpretation of the language in § 318(a).⁴⁵

41. Brief for Petitioner, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3098282. The Intellectual Property Owners Association (IPO) submitted an amicus curiae brief in support of the Petitioner. Brief of Amicus Curiae Intellectual Property Owners Association in Support of Petitioner, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3141393. In the brief, IPO argued that the plain language of the AIA required binary institution, that partial institution required non-instituted claims to be re-litigated, and that partial institution undermined the legislative intent of the AIA. *Id.* at 2.

42. The Director of the United States Patent and Trademark Office, who was an Intervenor in the case at the Federal Circuit stage, became a respondent in the proceeding before the Supreme Court. Petition for a Writ of Certiorari, at i, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 491052.; Brief for the Federal Respondent, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3948437.

43. Brief for the Federal Respondent, at I, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3948437 at *I. The Houston Intellectual Property Law Association (HIPLA) submitted an amicus brief in support of the Respondents. Brief of Amicus Curiae Houston Intellectual Property Law Association in Support of Respondents, *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 4082014. HIPLA argued that the requiring the PTAB's IPR decisions to address each raised challenge would essentially make the institutions appealable and would increase inefficiency. *Id.* at 4–5. Further, HIPLA argued, IPR was “not intended to, and in reality simply does not, replace the invalidity portion of the district court litigation.” *Id.* at 14–15. Thus, “the harm threatened to a patent owner” by binary IPR institution was “likely greater than any harm [a] patent owner face[d] through the loss of a few estoppel arguments” under partial institution, HIPLA concluded. *Id.*

44. Brief for the Federal Respondent at III, *SAS Inst., Inc. v. Iancu*, 238 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3948437, at *III.

45. *Id.* at *44.

In a manner much more focused on public policy, ComplementSoft stated the question presented as: “Does the America Invents Act require patent owners and the Patent Trial and Appeal Board to spend resources conducting an inter partes review on patent claims in which the petitioner failed to show even a reasonable likelihood of success in its petition?”⁴⁶ ComplementSoft argued that claim-by-claim analysis and institution were improper because the language and context of the AIA supported the more efficient approach.⁴⁷ Further, ComplementSoft argued, the PTAB’s existing interpretation served fairness and efficiency objectives and was entitled to deference.⁴⁸

Justice Gorsuch’s majority opinion focused primarily on statutory interpretation and left policy arguments to be “properly addressed to Congress, not [the] Court.”⁴⁹ Starting with § 318, the Court reasoned that the “shall issue” and “any patent claim challenged” language “supplie[d] a ready answer” to the issue presented and held that the statute meant that “the Board *must* address *every* claim the petitioner has challenged.”⁵⁰ Partial institution, the Court noted, granted the Director a “partial institution power” that “appear[ed] nowhere in the text of § 318, or anywhere else in the statute.”⁵¹ The Court held that this expansion of the Director’s power was contrary to the statutory structure of the IPR process.⁵² Comparing IPR to “the civil litigation system it mimics” and contrasting it to the ex parte examinations of the past, the Court found that the IPR petitioner was rightly the “master of its complaint.”⁵³ “[I]t’s the petitioner, not the Director, who gets to define the contours of the proceeding,” the Court concluded.⁵⁴

Similarly, the Court found that the language of § 314 provided only for a “binary choice—either institute review or don’t” and provided no “license to depart from the petition and institute a *different* inter partes review.”⁵⁵ Further, the “at least [one] of the claims” language of § 314(a) “anticipate[d] a regime where a reasonable prospect of success on a single claim justify[ed] review of all.”⁵⁶

The Court found that the rest of the statute confirmed that all claims challenged in an instituted petition must be addressed in a decision. That a

46. Brief for Respondent ComplementSoft, LLC, at i, *SAS Inst., Inc. v. Iancu*, 238 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3948186, at *i.

47. Brief for Respondent ComplementSoft, LLC, at 11–12 *SAS Inst., Inc. v. Iancu*, 238 S. Ct. 1348 (2018) (No. 16-969), 2017 WL 3948186, at *11–12.

48. *Id.* at 20–21.

49. *SAS Inst., Inc. v. Iancu*, 238 S. Ct. 1348, 1358 (2018).

50. *Id.* at 1354.

51. *Id.* at 1355.

52. *Id.*

53. *Id.*

54. *Id.*

55. *Id.* at 1355–56.

56. *Id.* at 1356.

patent owner must submit a “response to the petition” after IPR institution further supports a binary choice, and not a partial institution structure.⁵⁷ The possibility of a patent owner canceling a challenged claim provided a ready explanation for the discrepancy between “in the petition” used in § 314 and “by the petitioner” used in § 318.⁵⁸ “Whatever differences they might display,” the court concluded, “§ 314(a) and § 318(a) both focus on the *petitioner’s* contentions and, given that, it’s difficult to see how they might be read to give the *Director* power to decide what claims are at issue.”⁵⁹

The Court found the Director’s *Chevron* argument—that the PTAB’s regulation permitting partial review was entitled to deference—unpersuasive because after applying traditional tools of interpretation to the statute in question, the Court was left with no uncertainty that warranted deference.⁶⁰ Where traditional tools of statutory interpretation suffice to elucidate, *Chevron* deference is inapposite.⁶¹

Finally, Justice Gorsuch addressed the issue of whether the Court possessed the power to review the Director’s partial institution decision. The Director argued that given § 314(d) and the Court’s decision in *Cuozzo*, the Supreme Court lacked this authority.⁶² Section 314(d) provided that the “determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable.”⁶³ The majority found that the *Cuozzo* court held that courts were prevented “from entertaining an argument that the Director erred in instituting an inter partes review of certain patent claims.”⁶⁴ However, the Court held that even under *Cuozzo*, § 314(d) did not “enable the [Patent and Trademark Office] to act outside its statutory limits.”⁶⁵ Partial institution, the Court determined, was just the type of “shenanigan” that *Cuozzo* emphasized was to be curtailed through judicial review.⁶⁶

Justices Ginsburg, Breyer, Sotomayor, and Kagan dissented from the majority’s opinion. In the first dissenting opinion, Justice Ginsburg characterized the majority’s interpretation of 35 U.S.C. § 318(a) as a “wooden” reading that would lead to inefficiency.⁶⁷ Under the majority’s holding, Justice Ginsburg hypothesized, the PTAB “could simply deny a petition containing

57. *Id.* (citing § 316(a)(8)).

58. *Id.* at 1357.

59. *Id.*

60. *Id.* at 1358; *see Chevron U.S.A., Inc. v. Nat. Res. Def. Council Inc.*, 467 U.S. 847 (1984).

61. *Id.*

62. *Id.* at 1359.

63. *Id.*

64. *Id.*; *see Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016).

65. *Chevron*, 467 U.S. at 1359.

66. *Id.*

67. *Id.* at 1360 (Ginsburg, J., dissenting).

challenges having no ‘reasonable likelihood’ of success” and petitioners could simply file an amended petition “shorn of challenges the Board [found] unworthy of [IPR].”⁶⁸

Justice Breyer’s dissent more closely mirrored the majority’s progression. First, he interpreted the statute at issue as leaving a “gap that Congress implicitly delegated authority to the [Patent and Trademark Office] to fill.”⁶⁹ The language of the statute, Justice Breyer noted, created an ambiguity as to the meaning of “claim[s] challenged by the petitioner.”⁷⁰ Further, Justice Breyer thought it implausible that “patent claim challenged by the petitioner” in § 318(a) referred to challenges raised, but never instituted.⁷¹ Instead, it seemed more reasonable that the phrase referred to challenges made during the course of an IPR.⁷² Second, Justice Breyer reasoned that under *Chevron*, the PTAB possessed the “gap-filling authority” necessary for enacting reasonable rules to overcome this ambiguity.⁷³ Finally, Justice Breyer found that the PTAB’s regulation that permitted partial institution was a “reasonable exercise of [its] authority.”⁷⁴ Because Congress had explicitly granted the PTAB the authority to “issue regulations setting forth the standards for the showing of sufficient grounds to institute a review and establishing and governing inter partes review,” the PTAB has the authority to order a partial institution.⁷⁵

D. AFTER *SAS*

Two days after the *SAS* ruling was issued, the USPTO issued a release entitled “Guidance on the impact of SAS on AIA trial proceedings.”⁷⁶ In the brief announcement, the USPTO stated that “at this time, if the PTAB institute[d] a trial, the PTAB [would] institute on all challenges raised in the petition.”⁷⁷ With regard to pending trials in which a panel instituted only some challenges raised in a petition, the Office stated, “the panel may issue an order supplementing the institution decision to institute on all challenges raised in the petition.”⁷⁸

68. *Id.*

69. *Id.* (Breyer, J., dissenting).

70. *Id.* at 1362.

71. *Id.* at 1363.

72. *Id.*

73. *Id.* at 1364–65.

74. *Id.* at 1365.

75. *Id.* (quoting §§ 316(a)(2), (4); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016)).

76. UNITED STATES PATENT AND TRADEMARK OFFICE, *Guidance on the Impact of SAS on AIA Trial Proceedings* (Apr. 26, 2018) [hereinafter *USPTO Guidance on SAS*], <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial> [perma.cc/D93F-4F7Q].

77. *Id.*

78. *Id.*

Subsequently, the Federal Circuit in *PGS Geophysical* upheld the PTAB's new "all challenges raised" approach.⁷⁹ Noting that the "[e]qual treatment of claims and grounds for institution purposes has pervasive support in *SAS*," the court found that just as the PTAB was not to decide whether to institute on a claim-by-claim basis, neither should the Board institute in a "ground-by-ground" manner.⁸⁰

Administrative Patent Judges have advised counsel for petitioners to continue to focus their IPR petitions on their strongest arguments and reminded counsel for patent owners that they may use statutory tools, such as amendments, to respond to IPRs.⁸¹

III. ANALYSIS

A. SUMMARY OF ANALYSIS

This Note examines two primary loci of *SAS*'s effect on patent litigation: decisions in IPR proceedings and motions to stay in district court litigation. The first part of this analysis gathers and interprets data from IPR decisions issued before and after *SAS* to understand how petitioners may best pursue IPR in a post-*SAS* world. The data suggest that the claims proceeding through IPR as a result of *SAS* are getting less analysis than the claims unaffected by *SAS*.⁸² Additionally, the ultimate success rate for IPR claims likely instituted because of *SAS* is significantly lower than claims likely unaffected by *SAS*.⁸³

Second, this Note scrutinizes post-*SAS* orders on motions to stay pending IPR to investigate how defendants may leverage *SAS* in seeking stays of district court litigation.⁸⁴ This analysis suggests that the motions filed prior to IPR institutions are unlikely to benefit from *SAS* unless filed in the Northern District of California or the Central District of California. And even those motions face uncertain odds. Finally, the Note explores potential social and institutional consequences of *SAS*.⁸⁵

79. *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018).

80. *Id.*

81. James A. Worth & David P. Ruschke, *PTAB Practice Tips Post-SAS*, 100 J. PAT. & TRADEMARK OFF. SOC'Y 271, 276 (2018).

82. *See infra* Section III.B.3. Claims unaffected by *SAS*, or strong claims, are claims with strong IPR challenges that would have been instituted even before *SAS*. Because it is not possible to pinpoint the exact claims instituted because of *SAS*, this Note distinguishes between mixed and uniform IPR decisions to identify the claims likely instituted because of *SAS*. *See infra* Section III.B.2.

83. *See infra* Section III.B.4.

84. *See infra* Section III.C.

85. *See infra* Section III.D.

B. IPR DECISIONS AFTER *SAS*

1. *IPR Decisions*

The PTAB issues decisions in IPRs to “address the issues necessary for resolving the proceedings” by determining the patentability of challenged patent claims.⁸⁶ The decisions are issued on behalf of the PTAB pursuant to 35 U.S.C. § 318(a) by panels of three administrative patent judges. The decisions often include a procedural history and identify the claims and grounds on which the Board determines patentability challenges. Petitioners make seek judicial review of an IPR decision by appealing to the Federal Circuit.⁸⁷

2. *Methodology*

This Note analyzes 200 decisions in IPR proceedings, 100 issued prior to *SAS* and 100 issued after.⁸⁸ The 100 pre-*SAS* decisions were all issued in the early months of 2018 before the *SAS* opinion was published on April 24, 2018.⁸⁹ The 100 post-*SAS* decisions were issued in the months following, but no earlier than April 26, 2018, when the PTAB released its “Guidance on the Impact of SAS on AIA Trial Proceedings.”⁹⁰ Because each design patent can have only one claim, decisions in IPRs of design patents were excluded.⁹¹

The data gathered from each decision includes: (1) the number of claims decided, (2) the number of claims determined to be unpatentable, (3) the number of claims not determined to be unpatentable, (4) the number of prior art references considered, and (5) the length of the decision in pages.⁹²

Given the variation in formats and limits of decisions, it was not possible to identify the decisions that included more claims or grounds as a result of the *SAS* ruling. However, the data revealed that mixed decisions—decisions finding some claims were unpatentable and others not unpatentable—increased by 6% (Figure 1). *SAS* held that a petitioner is “entitled to a final

86. 35 U.S.C. § 318; Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

87. 35 U.S.C. § 141(a). Standing to appeal to the Federal Circuit is complex. *See supra* note 5.

88. The IPR decisions were selected at random.

89. *SAS Inst., Inc. v. Iancu*, 238 S. Ct. 1348, 1348 (2018).

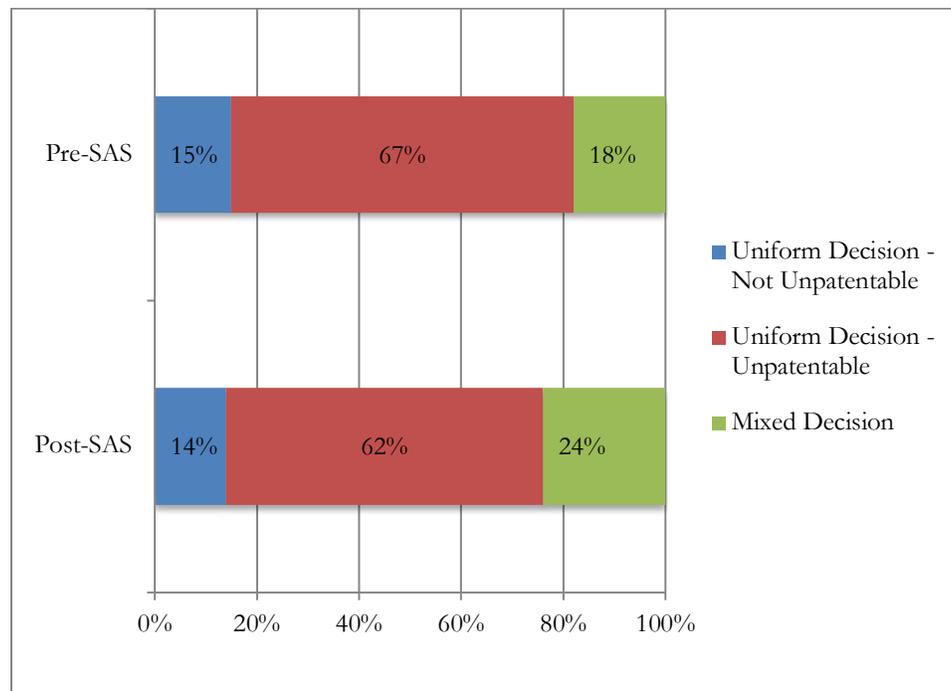
90. *USPTO Guidance on SAS*, *supra* note 96. For pre-*SAS* analysis, decisions from January 2018 to April 2018 were considered. For post-*SAS* analysis, decisions from April 2018 to September 2018 were considered.

91. *See* 37 C.F.R. § 1.153(a) (“More than one claim is neither required nor permitted.”); A Guide to Filing a Design Patent Application, *A Single Claim*, USPTO.GOV, <https://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/design-patent-application-guide> [perma.cc/F9XP-XP95] (last visited Dec. 23, 2019).

92. Blank pages were not considered a page for the purposes of calculating decision lengths.

written decision addressing all of the claims [he] has challenged.”⁹³ This holding would likely result in weakly challenged claims, SAS-added claims, receiving final determination when bundled with stronger challenges. Given this effect, it is reasonable that the rate of mixed decisions increased following SAS. For these reasons, this Note looks particularly to mixed decisions to understand how SAS may have affected IPR decisions overall.⁹⁴ By the same reasoning, uniform decisions finding all challenged claims not unpatentable likely capture claims unaffected by SAS, claims with strong challenges that would have been instituted even before SAS.

Figure 1. Proportion of Mixed Decisions and Uniform Decisions (Considering 100 pre-SAS and 100 post-SAS IPR Decisions)



3. *Post-SAS, Each Instituted Claim Likely Receives Less Analysis in IPR Decisions*

At first glance, IPR decisions issued after the SAS decision are in general longer. However, a closer examination suggests that following SAS, the PTAB

93. SAS Inst., Inc. v. Iancu, 238 S. Ct. 1348, 1359 (2018).

94. However, it is worth noting that mixed decisions would not account for all SAS-added claims. Some SAS-added claims would be addressed in uniform decisions if the added claims were instituted with strong claims—claims that would have been instituted even before SAS—ultimately found to be not unpatentable.

has analyzed *SAS*-added claims less thoroughly than claims unaffected by *SAS*.

Overall, an average post-*SAS* decision, at 46.18 pages long, is nearly 4 pages longer than a pre-*SAS* decision (Figure 2). Breaking down the data further, it is obvious that most of this increase is correlated with a rise in mixed decisions. The average mixed decision is about 8.31 pages longer than its pre-*SAS* counterpart (Figure 3). In contrast, the average post-*SAS* decision with a uniform outcome of not unpatentable has decreased by 6.77 pages. The average post-*SAS* decision with a uniform outcome of unpatentable has increased by only 4.51 pages (Figure 3).

Comparing uniform decisions with mixed decisions reveals that the difference in average length between the two categories has also increased following *SAS*. As explained above, mixed decisions are of special interest because of their likely inclusion of *SAS*-added claims. When partial institution was still practiced, the difference in length between uniform (both unpatentable and not unpatentable) and mixed decisions was fewer than two pages. After *SAS*, the difference increased to just under seventeen pages, preliminarily suggesting that IPRs with *SAS*-added claims are receiving the bulk of the increase in IPR decision analysis (Figure 3).

Figure 2. Average number of pages per IPR decision (Overall) pre-*SAS* and post-*SAS*

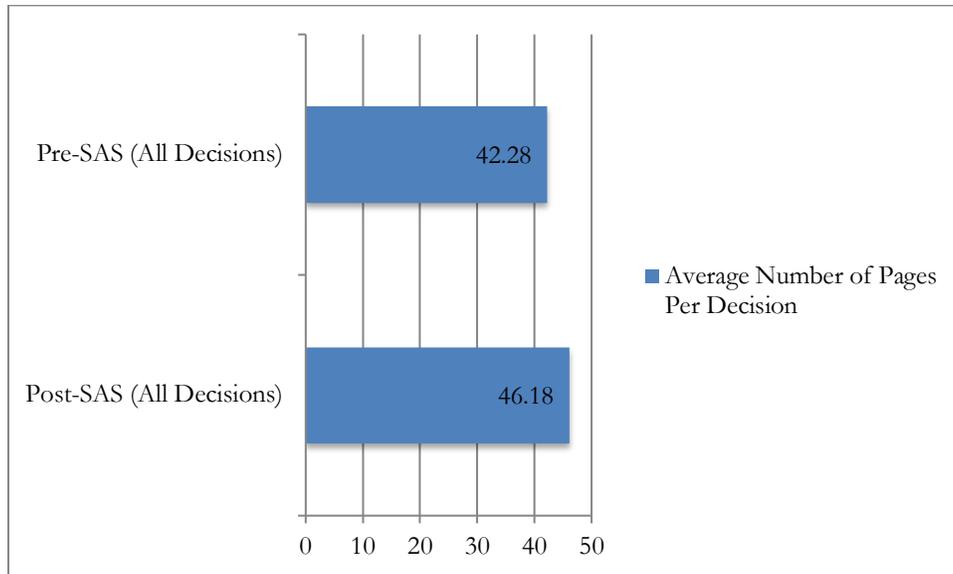
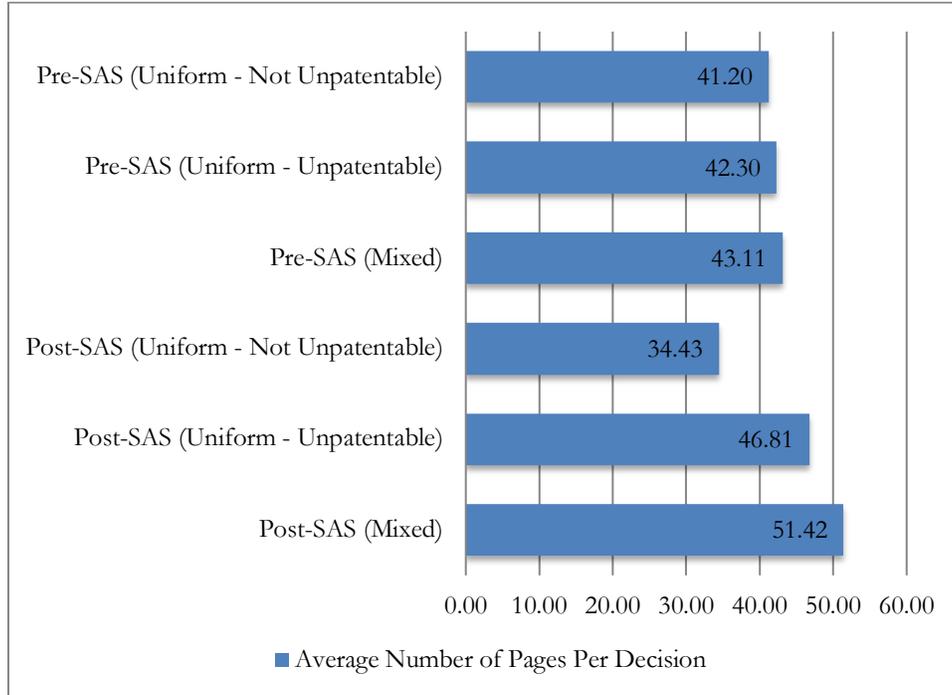


Figure 3. Average number of pages per IPR decision (Uniform v. Mixed Decisions) pre-SAS and post-SAS



However, this increase does not mean that claims are receiving more analysis after *SAS*'s ruling, especially when scrutinized alongside the increase in claims per decision. Examining the rise in the number of claims per decisions post-*SAS* suggests that each claim is likely receiving less analysis post-*SAS*. Overall the number of claims subject to determination in the average decisions increased by 2.28 claims, raising the average number of claims in a decision from 12.53 to 14.81 claims (Figure 4). Differentiating between mixed and uniform decisions shows that an average mixed decision determines the patentability of approximately 5.28 more claims than its pre-*SAS* counterpart, for an average total of 18.67 claims (Figure 5). A uniform decision post-*SAS*, on the other hand, considers only 1.25 more claims than pre-*SAS*, for an average total of 13.59 claims. Distinguishing between mixed decisions and uniform decisions in this way shows that most of the additional claim load is coming in through mixed decisions. As a result, the difference between mixed and uniform decisions, in terms of average number of claims, is much wider than before, with the average mixed decision determining 5.07 more claims than an average uniform decision.⁹⁵

95. Prior to *SAS*, the difference in average number of claims between uniform and mixed decisions was 1.05, with the mixed decision determining slightly more claims.

Figure 4. Average number of claims per IPR decision (Overall) pre-SAS and post-SAS

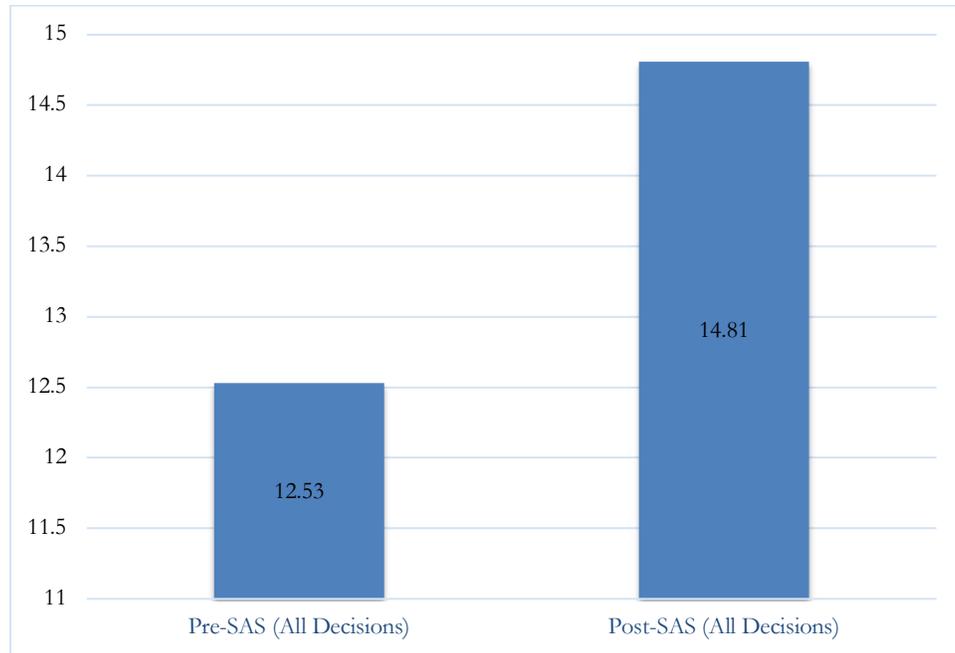
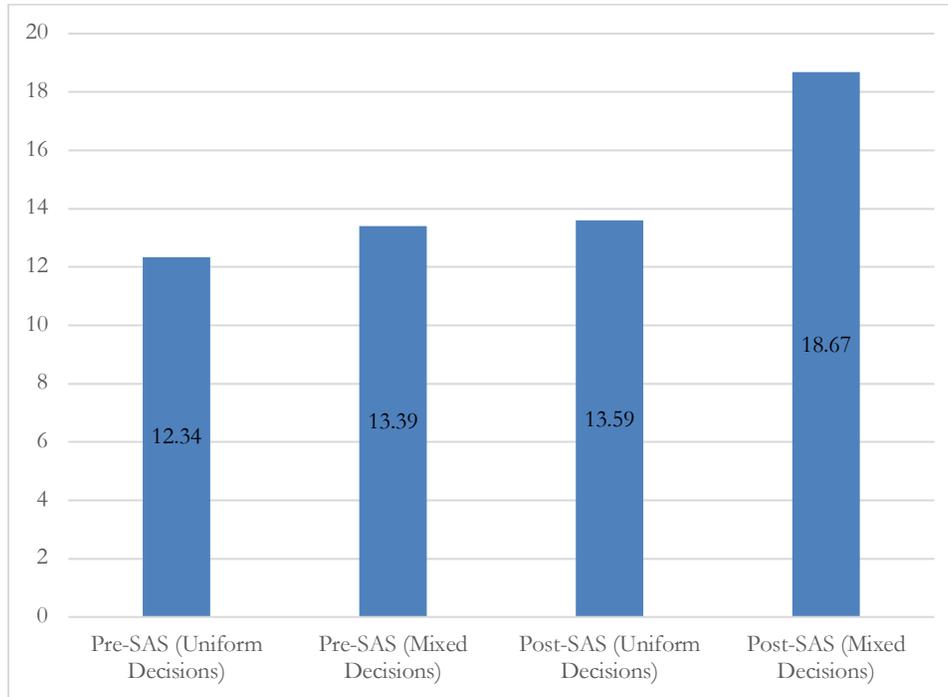


Figure 5. Average number of claims per IPR decision (Uniform v. Mixed Decisions) pre-SAS and post-SAS



The number of prior art references considered in decisions has not changed much following *SAS*. Though the PTAB’s “Guidance on the impact of *SAS* on AIA trial proceedings” extended *SAS*’s reach to all grounds of unpatentability in a petition, the data do not show much of an increase in the number of prior art references in decisions.⁹⁶ Across the board, the average number of prior art references per decision changed less than 0.20 references, from 3.85 to 4.04. Even looking only at mixed decisions, the average number of prior art references rose merely 0.40 references, suggesting that *SAS* has not increased the institution of otherwise excluded prior art.

Examining closely the number of pages distributed to each group of claims reveals that certain claims are likely receiving less analysis in IPR decisions after *SAS*. Looking at the number of pages per claim, it initially appears that claims are receiving on average one more page in final decision consideration per claim, for a total of 7.45 pages per claim (Table 1). However, looking to the distribution between uniform and mixed decisions, it becomes clear that the increase is absorbed only by the uniform decisions. The average uniform decision receives 1.93 pages per claim more analysis than the average uniform decision did prior to *SAS*, for a total average of 8.57 pages per claim (Table 1).

96. See USPTO *Guidance on SAS*, *supra* note 76.

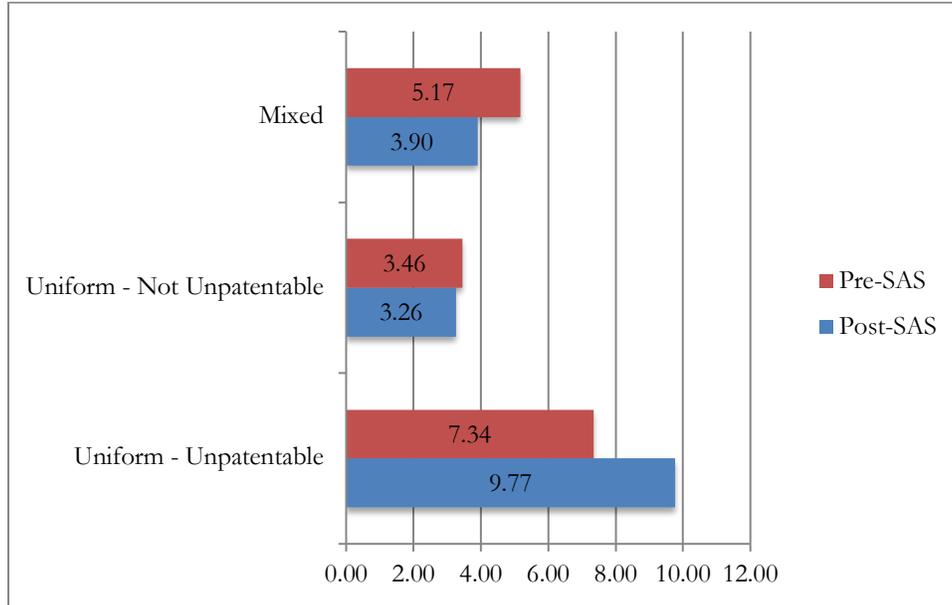
Conversely, mixed decisions are actually receiving about 1.27 pages per claim less than they would have prior to *SAS*, for a total of 3.90 pages per claim (Table 1). Prior to *SAS*, mixed decisions had about 1.46 fewer pages per claim than uniform decisions (Table 1). In the post-*SAS* world, mixed decisions receive 4.67 fewer pages per claim than uniform decisions, suggesting that there is a significant difference in the depth of analysis for claims with a strong likelihood of unpatentability and for claims included as a result of *SAS* (Table 1).

Table 1. Average number of pages per claim (All Decisions; Uniform Decisions; Mixed Decisions)

	Average Number of Pages Per Claim for All Decisions	Average Number of Pages Per Claim for Uniform Decisions	Average Number of Pages Per Claim for Mixed Decisions	Disparity Between Uniform Decisions and Mixed Decisions
Pre-<i>SAS</i>	6.37	6.63	5.17	1.46
Post-<i>SAS</i>	7.45	8.57	3.90	4.67
Change	1.08	1.94	(1.27)	3.21

Manipulating the data another way shows that the increase in average page per claim overall is concentrated in uniform decisions that found all challenged claims unpatentable (rather than in uniform decisions that found all challenged claims *not* unpatentable). The average number of pages per claim for uniform unpatentable decisions increased 2.43 pages per claim, from 7.35 pages per claim to 9.77 pages per claim (Figure 6). For uniform not unpatentable decisions, the average number of pages per claim decreased 0.20 pages per claim, from 3.46 pages per claim to 3.26 pages per claim (Figure 6). More dramatically, the average number of pages per claim for mixed decisions decreased by 1.27 pages per claim, from 5.17 pages per claim to 3.90 pages per claim (Figure 6). As a result, the difference in average number of pages per claim between mixed decisions and uniform unpatentable decisions was over 5.87 pages per claim after *SAS*. Prior to *SAS*, the difference was only 2.17 pages per claim.

Figure 6. Average number of pages per claim (Uniform Decisions-Not Unpatentable; Uniform Decisions Unpatentable; Mixed Decisions)



The reduction in average pages per claim in mixed decisions suggests that in the months following *SAS*, the PTAB has analyzed the *SAS*-added claims less thoroughly. It is not clear if that reduction is focused on the additional claims themselves. But whether the *SAS*-added claims themselves, the stronger claims that accompany them, or both receive less analysis, it appears that overall in IPRs where *SAS* likely added claims, analysis measured in pages per claim is reduced. That the average number of pages per claim for mixed decisions is far closer to the average number of pages per claim for uniform not unpatentable decisions than the uniform unpatentable decisions further indicates that the *SAS*-added claims are receiving less intensive analysis. In other words, the *SAS*-added claims are likely receiving the treatment that not unpatentable claims typically achieve in decisions: analysis that is far briefer than that afforded ultimately unpatentable claims.

The increased disparity between uniform unpatentable decisions mixed claims, on the other hand, highlights a more surprising finding. Uniform unpatentable decisions are actually receiving significantly more pages per claim in analysis. This increase may show that strong IPR challenges are rewarded with significantly more thorough analysis in decisions.

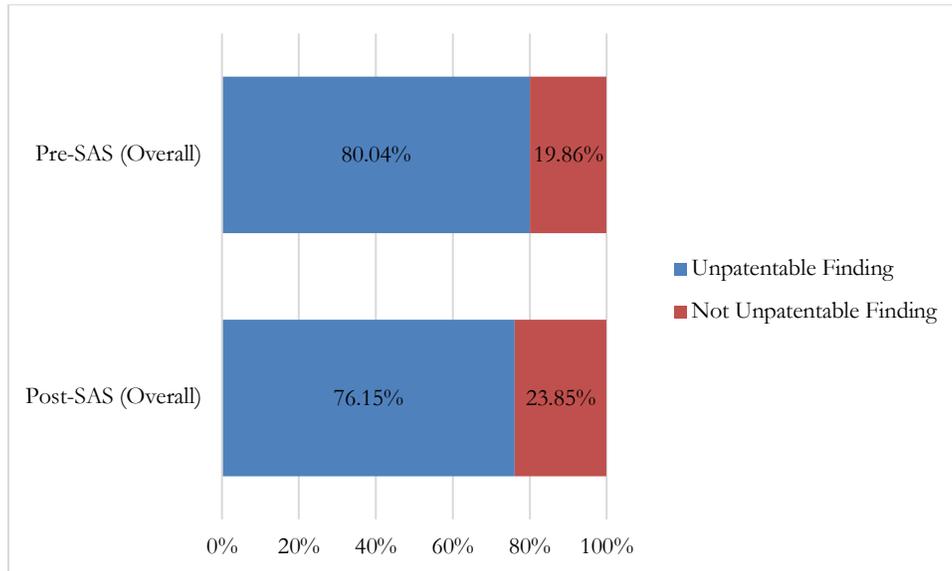
The number of pages divided by the number of prior art references reveals that prior art references are getting more pages per reference after *SAS*. Across the board, prior art references are receiving only a very slight increase of pages

per reference.⁹⁷ Looking at mixed decisions, the increase is more discernable: mixed decisions saw a rise of 2.30 pages per prior art reference after *SAS*. However, this gain is likely due to the lack of significant increase in prior art references following *SAS*.

4. *SAS* Has Decreased the Rate of Success on the Claim Level

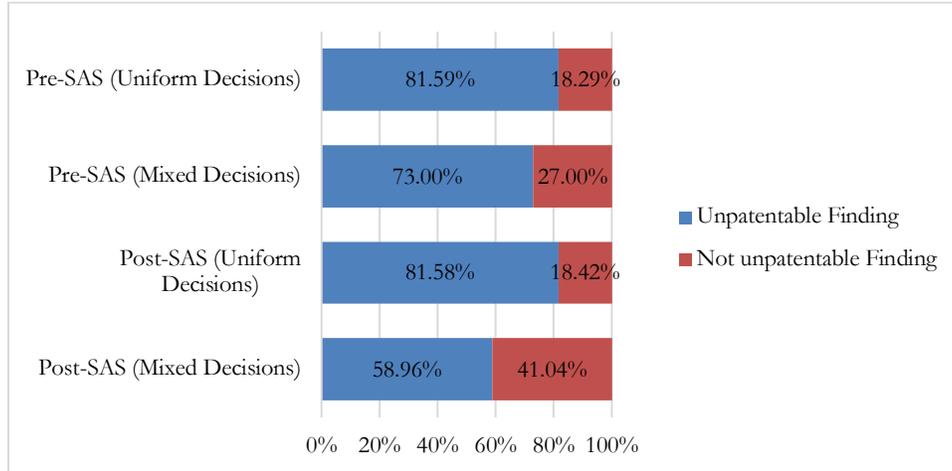
After *SAS*, the overall likelihood of getting an unpatentable decision on a given claim is 76.15%, a decrease of 3.89% (Figure 7). This change was concentrated in mixed decisions. The rate of achieving an unpatentable decision barely changed for uniform decisions, moving from 81.59% to 81.58% (Figure 8). For mixed decisions, the rate of getting an unpatentable determination decreased by 14.05%, falling from 73.00% to 58.96% (Figure 8). This plummet reinforces the conclusion that the claims added by *SAS* are unlikely to be found unpatentable by the same Board that would have excluded them from review in the first place. Put another way, post-*SAS*, the PTAB has been forced to rule on weak challenges it would have dismissed pre-*SAS*.

Figure 7. Proportion of unpatentable to not unpatentable findings (Overall) pre-*SAS* and post-*SAS*



97. After *SAS*, the average pages per prior art reference increased 0.76 units.

Figure 8. Proportion of unpatentable and not unpatentable findings (Uniform v. Mixed Decisions) pre-SAS and post-SAS



Overall, the increase in mixed decisions indicates that more claims are ultimately being decided as a result of *SAS*, but other changes demonstrate that the case did not confer sweeping benefits on IPR petitioners. Specifically, the changes in decision length suggest that in petitions where claims were instituted because of *SAS*, claims are receiving far less analysis. The dramatic disparity between uniform and mixed decisions following *SAS* reinforces the conclusion. Further, the success rate for petitioners, the rate at which they achieve unpatentable determinations, has fallen after *SAS*, particularly in mixed decisions.

C. DISTRICT COURT RULINGS ON MOTIONS TO STAY PENDING IPR

Though *SAS* affirmed the role of petitioners as master of their IPR “complaints,” IPR petitioners are often subject to their opponent’s prerogative in parallel civil litigation.⁹⁸ A defendant in a civil infringement action may seek to stay the district court proceeding pending the IPR.⁹⁹ District courts are not required to stay cases pending IPR, but possess the discretion to grant stays.¹⁰⁰ Courts typically evaluate the following factors when determining whether to stay pending IPR: (1) whether a stay will simplify issues in question and trial of the case; (2) whether the stay will unduly prejudice or present a clear tactical disadvantage to the nonmoving party; and (3) whether discovery is complete,

98. See Layne-Farrar, *supra* note 3, at 53.

99. See generally Joel Sayres & Julie Wahlstrand, *To Stay or Not to Stay Pending IPR? That Should be a Simpler Question*, CHI.-KENT J. INTELL. PROP., no. 3, at 52–53 (2018) (discussing inconsistent outcomes for motions to stay pending IPR as frustrating the potential of IPR to function as a “complete substitute” for district court litigation).

100. See, e.g., *Viskase Corp. v. Am. Nat. Can Co.*, 261 F.3d 1316, 1328 (Fed. Cir. 2001).

and whether a trial date has been set.¹⁰¹ Additionally, courts may consider whether a stay would reduce the burden on the court and parties.¹⁰²

At factor one of the stay equation, courts consider how an IPR decision may limit the universe of the district court case. Under the doctrine of IPR estoppel, the issuance of an IPR decision will estop a petitioner-defendant from further arguing invalidity based on any ground that was raised, or reasonably could have been raised, in the IPR.¹⁰³ Even in cases where defendants will not be bound by IPR estoppel, for instance in cases where IPRs are brought by nonparties, IPR may simplify the issues to be tried by canceling claims, providing the court with the PTAB's expert opinion, or clarifying the scope of the claims.¹⁰⁴

Following *SAS*, some practitioners noted that the end of partial institution necessarily meant that petitioners would no longer be able to preserve non-instituted grounds for later litigation.¹⁰⁵ Others explicitly linked this

101. Jim Warriner, *Measuring the Success of Motions to Stay Pending IPR*, LAW360 (June 6, 2017), <https://www.law360.com/articles/928654/measuring-the-success-of-motions-to-stay-pending-ipr> [perma.cc/V9LS-ECE8]; see *Symantec Corp. v. Zscaler, Inc.*, No. 17-cv-04426-JST, 2018 WL 3539267, at *1 (N.D. Cal. July 23, 2018); *First Am. Title Ins. Co. v. MacLaren, L.L.C.*, No. 10-363-GMS, 2012 WL 769601, at *4 (D. Del. Mar. 9, 2012); *Armor All/STP Prods. Co. v. Aerospace Commc'ns Holdings Co.*, No. 6:15-CV-781, 2016 WL 6397269, at *2 (E.D. Tex. Oct. 28, 2016).

102. See *Murata Mach. USA v. Daifuku Co., Ltd.*, 830 F.3d 1357, 1362 (Fed. Cir. 2016).

103. See 35 U.S.C. § 315(e)(2) (2012); Layne-Farrar, *supra* note 3, at 55; see also Julianne M. Hartzell & Ryan N. Phelan, *ALA Estoppel - 7 Things We Know So Far*, PTABWATCH (June 1, 2017), <https://www.ptabwatch.com/2017/06/aia-estoppel-7-things-we-know-so-far/#more-2009> [perma.cc/BJ5Z-XHY] (“[T]he scope of IPR estoppel governs the likelihood that an IPR will simplify the issues in a case should patent claims survive the PTAB proceeding.”). Note, however, a petitioner-defendant may still “rely on invalidity grounds based on prior use [or] sale of physical products or systems because IPR petitions can only be based on patents or printed publications.” Barbara McCurdy & Arpita Bhattacharyya, *How SAS Expands Scope of Inter Partes Review Estoppel*, LAW360 (June 19, 2018), <https://www.law360.com/articles/1053281/how-sas-expands-scope-of-inter-partes-review-estoppel> [perma.cc/2JSL-TPB9].

104. See *Personalweb Tech., LLC v. Google Inc.*, No. 5:13-CV-01317-EJD, 2014 WL 4100743, at *5 (N.D. Cal. Aug. 20, 2014) (“[W]aiting for the outcome of the reexamination could eliminate the need for trial if the claims are cancelled or, if the claims survive, facilitate trial by providing the court with expert opinion of the PTO and clarifying the scope of the claims.”).

105. See Hartzell & Phelan, *supra* note 103 (describing pre-*SAS* IPR estoppel generally and noting that “non-instituted grounds are not estopped”); McCurdy & Bhattacharyya, *supra* note 103 (“Thus, under *SAS*, IPR proceedings can no longer have non-[instituted grounds—the PTAB will either institute on all claims and all grounds or deny institution altogether. . . . No longer will petitioners be able to pursue non-[instituted grounds in litigation following an unsuccessful IPR trial.”); Baker Botts Firm Thought Leadership, *Uncertainty of IPR Estoppel in District Courts Continues*, BAKER BOTTS (June 5, 2018), <http://www.bakerbotts.com/ideas/publications/2018/06/uncertainty-of-ipr-estoppel> [perma.cc/98K2-JWUL]. Instead, they commented, focus would turn to whether courts would interpret IPR estoppel—particularly as it pertains to prior art that could have been raised in IPR—narrowly or broadly.

development in IPR estoppel to motion to stay analysis.¹⁰⁶ Without the need to see which claims in a petition would ultimately be instituted, one commentator argued, petitioner-defendants no longer had to wait for institution to “convince a court as to the potential simplification of issues for trial.”¹⁰⁷ This conclusion assumes that a district court does not consider it likely that the PTAB would deny the petition entirely. Because patent owner-plaintiffs are no longer able to leverage partial institution or the risk of partial institution to defeat a stay motion, one might expect pre-institution grants of stay motions to increase after *SAS*.¹⁰⁸ Examining orders on motions to stay post-*SAS* involving pending IPR petitions demonstrates that is only true in some districts.

This analysis examines post-*SAS* orders on motions to stay pending IPR in the busiest patent litigation districts: the Eastern District of Texas, the District of Delaware, the Central District of California, and the Northern District of California.¹⁰⁹ To understand how the elimination of partial institution affects courts’ analyses of motions to stay, this examination focuses on cases involving IPR petitions awaiting institution decisions.

Following *SAS*, the Eastern District of Texas continued to deny pre-institution motions to stay pending IPR with regularity. In four separate orders, the Eastern District upheld the District’s tradition of “uniformly deny[ing] motions for a stay” when “the PTAB has not yet acted on a petition for inter partes review.”¹¹⁰

See Hartzell & Phelan, *supra* note 103; McCurdy & Bhattacharyya, *supra* note 103; Baker Botts Firm Thought Leadership, *Uncertainty of IPR Estoppel in District Courts Continues*, BAKER BOTTS (June 5, 2018), <http://www.bakerbotts.com/ideas/publications/2018/06/uncertainty-of-ipr-estoppel> [perma.cc/98K2-JWUL] (“For IPR petitions filed after *SAS*, courts should not have to evaluate whether different estoppel is appropriate for instituted and non-instituted grounds . . .”).

106. *See* Scott McKeown, *New SAS Reality Impacts Motion to Stay Analysis*, ROPES & GRAY: PATENTS POST-GRANT (May 30, 2018) <https://www.patentspostgrant.com/sas-reality-strikes-motion-stay-analysis/> [perma.cc/5BQW-4MM2].

107. *Id.*

108. *See id.* (“Given the ‘all or nothing’ dynamic post-*[SAS]* . . . it seems very likely that [p]atent [o]wners will start seeing motions to stay earlier in cases.”).

109. The Eastern District of Texas, the District of Delaware, the Central District of California, and the Northern District of California are the most popular venues for patent litigation. *See* Geneva Clark, *TC Heartland, Legal Trends, One Year Later*, LEX MACHINA (May 23, 2018), <https://lexmachina.com/tc-heartland-legal-trends-one-year-later/> [perma.cc/DDP9-N7SY].

110. *See* Fall Line v. Am. Airlines Grp. Inc., No. 6:17-cv-00202-RWS, 2018 WL 4169251, at *1 (E.D. Tex. May 21, 2018); Intellectual Ventures I LLC v. T Mobile USA, Inc., No. 2:17-CV-00577-JRG, at 2 (E.D. Tex. Oct. 2, 2018); Polaris PowerLED Tech., LLC v. Samsung Elec. Am., Inc., No. 2:17-CV-00715-JRG, 2019 WL 121970, at *2 (E.D. Tex. Sept. 4, 2018); Tessera Advanced Tech., Inc. v. Samsung Elec. Co., LTD., No. 2:17-CV-00671-JRG, 2018 WL 3472700, at *4 (E.D. Tex. July 19, 2018).

Similarly, the District of Delaware continued to deny motions to stay pending IPR where the IPR has not yet been instituted. The District even cited to *SAS* in some of these orders. In *Universal Secure Registry, LLC v. Apple Inc.*, the court found that the holding in *SAS* actually “support[ed] the court’s conclusion on [the simplification] factor because it guarantee[d] that the PTAB’s decision to institute Apple’s petitions [would] be a binary choice.”¹¹¹ In other words, the court concluded that until institution occurred, a binary decision whether to institute IPR could be a “yes” or a “no” and did not automatically signal simplification for the purpose of deciding a motion to stay.¹¹²

Following *SAS*, the Central District of California has ruled on pre-institution motions to stay without indicating a clear trend. In one instance, the Court found that “the likelihood that a stay [would] simplify issues [was] lessened where . . . the PTAB ha[d] not yet decided whether to institute IPR.”¹¹³ Elsewhere, the court found that *SAS*’s all-or-nothing approach to institution weighed in favor of a stay.¹¹⁴

Similarly, the Northern District of California was mixed in its pre-institution stay decisions after *SAS*. In one case, the District concluded that “granting a stay would be premature” when IPR had not yet been instituted IPR.¹¹⁵ The Court held that “[t]he question of whether a stay [would] simplify and streamline the issues . . . depend[ed] entirely on whether the PTAB decide[d] to grant the IPR petition.”¹¹⁶ Elsewhere, the District found that “the fact that the PTAB ha[d] not yet decided whether to institute an IPR [did] not require finding [the simplification] factor weigh[ed] against issuing a stay.”¹¹⁷

Despite hypotheses that *SAS* would generally increase the likelihood of success on pre-institution motions to stay pending IPR, the results in the months immediately following *SAS* indicate that district courts continue to differ in their consideration of IPR institution when deciding motions to stay. The elimination of partial institution may weigh in favor of pre-institution stay in the Central District of California or the Northern District of California, but

111. *See* *Universal Secure Registry, LLC v. Apple Inc.*, No. 17-585-CFC-SRF, 2018 WL 4486379, at *3 (D. Del. Sept. 19, 2018) (internal quotation marks omitted).

112. *See id.*

113. *See* *Fulfillium, Inc. v. ReShape Medical, LLC*, 2:17-cv-08419-RGK-PLA, 2018 WL 6118433, at *3 (C.D. Cal. June 4, 2018).

114. *See* *Nichia Corp. v. Vizio, Inc.*, No. SACV 18-00362 AG (KESx), 2018 WL 2448098, at *3 (C.D. Cal. May 21, 2018).

115. *See* *Everlight Elecs. Co., Ltd., v. Bridgelux, Inc.*, No. C 17-03363 JSW, 2018 WL 5606487, at *8 (N.D. Cal. Sept. 14, 2018).

116. *See id.* at *7 (quoting *Universal Elecs., Inc. v. Universal Remote Control, Inc.*, 943 F. Supp. 2d 1028, 1030–31 (C.D. Cal. 2013)).

117. *See* *Uniloc USA, Inc. v. Apple Inc.*, No. 18-cv-00361/00362/00364-PJH, 2018 WL 2387855, at *2 (N.D. Cal. May 25, 2018).

SAS's holding fails to similarly tip the scales in the Eastern District of Texas and the District of Delaware.

D. LARGER EFFECTS OF SAS

The data from the IPR decisions and district court orders on motions to stay suggest that SAS did little to enhance the role of IPR as a tool to combat bad patents but may have increased the value of some claims for patent owners. Additionally, because of IPR estoppel, SAS may have promoted consistency between IPR and proceedings in other forums.

1. IPR as a Method for Combatting Bad Patents

Bad patents are socially costly. The patent system, when properly functioning, imposes the social cost of restricting competition, but that cost is outweighed by the incentive to innovate that patents provide.¹¹⁸ Patents that do not meet patentability requirements, on the other hand, “generate the short-term inefficiency costs associated with market power without the attendant long-term dynamic efficiency benefits of true innovation.”¹¹⁹ In other words, bad patents essentially give their owners the benefit of monopoly without providing the public with the requisite technical innovation in exchange. The unjustified social costs of bad patents manifest in numerous ways, including the following: (1) bad patents that are subject to litigation incur litigation costs that are passed on to society, (2) bad patents that are licensed cost licensees money, (3) bad patents that are neither litigated nor licensed may nonetheless cause competitors not to offer a product and thereby chill innovation, and (4) these costs are transferred to consumers in the form of higher prices and fewer choices.¹²⁰

IPRs allow for private and USPTO efforts to converge and mitigate the harm of patents that should not have been granted in the first place.¹²¹ In some circumstances, private actors may have better knowledge of or access to information that affects the patentability of an invention than patent

118. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1515 (2001).

119. Saurabh Vishnubhakat, *The Non-Doctrine of Redundancy*, 33 BERKELEY TECH. L.J. 777, 781 (2018).

120. See Lemley, *supra* note 118, at 1515; Vishnubhakat, *supra* note 119.

121. See Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 577 (1999) (arguing, prior to the enactment of the AIA, for the adoption of a patent opposition system that “efficiently coordinate[s] the efforts of [the patent office and private parties] to achieve the socially desirable end: an appropriate expenditure for determining patent validity”); see also Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470, 522 (2011) (noting the underuse of IPR’s predecessor, inter partes reexamination, and calling for an amendment of its procedures to increase use).

examiners.¹²² The semi-adversarial IPR process functions as a mechanism through which private parties can bring that information to the USPTO, at a steep discount compared to district court litigation. And if the PTAB decides at the end of an IPR that the challenged claims do not meet the requirements for patentability and cancels those claims, the costs of the bad patent are stymied. A competitor's interest in offering an alternative and the public's interest in awarding only worthy inventions align with regard to bad patents. Thus, IPRs provide value to both IPR petitioners and the public at large.

2. *SAS Likely Did Little to Combat Bad Patents*

SAS, in reinforcing the petitioner as master of its IPR proceedings, provides private parties with additional opportunities to bring their information to the PTAB, but the decisions data suggest that those opportunities do not often translate into unpatentability findings. Post-*SAS*, if a petitioner's weaker challenge is paired with a stronger challenge, the petitioner will more likely have the opportunity to present information and arguments in favor of invalidity throughout IPR. If these weaker challenges attack claims that should not have been issued in the first place, then the public could benefit from the additional opportunities to present information. However, the lowered success rate in mixed decisions post-*SAS* suggest that the *SAS*-added claims did not target bad patent claims ripe for cancellation.

3. *SAS May Have Increased the Value of Some Patents for Patent Owners*

Though it may initially appear that the *SAS* decision benefited petitioners like *SAS* by increasing their ability to control the claims decided by an IPR decision, the IPR decisions data suggest that *SAS* may actually increase the value of patents that survive IPR for patent owners. As this Note examined above, *SAS*-added claims likely have a lower likelihood of receiving a finding of unpatentable. Because a claim that survives IPR without being found unpatentable has undergone the scrutiny of the PTAB and withstood the attacks of a challenger, the claim can be considered stronger and more valuable than the average issued patent.¹²³ Claims added by *SAS* are more likely to survive IPR. As a result, such claims may be more valuable to their owners.

122. See Stuart J.H. Graham & Dietmar Harhoff, *Separating Patent Wheat from Chaff: Would the US Benefit from Adopting Patent Post-Grant Review?*, 43 POLY RES. 1649, 1650 (2014) (describing how product-market competitors can contribute superior information to the policing of the patent system).

123. Some patent reform scholars have proposed a two-tiered patent system where applicants can pay higher fees to undergo a more intense examination to receive a "gold-plate" patent. See Mark Lemley et al., *What to do About Bad Patents?*, 28 REGULATION 10, 12 (2005); see also Vidya Atal & Talia Bar, *Patent Quality and a Two-Tiered Patent System*, 62 J. INDUS. ECON. 503, 526 (2014) ("The optimal two-tiered system does not necessarily have overall fewer bad patents, but their instances would be lower in the gold-plate tier than in the regular tier.").

Even if *SAS*-added claims receive no more analysis as a result of *SAS*,¹²⁴ patent owners now benefit from IPR estoppel with regard to those added claims. Because IPR estoppel applies only to instituted claims, owners of claims that survive IPR as a result of *SAS* will likely also be protected from petitioners reasserting IPR invalidity arguments in district court or ITC proceedings. Thus, even the limited analysis that *SAS*-added claims receive in IPR decisions will be more definitive than analysis that exists only in institution decisions.

However, some features of IPR in the post-*SAS* world may decrease the value of IPR-surviving claims for patent owners, and further study of IPRs prior to and following *SAS* is necessary to understand the value of IPR survival strategies for patent owners. First, the decreased analysis that *SAS*-added claims likely receive in IPR decisions may make IPR survival less valuable post-*SAS* than pre-*SAS*. Further, if IPR success rates continue to be lower overall, IPR survival may be perceived to be less valuable as more claims are found to be not unpatentable in IPR decisions. Given the prevalence of parallel IPR and district court proceedings and IPR estoppel, it is uncertain whether the cost of defending against *SAS*-added claims will increase patent dispute costs for patent owners overall. How *SAS* affects settlement analysis has also yet to be examined but would contribute to understanding the overall social effects of *SAS*.

4. *SAS Promoted Consistency Between the PTAB and Other Forums*

Because IPR estoppel did not apply to claims not instituted, *SAS* may have encouraged harmony between the PTAB, district court, and ITC proceedings. As more claims challenged in IPR petitions are decided in IPR decisions, more validity challenges are no longer available for petitioner-defendants to relitigate in district courts because of IPR estoppel.¹²⁵ This development increases the likelihood that IPR will become more viable as an alternative to district court litigation. Even so, post-*SAS* stay decisions from the four busiest patent districts suggest federal courts remain skeptical of IPR as a substitute for civil litigation.

124. This Note does not examine institution decisions. It is possible that *SAS*-added claims receive the same analysis in both institution decisions and final written decisions. In other words, *SAS*-added claims may receive no further analysis from final written decisions. At the very least, however, IPR now applies with regard to those *SAS*-added claims.

125. See 35 U.S.C. § 315(e)(1) (prohibiting a petitioner from “request[ing] or maintain[ing] a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review”); *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1353 (2018).

E. TAKEAWAYS FOR PRACTITIONERS

Given the trends discussed above, petitioner-defendants may be well advised to act strategically with regard to IPR petitions and motions to stay. Following *SAS*, rates of success for IPR challenges have decreased, particularly in categories most likely to contain *SAS*-added claims. Additionally, there is reason to believe that decisions are providing less analysis to those *SAS*-added claims. Conversely, it appears that post-*SAS*, the PTAB is allocating more analysis in IPR decisions to the strong claims that are ultimately determined to be unpatentable. Because IPR decisions effectively trigger IPR estoppel, it appears prudent to follow the advice of the Administrative Patent Judges who counseled petitioners to put forth only their strongest challenges.¹²⁶

Notwithstanding *SAS*, petitioner-defendants should take care to tailor their motion to stay approaches to the conventions of each forum. *SAS* by no means cleared the way for courts to grant motions to stay in cases where IPR had not yet been instituted. A movant may have some success filing a motion to stay pending IPR prior to institution in the Central District of California and the Northern District of California. But, a motion to stay filed before IPR institution in the Eastern District of Texas or the District of Delaware will not likely gain traction.

Respondent-plaintiffs should be mindful of the ways they may factor IPR estoppel into overall litigation strategies once an IPR has been filed. While defending against an increased number of claims may be difficult given the restrictions on page length, claims that survive IPR may well be worth the cost. Additionally, patent owners may want to consider how to calculate the value of IPR surviving patents in the post-*SAS* world.

IV. CONCLUSION

In the months since *SAS*, IPR decisions have changed. The PTAB is determining the patentability of more claims in each decision. Analysis per claim has likely decreased significantly. The success rate on the claim level has dropped. These indications support the conclusion that petitioners ought to be strategic in their IPR petitions.

The impact of the *SAS* case extends beyond IPR proceedings to district court patent litigation. Regarding IPR estoppel, *SAS*, in eliminating partial institution, precluded the possibility that some claims would escape estoppel, i.e., when those claims fail to reach determination in a decision. Despite speculation that *SAS* would alter the stay analysis significantly, orders on stay motions in the months since *SAS* suggest that for the time being *SAS*'s impact on stays is limited and venue-specific.

126. Worth & Ruschke, *supra* note 81, at 276.

IPR and district court data demonstrates that *SAS* may have caused some modest shifts in the patent system's role in society and in the legal system. Given the increase of claims that receive final findings of not unpatentable, *SAS* may have increased the value of some challenged claims that ultimately survive IPR. Because more claims are subject to IPR estoppel following *SAS*, the decision may have promoted harmony between the PTAB and other forums.

Though the opinions in *SAS*, majority and dissenting alike, focused primarily on statutory interpretation and large-scale efficiency arguments, the case raised small-scale concerns for even the individual litigator in a patent case. Post-*SAS* IPR decisions and stay orders make that clear. Ultimately, *SAS*'s holding on PTAB procedure has numerous ripple effects that will need to be further studied.

THE EVOLUTION OF PATENT VENUE IN THE AFTERMATH OF *TC HEARTLAND*

Alexander S. Krois[†]

I. INTRODUCTION

Where can a patent owner sue an infringer? If one were looking at where patentees actually brought their suits in the past decade, one might believe that the towns of Tyler and Marshall, Texas, centered in the Eastern District of Texas, held a special role in patent disputes. From the late 2000s to the beginning of 2017, the Eastern District of Texas took the lion's share of patent infringement suits, with plaintiffs filing a plurality of new cases in the district. This dominance ultimately peaked at a staggering height of approximately 50% of all patent infringement suits in 2015.¹ The patent community widely regards this district as pro-patentee, and plaintiffs made full use of flexible venue standards to sue there.²

The Federal Circuit's interpretation of the word "resides" in the patent-specific venue statute enabled forum shopping in infringement cases. The specialized venue statute, 28 U.S.C. § 1400(b), dictates where venue is appropriate in patent disputes, and it states that plaintiffs can bring an infringement suit against defendants where the defendant resides or where they have a regular and established place of business and commit acts of infringement.³ For corporations, "resides" in § 1400(b) originally referred to the state of incorporation. However, the Federal Circuit later adopted the definition from the general venue statute, § 1391,⁴ allowing plaintiffs to bring suit in any district where the defendant infringed and where they were subject

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law. Ph.D. (Biophysics), 2017, The Scripps Research Institute.

1. *See infra* Section II.C (quantifying the rise of the Eastern District of Texas as the preferred district for patentee-plaintiffs).

2. The preference of plaintiffs for the district is discussed in further detail in Section II.C, but mostly arises from favorable procedural rules, preferences for trial over summary judgment, friendly juries, and high damages awards. *See id.*

3. 28 U.S.C. § 1400(b) (2012); *see also* *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017).

4. *See* *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1575–76 (Fed. Cir. 1990). In the general venue statute, § 1391, corporate residence is defined as any district in which they are subject to the person jurisdiction of the court. 28 U.S.C. § 1391(c)(2) (2012).

to the personal jurisdiction of the court.⁵ For large companies shipping or selling products nationwide, this functionally enabled patentees to sue in nearly any district,⁶ leading to a sharp increase in forum shopping and the rise of the Eastern District of Texas.

The vastly disproportionate number of patent cases in the Eastern District of Texas continued until 2017, when the Supreme Court revisited patent venue in *TC Heartland LLC v. Kraft Foods Group Brands LLC*.⁷ This decision rewound the clock on venue, substantially tightening the options available for plaintiffs and dramatically changing the landscape of patent litigation.

This Note will primarily focus on the aftermath of *TC Heartland* and will assess the impact of the decision through approximately a year and a half later⁸ and how subsequent Federal Circuit decisions have further affected patent venue. This Note will apply quantitative analysis to determine how the decision affected cases that were concurrent with the decision (assessed by motions to transfer or dismiss) and how it affected new litigation (evaluated by where plaintiffs file cases). These data show that *TC Heartland* spurred changes in behavior for both defendants and plaintiffs, with an immense increase in motions concerning improper venue and a dramatic reshuffling of preferred districts for infringement suits.

Part II of this Note will discuss how courts determined and assessed proper venue before *TC Heartland*. This Part will look at the relevant statutes, how they have changed over time, and how courts have interpreted them. This Part will also quantitatively document the rise of forum shopping in patent infringement suits from 2009 to immediately before *TC Heartland* in 2017. Part III will discuss and summarize the procedural history and holding of *TC Heartland*. Part IV will investigate the aftermath of the Court's decision. This Part will include summaries of follow-on Federal Circuit cases, as well as quantitative assessments of how *TC Heartland* affected defendants and plaintiffs. Part V will offer overarching thoughts on trends in patent venue, their effects on litigants, and projections for the future.

5. See *TC Heartland*, 137 S. Ct. at 1517.

6. Shipping or selling products in a given district likely satisfies the “minimum contacts” required for personal jurisdiction. See generally *Int'l Shoe Co. v. Washington*, 326 U.S. 310, 316–21 (1945) (finding that a company employing salesmen in Washington made it subject to the personal jurisdiction of the court there); Megan M. La Belle, *Patent Litigation, Personal Jurisdiction, and the Public Good*, 18 GEO. MASON L. REV. 43, 62–71 (2010) (discussing personal jurisdiction in relation to patent cases).

7. See *TC Heartland*, 137 S. Ct. at 1517.

8. The precise endpoint for the analysis of this Note is December 31, 2018, while the Supreme Court decided *TC Heartland* on May 22, 2017.

II. BACKGROUND ON PATENT VENUE

A. STATUTES COVERING PATENT VENUE

Two statutes have historically governed venue in patent infringement cases—the patent-specific venue statute 28 U.S.C. § 1400(b) and the general venue statute 28 U.S.C. § 1391. The central question in *TC Heartland* was whether these two statutes interact with one another and whether the language in the general venue statute dictated the meaning of the specialized statute.⁹

1. § 1391—*The General Venue Statute*

In general, the venue statute 28 U.S.C. § 1391(b) governs where plaintiffs can and cannot bring federal civil suits.¹⁰ According to this statute, “[a] civil action may be brought” either (1) where the “defendant resides,” (2) where “a substantial part of the events or omissions giving rise to the claim occurred,” or (3) “if there is no district in which an action may otherwise be brought as provided in this section [§ 1391(b)], any judicial district in which any defendant is subject to the court’s personal jurisdiction with respect to such action.”¹¹ A definition for “resides” from § 1391(b)(1), concerning non-person entities (e.g., corporations), is given in § 1391(c)(2). This definition, added in 1988, states that such an entity “shall be deemed to reside . . . [if] such defendant is subject to the court’s personal jurisdiction.”¹² While § 1391 covers venue in litigation generally, Congress has created numerous specialized venue statutes that may or may not supersede § 1391(b).¹³ While special venue statutes can complement and co-exist with the general venue statute, Congress highlighted the possibility that § 1391 does not affect certain specialized statutes by amending § 1391 in 2011 to state that it applies “[e]xcept as otherwise provided by law.”¹⁴

2. § 1400(b)—*The Patent-Specific Venue Statute*

One of these specialized venue statutes is 28 U.S.C. § 1400(b), which governs venue for patent infringement.¹⁵ This patent-specific venue statute states that “[a]ny civil action for patent infringement may be brought in the

9. *See infra* Section III.

10. *See* 28 U.S.C. § 1391 (2012).

11. *Id.* at § 1391(b).

12. *Id.* at § 1391(c)(2).

13. While Congress has generated hundreds of specialized statutes, they have typically left it for the courts to decide whether specific specialized statutes and § 1391 are mutually exclusive. *See* 14D CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 3803 (4th ed. 2018).

14. *Id.*; 28 U.S.C. § 1391(a) (2012). Congress made this change to § 1391 as part of the 2011 Jurisdiction and Venue Clarification Act. Federal Courts Jurisdiction and Venue Clarification Act of 2011, Pub. L. No. 112-63, § 201, 125 Stat. 758, 762–63 (2011).

15. 28 U.S.C. § 1400(b) (2012).

judicial district where [1] the defendant resides, *or* [2] where the defendant has committed acts of infringement and has a regular and established place of business.”¹⁶ This statute has its roots in an act from 1897, which sought to eliminate uncertainty for where plaintiffs could bring patent suits, and limited venue in infringement cases to either the district where the defendant was “an inhabitant” or where they had infringed and had a regular and established place of business.¹⁷ At that point, courts interpreted domestic corporations as inhabiting their state of incorporation.¹⁸ In 1948, Congress recodified the Judicial Code, creating 28 U.S.C. § 1400(b).¹⁹ Among revisions to the language of the Statute, Congress changed appropriate venue from where “the defendant is an inhabitant” to “where the defendant resides.”²⁰ The specific question the Court addressed in *TC Heartland* was whether the later 1988 amendment to § 1391 informs the definition of “resides” in § 1400(b).²¹

B. PRE-*TC HEARTLAND* CASES CONCERNING THE INTERACTION BETWEEN § 1391 AND § 1400(B)

Before *TC Heartland*, and even before the statutes’ recodification in 1948, courts addressed the question of whether § 1391 and § 1400 exist independently, or whether they modify each other. First, in the 1942 *Stonite Products Co. v. Melvin Lloyd Co.* decision, the Supreme Court held that the specialized patent statute “was the sole provision governing the venue of patent infringement litigation” and was not affected by “general provisions relating to the venue of civil suits.”²² Later, in 1957 (nine years after the patent-specific venue statute was revised and recodified as § 1400(b)), the Supreme Court in *Fourco v. Transmirra* once again held that the patent-specific venue statute was the exclusive provision in patent cases.²³ In affirming *Stonite*, the Court held that recodification had not affected the independence of the patent-specific statute. The Court further held that even though the 1948

16. *Id.* (emphasis added).

17. Act of Mar. 3, 1897, ch. 395, 29 Stat. 695 (1897) (stating that jurisdiction is appropriate in patent infringement cases “in the district of which the defendant is an inhabitant, or in any district in which the defendant . . . shall have committed acts of infringement and have a regular and established place of business”).

18. *See Fourco v. Transmirra*, 353 U.S. 222, 226–27 (1957).

19. *Id.*

20. *Id.*; 28 U.S.C. § 1400(b) (2012).

21. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017). Applying the definition of domestic corporate residence to § 1400(b) would mean that patent infringement suits could be brought in any place the domestic corporation is subject to the personal jurisdiction of the district (and thus deemed to “reside” there for § 1391(c)(2)). *See id.*

22. *Stonite Prods. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 565–66 (“Congress did not intend the Act of 1897 to dovetail with the general provisions relating to the venue of civil suits, but rather that it alone should control venue in patent infringement proceedings.”).

23. *See Fourco*, 353 U.S. at 222–26.

recodification replaced the phrase “inhabits” with “resides,” Congress meant no substantive change to § 1400(b) and that both terms are synonymous and refer to domicile, which, for domestic corporations, meant only the state of incorporation.²⁴

Following Congress’s 1988 amendment to § 1391 (adding an explicit definition for corporate residence), the exclusivity of § 1400(b) came into question again.²⁵ The Federal Circuit addressed this issue in 1990 in *VE Holding Corp. v. Johnson Gas Appliance Co.*²⁶ Ultimately, the Federal Circuit abandoned the exclusivity of the patent-specific venue statute, holding that “Congress by its 1988 amendment of 28 U.S.C. § 1391(c) meant what it said; the meaning of the term ‘resides’ in § 1400(b) has changed.”²⁷ With this decision, the panel eliminated the narrow definition of “resides” and adopted the more expansive definition from § 1391(c).²⁸ As a consequence, plaintiffs could now bring patent infringement suits against domestic corporations in *any* jurisdiction which the corporation was subject to the personal jurisdiction of the court.²⁹

C. THE RISE OF FORUM SHOPPING AND THE EASTERN DISTRICT OF TEXAS

In light of the Federal Circuit’s decision in *VE Holding*, patentees had immense flexibility in where they could sue. Among the districts that patentees favored, the Eastern District of Texas rose to the top. The characteristics of the district itself lend no hints as to its popularity in patent suits. The largest city in the district, Tyler, has approximately 100,000 residents, and the city’s metropolitan area has a GDP of \$14,410 million—compared to \$535,499 million for the nearby Dallas-Fort Worth-Arlington area.³⁰ Furthermore, the district comprises no major technology centers, and in 1990 only had a single patent infringement case.³¹ And yet, by 2006, the district had the second

24. *See id.* at 226 (citing *Shaw v. Quincy Mining Co.*, 145 U.S. 444 (1892)).

25. *See VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574 (Fed. Cir. 1990).

26. *See id.*

27. *Id.* at 1575.

28. *Id.*

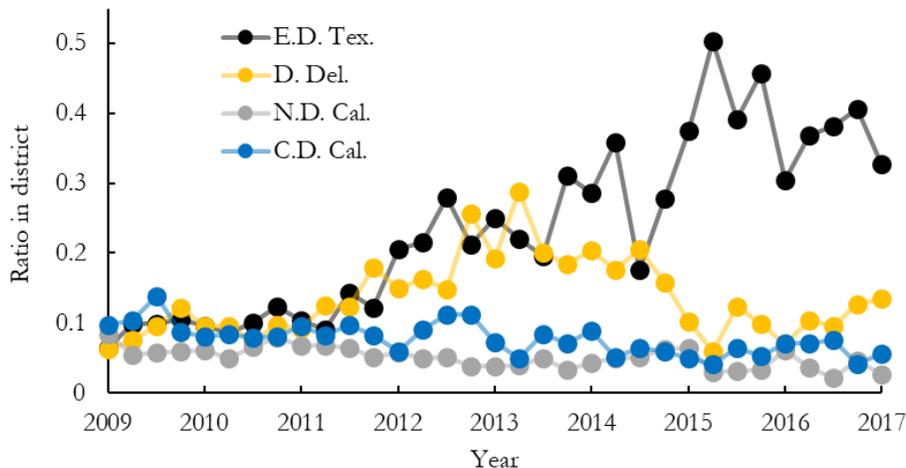
29. *See VE Holding Corp.*, 917 F.2d at 1583 (stating that now “venue in a patent infringement case includes any district where there would be personal jurisdiction over the corporate defendant at the time the action is commenced”).

30. *QuickFacts: Tyler, Texas*, U.S. CENSUS BUREAU (2018), <https://www.census.gov/quickfacts/tylercittexas> [<https://perma.cc/8HRM-AN26>] (listing a population estimate of 104,991); Bureau of Economic Analysis, *Gross Domestic Product by Metropolitan Area, 2017*, U.S. DEP’T COM. (2018), https://www.bea.gov/system/files/2018-09/gdp_metro0918_0.pdf [<https://perma.cc/JQ35-ZV85>].

31. Mark Liang, *The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities*, 19 TEX. INTELL. PROP. L.J. 29, 30–31 (2010).

highest number of patent cases in the nation.³² Then, beginning in late 2011, the respective share of cases going to the Eastern District of Texas and the District of Delaware began to increase (Figure 1). However, filings in Delaware began to plateau in 2013 and decreased later in 2014. At the same time, the Eastern District of Texas continued taking more and more patent cases (Figure 1).

Figure 1. The landscape of patent venue pre-*TC Heartland*; proportion of patent cases by district from Q1 2009 to Q1 2017.³³



The dominance of the Eastern District of Texas reached its peak in Q2 2015 when plaintiffs filed approximately 50% of all new patent cases in the district. Comparatively, for the same quarter, the next four most popular districts only featured 6%, 5%, 3%, and 3% of patent cases.³⁴ While the proportion of patent cases in the Eastern District of Texas plateaued and

32. Yan Leychkis, *Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation*, 9 YALE J.L. & TECH. 193, 204 (2007); see also Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 903 (2001) (listing the top patent litigation districts for 1995–1999).

33. The data presented in Figure 1 show the ratios of new patent cases filed in the Eastern District of Texas, the District of Delaware, and the Northern and Central Districts of California for each quarter from Q1 2009 through Q1 2017. These data were obtained using Lex Machina, with the tag for “Patent” for “Case Types,” and the ratios for each district were obtained by dividing the number of patent cases filed in the district by the total number of patent cases filed the same quarter.

34. These numbers are for the District of Delaware, District of New Jersey, Central District of California, and Northern District of California, respectively. These data were obtained using the same methodology as those in Figure 1, limited to Q2 of 2015. While the District of New Jersey is a frequent venue for patent infringement suits, overall filing trends do not place it in the top four, and thus the district is not displayed in Figure 1 for clarity.

began to moderately decline after this peak (with approximately 33% of patent cases in Q1 of 2017), the district continued to feature a plurality of all patent cases (Figure 1).³⁵

High-volume litigants particularly favored the Eastern District of Texas.³⁶ These plaintiffs represent frequent players in patent litigation, and thus, analyzing trends for high-volume litigants likely sheds light on the behavior of so-called “patent trolls,” who often bring numerous cases in any given year.³⁷ Patent trolls³⁸ can be broadly defined as “any party that attempts to enforce a patent far beyond its actual value or contribution to the prior art.”³⁹ Given their controversial practices, they have received substantial media, academic, and political attention for perceived abuse of the patent system.⁴⁰ As with patent cases in general, suits involving high-volume plaintiffs (and thus likely patent trolls) shifted towards the Eastern District of Texas. However, its popularity reached even higher levels, with the district capturing 75% of all patent cases that high-volume plaintiffs brought in Q2 2015 (Figure 2).

35. The decrease in patent cases in the Eastern District of Texas before *TC Heartland* is discussed in greater detail below in Sections IV.B and IV.C. See *infra* Sections IV.B and IV.C.

36. This Note will use Lex Machina’s definition of “high-volume plaintiff,” which is defined as “an entity that has filed 10 or more cases within a 365 day span.” Owen Byrd, *Patent Litigation Trends in the Three Months after T.C. Heartland*, LEX MACHINA BLOG (Oct. 18, 2017), <https://lexmachina.com/patent-litigation-trends-in-the-three-months-after-t-c-heartland/> [<https://perma.cc/8EGF-M7ZY>].

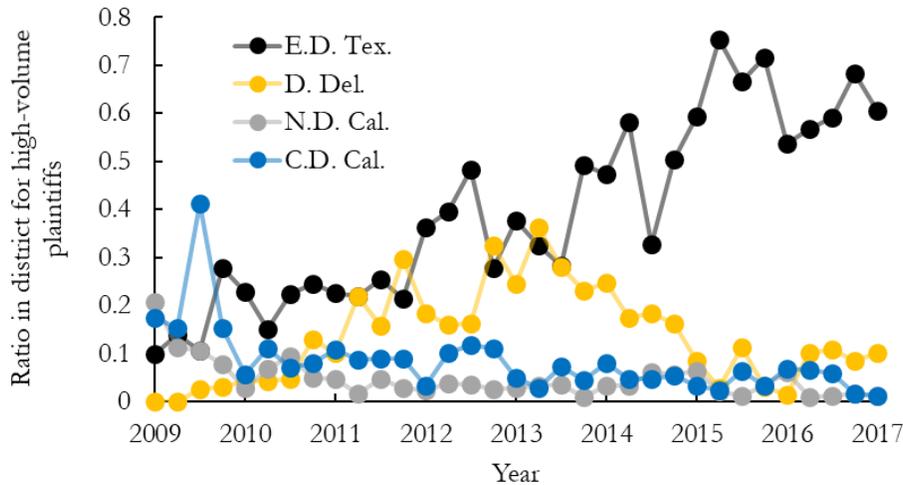
37. While some high-volume litigants are large companies with expansive patent portfolios, Brian Howard, a legal data scientist from Lex Machina, stated in an interview that he would consider a “majority” of high-volume plaintiffs to be patent trolls. Jessica Karmasek, *Study: Patent Law Changes, High-Volume Plaintiffs Make for More Litigation*, WASH. EXAMINER (Aug. 25, 2014), <https://www.washingtonexaminer.com/study-patent-law-changes-high-volume-plaintiffs-make-for-more-litigation> [<https://perma.cc/5684-CAGF>].

38. It should be noted that while the term “patent troll” can be viewed as a pejorative, this Note uses the term because of its prominence in current vernacular and discussions. This Note refrains from making any judgments about the merits of such entities or their practices.

39. Dennis Crouch, *Chief Judge Rader: Improving Patent Litigation*, PATENTLYO (Sept. 27, 2011), <https://patentlyo.com/patent/2011/09/rader-patent-litigation.html> [<https://perma.cc/N9NE-C2S4>] (quoting Chief Judge Rader).

40. For a more in-depth discussion and analysis of patent trolls and the Eastern District of Texas, see generally Jesus Efren Cano, *The Road to Marshall: Of Venue, Trolls, and the Eastern District of Texas*, 17 CHI.-KENT J. INTELL. PROP. 137 (2018).

Figure 2. Proportion of patent cases by district for high-volume plaintiffs from Q1 2009 to Q1 2017.⁴¹



The explosion of patent cases in the Eastern District of Texas occurred as plaintiffs sought to take advantage of favorable conditions, rules, and procedures. Particular factors that enticed plaintiffs to the district have included judges well-versed in patent law and procedural rules that create faster and cheaper trials.⁴² Indeed, the speed at which patent trials proceeded in the district has earned it the moniker “rocket docket,” which can potentially pressure defendants to quickly settle.⁴³ Furthermore, the district’s preference for trials over summary judgment, as well as substantial damage awards from plaintiff-friendly juries, have further served to bring patentees to courts in the district.⁴⁴

41. The data presented in Figure 2 were obtained using the same method as in Figure 1 but with the “High-Volume Plaintiff” for “Case Tags.” See *supra* note 33. The only difference between Figure 1 and Figure 2 is that Figure 2 filters the data to display only cases brought by high-volume plaintiffs.

42. See Lechkis, *supra* note 32, at 206 (“There are three key factors that make Marshall such an attractive forum: 1) knowledgeable judges experienced in patent cases; 2) special patent rules that compel open discovery with tight deadlines to which the judges strictly adhere, resulting in quick and relatively inexpensive trials; and 3) plaintiff-friendly juries.”).

43. Daniel Nazer & Vera Ranieri, *Why Do Patent Trolls Go to Texas? It’s Not for the BBQ*, EFF DEEPLINKS BLOG (July 9, 2014), <https://www.eff.org/deeplinks/2014/07/why-do-patent-trolls-go-texas-its-not-bbq> [<https://perma.cc/36TY-FDBE>] (“Partly, the district’s relatively rapid litigation timetable can put pressure on defendants to settle.”).

44. See Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CAL. L. REV. 241, 250–70 (2016). Klerman and Reilly argue that “the Eastern District [has] consciously sought to attract patentees and [has] done so by departing from mainstream doctrine in a variety of procedural areas in a pro-patentee (pro-plaintiff) way.” *Id.* at 250. These authors enumerate eight specific

III. THE CASE: *TC HEARTLAND*

The widespread practice of forum shopping in patent disputes ultimately led to the Supreme Court's decision in *TC Heartland*. In the decision, the Court revisited whether or not § 1400(b) was the exclusive statute for venue in patent cases, or whether the Federal Circuit's interpretation in *VE Holding*—that § 1391(c) defined “resides” in § 1400(b)—was correct.⁴⁵

A. PROCEDURAL HISTORY

In early 2014, Kraft Foods Group Brands LLC (“Kraft”) filed a complaint against TC Heartland LLC (“Heartland”) in the District of Delaware.⁴⁶ Kraft alleged that Heartland infringed their patents relating to liquid water enhancer products.⁴⁷ Heartland, incorporated and based in Indiana, had no physical presence in Delaware.⁴⁸ However, Kraft alleged that Heartland “sold and offered for sale products that infringe Kraft’s patents in [Delaware].”⁴⁹ Heartland motioned to transfer venue to the Southern District of Indiana; however, the district court denied the motion, citing *VE Holding* and stating that “venue is appropriate for a defendant in a patent infringement case where personal jurisdiction exists.”⁵⁰ Heartland thus petitioned the Federal Circuit for a writ of mandamus.⁵¹

The Federal Circuit denied Heartland's petition.⁵² The Federal Circuit rejected Heartland's argument that the 2011 amendment to § 1391 affected statutory law, stating “Heartland has presented no evidence which supports its view that Congress intended to codify *Fourco* in its 2011 amendments.”⁵³ Thus,

factors that add to the attractiveness of the district for patentee plaintiffs. These include: (1) hostility to summary judgement, (2) judge shopping, (3) loose interpretation of joinder rules, (4) pro-plaintiff management of multi-defendant cases, (5) hostility to transfer, (6) refusing to stay pending reexamination, (7) the “Rocket Docket” (the term for the quick case schedules of the district), and (8) expanded and expedited discovery. *Id.* at 251–70.

45. See *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017). The focus of this Note is on patent venue post-*TC Heartland*; for a more comprehensive case note on the decision itself, see Melissa Wee, *TC Heartland v. Kraft and the Resurrection of the Place of Incorporation or “Regular and Established Place of Business” Test for Patent Venue*, 33 *BERKELEY TECH. L.J.* 981 (2018).

46. Complaint at 1–5, *Kraft Foods Group Brands LLC v. TC Heartland, LLC*, 2015 U.S. Dist. LEXIS 127972 (D. Del. 2015) (No. 1:14-cv-00028).

47. *In re TC Heartland LLC*, 821 F.3d 1338, 1340 (Fed. Cir. 2016).

48. *Id.*

49. Complaint at 2, *Kraft Foods*, 2015 U.S. Dist. LEXIS 127972 (No. 1:14-cv-00028).

50. *Kraft Foods*, 2015 U.S. Dist. LEXIS 127972, at *4–5.

51. *In re TC Heartland*, 821 F.3d at 1340 (Fed. Cir. 2016).

52. *Id.*

53. *Id.* at 1343. With respect to changes to the language of § 1391(c), the Federal Circuit stated:

the panel upheld *VE Holding*, maintaining the dependence of § 1400(b) on § 1391. As such, venue was proper “because [as] petitioner resided in Delaware under § 1391(c), it also resided there under § 1400(b).”⁵⁴ In response, Heartland filed a petition for writ of certiorari, which the Court granted in late 2016.⁵⁵

B. THE OPINION—REAFFIRMING *FOURCO*

Justice Thomas delivered the unanimous 8–0 opinion, with the Supreme Court reversing and remanding, finding that the 1988 amendments to § 1391 did not affect the exclusivity of § 1400(b).⁵⁶ In determining whether or not the “broader definition of corporate ‘residence’ contained in the general venue statute” applied to § 1400(b), the Court assessed the history of Congressional amendments to § 1391.⁵⁷ Specifically, the Court looked for whether Congress intended to change the meaning of “resides” in § 1400(b), which the Court had previously interpreted as state of incorporation in *Fourco*.⁵⁸

In addressing this question, the Court noted that “[w]hen Congress intends to effect a change of that kind, it ordinarily provides a relatively clear indication of its intent in the text of the amended provision.”⁵⁹ The Court failed to find such intent, holding that § 1391 itself did not contain evidence that Congress intended to alter § 1400(b).⁶⁰ The Court additionally noted that the 2011 amendment to § 1391 (adding the clause that § 1391 only applies when not “otherwise provided by law”) further weakened the argument that § 1391 modified § 1400(b).⁶¹ In acknowledging the impact of the 2011 amendment,

The 2011 amendments to the general venue statute relevant to this appeal were minor. The language preceding the definition of corporate residence in § 1391 was changed from “for the purposes of venue under this chapter . . .” to “For all venue purposes . . .” . . . This is a broadening of the applicability of the definition of corporate residence, not a narrowing. This change in no manner supports Heartland’s arguments.

Id. at 1341. With respect to changes to § 1391(a), which added the language “[e]xcept as otherwise provided by law,” the Federal Circuit stated “[i]t is undisputed that the patent venue statute itself does not define corporate residence and thus there is no statutory ‘law’ that would satisfy Heartland’s claim that Congress intended in 2011 to render § 1391(c)’s definition of corporate residence inapplicable to venue for patent cases.” *Id.* at 1342.

54. *TC Heartland LLC v. Kraft Foods Grps. Brands LLC*, 137 S. Ct. 1514, 1515 (2017).

55. *TC Heartland LLC v. Kraft Foods Grps. Brands LLC*, 2016 U.S. LEXIS 7572 (2016) (granting Heartland’s petition for writ of certiorari).

56. *TC Heartland LLC*, 137 S. Ct. at 1514–15 (2017). Justice Gorsuch did not participate in the decision. *Id.* at 1514.

57. *See id.* at 1516–20.

58. *See id.* at 1520.

59. *Id.* (citing *United States v. Madigan*, 300 U.S. 500, 506 (1937)).

60. *Id.* (“The current version of § 1391 does not contain any indication that Congress intended to alter the meaning of § 1400(b) as interpreted in *Fourco*.”).

61. *Id.* at 1521.

the Court stated that “*Fourco*’s holding rests on even firmer footing now that § 1391’s saving clause expressly contemplates that certain venue statutes may retain definitions of ‘resides’ that conflict with [§ 1391’s] default definition.”⁶² Ultimately, the Court reaffirmed *Fourco*, holding that § 1400(b) is the exclusive venue statute for patent infringement cases, and that the definition of corporate residence given in § 1391(c) does not affect the scope of residence in § 1400(b).⁶³

C. THE NEW REQUIREMENTS FOR PATENT VENUE IMMEDIATELY AFTER *TC HEARTLAND*

In reaffirming *Fourco*, the Supreme Court rewound the clock on venue in patent infringement cases. As discussed above, 28 U.S.C. § 1400(b) dictates that plaintiffs can bring patent infringement suits against corporations in either (1) district of residence or (2) in a district where they have infringed and have a regular and established place of business.⁶⁴ *TC Heartland* functioned to substantially narrow what § 1400(b) means by “resides,” returning to meaning *only* the state of incorporation. Importantly, however, the decision in *TC Heartland* is limited to *domestic* corporations.⁶⁵ With regards to proper venue for foreign corporations, the Court explicitly did not provide an answer, leaving the question as to where plaintiffs can sue against foreign corporations to earlier decisions.⁶⁶

IV. VENUE IN THE AFTERMATH OF *TC HEARTLAND*

A. HOW HAS THE FEDERAL CIRCUIT RESPONDED?

Since the Court’s decision in June 2017, there have been several Federal Circuit decisions that have resolved lingering questions or have added new limitations to patent venue.⁶⁷ These cases have served to reinforce the narrow

62. *Id.*

63. *See id.*

64. *See* 28 U.S.C. § 1400(b) (2012); *see also supra* Section II.A.1.

65. *TC Heartland*, 137 S. Ct. at 1520 (“In *Fourco*, this Court definitively and unambiguously held that the word ‘reside[nce]’ in § 1400(b) has a particular meaning as applied to *domestic* corporations.”) (alteration in original) (emphasis added).

66. The Court stated “[t]he parties dispute the implications of petitioner’s argument for foreign corporations. We do not here address that question, nor do we express any opinion on this Court’s holding in *Brunette Machine Works, Ltd. v. Kockum Industries, Inc.*, 406 U.S. 706 (1972) (determining proper venue for foreign corporation under then existing statutory regime).” *TC Heartland*, 137 S. Ct. at 1520 n.2 (citation omitted). Historically, all suits against foreign defendants are governed by § 1391 and plaintiffs could bring them in *any* district. *See Brunette*, 406 U.S. at 708; *In re HTC Corp.*, 889 F.3d 1349, 1354–57 (Fed. Cir. 2018); *see also In re Hohorst*, 150 U.S. 653, 659–62 (1893).

67. Since *TC Heartland* (decided May 22, 2017) through December 31, 2018, the Federal Circuit has cited the decision nineteen times. All nineteen were examined for this Note, and

interpretation of patent venue presented in *TC Heartland*, continuing the spirit of the decision.

1. *In re Cray—Establishing Requirements for “Regular and Established Place of Business”*

While *TC Heartland* addressed the first clause of § 1400(b) (“resides”), the Court made no substantive ruling on the second clause (“regular and established place of business”).⁶⁸ *In re Cray* was a post-*TC Heartland* appeal to the Federal Circuit from the Eastern District of Texas that addressed “regular and established of business.”⁶⁹ Raytheon Company brought a patent infringement suit against Cray, Inc. (“Cray”) in the Eastern District of Texas, despite Cray “not rent[ing] or own[ing] an office or any property in the [district].”⁷⁰ However, the district court found venue appropriate, relying on one of two employees who telecommuted from the district.⁷¹ The employee “did not maintain Cray products at home,” and “Cray never paid [him] . . . for the use of his home . . . or publicly advertised or otherwise indicated that his home residence was a Cray place of business.”⁷² While rejecting Cray’s motion to transfer, the court additionally laid out a “totality of the circumstances” four-factor test to determine when a corporation has a regular and established place of business.⁷³ While the test factored in whether the defendant had a physical location, it did not require one as “a prerequisite to proper venue.”⁷⁴

On appeal, the Federal Circuit rejected the district court’s four-factor test, finding it “not sufficiently tethered to th[e] statutory language.”⁷⁵ Particularly,

there were five cases that effected substantial changes. The remaining fourteen were largely brief decisions with lesser effects outside of their particular case.

68. In *TC Heartland*, there was little to no focus on whether Heartland had a “regular and established place of business” in the District of Delaware. See *TC Heartland*, 137 S. Ct. at 1516–18.

69. See *In re Cray Inc.*, 871 F.3d 1355, 1364–67 (Fed. Cir. 2017).

70. *Id.* at 1357.

71. *Id.*

72. *Id.* at 1357–58. The District Court cited to *In re Cordis*, which featured “two full-time sales representatives” based in the district the plaintiff brought the suit in (District of Minnesota). While the defendant did not maintain offices in Minnesota, the employees conducted business for the corporation out of the district. See *Raytheon Co. v. Cray, Inc.*, 258 F. Supp. 3d 781, 792–93 (E.D. Tex. 2017) (citing *In re Cordis Corp.*, 769 F.2d 733 (Fed. Cir. 1985)); *In re Cray*, 871 F.3d at 1357–58.

73. This test assessed (1) “the extent to which a defendant has a physical presence in the district, including but not limited to property, inventory, infrastructure, or people,” (2) “the extent to which a defendant represents, internally or externally, that it has a presence in the district,” (3) “the extent to which a defendant derives benefits from its presence in the district,” and (4) “the extent to which a defendant interacts in a targeted way with existing or potential customers, consumers, users, or entities within a district.” See *Raytheon*, 258 F. Supp. 3d at 796–99.

74. *In re Cray*, 871 F.3d at 1362.

75. *Id.*

the panel found that not requiring a physical location expanded the statute improperly.⁷⁶ In reaching this conclusion, the panel looked at the definition of “place,” (which is used in the wording of § 1400(b)), and held that while a formal location is not required, “there must still be a physical, geographical location in the district from which the business of the defendant is carried out.”⁷⁷ The Federal Circuit then laid out three general requirements: (1) “there must be a physical place in the district,” (2) “it must be a regular and established place of business,” and (3) “it must be the place of the defendant.”⁷⁸

In its decision, the Federal Circuit addressed the second clause of § 1400(b) in the wake of *TC Heartland*.⁷⁹ While not directly dictated by the holding of *TC Heartland*, *In re Cray* continued to maintain a high bar for venue. In this light, *In re Cray* can be viewed as the Federal Circuit embracing the Supreme Court’s tightening of venue. Indeed, some commentators have viewed this decision as a message to district courts to keep patent venue restrictive.⁸⁰

2. *In re Micron*—*Rejecting That Waiver Prevents New Motions for Transfer*

In re Micron addressed the question of whether failing to file a motion to transfer or dismiss for improper venue, pre-*TC Heartland*, prevents defendants from filing such motions now.⁸¹ This decision came as district courts were split on whether such defendants had waived their objections to venue under Rules 12(g)(2) and 12(h)(1)(A) of the Federal Rules of Civil Procedure.⁸² On appeal from the District of Massachusetts, the Federal Circuit ultimately concluded

76. *Id.*

77. *Id.*

78. *Id.* at 1360.

79. *See supra* Section III.B.

80. *See* Gene Quinn, *Federal Circuit Strikes Down Gilstrap’s Four-Factor Test for Patent Venue*, IP WATCHDOG (Sept. 21, 2017), <http://www.ipwatchdog.com/2017/09/21/federal-circuit-strikes-down-gilstraps-four-factor-test-patent-venue/id=88117/> [<https://perma.cc/RPX7-67YQ>]. Which stated:

I think this mandamus decision can be best understood by taking into account the patent troll hysteria, the number of patent infringement cases filed in the Eastern District of Texas, the reputation of the Eastern District of Texas for never transferring cases out, the Supreme Court’s recent decision in *TC Heartland* and continued angst surrounding venue decisions in the Eastern District of Texas.

See also Jeffrey H. Chang, *Venue Okay in Cray? Federal Circuit Says “No Way”*, BANNER & WITCOFF (Sept. 22, 2017), <https://bannerwitcoff.com/ip-alert-venue-okay-in-cray-federal-circuit-says-no-way/> [<https://perma.cc/R8VH-NTPV>].

81. *See In re Micron Tech., Inc.*, 875 F.3d 1091, 1093–94 (Fed. Cir. 2017).

82. *Id.* at 1095–96. Rule 12(g)(2) and 12(h)(1)(A) of the Federal Rules of Civil Procedure govern when a party waives their right to bring a motion, and typically applies when a party attempts to make a motion they could have brought earlier. *See* FED. R. CIV. P. 12(g)(2), 12(h)(1)(A). This Note documents and discusses the large increase in such motions in Section IV.B.

that waiver does not apply.⁸³ The core question was whether *TC Heartland* “changed controlling law,” rendering waiver inapplicable.⁸⁴ The Federal Circuit highlighted that *TC Heartland* enabled objections that were “not available for the district court to adopt” and, therefore, were not available for defendants: meaning waiver did not apply.⁸⁵

While the Federal Circuit removed the threat of waiver, the panel made clear that waiver under “Rule 12(h)(1) is not the sole basis on which a district court” may reject “a venue defense that might have succeeded on the merits.”⁸⁶ The court took particular note of potential forfeiture for untimeliness or consent; however, it left future cases to determine how such an analysis should be made.⁸⁷ Indeed, the Federal Circuit has affirmed denials of motions to transfer or dismiss (even following *In re Micron*) in cases that had extensively proceeded or where the trial was imminent.⁸⁸ These cases suggest that the critical analysis in the non-12(h)(1) rejections centers on proximity to trial.

3. *In re ZTE—Establishing That Federal Circuit Law Governs Burden for Venue*

While *TC Heartland* and *In re Cray* affected the interpretation of § 1400(b), these cases left open the question of which body of law—regional circuit or Federal Circuit—governs the burden of proof in determining venue.⁸⁹ In *In re ZTE (USA) Inc.*, an appeal from the Eastern District of Texas, the Federal Circuit addressed this question and held that Federal Circuit law, not regional circuit law, applies.⁹⁰

American GNC Corporation had brought a patent infringement suit against ZTE (USA) Inc. (“ZTE”) in the Eastern District of Texas.⁹¹ ZTE filed motions to dismiss for improper venue and to transfer for convenience.⁹²

83. *In re Micron*, 875 F.3d at 1094.

84. *Id.*

85. *Id.* at 1099–100.

86. *Id.* at 1100.

87. *Id.* at 1101 (“We do not here say how such a claim of forfeiture [for untimeliness or consent] should be analyzed.”).

88. *See, e.g., In re Fedex Corp.*, 2018 U.S. App. LEXIS 32304, *5–6 (Fed. Cir. 2018) (providing an example of a post-*In re Micron* case affirming denial of venue defense as defendants had not “seasonably” raised it); *In re Nintendo of Am., Inc.*, 2017 U.S. App. LEXIS 14835 (Fed. Cir. 2017) (providing an example of a pre-*In re Micron* rejection of venue defense in a case that had extensively proceeded); *In re Techtronics Indus. N. Am., Inc.*, 2017 U.S. App. LEXIS 16324 (Fed. Cir. 2017) (providing an example of a pre-*In re Micron* rejection of venue defense in a case that was two months from trial).

89. *See In re ZTE (USA) Inc.*, 890 F.3d 1008, 1011 (Fed. Cir. 2018).

90. *Id.* at 1013.

91. *Id.* at 1010.

92. *Id.* § 1406(a) governs both motions to transfer and motions to dismiss for improper venue, while § 1404(a) governs for motions to transfer for convenience. 28 U.S.C. §§ 1404(a), 1406(a) (2012).

ZTE's motions were denied, with the judge "citing Fifth Circuit law, plac[ing] the burden on the objecting defendant to show improper venue."⁹³ The court then found that ZTE "failed to . . . show it [did] *not* have a regular and established place of business in the District."⁹⁴

On appeal, the Federal Circuit recognized that it "generally defer[s] to regional circuit procedural law on questions 'not unique to patent law.'"⁹⁵ However, the panel concluded that venue questions under § 1400(b) are "unique to patent law" and thus governed by Federal Circuit law.⁹⁶ Furthermore, it acknowledged that all appeals concerning § 1400(b) would come to the Federal Circuit, and thus adopting a uniform standard "obviates any uncertainty at the district court as to" which law should apply.⁹⁷

The Federal Circuit then held that the plaintiff bears the burden to establish proper venue.⁹⁸ In reaching this conclusion, the panel recognized that § 1400(b) "is intended to be restrictive . . . compared with the broad general venue provision [§ 1391]," and that before the formation of the Federal Circuit, regional circuits "uniformly placed the burden to show proper venue in patent cases" on plaintiffs.⁹⁹ Ultimately, the Federal Circuit vacated the District Court's holding, remanding the case back to the Eastern District of Texas.¹⁰⁰

4. *In re BigCommerce—Establishing Appropriate Venue in States With Multiple Districts*

In another appeal from the Eastern District of Texas, the Federal Circuit continued its trend of limiting venue by further restricting § 1400(b)'s definition of residence. In *In re BigCommerce*, the Federal Circuit addressed the question of how courts should now decide venue in multi-district states, ultimately holding that venue is only appropriate in the specific district in which the defendant satisfies § 1400(b).¹⁰¹

93. *In re ZTE*, 890 F.3d at 1010. The motion to transfer for inconvenience was also rejected but was not at issue in this appeal.

94. *Id.* at 1010–11 (emphasis added).

95. *Id.* at 1012 (citing *Biodex Corp. v. Loredan Biomed., Inc.*, 946 F.2d 850, 856 (Fed. Cir. 1991)).

96. *Id.*

97. *Id.*

98. Prior to *In re ZTE*, there were no Federal Circuit cases that addressed the specific question of burden of proof for venue. *Id.* at 1013–14 ("This court has no heretofore considered which party bears the burden with respect to § 1400(b) as distinguished from § 1391. We have found no case in this court's 37-year history dealing with this question.").

99. *Id.* While the Federal Circuit considered the preexisting regional circuit caselaw on the matter, the panel recognized such opinions as only persuasive authority. *Id.*

100. *Id.* at 1016.

101. *In re BigCommerce, Inc.*, 890 F.3d 978, 980 (Fed. Cir. 2018).

Diem LLC and Express Mobile, Inc. both filed patent infringement suits in the Eastern District of Texas against BigCommerce, Inc.¹⁰² BigCommerce lacked a place of business in the Eastern District of Texas and instead had its registered office and headquarters in the Western District.¹⁰³ Following *TC Heartland*, BigCommerce sought to dismiss one of the cases and transfer the other for improper venue.¹⁰⁴ The district court rejected these motions, stating that venue is proper in *any* district in the corporation's state of incorporation.¹⁰⁵

On appeal, the Federal Circuit concluded that for § 1400(b), a defendant corporation does not reside “in each and every judicial district in” the state of incorporation.¹⁰⁶ The Federal Circuit recognized that “[a] plain reading of ‘*the judicial district*’ speaks to venue in only one particular judicial district in the state.”¹⁰⁷ Furthermore, the court considered the history of § 1400(b), holding that “Congress had in mind one judicial district where the defendant resides.”¹⁰⁸ Additionally, the Federal Circuit acknowledged Supreme Court caselaw, which implied that a domestic corporation does not reside simultaneously in every district in the state of incorporation.¹⁰⁹

In addressing *which* district a corporation resides under § 1400(a), the Federal Circuit held that corporations with in-state headquarters reside where the “principal place of business” is located.¹¹⁰ For a corporation with its principal place of business in a separate state from the state of incorporation, the Federal Circuit held that the location of the corporation's “registered office” should govern.¹¹¹ The Federal Circuit then vacated the District Court's denial of the motions, remanding the case.¹¹²

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.* The district court also noted that BigCommerce had waived their right to bring the motions; however, the Federal Circuit rejected this notion, citing *In re Micron*, the speed with which BigCommerce brought the motion following *TC Heartland*, and the earliness of the case. *Id.* at 981–82.

106. *Id.* at 982.

107. *Id.* (emphasis added). The particular language of § 1400 states that an action “may be brought in *the* judicial district where the defendant resides” 28 U.S.C. § 1400(b) (2012) (emphasis added).

108. *In re BigCommerce*, 890 F.3d at 983.

109. The Federal Circuit stated that:

While it is true that the [Supreme] Court did not expressly spell out the standard for “inhabitant” in its decision, we are not free to ignore the clear import of its view on the issue: a corporation incorporated in a multi-district state is not a resident of every district in the state.

Id. at 984 (citing *Fourco v. Transmirra*, 353 U.S. 222, 226 (1957); *Stonite Prods. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 562–63 (1942)).

110. *Id.* at 985.

111. *Id.* at 985–96 (citing *Shaw v. Quincy Mining Co.*, 145 U.S. 444, 449 (1892)).

112. *Id.* at 986.

5. *In re HTC Corp.—Maintaining Loose Venue Requirements Against Foreign Defendants*

While *TC Heartland* and the above Federal Circuit decisions reworked patent venue rules, these changes largely focused on treatment of domestic corporations, leaving open the question of how § 1400(b) treats *foreign* corporations.¹¹³ In contrast to the other decisions that served to restrict proper venue, the Federal Circuit found that foreign corporations enjoyed fewer limitations on where patentees could bring suit.

Several technology companies brought an infringement suit against HTC Corporation (a Taiwanese company) and its U.S. subsidiary in the District of Delaware.¹¹⁴ Both HTC entities filed motions to dismiss or transfer for improper venue, with the district court granting the subsidiary's motion and denying the parent's.¹¹⁵ On appeal, the Federal Circuit cited extensive Supreme Court precedent stating that suits against aliens implicate different venue statutes than suits against domestic entities.¹¹⁶ Of particular importance was *Brunette Machine Works, Ltd. v. Kockum Industries*, which explicitly held that § 1391 governs suits against alien defendants and that such defendants “could not rely on § 1400(b) as a ‘shield’ against suit in a particular district.”¹¹⁷

While HTC argued that the 2011 amendments to § 1391 abrogated preexisting venue rules for aliens, the Federal Circuit rejected this, finding a lack of Congressional intent to “upend the centuries-old understanding that the venue laws . . . do not restrict the location of suits against alien defendants.”¹¹⁸ The Federal Circuit also acknowledged that *TC Heartland* did not affect venue rules against foreign defendants—the Court's decision explicitly did not decide the question.¹¹⁹ The court, therefore, rejected any change to the long-standing rule that “alien defendants are outside the operation of federal venue laws.”¹²⁰

113. See *In re HTC Corp.*, 889 F.3d 1349 (Fed. Cir. 2018).

114. *Id.* at 1351.

115. *Id.* (“[T]he district court found that venue was not proper as to HTC America [the U.S. subsidiary] but was proper as to HTC Corporation [the Taiwanese company].”)

116. *Id.* at 1354–55 (citing *In re Hohorst*, 150 U.S. 653, 659 (1893); *Brunette Mach. Works, Ltd. v. Kockum Indus., Inc.*, 406 U.S. 706, 714 (1972); *Galveston, H. & S.A. Ry. Co. v. Gonzales*, 151 U.S. 496, 507 (1894)). These cases served to establish and affirm the so-called “alien-venue rule,” which holds that an alien can “be sued in any district wherein he is found.” *Galveston*, 151 U.S. at 507.

117. See *id.* at 1355–56 (citing *Brunette*, 406 U.S. at 714).

118. *Id.* at 1356.

119. See *id.* at 1357 (“The Court's recent decision in *TC Heartland* does not alter this conclusion.”); see also *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1520 n.2 (2017).

120. *In re HTC*, 889 F.3d at 1361 (“With the Supreme Court having spoken on this issue twice [in *In re Hohorst* and *Brunette*], this court—without clear guidance from Congress—will

B. HOW HAVE DEFENDANTS RESPONDED?

As *TC Heartland* and the Federal Circuit decisions substantially changed venue requirements, many cases that had proper venue pre-*TC Heartland* were now in potentially improper districts—raising the possibility of transferring. While some district courts initially blocked such motions under waiver rules,¹²¹ *In re Micron* expressly held that failure to bring a motion, pre-*TC Heartland*, does not waive a defendant’s right to do so now.¹²² To determine how *TC Heartland* and *In re Micron* spurred motions, this Note analyzed data on the total number and success rates of motions to dismiss for improper venue, to transfer for improper venue, and to transfer for convenience before and after each case (Table 1 for *TC Heartland*, Table 2 for *In re Micron*).

Table 1 – Number of venue motions and their success rates before and after *TC Heartland* (decided 05/22/2017)¹²³

Type of motion	Number of motions		Success rates	
	1-year before	1-year after	1-year before	1-year after
Dismiss for improper venue	52	344 (+562%)	10%	28% (+18%)
Transfer for improper venue	7	323 (+4,514%)	43%	74% (+31%)
Transfer for convenience	204	171 (-16%)	47%	69% (+22%)

not broadly upend the well-established rule that suits against alien defendants are outside the operation of federal venue laws.”).

121. See, e.g., *Navico, Inc. v. Garmin Int’l, Inc.*, 2017 U.S. Dist. LEXIS 106461, at *8–9 (E.D. Tex. 2017); *InfoGation Corp. v. HTC Corp.*, 2017 U.S. Dist. LEXIS 103645, at *9 (S.D. Cal. 2017); *Realtime Data LLC v. Barracuda Networks, Inc.*, 2017 U.S. Dist. LEXIS 121581, at *7 (E.D. Tex. 2017).

122. See *supra* Section IV.A.2.

123. The data in Table 1 was obtained from Docket Navigator using the “Motion Success Search” with the “Motion to Dismiss for Improper Venue (FRCP 12(b)(3)),” “Motion to Transfer for Improper Venue (28 U.S.C. § 1406(a)),” and “Motion to Transfer for Convenience (§ 1404(a))” set as “Types of Document.” To assess the impact of *TC Heartland*, the dates searched were May 22, 2016 to May 22, 2017 (for pre-decision) and May 22, 2017 to May 22, 2018 (for post-decision). Motions that were denied as moot were not used in the analysis for calculating success rates (as these typically resulted from settlements), nor were cases with an outcome of “other” (e.g., request for additional briefing, deferred ruling).

Table 2 – Number of venue motions and their success rates before and after *In re Micron* (decided 11/15/2017)¹²⁴

Type of motion	Number of motions		Success rates	
	2-months before	2-months after	2-months before	2-months after
Dismiss for improper venue	65	53 (-18%)	25%	42% (+17%)
Transfer for improper venue	62	59 (-5%)	75%	66% (-9%)
Transfer for convenience	37	31 (-16%)	67%	73% (+6%)

The data in Table 1 demonstrate that defendants took full advantage of changes in patent venue rules to try to remove their cases after *TC Heartland*. In the year before the Supreme Court’s decision, motions concerning improper venue¹²⁵ were relatively rare, occurring only 59 times. In the year following, this number ballooned to 667 (344 for dismissal, 323 for transfer). Interestingly, however, Table 2 demonstrates that *In re Micron* did not increase the rate of such motions. One possible explanation is that before *In re Micron* firmly established that the waiver rule does not apply, defendants were already under the impression this would be the case. As such, there would have been no need to wait for the Federal Circuit to clarify the point, and such defendants would have already filed their motions.

While defendants shifted to improper venue objections, they began to steer away from motions to transfer for convenience (28 U.S.C. § 1404(a) motions¹²⁶). While both § 1406(a) motions grew in number the year after *TC Heartland*, § 1404(a) motions decreased by 16%. One potential explanation is that defendants recognized that *TC Heartland* empowered improper venue objections, and thus, they may have viewed these motions as a stronger or safer argument than relying on inconvenience.

Additionally, Table 1 demonstrates that venue motions, across the board, experienced substantial increases in success rates following *TC Heartland*. Before, all three motions succeeded less than half of the time, with motions to

124. The data in Table 2 was obtained using the same method used to create Table 1, using the dates September 15, 2017 to November 15, 2017 (for pre-decision) and November 15, 2017 to January 15, 2017 (for post-decision). See *supra* note 123. Readers should note that the date ranges used in Table 1 overlap with those used in Table 2. The narrower range for *In re Micron* was used to better capture the effects of the decision in isolation.

125. For the purpose of this Note, motions related to “improper venue” include both motions to dismiss and motions to transfer.

126. While motions to dismiss or transfer for improper venue are governed by 28 U.S.C. § 1406(a), motions to transfer for convenience are governed by 28 U.S.C. § 1404(a). Motions to dismiss for convenience do not exist.

dismiss for improper venue succeeding in a mere 10% of cases. However, following *TC Heartland*, motions to transfer for improper venue and convenience saw success rates increase to approximately 70%, while motions to dismiss for improper venue increased in success rate to 28%—still substantially lower than transfer motions.

There were differing effects on success rates following *In re Micron*, as shown in Table 2. Motions to transfer for convenience or for improper venue experienced moderate changes, remaining within 10% of pre-*In re Micron* success rates. Interestingly, however, motions to dismiss for improper venue rose in success rates to 42%. These data show a dramatic turnaround for the frequency with which courts grant motions to dismiss for improper venue—from only 10% of the time in the year before *TC Heartland*, to 42% of the time in the two months after *In re Micron*.

C. HOW HAVE PLAINTIFFS RESPONDED?

Both *TC Heartland* and the Federal Circuit decisions have narrowed options for where plaintiffs can sue domestic corporations for patent infringement.¹²⁷ These decisions have substantially affected the landscape of where plaintiffs pursue infringement claims, with a rapid reordering of the most popular districts.

1. New Patent Case Filings Continue on a Downward Trajectory

The total number of new patent cases are down post-*TC Heartland*, continuing a trend that began in 2015 to 2016. Observers had noted this trend before *TC Heartland*, and this decrease can somewhat be attributed to fewer filings by patent trolls or high-volume litigants.¹²⁸ Some commentators speculated that such filings (overall filings and filings by patent trolls) would continue to decline in the wake of the decision.¹²⁹ Indeed, the data covering

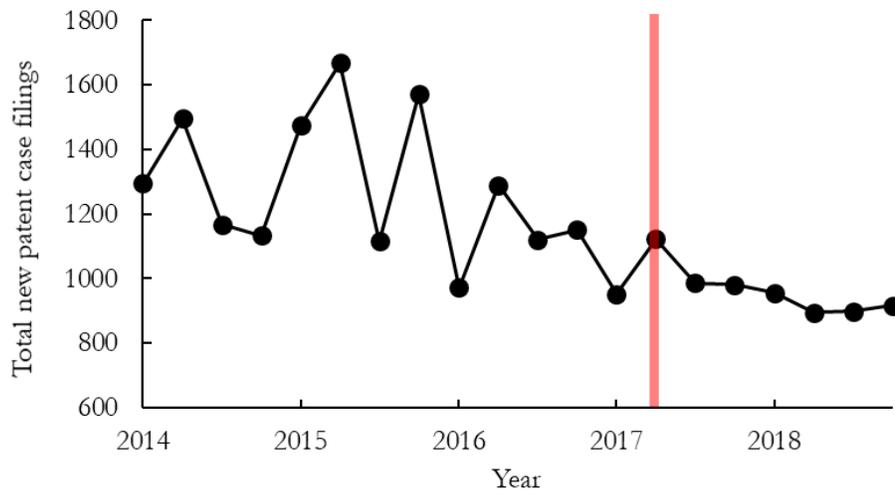
127. See *supra* Sections III and IV.A.

128. See, e.g., Steve Brachmann, *Lex Machina Litigation Report Shows 22% Drop in Patent Infringement Suits for 2016*, IP WATCHDOG (Jan. 17, 2017), <http://www.ipwatchdog.com/2017/01/17/lex-machina-litigation-report-drop-patent-infringement-suits-2016/id=77108/> [<https://perma.cc/Y92U-A6V6>] (“Spikes in patent litigation totals are largely driven by a unique set of litigants which are referred to as ‘high-volume plaintiffs,’”); David Kline, *Is Patent Litigation Out of Control?*, MICHELSON INST. FOR INTELL. PROP. (Apr. 24, 2017), <http://michelsonip.com/patent-litigation-control/> [<https://perma.cc/MF5Q-NSFU>] (discussing the decline in patent litigation and mentioning new procedures that have combatted abusive behavior). The reasons for the pre-*TC Heartland* decrease of patent troll litigation is further discussed in *infra* Section V.C, but are generally due to the numerous previous attempts to combat patent trolls.

129. See Adam Liptak, *Supreme Court Ruling Could Hinder Patent Trolls*, N.Y. TIMES (May 22, 2017), <https://www.nytimes.com/2017/05/22/business/supreme-court-patent-lawsuit.html> [<https://perma.cc/C5P4-KEEN>].

the year and a half following *TC Heartland* show this prediction to be true (Figure 3).

Figure 3. Total patent cases from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹³⁰



Whether or not *TC Heartland* has directly contributed to this continued decline is uncertain. However, prior research assessing the initial forty-eight days following *TC Heartland* concluded that the decision did not significantly decrease overall filings.¹³¹ The present data support a similar conclusion—while patent filings continue to decrease, the downward curve began before *TC Heartland*. Apart from quarter-to-quarter variability, the Supreme Court’s decision does not appear to have substantially influenced this trend.

2. Districts of Choice Have Shifted

As a result of *TC Heartland* and the Federal Circuit decisions, plaintiffs suing domestic corporations are now limited to either the state of incorporation or districts where the corporation has infringed and has a regular and established place of business.¹³² Patentee-plaintiffs appear to have taken

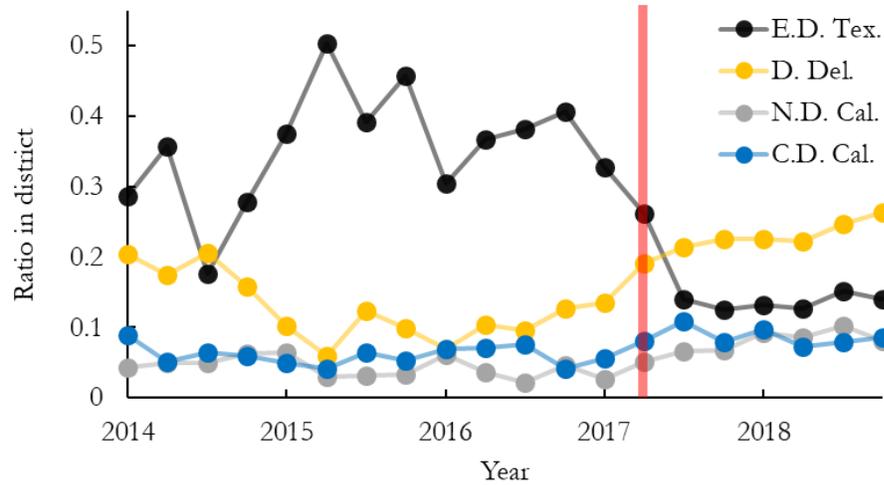
130. The data presented in Figure 3 represent the total number of new patent cases filed each quarter from 2014 through Q4 of 2018. These data were obtained using Lex Machina, with the tag for “Patent” for “Case Types.”

131. See Marc Kustner & Nicholas Tsui, *The First 48: A TC Heartland Story*, 9 AM. U. INTEL. PROP. BRIEF 57, 63–65 (quantifying total filings and venue-specific filings in the forty-eight days before and after *TC Heartland*).

132. See *supra* Sections III and IV.A. For multi-district states, plaintiffs are further restricted to either the specific district where the corporation has its principal place of business or where they have their registered office. See *supra* Section IV.A.4 (discussing *In re BigCommerce*).

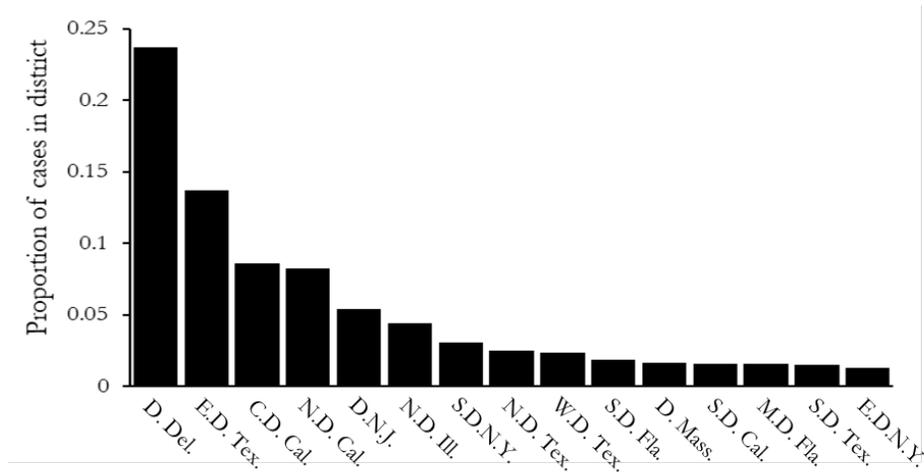
full note of these changes and have dramatically adjusted which districts they are filing in (Figure 4 and Figure 5).

Figure 4. Patent cases by district from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹³³



133. The data presented in Figure 4 were obtained using the same methodology as Figure 1. *See supra* note 33. The data presented in this figure compare favorably with other studies on the topic. *See* Geneva Clark, *TC Heartland, Legal Trends, One Year Later*, LEX MACHINA BLOG (May 23, 2018), <https://lexmachina.com/tc-heartland-legal-trends-one-year-later/> [<https://perma.cc/J7AB-AS66>].

Figure 5. Proportion of patent cases in the top 15 districts since *TC Heartland* (05/22/2017) through Q4 2018.¹³⁴



Before *TC Heartland*, the Eastern District of Texas featured between 30% to 50% of all patent infringement cases, while the District of Delaware ranged from 6% to 14%.¹³⁵ The Central and North Districts of California, the third and fourth most preferred districts, remained below 10% for much of the same time.¹³⁶ However, immediately following the decision, new patent cases in the Eastern District of Texas have fallen dramatically and now only feature 13% to 15% of cases—though the district remains a popular choice and solidly in second place. While the proportion of cases in the Eastern District of Texas has fallen, the District of Delaware has risen to over 20%.¹³⁷ Although substantially ahead, the District of Delaware has not grown to the monolithic status that the Eastern District of Texas once had. The present data also suggest that Delaware may never reach that height, with the ratio of cases immediately after *TC Heartland* and in Q4 2018 within 5% of one another.¹³⁸

134. The values in Figure 6 were obtained using the same methodology as in Figure 1 but using a date range of May 22, 2017 through December 31, 2018. *See supra* note 33.

135. Between 2015 and *TC Heartland*, the proportion of patent cases in the Eastern District of Texas peaked in Q2 2015 at 50% and bottomed in Q1 2016 at 30%. Likewise, for the same time period, the District of Delaware peaked in Q1 2017 at 14% and bottomed in Q2 2015 at 6%. *See* Figure 4.

136. Prior to *TC Heartland*, neither the Central District of California or the Northern District of California broke 10% of all patent cases between 2013 and the decision. *See* Figure 4.

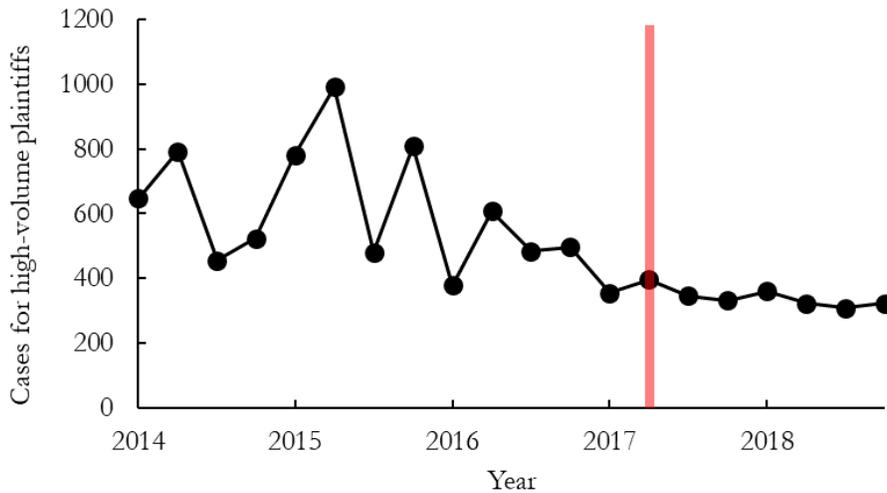
137. From Q3 2017 till now, filings in the District of Delaware have averaged approximately 23% of all patent cases.

138. In Q3 2017, the District of Delaware had 21% of all patent cases, while in Q4 2018, the district had 26%.

3. Effects on High-Frequency Plaintiffs

The above trends are particularly pronounced for high-volume plaintiffs.¹³⁹ Figure 6 and Figure 7 document the continued decline in cases by such plaintiffs and their redistribution among the district courts.

Figure 6. Total patent infringement cases brought by high-volume plaintiffs from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹⁴⁰



As with patent infringement cases in general, cases brought by high-volume plaintiffs continue to decline from a peak in early 2015.¹⁴¹ As discussed above in Section IV.C.1, whether or not *TC Heartland* contributed to the continuation of this decline is ambiguous.¹⁴² Additionally, the effects of *TC Heartland* on venue choice are also more pronounced for high-volume plaintiffs, as Figure 7 demonstrates.

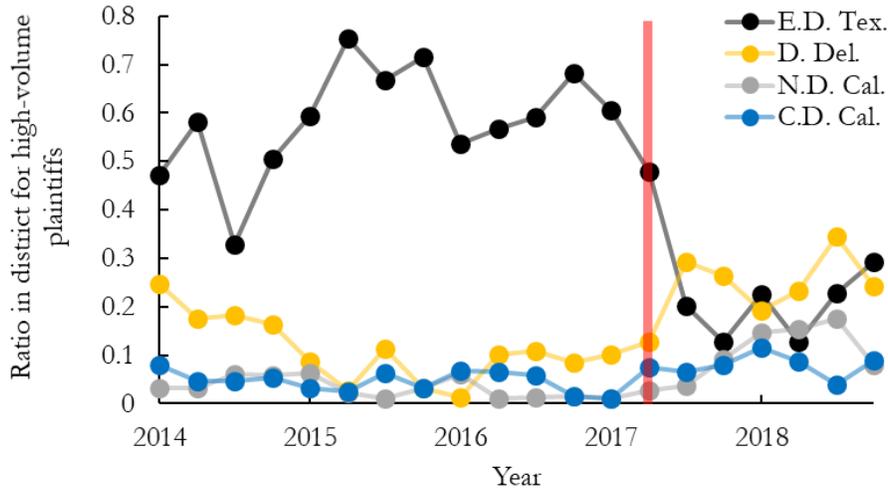
139. As in Section II.C, this Note uses high-volume plaintiffs as a proxy for patent trolls, and uses Lex Machina’s definition of “high-volume plaintiff,” which are plaintiffs that bring ten or more cases per year. *See supra* at note 36.

140. Figure 6 uses the same methodology as in Figure 3, but additionally applies the Lex Machina filter of “high-volume plaintiffs” for “case tags.” *See supra* note 130.

141. *See* Figure 3. The largest number of cases filed by high-volume plaintiffs, assessed on a quarter-by-quarter basis, occurred in Q2 2015. The pre-*TC Heartland* decline of these cases is discussed in further detail *infra* Section V.C.

142. *See supra* Section IV.C.1; *see also* Kustner & Tsui, *supra* note 131, at 63–65 (assessing the first 48 days post-*TC Heartland* and finding that the decision did not meaningfully contribute to a decline in patent cases).

Figure 7. Patent infringement cases brought by high-volume plaintiffs by district from Q1 2014 to Q4 2018 (red bar indicates *TC Heartland*).¹⁴³



As with cases overall, filings in the Eastern District of Texas dropped sharply after *TC Heartland*, while filings in the District of Delaware increased. Both of these trends are magnified for high-volume plaintiffs, with the Eastern District of Texas dropping from 61% in Q1 2017 to 20% in Q3 2017. During the same time span, Delaware increased its proportion from 10% to 29%.

Interestingly, however, while filing trends for patent cases overall rapidly stabilized post-*TC Heartland*,¹⁴⁴ trends for high-volume plaintiffs remain volatile. For example, Delaware's portion of patent cases for high-volume plaintiffs has oscillated between 34% in Q3 2018 and 19% in Q1 2018. Furthermore, both the Northern and Central Districts of California have increased their proportion of cases from high-volume plaintiffs. However, both continue to fluctuate. None of the trends for these four districts have leveled off, suggesting ongoing uncertainty in the practices of high-volume plaintiffs.

V. ANALYSIS

TC Heartland dramatically reworked patent venue rules and initiated an extensive reshuffling of where plaintiffs bring infringement suits. This decision, and the subsequent Federal Circuit opinions, have dramatically affected plaintiffs and defendants alike, creating new approaches to venue

143. Figure 7 uses the same methodology as in Figure 2, and differs from Figure 4 only in that it displays the data limited to high-volume plaintiffs. *See supra* note 41.

144. *See* Figure 4.

objections by defendants¹⁴⁵ and redistributing preferred districts for plaintiffs.¹⁴⁶ Furthermore, the decision has struck a major blow against the strategies of patent trolls, potentially contributing to their continuing decline.

A. FEDERAL CIRCUIT DECISIONS HAVE CONTINUED THE SPIRIT OF *TC HEARTLAND*

The patent-specific venue statute, § 1400(b), contains two separate tests for proper venue—where the defendant “resides” or where the defendant has infringed and has a “regular and established place of business.”¹⁴⁷ *TC Heartland* addressed the first of these tests, holding that “resides” in § 1400(b) is unaffected by definitions in the general-venue statute (§ 1391) and only means the state of incorporation.¹⁴⁸ Since the decision, the Federal Circuit has taken the opportunity to further narrow “resides” in § 1400(b), finding that even within the state of incorporation, domestic corporations only truly reside in a *particular* district of the state.¹⁴⁹

Furthermore, the Federal Circuit independently explored the second test of § 1400(b)—“regular and established place of business.”¹⁵⁰ The Supreme Court did not address this section of § 1400(b), as it was not at issue in *TC Heartland*. However, the Federal Circuit rejected an attempt by the Eastern District of Texas to widen its scope, expressly laying out the requirement of a physical, regular, and established place of business that is “of the defendant.”¹⁵¹ The Federal Circuit then continued to narrow venue, indirectly this time, by expressly placing the burden of proof for venue on the plaintiff.¹⁵² Through both of these cases (*In re Cray* and *In re ZTE*), the Federal Circuit blocked or reversed attempts by district courts to loosen venue restrictions.¹⁵³

While these Federal Circuit cases have served to tighten venue, the court also empowered pre-existing defendants by finding that waiver does not block post-*TC Heartland* objections to venue in cases that began before the Court’s

145. See Tables 1 and 2.

146. See Figures 4 and 7.

147. 28 U.S.C. § 1400(b) (2012).

148. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17.

149. As discussed above in Section IV.A.4, the Federal Circuit, in *In re BigCommerce*, determined that in multi-district states, a domestic incorporation only “resides” in either the district of their principal place of business (if the principal place of business is in-state) or in the district where their registered office is located. See *In re BigCommerce*, 890 F.3d 978, 980 (Fed. Cir. 2018).

150. See *supra* Section IV.A.1 (discussing *In re Cray*).

151. See *id.*; see also *In re Cray Inc.*, 871 F.3d 1355 (Fed. Cir. 2017).

152. See *supra* Section IV.A.3 (discussing *In re ZTE*).

153. *In re Cray* saw the Federal Circuit reject an attempt by the Eastern District of Texas to define “regular and established place of business” more liberally, while *In re ZTE* saw the Federal Circuit reject the Eastern District of Texas’s attempt to place the burden for proving improper venue onto the defendant (thus creating more difficulties for a defendant to transfer or dismiss their case for improper venue).

decision.¹⁵⁴ Now, not only are plaintiffs more limited in venue options, defendants who were previously unhappy with their district could renew their objections to venue. As such, the eighteen months since *TC Heartland* demonstrate a clear trend of defendant-friendly developments. While the Federal Circuit broke with this trend in *In re HTC*, that decision was limited in scope to foreign defendants.¹⁵⁵

Cumulatively, these decisions potentially demonstrate that the Federal Circuit has recognized the Supreme Court's signal that patent venue needed tightening. While *TC Heartland* did not involve the Eastern District of Texas directly, the district nonetheless took a commanding seat in the decision, and the Court was fully aware of the atmosphere leading up to *TC Heartland*.¹⁵⁶ The Court's decision to dramatically tighten patent venue likely reflects its desire to directly respond to rampant forum shopping and to the dominance of the Eastern District of Texas. In this regard, the Supreme Court's decision has succeeded, both in its own right and in setting a tone for future decisions.

By itself, *TC Heartland* resulted in a near-instantaneous reordering of the hierarchy of preferred districts.¹⁵⁷ Furthermore, the signal of *TC Heartland* was certainly received by the Federal Circuit. While district courts have, at times, tried to fight the tightening venue rules,¹⁵⁸ the Federal Circuit has consistently rejected these attempts. While these cases have frequently arisen in contexts disparate from *TC Heartland*, which is to say they addressed questions not answered in the Court's opinion, the Federal Circuit has consistently upheld the spirit of the decision—that venue in patent disputes should be restrictive.

154. See *supra* Section IV.A.2 (discussing *In re Micron*).

155. See *supra* Section IV.A.5 (discussing *In re HTC*, which affirmed that foreign defendants could not use § 1400(b) to object to venue).

156. See J. Jonas Anderson, *Reining in a "Renegade" Court: TC Heartland and the Eastern District of Texas*, 39 CARDOZO L. REV. 1569, 1588 (2018) (stating "[t]his case was an odd vehicle to limit the Eastern District of Texas's patent docket; the case had no tie whatsoever to East Texas. Despite the lack of a Texas connection, much of the briefing concerned the Eastern District of Texas"); see also Brief of Amici Curiae of 32 Internet Companies, Retailers, and Associations in Support of Petition for Writ of Certiorari at 4, *TC Heartland*, 137 S. Ct. 1514 (No. 16-341) (discussing forum shopping enabled by *VE Holding*); Brief of Amici Curiae 56 Professors of Law and Economics in Support of Petition for Writ of Certiorari at 1, *TC Heartland*, 137 S. Ct. 1514 (No. 16-341) (discussing forum shopping).

157. See *supra* Section IV.C. As discussed above, the quarter immediately after the *TC Heartland* decision saw a dramatic decrease in filings in the Eastern District of Texas. These changes occurred before any of the major Federal Circuit decisions, detailed in Section IV.A, issued, showing that *TC Heartland*, standing by itself, substantially curtailed forum shopping to the district.

158. See, e.g., *Raytheon Co. v. Cray, Inc.*, 258 F. Supp. 3d 781 (E.D. Tex. 2017) (attempting to establish a new test under regular and established place of business); *Diem LLC v. BigCommerce, Inc.*, 2017 U.S. Dist. LEXIS 117892 (E.D. Tex. 2017) (attempting to hold a defendant as residing in every district in multi-district states); *Am. GNC Corp. v. ZTE Corp.*, 2017 U.S. Dist. LEXIS 184470 (E.D. Tex. 2017) (attempting to place the burden of proof for venue on the defendant).

Indeed, the majority of substantive Federal Circuit decisions involving venue for domestic corporations since *TC Heartland* through 2018 have added further limitations.¹⁵⁹ These restrictions, beginning with *TC Heartland* itself, show a clear and definite trend towards narrower venue in patent disputes.

B. PLAINTIFFS AND DEFENDANTS HAVE EMBRACED NEW VENUE RULES ONE YEAR ON

In response to these decisions, both plaintiffs and defendants have dramatically reworked their approaches to patent infringement suits.¹⁶⁰ Defendants, who were previously unable to realistically object to venue, took the opportunity to transfer or dismiss their cases. Noticeably, defendants shifted from a preference for transfer for inconvenience motions to motions to transfer or dismiss for improper venue—all of which saw significant increases in success rates following *TC Heartland*.¹⁶¹

Likewise, plaintiffs reworked their approach, shifting their focus from the Eastern District of Texas to the District of Delaware.¹⁶² While the Federal Circuit has now addressed both the “resides” and “regular and established place of business” tests of § 1400(b), the preference for Delaware shows that plaintiffs are likely relying on the former and targeting defendants in their state of incorporation.¹⁶³ One potential explanation for this preference is that state of incorporation is a low burden to meet—a corporation is either incorporated in a given state or it is not—rather than the more ambiguous “regular and established place of business” requirement. However, the fact that the Eastern District of Texas remains the second most popular district shows that plaintiffs still make use of the “regular and established place of business” prong of

159. This Note addresses the decisions of each of these Federal Circuit decisions in both Section IV.A and in the paragraphs immediately above in Section V.A.

160. See *supra* Sections IV.B and IV.C. As discussed sporadically above, several studies have assessed the reshuffling of districts in the immediate aftermath of *TC Heartland*. The work in this Note expands upon these preexisting studies, now that more time has passed since the Supreme Court’s decision. See, e.g., Colleen V. Chien & Michael Risch, *Recalibrating Patent Venue*, 77 MD. L. REV. 47 (2017); Kustner & Tsui, *supra* note 131; Clark, *supra* note 133; Byrd, *supra* note 36.

161. *Id.* Of particular note here is the dramatic increase in success rates for motions to dismiss for improper venue, which succeeded only 10% of the time in the year before *TC Heartland*, and then succeeded 42% of the time in the two months following *In re Micron*. See Table 2.

162. See Figures 4, 5, and 7.

163. See Charles B. Walker & Dino Arslanagic, *Where Will All the Patent Cases Go: The Aftermath of TC Heartland*, 44 LITIG. 54 (2018) (“[T]he District of Delaware has seen a surge in patent litigation filings, which reflects plaintiffs’ inclination to rely on a corporate defendant’s state of incorporation for establishing proper venue under the patent venue statute.”).

§ 1400(b).¹⁶⁴ Ultimately, while this new preference potentially adds predictability for defendants, it has also created workload issues for the District of Delaware in the short-term.¹⁶⁵

While Delaware has replaced the Eastern District of Texas at the top, the District of Delaware has not reached the dominance of the Eastern District of Texas in years past.¹⁶⁶ As such, the patent landscape today appears substantially more evenly distributed than before *TC Heartland*.¹⁶⁷ Under this light, *TC Heartland* has succeeded in its goal to change plaintiff behavior and combat forum shopping. Though one could view the new preference for the District of Delaware as a new direction for forum shopping, the use of the district is far from unexpected. For a domestic corporation incorporated in Delaware, being sued in Delaware can hardly be a surprise or unforeseeable. As such, *TC Heartland* appears to have largely diminished this form of forum shopping.

C. ANOTHER NAIL IN THE COFFIN – PATENT TROLLS CONTINUE TO DECLINE IN THE WAKE OF *TC HEARTLAND*

While not directly addressed in the Supreme Court’s decision, *TC Heartland* implicitly targeted patent trolls. Commentators and academics have regarded patent trolls as a major cause for the explosion of cases in the Eastern District of Texas, helping set the stage of the Supreme Court’s decision.¹⁶⁸ The data presented in this Note (using high-volume plaintiffs as a proxy for patent trolls) make it clear that *TC Heartland* deeply affected these groups.¹⁶⁹ However, one must view the effect of *TC Heartland* in the context of the preceding years, which saw a trending decline in the number of cases brought by high-volume plaintiffs.¹⁷⁰ In Q2 2015, high-volume plaintiffs brought nearly 1,000 patent

164. There are likely many domestic corporations that easily satisfy the “regular and established place of business” test with respect to the Eastern District of Texas. A prominent example of such a corporation is likely the large retailer Target, which is incorporated in Minnesota but has multiple stores in the Eastern District of Texas, including one in Tyler, Texas. See *Find a Store*, TARGET, <https://www.target.com/store-locator/find-stores/tyler,tx> [<https://perma.cc/EA49-8VRT>] (last visited Oct. 28, 2019).

165. See Alan R. Silverstein & Stephanie E. O’Byrne, *Patent Litigation in an Undermanned District of Delaware after TC Heartland*, 31 CORP. COUNS. 1 (2017).

166. *Id.* While the District of Delaware is now the most popular choice for plaintiffs, the district features only 21–26% of patent cases, far below the 50% peak that the Eastern District of Texas captured in Q2 2015. See *supra* Section IV.C.2.

167. *Id.*

168. See Cano, *supra* note 40 (discussing patent trolls and the rise of the Eastern District of Texas).

169. See Figure 6 and 7 (documenting the continuing decline of cases brought by high-volume plaintiffs and the redistribution of preferred venue).

170. As discussed above in Section II.C, this Note uses high-volume plaintiffs as a proxy for patent trolls. While this definition is likely over-inclusive, trends for high-volume plaintiffs are expected to reflect and report on trends for patent trolls. See Karmasek, *supra* note 37 (quoting a Lex Machina data scientist as stating that he would consider the majority of high-volume plaintiffs to be patent trolls).

infringement cases, but by Q1 2017, this number dropped by nearly two-thirds.¹⁷¹ The reasons for this decline are numerous and include new procedural mechanisms (such as *inter partes review*, which offers a cheaper method for invalidating patents), changes to patentability standards (e.g., changes to § 101 subject matter eligibility that limit the scope of certain patents), new defensive business strategies (e.g., patent pools, joint defense groups), and overall declining profits for patent trolls.¹⁷² Therefore, while *TC Heartland* fits into this pattern of improved defense, it is difficult to see it as more than a single star in a constellation.

However, while patent trolls were already in decline before *TC Heartland*, the decision was nonetheless another blow, dramatically affecting patent troll strategy. While overall filings in the Eastern District of Texas were on the decline before *TC Heartland*, the preference of high-volume plaintiffs for the district remained relatively consistent.¹⁷³ That high-volume plaintiffs still brought over half of their cases in the Eastern District of Texas immediately before *TC Heartland* showed that their strategies still relied on the district. However, *TC Heartland* upended this approach, forcing them to less-preferred jurisdictions.¹⁷⁴ Whether these shifts in choice of district will result in lower success rates or lower payouts remains to be seen and will be an interesting topic of future study. Regardless, the data presented in this Note show that *TC Heartland* largely succeeded in further disrupting patent troll behavior.

D. PROJECTIONS FOR PATENT VENUE MOVING FORWARD FOLLOWING *TC HEARTLAND* AND THE FEDERAL CIRCUIT DECISIONS

While this Note focuses on the year and a half following *TC Heartland*, speculation as to how patent venue will continue to evolve is entirely warranted. Based on Federal Circuit decisions discussed in Section IV.A and the available data in Sections IV.B and IV.C, this Note projects two likely outcomes: (1) that motions to dismiss, while continuing to enjoy somewhat higher success rates, will begin to decline in number, and (2) that the overall

171. Figure 6.

172. See, e.g., Daniel Fisher, *Hard Times for Patent Trolls and Challengers, As Courts, Targets Fight Back*, FORBES (Mar. 24, 2017), <https://www.forbes.com/sites/danielfisher/2017/03/24/hard-times-for-patent-trolls-and-challengers-as-courts-targets-fight-back/#bd249df2e7ff> [<https://perma.cc/X7DD-75Z5>] (quoting Yar Chaikovsky as stating “[t]hese things are dying one of two ways – IPR or *Alice* – and that’s making the lives of trolls hell”); Eduardo Porter, *Patent ‘Trolls’ Recede as Threat to Innovation. Will Justices Change That?*, N.Y. TIMES (Nov. 21, 2017), <https://www.nytimes.com/2017/11/21/business/economy/patents-trolls-supreme-court.html> [<https://perma.cc/QC95-8KWX>] (discussing the decline of patent trolls); Erin Griffith, *RPX and the Complicated Business of Stockpiling Patents for Good, not Evil*, PANDO (Sept. 9, 2013), <https://pando.com/2013/09/09/rpx-and-the-complicated-business-of-stockpiling-patents-for-good-not-evil/> [<https://perma.cc/ZX6A-6LPQ>].

173. See Figures 4 and 7.

174. See *supra* Section IV.C; see also Figure 7.

patent venue landscape in coming years will likely be consistent with the landscape of today.

First, the present data suggest that motions to transfer or dismiss for improper venue will begin to decline in frequency, while potentially retaining somewhat higher success rates. Following both the Court's decision in *TC Heartland* and the Federal Circuit's decision in *In re Micron*, success rates for motions to transfer or dismiss have increased.¹⁷⁵ In addition to reflecting that many cases were now in districts that lacked proper venue, the increases in success rates potentially reflected both a decrease in procedural and substantive hurdles for defendants.¹⁷⁶ The Federal Circuit cases have followed a strong pro-defendant trend, and the consistency of these decisions in restricting venue suggests that courts will not walk these changes back. As such, these changes may indicate higher long-term success rates in improper venue motions, even once the current cases have run their course.

However, the interaction between *where* plaintiffs file patent infringement cases and *how often* defendants file motions to transfer or dismiss for improper venue suggests that these motions will decrease in popularity. Following *TC Heartland*, defendants filed a large number of such motions—largely to escape the Eastern District of Texas.¹⁷⁷ However, the prevalence of the district in these motions no doubt reflected its previous popularity among plaintiffs. Thus, the large decrease in new filings in the district¹⁷⁸ suggests that there simply will not be as many situations where defendants will want to object. As demonstrated by the data before the *TC Heartland* decision, the low number of motions suggests defendants prefer not to file fruitless venue motions.¹⁷⁹ A similar outcome is likely in the near future. Now that plaintiffs are readjusting where they are bringing cases, defendants will be in districts—from the start

175. See *supra* Section IV.B.

176. Examples of these changes include the Federal Circuit putting the burden of proof for venue on the plaintiff and ruling on the inapplicability of waiver. See *supra* Section IV.A.

177. While this Note did not differentiate these motions by district, previous work looking at the first three months after *TC Heartland* showed that the Eastern District of Texas dominated in such motions. See Byrd, *supra* note 36 (evaluating motions to transfer in the immediate wake of *TC Heartland*).

178. See *supra* Section IV.C (documenting the fall of patent case filings in the Eastern District of Texas).

179. Prior to *TC Heartland*, the loose venue rules meant that defendants did not have a reasonable chance of succeeding in motions to transfer or dismiss for improper venue (reflected in the low success rates for these motions). See *supra* Section IV.B. As such, defendants may have viewed such motions as not worth pursuing, potentially leading to the low frequency of such motions in the year before *TC Heartland*. See *id.*

of their cases—that they cannot reasonably object to, even post-*TC Heartland*.¹⁸⁰

Second, the present data, along with the Federal Circuit decisions in the wake of *TC Heartland*, suggest that the patent venue landscape of the future will be similar to that of today. As discussed above,¹⁸¹ the proportion of new patent cases by district, for plaintiffs overall, in the most recent quarter analyzed (Q4 2018) are only marginally different from those immediately after *TC Heartland*.¹⁸² These trends demonstrate that plaintiffs, in general, rapidly adopted to new venue rules. In particular, plaintiffs have shifted to the District of Delaware, a common state of incorporation for many businesses.¹⁸³ Unless corporations suddenly begin changing their state of incorporation—an unlikely proposition—then venue in Delaware will likely remain valid in the future.

Furthermore, the consistency of the Federal Circuit in continuing to restrict venue¹⁸⁴ suggests that a return to the loose venue rules of *VE Holding* is unlikely. As such, future plaintiffs will likely be as limited as they are today, and will likely continue to pursue claims in their opponents' state of incorporation: frequently Delaware. However, the current high variability in preferred districts for high-volume plaintiffs¹⁸⁵ suggests that predictions are difficult for that particular group. As such, more time will likely need to pass before longer-term trends become clear for patent trolls and high-volume litigants.

VI. CONCLUSION

TC Heartland dramatically upended the patent venue landscape, and the Federal Circuit has followed this decision with further elaborations and restrictions to venue. In response, both plaintiffs and defendants reacted quickly. In the immediate wake of *TC Heartland*, pre-existing defendants took full advantage of the new venue requirements to either transfer or dismiss their cases, with increasing success. Likewise, patentee-plaintiffs have also reworked their approach. While still bringing a substantial number of cases in the Eastern

180. An example of such a district is the District of Delaware, which has taken over the Eastern District of Texas as the top district for patent cases. *See supra* Section IV.C. For a defendant incorporated in Delaware, they cannot reasonably object if they are in fact incorporated in the state.

181. *See supra* Section IV.C.

182. *See id.*

183. In 2012, “more than half of U.S. publicly-traded companies and 64% of the Fortune 500” were incorporated in Delaware. Jeffrey W. Bullock, *2012 Annual Report*, DEL. DIV. CORPS. (2012), <https://corpfiles.delaware.gov/pdfs/2012CorpAR.pdf> [<https://perma.cc/EL5P-W8SR>] (last visited Oct. 28, 2019).

184. *See supra* Sections IV.A and V.A.

185. *See supra* Section IV.C.

District of Texas, they have begun to utilize the District of Delaware in the plurality of infringement cases. Furthermore, *TC Heartland* has dramatically affected the strategies of patent trolls, with their preferred districts now variable and fluctuating. While patent trolls had already begun to decline before *TC Heartland*, the decision struck a blow to their use of forum shopping. Ultimately, the eighteen months since *TC Heartland* demonstrate that the decision has curtailed forum shopping, as both the Federal Circuit and litigants have come to accept the spirit of the decision—that venue in patent infringement suits is restrictive.

EYE SEE WHAT YOU'RE DOING: AN ANALYSIS OF ALLERGAN'S USE OF TRIBAL SOVEREIGN IMMUNITY TO EVADE IPR OF THEIR EYE PRODUCT, RESTASIS

Julea Lipiz[†]

I. INTRODUCTION

In 2018, the Federal Circuit decided *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals (Allergan)*.¹ This case considered the applicability of tribal sovereign immunity as a defense during inter partes review (IPR) of a patent, and was a matter of first impression for the Patent Trial and Appeal Board (PTAB) and the Federal Circuit. Allergan, a pharmaceutical company and owner of the Restasis patents, sued generic pharmaceutical companies for patent infringement. The generic companies in turn petitioned for IPR of the Restasis patents and Allergan, to escape IPR, transferred their patents to the Saint Regis Mohawk Tribe (“Tribe”) for \$13.75 million, along with an annual \$15 million payment to the Tribe for exclusive license of the patents.² The patent transfer allowed Allergan to theoretically exploit sovereign immunity defenses and avoid IPR.

Before the cases were decided, Allergan’s actions were heavily criticized because it allowed Allergan to exploit sovereign immunity for financial gain. A Texas federal judge stated that “sovereign immunity should not be treated as a monetizable commodity.”³ Members of Congress criticized the deal and

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law. I would like to thank Professors Kenneth Bamberger and Talha Syed for their assistance on this Note.

1. *Saint Regis Mohawk Tribe v. Mylan Pharm., Inc.*, 896 F.3d 1322 (Fed. Cir. 2018). This Note will refer to this case as the *Allergan* decision for clarity purposes because Allergan Plc. is the original owner of the Restasis patents.

2. Adam Davidson, *Why Is Allergan Partnering With The St. Regis Mohawk Tribe?*, NEW YORKER (Nov. 20, 2017), <https://www.newyorker.com/magazine/2017/11/20/why-is-allergan-partnering-with-the-st-regis-mohawk-tribe> [https://perma.cc/B7MB-SPRJ].

3. This judge invalidated some of the Restasis patents. *Id.*

called for the “abrogation of Native American sovereign immunity in patent-claim cases.”⁴

The loophole was ultimately unsuccessful and IPR was initiated. The PTAB later found that tribal sovereign immunity is not an acceptable defense during IPR. Allergan and the Tribe appealed the case and the Federal Circuit affirmed the PTAB’s decision.

When the Federal Circuit announced its decision, many commentators felt that the court reached the correct outcome.⁵ However, even though the court likely reached the optimal decision, there are many problems with the opinion. First, the Federal Circuit reached its outcome based on a state sovereign immunity case. Second, it created unclear precedent that was only recently clarified in *University of Minnesota v. LSI Corp. (LSI Corp.)*, which decided whether state sovereign immunity was an acceptable IPR defense.

This Note will explore these issues. Part I will discuss sovereign immunity, its forms, and the differing histories of state and tribal sovereign immunity. Part II will describe the *Allergan* case and the variances between the PTAB and Federal Circuit decisions. Part III will analyze *Allergan* and discuss why sovereign immunity is allowed as a defense in *some* agency adjudications. This Part will explore the history of sovereign immunity defenses and ask whether *Allergan* should fall under this category. It will then conclude by discussing discrete issues within the *Allergan* decision, including differences between state and sovereign immunity doctrines and controversial case law mentioned in the Federal Circuit’s opinion. Part IV will discuss *Covidien LP v. University of Florida Research Foundation Inc. (Covidien)*,⁶ *NeoChord, Inc. v. University of Maryland, Baltimore (NeoChord)*,⁷ and *LSI Corp. Covidien* and *NeoChord* are 2017 PTAB decisions where the Board allowed the use of state sovereign immunity as a

4. *Id.* Judge Jimmie Reyna stated that replication of Allergan’s actions “could harm the review procedures set up by Congress in 2011.” *Id.* Mark Freeman, a lawyer for the Department of Justice, called Allergan’s actions a shell game and advocated for IPR, despite Allergan’s argument of tribal sovereign immunity. *See* Decker, *supra* note 1.

5. *See* Alex Moss, *Federal Circuit Rejects Pharmaceutical Company’s Attempt to Dodge Review of its Patents*, ELECTRONIC FRONTIER FOUND. (July 23, 2018), <https://www EFF.org/deeplinks/2018/07/federal-circuit-rejects-pharmaceutical-companys-attempt-dodge-review-its-patents> [https://perma.cc/H3QK-JUJK]; *see* Decker, *supra* note 1.

6. *See generally* Covidien LP v. Univ. of Fla. Research Found. Inc., No. IPR2016-01274, 2017 WL 4015009 (P.T.A.B. Jan. 25, 2017) (finding that state sovereign immunity is a valid defense during IPR based on *Federal Maritime Commission v. South Carolina State Ports Authority (FMC)*, a Supreme Court case stating when sovereign immunity is acceptable during agency adjudications).

7. *See generally* NeoChord, Inc. v. Univ. of Md., Baltimore, No. IPR2016-00208 (P.T.A.B. May 23, 2017) (finding that the Patent Act did not abrogate state sovereign immunity and that state sovereign immunity is an acceptable defense during IPR).

defense during IPR.⁸ *LSI Corp.* overturned *Covidien* and *NeoChord* and found that state sovereign immunity is not an acceptable IPR defense.⁹ *LSI Corp.* relied heavily on *Allergan* in reaching its decision without much analysis of state sovereign immunity. It also did not address how state sovereign immunity is similar to or varies from tribal immunity.¹⁰ Part IV will then conclude by looking at the “Additional Views” section in *LSI Corp.*, which discusses in rem proceedings. Part V will conclude the Note and highlight the complexity of *Allergan* and *LSI Corp.* In the quest to close loopholes, the Federal Circuit opened a sort of Pandora’s box. Even though two discrete questions were answered, (i.e., does tribal or state sovereign immunity apply in IPR), it opened the court up to many questions about the applicability of sovereign immunity in different types of proceedings. Many of these questions may be answered if the Supreme Court accepts the University of Minnesota’s writ of certiorari in *LSI Corp.* However, until that case or a similar case is taken up on appeal, we are left with two answers and many open questions.

II. BACKGROUND ON SOVEREIGN IMMUNITY

Sovereign immunity is a complicated doctrine that underlies the entire *Allergan* opinion. To provide background on the case and the issues in both *Allergan* and *LSI Corp.*, which relies heavily on *Allergan*’s analysis, this Part will give a brief background on tribal and state sovereign immunity. This background will discuss the history of both doctrines and why state and tribal sovereign immunity may be treated differently. It will also elucidate how state sovereign immunity has become, in some ways, stronger than tribal sovereign immunity and how this affects the *Allergan* decision.

A. SOVEREIGN IMMUNITY

“Sovereign immunity is a government’s right not to be haled into court without its consent.”¹¹ It is a principle “derived from English law, which assumes that ‘the King can do no wrong.’”¹² In modern times, U.S. legal

8. These cases are relevant because *Covidien* lays out the framework established by *FMC*, a case relied on in the *Allergan* decision, and uses this framework in reaching its conclusion. *NeoChord*, on the other hand, relies on an analysis of the Patent Act in reaching its decision. These are issues that come up in the PTAB and Federal Circuit *Allergan* decisions. *See id.*; *Covidien*, 2017 WL 4015009.

9. *See* Univ. of Minn. v. LSI Corp., 926 F.3d 1327 (Fed. Cir. 2019).

10. *See id.*

11. William Baude, *Sovereign Immunity and the Constitutional Test*, 103 VA. L. REV. 1, 4 (2017).

12. Erwin Chemerinsky, *Against Sovereign Immunity*, 53 STAN. L. REV. 5, 1201 (2001).

scholars have justified its current existence under both common law and the Constitution.¹³

B. TRIBAL SOVEREIGN IMMUNITY

Tribal immunity is a subset of sovereign immunity law available to Indian nations because of their sovereign status. It arises under federal common law and grants “immunity from suit traditionally enjoyed by sovereign powers.”¹⁴ This power immunizes Indian nations “from lawsuits or court processes in both state and federal court” and protects tribes from lawsuits initiated by states.¹⁵ However, this power is not omnipotent and tribes can become parties in a lawsuit in three ways. First, tribes are not protected in suits initiated by the United States.¹⁶ Second, tribes can waive sovereign immunity.¹⁷ Waiver must be sufficiently clear and can occur voluntarily or through clauses in certain documents.¹⁸ But, waiver does not necessarily apply indefinitely or to all proceedings. Tribes may still maintain immunity with respect to other claims, even if they participated in a case where they previously waived immunity.¹⁹ For example, a tribe’s decision to participate in administrative law proceedings does not preclude them from claiming immunity if another party seeks review of the agency’s decision.²⁰

Third, Congress can abrogate sovereign immunity.²¹ Since 1891, Congress has authorized lawsuits against Indian nations through explicit pieces of legislation that abrogate immunity powers.²² To do this, Congress must unequivocally express its desire to abrogate tribal sovereign immunity through legislation.²³ It is important to note that abrogation of tribal immunity operates

13. See Baude, *supra* note 11, at 4–8 (arguing multiple justifications for sovereign immunity).

14. COHEN’S HANDBOOK OF FEDERAL INDIAN LAW, § 7.05(1)(a) (Nell Jessup Newton ed., 2017) [hereinafter Cohen’s Handbook].

15. *Id.*

16. *Id.*

17. *Id.* at § 7.05(1)(c).

18. *Id.* Waiver was first established in *C & L Enterprises v. Citizen Band Potawatomi Indian Tribe*, where the Supreme Court allowed a tribe to enter a lawsuit because the tribe’s waiver of sovereign immunity was sufficiently clear. In addition to the waiver in *C & L*, which occurred through an arbitration clause, tribes can voluntarily waive their immunity. See Cohen’s Handbook, at § 7.05(1)(c); see generally *C & L Enters. v. Citizen Band Potawatomi Indian Tribe*, 532 U.S. 411 (2001) (finding that the tribe waived its sovereign immunity because it had agreed to a binding arbitration clause and therefore could not argue sovereign immunity).

19. *Id.*

20. *Id.*

21. *Id.* at § 7.05(1)(b).

22. *Id.*

23. *Id.*

similarly to abrogation of state immunity.²⁴ Controversially, some scholars argue that it is one of the few areas of the judicial system that has not increased the restrictions placed on Indian nations.²⁵

C. STATE SOVEREIGN IMMUNITY

Similar to tribal sovereign immunity, state sovereign immunity allows states not to be haled into court against their will because of their sovereign status.²⁶ However, unlike tribal immunity, state immunity has both common law and constitutional (Eleventh Amendment) underpinnings.²⁷

Like tribes, states can still be parties in litigation. This can occur through waiver²⁸ or abrogation via legislation.²⁹ To abrogate a state's sovereign immunity, Congress must unmistakably and clearly state in a statute that they intend to abrogate a state's rights.³⁰ This language appears to be stricter than congressional abrogation of tribal immunity. In practice, scholars argue that the bar for abrogating state immunity is *much* higher than that for tribes.³¹ Thus, it is harder for Congress to regulate states. This is an important distinction because states, unlike tribes, chose to give up their sovereignty.

24. *See id.* at § 7.05(2). Both state and tribal sovereign immunity must be abrogated through Congressional legislation. The legislation requires express intent by Congress to abrogate immunity.

25. *See* Gregory Ablavsky, *Tribal Sovereign Immunity and Patent Law*, STAN. L. SCH. BLOGS (Sept. 13, 2017), <https://law.stanford.edu/2017/09/13/tribal-sovereign-immunity-and-patent-law/> [<https://perma.cc/W29W-C6F3>]. *But see It's Not About Federalism #16: Tribal Sovereign Immunity*, BRENNAN CTR. FOR JUSTICE AT NYU SCH. OF L., https://www.brennancenter.org/sites/default/files/legacy/d/inaf_16.pdf [<https://perma.cc/4YFH-RQCW>] (last visited Dec. 16, 2018).

26. Baude, *supra* note 11, at 4.

27. It is important to highlight that state sovereign immunity is a controversial doctrine. Unlike tribes, states chose to give up their sovereignty when they entered the union of the United States. Thus, by joining, states freely gave up sovereign power. This is different from Indian nations, who did not willingly give up sovereignty to the United States. This fact is important for understanding the ethical issues at play in scenarios where state and tribal immunity are treated differently. *See id.* at 4–6.

28. *Sovereign Immunity*, CORNELL LEGAL INFO. INST., https://www.law.cornell.edu/wex/sovereign_immunity [<https://perma.cc/F4ZV-54ZA>] (last visited Dec. 14, 2018).

29. Cohen's Handbook, *supra* note 14, at § 7.05(2).

30. *Id.*

31. The term 'unequivocal' is used for describing the level of intent required by Congress to abrogate tribal sovereign immunity. However, for states, the term 'unmistakably' is used. *See id.* at § 7.05(1)(a); *see also id.* at § 7.05(2); BRENNAN CTR. FOR JUSTICE AT NYU SCH. OF L., *supra* note 25 ("It therefore seems a bit odd that states' sovereign immunity should be impervious even to explicit abrogation under a law that is indisputably within Congress's enumerated powers, while Congress can revoke Indian tribes' sovereign immunity at will under a nontextual "plenary power" over Indian affairs.").

III. THE *ALLERGAN* DECISION

A. PTAB'S DECISION

The case at the heart of this Note is *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals Inc.*, which was a controversial issue of first impression for the PTAB and Federal Circuit. This decision arises from a multi-faceted dispute between Allergan, the patent owner of the eye treatment Restasis, and multiple generic drug manufacturers.³² In 2015, Allergan sued appellees Teva Pharmaceuticals, Mylan Pharmaceuticals, and Akorn, Inc. (generic companies) for patent infringement.³³ This came after the companies filed Abbreviated New Drug Applications (ANDAs) for the Restasis patents.³⁴ In June 2016, Mylan, followed by Teva and Akorn, petitioned for IPR of Allergan's patents.³⁵ Before the oral hearings occurred, Allergan entered into an agreement with the Saint Regis Mohawk Tribe ("Tribe"), which transferred the Restasis patents from Allergan to the Tribe.³⁶ As part of the Patent License Agreement, the Tribe was given \$13.75 million upfront and \$15 million annually to exclusively license the patents to Allergan.³⁷ The Tribe also agreed to a limited waiver of sovereign immunity for actions brought by Allergan in relation to the Restasis patents.³⁸

After the USPTO recorded the transfer, the Tribe moved to terminate IPR proceedings based on the defense of sovereign immunity, and Allergan moved to withdraw.³⁹ However, both motions were denied.⁴⁰ Allergan's motion was denied because the PTAB still viewed Allergan as a patent owner even after the transfer of the patents to the Tribe.⁴¹ The Tribe's motion, on the other hand, was denied for four main reasons.⁴²

First, the PTAB found that "There Is No Controlling Precedent or Statutory Basis for the Application of Tribal Immunity in *Inter Partes* Review

32. *Saint Regis Mohawk Tribe v. Mylan Pharm., Inc.*, 896 F.3d 1322, 1325 (Fed. Cir. 2018).

33. *Id.* at 1325.

34. *Id.*

35. *Id.*

36. *See Mylan Pharms., Inc. v. Saint Regis Mohawk Tribe*, No. IPR2016-01127, 2018 WL 1100950 (P.T.A.B. Feb. 23, 2018) at *2–3 [hereinafter *Mylan* (PTAB-Tribe)] (referring to the denial of the Tribe's motion to dismiss). Allergan's motion to dismiss will be referred to as *Mylan* (PTAB-Allergan). These distinctions are to help distinguish from each other and from the short cite for the Federal Circuit case.

37. *See Mylan* (PTAB-Tribe), 2018 WL 1100950, at *2; Davidson, *supra* note 2.

38. *Id.*

39. *Allergan*, 896 F.3d at 1325.

40. *Id.*

41. *See Mylan Pharms., Inc. v. Saint Regis Mohawk Tribe* (PTAB-Allergan), No. IPR2016-01127, 2018 WL 1055669, at *1 (Feb. 23, 2018).

42. *See Mylan* (PTAB-Tribe), 2018 WL 1100950 at *3–15.

Proceedings.”⁴³ The Board found that *Federal Maritime Commission v. South Carolina State Ports Authority (FMC)*,⁴⁴ a Supreme Court case relied on by the Tribe, is not binding precedent.⁴⁵ *FMC* was not applicable because it dealt with state sovereign immunity and the Tribe did not demonstrate precedent as to why *FMC* should apply to tribal immunity.⁴⁶ Further, the PTAB, citing previous PTAB precedent, cautioned against the use of non-statutory defenses during IPR.⁴⁷ The Board then highlighted how tribal sovereign immunity lacks a statutory basis, unlike state sovereign immunity which has both statutory authority and controlling precedent.⁴⁸

Second, the PTAB found that “Tribal Immunity Does Not Apply to *Inter Partes* Review Proceedings.”⁴⁹ The Patent Act allows the Patent Office to grant patents and to “reconsider the patentability of those [patent] claims via *inter partes* review.”⁵⁰ The PTAB found that tribal sovereignty is subject to the “superior and plenary control of Congress” and highlighted that all patent owners are subject to the requirements of the Patent Act.⁵¹ Since Congress maintains control over Indian nations and passed legislation binding any patent owner, the Tribe is subject to IPR proceedings. The PTAB also mentioned that there are only “limited exceptions when a generally applicable federal statute should not apply to tribes.”⁵² However, none were applicable and “*inter partes* review

43. *Id.* at *3.

44. *See generally* Fed. Mar. Comm’n v. S.C. State Ports Auth., 535 U.S. 743 (2002) (finding that state sovereign immunity was a valid defense during the agency adjudication because it mirrored civil litigation).

45. *Mylan* (PTAB-Tribe), 2018 WL 1100950, at *3.

46. *Id.* (citing *FMC*, 535 U.S. at 754–56). The PTAB also cited *Kiowa*, a Supreme Court case which stated that “the immunity possessed by Indian Tribes is not co-extensive with that of the States.” This further bolsters the PTAB’s holding by justifying the distinction between state immunity and tribal immunity. *Id.* at *4 (quoting *Kiowa Tribe of Okla. v. Mfg. Tech., Inc.*, 523 U.S. 751, 756 (1998)).

47. *Id.*

48. *Id.*

49. *Id.*

50. *Id.*

51. *Id.* (quoting *Santa Clara Pueblo v. Martinez*, 436 U.S. 49, 58 (1978)).

52. *Id.* at *5. The PTAB, quoting Ninth Circuit precedent, highlighted that “[a] federal statute of general applicability that is silent on the issue of applicability to Indian tribes will not apply to them if: (1) the law touches ‘exclusive rights of self-governance in purely intramural matters’; (2) the application of the law to the tribe would ‘abrogate rights guaranteed by Indian treaties’; or (3) there is proof ‘by legislative history or some other means that Congress intended [the law] not to apply to Indians on their reservations.’”

Id. at *5 (quoting *Donovan v. Coeur d’Alene Tribal Farm*, 751 F.2d 1113, 1116 (9th Cir. 1985)) (quoting *U.S. v. Farris*, 624 F.2d 890, 89–94 (9th Cir. 1980)).

proceedings do not interfere with the Tribe's 'exclusive rights of self-governance in purely intramural matters.'⁵³

Further, the PTAB noted that they do not "exercise personal jurisdiction over the patent owner. At most, the Board exercises jurisdiction over the challenged patent in an *inter partes* review proceeding. Thus, the Tribe cannot be compelled to appear as a party in these proceedings" which, in theory, prevents almost any claim of immunity during IPR.⁵⁴

Third, the PTAB found that tribal sovereign immunity does not comport with the structure of IPR.⁵⁵ This is exemplified by the fact that the PTAB continues analysis of patentability even after parties settle.⁵⁶

Finally, "The Tribe Is Not an Indispensable Party," and allowing their motion to dismiss would not end IPR.⁵⁷ The Tribe cites Rule 19(b) of the Federal Rules of Civil Procedure (FRCP) to argue that they are an indispensable party that cannot be joined.⁵⁸ However, the FRCP is not used during IPR and is only instructive.⁵⁹ The Board found that "mere assertion of tribal immunity requires automatic termination of these proceedings" and "that Allergan has at least an identical interest to the Tribe—if not *more* of an interest as the effective patent owner . . . in defending the challenged patents."⁶⁰ Thus, regardless of whether the Tribe can assert immunity, IPR can continue with Allergan, who maintains similar, if not the same goals, as the Tribe.⁶¹

B. FEDERAL CIRCUIT'S DECISION

The Federal Circuit adopted a very different analysis than the PTAB, but still ultimately found that sovereign immunity is not an acceptable defense during IPR.⁶² Mainly, the court focused on the nature of IPR and emphasized that IPR is a hybrid proceeding that has a different purpose than district court

53. *Id.* at *5 (quoting *Donovan*, 751 F.2d at 1116). To further bolster this point, the PTAB also stated that tribes do not have immunity in other types of administrative proceedings that enforce federal statutes. They found that "tribal immunity is generally not asserted in administrative proceedings because tribes cannot impose sovereign immunity to bar the federal government from exercising its trust obligations." *Id.* (quoting *Quileute Indian Tribe v. Babbitt*, 18 F.3d 1456, 1459 (9th Cir. 1994)).

54. *Id.* at *6.

55. *See id.* at *4–5.

56. *See id.* at *7.

57. *Id.* at *13.

58. *Id.*

59. *Id.* at *14.

60. *Id.*

61. *See id.* at *7.

62. *See generally* *Saint Regis Mohawk Tribe v. Mylan Pharm., Inc.*, 896 F.3d 1322 (Fed. Cir. 2018) (finding that tribal sovereign immunity is not an acceptable defense during IPR).

litigation.⁶³ The Federal Circuit narrowed its focus and looked at whether IPR was a type of action that would allow sovereign immunity rather than analyzing how tribal sovereign immunity comports with IPR. This analysis is important because sovereign immunity can be a successful defense in agency actions when the adjudications are similar to district court litigation.⁶⁴ The court ultimately noted that IPR has more similarities to an agency enforcement action, and that tribal sovereign immunity is ultimately not implicated.⁶⁵

In reaching its decision, the Federal Circuit looked to a number of cases to demonstrate the hybrid nature of IPR. First, the court cited *SAS Institute v. Iancu* (*SAS Institute*), which is a 2017 Supreme Court case which stated that IPR “mimics civil litigation.”⁶⁶ The court also mentioned the 2017 Supreme Court case, *Oil States Energy Services, LLC v. Greene’s Energy Group*, which notes the “government’s central role in IPR” proceedings.⁶⁷

To fully determine if IPR is more akin to agency adjudication or district court litigation, the court analyzed *FMC*. In *FMC*, the Court compared the proceedings before the Federal Maritime Commission to civil litigation.⁶⁸ The Court ultimately found that state sovereign immunity is an appropriate defense because of the similarities between the proceedings.⁶⁹ Relying on that analysis, the Federal Circuit in *Allergan* cited four main reasons why tribal sovereign immunity was not an acceptable defense during IPR.⁷⁰

First, the court cited the integral role of the Director of the USPTO.⁷¹ The Director is a federal official that has complete discretion on whether or not to institute IPR.⁷² District courts and certain agencies, like the Federal Maritime

63. *See id.* at 1326, 1334; *see* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2143–44 (2016).

64. *Allergan*, 896 F.3d at 1325 (citing *E.E.O.C. v. Karuk Tribe Hous. Auth.*, 260 F.3d 1071, 1075 (9th Cir. 2001)).

65. *See id.* at 1327.

66. *Id.* at 1327 (quoting *SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1352 (2017)); *see generally* *SAS Inst.*, 138 S. Ct. at 1352 (holding that the USPTO has to give a final written decision for every claim of patentability brought by a petitioner).

67. *Allergan*, 896 F.3d at 1327 (Fed. Cir. 2018); *see generally* *Oil States Energy Servs., LLC v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1370 (2017) (holding that IPRs do not infringe on the civil right to an Article III court or trial by jury).

68. *See generally* *Fed. Mar. Comm’n v. S.C. State Ports Auth.*, 535 U.S. 743 (2002) (holding that state sovereign immunity is a valid defense during the Federal Maritime Commission’s proceedings because the proceeding was akin to civil litigation).

69. *Id.*

70. *See Allergan*, 896 F.3d at 1327. The Court did not cite these as the *FMC* factors but discussed *FMC* when analyzing each point.

71. *Id.*

72. *Id.*

Commission, have “no discretion to refuse to hear the suit.”⁷³ The *FMC* Court found that discretion in hearing suits weighs against immunity.⁷⁴

Second, the Federal Circuit stated that the parties’ role in IPR proceedings, specifically the ability for the PTAB to continue proceedings even after petitioners settle or choose not to participate, demonstrates that immunity does not apply during IPR.⁷⁵ IPR can continue after settlement and without patent owners.⁷⁶ This is not possible in district court litigation and makes IPR less synonymous to civil litigation.

Third, “USPTO procedures in IPR do not mirror the Federal Rules of Civil Procedure.”⁷⁷ Correlation to the FRCP was a determinative factor in *FMC* and the variance here helped persuade the court that IPR proceedings were not similar enough.⁷⁸

Finally, Congress did not necessarily contemplate the application of tribal immunity to IPR proceedings.⁷⁹ Inquisitorial proceedings do not naturally allow immunity and “[t]he Tribe acknowledged that sovereign immunity would not apply in *ex parte* or *inter partes* reexamination proceedings.”⁸⁰ Additionally, tribes may not bar actions by more superior sovereigns, like the United States.⁸¹ Thus, these points weighed against immunity claims here.⁸²

Concurring, Judge Dyk affirmed the majority and explored the history of IPR in even greater detail to demonstrate why sovereign immunity does not apply during IPR.⁸³ He stated that the systems created before IPR, *ex parte* reexamination and *inter partes* reexamination, did not allow sovereign immunity as a defense.⁸⁴ This fact, and the connection between IPR and the previous structures, highlight how sovereign immunity is an unacceptable defense during IPR.⁸⁵

73. *Id.*

74. *Id.*; *see generally* Fed. Mar. Comm’n v. S.C. State Ports Auth., 535 U.S. 743 (2002) (finding that state sovereign immunity is a valid defense during an agency proceeding if the proceeding is akin to civil litigation).

75. *Allergan*, 896 F.3d at 1328.

76. *Id.*

77. *Id.*

78. *Id.* at 1328–29.

79. *Id.* at 1329.

80. *Id.*

81. *Id.*

82. *Id.*

83. *See id.* (Dyk, T., concurring) (“[H]istory . . . confirms that those proceedings are not adjudications between private parties.”).

84. *Id.* at 1335 (stating sovereign immunity, not tribal sovereign immunity).

85. *Id.*

IV. ANALYSIS OF *ALLERGAN* AND SOVEREIGN IMMUNITY DEFENSES IN AGENCY ADJUDICATIONS

The Federal Circuit was correct in finding Allergan's infamous use of tribal sovereign immunity to be inappropriate. However, the Federal Circuit decision did not address the underlying issues present. The opinion only looks at how *FMC*'s multi-factor balancing test weighs an agency adjudication. It doesn't look at *why* certain agency adjudications have sovereign immunity to begin with. Without an analysis of the underlying purposes, which often serve as "goals" guiding the inquiry, multi-factor tests such as those of *FMC* become somewhat suspect. If a judicial body doesn't know the reason for each factor of a test and the weight each factor should be given, then the "weight" of each factor becomes arbitrary and open to discretion.

The holes in the Federal Circuit's decision can be broken down into three issues. First, the court should have looked at why sovereign immunity is acceptable in some agency adjudications. Second, the court should have analyzed whether case law on state sovereign immunity is applicable. The history of tribal sovereign immunity is quite different from state sovereign immunity and case law may not apply. Finally, the court should have distinguished case law that found IPR to be akin to Article III court proceedings.

If these issues were addressed, the opinion would truly analyze why tribal sovereign immunity defenses should not apply in IPR: not just apply a malleable multi-factor test that reaches a decision on somewhat opaque grounds.

A. WHY SOVEREIGN IMMUNITY DEFENSES ARE ALLOWED IN SOME AGENCY ADJUDICATIONS

There is little jurisprudence on why sovereign immunity is an acceptable defense during an agency adjudication. However, in 2002, the Supreme Court decided *FMC*,⁸⁶ a controversial case that greatly expanded state sovereign immunity and allowed its use in some agency adjudications.

Writing for a 5–4 majority, Justice Thomas found that state sovereign immunity may exempt states from some agency adjudications. In reaching this conclusion, Justice Thomas highlighted the unique "dual sovereignty" present in the United States.⁸⁷ To demonstrate the unique nature of state sovereign immunity, Justice Thomas entered into an analysis of the roots of the state sovereign immunity doctrine. He noted that when states entered the union of the United States, they maintained their sovereignty, which protected them

86. Fed. Mar. Comm'n v. S.C. State Ports Auth., 535 U.S. 743 (2002).

87. See *id.* at 751.

from non-consensual private suits.⁸⁸ However, states were not actually protected from suit until passage of the Eleventh Amendment. This amendment was passed because the judiciary was upset by the Supreme Court opinion in *Chisholm v. Georgia*, which found that “authorized citizens of one State [could] sue another State in federal court.”⁸⁹

Over time, the Eleventh Amendment expanded beyond its original text, which, based on its specific language, only protects States from suits by citizens of other states.⁹⁰ In *Hans v. Louisiana*, the Supreme Court adopted the *Hans* assumption, which protects States from suits by its own citizens. In *FMC*, Justice Thomas describes the *Hans* presumption, which found “that the Constitution was not intended to ‘raise up’ any proceedings against the States that were ‘anomalous and unheard of when the Constitution was adopted.’”⁹¹ The majority then used this presumption to argue that some agency proceedings allow for use of the sovereign immunity doctrine if “they are the type of proceeding[] from which the Framers would have thought the States possessed immunity when they agreed to enter the Union.”⁹²

This explanation is suspect because, in the majority’s previous paragraph, Justice Thomas highlights the fact that sovereign immunity only applies in proceedings the Framers envisioned and admits there were no private suits in administrative agencies until 1918.⁹³ However, ignoring the potential contradiction present, the *FMC* opinion ultimately found that the *Hans* presumption, and therefore state sovereign immunity, applies in proceedings the Framers believed immunity would apply to. There is little explanation on what proceedings or aspects of the proceedings the Framers were thinking of, which is something Justice Thomas acknowledges in his opinion.⁹⁴ However, the Court views Article III proceedings as the type the Framers would have allowed sovereign immunity to apply to. Thus, the *FMC* Court found that the

88. *See id.*

89. *Id.* at 752.

90. The 11th Amendment states: “The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another state, or by citizens or subjects of any foreign state.” U.S. CONST. amend. XI. Based on the text itself, the amendment only protects states from suits by citizens of other states. *See id.*

91. *FMC*, 535 U.S. at 755 (quoting *Hans v. La.*, 134 U.S. 1, 18 (1890)).

92. *Id.* at 756.

93. *Id.* at 755.

94. Justice Thomas admitted that there was “a relatively barren historical record . . . [and] the relevant history does not provide direct guidance for our inquiry.” *Id.* He went on to articulate how “[t]he Framers, who envisioned a limited Federal Government, could not have anticipated the vast growth of the administrative state.” *Id.*

Hans presumption applies when an agency adjudication is similar to civil litigation.

This background is important for understanding why the *FMC* Court created a multi-factor test and demonstrates why *FMC* may not actually apply to the facts of *Allergan*. In regards to the multi-factor test, the *FMC* Court highlighted a variety of factors that make administrative law proceedings akin to Article III courts. Citing *Butz v. Economou*, the *FMC* Court noted that (1) administrative law judges (ALJ) have the same immunity as Article III judges; (2) ALJs have similar powers to Article III judges in regards to subpoenas, evidence rulings, regulating hearings, and making/recommending decisions; (3) agency adjudications have similar safeguards to civil proceedings; (4) proceedings are adversarial; (5) proceedings are “insulated from political influence”; (6) parties can plead using documented or oral evidence; and (7) “parties are entitled to know the findings on all of the issues of fact, law, or discretion presented on the record.”⁹⁵ The Court then turned to the Federal Maritime Commission’s proceedings. The majority mentioned the “remarkably strong resemblance to civil litigation in federal courts” and highlighted (1) the “quite similar” pleading rules; (2) how *FMC*’s adjudications mirror civil litigation discovery; (3) the ALJ’s role as an impartial arbitrator that can “arrange and give notice of hearing,” fix “the time and manner of filing briefs,” and can issue decisions (including decisions with reparations and attorney’s fees); and (4) the ability to review ALJ decisions.

Many of the points laid out by Justice Thomas apply to nearly every agency adjudication (for example, the ability of an ALJ to issue a decision). But, assuming the applicability of a multi-factor balancing test to an agency proceeding and to *Allergan* itself, the *Allergan* court chose specific criteria to focus on to reach their point. The *Allergan* court highlighted the Director’s role in initiating IPR, the ability for IPR to continue without parties, the differences between USPTO proceedings and the FRCP, and the fact that Congress did not contemplate tribal immunity applying to IPR. The points chosen by the Federal Circuit do not correlate to the extensive list of factors listed by the *FMC* majority. Further, there are many arguments that would support the opposite reading of IPR.

The PTAB in *Covidien v. University of Florida* relied on *FMC* and reached the opposite result of *Allergan* because it focused on completely different aspects.⁹⁶ The PTAB in *Covidien* highlighted seven “safeguards” mentioned in *FMC* used to determine whether IPR is akin to district court litigation. These safeguards include (1) adversarial nature; (2) neutral trier of fact; (3) use of oral and documented evidence; (4) transcript testimony; (5) “findings and conclusions

95. *Id.* at 756–57 (quoting *Butz v. Economou*, 438 U.S. 478, 513–14 (1978)).

96. *Covidien LP v. Univ. of Fla. Research Found. Inc.*, No. IPR2016-01274, 2017 WL 4015009 (P.T.A.B. Jan. 25, 2017).

on all of the issues of fact, law, or discretion presented on the record”; (6) similar rules of practice and procedure; and (7) a similar adjudicator.⁹⁷ Using *FMC*’s multi-step analysis, the PTAB in *Covidien* ultimately found that “the differences in pleadings, discovery, relief, standards, and jurisdictional and standing requirements” did not sufficiently distinguish IPR from civil litigation.⁹⁸ Thus, IPR proceedings are arguably like civil litigation because they are adversarial, operate with similar rules and procedures to civil litigation, and have similar adjudicators.⁹⁹

The question is, why did the Federal Circuit in *Allergan* mention *FMC*, but choose to weigh issues that the *FMC* court did not even mention? A possible reason is that the Federal Circuit viewed IPR very differently than the Federal Maritime Commission’s proceedings. This is a possible answer, but is unlikely because it would then make *FMC* altogether inapplicable. If the agency adjudications were so dissimilar as to warrant completely different factors, the *FMC* test would be pointless for *Allergan*. The *FMC* framework would likely only apply to a similar enough procedure and the deep convergence would shred the Federal Circuit’s opinion. Another, and more likely opinion, is that the court chose an opinion and worked backwards. There are two reasons that this is a likely scenario.

First, there is no plausible alternative reason the Federal Circuit would choose completely different factors than those laid out in *FMC*. The factors were chosen to highlight the differences between IPR and civil litigation. The PTAB in *Covidien* cited factors mentioned by *FMC* and how they demonstrate the similarities between IPR and civil litigation. By ignoring the similarities and highlighting four arguably extraneous points, the Federal Circuit demonstrated its desire to reach this outcome.

This is especially true with regards to the fourth point. The argument that Congress did not intend for tribal sovereign immunity to apply to IPR contradicts the point of the *Hans* presumption, which looks at how the *Framers* would have characterized a proceeding. Thus, the opinion of Congress is not important to the framework laid out by the *FMC* factors. In sum, there appears to be no argument for these specific points beyond the fact that the Federal Circuit wanted to reach the opinion it wanted.

Second, multi-factor tests rarely work because balancing many points without bias is extremely difficult. When presented with a list of factors, it is difficult to denote the most important. Even though the *Allergan* court focused on different points than the *FMC* Court, both courts still made value judgments about which points were the most important. Thus, the relative weight of each factor is largely subjective. This is especially true with a large

97. *Id.* at *3 (quoting and citing *FMC*, 535 U.S. at 756–59).

98. *Id.* at *9.

99. *Id.* at *9–10.

list of factors with no background guidance regarding which factors are the most important.

In sum, the Federal Circuit likely made its opinion based around the outcome they wanted. The *Allergan* court did not address the history of sovereign immunity in IPR, why *FMC* should apply, or why the specific factors of *FMC* were ignored. There was little discussion concerning why sovereign immunity applies in agency proceedings and exclusion of this weakens the Federal Circuit's opinion.

B. WHY DOES THIS APPLY TO SOVEREIGN IMMUNITY?

The second pitfall of the *Allergan* opinion is the fact that the court does not state why *FMC*, a state sovereign immunity decision, applies. The *Allergan* court simply states that “[a]lthough the precise contours of tribal sovereign immunity differ from those of state sovereign immunity, the *FMC* analysis is instructive.”¹⁰⁰ However, the court ignores the fact that the *entirety* of the *FMC* opinion is based on the *Hans* presumption, which is an application of the Eleventh Amendment. In short, the Federal Circuit does not do an analysis of why an agency proceeding should allow for sovereign immunity and forgets to explain why state sovereign immunity, a constitutional doctrine, should apply to a common law-based doctrine.

The reason the *FMC* court gives for the application of the *Hans* presumption centers around Eleventh Amendment-based sovereign immunity. As discussed above, tribes do not have constitutionally based immunity and the only support for tribal sovereign immunity exists under common law. But the Federal Circuit fails to articulate why the Eleventh Amendment, or at least jurisprudence based on the Eleventh Amendment, should apply in *Allergan*.

The easiest solution would have been for the court to articulate why sovereign entities should be afforded immunity, regardless of type of immunity, in some agency adjudications. The *FMC* majority stated that “if the Framers thought it an impermissible affront to a State's dignity to be required to answer the complaints of private parties in federal courts, we cannot imagine that they would have found it acceptable to compel a State to do exactly the same thing before [an] administrative tribunal.” In short, the core of the *FMC* decision allows *state* sovereign immunity because of the desire to protect a State's dignity because of *their* decision to join the union of the United States. This argument is amenable to tribes because they are entities with sovereign immunity and dignity and there would be an affront through litigation. Similar to states, tribes lost full sovereignty through the creation of the United States. Further, both states and tribes retained a level of dual sovereignty that allows protections in some scenarios. The main difference that

100. *Saint Regis Mohawk Tribe v. Mylan Pharm., Inc.*, 896 F.3d 1322, 1326 (Fed. Cir. 2018).

prevents tribes from fully falling under the presumption highlighted by Justice Thomas is the source of their sovereignty. Even though the *FMC* majority only focuses on how the Eleventh Amendment supports a broad level of immunity for civil litigation-like agency adjudications, the theft of tribes' full sovereignty by the United States is arguably just as powerful as the Eleventh Amendment. Since tribes did not have a choice in ceding sovereignty, there are strong arguments that they should have greater sovereignty than states. However, Supreme Court precedent states that "the immunity possessed by Indian Tribes is not co-extensive with that of the States."¹⁰¹ Even though this complicates a potential Federal Circuit argument, the court still could have articulated a reasoning for applying a pseudo-*Hans* presumption that would support sovereign immunity in some agency adjudications and, in turn, application of an *FMC*-type analysis.

C. DISTINGUISHING SUPREME COURT PRECEDENT

The final pitfall of the *Allergan* decision is the court's avoidance of Supreme Court jurisprudence on IPR. The Federal Circuit mentions *SAS Institute*, but fails to discuss why the descriptions of IPR in that case are distinguishable from the analysis in *Allergan*.

SAS Institute states that IPR is a "new procedure [that] allows private parties to challenge previously issued patent claims in an adversarial process before the Patent Office that mimics civil litigation."¹⁰² The process mimics civil litigation because a party must file a petition with all the claims in question to institute IPR.¹⁰³ Further, the patent owner has the opportunity to respond and the Director then decides whether or not to institute review based on the petitions.¹⁰⁴ If IPR is instituted, "the matter proceeds before the Board with many of the usual trappings of litigation. The parties conduct discovery and join issue in briefing and at an oral hearing."¹⁰⁵ Parties can also amend the patent, cancel a claim, or "settle their differences and seek to end the review."¹⁰⁶ In sum, the Supreme Court's statements highlight many similarities between civil litigation and IPR.

Inclusion of this case is interesting because, right before discussing *SAS Institute*, the court discussed *Oil States*, which highlighted the role of the USPTO Director in review. These cases were mentioned to demonstrate the hybrid nature of IPR. However, mentioning *SAS Institute*, without distinguishing it, weakened the Federal Circuit's argument. The *Allergan* court

101. *Mylan* (PTAB-Tribe), 2018 WL 1100950 at *4 (quoting *Kiowa Tribe of Okla. v. Mfg. Tech., Inc.*, 523 U.S. 751, 756 (1998)).

102. *SAS Inst., Inc. v. Iancu*, 138 S. Ct 1348, 1353 (2018).

103. *Id.*

104. *Id.*

105. *Id.* at 1353–54.

106. *Id.* at 1354.

specifically mentioned how “the [Supreme] Court emphasized the adjudicatory aspects of IPR and the way in which it ‘mimics civil litigation.’”¹⁰⁷ While the Federal Circuit thought that it was highlighting the hybrid nature of IPR, it effectively answered the question posed in *FMC*, which is whether an adjudication is more akin to an agency adjudication or civil litigation. If the court wanted to rely on *FMC*, it is confusing that they answer the question posed by that case in a way that undermines their opinion.

To solve this dilemma, the court should have distinguished *Allergan* from *SAS Institute*. The best way to do this would have been to focus on a part of the final reason they gave for distinguishing IPR from civil litigation. Specifically, the *Allergan* court should have highlighted the *Cuozzo* case. In this case, the Supreme Court “recognized [that] inter partes reexamination and IPR have the same ‘basic purposes, namely to reexamine an agency decision.’”¹⁰⁸ This point would have allowed the court to distinguish *SAS Institute* from the proceedings in *Allergan* because, at its core, IPR’s difference from civil litigation is not due to the arbitrary facts about discovery and correlation to the FRCP. Rather, the difference lies in the fact that IPR is a re-consideration of a given monopoly and nothing like an adversarial proceeding to begin with. Acknowledging this point would have vastly improved the Federal Circuit’s argument and would have dealt with the heart of the issue, which is whether an agency adjudication should allow sovereign immunity at all. It is important to note that this is not the strongest argument. However, as it stands, the Federal Circuit’s own statements undermine the opinion and any explanation would be better than the current lack thereof.

V. WHAT DOES THIS MEAN FOR SOVEREIGN IMMUNITY DEFENSES?

A. LSI CORP. ANSWERS ALLERGAN’S OPEN QUESTIONS

The *Allergan* decision reached the right outcome, but left open many unanswered questions. Namely, it did not answer whether state sovereign immunity defenses were acceptable in IPR. Before *Allergan* was decided, the PTAB, on at least two occasions, found that state sovereign immunity was an acceptable defense during IPR. In one case, *Covidien v. University of Florida Research Foundation*, the PTAB used the *FMC* framework to find that IPR is sufficiently close to civil litigation and states should be immune from these adjudications.¹⁰⁹ In another case, *NeoChord, Inc. v. University of Maryland*, the

107. *Saint Regis Mohawk Tribe v. Mylan Pharm., Inc.*, 896 F.3d 1322, 1327 (Fed. Cir. 2018) (quoting *SAS Inst.*, 138 S. Ct. at 1348).

108. *Id.* at 1329 (quoting *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2018)).

109. *See Covidien LP v. Univ. of Fla. Research Found. Inc.*, No. IPR2016-01274, 2017 WL 4015009 (P.T.A.B. Jan. 25, 2017) (finding that state sovereign immunity is a valid defense during IPR proceedings because of the similarities between IPR and civil litigation).

PTAB found that states were not bound by the Patent Act because there was no pattern of abuse by the states, and therefore states should be allowed to exert sovereign immunity in IPR.¹¹⁰ *NeoChord* had the opposite reasoning of the PTAB in *Allergan*, which found that tribal sovereign immunity was waived via the Patent Act.¹¹¹

Covidien and *NeoChord* reach different outcomes than the PTAB and the Federal Circuit in *Allergan*. This discrepancy is unique because, in *Covidien*, the PTAB weighed *FMC* in a completely different way than the *Allergan* court did. Additionally, in *NeoChord*, the PTAB found that the Patent Act did not abrogate state sovereign immunity because of a lack of abuse, while the PTAB in *Allergan* found abrogation of tribal sovereign immunity under the same Act.¹¹² Ignoring the differences between state and tribal sovereign immunity, *Covidien* and *NeoChord*, in short, reached the opposite outcomes of *Allergan*. Since the *Allergan* opinion did not clarify whether or not states could exert sovereign immunity during IPR, the *Covidien* and *NeoChord* decisions remained intact in the year between *Allergan* and another Federal Circuit case, *LSI Corp.*¹¹³

In the year between the *Allergan* decision and the *LSI Corp.* decision, it was unclear whether or not states could exert state sovereign immunity in IPR proceedings. This is problematic because it ran the risk of giving states more power than tribes, based on different analyses of IPR. Further, it theoretically allowed state sovereigns, like universities and companies who paid state sovereigns, to exploit sovereign immunity and degrade IPR. To rectify this, the Federal Circuit answered the question of whether state sovereign immunity is an acceptable IPR defense in *LSI Corp.* The court ultimately found that state sovereign immunity is not an acceptable defense during IPR.

In *LSI Corp.*, the Federal Circuit focused on a few main issues. First, the court focused on “Post-Issuance Administrative Proceedings,” like IPR.¹¹⁴ These procedures were created to help balance “the USPTO’s constrained resources and the absence of material outside input during the initial

110. See *NeoChord, Inc. v. Univ. of Md., Baltimore*, No. IPR2016-00208 (P.T.A.B. May 23, 2017) (finding that state sovereign immunity is a valid IPR defense); *Ericsson Inc. v. Regents of the Univ. of Minn.*, No. IPR2017-01186, (P.T.A.B. Dec. 19, 2017) (stating that state sovereign immunity is an acceptable IPR defense); *Mylan Pharms., Inc. v. Saint Regis Mohawk Tribe* (PTAB-*Allergan*), No. IPR2016-01127, 2018 WL 1055669, at *1 (Feb. 23, 2018).

111. See *Mylan* (PTAB-*Allergan*), 2018 WL 1055669, at *1.

112. See *NeoChord*, No. IPR2016-00208; see *Mylan* (PTAB-*Tribe*), 2018 WL 1100950.

113. Neither one of these cases was marked as precedential by the PTAB. Thus, they may have been influential, but were not technically precedential and binding on other PTAB decisions. Also, thus far, only one IPR decision has been marked as precedential. See *Inter Partes Review*, 35 U.S.C. § 311(a), *Precedential and Informative Decisions*, USPTO, <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/precedential-informative-decisions> [<https://perma.cc/ZW8U-WNC8>] (last visited Nov. 16, 2019).

114. *Univ. of Minn. v. LSI Corp.*, 926 F.3d 1327, 1331 (Fed. Cir. 2019).

examination,” and a desire to have strong patents.¹¹⁵ Before post-issuance proceedings were created, “the only way the original patent grant could be challenged was in patent litigation in district court by a declaratory judgment action or as a defense in a patent infringement action.”¹¹⁶ Thus, before 1980, the only way to re-examine patents was costly litigation that required “a claim of infringement . . . by the patent owner.”¹¹⁷ The court also discussed the purpose of the America Invents Act, which was “to ‘improve patent quality and limit unnecessary and counterproductive litigation cost’ ” and IPR, which was made “to improve the inter partes reexamination process” and to allow third parties to reexamine claims with greater participation.¹¹⁸

Second, the Federal Circuit discussed state sovereign immunity. The court highlighted that the purpose of state sovereign immunity “is to accord States the dignity that is consistent with their status as sovereign entities.”¹¹⁹ The immunity is “neither derived from[,] nor is limited by, the terms of the Eleventh Amendment” and applies to proceedings brought by private parties and in agency adjudications.¹²⁰ The court also highlighted that they had recently decided whether tribal sovereign immunity applies in IPR and mentioned that “both ex parte and inter partes reexamination did not implicate sovereign immunity.”¹²¹

Third, the court went through the holding in *Allergan* and highlighted language from *Oil States* that describe IPR as “an adjudication of public rights . . . because it is in key respects a proceeding between the United States and the patent owner.”¹²² Thus, IPR “proceedings are not barred by state sovereign immunity[,] since sovereign immunity does not bar proceedings by the United States.”¹²³

Instead of an in-depth analysis of state sovereign immunity, the Federal Circuit largely relied heavily on *Allergan* and “conclude[d] that the differences between tribal and state sovereign immunity do not warrant a departure from the reasoning in” *Allergan*.¹²⁴ However, they did briefly address two arguments that were not highlighted in *Allergan*. First, the court, quoting *Oil States*, stated that “it was well understood at the founding that a patent system could include a practice of granting patents subject to potential cancellation in the executive

115. *Id.* at 1332.

116. *Id.* at 1333.

117. *Id.*

118. *Id.* at 1335 (quoting H.R. Rep. No. 112-98, pt. I, at 40 (2011)).

119. *Id.* at 1337 (quoting *Fed. Mar. Comm’n v. S.C. State Ports Auth.*, 535 U.S. 743, 760, 765 (2002)).

120. *Id.* (quoting *Alden v. Maine*, 527 U.S. 706, 713 (1999)).

121. *Id.*

122. *Id.* at 1340.

123. *Id.*

124. *Id.*

proceeding of the Privy Council.”¹²⁵ Second, the court addressed the *Hans* presumption, which is the basis for the reasoning established in *FMC*. The *LSI Corp.* court found that “the *Hans* presumption applied to bar resolution of private disputes in an agency forum, [but] did not bar resolution of an agency enforcement action against a state that was initiated based on information supplied by a third party.”¹²⁶

B. EFFECT ON OTHER POST-ISSUANCE PROCEEDINGS

After its official opinion in *LSI Corp.*, Judges Dyk, Wallach, and Hughes included a section of “[a]dditional views.”¹²⁷ This section discussed in rem proceedings and distinguished IPR from other in rem proceedings, which often allow sovereign immunity defenses. Many in rem proceedings allow sovereign immunity defenses.

In rem proceedings largely deal with real property, versus public property issues. As a part of their addendum, the court’s additional views section distinguished how IPR varies from in rem proceedings, like “title-actions against state-owned real property,” which allow for sovereign immunity defenses, and highlighted how it matches in rem proceedings, like bankruptcy, which do not allow for sovereign immunity defenses.

The addition of an additional view section is an interesting aspect to the *LSI Corp.* decision and demonstrates the Federal Circuit’s desire to delineate which in rem adjudications *should* allow sovereign immunity defenses, and which should not. The Federal Circuit delineated types of cases by analyzing the type of property present. Specifically, the court did “not distinguish between tangible and intangible property, but instead between property that is physically possessed by a state and property that is not.”¹²⁸

Even though the court set forth a method for delineating in rem proceedings allowing sovereign immunity from those that do not, the appendix does not seem to actually add to the opinion. The court said that it reinforced the decision by highlighting that IPR should not apply to agency adjudications. However, the court was likely being strategic. Scholars have commented that the case will likely be granted certiorari by the Supreme Court.¹²⁹ It is unclear

125. *Id.* at 1341 (quoting *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1376–78 (2018)).

126. *Id.*

127. *Id.* at 1342.

128. *Id.* at 1344.

129. See Kevin E. Noonan, *Regents of the University of Minnesota v. LSI Corp.*, (Fed. Cir. 2019), PATENT DOCS (June 16, 2019), <https://www.patentdocs.org/2019/06/regents-of-the-university-of-minnesota-v-lsi-corp-fed-cir-2019.html> [https://perma.cc/ECH2-LMBV]; Eileen McDermott, *Federal Circuit to University of Minnesota: No State Sovereign Immunity For You*, IPWATCHDOG (June 14, 2019), <https://www.ipwatchdog.com/2019/06/14/federal-circuit-university-minnesota-no-state-sovereign-immunity/id=110450/> [https://perma.cc/JPV5-TBHR].

how the Supreme Court will approach this issue. However, by including this section, the Federal Circuit was likely attempting to protect its opinion from being overturned. By “distinguish[ing] IPRs from instances where the Supreme Court has held *in rem* proceedings to be subject to sovereign immunity,” which usually involve land grants and regulation inside a State’s borders, the Federal Circuit appeared to be pre-emptively defending against *in rem* arguments brought up by the Supreme Court.¹³⁰

At this point, the future of sovereign immunity largely lies with the Supreme Court. As demonstrated in this Note, there are many things that the Court can analyze, including tribal versus state sovereign immunity, the *Hans* presumption, and whether sovereign immunity should even apply to agency adjudications. Until the Court takes up the issue, or denies certiorari, it will be unclear whether states are permanently barred from using sovereign immunity defenses during IPR. Further, the Supreme Court’s future decision, or lack thereof, will dictate whether or not sovereign immunity will apply in other *in rem* proceedings or in agency adjudications more generally. It is largely unclear what the Supreme Court will ultimately decide on. However, for the time being, the only thing that is clear is that for IPR, tribal and state sovereign immunity are inappropriate defenses.

VI. CONCLUSION

Allergan is a complex and controversial case that lies at the intersection of tribal sovereign immunity and patent law. It brings up a variety of questions in many of areas of law, and demonstrates how complicated a seemingly simple system, (i.e., the granting of a patent), can get when combined with other issues. *Allergan* answered one question: whether or not tribal sovereign immunity is an acceptable defense during IPR. However, it opened the door to a variety of issues that Congress likely did not predict when creating IPR. *LSI Corp.* answered another discreet question: whether or not state sovereign immunity is an acceptable defense during IPR. But it also opened the door even farther through its appendix. Even though the cases answered two questions, *Allergan* and *LSI Corp.* opened up several additional questions.

Specifically, these cases bring up three main issues. First, they bring the doctrine of sovereign immunity into question. This is an arguably antiquated doctrine based on the existence of a king and subjects. This structure is not amenable to U.S. law, and the discrepancies between different types of

130. See Noonan, *supra* note 129.

immunity and their inequitable differences supports a re-visiting of this doctrine.

Second, these cases highlight the issues with *FMC* and the *Hans* presumption. These cases assume that the Framers deeply believed in a powerful sovereign immunity doctrine that would apply beyond Article III courts to agency adjudications. Sovereign immunity in Article III courts is not largely contested. The only individuals against it appear to be scholars who do not believe in the sovereign immunity doctrine to begin with. However, the expansion of the Eleventh Amendment to include agency adjudications was considered quite controversial. This begs the question of whether sovereign immunity, under common law and/or the Eleventh Amendment, should be broadened to include these proceedings. It is possible that this doctrine will change as faith in the Executive branch increases or diminishes, since agencies are housed under the Executive branch. If the judiciary decides to boycott an agency, or the Executive branch more broadly, they can theoretically increase the power of sovereign immunity. They could do this by weighing factors differently to find that they are more akin to civil litigation. In turn, this would allow the judiciary to help states avoid agency proceedings and therefore, many regulations. While this appears to be a convoluted strategy for the judiciary, it is no more complicated than the made-up multi-factor tests first created in *FMC* and oddly applied in other opinions.

Finally, these cases question the continued disparate treatment of states and tribes. Supreme Court precedent states that the rights of tribes and states are not equal. However, there are valid questions concerning continued disparate treatment. The *Allergan* and *LSI Corp.* courts both stated how differences between state and tribal sovereign immunity are not relevant. If they are not relevant in these contexts, when are the differences relevant? In *Allergan*, the court applied a doctrine that applies to state sovereign immunity only because of its constitutional roots. If this can be co-opted to tribal sovereign immunity, which has only common law roots, what differences still remain for treating states and tribes differently? This is a complex question with no quick solution; however, these cases highlight that courts can be arbitrary in distinguishing state and tribal sovereign immunity.

In conclusion, *Allergan* eliminated a problematic loophole and was a precursor to the *LSI Corp.* decision, which fully closed the sovereign immunity loophole. Even though these cases answered some questions, they created far more additional questions. If the Supreme Court accepts *LSI Corp.*'s writ of certiorari,¹³¹ more questions may be answered regarding sovereign immunity uses in IPR, USPTO post-grant proceedings, and in agency adjudications more

131. See *Regents of the Univ. of Minn. v. LSI Corp.*, 926 F.3d 1327 (Fed. Cir. 2019), *petition for cert. filed* (U.S. Sept. 12, 2019) (No. 19-337).

generally. However, depending on the analysis adopted by the Supreme Court, many questions regarding the sovereign immunity doctrine may remain open.

***ALICE* GETS A HAIRCUT: *BERKHEIMER* AND *AATRIX* RESTORE FACTUAL INQUIRY TO PATENT SUBJECT MATTER ELIGIBILITY UNDER § 101**

Li Zhang[†]

I. INTRODUCTION

Patent subject matter eligibility under 35 U.S.C. § 101 has experienced some significant turbulence in recent years. The most dramatic change came with the Supreme Court’s decisions in *Mayo v. Prometheus* and *Alice v. CLS Bank*.¹ These two cases established a much-debated two-step framework, under which patent claims are subjected to stringent scrutiny.² Particularly, the *Mayo/Alice* framework involves the search for an “inventive concept,”³ which encompasses activities that are not “well-understood, routine, [or] conventional.”⁴

The introduction of the *Mayo/Alice* framework has generated substantial uncertainty in patent subject matter eligibility. The issue of patent subject matter eligibility under 35 U.S.C. § 101 was traditionally treated as a matter of law.⁵ However, under the *Mayo/Alice* framework, this legal issue is informed and frequently determined by the assessment of whether the activities recited in the claims are “‘well-understood, routine, [and] conventional’ activities previously known to the industry.”⁶ Recognizing the factual undertone of routineness and conventionality, district courts became wary about the

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† J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012); *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014).

2. The first step determines whether the claims at issue are directed to a patent-ineligible concept. The second step assesses whether the claim elements are sufficient to transform the patent-ineligible concept into a patent-eligible application. *See Alice*, 573 U.S. at 218, 221.

3. *See Mayo*, 566 U.S. at 68.

4. *Id.* at 67.

5. *See, e.g., Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017) (“Patent eligibility under § 101 is an issue of law that we review without deference.”).

6. *Alice*, 573 U.S. at 225 (citing *Mayo*, 566 U.S. at 73).

evidentiary standard to apply to patent subject matter eligibility.⁷ Neither the Federal Circuit nor the Supreme Court came to help. As a result, inconsistency and confusion ensued. Some district courts continued addressing patent subject matter eligibility issues as a matter of law, and disposed the issues on pre-trial motions, even when there was a dispute over routineness and conventionality.⁸ This practice is inconsistent with the current procedural rules in civil litigation.⁹

For the first time since the adoption of the *Mayo/Alice* framework, the Federal Circuit in *Berkheimer v. HP* and *Aatrix v. Green Shades* correctly identified the issues regarding routineness and conventionality as factual in nature and recognized the patent eligibility issue as a matter of law informed by these underlying facts.¹⁰ As such, pursuant to the Federal Rules of Civil Procedure, district courts could not ignore the factual dispute over routineness and conventionality in granting pre-trial motions.¹¹ The clarification by *Berkheimer* and *Aatrix* dispelled part of the uncertainty and inconsistency surrounding patent litigation cases involving § 101 subject matter eligibility issues and helped regularize these cases within the existing civil litigation system.

However, the *Berkheimer* and *Aatrix* cases did not preclude addressing patent eligibility issues on pre-trial motions. On the contrary, they highlighted the use of judicial notice in the determination of routineness and conventionality.¹² Since the issues of routineness and conventionality in patent

7. *See, e.g.*, *Genetic Techs. Ltd. v. Bristol-Myers Squibb Co.*, 72 F. Supp. 3d 521, 538 (D. Del. 2014) (applying the clear and convincing standard to patent subject matter eligibility). *But see* *Cal. Inst. of Tech. v. Hughes Communs., Inc.*, 59 F. Supp. 3d 974, 978 n.6 (C.D. Cal. 2014) (refusing to apply the clear and convincing standard to the § 101 analysis).

8. *See, e.g.*, *Berkheimer v. Hewlett-Packard Co.*, 224 F. Supp. 3d 635 (N.D. Ill. 2016) (granting summary judgment motion for the defendant as the patent at issue was ruled invalid for claiming ineligible subject matter, despite a dispute over the conventionality of the invention).

9. Disputes over material facts would preclude the grant of pre-trial motions. *See* FED. R. CIV. P. 12(b)(6), 12(c), 56; *see also* *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 137 S. Ct. 954, 964 (2017) (stating that “the same common-law principles, methods of statutory interpretation, and procedural rules as other areas of civil litigation” also govern patent law).

10. *See* *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.”); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018) (“Whether the claim elements or the claimed combination are well-understood, routine, conventional is a question of fact.”).

11. *See* FED. R. CIV. P. 12(b)(6), 12(c), 56.

12. *See* *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1372 (Fed. Cir. 2018) (en banc) (Moore, J. concurring) (holding that a court need not accept as true allegations that contradict matters properly subject to judicial notice); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890

eligibility often involve industry-specific facts that are rich in scientific and technological details, the judicial notice standard for other areas of law may not be readily applicable to questions of patent eligibility. The Federal Circuit missed the opportunity in *Berkheimer* and *Aatrix* to provide practical guidance on taking judicial notice in the context of patent law.

Part II of this Note provides a review of recent developments in the jurisprudence on patent subject matter eligibility. Part III describes the *Berkheimer* and the *Aatrix* cases in some detail. Part IV analyzes the impact of the cases on patent litigation, focusing on pre-trial motions. Part IV also proposes an approach to the application of judicial notice to the determination of routineness and conventionality. Part V concludes that while the Federal Circuit correctly restored factual inquiry to § 101, it did not provide guidance on the application of judicial notice in this context.

II. LEGAL BACKGROUND

A. EVOLUTION OF THE SUPREME COURT JURISPRUDENCE ON PATENT SUBJECT MATTER ELIGIBILITY

To obtain a patent, U.S. patent law requires that the claimed invention be patent-eligible subject matter as defined in 35 U.S.C. § 101.¹³ This statute sets forth an exclusive list of patent-eligible categories: (1) process; (2) machine; (3) manufacture; and (4) composition of matter.¹⁴ The Supreme Court has created three patent-ineligible judicial exceptions to the scope of § 101: (1) laws of nature; (2) natural phenomena; and (3) abstract ideas.¹⁵ Inventions such as computer algorithms, mathematical formulas, and scientific principles are ineligible for patent protection because they fall into these exception categories.¹⁶ The judicially-created exceptions are at the center stage of the recent development of the Supreme Court jurisprudence on patent subject matter eligibility.

With the advancement of computer-based informational technologies, the Supreme Court announced two important patent eligibility doctrines in

F.3d 1354, 1358 (Fed. Cir. 2018) (en banc) (Moore, J., concurring) (also holding that a court need not accept as true allegations that contradict matters properly subject to judicial notice).

13. See 35 U.S.C. § 101 (2018).

14. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974) (holding that “no patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of 35 U.S.C. § 101”).

15. See *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

16. See *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1283 (Fed. Cir. 2013) (holding that patent protection is not available because “a person cannot truly ‘invent’ an abstract idea or scientific truth”), *aff’d*, 573 U.S. 208 (2014).

Diamond v. Diehr.¹⁷ First, the Court recognized that the boundary between ineligible and eligible patent subject matter should exist between abstract principles and their application.¹⁸ Second, the Court held that the novelty issue is irrelevant in determining subject matter eligibility.¹⁹

However, in a series of decisions issued between 2010 and 2014, the Supreme Court chipped away the doctrines established in *Diehr*, expanded the applicability of judicial exception categories, and thus restricted the scope of patent protection.²⁰

Bilski v. Kappos is the first case in the succession.²¹ The patent at issue claimed a method for hedging against the risk of price fluctuation in the trading of commodities.²² Although it rejected the imposition of limitations inconsistent with the text of § 101,²³ the Court concluded that the judicial exception categories of ineligible patent subject matter should be upheld “as a matter of statutory *stare decisis* going back 150 years.”²⁴ The Court expressed its concerns for the preemptive use of a patent that would effectively become “a monopoly over an abstract idea.”²⁵ In addition, noticing the conventional nature of the claimed business method, the Court for the first time injected the inventiveness concept into patent subject matter eligibility.²⁶

The Supreme Court expanded on the inventiveness analysis in *Mayo v. Prometheus* in 2012.²⁷ The patent in *Mayo* was directed to a process for determining the proper dosage of a drug.²⁸ The Court first characterized the process as merely reciting a natural relation, which fell under an ineligible

17. *Diamond v. Diehr*, 450 U.S. 175 (1981).

18. *See id.* at 188 (“While a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.”).

19. *Id.* at 188–89 (“The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.”).

20. *See* Michael R. Woodward, *Amending Alice: Eliminating the Undue Burden of “Significantly More”*, 81 ALBANY L. REV. 329, 335 (2017).

21. *Bilski v. Kappos*, 561 U.S. 593 (2010).

22. *See id.* at 598–99.

23. *Id.* at 612.

24. *Id.* at 602.

25. *See id.* at 611–12.

26. *See id.* at 611 (“In light of these precedents, it is clear that petitioners’ application is not a patentable ‘process.’ Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk: ‘Hedging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class.’”) (quoting *In re Bilski*, 545 F.3d 943, 1013 (Fed. Cir. 2008) (Rader, J., dissenting)).

27. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012).

28. *See id.* at 73–74.

judicial exception.²⁹ The Court then framed the issue as to determine whether the claims added “significantly more than simply describe these natural relations.”³⁰ The Court concluded that the claims were “not sufficient to transform unpatentable natural correlations into patentable applications.”³¹ This is because the claims merely recited “well understood, routine, conventional activity already engaged in by the scientific community,” and therefore added “nothing significant.”³² The Supreme Court explained that the reason behind the “significantly more” requirement was to avoid the preemptive use of a natural law.³³ The danger of preemption would become severe when a patented process claims “no more than an instruction to apply the natural law.”³⁴ However, since the determination of routineness and conventionality implicitly involves novelty and obviousness analyses,³⁵ the Court implicitly ignored the *Diehr* doctrine that novelty is irrelevant in patent subject matter eligibility.³⁶

Later in its unanimous decision in *Alice v. CLS Bank*, the Supreme Court distilled the holdings of *Mayo* into a two-step test for determining patent subject matter eligibility (the *Mayo/Alice* test).³⁷ The patent in *Alice* claimed a computer-implemented business scheme for mitigating settlement risk by using a third-party intermediary.³⁸ At *Mayo/Alice* step one, the Court first determined whether the claims were directed to a judicial exception, in this case an abstract idea.³⁹ The Court declined to provide guidance on the scope of the “abstract idea” category, and instead relied on an “I know it when I see it” approach.⁴⁰

Having concluded that the claims were directed to a patent-ineligible abstract idea, the Court then sought to determine whether the claims were able

29. *Id.* at 77.

30. *Id.*

31. *Id.* at 80.

32. *Id.* at 79–80.

33. *See id.* at 72.

34. *Id.* at 68 (internal quotation marks omitted).

35. *See id.* at 90 (“We recognize that, in evaluating the significance of additional steps, the § 101 patent eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap.”).

36. *See* *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981).

37. *See* *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014).

38. *See id.* at 212–13.

39. *Id.* at 218.

40. *See id.* at 221 (“In any event, we need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case.”); *see also* *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring) (“I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But I know it when I see it.”).

to “transform that abstract idea into a patent-eligible invention” at *Mayo/Alice* step two.⁴¹ The Court interpreted *Mayo/Alice* step two as a search for an “inventive concept.”⁴² An otherwise ineligible abstract idea becomes eligible when there is “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’”⁴³ Claims do not satisfy *Mayo/Alice* step two if they involve nothing more than “well-understood, routine, conventional activity previously engaged in by researchers in the field.”⁴⁴ Accordingly, since the claims at issue in *Alice* merely required generic computer implementation, the Supreme Court concluded that they failed to transform the patent-ineligible abstract idea into a patent-eligible invention.⁴⁵

B. THE APPLICATION OF *MAYO/Alice* BY THE FEDERAL CIRCUIT

In applying the *Mayo/Alice* test, the Federal Circuit has decided that “mere instruction to apply” an abstract idea, either on a “generic computer” or “with a high level of generality,” would not satisfy the “inventive concept” requirement.⁴⁶ In addition, claim elements characterized as having “insignificant, extra-solution activity” could not suffice as “inventive concepts” either.⁴⁷ Furthermore, claim limitations that serve to limit an invention to a particular technological field will not be enough to constitute “inventive concepts.”⁴⁸ Inventors seeking to obtain patent protection for software-based inventions could only rely on the guidance of several rare post-*Alice* cases where Federal Circuit held that software patents satisfied *Mayo/Alice* step two.⁴⁹

41. *Alice*, 573 U.S. at 221.

42. *Id.*

43. *Id.* at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

44. *See Mayo*, 566 U.S. at 73.

45. *See Alice*, 573 U.S. at 226.

46. *See Applying Step Two of the Alice/Mayo Test*, BITLAW GUIDANCE, <https://www.bitlaw.com/guidance/patent/applying-step-two-of-Alice-Mayo-test.html> [<https://perma.cc/ZH2P-URNW>] (last visited Dec. 18, 2019).

47. *See id.*

48. *See id.*

49. This Note is focused on *Mayo/Alice* step two, but it by no means suggests that *Mayo/Alice* step one is immaterial to patent subject matter eligibility. The Federal Circuit has held in at least two software patent cases (*Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016)) that the claims were not directed to abstract ideas at *Mayo/Alice* step one, therefore there was no need to reach the analysis at step two. Moreover, *Mayo/Alice* step two only applies to the “additional elements” not included in the “abstract idea” identified in step one. *See Alice*, 573 U.S. at 217 (“[W]e consider the elements of each claim both individually and as an ordered

In 2014, the Federal Circuit found that the software patent at issue in *DDR Holdings v. Hotels.com* to be eligible under § 101.⁵⁰ The patent claimed a system that allowed a “host” webpage to direct visitors to a composite webpage rather than to a third party’s webpage.⁵¹ The district court ruled that the patent was eligible under § 101, because the process of displaying composite web pages represented “an improvement to computer technologies in the marketplace.”⁵² The Federal Circuit affirmed the ruling.⁵³ At *Mayo/Alice* step one, the Federal Circuit recognized that it was not straightforward to identify the nature of the abstract idea involved in this case.⁵⁴ However, under “any of the characterizations of the abstract idea,”⁵⁵ the court found that the claims satisfied *Mayo/Alice* step two because there was an “inventive concept.”⁵⁶ The Federal Circuit found that since the claims specified how the “interactions with the [i]nternet were manipulated to yield a desired result,” the limitation of the claims, when “taken together as an ordered combination,” recited an invention that was “not merely the routine or conventional use of the [i]nternet.”⁵⁷ In addition, the Federal Circuit also noted that the claims did not “attempt to preempt every application of the idea,” because the “additional features” in the claims prevented the claims from monopolizing the abstract idea.⁵⁸

In the 2016 case *BASCOM v. AT&T Mobility*,⁵⁹ the Federal Circuit found that claims directed to an abstract idea were nonetheless patent eligible.⁶⁰ The patent at issue claimed an invention for filtering content on the internet by individually customizable access network accounts.⁶¹ The claims combined the benefits of the internet filtering software systems installed on a user’s

combination to determine whether the *additional elements* transform the nature of the claim into a patent-eligible application.”) (emphasis added; internal quotation marks omitted). Therefore, the level of abstraction used in *Mayo/Alice* step one not only determines the elements encompassed by the identified “abstract idea,” it also indirectly affects the availability of the “additional elements” for the step two analysis. Neither the Supreme Court nor the Federal Circuit has so far provided guidance for the level of abstraction to be used at *Mayo/Alice* step one, leaving discretion to district courts.

50. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014).

51. *See id.* at 1248–49.

52. *DDR Holdings, LLC v. Hotels.com, L.P.*, 954 F. Supp. 2d 509, 527 (E.D. Tex. 2013).

53. *DDR Holdings*, 773 F.3d at 1259.

54. *Id.* at 1257.

55. *Id.*

56. *See id.* at 1259.

57. *Id.* at 1258–59.

58. *Id.* at 1259.

59. *BASCOM Global Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

60. *See id.* at 1343.

61. *See id.* at 1344–45.

computer, on the local server, and at the internet service provider level, while mitigating their individual drawbacks.⁶²

The district court held that the patent claimed the abstract idea of “filtering [i]nternet content,”⁶³ and that the additional claim limitations were no more than “routine additional steps” involving generic computer components interacting with the internet in “well-known ways to accomplish the abstract idea.”⁶⁴ The Federal Circuit agreed with the district court on *Mayo/Alice* step one and concluded that the claims were directed to an abstract idea.⁶⁵ However, at *Mayo/Alice* step two, the Federal Circuit vacated the district court’s decision,⁶⁶ and found that the district court erred by looking at each claim element individually, instead of looking at the claim elements as an ordered combination.⁶⁷ The Federal Circuit found that although the filtering function was implemented on generic computers, the installation of the filtering tool “at a specific location remote from the end-users” was a “non-conventional and non-generic arrangement of known, conventional pieces” that provided the “inventive concept.”⁶⁸

III. THE *BERKHEIMER* AND *AATRIX* CASES

A. *BERKHEIMER V. HP*

1. *District Court Litigation*

Steven E. Berkheimer filed a lawsuit against Hewlett-Packard Co. (HP) alleging that HP had infringed his asset management program patent.⁶⁹ The patent at issue claimed a “method of archiving an item in a computer processing system” that comprised four steps: (1) presenting an item to a parser; (2) parsing the item into multiple objects; (3) comparing the objects with previously archived ones; and (4) flagging the objects for manual reconciliation if they don’t satisfy a predetermined standard or user-defined rule.⁷⁰

In the motion for summary judgment, HP argued that the patent was invalid under the *Mayo/Alice* framework because it merely claimed an abstract

62. *See id.*

63. *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 107 F. Supp. 3d 639, 655 (N.D. Tex. 2015).

64. *Id.*

65. *BASCOM*, 827 F.3d at 1349.

66. *Id.* at 1352.

67. *See id.* at 1349–50.

68. *Id.* at 1350.

69. *Berkheimer v. Hewlett-Packard Co.*, 224 F. Supp. 3d 635, 637 (N.D. Ill. 2016).

70. *See id.* at 637–38.

idea, namely “reorganizing data and presenting the data for manual reconciliation.”⁷¹ In response, Mr. Berkheimer argued that there was an “inventive concept” in the claims, because the claimed invention solved a problem “necessarily rooted in computer technology” beyond conventional computing.⁷²

The court was unconvinced by Mr. Berkheimer’s argument, and found the claims covered only “well-understood, routine, and conventional” computer functions written “at a relatively high level of generality.”⁷³ Accordingly, the court ruled that the claims were invalid under § 101, and granted HP’s motion for summary judgment.⁷⁴ Mr. Berkheimer appealed to the Federal Circuit.

2. Federal Circuit Appeal

On appeal, Mr. Berkheimer renewed his argument that the patent was eligible because it claimed an invention that improved computational functionality over the prior art by eliminating redundancy and enabling one-to-many editing.⁷⁵

Having concluded that the claimed invention was directed to an abstract idea at *Mayo/Alice* step one,⁷⁶ the Federal Circuit panel⁷⁷ ruled that claims 1–3 and 9 failed *Mayo/Alice* step two because they only covered parsing and comparing data and therefore didn’t recite the functionality improvement disclosed in the specification.⁷⁸

However, with respect to the other claims, the panel took an unusual step to remand for further fact-finding.⁷⁹ The panel emphasized that patent subject matter eligibility was an issue of law informed by underlying facts.⁸⁰ When determining the validity of a patent, the district courts should use the “clear and convincing” standard for the review of these underlying facts.⁸¹ The panel concluded that “storing” and “editing data” in claims 4–7 embodied the improved computational functionality as described in the patent specification.⁸² Therefore there was a genuine dispute of material fact as to whether the methods in claims 4–7 perform more than “well-understood,

71. *Id.* at 643.

72. *Id.* at 646.

73. *Id.* at 647–48.

74. *Id.* at 648.

75. *See* Berkheimer v. HP Inc., 881 F.3d 1360, 1368 (Fed. Cir. 2018).

76. *Id.* at 1366.

77. Judges Moore, Taranto, and Stoll comprised the panel.

78. *Id.* at 1370.

79. *See id.* at 1370–71.

80. *Id.* at 1365.

81. *Id.* at 1368.

82. *Id.* at 1370.

routine, and conventional activities.”⁸³ As such, it was inappropriate to grant summary judgment as to claims 4–7.⁸⁴

However, the Federal Circuit panel did not place a stop on the pre-trial disposition of patent subject matter eligibility issues. The panel noted that the § 101 analysis as an issue of law was often appropriate for pre-trial disposition, including at the motion to dismiss or summary judgment stages.⁸⁵ Specifically, the panel recognized that when there was no genuine issue of material fact regarding the routineness and conventionality of claim elements, courts could decide the patent eligibility issue on summary judgment.⁸⁶

B. *AATRIX V. GREEN SHADES*

1. *District Court Litigation*

*Aatrix v. Green Shades*⁸⁷ is similar to *Berkheimer*. In this case, Aatrix alleged that Green Shades infringed on two of its patents.⁸⁸ The patents had claims directed to systems and methods for designing, creating, and importing data into a viewable form on a computer.⁸⁹ Green Shades filed a Rule 12(b)(6) motion to dismiss, arguing that the claims were invalid because they were ineligible under § 101.⁹⁰ Aatrix filed a motion for leave to amend its complaint, so that it could include factual statements supporting the “inventive concept” required at *Mayo/Alice* step two.⁹¹ The factual allegations in the proposed amended complaint included how the claimed invention improved computational efficiency over prior art.⁹² The district court denied Aatrix’s motion for leave as futile and granted Green Shades’s motion to dismiss.⁹³ Aatrix appealed.

83. *Id.*

84. *Id.*

85. *See id.* at 1368.

86. *Id.*

87. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 2016 U.S. Dist. LEXIS 176222 (M.D. Fla. Mar. 30, 2016).

88. *See id.* at *1–2.

89. *See id.* at *16–19, 36–39.

90. *Id.* at *3.

91. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 2016 U.S. Dist. LEXIS 184121, at *1 (M.D. Fla. Nov. 16, 2016).

92. Scott D. Eads et al., *Latest Federal Circuit Court Cases, 2/16/18*, SCHWABE, WILLIAMSON & WYATT (Feb. 16, 2018), <https://www.schwabe.com/newsroom-publications-satrix-software-inc-v-green-shades-software-inc-appeal-no-2017-1452-fed-cir-feb-14-2018> [<https://perma.cc/N5B5-BAAW>].

93. *Aatrix*, 2016 U.S. Dist. LEXIS 176222, at *45; *Aatrix*, 2016 U.S. Dist. LEXIS 184121, at *3.

2. Federal Circuit Appeal

On appeal, the Federal Circuit panel⁹⁴ found that the district court erred in granting Green Shades' motion to dismiss and denying Aatrix's motion for leave to amend complaint.⁹⁵ The panel emphasized that in order to decide patent subject matter eligibility at the motion to dismiss stage, there must be "no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law."⁹⁶ The panel found that the proposed complaint amendment contained factual allegations that, taken as true, would have supported the assertion that the claimed invention improved computational efficiency.⁹⁷ Since the improved computational efficiency could have constituted activities more than routine and conventional, the claimed invention could have satisfied the "inventive concept" requirement at *Mayo/Alice* step two, and could therefore have been patent eligible under § 101.⁹⁸ As such, the proposed complaint amendment would not have been futile.⁹⁹

C. DENIAL OF *EN BANC* HEARING IN *BERKHEIMER* AND *AATRIX*

Both Mr. Berkheimer and Aatrix petitioned the Federal Circuit to rehear the cases *en banc*. In response to the petitions, the Federal Circuit issued almost identical precedential orders denying both requests.¹⁰⁰

Judge Moore, writing for the majority,¹⁰¹ emphasized that the routineness and conventionality in a certain field at a certain point of time is a factual issue.¹⁰² As such, since the determination of subject matter eligibility under § 101 requires the analysis of "underlying facts," courts should not decide subject matter eligibility as a matter of law when there is a factual dispute over

94. Judges Moore, Taranto, and Reyna comprised the *Aatrix* panel.

95. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1123 (Fed. Cir. 2018).

96. *Id.* at 1125.

97. *Id.* at 1127.

98. *Id.* at 1127–28.

99. *Id.* at 1127.

100. *See Berkheimer v. HP Inc.*, 890 F.3d 1369, 1369–70 (Fed. Cir. 2018) (*en banc*); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1355 (Fed. Cir. 2018) (*en banc*).

101. While *Aatrix* and *Berkheimer* presented a unified position highlighting the factual inquiries under § 101, these two cases did not appear to represent the opinions held by the majority of the Federal Circuit judges. Judge Moore was only able to garner support from four other judges. Judge Lourie concurred with the judgment, but suggested that the Congress should intervene. Judge Reyna's dissented, and argued that Judge Moore's characterization of *Berkheimer* and *Aatrix* as "unremarkable" was controversial. Judges Prost, Chen, Hughes, and Wallach did not join any written opinions, suggesting that within the Federal Circuit, there could be a number of different views on the § 101 analysis. As such, it is likely to see panel-dependent decisions on § 101 issues going forward.

102. *See Berkheimer*, 890 F.3d at 1370 (Moore, J., concurring).

routineness and conventionality.¹⁰³ Judge Moore also characterized *Berkheimer* and *Aatrix* decisions as “narrow,” noting that they did not cast doubt on previous cases where patent eligibility issues were handled at pre-trial stages.¹⁰⁴ She explained that the holdings in *Berkheimer* and *Aatrix* did not deviate from well-established legal principles. Instead, they “merely hold that it must be answered under the normal procedural standards.”¹⁰⁵

D. THE AFTERMATH OF *BERKHEIMER* AND *AATRIX*

1. *The USPTO’s Berkheimer Memorandum*

On April 19, 2018, in response to the Federal Circuit’s *Berkheimer* and *Aatrix* decisions, the United States Patent and Trademark Office (USPTO) issued a memorandum (the “*Berkheimer* memo”).¹⁰⁶ The *Berkheimer* memo specifically addressed the “limited question” of routineness and conventionality.¹⁰⁷ While recognizing that the *Berkheimer* and *Aatrix* decisions did not change the *Mayo/Alice* framework,¹⁰⁸ the USPTO for the first time acknowledged that a rejection under § 101 would require particular evidence pertinent to routineness and conventionality.¹⁰⁹

The requirement for particular evidence represents a substantial departure from USPTO’s current practice. The current Manual of Patent Examining Procedure (MPEP) allows patent examiners to rely on their “expertise in the art” to determine routineness and conventionality of the claim elements.¹¹⁰ In contrast, the *Berkheimer* memo indicated that the claim elements are presumed to recite non-conventional activities unless proven otherwise by the examiner’s finding of routineness and conventionality with particular evidence.¹¹¹

The *Berkheimer* memo further limited the categories of evidence that the examiner must rely on in order to support a finding of routineness and conventionality.¹¹² There are four categories of such evidence: (1) a citation to

103. *Id.* at 1370–71.

104. *Id.* at 1373–74.

105. *Id.* at 1374.

106. UNITED STATES PATENT & TRADEMARK OFFICE, CHANGES IN EXAMINATION PROCEDURE PERTAINING TO SUBJECT MATTER ELIGIBILITY, RECENT SUBJECT MATTER ELIGIBILITY DECISION (*BERKHEIMER V. HP, INC.*) (2018) [hereinafter *BERKHEIMER MEMO*].

107. *Id.* at 1.

108. *See id.* at 2.

109. *See id.* at 2–3.

110. UNITED STATES PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE [hereinafter MPEP] § 2106.05(d).

111. *BERKHEIMER MEMO*, *supra* note 106, at 3.

112. *See id.*

an express statement in the specification or during prosecution,¹¹³ (2) a citation to a court decision,¹¹⁴ (3) a citation to a publication,¹¹⁵ and (4) a statement of official notice.¹¹⁶

Although the USPTO attempted to downplay the significance of the *Berkheimer* memo by calling it a “clarification,”¹¹⁷ commentators have characterized this memo as “consequential and examination-changing.”¹¹⁸ In addition to its effects on USPTO’s patent examination practice, the *Berkheimer* memo is also likely to bring a major shift in the practice of patent drafting and prosecution, especially for patent applications that are currently vulnerable to § 101 rejection under the *Mayo/Alice* test.

2. Pre-trial Disposition of Patent Eligibility After *Berkheimer* and *Aatrix*

In both *Berkheimer* and *Aatrix*, the Federal Circuit indicated that the decisions did not mean to foreclose pre-trial disposition of patent subject matter eligibility issues under § 101.¹¹⁹ In practice, the Federal Circuit has continued affirming district courts’ pre-trial dispositions of patent subject matter eligibility issues in several cases after *Berkheimer* and *Aatrix*.

In *Voter Verified v. Election System & Software*,¹²⁰ the patent claimed a computer-implemented auto-verification voting system.¹²¹ The district court found the patent invalid under § 101 because it failed the *Mayo/Alice* test, and granted the defendant’s motion to dismiss under Rule 12(b)(6).¹²² On appeal,

113. *Id.* at 3–4. Evidence of this category must describe the claim elements as well-understood, routine, or conventional, or otherwise so well-known that they do not need a description to meet the § 112 requirements.

114. *Id.* at 4. The available court decisions as discussed in the relevant MPEP section identified 21 areas of well-understood, routine, or conventional activities. *See* MPEP, *supra* note 110, at § 2106.05(d)(II).

115. BERKHEIMER MEMO, *supra* note 106, at 4. The memo emphasized that the description in the publication would need to show that the claim elements are “widely prevalent or in common use in the relevant field.”

116. *Id.* The *Berkheimer* memo placed stringent limits on the office notice practice. If the applicant challenges the official notice, the examiner must then provide evidence according to categories (1) through (3) or submit an affidavit or declaration with particular factual statements and supporting explanation.

117. *Id.* at 2.

118. *See* Christopher C. Johns, *Berkheimer Memorandum, a Big Shift, in Fact*, FINNEGAN (Apr. 24, 2018), <https://www.finnegan.com/en/insights/blogs/prosecution-first/berkheimer-memorandum-a-big-shift-in-fact.html> [<https://perma.cc/53CS-NRNH>].

119. *See* *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

120. *Voter Verified Inc. v. Election Sys. & Software LLC*, 2017 U.S. Dist. LEXIS 215091 (N.D. Fla. Mar. 21, 2017).

121. *See id.* at *4.

122. *Id.* at *5.

the Federal Circuit affirmed the district court's decision¹²³ and found that neither party disputed the fact that "the claims recited the use of general purpose computers to carry out the abstract idea."¹²⁴ As such, "the factual allegations here, taken as true, [did] not prevent a § 101 determination at the Rule 12(b)(6) stage."¹²⁵

In *SAP America v. InvestPic*,¹²⁶ the patent at issue was directed to a "system for statistical analysis, display, and dissemination of financial data over a network."¹²⁷ Having found no inventive concept in the claim elements,¹²⁸ the district court granted the plaintiff's Rule 12(c) motion for judgment on the pleadings.¹²⁹ On appeal, the Federal Circuit concluded that since there were no factual allegations to support a plausible inference for an inventive concept, the district court's decision to grant the motion for judgment on the pleadings was proper.¹³⁰

In *BSG Tech v. Autozone*,¹³¹ the patent claimed a method of using a self-evolving database which could store, retrieve, and display marketplace information to guide user selections.¹³² The district court held that the claim elements were either "nothing more than an instruction to apply the abstract idea" or "a generic database to implement the abstract idea."¹³³ Therefore, the district court granted both a motion to dismiss in this case and a motion for summary judgment in a related case that involved the same patent.¹³⁴ On appeal, the Federal Circuit differentiated this case with *Berkeheimer*, finding that the only alleged unconventional feature in the asserted claims in this case simply restated the abstract idea itself.¹³⁵ As such, since there was no genuine issue of material fact in that case, the Federal Circuit affirmed the summary judgment.¹³⁶

123. *Voter Verified Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1379 (Fed. Cir. 2018).

124. *Id.* at 1386.

125. *Id.* at 1385.

126. *SAP Am., Inc. v. InvestPic, LLC*, 260 F. Supp. 3d 705 (N.D. Tex. 2017).

127. *Id.* at 709.

128. *Id.* at 718.

129. *Id.* at 719.

130. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1169 (Fed. Cir. 2018).

131. *BSG Tech LLC v. Autozone, Inc.*, 2017 U.S. Dist. LEXIS 96276 (E.D. Tex. Mar. 30, 2017).

132. *See id.* at *11.

133. *Id.* at *15.

134. *Id.* at *17.

135. *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1291 (Fed. Cir. 2018).

136. *Id.*

IV. ANALYSIS

A. BERKHEIMER AND AATRIX PROVIDED OVERDUE CLARIFICATION ON THE EVIDENTIARY STANDARD AT *MAYO*/*ALICE* STEP TWO

Patent subject matter eligibility under § 101 has been considered as a “threshold” issue completely within the court’s domain.¹³⁷ As an issue of law, district courts often address patent eligibility issues at pre-trial stages to save time, money, and “scarce judicial resources.”¹³⁸

Following the adoption of the *Mayo*/*Alice* framework, there was a dramatic rise in the number of district court § 101 invalidity decisions on pre-trial motions.¹³⁹ This trend has elicited growing concerns about the apparent contention between the treatment of § 101 eligibility as an issue of law and the underlying factual issues at *Mayo*/*Alice* step two.¹⁴⁰

Legal scholars have pointed out that in searching for the “inventive concept,” courts need to engage in a novelty analysis, obviousness analysis, or both to determine whether or not a claim discloses well-understood, routine, and conventional activity previously engaged in by scientists who work in the field.¹⁴¹ Moreover, since both novelty and obviousness analyses involve factual issues, it is difficult to see how district courts could determine routineness and conventionality at early stages in the litigation without addressing subsidiary fact questions.¹⁴²

137. See, e.g., *Bilski v. Kappos*, 561 U.S. 593, 594 (2010) (“The § 101 eligibility inquiry is only a threshold test.”). But see Dennis Crouch and Robert P. Merges, *Operating Efficiently Post-Bilski by Ordering Patent Doctrine Decision-Making*, 25 BERKELEY TECH. L.J. 1673 (2010) (arguing that courts should hold off on evaluating claims under § 101, and only deploy the full § 101 analysis when a claim passes muster under the other validity doctrines).

138. See *Ultramercial, Inc. v. Hulu, L.L.C.*, 772 F.3d 709, 718–19 (Fed. Cir. 2014) (Mayer, J., concurring).

139. Jeffrey A. Lefstin et al., *Final Report of the Berkeley Center for Law and Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 BERKELEY TECH. L.J. 551, 576 (2018). The data in the Report showed that there were no more than three § 101 invalidity decisions in any year prior to 2012 when *Mayo* was decided. The number increased to an average of eight per year in the two years following *Mayo*. After *Alice* was decided in 2014, the number increased by more than 10-fold, to a total of 222 invalidity decisions within the thirty-two months following the *Alice* decision.

140. See Raymond A. Mercado, *Resolving Patent Eligibility and Indefiniteness in Proper Context: Applying Alice and Aristocrat*, 20 VA. J.L. & TECH. 240, 241 (2016).

141. See *id.* at 330–31. The argument that the determination of patent eligibility under the *Mayo*/*Alice* framework involves the novelty analysis, obviousness analysis, or both appears to receive support from *Mayo*. The *Mayo* decision explicitly recognized that, in evaluating the significance of the claim elements, the § 101 patent eligibility inquiry and the § 102 novelty inquiry “might sometimes overlap.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 90 (2012).

142. See Mercado, *supra* note 140, at 257–58.

However, before *Berkeheimer* and *Aatrix*, the Federal Circuit never explicitly questioned the appropriateness of pre-trial disposition of the § 101 issues under the *Mayo/Alice* framework. Its de novo review standard regarding subject matter eligibility, which affords no deference to lower courts' fact-finders of routineness and conventionality, only exacerbated the confusion.¹⁴³ Given the uncertainty around § 101 issues after *Alice*, legal scholars urged the announcement of a "badly needed" standard from the Federal Circuit regarding the factual inquiries underlying the § 101 issue, specifically at *Mayo/Alice* step two.¹⁴⁴

143. Normally, where a question of fact exists, a district court's factual findings are reviewed with deference on appeal, even when those factual findings are subsidiary to an ultimate question of law. This principle has been adopted in the appeal of issues involving claim construction, obviousness, and indefiniteness. *See* *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 833 (2015) (holding that appellate court in reviewing claim construction must give deference to a district court's subsidiary factual findings regarding extrinsic evidence); *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1377 (Fed. Cir. 2006) (reviewing district court's factual findings underlying an obviousness determination for clear error); *Alfred E. Mann Found. for Sci. Research v. Cochlear Corp.*, 841 F.3d 1334, 1341 (Fed. Cir. 2016) (reviewing any factual findings underlying indefiniteness by the district court based on extrinsic evidence for clear error).

In contrast, this is not the approach adopted by the Federal Circuit in § 101 appeals. In *Prism Technologies v. T-Mobile USA*, the Federal Circuit declined to afford any deference to the lower court's factual findings underlying the determination of patent subject matter eligibility. *See* *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 Fed. Appx. 1014, 1017 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 689 (2018). Instead, the Federal Circuit performed de novo review of all eligibility issues, including subsidiary findings of fact. Prism petitioned the Supreme Court to decide whether a district court's factual findings in support of its eligibility holding may be reviewed de novo, as the Federal Circuit did, or only for clear error, as Rule 52(a) and Supreme Court precedent required. The Supreme Court denied the petition for a writ of certiorari. *Prism Techs. LLC v. T-Mobile USA, Inc.*, 138 S. Ct. 689 (2018).

Actually, during the de novo review of § 101 patent subject matter eligibility issues, the Federal Circuit has often covertly engaged in factual findings. It is not uncommon for the court to compare elements recited in patent claims to the prior art to determine whether the claims provide an inventive concept at *Mayo/Alice* step two. In *BASCOM v. AT&T Mobility*, the Federal Circuit stated in its decision that "[b]y taking a prior art filter solution and making it more dynamic and efficient, the claimed invention represents a software-based invention that improves the performance of the computer system itself." *BASCOM Global Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351 (Fed. Cir. 2016) (internal quotation marks omitted). While the Federal Circuit did not admit that it engaged in factual finding, it remanded, rather than reversed, the district court's decision, so that the parties could present more evidence to resolve factual disputes in a retrial. The practice of the Federal Circuit in reviewing patent subject matter eligibility issues has created much confusion. Frustrated by the lack of uniformity and consistency, Judge Moore has stated, "[w]hen we convert factual issues, or mixed questions of law and fact, into legal ones for our de novo review, we undermine the uniformity and predictability goals this court was designed to advance." *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 701 F.3d 1351, 1362 (Fed. Cir. 2012) (Moore, J., dissenting from denial of petition for rehearing en banc).

144. Mercado, *supra* note 140, at 332.

In *Berkheimer* and *Aatrix*, the Federal Circuit confirmed the need for fact finding in the determination of routineness and conventionality underlying patent subject matter eligibility issues. The Federal Circuit also emphasized that the pre-trial disposition of § 101 issues needed to conform to the requirements stipulated in the Federal Rules of Civil Procedure.

1. *Berkheimer and Aatrix Confirmed the Need to Consider Underlying Facts in the Inquiry of Patent Subject Matter Eligibility Under § 101*

Before *Alice*, the Federal Circuit had acknowledged that the legal question as to patentable subject matter might “turn on subsidiary factual issues.”¹⁴⁵ In *Ultramercial, Inc. v. Hulu, LLC*, the Federal Circuit emphasized that the § 101 inquiry was “rife with underlying factual issues.”¹⁴⁶ Specifically, the § 101 analysis required the courts to search for claim limitations that “narrow or tie the claims to specific applications of an otherwise abstract concept.”¹⁴⁷ In addition, courts must determine whether the patent “embraces a scientific principle or abstract idea,”¹⁴⁸ which could involve the analysis of underlying facts. Further, the determination for whether something was “conventional” or “routine” also involved factual analysis.¹⁴⁹ Finally, courts must determine to what extent the claim would pre-empt a field, which would also “involve historic facts.”¹⁵⁰ As such, “factual inquiries likely abound”¹⁵¹ in the § 101 analysis.¹⁵²

After the adoption of the *Mayo/Alice* framework, the Federal Circuit never explicitly extended the requirement for fact finding to the determination of subject matter eligibility, nor did it provide any guidance on the evidentiary standard to establish routineness and conventionality. Although it mentioned that the § 101 inquiry “may contain underlying factual issues,”¹⁵³ this tacit announcement was insufficient to clarify the post-*Alice* uncertainty and confusion regarding subject matter eligibility.

The *Berkheimer* and *Aatrix* cases confirmed that in assessing patent eligibility issues under the *Mayo/Alice* framework, the analysis needed to

145. *See In re Comiskey*, 554 F.3d 967, 975 (Fed. Cir. 2009).

146. *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1339 (Fed. Cir. 2013).

147. *Id.*

148. *Id.*

149. *Id.*

150. *Id.*

151. *Id.*

152. *See* Gregory H. Lantier & Richard A. Crudo, *Can Juries Decide Patent Eligibility Under 35 U.S.C. § 101?*, 27 FED. CIR. B.J. 45, 50 (2017).

153. *Mortg. Grader, Inc. v. First Choice Loan Servs.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (quoting *Accenture Global Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013)).

consider underlying facts. The Federal Circuit in *Berkheimer* explicitly stated that “[w]hether a claim recites patent eligible subject matter is a question of law which may contain disputes over underlying facts.”¹⁵⁴ Specific to *Mayo/Alice* step two, the *Berkheimer* court further announced that “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination” that “goes beyond what was simply known in the prior art.”¹⁵⁵

The *Berkheimer* and *Aatrix* decisions correctly captured the nature of routineness and conventionality inquiries. The determination of routineness and conventionality inevitably involve “a recital of external events.”¹⁵⁶ The external events, such as “who did what, when and where, how and why”¹⁵⁷ cannot be resolved by reading the claims or by applying the law. The assessment of routineness and conventionality requires a factual inquiry into the technological context of an invention, especially the state of the art that skilled artisans possessed at the time of the invention. In fact, the time of the invention itself is also a factual question that needs to be resolved by determining the specific activities of each inventor during a period of time.¹⁵⁸ Therefore, under the *Mayo/Alice* framework, the determination of § 101 patent subject matter eligibility issues undeniably requires the consideration of underlying factual issues.

2. *Berkheimer and Aatrix Emphasized that the Pre-Trial Disposition of § 101 Issues Needs to Conform to the Federal Rules of Civil Procedure*

In *Berkheimer* and *Aatrix*, the Federal Circuit emphasized that the handling of underlying factual issues at *Mayo/Alice* step two in pre-trial motions needed to conform to the Federal Rules of Civil Procedure.¹⁵⁹ Pursuant to the Federal Rules of Civil Procedure, if the defendant in a patent infringement case raises an invalidity defense on § 101 grounds and moves to dismiss the case under Rule 12(b)(6), the courts assume the truth of all well-pleaded facts and draw all reasonable inferences that favor the patent owner to determine the validity of the patent at issue.¹⁶⁰ Similarly, if the defendant raises an invalidity defense on § 101 grounds and moves for summary judgment under Rule 56, the courts

154. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

155. *Id.* at 1369.

156. *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1370 (Fed. Cir. 2018) (citing *Thompson v. Keohane*, 516 U.S. 99, 110 (1995)).

157. *Berkheimer*, 890 F.3d at 1370 (citing *U.S. Bank Nat'l Ass'n ex rel. CWC Capital Asset Mgmt. LLC v. The Village at Lakeridge, LLC*, 138 S. Ct. 960, 966 (2018)).

158. *See MPEP*, *supra* note 110, at § 715.

159. *Berkheimer*, 890 F.3d at 1371.

160. *See* FED. R. CIV. P. 12(b)(6).

assume that all disputed facts and reasonable inferences are in favor of the patent owner, and only grant a summary judgment when there is no genuine dispute of material fact as to the validity of the patent.¹⁶¹ Applying these rules to the facts pertinent to routineness and conventionality at *Mayo/Alice* step two, a well-pleaded assertion of non-routine or non-conventional activities would preclude a motion to dismiss, and any assertion or evidence that could introduce genuine dispute of material facts with regard to routineness and conventionality would preclude a summary judgment.

Although the Federal Circuit characterized the *Berkheimer* and *Aatrix* decisions as a mere clarification, this was clearly an understatement of the effect these two cases could have on patent litigation involving subject matter eligibility issues under § 101.¹⁶² Since the adoption of the *Mayo/Alice* framework, factual questions have taken a more prominent position in the inquiry of patent subject matter eligibility, which was traditionally treated as a matter of law. District courts either ignored or were confused about the changing role of factual issues, and continued treating § 101 patent eligibility issues as if there were no inquiry of fact.¹⁶³ The inaction of the Federal Circuit to provide guidance has, in effect, created a patent litigation regime that applies irregular procedural rules and evidentiary standards to factual issues underlying the inquiry of patent subject matter eligibility. The *Berkheimer* and *Aatrix* decisions represented an overdue regularization of the disputes over patent subject matter eligibility issues within the existing civil litigation system, at least at the district court level.¹⁶⁴

161. See FED. R. CIV. P. 56.

162. The Federal Circuit in *Berkheimer* stated that “[p]atent eligibility has in many cases been resolved on motions to dismiss or summary judgment. Nothing in this decision should be viewed as casting doubt on the propriety of those cases.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

163. Before *Berkheimer* and *Aatrix*, some district courts had already denied summary judgment motions because the movant did not provide evidence pertinent to routineness and conventionality at *Mayo/Alice* step two. “When, as here, Millennium is asking the court to infer that the combination of elements is conventional, it must supply some evidence to convince the trier of fact to accept its version of events. Since those facts are lacking here, Millennium’s position is necessarily rejected.” *Ameritox, Ltd. v. Millennium Health, LLC*, 88 F. Supp. 3d 885, 911 (W.D. Wis. 2015). But many other district courts routinely dispose of the § 101 issue as a matter of law, even when there are factual disputes about routineness and conventionality at *Mayo/Alice* step two.

164. It remains a question, however, whether the Federal Circuit would adjust its de novo review standard, and defer to lower court’s fact-findings on routineness and conventionality at *Mayo/Alice* step two.

B. *BERKHEIMER* AND *AATRIX* FAILED TO PROVIDE GUIDANCE ON
TAKING JUDICIAL NOTICE AT *MAYO*/*ALICE* STEP TWO

The clarification that any factual dispute at *Mayo/Alice* step two would preclude the pre-trial disposition of the § 101 issue is not a moratorium on resolving patent subject matter eligibility at the pleading or at the summary judgment stages. In *Berkheimer*, the Federal Circuit pointed out that “not every § 101 determination contain[ed] genuine disputes over the underlying facts material to the § 101 inquiry.”¹⁶⁵ Accordingly, when there is no genuine dispute of material fact regarding the routineness and conventionality of the claim elements, the subject matter eligibility issue can be decided on summary judgment as a matter of law.¹⁶⁶

Specifically, the Federal Circuit approved the application of judicial notice as a standard in determining whether a factual dispute exists.¹⁶⁷ As a common law doctrine codified in the Federal Rules of Evidence, courts may judicially notice a fact that is “not subject to reasonable dispute.”¹⁶⁸ A judicially noticeable fact is either “generally known within the trial court’s territorial jurisdiction” or “can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.”¹⁶⁹

The Federal Circuit held that, when ruling on pre-trial motions, courts need not “accept as true allegations that contradict matters properly subject to judicial notice or by exhibit.”¹⁷⁰ In other words, courts are not bound to credit “bald assertions, unsupported conclusions, and opprobrious epithets woven into the fabric of the complaint.”¹⁷¹ If the alleged subsidiary facts by the patent owner in support of the “inventive concept” are contradicted by matters of which courts may properly take judicial notice, the courts do not have to take the alleged facts as true or disputed in deciding pre-trial motions.

165. *Berkheimer*, 881 F.3d at 1368. Similarly, the *Aatrix* court noted that “patent eligibility can be determined at the Rule 12(b)(6) stage” when “there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018).

166. *Berkheimer*, 881 F.3d at 1368.

167. *See Berkheimer v. HP Inc.*, 890 F.3d 1369, 1372 (Fed. Cir. 2018) (en banc) (Moore, J., concurring) (“[A] court need not accept as true allegations that contradict matters properly subject to judicial notice or by exhibit.”).

168. FED. R. EVID. 201(b).

169. *Id.*

170. *Berkheimer*, 890 F.3d at 1372.

171. *Banco Santander de P.R. v. Lopez-Stubbe (In re Colonial Mortg. Bankers Corp.)*, 324 F.3d 12, 15 (1st Cir. 2003).

From a policy perspective, if a fact is indisputable, there isn't any good reason to "jump through evidentiary hoops for its admission."¹⁷² Meanwhile, since judicial notice allows a court to accept adjudicative facts as true without requiring proof, the indisputability of judicially noticed facts must satisfy a strict standard to guarantee the fairness for the parties in litigation.¹⁷³

Unfortunately, neither *Berkheimer* nor *Aatrix* provided practical guidance on the scope of judicial notice that the district courts could properly take in the determination of routineness and conventionality. This Note discusses the principles of taking judicial notice, and provides some illustration of how to apply these principles to the determination of routineness and conventionality at *Mayo/Alice* step two.

1. "Generally Known Within the Trial Court's Territorial Jurisdiction"

The indisputability of a fact can be established by the general knowledge within a court's territorial jurisdiction.¹⁷⁴ For example, a California court took judicial notice of "the overwhelming deluge of publicity attendant to and extensive public discussion of the O. J. Simpson criminal trial," because the "overall notoriety and widespread coverage of the trial were generally known within the territorial jurisdiction."¹⁷⁵ The following Table provides further examples of the "generally known" facts that courts took judicial notice in their decisions.

172. Coleen M. Barger, *Challenging Judicial Notice of Facts on the Internet Under Federal Rule of Evidence 201*, 48 U.S.F.L. REV. 43, 48 (2013).

173. See Christopher Onstott, *Judicial Notice and the Law's "Scientific" Search for Truth*, 40 AKRON L. REV. 465, 470 (2007).

174. See FED. R. EVID. 201(b).

175. See *Cochran v. NYP Holdings, Inc.*, 58 F. Supp. 2d 1113, 1122 n.5 (C.D. Cal. 1998).

Table 1. Examples of judicially noticed “generally known” facts.

Cases	Judicially noticed facts
<i>Carey v. Population Servs. Int’l</i> , 431 U.S. 678, 695–96 (1977).	“With or without access to contraceptives, the incidence of sexual activity among minors is high.”
<i>Kaggen v. IRS</i> , 57 F.3d 163, 166 (2d Cir. 1995).	Banks send monthly statements to depositors.
<i>United States v. Munoz</i> , 974 F.2d 493, 495 (4th Cir. 1992).	South America is a “major source of the cocaine sold and used in the United States.”
<i>Seyfried v. Walton</i> , 668 F.2d 214, 219 (3d Cir. 1981).	The “progressively higher levels of intellectual and emotional development of students in the later grades of secondary school.”
<i>Sinatra v. Heckler</i> , 566 F. Supp. 1354, 1356 (E.D.N.Y. 1983).	The Postal Service is “heavily burdened during and in the aftermath of the holiday season and that delivery is sometimes slowed.”
<i>Flood v. Kubn</i> , 309 F. Supp. 793, 797 (S.D.N.Y. 1970).	“[B]aseball is everybody’s business.”

However, the routineness and conventionality at *Mayo/Alice* step two may not be amenable for judicial notice under the “general knowledge” approach for the following two reasons.

First, the inquiry of routineness and conventionality at *Mayo/Alice* step two is incompatible with the scope of “general knowledge.” Under the *Mayo/Alice* framework, the “inventive concept” requires more than “well-known, routine, and conventional” activities practiced in the industry relevant to the claimed invention. The accurate understanding of the state of the art of the relevant industry requires specific knowledge of that industry, which is not readily available to the general public. Therefore, an evidentiary standard asking how universally the general public knows a fact that is beyond the scope of their knowledge likely provides no benefit.¹⁷⁶ Moreover, the “general knowledge” standard applies to the territorial jurisdiction of the court. The arbitrary geographical limitation is irrelevant to the factual inquiry about an industry whose practice is not subjected to such territorial limitations. In other words, the “general knowledge” within a court’s territorial jurisdiction regarding an

176. See *Onstott*, *supra* note 173, at 473.

industry's state of the art most likely would not accurately reflect the real situation in that industry.

Second, the routineness and conventionality analysis at *Mayo/Alice* step two is susceptible to hindsight bias of the general public. Some industries, for example, the internet and software, are tightly connected to daily life. Due to constant exposure and interaction with these industries, the general public, regardless of territorial jurisdiction, could reasonably form an accurate understanding of the current state of the art of these industries. In the assessment of routineness and conventionality at *Mayo/Alice* step two, however, the critical point in time is the time of invention for pre-AIA patents or the time of filing for post-AIA patents, which could be many years ago. Therefore, it is questionable whether or not the "general knowledge" of the state of the art today could provide any meaningful indication of the state of the art in the past.¹⁷⁷

Indeed, some courts have refused to take judicial notice in the determination of the historical state of the art based on "general knowledge." In *In re Eynde*, in order to fulfill the § 112 statutory requirements,¹⁷⁸ the applicant requested the court to take judicial notice of the state of the art.¹⁷⁹ The court rejected the request because "the facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice."¹⁸⁰ Similarly, in *In re Pardo*, the Board of Patent Appeals and Interferences (BPAI), without citing supporting evidence, took judicial notice that the invention would have been obvious to a skilled artisan in 1970.¹⁸¹ The appeals court reversed, noting "the skill of a person of ordinary skill in either computer programming or design in 1970 is not a proper subject for judicial notice today, no matter how simple a claimed invention may seem in hindsight."¹⁸²

On the other hand, some courts took judicial notice on the historical state of the art in a way that appeared inconsistent with the Federal Rules of Evidence. In *Zenith Radio v. Ladd*, the court affirmed a patent application

177. See generally Neal J. Rouse & Kathleen D. Vohs, *Hindsight Bias*, 7 PERSP. ON PSYCHOL. SCI. 411 (2012).

178. In this case, the patent applicant failed to submit reference to challenge a 35 U.S.C. § 112 rejection in a timely manner. In order to fulfill the § 112 statutory requirements, the specification of the application would need to enable a person having ordinary skill in the art to make and use the disclosed invention without undue experimentation. Not allowed to enter the reference due to the delay, the applicant instead requested the court to take judicial notice of the state of the art.

179. *In re Eynde*, 480 F.2d 1364, 1370 (C.C.P.A. 1973).

180. *Id.*

181. *In re Pardo*, 684 F.2d 912, 917 (C.C.P.A. 1982).

182. *Id.*

rejection by the BPAI.¹⁸³ In forming the rejection, the BPAI took judicial notice that “material removal broadly by drilling holes for the purpose is a well known conventional expedient.”¹⁸⁴ Since it is unlikely that the general public had the accurate knowledge pertinent to a specific engineering field, the reviewing district court should not have allowed the judicial notice. Moreover, in *Affinity Labs of Texas v. Directv*, the magistrate judge took judicial notice that the “commercial practice of disseminating regionally broadcast content to users outside the region is both well-known and historically long-standing.”¹⁸⁵ In explaining the finding, the magistrate judge relied on “general historical observations that come to mind as evidence.”¹⁸⁶ The judicial notice in this case is likely improper, because judges should not take judicial notice based on their own understanding of fact. The judicially noticed fact needs to be generally known by the public.

Despite the inconsistent practice across district courts, the Federal Circuit has never decided whether, or how, a court should use “general knowledge” as the basis for judicial notice in the determination of historical state of the art. The silence of the Federal Circuit on this issue, however, should not be construed as a total prohibition. Following some sensible evidentiary standard, courts could properly take judicial notice with regard to the historical state of the art based on the knowledge of the general public. The principles for the standard should at least include: (1) the general public, not just the skilled artisans, is sufficiently familiar with the potentially industry-specific fact, and (2) the fact reflects a long-standing truth, therefore not vulnerable to hindsight bias.

As an illustration of these principles, in a copyright infringement case concerning the similarity between two snowman toys, the court took judicial notice of the traditional features of snowmen.¹⁸⁷ This judicial notice was appropriate because the general public was familiar with the features of snowmen. In addition, since the traditional features of snowmen do not change much over time and are notoriously known, they are immune to hindsight bias. The following Table provides additional cases where courts took judicial notice of the historical state of the art under the “general knowledge” approach. In these cases, courts have taken judicial notice not only because the general public has frequent exposure to these industries in daily

183. *Zenith Radio Corp. v. Ladd*, 198 F. Supp. 286, 288 (D.D.C. 1961).

184. *Id.* at 287–88.

185. *Affinity Labs of Tex., LLC v. Directv, LLC*, 109 F. Supp. 3d 916, 938 (W.D. Tex. 2015).

186. *Id.*

187. *Eden Toys, Inc. v. Marshall Field & Co.*, 675 F.2d 498, 500 n.1 (2d Cir. 1982).

life, but also because the historical state of the art at issue is so notoriously known that the risk of hindsight bias is negligible.

Table 2. Examples of judicially noticed historical state of the art.

Cases	Judicially noticed historical state of the art
<i>In re</i> Wiechers, 347 F.2d 608, 610–11 (C.C.P.A. 1965).	The “notoriously old business arrangement . . . [of] the repayment of loans in installments.”
<i>buySAFE, Inc. v. Google, Inc.</i> , 765 F.3d 1350, 1355 (Fed. Cir. 2014).	A contractual relationship with a “transaction performance guaranty” is “beyond question of ancient lineage.”
<i>Ultramercial, Inc. v. Hulu, LLC</i> , 772 F.3d 709, 722–23 (Fed. Cir. 2014).	Generic computers and the internet “have become indispensable staples of contemporary life.”

2. “Accurately Verifiable from Reliable Sources”

Even if a fact is not generally known, a court can still take judicial notice if the fact can be accurately determined from sources whose accuracy cannot be reasonably questioned.¹⁸⁸ This approach needs to satisfy two requirements. First, the court must be capable of determining the accuracy of the judicially noticed fact based on the source. For example, by referring to a public record, a court can verify whether a statement is present in that public record. However, the court cannot accurately determine whether the statement is true or false by referring to that public record alone, because there is no guarantee that every statement in that record is true. As a result, the court may take judicial notice of the presence, but not the truthfulness, of the statement.¹⁸⁹ Second, the accuracy of the sources cannot be reasonably questioned. Traditionally, sources in this category have included officially kept data records, dictionaries, commercial directories, textbooks, maps, encyclopedia, and almanacs. With the expansion of internet-based sources, the scope of reliable sources is also changing.¹⁹⁰

In contrast to the “general knowledge” approach, the inquiry of routineness and conventionality at *Mayo/Alice* step two is amenable for judicial

188. See FED. R. EVID. 201(b).

189. See, e.g., *Bias v. Moynihan*, 508 F.3d 1212, 1225 (9th Cir. 2007) (taking judicial notice of litigant’s pro se status, but declining to take judicial notice of the content of deposition that is subject to dispute).

190. See generally *Barger*, *supra* note 172.

notice under the “reliable source” approach. While it is disfavored to rely on the public’s common sense to determine the historical state of the art in a specific technological field, it is reasonable for a court to assess routineness and conventionality by referring to the verifiable information found in reliable and authoritative sources. Under the “reliable source” approach, there are two mechanisms that could be at play in the determination of routineness and conventionality.

First, courts could take judicial notice of the presence of statements pertinent to routineness and conventionality in the specification and prosecution history of the patent at issue. Once judicially noticed, the statements adverse to patent eligibility can serve as evidence against the patent owner under the doctrine of party admission.¹⁹¹ This mechanism is consistent with USPTO’s *Berkheimer* memo, where in order to show routineness and conventionality, the examiners can make citations to an express statement in the specification or in the prosecution history.¹⁹² Indeed, courts have taken judicial notice of the presence of statements in patents, published patent applications, and patent prosecution history, which are all considered public record.¹⁹³ For example, in *X One v. Uber*, the district court granted defendant’s request to take judicial notice of two U.S. patents.¹⁹⁴ The court explained that “matters of public record” were the appropriate subjects of judicial notice, and that “patents are matters of public record and the proper subject of judicial notice.”¹⁹⁵ In *Uniloc USA v. HTC America*, the district court took judicial notice of the prosecution history of the patent at issue.¹⁹⁶ The court explained that it may “consider the asserted patent and relevant prosecution history as matters of public record appropriate for judicial notice.”¹⁹⁷

Second, courts could rely on the authorities of dictionaries, textbooks, university publications, industry manuals, and government research reports to judicially notice scientific and technological facts. If these scientific and technological facts could attest to whether the activities in claim elements are widely prevalent or in common use in the relevant field, courts could properly take judicial notice of such facts to rule on the routineness and conventionality

191. See FED. R. EVID. 801(d)(2).

192. See *BERKHEIMER MEMO*, *supra* note 106, at 3–4.

193. *Massachusetts v. Westcott*, 431 U.S. 322, 323 n.2 (1977) (public records “may be judicially noticed”).

194. *X One, Inc. v. Uber Techs., Inc.*, 239 F. Supp. 3d 1174, 1182 n.1 (N.D. Cal. 2017).

195. *Id.* (internal quotation marks omitted).

196. *Uniloc USA, Inc. v. HTC Am., Inc.*, 2018 U.S. Dist. LEXIS 100737, at *19–20 (W.D. Wash. June 15, 2018).

197. *Id.* at *19 n.6 (citing *Integrated Tech. Sys. v. First Internet Bank of Ind.*, 2017 U.S. Dist. LEXIS 21309, at *2 (E.D. Tex. Jan. 30, 2017)).

at *Mayo/Alice* step two. The following Table provides some example cases where courts relied on sources of authority to take judicial notice of scientific and technological facts.

Table 3. Examples of judicially noticed scientific and technological facts.

Cases	Judicially noticed fact	Authorities
<i>Hines on behalf of Sevier v. Sec’y of HHS</i> , 940 F.2d 1518, 1525–26 (Fed. Cir. 1991).	The incubation period of measles.	Nelson Textbook of Pediatrics (13th ed. 1987).
<i>Texpor Traders, Inc. v. Trust Co. Bank</i> , 720 F. Supp. 1100, 1105 n.2 (S.D.N.Y. 1989).	“[A] sample size of thirty or more is generally recognized as sufficient to guarantee normality of the distribution of sample means.”	Statistical Concepts for Attorneys (1983).
<i>Allen v. United States</i> , 588 F. Supp. 247, 258 n.3 (C.D. Utah 1984).	A series of “elementary principles of physics, chemistry, and other sciences.”	Handbook of Chemistry and Physics (64th ed. Weast 1983).
<i>Jacobs v. N.C. Admin. Office of the Courts</i> , 780 F.3d 562, 565 n.2 (4th Cir. 2015).	Characteristics of social anxiety disorder DSM-IV.	Diagnostic and Statistical Manual of Mental Disorders (4th ed. 2000).
<i>Edwards v. Sec’y of HHS</i> , 572 F. Supp. 1235, 1238 (E.D.N.Y. 1983).	Subjective symptoms of pain and discomforting are consistent with the side effects of medications.	Physician’s Desk Manual (1983).
<i>Harris v. H & W Contr. Co.</i> , 102 F.3d 516, 522 (11th Cir. 1996).	“Graves’ disease is a condition that is capable of substantially limiting major life activities if left untreated.”	The Merck Manual of Diagnosis and Therapy (15th ed. 1987).
<i>Lennon v. Metro. Life Ins. Co.</i> , 504 F.3d 617, 623 (6th. Cir. 2007).	“As blood-alcohol levels rise, so does the risk of being involved in a fatal crash.”	Nat’l Hwy. Traffic Safety Admin., U.S. Dep’t of Transp. Studies.

<i>Pantry, Inc. v. Stop-N-Go Foods, Inc.</i> , 796 F. Supp. 1164, 1168 (S.D. Ind. 1992).	“Ingestion of any concentration of benzene would be carcinogenic.”	EPA promulgation in the Federal Register, National Primary Drinking Water Regulations.
<i>Williams v. Emplrs. Mut. Cas. Co.</i> , 845 F.3d 891, 904 (8th Cir. 2017).	“Radium is a solid that emits alpha particles.”	Merriam-Webster’s Collegiate Dictionary 1026 (11th ed. 2012)

In the context of determining the routineness and conventionality related to the historical state of the art, courts have also relied on scientific and technological facts from industry-specific authorities. Notably, in both *Bilski* and *Alice*, the Supreme Court relied on a number of economics textbooks and expert studies to determine whether the business methods in these cases were well-known. The following Table illustrates the authorities the Supreme Court relied on in *Bilski* and *Alice*.

Table 4. The authorities the Supreme Court relied on in *Bilski* and *Alice*.

Cases	Judicially noticed fact	Authorities
<i>Bilski v. Kappos</i> , 561 U.S. 593, 611 (2010).	“Hedging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class.”	Introduction to Derivative Financial Instruments (2008). Financial Accounting: An Introduction to Concepts, Methods, and Uses (13th ed. 2010). Fundamentals of Corporate Finance (8th ed. 2008).
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int’l</i> , 573 U.S. 208, 219–20 (2014).	“The concept of intermediated settlement is a fundamental economic practice long prevalent in our system of commerce.”	Studies in History, Economics and Public Law (1896). Risk Management and Financial Institutions (3d ed. 2012).

The rapid emergence of online information sources in recent years has greatly expanded the potential sources available for judicial notice. However, since judicial notice preempts the opportunity to “use rebuttal evidence, cross-examination, and argument to attack contrary evidence,” courts need to use caution to determine the reliability of the sources, so that judicially noticed facts are beyond reasonable controversy.¹⁹⁸ Recognizing the risk of trusting unreliable sources, some courts maintain a more rigid standard for judicial notice, while switching to a more flexible standard for expert witness.¹⁹⁹

Legal scholars have proposed practical criteria in assessing the reliability of online sources, and encouraged the courts to examine at least three factors of the online source: “(1) knowledge of the subject matter, (2) independence from relevant bias, and (3) incentive to ensure accuracy.”²⁰⁰ First, the author’s expertise is most important in assessing whether an online source can be relied upon for judicial notice. Courts should take judicial notice relying on internet sources that “exist solely to disseminate the findings of exceedingly qualified experts to the public.”²⁰¹ In addition, courts should also consider potential bias in assessing whether an online source is reliable. An online source providing expert knowledge may nevertheless be unreliable if it presents the knowledge to advance its own agenda. Therefore, courts should favor information provided by government agencies or unbiased public organizations over that provided by private parties who may have conflicts of interest.²⁰² Courts should also consider whether an online source is incentivized to invest resources to keep the published information accurate. Online sources that suffer consequences, either in authoritative status or in economic interest, when the information they provide is out of date are more incentivized to ensure the accuracy of their information.²⁰³ A candid assessment of these three

198. See Barger, *supra* note 172, at 49.

199. See Onstott, *supra* note 173, at 476 (“Even states that have adopted *Dauber’s* admissibility standard, thereby rejecting the *Frye* test for admissibility, continue to treat *Frye’s* application to judicial notice positively.”).

200. Jeffrey Bellin & Andrew Guthrie Ferguson, *Trial by Google: Judicial Notice in the Information Age*, 108 NW. U. L. REV. 1137, 1167 (2014).

201. *Id.*; see, e.g., *City of Monroe Emps. Ret. Sys. v. Bridgestone Corp.*, 399 F.3d 651, 655 n.1 (6th Cir. 2005) (taking judicial notice of information on the National Association of Securities Dealers, Inc. (NASD) website); *Gent v. CUNA Mut. Ins. Soc’y*, 611 F.3d 79, 84 n.5 (1st Cir. 2010) (taking judicial notice of information on the Center for Disease Control and Prevention (CDC) website).

202. See, e.g., *Exxon Shipping Co. v. Baker*, 554 U.S. 471, 501 n.17 (2008) (declining to rely on research funded in part by Exxon).

203. See Bellin & Ferguson, *supra* note 200, at 1170.

factors, some legal scholars argue, will result in “numerous determinations that reputable online sources come within Rule 201’s scope for judicial notice.”²⁰⁴

3. *The Application of Judicial Notice in Berkheimer and Aatrix*²⁰⁵

In *Berkheimer*, judicial notice would not satisfy the “general knowledge” standard, but could be appropriate under the “reliable source” approach. The patent owner in *Berkheimer* asserted that the “inventive concept” in the patent claim at issue lay in the fact that the claimed invention improved computer functionality.²⁰⁶ Conventional digital asset management systems at the time included “numerous documents containing multiple instances of redundant document elements,”²⁰⁷ which led to “inefficiencies and increased costs.”²⁰⁸ To solve this problem, the specification of the patent at issue described an inventive feature that stored data in an unconventional manner via eliminating redundancy and enabling one-to-many editing. Therefore, the claimed invention increased efficiency and computer functionality over the prior art systems.²⁰⁹

In order to assess whether judicial notice is proper under the “general knowledge” approach, we first ask whether the general public could have an accurate understanding of the state of the art of the industry in the asserted claims. The claims are directed to a data management algorithm. While it is fair to say that the general public may have some experience interacting with the front end client interface of some data management systems in daily life, it is unlikely that the general public is familiar with the development of the data management algorithms at the back end of the systems. Therefore, there is hardly any meaningful “general knowledge” that could support any judicial notice in assessing the routineness and conventionality of the asserted invention at issue.

Even if we assume that the frequent use of data management systems today could familiarize the general public with the industry as a whole, it would still be questionable whether the general public could accurately assess the state

204. *Id.* at 1167–68.

205. The key facts related to the discussion of judicial notice in *Berkheimer* and *Aatrix* are very similar. The patents in both cases involve computer-implemented data processing methods first filed at the USPTO more than a decade ago. The patent owners in both cases claimed the existence of “inventive concept,” thus creating factual disputes in the pre-trial stages of the litigation. As such, the application of judicial notice in *Berkheimer*, as discussed in this Section, would also apply to *Aatrix*. For the purpose of reducing redundancy, the discussion of *Aatrix* is omitted.

206. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

207. *Id.*

208. *Id.*

209. *Id.*

of the art of the data management industry some twenty years ago when the patent application was filed.²¹⁰ Even skilled persons in the art, who have a solid understanding of the development of data management algorithms, are susceptible to hindsight bias when they assess the state of the art twenty years ago solely based on their recollection and common sense. Therefore, under the “general knowledge” approach, it would be improper for the court to take judicial notice of historical state of the art to assess whether the asserted claims in *Berkheimer* only recited well-known, routine and conventional activities at *Mayo/Alice* step two.

Applying the “reliable source” approach to *Berkheimer*, the Federal Circuit correctly took judicial notice of the patent at issue. Patents are public record, and the accuracy of patent information can be verified by consulting the database maintained by the USPTO. In addition, courts can take judicial notice at any stage of a proceeding, including when a case is on appeal.²¹¹ In the specification of the judicially noticed patent, the patent owner included statements asserting the inventive concept at *Mayo/Alice* step two. The Federal Circuit correctly ruled the case based on the presence of these statements. Since the challenger of patent validity did not provide any judicially noticeable evidence that could negate the asserted inventive concept by the patent owner,²¹² the mere presence of the patent owner statements in the specification was sufficient to introduce genuine dispute of material fact regarding the determination of patent eligibility. Therefore, due to the factual dispute, the Federal Circuit correctly vacated lower court’s summary judgment.

In *Berkheimer*, neither the parties nor the courts referred to any reliable authoritative source for judicially noticeable scientific facts pertinent to the routineness and conventionality of the claimed data management algorithm. However, if we assume that a reputable algorithm textbook, a widely-accepted data management manual, or an unbiased, up-to-date website providing expert information had described the features recited in the asserted patent as well-known, routine, or conventional as of the filing date of the patent, it would have been appropriate for the court to take judicial notice of such description and to treat it as true when deciding pre-trial motions on the § 101 patent eligibility issues.

210. The priority date of the patent at issue, U.S. Patent No. 7,447,713, is October 13, 2000.

211. See FED. R. EVID. 201(d).

212. See *Berkheimer*, 881 F.3d at 1368 (“[W]hether the claimed invention is well-understood, routine, and conventional is an underlying fact question for which HP offered no evidence.”).

The routineness and conventionality in patent eligibility often involve scientific and technological details that are industry-specific. As such, the application of judicial notice in the determination of patent subject matter eligibility under § 101 may require some delicate customization. As the court of appeals specialized in patent-related issues, it is incumbent on the Federal Circuit to establish sensible principles for taking judicial notice in the context of patent law. Although the Federal Circuit in *Berkheimer* and *Aatrix* confirmed the applicability of judicial notice in the determination of routineness and conventionality at *Mayo/Alice* step two,²¹³ it unfortunately did not seize the opportunity to further provide practical guidance on how to take advantage of this evidentiary tool. Therefore, the application of judicial notice in the context of patent subject matter eligibility is still only guided by comparisons from other areas of law.

V. CONCLUSION

The Federal Circuit in *Berkheimer* and *Aatrix* correctly identified that the inquiries of routineness and conventionality at *Mayo/Alice* step two were issues of fact. Patent eligibility under § 101, although ultimately an issue of law, is informed by underlying facts. Emphasizing the importance of compliance with civil procedure rules in the cases involving patent subject matter eligibility issues, the Federal Circuit effectively regularized these cases within the existing civil litigation system and eliminated much of the uncertainties surrounding the evidentiary standard in determining patent subject matter eligibility.

As an evidentiary tool at courts' disposal, judicial notice could play an important role in the pre-trial disposition of patent subject matter eligibility disputes. In *Berkheimer* and *Aatrix*, the Federal Circuit, however, missed out on the opportunity to provide guidance on the use of judicial notice in determining routineness and conventionality at *Mayo/Alice* step two. Applying the statutory requirements for judicial notice, courts should be extremely cautious about using the "general knowledge" approach to determine routineness and conventionality. However, courts can take judicial notice under the "reliable source" approach if the facts pertinent to routineness and conventionality are from sources that are authoritative, unbiased, and up-to-date.

213. See *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1372 (Fed. Cir. 2018) (en banc) (Moore, J. concurring) (holding that a court need not accept as true allegations that contradict matters properly subject to judicial notice); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1358 (Fed. Cir. 2018) (en banc) (Moore, J., concurring) (also holding that a court need not accept as true allegations that contradict matters properly subject to judicial notice).

WILLIAMS V. GAYE: BLURRING THE LINES OF COPYRIGHT INFRINGEMENT IN MUSIC

Paymaneh Parhami[†]

I. INTRODUCTION

Music is one of the oldest and most widely enjoyed modes of artistic expression, yet the protection it receives under copyright law remains a subject of continuing debate. When composers draw inspiration from previous works in the creation of their own new works, to what extent should the law control, penalize, or compensate for the use of such inspiration? Contemporary singer-songwriters Pharrell Williams, Robin Thicke, and Clifford Harris, Jr., composers of the 2013 global best-selling single “Blurred Lines,”¹ proudly revealed in several interviews that they had received inspiration for their hit song from Marvin Gaye’s 1977 hit song “Got to Give It Up.”² This revelation inspired a flurry of events that began with a copyright infringement demand by Marvin Gaye’s children on Thicke and Williams, and culminated in the Central District of California’s affirmation of a jury verdict of infringement, awarding the Gayes \$3,188,527.50 in actual damages, profits of \$1,768,191.88 against Thicke, and \$357,630.96 against Williams and More Water from Nazareth Publishing, and a running royalty of 50% of the future songwriting and publishing revenues from “Blurred Lines.”³

The Ninth Circuit affirmed this verdict in *Williams v. Gaye* on March 21, 2018, holding that “Blurred Lines” did in fact infringe the Gayes’ copyright in “Got to Give it Up.”⁴ The court accepted the district court’s characterization of the issue as a factual one, and reasoned that the jury had correctly confined

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. *See Williams v. Bridgeport Music*, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500 (C.D. Cal. July 14, 2015).

2. Stelios Phili, *Robin Thicke on That Banned Video, Collaborating with 2 Chainz and Kendrick Lamar, and His New Film*, GQ (May 6, 2013), <https://www.gq.com/story/robin-thicke-interview-blurred-lines-music-video-collaborating-with-2-chainz-and-kendrick-lamar-mercy> [<https://perma.cc/JJX3-5TBS>] (On the origin of “Blurred Lines,” Robin Thicke stated, “Pharrell and I were in the studio and I told him that one of my favorite songs of all time was Marvin Gaye’s ‘Got to Give It Up.’ I was like, ‘Damn, we should make something like that, something with that groove.’”).

3. *See Bridgeport Music*, 2015 WL 4479500.

4. *Williams v. Gaye*, 885 F.3d 1150, 1160 (9th Cir. 2018).

its analysis to solely protectable elements since it only considered the sheet music of “Got to Give It Up” on file at the Copyright Office.⁵

When asked about his reaction to the jury verdict, Robin Thicke emphasized that he “know[s] the difference between inspiration and theft. I’m constantly inspired, but I would never steal.”⁶ The Ninth Circuit’s decision, however, blurs this line between inspiration and theft. By failing to distinguish between protectable and unprotectable elements in music, the Ninth Circuit ignores the various limiting doctrines of copyright law that exclude certain elements from legal protection. Its decision imposes a chilling effect on musical creativity and innovation by leaving the door open for future composers to seek copyright protection over entire styles and grooves.

This Note seeks to show how a particular limiting doctrine of copyright law, the *scenes a faire* doctrine, constitutes an already-existing yet underutilized tool that can bring the tradition and necessity of sharing common elements in music into legal consideration. Part II introduces the various legal rules for determining copyright infringement, with a particular emphasis on the Ninth Circuit’s controversial approach. Part III summarizes the facts and holding of *Williams v. Gaye*. Part IV first argues that the protectability of musical elements should be a question of law, not fact. Second, it shows how courts have used the *scenes a faire* doctrine in music cases to exclude common elements from protection. Third, it argues that both the traditions in music history and the necessities of musical innovation require the sharing of common elements between works. Finally, it provides some examples of alleged similar elements between “Blurred Lines” and “Got to Give It Up” and shows how each should have been classified as *scenes a faire*, hence falling out of the scope of copyright protection. Part V concludes with an overarching suggestion for future courts and also highlights one possible avenue for reform.

II. LEGAL BACKGROUND

A. COPYRIGHT INFRINGEMENT FOR MUSICAL WORKS

1. *Proving Copyright Infringement Requires a Showing of Copying and Improper Appropriation*

When determining copyright infringement generally, courts require a showing of both copying and improper appropriation.⁷ Copying signifies that the work was copied from an existing copyrighted work rather than

5. *Id.* at 1169.

6. Jody Rosen, *Robin Thicke on ‘Blurred Lines’ and Learning From His Mistakes*, N.Y. TIMES (July 1, 2015), <https://www.nytimes.com/2015/07/05/arts/music/robin-thicke-on-blurred-lines-and-learning-from-his-mistakes.html> [https://perma.cc/2NRZ-PTVA].

7. See PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 10.0, 10:1–2 (3d ed. 2018).

independently created.⁸ Improper appropriation indicates that the defendant copied too much protected expression—in other words, actionable copying as a legal proposition.⁹ In theory, each of these tests should constitute a separate stage of analysis.¹⁰ In *Arnstein v. Porter*, a musical infringement case, the Second Circuit described the tests for copyright infringement in a clear and systematic fashion.¹¹ The court noted that only after copying is established, either by direct or circumstantial evidence, does the issue of improper appropriation arise.¹² In practice, however, courts sometimes blend these two steps or use some of the same evidence to prove both copying and improper appropriation.¹³

To determine copying, courts use both direct and circumstantial evidence.¹⁴ In some cases, courts use direct evidence to prove that the defendant copied from the plaintiff's composition.¹⁵ Courts, however, routinely rely on circumstantial evidence to prove copying.¹⁶ There are two typical types of circumstantial evidence: access (proven through wide dissemination or dealings with a publisher or record company) and substantial similarity (proven through melodic, harmonic, and rhythmic similarities and/or parallel musical “errors”).¹⁷ The Ninth Circuit, using the inverse ratio rule, allows higher showings of access to lower the degree of substantial similarity required, and vice versa.¹⁸

To determine improper appropriation, courts use a variety of tests that operate somewhat differently depending on the subject matter of the works in question.¹⁹ In musical infringement cases, courts typically apply the protected

8. 2 MELVILLE D. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.01[A] (2018).

9. 4 MELVILLE D. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.01[B] (2018).

10. *Id.*

11. *Arnstein v. Porter*, 154 F.2d 464 (2d Cir. 1946).

12. *Id.* at 468.

13. *See* GOLDSTEIN, *supra* note 7, at § 10.3, 10:44–46.

14. *Id.* at 10:46.

15. *See, e.g.*, *Selle v. Gibb*, 741 F.2d 896 (7th Cir. 1984).

16. *See, e.g.*, *Benson v. Coca-Cola Co.*, 795 F.2d 973, 975 (11th Cir. 1986); *Nom Music, Inc. v. Kaslin*, 227 F. Supp. 922, 927 (S.D.N.Y. 1973).

17. *See, e.g.*, *Ferguson v. Nat'l Broad. Co.*, 584 F.2d 111, 113 (5th Cir. 1978); *ABKO Music, Inc. v. Harrison Music, Ltd.*, 722 F.2d 988 (2d Cir. 1983); *Nordstrom v. Radio Corp. of Am.*, 251 F. Supp. 41, 42 (D. Colo. 1965) (holding that defendant's composition replicated “plaintiff's error in introducing eight bars of new material from the twenty-fifth to the thirty-second bars of his song, rather than only four bars needed to complete the correct metric structure”).

18. *See, e.g.*, *Smith v. Jackson*, 84 F.3d 1213, 1218 (9th Cir. 1996).

19. *See* GOLDSTEIN, *supra* note 7, at 10:2.

expression and audience tests to determine improper appropriation.²⁰ The protected expression test requires the plaintiff to show that at least some of the elements that the defendant copied constitute protected subject matter.²¹ To determine protected expression, courts must usually first dissect the plaintiff's composition to determine which elements are protectable by copyright law, and then dissect the defendant's work to determine which of the plaintiff's protected elements it copied.²² Courts essentially take a qualitative approach to determining protected subject matter, as they consistently reject quantitative approaches such as the "six bar rule" that reflects some musicians' apparent belief that any phrase less than six bars long can be copied by others.²³ Courts usually focus heavily on melody, since it offers the greatest potential for originality and memorability, although they have sometimes protected rhythm, harmony, and tone color as well.²⁴

2. *Limiting Doctrines Filter Out Unprotectable Elements from Copyright Protection*

Courts also use a variety of doctrines to identify and filter out unprotectable elements from copyright protection as part of the protected expression analysis.²⁵ For one, the "idea/expression" dichotomy reflects the doctrine that only expressions of ideas, not ideas themselves, may be protected by copyright; thus, all unprotectible "ideas" must be filtered out from the analysis.²⁶ This boundary between "idea" and "expression," however, is imprecise. As Judge Learned Hand observed: "Nobody has ever been able to fix that boundary, and nobody ever can."²⁷ "No principle can be stated as to when an imitator has gone beyond copying the 'idea,' and has borrowed its 'expression.' Decisions must therefore inevitably be *ad hoc*."²⁸ In the context of music, the Supreme Court stated: "A musical composition is an intellectual creation which first exists in the mind of the composer The statute has

20. *See id.* at 10:2–3. In cases involving literary works, however, courts rarely apply the audience test explicitly, focusing instead on the protected expression test. In cases involving pictorial and sculptural works, courts sometimes decline to test protected expression and focus instead on the audience test. In cases involving factual and functional works, such as computer programs, courts tend to focus primarily on protected expression.

21. *Id.* at 10:1.

22. *Id.* at 10:52.

23. *Id.* at 10:52–53.

24. *See, e.g.,* *N. Music Corp. v. King Record Distrib. Co.*, 105 F. Supp. 393, 397 (S.D.N.Y. 1952) ("[W]e find that the rhythmic pattern of both songs in suit is virtually identical and that the high point of the melody of each song occurs at precisely the same place.").

25. *See* NIMMER & NIMMER, *supra* note 9, at § 13.03[B][2].

26. *See* 17 U.S.C. § 102(b) (2018); *see also* *Mazer v. Stein*, 347 U.S. 201, 217 (1954) ("Copyright . . . protection is given only to the expression of an idea—not the idea itself.").

27. *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930).

28. *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960).

not provided for the protection of the intellectual conception apart from the thing produced.”²⁹ Over time, the idea/expression doctrine has evolved to the point where “idea” simply means everything that is not expression.³⁰ 17 U.S.C. § 102(b) lists a whole category of items to be excluded from copyright protection, such as procedures, systems, processes, methods of operation, principles, and concepts.³¹ The term “idea” has come to refer to all of these unprotected categories.³²

Additionally, copyright does not protect material in the public domain, even when incorporated into a copyrighted work.³³ The public domain refers to a “hodgepodge of unprotectible matter [created] without overarching justification” by the Copyright Acts of 1909 and 1976, court decisions, and Copyright Office regulations.³⁴ Some common categories of the public domain include works whose copyright has expired, works whose copyright protection was forfeited, works ineligible for copyright protection, and/or works dedicated to the public domain.³⁵ The Ninth Circuit has warned that “we must be careful in copyright cases not to cheat the public domain.”³⁶

The doctrines of merger and *scenes a faire* also render certain elements uncopyrightable.³⁷ The merger doctrine states that when expression “merges” with idea, such that a given idea is inseparably tied to expression, the expression may be freely copied in order to avoid conferring a monopoly over the idea itself.³⁸ The idea and expression are said to have “merged” where there is essentially only one way, or a very limited number of ways, to express the idea, or where the “expression is essential to the statement of the idea.”³⁹ For similar reasons, the *scenes a faire* doctrine (in French, meaning “scenes that must be done”) precludes certain elements that are standard, stock, or common in

29. *White-Smith Music Co. v. Apollo Co.*, 209 U.S. 1, 17 (1908).

30. See GOLDSTEIN, *supra* note 7, at 2.3.1.

31. See 17 U.S.C. § 102(b) (2018).

32. See GOLDSTEIN, *supra* note 7, at 2.3.1.

33. See, e.g., *Autoskill Inc. v. Nat’l Educ. Support Sys., Inc.*, 994 F.2d 1476, 1494 (10th Cir. 1993), *cert. denied*, 510 U.S. 916 (1993); see also *Comput. Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693, 710 (2d Cir. 1992) (“Such material is free for the taking . . .”).

34. Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 976 (1990).

35. See Pamela Samuelson, *Mapping the Digital Public Domain: Threats and Opportunities*, in *LAND AND CONTEMPORARY PROBLEMS* 147, 149–50 (James Boyle, ed., 2003).

36. *Satava v. Lowry*, 323 F.3d 805, 813 (9th Cir. 2003).

37. See NIMMER & NIMMER, *supra* note 9, at § 13.03[A][4].

38. See *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 535 (6th Cir. 2004).

39. *CCC Info. Servs. v. MacLean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 68 (2d Cir. 1994); see also *Warren Publ’g, Inc. v. Microdos Data Corp.*, 115 F.3d 1509, 1519 n.27 (11th Cir. 1997).

a particular category from copyright protection.⁴⁰ These elements follow naturally from a work's theme rather than from the author's creativity.⁴¹ For example, "foot chases and the morale problems of policemen, not to mention the familiar figure of the Irish cop, are venerable and often-recurring themes of police fiction," and hence not protectable.⁴² In the context of music, one court stated that choosing a barroom with a jukebox as the setting in which to unfold the familiar theme of a broken-hearted lover seeking solace in country music "cannot be attributed to any unique creativity on the part of the songwriter."⁴³

After applying the protected expression test in which unprotectible elements are filtered out, courts will then apply the audience test, which requires that the intended audience find elements in the defendant's work to be substantially similar to protected elements in the plaintiff's work.⁴⁴ The audience test poses the problem that sometimes works, which upon dissection appear the same, note-for-note, may sound different to the intended audience, while works that are different upon dissection may sound similar to the intended audience.⁴⁵

Each of these tests and subtests for copying and improper appropriation poses unique challenges for courts that consider copyright infringement in musical works. The vocabulary of music (twelve notes) is much more limited than the vocabulary of literature, drama, and the visual arts.⁴⁶ Further, "while there are an enormous number of possible permutations of the musical notes of the scale, only a few are pleasing; and much fewer still suit the infantile demands of the popular ear."⁴⁷ There are also a limited number of tempos and rhythms, and "these appear to have been long since exhausted; originality of rhythm is a rarity, if not an impossibility."⁴⁸ The limited vocabulary and tools of music composition decrease the likelihood that similarities alone can prove copying.⁴⁹ As the Second Circuit stated, "with the relatively few musical

40. See NIMMER & NIMMER, *supra* note 9, at § 13.03[F][3].

41. See *Murray Hill Publ'ns, Inc. v. Twentieth Century Fox Film Corp.*, 361 F.3d 312, 319 (6th Cir. 2004).

42. *Walker v. Time Life Films, Inc.*, 784 F.2d 44, 50 (2d Cir. 1986).

43. *Black v. Gosdin*, 740 F. Supp. 1288, 1293 (M.D. Tenn. 1990).

44. See GOLDSTEIN, *supra* note 7, at 10:1–2.

45. See Jeffrey G. Sherman, *Musical Copyright Infringement: The Requirement of Substantial Similarity*, 22 COPYRIGHT L. SYMP. (ASCAP) 81 (1977).

46. See generally DAVID BOYDEN, *AN INTRODUCTION TO MUSIC* (2d ed. 1971).

47. *Darrell v. Joe Morris Music Co.*, 113 F.2d 80, 80 (2d Cir. 1940).

48. *N. Music Corp. v. King Record Distrib. Co.*, 105 F. Supp. 393, 400 (S.D.N.Y. 1952).

49. See, e.g., *Stratchborneo v. Arc Music Corp.*, 357 F. Supp. 1393, 1403 (S.D.N.Y. 1973) (holding that striking similarities that suffice to conclude issue of copying apart from proof of access must be "of a kind that can only be explained by copying, rather than by coincidence,

intervals that exist and the vast amount of music in the public domain it is rash to infer that a sequence that may be found in a melody is copied from any particular song containing the same sequence, rather than taken from other sources.”⁵⁰ The limited musical tools also decrease the value of similarities in proving improper appropriation, since fewer musical phrases will merit copyright protection.⁵¹

3. *Ninth Circuit Approach to Determining Copyright Infringement*

The following two Sections discuss in further depth two tests unique to the Ninth Circuit’s approach to determining copyright infringement.

a) Inverse Ratio Rule for Copying

To establish copying, the Ninth Circuit uses the inverse ratio rule when assessing the “inextricable” relationship between access and substantial similarity.⁵² This rule operates like a sliding scale: the greater the showing of access, the lower the showing of substantial similarity is required.⁵³ Thus, a plaintiff’s “case is strengthened considerably by [the defendant’s] concession of access to their works.”⁵⁴ Likewise, the greater the showing of substantial similarity supporting an inference of copying, the lower the evidence of access need be.⁵⁵ The Ninth Circuit has explicitly stated that this rule “assists only in proving copying, not in proving unlawful appropriation.”⁵⁶ Thus, after proving copying rather than independent creation, the plaintiff must still prove that the defendant’s copying was of “protected expression that amounts to unlawful appropriation.”⁵⁷ The Second and Seventh Circuits reject the inverse ratio

independent creation, or prior common source”); *Jewel Music Publ’g Co. v. Leo Feist, Inc.*, 62 F. Supp. 596, 598 (S.D.N.Y. 1945) (“Similarity, even a striking similarity, may be arrived at honestly.”).

50. *Arnstein v. Broadcast Music*, 137 F.2d 410, 412 (2d Cir. 1943).

51. *See, e.g., Brodsky v. Universal Pictures Co.*, 149 F.2d 600, 601 (2d Cir. 1945) (“Everyone, acquainted with actions for the invasion of musical copyrights, knows how often the same short musical sequences recur spontaneously, and what a feeble proof of plagiarism is their reappearance in a later composition.”); *Granite Music Corp. v. United Artists Corp.*, 532 F.2d 718, 721 (9th Cir. 1976) (finding the four-note “building block” unprotectable).

52. *See Three Boys Music Corp. v. Bolton*, 212 F.3d 477, 485 (9th Cir. 2000).

53. *See id.* at 485.

54. *Metcalf v. Bochco*, 294 F.3d 1069, 1075 (9th Cir. 2002).

55. *See Rentmeester v. Nike, Inc.*, 883 F.3d 1111, 1124 (9th Cir. 2018).

56. *Id.*

57. *Id.*

rule.⁵⁸ The Second Circuit has referred to the rule as an “ingeniously fabricated principle of law” that has no basis in the federal law of copyright.⁵⁹

Commentators have also criticized the use of the inverse ratio rule to determine copying. For example, Melville Nimmer finds the notion that powerful proof of access “can substitute for demonstration of the requisite degree of substantial similarity” inherently flawed.⁶⁰ Since a defendant may have high access to a plaintiff’s work and still produce a non-actionable product, “access logically exerts no impact on copying as a legal matter.”⁶¹ William Patry reasons that “the inverse ratio theory confuses fundamental principles of infringement analysis: access is relevant only in establishing the act of copying, not in establishing the degree thereof.”⁶² In other words, higher showings of access should not lower the degree of substantial similarity required. Access should instead be treated as a fixed requirement that, once met, has no influence on the second requirement of substantial similarity. The Second Circuit, in its rejection of the theory, described it as “a superficially attractive apophthegmatic” that leads to the illogical outcome that proof of actual access will render a showing of similarities entirely unnecessary.⁶³ Nonetheless, the Ninth Circuit continues to use this test as the standard for determining the degree of substantial similarity required to prove copying.

b) Intrinsic and Extrinsic Tests for Substantial Similarity

Once the Ninth Circuit establishes copying, it then uses two tests—the intrinsic and extrinsic tests—to determine whether the plaintiff’s and defendant’s works are substantially similar for purposes of improper appropriation.⁶⁴ In order for a jury to make a finding of substantial similarity, it must find evidence on both tests.⁶⁵ The extrinsic test is objective, considering “whether two works share a similarity of ideas and expression as measured by external, objective criteria.”⁶⁶ The test requires “analytical dissection of a work and expert testimony.”⁶⁷ For analytical dissection, the works must be broken “down into their constituent elements” to compare “those elements for proof

58. See *Arc. Music Corp. v. Lee*, 296 F.2d 186 (2d Cir. 1961); see also *Peters v. West*, 692 F.3d 629 (7th Cir. 2012) (stating that it has never endorsed the proposition that “a ‘high degree of access’ justifies a ‘lower standard of proof’ for similarity”).

59. *Arc. Music Corp.*, 296 F.2d at 187.

60. NIMMER & NIMMER, *supra* note 9, at § 13.03[D].

61. *Id.*

62. 3 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 9:91 (2018).

63. *Arc. Music Corp.*, 296 F.2d at 187.

64. See *Swirsky v. Carey*, 376 F.3d 841, 845 (9th Cir. 2004).

65. See *Rice v. Fox Broad. Co.*, 330 F.3d 1170, 1174 (9th Cir. 2003).

66. *Swirsky*, 376 F.3d at 845.

67. *Id.*

of copying as measured by ‘substantial similarity.’”⁶⁸ On a motion for summary judgment, a district court applies only the extrinsic test, as the intrinsic test is left solely for the trier of fact.⁶⁹ The Ninth Circuit maintained that in analyzing musical compositions under the extrinsic test, it has “never announced a uniform set of factors to be used . . . music is comprised of a large array of elements, some combination of which is protectable by copyright.”⁷⁰ This dissection, however, requires the consideration of melody, harmony, rhythm, and tempo in combination—“to pull these elements out of a song individually, without looking at them in combination, is to perform an incomplete and distorted musicological analysis.”⁷¹

Conversely, the intrinsic test is subjective, asking “whether the ordinary, reasonable person would find the total concept and feel of the works to be substantially similar.”⁷² This test involves only the response of the ordinary observer—dissection and expert testimony are impermissible.⁷³ The trier of fact may “find that the over-all impact and effect indicate substantial appropriation,” even if “any one similarity taken by itself seems trivial.”⁷⁴

Not all circuits use the extrinsic and intrinsic tests as part of the infringement analysis. The Second Circuit, for example, uses a different two-step analysis, in which the first step—dissection—determines whether copying has occurred.⁷⁵ During this step, expert testimony may, but need not be, permitted.⁷⁶ If copying has been proven, the second step then determines whether the copied elements resulted in substantial similarity in expression between the parties’ works.⁷⁷ Expert testimony is not permitted at this step, with the exception of computer program infringement.⁷⁸ While the Second Circuit does often employ the Ninth Circuit’s intrinsic “total-concept-and-

68. *Rice v. Fox Broad. Co.*, 148 F. Supp. 2d 1029, 1051 (C.D. Cal. 2001).

69. *Benay v. Warner Bros. Entm’t, Inc.*, 607 F.3d 620, 624 (9th Cir. 2010).

70. *Swirsky*, 376 F.3d at 849.

71. *Id.* at 848.

72. *Pasillas v. McDonald’s Corp.*, 927 F.2d 440, 442 (9th Cir. 1991).

73. *See* PATRY, *supra* note 62, at § 9:235.

74. *Sid & Marty Krofft Television Prods., Inc. v. McDonald’s Corp.*, 562 F.2d 1157, 1169 (9th Cir. 1977).

75. *See* PATRY, *supra* note 62, at § 9:137; *Arnstein v. Porter*, 154 F.2d 464 (2d Cir. 1946) (providing a foundational opinion which established the basic two-step analysis); *see also* *Continental Casualty Co. v. Beardsley*, 253 F.2d 702 (2d Cir. 1958).

76. PATRY, *supra* note 62, at § 9:137.

77. *Id.*

78. *Id.*

feel” test as part of this second step, it does not split up the analysis into intrinsic and extrinsic stages.⁷⁹

Some scholars have criticized the Ninth Circuit’s use of the intrinsic and extrinsic tests in determining substantial similarity. For example, Patry questions, “why two different examinations of the same issue, similarity in expression?”⁸⁰ He maintains that the double examination of similarity is futile, and that “the only apparent difference between the objective and subjective inquiries is that the subjective inquiry is to be determined by the trier of fact acting as an ordinary observer without expert testimony, while the objective inquiry may be assisted by experts and ‘analytic dissection.’”⁸¹ In addition to being redundant, the objective test is not truly objective—“the reaction of an expert is every bit as subjective as that of a member of a jury.”⁸² Moreover, in the intrinsic analysis, the jury will find it hard to ignore the expert testimonies when determining substantial similarity.⁸³ Nimmer likewise criticizes the “total-concept-and-feel” test as “threatening to subvert the very essence of copyright,” since “concepts” should not be protectable by copyright law, and trying to capture the “feel” of a work runs counter to analysis.⁸⁴

Mark Lemley criticizes both the Ninth and Second Circuits’ approaches to determining substantial similarity, arguing that under these approaches jurors will not exclude unprotected material from comparison.⁸⁵ Since juries are not properly educated on the differences between protectable and unprotectable elements, they are more likely to find infringement where they should not.⁸⁶ For example, he notes, jurors will not know which elements are *scenes a faire*, and hence unprotectable, in the music industry without some expert testimony on standard chord progressions.⁸⁷ The intrinsic test, however, makes it impossible to use analytical dissection or expert testimony.⁸⁸ Thus, he maintains that expert testimony and dissection of elements should have a more central role in both the copying and improper appropriation prongs of

79. *Id.* at § 9:235; *see also* *Reyher v. Children’s Television Workshop*, 533 F.2d 87, 92 (2d Cir. 1976). Where parties’ works contain a significant amount of public domain material, the Second Circuit instead uses the “more-discerning-observer” test, which requires that public domain materials be left out of the comparison of the look and feel of the two works. *See* PATRY, *supra* note 62, at § 9:137.

80. PATRY, *supra* note 62, at § 9:235.

81. *Id.*

82. *Id.*

83. *Id.*

84. NIMMER & NIMMER, *supra* note 9, at § 13.03[A][1][c].

85. Mark A. Lemley, *Our Bizarre System for Proving Copyright Infringement*, 57 J. COPYRIGHT SOC’Y U.S.A. 719, 737–38 (2010).

86. *Id.* at 739.

87. *Id.* at 738.

88. *Id.*

analysis.⁸⁹ Further, the dissection of unprotectable elements could be treated as a question of law, not fact, reserving the question of whether the copying was unlawful for the court.⁹⁰

III. CASE SUMMARY

A. FACTS

“Blurred Lines” was the global best-selling single in 2013.⁹¹ In June 2012, Pharrell Williams and Robin Thicke wrote and recorded “Blurred Lines,” with Clifford Harris, Jr. separately writing and recording a rap verse that was added to the track seven months later.⁹² The song has been described as a “bubbly bit of disco-shuffling R&B” with racy content.⁹³ Others have noted its “blending [of] vintage funk and modern flair.”⁹⁴ While some of the technicalities were disputed at trial, the song was widely believed to sample and be inspired by the sound of Marvin Gaye’s song “Got to Give It Up.”⁹⁵

In 1977, Marvin Gaye released the hit song “Got to Give It Up,” reaching number one on Billboard’s Hot 100 that same year.⁹⁶ The song has disco and R&B influences, with doo-wop styled scatting and a funk and jazz-influenced vamp.⁹⁷ In 1977, Jobete Music Company, Inc. registered “Got to Give It Up” with the United States Copyright Office, depositing six pages of handwritten sheet music.⁹⁸ As Gaye did not write or read sheet music, an unidentified transcriber notated the sheet music, attributing the song’s words and music to

89. *Id.* at 740.

90. *Id.* at 741.

91. *Williams v. Gaye*, 885 F.3d 1150, 1160 (9th Cir. 2018).

92. *Id.*

93. Chris Payne, *R&B Single Review: “Blurred Lines” Robin Thicke*, BILLBOARD (Apr. 17, 2013), <https://www.billboard.com/biz/articles/news/1558928/rb-single-review-blurred-lines-robin-thicke> [https://perma.cc/58YC-YWPL].

94. Jackson Howard, *Single Review: Robin Thicke’s “Blurred Lines” Successfully Samples Classic Beats for Layered Product*, MICH. DAILY (Apr. 4, 2013), <https://www.michigandaily.com/arts/04single-review-robin-thicke-blurred-lines-successfully-samples-classic-beats-produce-layered-pr04> [https://perma.cc/3HKK-BJSH].

95. *See id.*; *see also* Phili, *supra* note 2. On the origin of “Blurred Lines,” Robin Thicke in an interview stated, “Pharrell and I were in the studio and I told him that one of my favorite songs of all time was Marvin Gaye’s ‘Got to Give It Up.’ I was like, ‘Damn, we should make something like that, something with that groove.’”

96. *Gaye*, 885 F.3d at 1160.

97. *See Got to Give It Up—Marvin Gaye Song Info*, ALLMUSIC, <https://www.allmusic.com/song/got-to-give-it-up-mt0030492705> [https://perma.cc/9SZ2-49ET] (last visited Dec. 23, 2019).

98. *See Gaye*, 885 F.3d at 1160.

Marvin Gaye.⁹⁹ The song is now owned by Frankie Christian Gaye, Nona Marvisa Gaye, and Marvin Gaye III, Gaye's children.¹⁰⁰

B. PROCEDURAL HISTORY

After hearing “Blurred Lines,” the Gayes made an infringement demand on Williams and Thicke, threatening to initiate litigation for copyright infringement if they did not pay a monetary settlement of the Gayes' claim.¹⁰¹ When negotiations failed, Thicke, Williams, and Harris (“Thicke Parties”) filed for a declaratory judgment of non-infringement in the United States District Court for the Central District of California on August 15, 2013.¹⁰² The Gayes counterclaimed against the Thicke Parties, alleging that “Blurred Lines” infringed the copyright in “Got to Give It Up.”¹⁰³

The district court denied the Thicke Parties' subsequent motion for summary judgment on October 30, 2014.¹⁰⁴ The court determined that the lead sheet music that Marvin Gaye deposited with the Copyright Office defined the scope of protectable materials since “Got to Give It Up” was registered while the 1909 Copyright Act was in effect.¹⁰⁵ The court thus confined its attention to the sheet music in conducting the extrinsic test for substantial similarity of the two works.¹⁰⁶ In support of their motion for summary judgment, the Thicke Parties presented evidence that some of the musical elements identified by Judith Finell, a musicologist employed by the Gayes as an expert witness, in her preliminary report and declaration appeared in the sound recording of “Got to Give It Up” but not in the deposit copy.¹⁰⁷ Thus, the court treated those elements as unprotected and filtered them out in its “analytic dissection” of the two works.¹⁰⁸ Even after this filtering, the court concluded that a reasonable jury could still find infringement, and thus sent the issue to trial.¹⁰⁹ It appears that at the summary judgment stage, the Thicke Parties did not

99. *See id.*

100. *See id.*

101. Complaint for Declaratory Relief, ¶ 16, Williams v. Bridgeport Music, No. LA CV13-06004 JAK (AGRx) (C.D. Cal. Aug. 15, 2013).

102. *Id.*

103. *Id.*

104. Williams v. Bridgeport Music, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500, at *5 (C.D. Cal. July 14, 2015).

105. *Id.* The 1909 Copyright Act, unlike the 1976 Act, required the use of visible notation to acquire protection in a composition. Therefore, under this Act, a musical work had to be reduced to sheet music or other manuscript form in order to obtain copyright protection. *See* 1 MELVILLE D. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.05[A] (2018).

106. *Bridgeport Music*, 2015 WL 4479500, at *5–6.

107. *Id.* at *5.

108. *Id.*

109. *Id.*

submit any further evidence showing the unprotectability of certain musical elements, nor did the court rule that any additional elements were unprotectable as a matter of law. The court simply filtered out the elements that were not present in the deposit copy, but treated all the elements in the deposit copy as protectable by copyright law without citing any rationales for this approach.

At trial, the court instructed the jury that it must find both access and substantial similarity, using the inverse ratio rule, to establish infringement.¹¹⁰ After a seven-day trial and a two-day deliberation period, the jury returned a verdict on March 10, 2015, finding by a preponderance of the evidence that the Thicke Parties “infringed the Gaye Parties’ copyright in the musical composition ‘Got to Give It Up’ in ‘Blurred Lines.’”¹¹¹ On May 1, 2015, the Thicke Parties moved for judgment as a matter of law (JMOL), declaratory relief, or a new trial.¹¹²

In their 50(b) motion for JMOL, the Thicke Parties argued that the musicologist Finell’s testimony should have been “precluded entirely,” and that the failure to do so or to hold a pretrial Daubert hearing constituted prejudicial error.¹¹³ They argued that reliable methodology did not support Finell’s opinion that certain elements were “implied” from the deposit copy even though they did not actually appear in it.¹¹⁴ Further, they argued that the jurors were exposed to unprotected musical elements about which they should not have heard.¹¹⁵ In rejecting this argument, the court stated that the protectability of the four-note “Theme X” sequence “was a question of fact for which expert testimony was appropriate [emphasis added].”¹¹⁶

The district court also denied the Thicke Parties’ request for a Rule 50(b) JMOL because they had failed to file a pre-verdict Rule 50(a) motion.¹¹⁷ While at the close of evidence on March 5, 2015, the Gayes stated their intention to “move under Rule 50 for judgment as a matter of law,” the Thicke Parties simply opposed this motion without explicitly moving for JMOL or stating an intent to do so.¹¹⁸ Thus, the court stated that the Thicke Parties had waived the right to move for JMOL and that “at most, they may seek review of the sufficiency of the evidence in support of the verdict to determine whether

110. *Id.*

111. *Id.* at *1. The jury also found that Harris and the Interscope Parties did not infringe this copyright.

112. *Id.* at *2.

113. *Id.* at *6.

114. *Id.*

115. *Id.*

116. *Id.* at *7 (emphasis added).

117. *Id.* at *3–4.

118. *Id.* at *4.

there was plain error.”¹¹⁹ Even if proper Rule 50(a) and 50(b) motions had been filed and the verdict were reviewed under the substantial evidence standard (a lower burden for the moving party than plain error), the court decided that the Thicke Parties had not shown that such relief was warranted.¹²⁰ Additionally, the court denied the Thicke Parties’ request for retrial because they had not demonstrated that the clear weight of the evidence, an even lower burden than the substantial evidence standard, favored retrial.¹²¹

In denying the defendants’ motion for JMOL, the court defined the question of protectability of musical elements as a factual question for the jury. Additionally, it relegated authority on this question to the musical expert employed by the Gayes. The court did not cite any authorities for treating the protectability of musical elements as a factual question, nor did it outline any relevant legal standards to which the jury or the musical experts should have adhered when deciding which elements were protectable. While the Thicke Parties admitted audio examples of prior art to argue that some elements of “Got to Give It Up” were unprotected *scenes a faire*, the court did not comment further or engage with this argument.¹²²

After rejecting additional arguments by the Thicke Parties and consistently deeming extrinsic similarity as “a matter on which reasonable experts could disagree,”¹²³ the district court affirmed the jury verdict of infringement.¹²⁴ It awarded the Gayes \$3,188,527.50 in actual damages, profits of \$1,768,191.88 against Thicke, and \$357,630.96 against Williams and More Water from Nazareth Publishing, and a running royalty of 50% of the Thicke Parties’ future songwriting and publishing revenues.¹²⁵ The court denied the Gayes’ motion for attorney’s fees and apportioned costs between the parties.¹²⁶ Both parties appealed.¹²⁷

On March 21, 2018, the Ninth Circuit affirmed on narrow grounds the district court’s ruling that “Blurred Lines” infringed the Gayes’ copyright in “Got to Give It Up.”¹²⁸ The court affirmed the district court’s instruction to the jury that it must find both access and substantial similarity to establish infringement using the inverse ratio rule, and that a finding of substantial

119. *Id.*

120. *Id.*

121. *Id.*

122. *Id.* at *11.

123. *Id.* at *9.

124. *Id.* at *47.

125. *Id.* at *47–48.

126. *Id.*

127. *Williams v. Gaye*, 885 F.3d 1150, 1163 (9th Cir. 2018).

128. *Id.* at 1160.

similarity must involve both extrinsic and intrinsic tests.¹²⁹ The court rejected the Thicke Parties' argument that the Gayes' copyright has only thin protection, reasoning instead that musical compositions are not confined to a narrow range of expression.¹³⁰ While noting that the issue remains unsettled, the court accepted, without deciding, the merits of the district court's ruling that the scope of the defendants' copyright was limited to the sheet music deposited with the Copyright Office, and did not extend to sound recordings, since "Got to Give It Up" was composed pre-1978 and thus fell under the 1909 Act.¹³¹

The court concluded that the district court's order denying summary judgment was not reviewable after a full trial on the merits, and that the district court did not abuse its discretion in denying a new trial.¹³² Further, the court held that the district court did not erroneously instruct the jury to consider unprotectable elements of "Got to Give It Up."¹³³ The court reasoned that the jury instruction was correct because the district court made clear that "the jury could consider only elements in the deposit copy."¹³⁴ Thus, "since the district court instructed the jurors that the deposit copy, not the commercial sound recording, was the copyrighted work in the case," the Ninth Circuit concluded that the jurors had correctly confined their analysis to solely protectable elements.¹³⁵

Additionally, the Ninth Circuit held that the district court did not abuse its discretion in admitting portions of Finell's testimonies.¹³⁶ Finally, the court held that the verdict was not against the clear weight of the evidence because there was at least some evidence of extrinsic and intrinsic similarity between the two songs.¹³⁷

Judge Jacqueline Nguyen wrote a vigorous dissenting opinion, arguing that the majority allows the Gayes to copyright a musical style, that the two songs are not objectively similar, and that the majority sets a dangerous precedent for future musicians and composers.¹³⁸ She noted that the *scenes a faire* doctrine bars common, stock, or standard elements from copyright protection, but did

129. *Id.* at 1163–64.

130. *Id.* at 1164–65.

131. *Id.* at 1165–66.

132. *Id.* at 1166–67.

133. *Id.* at 1168–70.

134. *Id.* at 1169.

135. *Id.*

136. *Id.* at 1170–71.

137. *Id.* at 1171–72.

138. *Id.* at 1183–97 (Nguyen, J., dissenting).

not elaborate on which specific elements in the works at hand were unprotectable under this doctrine.¹³⁹

The majority retorted that even if Judge Nguyen’s musical analysis were correct, the procedural limitations of this particular case prevented them from entering JMOL for the Thicke Parties.¹⁴⁰ The *scenes a faire* doctrine was only mentioned once by the majority in a footnote.¹⁴¹ Judge Nguyen replied that the majority relied too heavily on musical experts and mischaracterized the dispute as a factual one, when in fact “the only dispute regarding these similarities is their legal import—are the elements protectable, and are the similarities substantial enough to support liability for infringement?”¹⁴²

IV. ANALYSIS

Part IV first argues that the protectability of musical elements should be a question of law, not fact. Second, it shows how courts have used the *scenes a faire* doctrine generally and in music cases particularly to exclude common elements from protection. Third, it argues that both the traditions in music history and the necessities of musical innovation require the sharing of common elements between works. Finally, it provides some examples of alleged similar elements between “Blurred Lines” and “Got to Give It Up” and shows how each should have been classified as *scenes a faire*, hence falling out of the scope of copyright protection.

A. PROTECTABILITY OF MUSICAL ELEMENTS SHOULD BE A QUESTION OF LAW, NOT FACT

The Ninth Circuit majority argued that the procedural constraints of this case limited them to reach their outcome.¹⁴³ Although the majority contended that it could not review the district court’s denial of summary judgment for legal error after a full trial on the merits, it recognized that an exception to this general rule exists.¹⁴⁴ According to *Escriba v. Foster Poultry Farms, Inc.*, the Ninth Circuit may review “denials of summary judgment motions where the district court made an error of law that, if not made, would have required the district court to grant the motion.”¹⁴⁵ The problem here lies in the fact that the Ninth Circuit did not view the Thicke Parties’ arguments as “‘purely legal’ issues

139. *See id.* at 1185.

140. *Id.* at 1178 (majority opinion).

141. *Id.* at 1164.

142. *Id.* at 1195 (Nguyen, J., dissenting).

143. *Id.* at 1166–67 (majority opinion).

144. *Id.* at 1166.

145. 743 F.3d 1236, 1243 (9th Cir. 2014) (quoting *Banuelos v. Constr. Laborers’ Tr. Funds for S. Cal.*, 382 F.3d 897, 902 (9th Cir. 2004)).

capable of resolution ‘with reference only to undisputed facts.’”¹⁴⁶ The extrinsic test for substantial similarity should be objective, involving expert testimony, analytical dissection, and filtration of unprotectable elements.¹⁴⁷ While not every expert will be credible or agree on each issue, the experts must nevertheless be subjected to objective legal standards and doctrines which remove certain elements from protection. Nevertheless, the Ninth Circuit contended that the district court’s application of the extrinsic test was a “factbound inquiry far afield from decisions resolving ‘disputes about the substance and clarity of pre-existing law.’”¹⁴⁸ The protectability of musical elements, however, should be considered a question of law, not fact.

As explained in Part II of this Note, courts routinely apply the protected expression test as part of the improper appropriation prong of the infringement analysis. Even in the Ninth Circuit’s unique tests of intrinsic and extrinsic similarity within the broader improper appropriation analysis, the extrinsic test should be objective and require analytical dissection of unprotectable elements according to the relevant limiting doctrines. Here, however, the Ninth Circuit erroneously contended that the protectability of musical elements was a question of fact, not law. If this were true, then the utilization of both intrinsic and extrinsic tests would be wholly redundant and unnecessary. This is because the main difference between the two tests lies in the identity of the test-conductor, with the extrinsic test conducted by experts and the court’s “analytical dissection,” while the intrinsic test is conducted by the jury—ordinary observers considering the total look and feel of the two works without expert testimony. If the Ninth Circuit defines the extrinsic test as a “factbound inquiry,”¹⁴⁹ then there would be no need for both intrinsic and extrinsic tests. Moreover, the fact that the extrinsic test is objective means that it must consider certain overarching standards, doctrines, and rules when determining whether the two works are substantially similar for purposes of improper appropriation.

It is true that the *application* of the extrinsic test relies on established facts in the record, and in its review of the district court’s application of this test, the Ninth Circuit would certainly be limited to solely reviewing the factual record established at trial. Here, however, the Ninth Circuit did not even attempt to review the record to determine whether legal error had taken place. As discussed in Part III, the Thicke Parties did not set forth robust arguments and evidence for why the *scenes a faire* doctrine rendered certain elements

146. *Ortiz v. Jordan*, 562 U.S. 180, 189 (2011); see *Gaye*, 885 F.3d at 1166.

147. See *supra* Part II.

148. *Gaye*, 885 F.3d at 1166 (quoting *Ortiz*, 562 U.S. at 189 (2011)).

149. *Id.*

commonplace and thus unprotectable.¹⁵⁰ Hence, if the Ninth Circuit had reviewed the district court's denial of summary judgment for legal error, it may have found the facts set forth by the Thicke Parties insufficient for reversing the district court's denial. On appeal, however, the Ninth Circuit's review of the district court's denial of summary judgment would have been not only possible but necessary to ensure that legal error had not occurred.

Moreover, the Ninth Circuit's assertion that the district court had not erroneously instructed the jury to consider unprotectable elements of "Got to Give It Up" was flawed. Just because the district court had instructed the jurors to confine their analysis to the elements present in the deposit copy did not necessarily mean that they correctly confined their analysis to solely protectable elements. If this were true, it would mean that all elements in the deposit copy are protectable by copyright. Without applying the protected expression test to the deposit copy, however, this conclusion is hasty and unfounded. The deposit copy could have contained, for example, unprotectable ideas, public domain elements, *scenes a faire* elements, and so on. As discussed later in this Note, the deposit copy did indeed contain many unprotectable *scenes a faire* elements.

Finally, the Ninth Circuit erroneously rejected the Thicke Parties' argument that "Got to Give It Up" enjoyed only thin protection.¹⁵¹ The Ninth Circuit has previously held that if a wide range of expression exists for a work, then copyright protection is "broad" and a work will infringe only if it is substantially similar to the copyrighted work.¹⁵² Conversely, if only a narrow range of expression is possible, then copyright protection is "thin" and a work must be virtually identical to infringe.¹⁵³ For example, there are many ways to make an aliens-attack movie, "but there are only so many ways to paint a red bouncy ball on blank canvas."¹⁵⁴ Thus, the former merits broad copyright protection, whereas the latter merits only thin protection. In this case, however, the Ninth Circuit contended that "musical compositions are not confined to a narrow range of expression," distinguishing music from a page-shaped computer desktop icon or a glass-in-glass jellyfish sculpture.¹⁵⁵ This line of reasoning fails to correctly identify the category in question. If the category were music in general, then it is true that a fairly wide range of expression would exist. But in music, the style and conventions of each genre constrain the range of possible expression. For example, the R&B genre uses predictable

150. *See supra* Section III.B.

151. *See id.* at 1164.

152. *Mattel, Inc. v. MGA Entm't, Inc.*, 616 F.3d 904, 913–17 (9th Cir. 2010).

153. *Id.* at 914.

154. *Id.* at 913–14.

155. *Gaye*, 885 F.3d at 1164–65.

patterns of chords and structure, characterized by the meshing of simple repetitive parts with mellow lyrics and tone.¹⁵⁶ In contrast, the classical genre is distinguished by the use of written musical notation that is strictly studied and followed before performance, with much less room for improvisation.¹⁵⁷ In this case, the correct category would be R&B/jazz/disco, not music generally. Moreover, as discussed in Part II, the range of expression for music is further constrained by the fact that the entire musical scale is comprised of only twelve notes, and only certain combinations of these notes sound aesthetically pleasing to the human ear.¹⁵⁸ Thus, “Got to Give It Up” should have enjoyed only thin protection, since the correct category is R&B/hip-hop, not music generally, and the range of expression within this genre is constrained by the common style and musical conventions associated with it.

Especially for, but not limited to, works with only thin protection, courts must explicitly elucidate which elements or categories of elements are unprotectable under the various limiting doctrines such as the *scenes a faire* doctrine. As Pamela Samuelson highlights, courts have traditionally neglected to identify the relevant categories that should be filtered out of copyright protection, such as processes, systems, public domain elements, and *scenes a faire* elements.¹⁵⁹ Although not every category of unprotectable element will be present in every work, courts should at least identify these categories when instructing juries or making judgments as triers of fact.¹⁶⁰ Especially when dealing with works that have thin protection, courts should give greater emphasis to analytic dissection, similar to the filtration test set forth in *Computer Associates International, Inc. v. Altai, Inc.*, so that unprotectable elements are filtered out of the infringement analysis, most importantly when conducting the intrinsic “look-and-feel” test.¹⁶¹ In *Altai*, the Second Circuit set forth a famous three-part test for nonliteral infringement of computer programs.¹⁶² This test involves abstraction, filtration, and comparison, with all three steps involving, or at least allowing, expert testimony.¹⁶³ Samuelson notes that some

156. Alexander Stewart, *Funky Drummer: New Orleans, James Brown and the Rhythmic Transformation of American Popular Music*, 19 *POPULAR MUSIC* 293, 298 (2000).

157. Michael Kennedy, *THE OXFORD DICTIONARY OF MUSIC* 178 (2006).

158. *See supra* Section II.A.

159. Pamela Samuelson, *A Fresh Look at Tests for Nonliteral Copyright Infringement*, 107 *NW. U. L. REV.* 1821, 1842 (2013).

160. *See id.*

161. *See id.* at 1843; 982 F.2d 693, 706–11 (2d Cir. 1992).

162. 982 F.2d 693 (2d Cir. 1992).

163. *Id.* at 713.

courts have already adopted an *Altai*-like filtration test in thin copyright non-software cases.¹⁶⁴

Among all the limiting doctrines that filter out unprotectable elements from copyright protection, the *scenes a faire* doctrine is particularly relevant to music. The remainder of this Note will examine the *scenes a faire* doctrine and its interaction with music cases, history, and composition, and argue that the doctrine should be more widely utilized in copyright infringement cases involving musical works. It will then show some examples of *scenes a faire* elements in “Blurred Lines” and “Got to Give It Up” that should have fallen out of the scope of copyright protection.

B. THE *SCENES A FAIRE* DOCTRINE IN MUSIC CASES

Nineteenth-century drama critic Francisque Sarcey was perhaps the first to use the phrase *scenes a faire* to mean “an obligatory scene,” one which, for one reason or another, an audience expects and ardently desires.¹⁶⁵ In 1942, Judge Leon Yankwich of the Southern District of California introduced the phrase *scenes a faire* into United States copyright law.¹⁶⁶ In *Cain v. Universal Pictures Co.*, in which the plaintiff claimed that a church sequence appearing in the motion picture “When Tomorrow Comes” infringed a similar scene from his novel “Serenade,” Judge Yankwich maintained that the small details in the events that occurred in the church in both works, such as playing the piano, prayer, and hunger, were inherent in the situation itself—“they are what the French call ‘scenes a faire.’”¹⁶⁷

While courts have not arrived at a single definition of the *scenes a faire* doctrine, many use the definition set forth in *Alexander v. Haley*: “incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic.”¹⁶⁸ This definition includes two major strands of the doctrine. The first is that there are certain scenes or elements that must be included in a particular context because they flow naturally from that context.¹⁶⁹ The second is that certain scenes are standard

164. Samuelson, *supra* note 159, at 1843; *see, e.g.*, *Kohus v. Mariol*, 328 F.3d 848, 855–56 (6th Cir. 2003) (drawing of latch design); *R. Ready Prods., Inc. v. Cantrell*, 85 F. Supp. 2d 672, 675, 683 & n.10 (S.D. Tex. 2000) (advertising materials for automobile sales).

165. WILLIAM ARCHER, *PLAY-MAKING, A MANUAL OF CRAFTSMANSHIP* 147, 148 (1960).

166. Leslie A. Kurtz, *Copyright: The Scenes a Faire Doctrine*, 41 FLA. L. REV. 79, 80 (1989).

167. 47 F. Supp. 1013, 1017 (S.D. Cal. 1942).

168. 460 F. Supp. 40, 45 (S.D.N.Y. 1978); *see, e.g.*, *Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp.*, 672 F.2d 607, 616 (7th Cir. 1982); *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 979 (2d Cir. 1980); *Anderson v. Paramount Pictures Corp.*, 617 F. Supp. 1, 2 (C.D. Cal. 1985).

169. Some courts also use the terminology of “necessity” for this first strand of the doctrine. *See* Kurtz, *supra* note 166, at 81.

or “stock” in a given category.¹⁷⁰ Under either strand of the doctrine, *scenes a faire* are considered unprotected by copyright.¹⁷¹

In the context of musical works, the Ninth Circuit has further explained the meaning of the *scenes a faire* doctrine. In *Smith v. Jackson*, the owners of song copyrights brought an infringement action against musicians.¹⁷² The Ninth Circuit affirmed the district court’s granting of partial summary judgment for the musicians based on the *scenes a faire* assertions of the musicians’ expert witness as compared to the declarations of the copyright owners’ expert witness.¹⁷³ The Ninth Circuit reasoned that summary judgment was appropriate because the district court carefully considered all the material in the record regarding *scenes a faire* motives¹⁷⁴ and only granted summary judgment for the motives that raised no issues of genuine fact.¹⁷⁵ The court defined *scenes a faire* as “a motive that is so common or trite it is not protectable.”¹⁷⁶ Thus, the court acknowledged that even a phrase of a few musical notes can constitute *scenes a faire* and hence fall out of the scope of protection.

The court also stated that the “presumption of originality” created by a copyright determination did not apply to the inquiry into whether certain motives in the copyrighted songs were *scenes a faire*.¹⁷⁷ Further, the musicians did not have to prove that the owners of the song copyrights had access to *scenes a faire* motives.¹⁷⁸ Instead, a *scenes a faire* analysis requires examining “whether ‘motive’ similarities that plaintiffs attribute to ‘copying’ could actually be explained by the commonplace presence of the same or similar motives within the relevant field.”¹⁷⁹ Thus, a *scenes a faire* finding does not turn on whether a plaintiff copied prior art.¹⁸⁰

In *Swirsky v. Carey*, the Ninth Circuit held that the district court erred in finding the first and fifth measures of the plaintiff’s song to be unprotectable

170. *See id.*

171. *See, e.g.,* *Hartman v. Hallmark Cards, Inc.*, 833 F.2d 117 (9th Cir. 1987); *Whelan Assocs., Inc. v. Jaslow Dental Lab, Inc.*, 797 F.2d 1222 (3d Cir. 1986); *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485 (9th Cir. 1984); *Reyher v. Children’s Television Workshop*, 533 F.2d 87 (2d Cir. 1976).

172. 84 F.3d 1213 (9th Cir. 1996).

173. *Id.* at 1220.

174. The Ninth Circuit defined a musical motive as “a short musical phrase, usually comprised of only a few notes.” *Id.* at 1216 n.1.

175. *Id.* at 1220.

176. *Id.* at 1216 n.3.

177. *Id.* at 1219.

178. *Id.*

179. *Id.*

180. *Id.*

as a matter of law under the *scenes a faire* doctrine.¹⁸¹ While the defendant, Mariah Carey, argued that certain elements of the plaintiff's song were similar to those of the popular folk song "For He's a Jolly Good Fellow" (and hence unprotectable as *scenes a faire*), the Ninth Circuit noted that the plaintiff's song and "Jolly Good" were in different genres of music—the plaintiff's in the hip-hop/R&B genre and "Jolly Good" in the folk music genre.¹⁸² Thus, any comparisons between the two did not shed light on which elements in the hip-hop/R&B genre could be considered *scenes a faire*.¹⁸³ Furthermore, simply comparing the first measures of each song did not tell the court whether the first measure of the plaintiff's song was an indispensable idea within the field of hip-hop/R&B because by definition, a musical measure cannot be "commonplace" if it is only shared by two songs.¹⁸⁴ As for the fifth measure of the plaintiff's song, Mariah Carey did not introduce any independent evidence to show that that measure was more similar to "Jolly Good" than to her song.¹⁸⁵ Since the *scenes a faire* allegation was contested, summary judgment on the basis of *scenes a faire* without independent evidence was inappropriate.¹⁸⁶

C. SCENES A FAIRE LESSONS FROM MUSIC HISTORY AND COMPOSITION

1. *Music History Shows a Strong Tradition of Free Sharing of Common Musical Elements*

In Western society, music began as an oral tradition and was neither objectified in written texts nor commodified.¹⁸⁷ Music belonged to the realm of collective expression, believed to proceed from a divine origin.¹⁸⁸ The

181. 376 F.3d 841, 849–50 (9th Cir. 2004).

182. *Id.* at 850.

183. *Id.*

184. *Id.*

185. *Id.* The Ninth Circuit did not explain why its method of determining whether a phrase is *scenes a faire* consisted of simply testing whether the plaintiff's musical phrase is more similar to some other stock element rather than the defendant's phrase. This test for *scenes a faire* does not appear to be supported by other case law and is not logical, since a musical phrase could be *more* similar to another common musical phrase than the defendant's phrase, yet not be similar enough to the common phrase to be considered common itself. Additionally, comparing an element to only one other element, even in a famous song, does not establish that the element in the famous song is itself common. In other words, just because "Jolly Good" is a famous song does not necessarily mean that the specific phrase within it is considered commonplace. Upon close examination, the court did not offer any explanation for using this type of test.

186. *Id.*

187. Michael W. Carroll, *Whose Music Is It Anyway—How We Came to View Musical Expression as a Form of Property*, 72 U. CIN. L. REV. 1405, 1419 (2004).

188. DONALD J. GROUT & CLAUDE V. PALISCA, *A HISTORY OF WESTERN MUSIC* 2–3 (6th ed. 2001). The word "music" derives from Latin *musica* and Greek *mousike*, and originally

Greeks viewed music as part of a set of mathematical, harmonic relations that governed the universe and were not susceptible to individual claims of ownership.¹⁸⁹ No individual persona, either cultural or legal, had emerged to claim a piece of music as a product of their own labor.¹⁹⁰

Only at the end of the Middle Ages did the social role of the composer arise and musical texts become the objects of property rights.¹⁹¹ Musicians' guilds, such as those led by Johann Sebastian Bach's family, had the exclusive right to perform music within city walls, and musical repertoires could only be accessed through musicians.¹⁹² Later in the Renaissance period, the development of music publishing revolutionized the landscape, with publishers receiving royalties with copyright-like attributes and composers becoming vested with property-like entitlements to their music.¹⁹³

Throughout this history, musicians freely borrowed from existing musical works when creating new works.¹⁹⁴ Guild members regularly borrowed and revised popular melodies and songs composed by others.¹⁹⁵ The twelfth to fourteenth centuries saw the development of motet melodies, which were "independent samples or samplelike melodies that strategically reference or engage musical repertoires."¹⁹⁶ Composers and performers freely utilized this common stock of motet melodies without acknowledgment.¹⁹⁷ For example, George Frideric Handel, a famous German-British Baroque composer from the seventeenth to eighteenth centuries, borrowed common musical ideas with exceptional frequency.¹⁹⁸ Some of the composers he borrowed from included Reinhard Keiser and Giovanni Porta.¹⁹⁹ Composer Johann Mattheson, one of Handel's musical contemporaries, argued that "borrowing is permissible, but what is borrowed must be repaid with interest: that is, one must so arrange and

referred to art presided over by the Muses. See WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1490 (16th ed. 1971).

189. EDWARD LIPPMAN, *A HISTORY OF WESTERN MUSICAL AESTHETICS* 8 (1992).

190. Isobel Henderson, *Ancient Greek Music*, in 1 *THE NEW OXFORD HISTORY OF MUSIC: ANCIENT AND ORIENTAL MUSIC* 1, 400 (Egon Wellesz ed., 1957) ("The modern figure of the pure composer, who is neither poet nor player, was unknown to antiquity.").

191. Carroll, *supra* note 187.

192. JACQUES ATTALI, *NOISE: THE POLITICAL ECONOMY OF MUSIC* 15 (Brian Massumi trans., Wlad Godzich & Jochen Schulte-Sass eds., 1985).

193. *Id.*

194. Carroll, *supra* note 187, at 1411.

195. GROUT & PALISCA, *supra* note 188, at 58 (noting that minstrels "sang, played, and danced to songs composed by others or taken from the popular repertory, no doubt altering them or making up their own versions as they went along").

196. *Id.* at 659.

197. *Id.*

198. Christopher Hoyt, *The Work of the Bee: Musical Borrowings & Trinitarian Echoes*, 31 *TOUCHSTONE: A JOURNAL OF MERE CHRISTIANITY* 46 (2018).

199. *Id.*

elaborate the imitations that they produce a better and more beautiful effect that the pieces from which they are borrowed.”²⁰⁰

2. *Music Composition Necessitates the Sharing of Common Elements in the Creative Process*

While the history of music allowed borrowing without acknowledgement, history is not the only justification for allowing the free sharing of common musical elements. The necessities of musical creativity also require the sharing and utilization of such stock motifs. As Jessica Litman argues, it is not possible for authors or composers to expunge common elements from their subconscious memory when creating their own works.²⁰¹ Further, the actual process of authorship and composition is characterized by the transformation and recombination of expression into new forms.²⁰² This process necessarily involves the use of prior common elements when revising and building upon the works of others.²⁰³ Expression does not come out of thin air—it is inspired by the works of prior authors and musicians.²⁰⁴

Specifically in the context of music composition, borrowing is a necessary element of creativity. In music pedagogy, the Orff-Shulwerk and Kodaly methods are among the most influential philosophies of music education still used today.²⁰⁵ Three core aspects of this approach include recitation or imitation, improvisation, and the featured use of quality and authentic exemplar models.²⁰⁶ The recitation/imitation step involves playing a piece of music or part thereof, and then echoing, imitating, or copying it.²⁰⁷ Next, the improvisation step involves experimenting and innovating on established musical structures and patterns, usually introduced through a model piece of music.²⁰⁸ Finally, the composition step involves creating a new piece inspired during the listening, recitation, and improvisation steps.²⁰⁹ Thus, one of the most widely-used methods of teaching music composition to students involves

200. *Id.* at 47.

201. Jessica Litman, *Copyright as Myth*, 53 U. PITT. L. REV. 235, 240 (1991).

202. *Id.* at 244.

203. *Id.*

204. See Ursula K. Le Guin, *Talking about Writing*, in LANGUAGE OF THE NIGHT 195, 197 (1979) (“And of course fiction is made out of the writer’s experience, his whole life from infancy on, everything he’s thought and done and seen and read and dreamed.”).

205. See Janet R. Barrett & Peter Webster, *New Thinking for the Study of Music Teaching and Learning*, in THE MUSICAL EXPERIENCE: RETHINKING MUSIC TEACHING AND LEARNING (2014).

206. See NATALIE SARRAZIN, *MUSIC AND THE CHILD* (2016).

207. See Katherine Halcrow, *Imitation and Innovation: Harnessing the Principles of Music Pedagogy for the Writing Classroom*, 26 LITERACY LEARNING: THE MIDDLE YEARS 48, 52 (2018).

208. *Id.*

209. *Id.*

the imitation and recitation of previous pieces of music, from the process of which original composition arises.

Indeed, many argue that the human brain is wired for patterns and symbolic thinking.²¹⁰ The creative process relies on the breaking and reinventing of patterns.²¹¹ It can be argued, then, that we “invent” rather than “create”—in other words, we build upon previous patterns rather than create all these patterns from scratch.²¹² Thus, imitation of and improvisation on old themes is a core authorial technique, sometimes done even subconsciously.²¹³

Modern copyright laws do not take the history of musical borrowing and its necessity for creativity into as much consideration as they should. For example, much of the modern music sampling that has evolved from the tradition of musical motets and sharing would now incur liability.²¹⁴ As Michael Carroll argues, the idea/expression dichotomy and fair use limits on copyright infringement claims have not done enough to privilege acceptable conduct.²¹⁵ As digital technology has further facilitated traditional borrowing in music, modern copyright rules that greatly restrict musicians’ freedom to practice this tradition should be revised.²¹⁶ Similarly, Olufunmilayo Arewa notes that while copying is a key element of musical creativity and collaboration, copyright conceptualizations of creativity tend to stigmatize acts of copying and sharing.²¹⁷ Courts should instead take more account of dominant musical practices within musical genres and the role of oral and written traditions in music.²¹⁸

The *scenes a faire* doctrine constitutes an already-existing yet underutilized tool that can bring into legal consideration the tradition of sharing common elements in music as well as the necessity of imitation for musical composition and creativity. By identifying and removing from protection common elements in each genre, the doctrine can serve as an important limit on the infringement claims of musicians and record labels. Courts should more routinely use the *scenes a faire* doctrine to recognize that common musical motifs within each genre cannot be protected by copyright law. The origin and development of music composition have hinged on free sharing and inspiration from other

210. See MICHAEL C. CORBALLIS, *THE RECURSIVE MIND: THE ORIGINS OF HUMAN LANGUAGE, THOUGHT, AND CIVILIZATION* (2011).

211. Halcrow, *supra* note 207, at 52.

212. See GEORGE STEINER, *GRAMMARS OF CREATION* (2002).

213. See *id.*

214. See Carroll, *supra* note 187, at 1495.

215. *Id.* at 1495–96.

216. *Id.* at 1496.

217. Olufunmilayo B. Arewa, *Copyright and Cognition: Musical Practice and Music Perception*, 90 ST. JOHN’S L. REV. 565, 571 (2016).

218. *Id.* at 575.

composers. Moreover, the very act of music composition involves the imitation and reinvention of previous works, and thus requiring composers to expunge such common elements from their subconscious mind would impinge on creativity. The music industry requires such a limiting principle as *scenes a faire* to recognize and take into account this necessity in musical innovation.

D. *SCENES A FAIRE* ELEMENTS IN “BLURRED LINES” AND “GOT TO GIVE IT UP”

The Gayes’ expert witness, musicologist Finell, alleged that many similar elements existed between “Blurred Lines” and “Got to Give It Up.”²¹⁹ This Section will analyze three of these major elements²²⁰ and show how each should be classified as *scenes a faire*, hence falling out of the scope of copyright protection.

219. Counter-Claimants’ Joint Statement of Genuine Disputes in Resp. to Pls.’ and Counter-Defs.’ Uncontroverted Facts and Conclusions of Law in Supp. of Counter-Claimants’ Opp’n to Pls.’ and Counter-Defs.’ Mot. for Summ. J. or, in the Alternative, Partial Summ. J. at 3–109, *Williams v. Bridgeport Music*, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500 (C.D. Cal. Sep. 8, 2014).

220. These elements are: (1) each phrase begins with repeated notes; (2) each phrase begins with the same rhythm; and (3) each phrase ends on a melisma (one syllable sung over multiple pitches).

Figure 1. Signature Phrases in “Got to Give It Up” and “Blurred Lines”

The image shows a musical staff in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The melody starts at measure 19. The notes are E4, E4, E4, G4, A4, B4, G4, F#4. Above the staff, there are two brackets labeled 'a' and 'b'. Bracket 'a' covers the first three notes (E4, E4, E4). Bracket 'b' covers the last three notes (G4, A4, B4). Below the staff, there are two brackets labeled 'c (rhythms)' and 'd (melisma)'. Bracket 'c' covers the first six notes (E4, E4, E4, G4, A4, B4). Bracket 'd' covers the last three notes (G4, A4, B4). The lyrics are: "I used to go out to par - ties".

*Signature Phrase in “Got to Give It Up”
(Trial Exhibit 376-3)*

The image shows a musical staff in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The melody starts at measure 47. The notes are C#4, C#4, B#4, C#4, E4, F#4, G4, A4, G4, F#4, E4, D#4. Above the staff, there are two brackets labeled 'a' and 'b'. Bracket 'a' covers the first three notes (C#4, C#4, B#4). Bracket 'b' covers the last three notes (E4, F#4, G4). Below the staff, there are two brackets labeled 'c (rhythms)' and 'd (melisma)'. Bracket 'c' covers the first six notes (C#4, C#4, B#4, C#4, E4, F#4). Bracket 'd' covers the last three notes (E4, F#4, G4). The lyrics are: "And that's why I'm gon' take a good girl".

*Signature Phrase in “Blurred Lines”
(Trial Exhibit 376-3)*

1. *Repeated Notes*

In “Got to Give It Up,” the Signature Phrase (see above Figure) begins with the note “E” repeated four times (corresponding to the lyrics “I used to go”). In “Blurred Lines,” it begins with the note “C sharp” repeated twice, followed by “B sharp,” and then “C sharp” again (corresponding to the lyrics “And that’s why I’m”). While the sequence in “Blurred Lines” only contains three rather than four consecutive repeating notes, the use of a three- or four-note repeating sequence is a common practice not only in the R&B/hip-hop genres, but in virtually all musical genres. In the R&B/hip-hop genre, the popular song “Thrift Shop” by Macklemore and Ryan Lewis, ranked by Billboard as number two in the “Greatest of All Time Hot R&B/Hip-Hop Songs,”²²¹ starts off with a cyclical pattern of four consecutive repeating notes, corresponding to the lyrics “What, what, what, what?”²²² Likewise, the popular R&B song “If I Ain’t Got You” by Alicia Keys, ranked number thirty-three on

221. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [https://perma.cc/VZC5-MZ4G] (last visited Dec. 12, 2018).

222. Macklemore & Ryan Lewis, *Thrift Shop* (Macklemore LLC 2012).

the same chart,²²³ contains four repeating notes in the chorus, corresponding to the lyrics “people want it all” (starting on the second syllable of the word “people”).²²⁴ The song “Trap Queen” by Fetty Wap, another popular R&B/hip-hop song ranked number forty-six on that same chart,²²⁵ contains two sets of four repeating notes in the chorus, corresponding to the lyrics “I just left the mall, I’m gettin.’”²²⁶

Outside the R&B/hip-hop genre, the use of four repeating notes can be found in countless songs. The popular song “Happy Birthday,” repeatedly used as an example by Finell,²²⁷ begins with a four-note sequence (corresponding to the lyrics “Happy Birthday”) with two identical consecutive notes, a third different note, and a fourth note identical to the first two—the same structure as the “Blurred Lines” opening signature phrase described above. In the classical genre, Beethoven’s Fifth Symphony (also used by Finell as an example),²²⁸ one of the most well-known compositions in classical music and most frequently played symphonies,²²⁹ famously begins with a four-note sequence of three identical notes (D) followed by a different fourth note (E flat).

Thus, the phrases of four repeated notes in “Blurred Lines” and “Got to Give it Up” should have been considered *scenes a faire*—standard, stock, or common in a particular category—and hence unprotectable.

2. *Similar Rhythms*

Finell argued that another similarity between “Blurred Lines” and “Got to Give It Up” lies in the fact that both signature phrases begin with the same

223. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [https://perma.cc/VZC5-MZ4G] (last visited Dec. 12, 2018).

224. Alicia Keys, *If I Ain’t Got You* (J Records 2004).

225. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [https://perma.cc/VZC5-MZ4G] (last visited Dec. 12, 2018).

226. Fetty Wap, *Trap Queen* (RGF Productions 2014).

227. *See, e.g.*, Order Ruling on Plaintiffs’ and Counter-Defendants’ Evidentiary Objections in Supp. of Mot. for Summ. J. or, in the Alternative, Partial Summ. J. at 49, *Williams v. Bridgeport Music*, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500 (C.D. Cal. Oct. 30, 2014).

228. *Id.* at 52.

229. ROBERT H. SCHAUFFLER, BEETHOVEN: THE MAN WHO FREED MUSIC 211 (1933).

rhythm.²³⁰ Both phrases begin with six consecutive eighth notes.²³¹ In “Blurred Lines,” this eighth note sequence corresponds to the lyrics “And that’s why I’m gon’ take,” and in “Got to Give It Up,” it corresponds to the lyrics, “I used to go out to.” Many songs utilize this rhythm of six consecutive eighth notes. In the R&B/hip-hop genre, Macklemore’s “Thrift Shop” begins with six consecutive eighth notes, corresponding to the lyrics “What, what, what, what? What, what”²³² Fetty Wap’s “Trap Queen” also utilizes this rhythm, corresponding to the lyrics “I just left the mall, I’m”²³³ The song “Please Mr. Postman” by the Marvelettes, ranked number twenty-four on the greatest R&B/hip-hop songs chart,²³⁴ contains six repeating eighth notes, corresponding to the lyrics, “Is there a letter in”²³⁵ In other genres, this rhythmic phrase is frequently used, as well. For example, in the pop genre, Selena Gomez’s popular song “Bad Liar” contains six consecutive eighth notes corresponding to the lyrics “I’m tryin’, I’m tryin’”²³⁶ Likewise, Ariana Grande’s popular pop song “breathin’ [sic] utilizes this rhythmic phrase, corresponding to the lyrics “breathin’ and breathin’ and”²³⁷

Thus, the phrases of six consecutive eighth notes in “Blurred Lines” and “Got to Give it Up” should have been considered *scenes a faire* and hence unprotectable.

3. *Melisma*

A third similarity alleged by Finell was the use of melisma²³⁸ at the end of both signature phrases.²³⁹ In “Blurred Lines,” the melisma corresponds to the

230. Counter-Claimants’ Joint Statement of Genuine Disputes in Resp. to Pls.’ and Counter-Defs.’ Uncontroverted Facts and Conclusions of Law in Supp. of Counter-Claimants’ Opp’n to Pls.’ and Counter-Defs.’ Mot. for Summ. J. or, in the Alternative, Partial Summ. J. at 37, *Williams v. Bridgeport Music*, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500 (C.D. Cal. Sep. 8, 2014).

231. An eighth note is a rhythmic unit of measurement in music that corresponds to exactly half of the value of one quarter note and twice the value of one sixteenth note.

232. Macklemore & Ryan Lewis, *Thrift Shop* (Macklemore LLC 2012).

233. Fetty Wap, *Trap Queen* (RGF Productions 2014).

234. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [<https://perma.cc/VZC5-MZ4G>] (last visited Dec. 12, 2018).

235. The Marvelettes, *Please Mr. Postman* (Motown Records 1961).

236. Selena Gomez, *Bad Liar* (Interscope Records 2017).

237. Ariana Grande, *breathin’* (Republic Records 2018).

238. Melisma is a musical technique in which one syllable is sung over multiple pitches.

239. Counter-Claimants’ Joint Statement of Genuine Disputes in Resp. to Pls.’ and Counter-Defs.’ Uncontroverted Facts and Conclusions of Law in Supp. of Counter-Claimants’ Opp’n to Pls.’ and Counter-Defs.’ Mot. for Summ. J. or, in the Alternative, Partial Summ. J. at 40, *Williams v. Bridgeport Music*, No. LA CV13-06004 JAK (AGRx), 2015 WL 4479500 (C.D. Cal. Sep. 8, 2014).

word “girl,” and in “Got to Give It Up,” it corresponds to the second syllable in the word “parties.” Melisma is a commonplace musical technique used in countless songs. In the R&B genre, Mariah Carey’s song “Vision of Love,” which topped the charts in 1990, popularized the use of melisma in mainstream R&B music.²⁴⁰ The song heavily utilizes melisma, such as on the words “love,” “me,” “dream,” “nights,” “all,” and “eventually” (on the last syllable).²⁴¹ Whitney Houston’s hit “I Will Always Love You,” ranked number six on the greatest R&B/hip-hop songs chart,²⁴² also heavily utilizes melisma, such as on the words “I” and “you.”²⁴³ Al Green’s popular R&B song “Let’s Stay Together” from 1972, ranked number nine on the same chart,²⁴⁴ utilizes melisma, such as on the words “me,” “need,” and “see.”²⁴⁵

In other genres, melisma has been used for centuries. The well-known Christian hymn “Gloria in excelsis Deo” repeatedly utilizes a long melisma on the first syllable of the word “Gloria.” Handel’s “For Unto Us a Child is Born” from his Messiah Part I (1741) also utilizes a long melisma on the word “born.” In contemporary pop music, Ariana Grande’s song “breathin” utilizes many melismas on words such as “take,” “away” (second syllable), and “breathin” (second syllable).²⁴⁶

Thus, the use of melisma in “Blurred Lines” and “Got to Give it Up” should have been considered *scenes a faire* and unprotectable. As melisma is a common technique used not only in the R&B genre but in widely varying musical genres for centuries, it “cannot be attributed to any unique creativity on the part of the songwriter.”²⁴⁷

V. CONCLUSION

As musicians continue to innovate and compose new works, predictable boundaries must exist between legal inspiration and improper appropriation in

240. *100 Greatest Singers of All Time*, ROLLING STONE (Dec. 3, 2010), <https://www.rollingstone.com/music/music-lists/100-greatest-singers-of-all-time-147019/patti-smith-2-39552/> [https://perma.cc/E2JL-GEW8]; see “*Vision of Love*” Sets off Melisma Trend, VILLAGE VOICE (Feb. 4, 2003), <https://www.mcarchives.com/index.asp?id=1457> [https://perma.cc/3LQR-BFRM].

241. Mariah Carey, *Vision of Love* (Columbia Records 1990).

242. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [https://perma.cc/VZC5-MZ4G] (last visited Dec. 12, 2018).

243. Whitney Houston, *I Will Always Love You* (RCA Records 1974).

244. *Greatest of All Time Hot R&B/Hip-Hop Songs*, BILLBOARD, <https://www.billboard.com/charts/greatest-r-b-hip-hop-songs> [https://perma.cc/VZC5-MZ4G] (last visited Dec. 12, 2018).

245. Al Green, *Let’s Stay Together* (Hi Records 1971).

246. Ariana Grande, *breathin* (Republic Records 2018).

247. *Black v. Gosdin*, 740 F. Supp. 1288, 1293 (M.D. Tenn. 1990).

order for creativity to flourish within appropriate constraints. Since the protectability of musical elements should be a question of law, it should be addressed at the stages of summary judgment, judgment as a matter of law, or judgment notwithstanding the verdict. Hence, the Ninth Circuit here did have the power to reverse the district court's finding of infringement, as the majority of the similarities between the two songs consisted of commonplace *scenes a faire* elements, which, as a matter of law, must be filtered out of the improper appropriation analysis.

Looking ahead, courts should explicitly identify the differences between protectable and unprotectable elements in music, drawing on limiting doctrines such as *scenes a faire*. With the help of musical experts, courts must filter out these unprotectable elements before allowing the jury to conduct the improper appropriation analysis. Simply deferring to musical experts and juries without providing them with any guidance as to the proper limiting doctrines will lead to the overprotection of common tools, themes, and styles, which will effectively hamper future musical innovation.

The *scenes a faire* doctrine may ideally operate differently in the copying versus improper appropriation stages of analysis. Where it has been established that a defendant has legally "copied" a musical style associated with a particular composer (as arguably occurred in this case), there may be an argument for providing the composer with some compensation without a finding of infringement. Thus, one possible avenue for copyright reform may consist in some sort of compulsory "inspiration license," by which creators of popular motifs receive compensation even while future generations are allowed to use them and flourish.

Regardless, a finding of infringement should never ensue from the utilization of common musical elements. Especially since music composition frequently, necessarily, and many times inadvertently draws from common themes from previous works, the law must not restrict the use of common musical elements. The future of music itself depends upon the use and recombination of previous tools and motifs in innovative ways.

***BELMORA LLC v. BAYER CONSUMER CARE AG:*
UNFAIR COMPETITION AS AN ALTERNATIVE
APPROACH TO PENETRATE THE TERRITORIAL
PRINCIPLE IN U.S. TRADEMARK LAW**

Su Li[†]

I. INTRODUCTION

In 2016, German multinational pharmaceutical company Bayer won a motion to dismiss against U.S. company Belmora LLC in front of the Fourth Circuit. The court decided that a foreign trademark owner had standing to make a Lanham Act 43(a) claim—an unfair competition claim—against the owner of the same mark in the United States, even though the foreign company did not have a U.S. trademark. This remarkable decision led to heated discussions in the legal community over whether a protectable mark is a necessary requirement for a non-U.S. trademark owner to obtain Trademark Trial and Appeal Board’s (TTAB) decisions on trademark cancellation and the federal courts’ decisions on unfair competition.¹ The Fourth Circuit decided against Belmora LLC, who mimicked the package of Bayer’s pain reliever medicine solely sold in Mexico, and supported Bayer to make an unfair competition claim against Belmora regardless of the fact that Bayer did not have trademark rights in the United States. Is *Belmora LLC v. Bayer Consumer Care AG*² an example of “bad facts make bad law,” or is it an indicator of U.S. courts’ new attempt to reconfigure the territorial principle of the Lanham Act

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† J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. See Christine Haight Farley, *No Trademark, No Problem*, 23 B.U. J. SCI. & TECH. L. 304, 304 (2017); Bill Donahue, *The Top 10 Trademark Rulings of 2016*, LAW360 (Dec. 20, 2016, 6:05 PM), <http://ptslaw.com/wp-content/uploads/2016/12/The-Top-10-Trademark-Rulings-Of-2016-Law360.pdf> [<https://perma.cc/TY5T-NCG8>]; *Standing to Enforce Foreign Trademark Rights After Belmora v. Bayer Certiorari Denial*, JONES DAY (Mar. 7, 2017), <http://www.jonesday.com/standing-to-enforce-foreign-trademark-rights-after-ibelmora-v-bayer-certiorari-denial-03-07-2017/> [<https://perma.cc/N3VS-48XX>]; Alex MacKay, *Unfair Competition is Such a Headache*, STITES & HARBISON, PLLC: TRADEMARKOLOGY (Mar. 25, 2016), <http://www.trademarkologist.com/2016/03/unfair-competition-is-such-a-headache/> [<https://perma.cc/V6DP-643Q>].

2. 819 F.3d 697 (4th Cir. 2016).

and to extend the extraterritoriality doctrine from the well-known mark exception to unfair competition? This Note addresses these questions.

According to Professor Curtis Bradley, U.S. laws have a presumption against extraterritoriality: that is, the courts presume that legislation of Congress applies “only within the territorial boundaries of the United States” unless Congress explicitly says otherwise.³ Applying this presumption to trademark law, it is logical to think that the Lanham Act does not apply to infringement activities outside of U.S. territory. With the presumption, neither does the Act protect the right of a foreign trademark owner who does not use or register the same mark within the borders of the United States. However, with the increasing number of transnational intellectual property cases being litigated in U.S. courts, the presumption against extraterritoriality has been challenged by both scholars and practitioners.⁴ Moreover, U.S. federal courts have applied doctrines of extraterritoriality in cases that involve activities infringing U.S. trademarks that occur overseas or U.S. companies’ infringement of foreign trademarks.⁵

As early as 1952, the Supreme Court extended the Lanham Act to infringing conduct of U.S. nationals outside of the United States.⁶ But, since the 1990s, U.S. federal courts have split over whether foreign trademark owners can sue U.S. companies for trademark infringement even if the foreign company never used or registered the mark in the United States. Federal circuit courts disagreed on whether extraterritoriality could be applied on the basis of the “well-known mark”⁷ exception doctrine for internationally well-known trademark holders who are not involved in commerce in the United States. The Ninth Circuit held in favor of the extraterritoriality of the “well-known mark” exception, while the Second Circuit and the Federal Circuit refused, holding that the exception did not apply for foreign mark owners.⁸

3. Curtis A. Bradley, *Territorial Intellectual Property Rights in an Age of Globalism*, 37 VA. J. INT’L LAW 505, 510 (1997).

4. *Id.* at 517–19 (summarizing criticisms of the territoriality presumption).

5. See generally Tim W. Dornis, *Behind the Steele Curtain: An Empirical Study of Trademark Conflicts Law, 1952–2016*, 20 VAND. J. ENT. & TECH. L. 567 (2018) (describing an increasing trend of trademark suits on extraterritoriality from the 1950s to present, especially 2010 onward).

6. See *Steele v. Bulova Watch Co.*, 344 U.S. 280, 287 (1952).

7. “Well-known mark” and “famous mark” are used interchangeably in most cases. But this Note uses “well-known mark” only to distinguish from the “famous mark” requirement in proving the cause of action in dilution claims. See Gwen Wei, *Taking Care of Article 6B/SNESS: How Belmora LLC v. Bayer Consumer Care AG Made the Well-known mark exception doctrine Inevitable in the U.S.*, 12 WASH. J. L. TECH. & ARTS 501, 503 n.4 (2017).

8. See *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1094 (9th Cir. 2004); *Person’s Co., Ltd. v. Christman*, 900 F.2d 1565, 1571 (Fed. Cir. 1990); *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 172 (2d Cir. 2007).

Belmora, however, further complicated the picture by introducing a third approach to penetrate the principle of territoriality in trademark law. The Fourth Circuit in *Belmora* decided that foreign mark owners (i.e., the senior user of a non-U.S. trademark) could make unfair competition claims under the Lanham Act against U.S. trademark users (i.e., the junior users who are U.S. companies and often have U.S. registration of the trademark in dispute).⁹ This Note focuses on the circuit split over the territoriality principle of U.S. trademark law in protecting non-registered and not-in-use foreign trademarks in the United States. While exploring the most feasible solution to the problem, this Note will also parse out the considerations that led to the diverging court decisions.

Part II explains the definition and history of the territoriality principle and summarizes scholars' discussions on the possible reconfiguration of the territoriality principle. This section also reviews the emergence of the extraterritoriality doctrine in the U.S. courts. Part III focuses on one application of the extraterritoriality doctrine—the well-known mark exception doctrine—and describes the circuit split before *Belmora*. Part III also reviews the critiques on the pre-*Belmora* decisions, explaining the disagreements on whether the well-known mark exception is applicable to non-U.S. trademark owners who do not have trademark rights in the United States. Part IV describes the procedural history and the decision of the Fourth Circuit in *Belmora*. Part IV also discusses critiques against the *Belmora* decision and explains why *Belmora* was correctly decided. Part V discusses the aftermath of *Belmora* decision. First, based on the historical trend of foreign trademark registration statistics in the United States from 1900 to 2017, this Part highlights the confusion the twofold circuit split on the extraterritoriality nature of the Lanham Act brings to foreign trademark owners. Annual trademark registrations filed by foreign mark owners show a continuously increasing trend which stopped around 1997 when the Ninth Circuit made a favorable decision on the extraterritorial application of the Lanham Act. In the following two decades, the annual trademark registration filed by non-U.S. trademark owners stayed stagnant with periodic ups and downs. Second, this Part presents the potential danger of forum shopping that may come with the circuit split based on data collected by Professor Tim W. Dornis in his 2017 research. Finally, this Part proposes several possible solutions that may help reconcile the conflicted decisions across circuit courts. The proposed solutions include urging Congress to take initiative and formalize the extraterritoriality doctrine by amending the Lanham Act, prompting the Supreme Court to adjudicate the well-known mark doctrine, as well as encouraging trademark

9. See *Belmora LLC v. Bayer Consumer Care AG*, 819 F.3d 697, 715 (4th Cir. 2016), *cert. denied*, 137 S. Ct. 1202 (2017).

lawyers to emphasize importance of trademark registration to their foreign clients. Part VI provides the conclusion.

II. THE TERRITORIALITY PRINCIPLE AND THE EXTRA-TERRITORIALITY DOCTRINE IN TRADEMARK LAW

It is long-debated whether the Lanham Act extends beyond geographic borders of the United States, either through protecting non-U.S. trademark owners' rights in the United States, or through protecting U.S. trademark owners' rights from being infringed overseas. This is essentially a question about the territorial nature of trademark law. According to McCarthy on Trademarks and Unfair Competition, the territoriality principle in trademark law means "a trademark has a separate legal existence in each sovereign territory where it is registered or legally recognized as a mark."¹⁰ Based on this principle, trademark rights are national and, as such, the Lanham Act does not apply if an infringing activity happens overseas (where foreign laws should apply), or if the plaintiffs do not have a valid trademark right to be protected (i.e., the trademark is neither registered with the United States Patent and Trademark Office (USPTO) nor in commerce within U.S. boundaries).

Courts frequently reference the territoriality principle, which was once considered a primary principle of the U.S. trademark law.¹¹ However, exploring the history of trademark law and the implication of the current world economy to the enforcement of trademark law, scholars have concluded that territoriality is not a bedrock principle of the trademark law.¹² Federal courts have also been exploring possibilities to reconfigure the territoriality principle or to form a new extraterritoriality doctrine.¹³ Before *Belmora*, the extraterritorial application of trademark law was only achievable through the well-known mark exception. *Belmora* adds a new pathway: the unfair competition doctrine.

10. J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 29:1 (4th ed. 2010) [hereinafter McCarthy on Trademarks and Unfair Competition].

11. See generally *Am. Circuit Breaker Corp. v. Or. Breakers, Inc.*, 406 F.3d 577, 581 (9th Cir. 2005); *Kos Pharms., Inc. v. Andrx Corp.*, 369 F.3d 700, 714 (3d Cir. 2004); *Buti v. Impresa Perosa, S.R.L.*, 139 F.3d 98, 103 (2d Cir. 1998); *Person's Co. v. Christman*, 900 F.2d 1565, 1568–69 (Fed. Cir. 1990); *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 155 (2d Cir. 2007).

12. See Lee Ann W. Lockridge, *Honoring International Obligations in U.S. Trademark Law: How the Lanham Act Protects Well-Known Foreign Marks (and Why the Second Circuit Was Wrong)*, 84 ST. JOHN'S L. REV. 1347, 1350 (2010); see also *Almacenes Exito SA v. El Gallo Meat Market, Inc.*, 381 F. Supp. 2d 324, 326 (explaining the bedrock territoriality principle).

13. See Graeme B. Dinwoodie, *Trademarks and Territory: Detaching Trademark Law from the Nation-State*, 41 HOUS. L. REV. 885, 971 (2004).

A. TERRITORIALITY PRINCIPLE IN TRADEMARK LAW

The territoriality principle in trademark law is consistent with the presumption against extraterritoriality in other U.S. laws: that is, the courts presume that legislation of Congress applies “only within the territorial boundaries of the United States” unless Congress explicitly says otherwise.¹⁴ This presumption echoes what David R. Johnson and David Post pointed out in 1996: that geographical borders between countries are important determinants of legal rights and responsibilities.¹⁵ Courts and scholars justified the territoriality of trademark law using arguments developed in other fields of law.¹⁶ This Part reviews the historical development of the territoriality principle in trademark law, distinguishes trademark law from other intellectual property laws on the territoriality principle, and summarizes different views by scholars and practitioners on whether this principle is a bedrock principle of trademark law that warrants reaffirmation or whether it should be revisited and revised.

1. *History of the Territoriality Principle in Trademark Law*

The territorial and extraterritorial application of laws differ based, in part, on whether the law concerns protecting private rights or catering to the regulation of the whole economy.¹⁷ For example, securities law is inherently extraterritorial as it protects the public interest and the whole economy.¹⁸ However, intellectual property laws are territorial because intellectual property rights benefit society by “conferring particular property rights on individuals and companies.”¹⁹

Trademark law has always differentiated itself from patent and copyright laws on the universality of trademark rights. Historically, trademark law rights were universal rights in the international context just like other private law rights such as those in securities law or antitrust law.²⁰ For instance, in some European countries, trademarks were considered the outgrowth of the right of personality and were closely associated with the person who first adopted

14. Curtis A. Bradley, *Territorial Intellectual Property Rights in an Age of Globalism*, 37 VA. J. INT'L LAW 505, 510 (1997).

15. See David R. Johnson & David Post, *Law and Borders: The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1368 (1996).

16. See, e.g., *Vanity Fair Mills, Inc. v. T. Eaton Co.*, 234 F.2d 633, 638–40, 647 (2d Cir. 1956) (discussing the reasons for the territorial scope of the Lanham Act); see generally Symeon Symeonides, *Territoriality and Personality*, in INTERCONTINENTAL COOPERATION THROUGH PRIVATE INTERNATIONAL LAW: ESSAYS IN MEMORY OF PETR NYGH 405 (Talia Einhorn & Kurt Siehr eds., 2003).

17. See Dornis, *supra* note 5, at 579 (citing Bradley, *supra* note 3, at 568–69).

18. *Id.*

19. *Id.*

20. See Walter J. Derenberg, *Territorial Scope and Situs of Trademarks and Good Will*, 47 VA. L. REV. 733, 734 (1961); see also TIMOTHY H. HIEBERT, PARALLEL IMPORTATION IN U.S. TRADEMARK LAW 29–30 (1994) (discussing universality theory).

them.²¹ Therefore, trademarks were entitled to universal protection beyond country borders.²²

The territoriality principle of trademark law did not emerge until 1930s when the international world formed the Paris Convention,²³ the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS),²⁴ the Madrid Agreement, and the Madrid Protocol.²⁵ These agreements acknowledged the territorial limitations of trademark rights, but still encouraged countries to collaborate on protecting well-known trademarks and to fight against unfair competition.²⁶ Although a number of international treaties and agreements²⁷ have been signed since then, the world is still far away from being a community of coherent trademark protection.²⁸ The agreements made admirable attempts to streamline the international trademark registration process, but in general are not robust enough and do no more than provide recommendations.²⁹ Practitioners sometimes include the Paris Convention *6bis* as a cause of action under the Lanham Act for non-U.S. trademark owners' infringement claims against junior users in the United States.³⁰ The federal

21. *Id.*

22. *Id.*

23. The United States signed onto the Paris Convention for the Protection of Industrial Property in 1887 and has been a significant party to its revisions since then.

Under Article *6bis* of the Paris Convention, a foreign trademark's owner can petition the trademark offices in countries which have signed the treaty to refuse or to cancel the registration, and to prohibit the use of virtually any trademark which could be confused with the foreign trademark owner's well-known mark where that mark is being used for the sale of identical or similar goods.

PARIS CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY, ART. *6BIS*, July 14, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305 [hereinafter Paris Convention].

24. TRIPS: AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197, Art. 16(2) (1994) [hereinafter TRIPS Agreement]. TRIPS, signed in 1994, bolstered the protection to foreign trademarks in signatory countries under the Paris Convention by protecting service marks. It also extended the well-known trademark owner's rights to preventing uses of identical or similar trademarks for dissimilar goods or services. *Id.* at 21 U.S.T. 1583, 828 U.N.T.S. 305.

25. The Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, June 28, 1989, 1989 Industrial Property 254, and the new European Community Trademark, Council Regulation 40/94 on the Community Trade Mark, 1994 O.J. (L 11) 1. Both of these arrangements are designed to provide simultaneous protection for marks in multiple countries through a single application.

26. *See* Bradley, *supra* note 3, at 542–43.

27. *See* Roger E. Schechter, *The Case for Limited Extraterritorial Reach of the Lanham Act*, 37 VA. J. INT'L L. 619, 640 n.63 (1997).

28. *See id.*

29. In 1998, the World Intellectual Property Organization (WIPO) bolstered the agreement by way of a "Joint Recommendation Concerning Provisions on the Protection of Well-known Marks."

30. *See* Grupo Gigante SA De CV v. Dallo & Co., 391 F.3d 1088, 1099 (9th Cir. 2004).

courts have not yet reached agreement on whether the Paris Convention or any other international treaty in trademark law provides legal grounds for claims being made under the Lanham Act. Not acknowledging international collaborations on trademark protection creates pressure on domestic laws, such as the Lanham Act, to depart from the territoriality principle. After all, when disputes happen, if no existing international treaty works (or countries do not follow the international treaties), some law has to be applied to make a resolution.

In addition, use-based rights may be territorial, while registration-based rights can be extraterritorial. Scholars like Professor Roger E. Schechter put much hope on establishing a worldwide system of trademark registration that would instantly confer rights in a mark to a single firm in every country of the world.³¹

2. Differentiating Trademark Law from Other Intellectual Property Laws

Interestingly, territoriality varies among different types of intellectual property law. Patent law and copyright law are more territorial than trademark law because not much “property” was historically attached to trademarks.³² Trademark law is more extraterritorial than copyright and patent law.³³ Courts and commentators often say patent and copyright laws do not have any effect extraterritorially,³⁴ while they often recognize that trademark law does have extraterritorial effects.³⁵ It is not quite clear why trademark law is distinct from

31. See Schechter, *supra* note 27, at 640.

32. See David R. Toraya, *Federal Jurisdiction over Foreign Copyright Infringement Actions*, 70 CORNELL L. REV. 1165, 1172 n.41 (1985) (explaining rejected trademark more suitable for extraterritorial enforcement, as such enforcement interferes less with economic interests of foreign governments relative to enforcing patent and copyright rights overseas); see also Schechter, *supra* note 27, at 622 (summarizing that Professor Curtis Bradley did not find many differences in the language of the Lanham Act and the statutes of other IP laws).

33. See Bradley, *supra* note 3, at 508.

34. For patent law, see, e.g., *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972) (“Our patent system makes no claim to extraterritorial effect”); 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.05, at 16-233 (1997) (explaining that a U.S. patent “confers no protection as to acts taking place in foreign countries”). However, *Deepsouth Packing Co.* was overruled by statute 35 U.S.C.A. § 271(f), as stated in *Life Techs. Corp. v. Promega Corp.*, 137 S. Ct. 734, 743 (2017); see also *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 444–45 (2007) (stating that the new § 271(f) “expand[ed] the definition of infringement to include supplying from the United States a patented invention’s components,” as outlined in subsections (f)(1) and (f)(2)). For copyright law, see, e.g., *Subafilms, Ltd. v. MGM-Pathe Comm’ns Co.*, 24 F.3d 1088, 1093 (9th Cir. 1994) (referring to the “undisputed axiom that United States copyright law has no extraterritorial application”); 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 17.02 (1997) [hereinafter Nimmer on Copyright] (“Copyright laws do not have any extraterritorial operation.”).

35. See, e.g., *Sterling Drug, Inc. v. Bayer AG*, 14 F.3d 733, 745 (2d Cir. 1994) (“It is well established that United States courts have jurisdiction to enforce the Lanham [Trademark] Act

other intellectual property laws on the extraterritoriality principle. Scholars like Professor Bradley and Professor Schechter make several projections but are not convinced any reasons account for the variations in extraterritoriality principles among the three main branches of the intellectual property law. For instance, Bradley mentions that the U.S. Constitution includes copyright and patent rights, but is silent about trademarks.³⁶ He also points out that patents and copyrights are granted for only a limited term of years, whereas trademarks can receive protection indefinitely.³⁷ More importantly, Professor Bradley says that patents and copyrights protect certain property rights but trademark law only prevents similar usages that cause consumer confusion.³⁸

In addition, trademark rights are different from patent or copyright rights in that the reputation or goodwill of a product can reach beyond the geographic boundary of the market where the trademark is used.³⁹ The reputation of a product may also reach a market long before the trademark has been created.⁴⁰ According to Professor Schechter, the infringement of a U.S. trademark may cause the loss of sales of the trademark owner (the senior user) in a foreign market.⁴¹ Moreover, the infringement may also cause reputational damages that hurt the senior user in the U.S. market.⁴² This “double whammy”⁴³ differentiates trademarks from patents and copyrights.

3. *Scholarly Views on the Territoriality Principle in Trademark Law*

Scholars have reviewed the reasons for the territorial character of trademark law and come up with different conclusions about whether the territoriality principle of trademark law is dated. Early scholastic views, represented by Professor Bradley, argue in favor of territoriality.⁴⁴ More recent scholars, represented by Professor Lee Ann Lockridge, propose revisiting and revising the principle through the application of the well-known mark

extraterritorially in order to prevent harm to United States commerce.”); McCarthy on Trademarks and Unfair Competition, *supra* note 10, at § 29.57, 29–101 (stating that the Supreme Court in Steele “liberally interpreted” the extraterritorial sweep of American trademark law).

36. *See* Bradley, *supra* note 3, at 538.

37. *See id.*

38. *Id.*; *see also* 15 U.S.C. § 1114 (referring to uses “likely to cause confusion, or to cause mistake, or to deceive”).

39. *See* Schechter, *supra* note 27, at 628.

40. *Id.*

41. *Id.*

42. *Id.* at 629.

43. *Id.*

44. *See generally* Bradley, *supra* note 3.

exception doctrine.⁴⁵ Many other scholars, such as Professor Graeme B. Dinwoodie, value the merit of both sides.⁴⁶

Professor Bradley argues that territoriality is still very important for the legal framework in the context of globalization as long as the nation-state remains the principal actor in international relations.⁴⁷ He believes that the extraterritorial application of U.S. intellectual property law is inconsistent with the indispensability of territorialism in the international legal framework.⁴⁸ He also argues that extraterritorial adjudications are in tension with the division of power in the federal government.⁴⁹ He proposes that in order to protect U.S. interests in intellectual property in the international arena, the political branch of the United States should enter international agreements, adjust legislation and trade policy, and pursue international dispute resolutions.⁵⁰

Professor Lockridge reviews the history of the territoriality principle in trademark law and concludes that the territorial nature of trademark law is not a bedrock principle and it thus should be reconsidered and contextualized.⁵¹ She explains why the Lanham Act protects well-known foreign marks after considering the intrinsic and extrinsic territoriality of trademark law, examining the language of the Lanham Act, and considering the international obligations of the United States.⁵²

Professor Dinwoodie believes that the historical development of intellectual property law, international treaties, and international conventions is only one of the reasons for the territorial character of trademark law.⁵³ He argues that it is important to consider both the intrinsic purposes of trademark law and economic policy of political institutions when assessing the resilience of the “principle of territoriality.”⁵⁴ One of the intrinsic purposes of trademark law is to protect the goodwill of the senior user of a trademark. According to Professor Dinwoodie, since goodwill is geographically shapeless, it is justifiable

45. *See generally* Lockridge, *supra* note 12.

46. *See generally* Dinwoodie, *supra* note 13.

47. *See* Bradley, *supra* note 3, at 584–85. Professor Bradley used the term “territorialism” to refer to “territoriality” in his paper.

48. *Id.*

49. *Id.*

50. *Id.*

51. *See* Lee Ann W. Lockridge, *Honoring International Obligations in U.S. Trademark Law: How the Lanham Act Protects Well-Known Foreign Marks (and Why the Second Circuit Was Wrong)*, 84 ST. JOHN’S L. REV. 1347, 1350 n.179 (2010); *see also* Almacenes Exito SA v. El Gallo Meat Market, Inc., 381 F. Supp. 2d 324, 326 (S.D.N.Y. 2005) (explaining that New York state has adopted the well-known mark exception doctrine, although this case finally decided against the application of the doctrine to federal law).

52. *Id.* at 1413.

53. *See supra* note 13, at 892.

54. *See id.* at 894. Examples of the intrinsic purposes of trademark law include protecting consumers against confusion and protecting the goodwill of producers.

for adjudications to be made in spite of country borders. However, from an effective enforcement perspective, Dinwoodie probably does not think that the extraterritoriality application can go very far because it is ultimately within the political authority of each country to enforce global trademark rights.⁵⁵

B. IS IT NOW TIME TO RECONFIGURE THE TERRITORIALITY PRINCIPLE IN TRADEMARK LAW?

Twenty years ago, Professor Bradley argued that the extraterritoriality of intellectual property law is of particular importance with the increasing number of transnational intellectual property cases being litigated in U.S. courts.⁵⁶ Professor Dinwoodie added that the principles of territoriality need to be reviewed and reconfigured, as the normative force of the territoriality principle has declined because commercial organizations now correspond less neatly with national borders.⁵⁷ More importantly, in the context of globalization and international trade, the territoriality principle could be disabled if states' authorities are too rigidly restricted within geographic borders. It is extremely hard, even for private actors, to contain the impact of their activities within country borders. It is now necessary to reconfigure the territoriality principle in trademark law because, in a global market, goods and services are not provided on a purely national basis, which puts "the dominant premise of international conventions and Lanham Act registration at odds with social and commercial reality."⁵⁸ Even in the domestic context, courts have started to reduce the assimilation between "the scope of rights and the territorial goodwill."⁵⁹

C. THE EXTRATERRITORIALITY DOCTRINE AND ITS CRITICISMS

The U.S. Supreme Court, for the first time, extended the Lanham Act beyond the border of the nation in *Steele v. Bulova Watch*. In this case, Sidney Steele, a U.S. citizen residing in Texas, procured a "Bulova" trademark registration in Mexico without the permission of the Bulova Watch Company, the owner and the senior user of the U.S. trademark "Bulova." Steele assembled U.S. watch parts in Mexico and sold watches with the "Bulova" brand. The Supreme Court decided that Steele's operations were not confined within the "territorial limits of a foreign nation," and found for Bulova even before "the advent of the broadened commerce provisions of the Lanham

55. *Id.* at 971–72.

56. See Bradley, *supra* note 3, at 509; see also Dornis, *supra* note 5 (describing an increasing trend of trademark suits regarding extraterritoriality from the 1950s to the present, especially 2010 onward).

57. See Dinwoodie, *supra* note 12, at 955.

58. *Id.*

59. *Id.* at 963.

Act.”⁶⁰ After *Steele*, U.S. circuit courts developed a three-prong test that considered an infringer’s nationality, effects on U.S. commerce, and conflicts with foreign law in determining the scope of the Lanham Act as the federal trademark statute.⁶¹

There have been disagreements on the extraterritorial overextension of the Lanham Act. For instance, Professor Tim W. Dornis argues that it is necessary to curb the extraterritorial overextension of the Lanham Act to better align judicial practice with the reality of socioeconomic globalization.⁶² In his empirical research, Professor Dornis surveyed all federal and state cases that have applied the *Steele* decisions—cases where American trademarks had been infringed overseas.⁶³ He found that “the doctrine of trademark extraterritoriality that has evolved in the wake of *Steele* is an anticompetitive detriment rather than a rights holder panacea.”⁶⁴ In contrast, supporters of extraterritoriality, such as Professor Schechter, argue for the extension of the Lanham Act due to the need of “protecting U.S. rights holders from harmful activities that occur abroad.” Some scholars have suggested that, to expand the interpretation of existing language of the Lanham Act to apply to extraterritoriality, Congress should amend the Lanham Act and make the extraterritoriality statutorily explicit.⁶⁵

Professor Dornis’s study provides a good overview of the evolution of doctrinal law after *Steele*, but he exaggerates the negative impact of trademark extraterritoriality. This is especially so in the context of globalization, as it is dubious that local economic development depends heavily on the capacity of using a certain trademark, or whether a certain trademark has been used in other countries. Customers are getting increasingly sophisticated with the rapid development of globalization and communications across national borders. It is hard to imagine customers would not be able to discover and distinguish products produced by different countries, but under the same brand name or trademark. Although territoriality has been cited in most cases as a reason for denying the protection of rights of foreign trademark owners,⁶⁶ the

60. *Steele v. Bulova Watch Co.*, 344 U.S. 280, 285–87 (1952) (quoting *Skiriotes v. Florida*, 313 U.S. 69, 73 (1914)).

61. *See* Dornis, *supra* note 5, at 570, 575–78.

62. *See id.* at 650. For more criticism on the extraterritorial application of the Lanham Act, see also Robert Alpert, *The Export of Trademarked Goods from the United States: The Extraterritorial Reach of the Lanham Act*, 81 TRADEMARK REP. 125 (1991); Pamela E. Kraver & Robert E. Purcell, *Application of the Lanham Act to Extraterritorial Activities: Trend Toward Universality or Imperialism?*, 71 J. PAT. & TRADEMARK OFF. SOC’Y 115, 122 (1995).

63. *See* Dornis, *supra* note 5, at 567–68.

64. *Id.* at 568.

65. *See* Bradley, *supra* note 3, at 509.

66. *See generally* *Am. Circuit Breaker Corp. v. Or. Breakers, Inc.*, 406 F.3d 577, 581 (9th Cir. 2005); *Kos Pharms., Inc. v. Andrx Corp.*, 369 F.3d 700, 714 (3d Cir. 2004); *Buti v.*

territoriality of trademark law is not a bedrock principle that should not be reconsidered and contextualized.⁶⁷

Before *Belmora*, there was already a disagreement between circuit courts on whether non-registered and not-in-use foreign trademarks can be protected under the Lanham Act. Specifically, if these foreign senior users can make a claim against U.S. junior users for trademark infringement based on the well-known mark exception.⁶⁸ A series of cases have been decided since the early 1990s and decisions fell on both sides of the disagreement.⁶⁹ In 1990, the Federal Circuit decided against the existence of the well-known mark protection in *Pearson's Co. Ltd. v. Christman*, where the defendant was declared not liable for trademark infringement, even though he copied a Japanese clothing trademark who did not use or register the trademark in the United States.⁷⁰ But in 2004, the Ninth Circuit recognized a narrow existence of the well-known mark exception, expanding the Lanham Act to protect a Mexican restaurant that never established business or registered a mark in the United States.⁷¹ Three years later, in 2007, the Second Circuit agreed with the Federal Circuit that there was no well-known mark exception in the law, rejecting the Ninth Circuit decision as a policy-driven finding that should have been left to Congress.⁷²

If we consider *Steele* as the leading case of the extraterritoriality doctrine of trademark law protecting U.S. trademark owners' rights overseas, a series of circuit court cases on the application of the well-known mark exception illustrate the other important aspect of the extraterritoriality doctrine—protecting non-U.S. trademark owners' rights from being violated within the border of the United States. In the next Section, this Note will discuss the existing circuit split before the *Belmora* case and evaluate the effectiveness of using the well-known mark exception doctrine to achieve the extraterritoriality of the Lanham Act.

Impressa Perosa, S.R.L., 139 F.3d 98, 103 (2d Cir. 1998); *Person's Co. v. Christman*, 900 F.2d 1565, 1568–69 (Fed. Cir. 1990); *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 155 (2d Cir. 2007).

67. See Lee Ann W. Lockridge, *Honoring International Obligations in U.S. Trademark Law: How the Lanham Act Protects Well-Known Foreign Marks (and Why the Second Circuit Was Wrong)*, 84 ST. JOHN'S L. REV. 1347, 1350 n.179 (2010); see also *Almacenes Exito SA v. El Gallo Meat Market, Inc.*, 381 F. Supp. 2d 324, 326 (S.D.N.Y. 2005) (explaining that New York state has adopted the well-known mark exception doctrine, although this case finally decided against the application of the doctrine to federal law).

68. See *Wei*, *supra* note 7, at 503.

69. See *Person's Co. v. Christman*, 900 F.2d 1565 (Fed. Cir. 1990); *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088 (9th Cir. 2004); *Int'l Bancop, LLC v. Societe Des Bains De mer Et Du Cercle Des Etreangers A Monaco*, 329 F.3d 359 (4th Cir. 2003), *cert. denied*, 540 U.S. 1106 (2004); *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135 (2d Cir. 2007).

70. See *Person's Co., Ltd.*, 900 F.3d at 1565.

71. See *Grupo Gigante*, 391 F.3d at 1088.

72. See *ITC Ltd.*, 482 F.3d at 165.

III. CIRCUIT SPLIT BEFORE *BELMORA*: THE WELL-KNOWN MARK EXCEPTION DOCTRINE THAT ACHIEVES EXTRATERRITORIALITY

A. HISTORY OF THE WELL-KNOWN MARK EXCEPTION DOCTRINE

The well-known mark exception doctrine grew out of Article *6bis* of the Paris Convention⁷³ and was further supported through the TRIPS Agreement.⁷⁴ According to the well-known mark exception doctrine, a foreign trademark owner can petition for cancellation of any mark that could be confused with the foreign mark in a member country of the international treaties, as long as the foreign owner can prove their mark is “famous” or “known.”⁷⁵ This doctrine applies even if the foreign mark owner did not register or use their mark in commerce in the United States.⁷⁶ Theoretically, this doctrine may protect any trademark owned by a foreign national if the trademark is recognized as being well-known.

Before *Belmora*, there were two perspectives on how to interpret the relationship between Article *6bis* of the Paris Convention and the Lanham Act section 44(b). The Ninth Circuit held that the Paris Convention had been integrated into section 44(b) and a foreign national is entitled to all benefits arising from the Lanham Act as long as they are from a member country of the Paris Convention. The other view held by the Federal and Second Circuit is that since no U.S. federal trademark legislation existed to codify the Paris Convention or the TRIPS Agreement, neither agreement should be considered law.⁷⁷ Debate over the well-known mark exception doctrine in the Ninth and Second Circuit revisited how the territoriality principle should be applied in trademark litigation involving non-registered and not-in-use foreign trademarks. Different interpretations of the well-known doctrine before *Belmora* shows that, as Professor Dinwoodie states, U.S. courts began to reconfigure the doctrines of territoriality for a new age without clearly stating the rationale behind various solutions.⁷⁸ The decision of the Fourth Circuit in the *Belmora* case is yet another example of the court reconfiguring territoriality in U.S. trademark law.

73. Paris Convention, *supra* note 23, at 828 U.N.T.S. 305.

74. TRIPS Agreement, *supra* note 24.

75. See generally *Am. Circuit Breaker Corp. v. Oregon Breakers, Inc.*, 406 F.3d 577, 581–83 (9th Cir. 2005); *Kos Pharms., Inc. v. Andrx Corp.*, 369 F.3d 700, 714 (3d Cir. 2004); *Buti v. Perosa, S.R.L.*, 139 F.3d 98, 105 (2d Cir. 1998).

76. *Id.*

77. See *Wei*, *supra* note 7, at 503.

78. See Dinwoodie, *supra* note 13, at 971 (“When territorial rules flow from nationally grounded concerns such as economic policy or political sovereignty, they are likely to be subject to a more cautious reassessment.”).

B. HOW TO DETERMINE THE WELL-KNOWN STATUS OF A FOREIGN TRADEMARK

The United States has made it more difficult for foreign trademarks to achieve well-known status compared to domestic marks.⁷⁹ The Ninth Circuit said that establishing secondary meaning is not enough.⁸⁰ If it were, the treatment of foreign trademarks would be indistinguishable from domestic marks.⁸¹ According to the court, doing so would completely deny the existence of the “territoriality principle” in trademark law.⁸² Two theories are available to determine if a foreign trademark is well-known: the “passive perception theory” and the “interactional theory.”⁸³ The former theory uses the filtration (through means such as TV, Internet, or printed materials) of trademarked materials into a TRIPS member nation where the foreign mark didn’t have a registration.⁸⁴ The “interactional theory” uses “evidence of foreign or domestic consumer interaction with a trademark before rights are granted (such as purchases, inquiries, or website activity).”⁸⁵

The passive perception theory operates on the premise that the world and consumers are connected more than ever before. According to the theory, the recognition of a trademark in one part of the world can automatically create consumer recognition in other parts of the world, even though the brand has not yet been used there.⁸⁶ This is a low evidentiary bar for proving internationally well-known status, as it assumes trademarks well-known elsewhere already gain the well-known status when they are used by junior users in a new country.⁸⁷ International treaties support the passive perception theory. Article 16(2) of the TRIPS Agreement provides that to determine whether a trademark is well-known, members of TRIPS shall “take account of the knowledge of the trademark in the relevant sector of the public, including knowledge in the Member concerned which has been obtained as a result of the promotion of the trademark.”⁸⁸ The interactional theory, however, sets a

79. Leah Chan Grinvald, *A Tale of Two Theories of Well-Known Marks*, 13 VAND. J. ENT. & TECH. L. 1, 53 (2010). According to Professor Leah Chan Grinvald, the narrow application of the well-known mark exception doctrine “supports the proactive international policy goal of an effective multinational registration system.” Professor Grinvald also suggests that doctrine remain an exception so that only the brands that are truly well-known to foreign users are protected in foreign jurisdictions.

80. *See Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1097–98 (9th Cir. 2004).

81. *Id.*

82. *Id.*

83. *See* Grinvald, *supra* note 79, at 22.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.* at 6.

88. *See* TRIPS Agreement, *supra* note 24, Art. 16(2).

higher bar and requires showing of consumer interaction with the trademark through “purchases, inquiries, or website activity.”⁸⁹ This is an attractive option to lawyers, as it ignores social cognitive scientific findings while determining consumer recognition.

Narrow application of the well-known mark exception doctrine is consistent with the international policy goal of having an effective multi-national registration system.⁹⁰ It is also necessary for the doctrine to remain an exception so that the protection is saved for brands that are truly well-known to foreign users.⁹¹ However, the challenge of defining well-known mark makes the application of the well-known mark exception doctrine all the more difficult.⁹²

C. THE FEDERAL CIRCUIT AND THE SECOND CIRCUIT DECISIONS

In 1990, in *Person's Co., Ltd. v. Christman*,⁹³ the Federal Circuit court decided that owner of a Japanese trademark registration could not cancel a U.S. trademark registration, even though the U.S. Registrant had seen the Japanese mark while traveling there and had modeled his mark on the Japanese mark upon his return to the United States.⁹⁴ Larry Christman is a U.S. citizen who traveled to Japan in 1981 and purchased some clothing items with the “Person’s” logo. After returned to the United States, Christman developed designs of his own “Person’s” brand clothing based on the Japanese products he bought.⁹⁵ In 1983, Christman filed for trademark registration for the “Person’s” mark. Around the same time, the Japanese Person’s sought to expand to the U.S. market. The Japanese brand subsequently filed to cancel Christman’s trademark registration and sued Christman for infringement. However, Christman won all claims.⁹⁶ The court held that foreign use has no effect on U.S. commerce and cannot form the basis for a holding that the foreign mark owner has priority in the United States; therefore, Christman did not bank on Japanese Pearson’s goodwill when he registered the mark in the United States before the brand expanded their business overseas.⁹⁷ The court also held that knowledge of a foreign use does not preclude good faith adoption and use in the United States. Therefore, Christman had not adopted the mark in bad faith.⁹⁸

89. See Grinvald, *supra* note 79, at 22.

90. *Id.* at 53.

91. *Id.*

92. *Id.*

93. See *Person's Co. v. Christman*, 900 F.2d 1565 (Fed. Cir. 1990).

94. *Id.* at 1572.

95. *Id.* at 1567.

96. *Id.*

97. *Id.* at 1571–72.

98. *Id.* at 1569.

Similarly, the Second Circuit also did not extraterritorially extend the well-known mark exception in *ITC Ltd. v. Punchgini, Inc.*⁹⁹ In 2007, an allegedly well-known Southeastern Asian restaurant BUKHARA sued its former employees who opened two restaurants in New York City under the trademark BUKHARA GRILL.¹⁰⁰ The foreign trademark owner sued for trademark infringement, unfair competition, and false advertising in violation of the Lanham Act, as the U.S. restaurant used the same logos, decor, staff uniforms, wood-slab menus, and red-checked customer bibs. The Second Circuit held that there was no “famous marks exception” to the territoriality principle and insisted that a foreign mark had to have “some use of its mark in the [United States],” otherwise, even if the U.S. competitor “knowingly appropriated that mark,” the foreign mark owner could not assert priority rights under federal law.¹⁰¹ The Second Circuit’s decision in *ITC* reversed the New York state court’s decision regarding well-known foreign marks.¹⁰² The New York high court affirmed the existence of New York state protection through a misappropriation theory under unfair competition law and tested the eligibility of the foreign mark protection under a fairly generous standard.¹⁰³

However, even district court judges within New York state have not followed the Second Circuit decision in *ITC* consistently. While the Second Circuit found the state law doctrine to be inapplicable in *ITC Ltd. v. Punchgini, Inc.*,¹⁰⁴ a Southern District of New York judge applied it less than a year later, in favor of the owner of a well-known foreign mark.¹⁰⁵ In contrast, in *Almacenes Exito S.A. v. El Gallo Meat Market, Inc.*, the Southern District of New York expressly held that federal trademark law does not protect well-known foreign marks because the court did not discern, from the plain language of sections 44(b) and (h), the congressional intent to incorporate a famous marks exception into the federal unfair competition law. According to the court, unless specified in the Lanham Act, section 44(b) does not cover the

99. 482 F.3d 135, 136 (2d Cir. 2007).

100. *Id.* at 142–43.

101. *Id.* at 156.

102. *See Almacenes Exito S.A. v. El Gallo Meat Mkt., Inc.*, 381 F. Supp. 2d 324, 326 (S.D.N.Y. 2005).

103. *See Lockridge, supra* note 11, at 1350 n.13.

104. *Id.*

105. *See Empresa Cubana del Tabaco v. Culbro Corp.*, 587 F. Supp. 2d 622, 634 (S.D.N.Y. 2008) (granting the owner of a foreign mark a Rule 60(b) motion for relief from an earlier judgment on grounds that the decision of the New York Court of Appeals in *ITC* was an intervening development of law creating “extraordinary circumstances” warranting relief) *rev’d*, 2010 WL 2759416 (2d Cir. July 14, 2010) (reversing the district court on the basis that the New York decision was not an intervening development of law warranting relief under Rule 60(b)).

protection granted to foreign marks by the Paris Convention Article *6bis* and Article 16(2) of the TRIPS Agreement.¹⁰⁶

The disagreement among New York district court judges on how to apply the Second Circuit decision reflects the ongoing contradictory views on how the Lanham Act should be applied to protect foreign trademark owners' rights, even if they never registered or used the mark in the United States. The Ninth Circuit decision in *Grupo Gigante*, which occurred between *Pearson's* and *ITC*, proposed that foreign trademark owners' rights are protected by the well-known mark exception doctrine.

D. THE NINTH CIRCUIT DECISION

In *Grupo Gigante SA De CV v. Dallo & Co.*, the Ninth Circuit recognized a narrow exception to the territoriality principle for well-known foreign trademarks.¹⁰⁷ The court extended Lanham Act trademark infringement causes of action to owners of foreign marks that are well-known.¹⁰⁸ In 2004, a Mexican grocery chain sued a grocery store in California for trademark infringement. Although the plaintiff never registered its trademark "Gigante," he argued that the mark was well-known and entitled to protection under the Lanham Act by way of Article *6bis* of the Paris Convention.¹⁰⁹ The Ninth Circuit held that the plaintiff had standing to sue even if his trademark hadn't been used in the American market, as long as the plaintiff could prove two elements: First, that the trademark had gone beyond "secondary meaning." Second, "by a preponderance of the evidence, . . . a *substantial* percentage of consumers in the relevant American market [was] familiar with the foreign mark."¹¹⁰

The Second Circuit later considered the *Grupo Gigante* decision in its *ITC* decision, but rejected its rationale. The Second Circuit considered the Ninth Circuit's holding in *Grupo Gigante* a decision wrongly motivated by policy, rather than a holding based on clear settled federal law.¹¹¹

106. *Almacenes Exito SA*, 381 F. Supp. 2d, at 326.

107. *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1094 (9th Cir. 2004).

108. *Id.*

109. *Id.* at 1094.

110. *Id.* at 1098.

111. *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 172 (2d Cir. 2007).

IV. THE *BELMORA* CASE, CRITIQUES AGAINST THE FOURTH CIRCUIT DECISION ON *BELMORA*, AND WHY THE COURT'S DECISION IS CORRECT

A. THE *BELMORA* CASE

The issue in *Belmora* was “whether a foreign trademark owner who has not used its trademark in the [United States] may pursue false-association, false-advertising, and trademark-cancellation claims against the owner of the same mark in the [United States].”¹¹² *Belmora* involved ambiguous facts similar to those that caused the preceding circuit split on well-known marks. For instance, the case involves a non-U.S. trademark owner with a claimed well-known mark, but one that was never registered, used, or even intended to be used in the United States.¹¹³ Instead of focusing on the well-known mark status of the plaintiff and choosing between either the Ninth Circuit or Second Circuit models, the Fourth Circuit completely avoided discussing whether the mark should be considered a well-known trademark from the perspective of Lanham Act, or whether the “well-known mark exception” exists.¹¹⁴ Instead, the court distinguished this case as an “unfair competition case, not a trademark infringement case,”¹¹⁵ and focused its opinion on whether the Lanham Act required the disputed mark to be registered or “in use” prior to bringing civil actions of “false association” or “false advertising.”¹¹⁶

1. *Background and Procedural History*

Bayer Consumer Care AG (BCC), a multinational company, owns the well-known trademark FLANAX in Mexico and has been selling a pain reliever under this mark in Mexico since 1976.¹¹⁷ Since 2004, *Belmora*, a U.S. company, sold a pain reliever using the FLANAX mark and successfully registered the mark in the United States in 2005.¹¹⁸ The *Belmora* product closely mimicked the package of the Bayer product in Mexico, causing U.S. distributors and salespeople to believe that their product was the product Bayer was selling widely in Mexico.¹¹⁹

Bayer successfully petitioned the TTAB to cancel *Belmora*'s U.S. registration based on deceptive use.¹²⁰ *Belmora* appealed the cancellation in

112. *Belmora LLC v. Bayer Consumer Care AG*, 819 F.3d 697, 701 (4th Cir. 2016), *cert. denied*, 137 S. Ct. 1202 (2017).

113. *Id.* at 701.

114. *Id.*

115. *Id.* at 708.

116. *Id.* at 705–06.

117. *Id.*

118. *Id.*

119. *Id.*

120. *Bayer Consumer Care AG v. Belmora*, Cancellation No. 92047741, 2008 WL 9870885 (T.T.A.B. 2008).

federal court.¹²¹ BCC filed a separate claim alleging false association under 15 U.S.C. § 1125.¹²² BCC and its U.S. sister company, Bayer Healthcare LLC (BHC, and together with BCC, Bayer), jointly filed a false advertising claim.¹²³ Bayer lost both claims at the federal trial court.¹²⁴ The Virginia district court held that: (1) The Lanham Act’s “zone of interests” did not include Bayer’s claim because Bayer did not possess a protectable interest in the FLANAX mark in the United States, and (2) A cognizable economic loss under the Lanham Act could not exist as to a “mark that was not used in United States commerce.”¹²⁵

2. *The Fourth Circuit Decision and the Petition for Certiorari*

The cases between Belmora and Bayer were consolidated and the Fourth Circuit ruled for Bayer on all counts in 2016.¹²⁶ The Fourth Circuit vacated the district court’s judgment, ruling that the case was an unfair competition case rather than a trademark infringement case.¹²⁷ According to the court, Belmora’s ownership of the registered mark did not give it rights to use the mark to deceive customers and constituted a form of unfair competition.¹²⁸ The court decided that the plain language of Lanham Act section 43(a) did not require a plaintiff to possess or have used the trademark in U.S. commerce.¹²⁹ According to the court, section 43(a) required the defendant’s use in commerce of a “word, name, symbol, or device,” or of a “false or misleading description [or representation] of fact” that created harm to the plaintiff.¹³⁰

The *Belmora* court built its decision upon the 2014 Supreme Court case, *Lexmark International Inc. v. Static Control Components, Inc.*,¹³¹ emphasizing that courts must not add any requirements that the Congress did not include in the statute to their analysis.¹³² Section 43(a) of the Lanham Act requires that the plaintiff is “likely to be damaged” by the junior user’s use in commerce of the mark and related advertisements.¹³³ According to the *Lexmark* court, “likely to be damaged” is not meant “literally,” rather it is based on two non-overlapping

121. *See generally* *Belmora LLC v. Bayer Consumer Care AG*, 819 F.3d 697, 706 (4th Cir. 2016).

122. *Id.* at 706

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.* at 697.

127. *Id.* at 706.

128. *Id.* at 713.

129. *Id.* at 706.

130. *Id.*

131. 134 S. Ct. 1377 (2014).

132. *Id.* at 1388.

133. *Id.*

background principles.”¹³⁴ These two background principles are that (1) the plaintiff’s claim must fall within the “zone of interests” protected by the statute, and (2) “a statutory cause of action is limited to plaintiffs whose injuries are proximately caused by violations of the statute.”¹³⁵

As to the first background principle, a false association claim falls directly within most of the enumerated interests in section 45 of the Lanham Act.¹³⁶ A false advertising claim is encompassed by the Lanham Act if a plaintiff alleged “an injury to a commercial interest in reputation or sales.”¹³⁷ The Fourth Circuit found that Bayer’s false association claim satisfied this first principle because potential consumers, either Mexican-Americans travelling to Mexico or residents living in the border areas between the United States and Mexico, would forego buying the Bayer products due to false association between the Belmora-made FLANAX and the Bayer brand.¹³⁸ Bayer’s allegations were within the purpose of section 45 to prevent “the deceptive and misleading use of marks” in “commerce within the control of Congress.”¹³⁹

Moreover, the court also found that Bayer sufficiently pledged the false advertising claim under section 43(a), as “Belmora engaged in Lanham Act unfair competition by using deceptive advertisements that capitalized on BCC’s goodwill.”¹⁴⁰ The Fourth Circuit noted that the Supreme Court interpreted the second background principle to mean that the case must show “economic or reputational injury flowing directly from the deception wrought by the defendant’s advertising; and that occurs when deception of consumers causes them to withhold trade from the plaintiff.”¹⁴¹ According to the court, since Belmora was targeting Mexican-Americans, it is possible that a subset of this population may forego buying FLANAX products in Mexico.¹⁴² In 2017, Belmora petitioned for certiorari¹⁴³ and the Supreme Court denied the request.¹⁴⁴

B. DISTINGUISHING THE PRE-BELMORA CIRCUIT SPLIT WITH THE BELMORA CASE

Like the Ninth Circuit in the *Grupo Gigante* case, the Fourth Circuit in *Belmora* also ruled in favor of extending the protections of the Lanham Act,

134. *Id.*

135. *Id.*

136. *See id.* at 1389.

137. *Id.* at 1390.

138. *Id.*

139. Lanham Act § 45, 15 U.S.C. § 1127.

140. *Belmora LLC v. Bayer Consumer Care AG*, 819 F.3d 697, 712 (2016).

141. *Id.* at 708.

142. *Id.* at 708.

143. Petition for Writ of Certiorari, *Belmora LLC v. Bayer Consumer Care AG*, 137 S. Ct. 1202 (2017) (No. 16-548), 2016 WL 6156565.

144. *Belmora*, 819 F.3d at 701.

but based on a different rationale. *Belmora* did not discuss the well-known brand exception and territoriality at all. Instead, the court focused on the loss of foreign sales as an injury covered by the Lanham Act. The Ninth Circuit decision in *Grupo Gigante* required the plaintiff to show that a large percentage of persons in the relevant market were aware of the plaintiff's trademark, which is a requirement for the application of the well-known mark doctrine.¹⁴⁵ The *Belmora* court did not provide an explicit statutory requirement to expand the *Lexmark* test to cancellation and other Lanham remedies.¹⁴⁶ The *Belmora* court decided that Bayer's unfair competition claim did not require the plaintiff to have used the mark because it was a section 43(a) claim, not a section 32 infringement suit, which requires the usage of the trademark by the registrant.¹⁴⁷ The *Belmora* court also pointed to "reverse passing off" and generic mark cases to support the proposition that ownership of a U.S. mark is not a pre-condition to bring a section 43(a) claim.¹⁴⁸

C. CRITIQUES OF THE *BELMORA* DECISION AND WHY *BELMORA* IS CORRECT

1. *Is the Belmora Holding Consistent with the Territoriality Principle of Trademark Law?*

Most critiques of the *Belmora* decision emphasize that the decision overlooked one of the fundamental principles of trademark law: territoriality. Christine Farley specifically points out that this litigation strategy could broaden the reach of *Belmora* as an exception to territoriality, as in the Ninth Circuit's *Grupo Gigante* precedent.¹⁴⁹ According to Farley, combining the TTAB decision on the cancellation of the FLANAX trademark registered by *Belmora* with the Fourth Circuit court decision on unfair competition claim, any party that can bring a section 14(3) cancellation petition in the TTAB can then bring an appeal in the Eastern District Court of Virginia where the TTAB is located. This way, the initial action in a district court will be within the Fourth Circuit.¹⁵⁰ Commentators are also concerned that by expanding the wide array of remedies under the unfair competition clause and the Lanham Act, and by lowering the burden of proof, the *Belmora* decision may potentially reduce U.S. trademark registrations and chill healthy competition.¹⁵¹ Commentators bring up the well-known mark exception doctrine as a main recommendation for the situation handled in *Belmora*.

145. *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1107 (2004).

146. *Belmora*, 819 F.3d at 708.

147. *Id.*

148. *Id.* at 710.

149. See Farley, *supra* note 1, at 317.

150. *Id.*

151. See Wei, *supra* note 7, at 529.

The critiques of the *Belmora* decision are wrong on two grounds. First, as already discussed, it not clear that the territoriality principle is a bedrock principle of the Lanham Act. Even if it were, now, in the context of globalization and international trade, it is probably a good time to reconsider this principle because it restricts economic activities in the market.¹⁵² Second, and more importantly, the petitioner overlooked the challenges that are inherent in the well-known mark exception doctrine, especially because the case involves trademark owners from a different country. Discussion regarding the existence of a well-known mark exception is futile without effectively tackling how to determine what a well-known mark is. The *Belmora* court shrewdly focused on the unfair competition clause to avoid stepping into a discussion that probably would require the use of cognitive science to reach resolution. Moreover, whether to apply the well-known mark exception may also depend on two different underlying views about the goal of the trademark law.

a) It Is Wise to Avoid Discussing the Well-Known Mark Exception Because It Is Difficult to Administer This Doctrine

The goal of U.S. trademark law is twofold: first, trademark law aims to prevent consumer confusion, and second, it protects investment in trade symbols.¹⁵³ These two intrinsic purposes of trademark law do not prevent application of the well-known mark exception in interpreting the Lanham Act. Similarly, the purposes are aligned with the essence of unfair competition claims. In short, the intrinsic purpose of trademark law is to protect the owners of trademarks and to prevent others from using confusingly similar marks because the trademark owner possesses the goodwill and reputation of the mark.¹⁵⁴

The well-known mark exception doctrine complements the first purpose of protecting against consumer confusion and “palming off.”¹⁵⁵ With this purpose in mind, it was unjustifiable to the Ninth Circuit that the defendant in *Grupo Gigante* used “trademark law to fool immigrants into thinking that they are buying from the store they liked back home.”¹⁵⁶ To those who believe in this goal of trademark law, applying the absolute territoriality rule without a well-known mark exception would “promote consumer confusion and fraud.”¹⁵⁷ In a country of immigrants like the United States, it is especially important for the law to protect immigrant consumers who tend to have knowledge and exposure to foreign famous brands.

152. See Dinwoodie, *supra* note 13, at 955.

153. See Lockridge, *supra* note 12, at 1392 n.181.

154. *Id.* at 1392.

155. *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1094 (9th Cir. 2004).

156. *Id.* at 1094.

157. *Id.*

The unfair competition clause fits the second purpose of trademark law to protect the manufacturers when trademark law is considered “a part of the broader law of unfair competition.”¹⁵⁸ According to this view, the right to a particular mark depends on its use, not just its adoption. Therefore, the main function of trademark law is to “designate the goods at the product of a particular trader and to protect his good will against the sale of another’s product.”¹⁵⁹ Under this second view, it is more important to prove the harm the junior user casts on the senior user through capitalizing on the senior user’s goodwill. In this context, as long as Lanham Act section 43(a) applies to non-registered and not-in-use foreign trademarks with proof of harm, the plaintiff can file a suit against the junior user. Not surprisingly, here, determining whether the foreign mark is well known is not as essential as determining whether the Lanham Act requires “registration” and use in commerce. The *Belmora* court focuses on the protection of trademark owners’ goodwill in its discussion around the application of Lanham Act section 43(a) without getting into the discussion of the well-known mark exception. It is a smart and useful attempt at reconfiguration of the territoriality principle in trademark law.

In addition, some see the well-known mark doctrine as a “safety valve” for trademarks that are not registered in a foreign jurisdiction, but have become well-known among consumers living there.¹⁶⁰ According to the *Grupo Gigante* court, it is necessary to prove that “the court must be satisfied, by a preponderance of the evidence, that a *substantial* percentage of consumers in the relevant American market is familiar with the foreign mark.”¹⁶¹ The *Grupo Gigante* court applied the passive perception theory, which is a relatively low bar.¹⁶² As Professor Leah Chan Grinvald suggests, courts should instead “requir[e] both effective exposure and conscious consumer activity before finding a trademark well-known.”¹⁶³ Again, the point of using caution to determine if the trademark is well-known is to ensure that the doctrine is applied only where it is truly warranted. Given the existing split between the Ninth Circuit and the Second Circuit, unless the Supreme Court steps in to provide a guidance on how to determine what a well-known mark is, how to apply the well-known mark exception remains an open question for the courts.

158. *United Drug Co. v. Theodore Rectanus Co.* 248 U.S. 90, 97 (1918) (quoting *Hanover Milling Co. v. Metcalf*, 240 U.S. 403, 412–14 (1916)).

159. *Id.*

160. *See* Grinvald, *supra* note 79, at 52.

161. *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1098 (9th Cir. 2004).

162. *See id.*

163. Grinvald, *supra* note 79, at 53.

b) It Remains Unclear Whether Well-Known Marks Should Be Bounded by the Territoriality Principle of Trademark Law

In addition to the determination of well-known mark status, the Ninth Circuit in *Grupo Gigante* also disagreed with the Federal and Second Circuit on whether the well-known mark exception exists in U.S. trademark law.¹⁶⁴ The Ninth Circuit was correct in determining the exception exists as long as it is proven that the goodwill or reputation of a brand goes beyond country borders before it is in use. The Lanham Act section 43(a) protects rights created by the existence of trademark reputation.¹⁶⁵ If reputation can exist beyond geographical borders before a trademark is put in use in either domestic or international contexts, confusion may be created and the Lanham Act should apply.¹⁶⁶ Empirical data to show the prevalence of reputation and consumer association in particular geographic areas is beyond the scope of this Note. However, it is easy to come up with anecdotal examples to demonstrate that, for instance, people in a foreign country may have knowledge of the famous brand Coca-Cola before the soda company starts official sales in that country. Proving the local use of a trademark is essentially a proxy to proving goodwill, “which is the keystone of commercial and consumer interests protected by trademark law.”¹⁶⁷ If goodwill precedes a trademark being used in commerce, there is no need to prove a mark is “in use.” For this reason, the Lanham Act’s protection of famous trademarks should not be bounded by country boundaries, as long as a trademark has established reputation and goodwill.

2. *Certiorari Petitioner’s Arguments Against the Fourth Circuit Holding in Belmora and Why They Are Wrong*

In the petition for certiorari,¹⁶⁸ Belmora made strong arguments against the Fourth Circuit decision. First, the petitioners argued that the Fourth Circuit circumvented the well-known mark exception doctrine by completely avoiding discussion of the “territoriality” principle of trademark law.¹⁶⁹ Second, the petitioner argued that the Fourth Circuit decision deepened the existing circuit split by adding an additional layer to the dispute.¹⁷⁰ Petitioner also argued that the decision would allow foreign businesses to use the Lanham Act’s unfair competition provisions to circumvent the territoriality principle of the U.S. trademark law and may cause grave danger to U.S. marks and American

164. *Grupo Gigante SA De CV v. Dallo & Co.*, 391 F.3d 1088, 1098 (9th Cir. 2004).

165. 15 U.S.C. § 1125(a).

166. *See* Lockridge, *supra* note 67, at 1403.

167. *Id.*

168. Petition for Writ of Certiorari at 11–12, *Belmora LLC v. Bayer Consumer Care AG*, 137 S. Ct. 1202 (2017) (No. 16-548), 2016 WL 6156565.

169. *Id.*

170. *Id.*

businesses.¹⁷¹ Third, petitioners argued that the Fourth Circuit erred on limiting its interpretation of the Lanham Act within its plain language.¹⁷² Petitioners quoted Judge Jed S. Rakoff of the Southern District of New York:

Although . . . the Lanham Act itself . . . *see, e.g.*, 15 U.S.C. § 1125(a)(1), does not specify the ‘territorial principle’ in haec verba, the principle was long established before enactment of the Lanham Act in 1946 and was already so basic to trademark law that it may be presumed to be implied in the Lanham Act.¹⁷³

The petitioner urged the Supreme Court to grant certiorari to achieve “uniformity in the interpretation of the Lanham Act and to reestablish the primacy of the territoriality principle.”¹⁷⁴ In the following Sections, this Note will explain why the accusations against the *Belmora* decision in the certiorari petition were incorrect.

a) The Unfair Competition Clause Is a Good Alternative Way for Courts to Re-Characterize the Territoriality Principle in the Trademark Law

As discussed earlier, applying the well-known mark exception to protect consumers is not a straightforward process because determining well-known mark status itself can be confusing and hard to administer. The *Belmora* court, however, offers some guidance on how trademark owners can protect their goodwill through the unfair competition clause. The court makes a commendable attempt to achieve the reconfiguration of the territoriality principle in trademark law without clashing head-to-head with the existing debate around the existence and application of the well-known mark exception in Lanham Act.

Belmora capitalized on FLANAX Mexico and potentially caused the loss of sales of ALEVE and other pain relievers in the United States. The *Belmora* opinion emphasized that this was not a trademark infringement case, but an unfair competition case. If trademark protection is about protecting trademark owner’s goodwill, then the key to determine the cause of action should be the amount of lost sales. On the other hand, in *Belmora*, the lost sales of Bayer would have been difficult to calculate, given that the purchase of pain reliever products is very need-based. If someone traveled from Mexico to the United States and needed a pain reliever, that person probably would just buy what was available immediately. However, one might argue that a Mexican traveler is more likely to buy FLANAX based on their knowledge of Bayer’s FLANAX

171. *Id.* at 12.

172. *Id.*

173. *Almacenes Exito S.A. v. El Gallo Meat Mkt., Inc.*, 381 F. Supp. 2d 324, 327 n.3 (S.D.N.Y. 2005).

174. Petition for Writ of Certiorari at 12, *Belmora*, 137 S. Ct. 1202 (No. 16-548).

in Mexico. Consequently, as a competitor, Bayer's ALEVE in the U.S. market might lose sales to the U.S. user of the FLANAX brand due to the goodwill of FLANAX in Mexico.

The Supreme Court pointed out in *Hanover Milling Co. v. Metcalf* that if, in two remote and separate markets, two parties independently develop and employ the same mark upon similar goods of the same class,

the question of prior appropriation is legally insignificant; unless, at least, it appears that the second adopter has selected the mark with some design inimical to the interests of the first user, such as to take the benefit of the reputation of his goods, to forestall the extension of his trade, or the like.¹⁷⁵

In *Belmora*, there is clearly such a bad faith element when Belmora made its FLANAX package look similar to that of the Bayer FLANAX. In addition, Belmora made efforts to make distributors and retailers believe they were selling the same FLANAX product as in Mexico. Therefore, it is evident that Belmora sought to capitalize on Bayer's goodwill and, as such, the unfair competition clause was the optimal source to protect the trademark owner's rights.

Finally, the remaining question is whether either registration or use in commerce are required for Lanham Act section 43(a) to apply. The *Belmora* court applied the *Lexmark* analysis to determine that, as long as Lanham Act did not require "use of the mark," it should apply. Though there remains disagreement, the *Belmora* court was correct in deciding the case on the plain language of the Act, which does not restrict application to registered or in-use trademarks.

b) Circumventing the Territoriality Debate Is Not a Bad Thing

The Supreme Court's 1952 *Steele* decision created a three-prong test that allowed trademark law to go beyond U.S. borders when the infringing defendants were outside of the United States.¹⁷⁶ However, the Court never determined whether foreign trademark holders can sue for damages or cancellation in the United States against defendant U.S. companies. This battle landed before the Fourth Circuit in *Belmora*, with the territoriality principle at front line. The Federal Circuit and the Second Circuit court both clearly denied the extraterritoriality of trademark law. This currently dead-end debate among circuit courts around the famous-mark exception should be taken up by the Supreme Court or Congress. Until then, *Belmora* creates a better alternative to get around the territoriality debate and pushes the law further to protect rights holders.

175. 240 U.S. 403, 415 (1916).

176. *Steele v. Bulova Watch Co.*, 344 U.S. 280, 282 (1952).

The Supreme Court's refusal to review *Belmora* is consistent with its inclination to apply extraterritoriality in trademark law disputes. The Supreme Court is in a double bind. Due to the well-accepted territoriality of intellectual property laws, if the Supreme Court refused to apply the extraterritoriality view to U.S. infringers against foreign mark holders, it would likely be accused of going against the trend of protecting the right holders. If the Supreme Court decided the other way, it would fail to protect U.S. citizens and companies.

V. THE AFTERMATH OF *BELMORA* AND PROPOSED SOLUTIONS

As mentioned by the International Trademark Association's amicus brief supporting the petition for certiorari by *Belmora*, this case involved an important issue to trademark owners: Can the owner of a foreign trademark establish standing to pursue claims under section 14(3) or 43(a) of the Lanham Act against the owner of the same mark in the United States?¹⁷⁷ Empirical data in trademark law litigation and registration shows that refraining from resolving the circuit split may lead to forum shopping and also increase the confusion of the large volume of foreign trademark owners who hope to get protected under the U.S. Lanham Act.

A. EMPIRICAL DATA AND FINDINGS ON FOREIGN TRADEMARK REGISTRATION IN THE UNITED STATES

This circuit split potentially impacts thousands of trademarks in industries that may worth more than 2.5 trillion dollars for the U.S. economy.¹⁷⁸ The Fourth Circuit decision invites foreign trademark owners to be involved in endless lawsuits against U.S. trademark owners, even if those foreign mark owners are not registered or in commerce, in the United States.¹⁷⁹ Foreign trademark owners may also be incentivized to slack on registering their trademark directly in the United States. Registering trademarks in multiple countries is an expensive and time-consuming process, and the recent futile applications of international treaty-making in trademark protection forces foreign trademark owners to choose between this costly multi-country registration process and the chance of winning a well-known mark or unfair competition claim.

177. Brief for International Trademark Association as Amicus Curiae Supporting Petitioners at 4, *Belmora LLC v. Bayer Consumer Care AG*, 137 S. Ct. 1202 (2017) at 4.

178. See Petition for Writ of Certiorari at 24; *Belmora LLC v. Bayer Consumer Care AG*, 137 S. Ct. 1202 (2017) (No. 16-548), 2016 WL 6156565.

179. *Id.*

The USPTO has posted registration information by foreign trademark owners in the United States since the 1900s.¹⁸⁰ Figure 1, below, shows an almost-continuous increase of foreign trademark registration in the United States until 1997.¹⁸¹ However, that trend stalled during the period the federal courts began struggling to interpret the Lanham Act and remains so today. It is unclear from the data how much foreign trademark owners reacted directly to federal circuit courts decisions while deciding if they should register their marks in the United States. In other words, it is hard to determine the net effect of court decisions on foreign trademark owners' choices solely from the data discussed here. However, there are some visible trends in foreign trademark registration volume that correlates well with the back-and-forth decisions in the circuit courts.

According to the USPTO data presented in the Figure 1 below, foreign trademark registration volume across time shows that court decisions on the extraterritorial nature of the Lanham Act may confuse foreign trademark owners. After the Federal Circuit's decision against the well-known mark exception in *Person's Co., Ltd. v. Christman* in 1990,¹⁸² the number of foreign trademark registrations in the United States saw a sharp increase until 1997.¹⁸³ Conversely, the sharp drop in foreign trademark registration volume around 1997 corresponds with the Ninth Circuit's decision in favor of the Mexican restaurant chain in *Grupo Gigante*. According to the data as presented in Figure 1, registration volume started to go back up after the Second Circuit decision in 2007. Only time will tell if the *Belmora* decision will have an impact on this trend. Even without a complicated causal inference analysis, it seems unlikely that the correlation between changes in volume of foreign trademark registration in the United States with courts' decisions regarding those trademarks is mere coincidence.

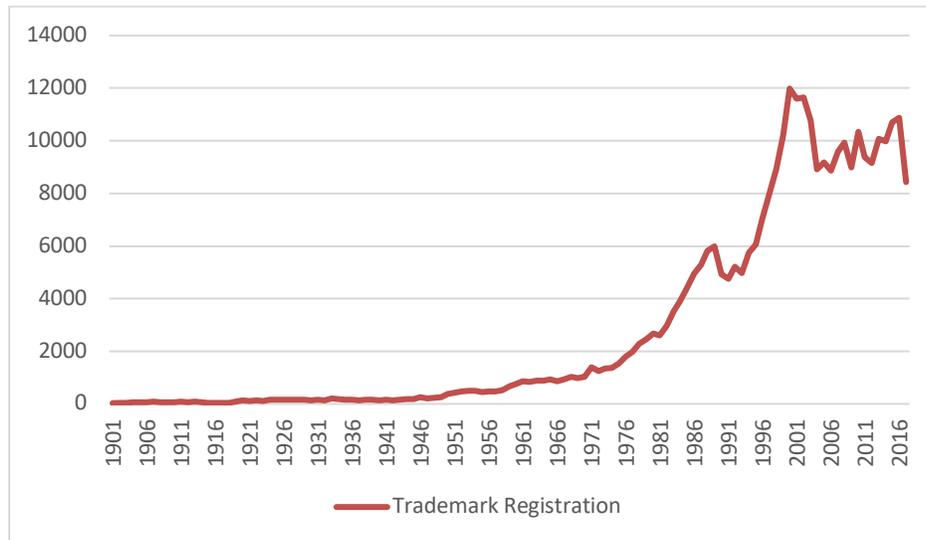
180. See STUART GRAHAM ET AL., THE USPTO TRADEMARK CASE FILES DATASET: DESCRIPTIONS, LESSONS, AND INSIGHTS (2013).

181. See Tim W. Dornis, *Behind the Steele Curtain: An Empirical Study of Trademark Conflicts Law, 1952–2016*, 20 VAND. J. ENT. & TECH. L. 3, 566, Figure 7 (2018).

182. See *Person's Co., Ltd. v. Christman*, 900 F.2d 1565 (Fed. Cir. 1990).

183. For further data on trademark applications, see *Trademark Case Files Dataset*, USPTO, <https://www.uspto.gov/learning-and-resources/electronic-data-products/trademark-case-files-dataset-0> [<https://perma.cc/D8GS-872G>] (last visited Dec. 24, 2019).

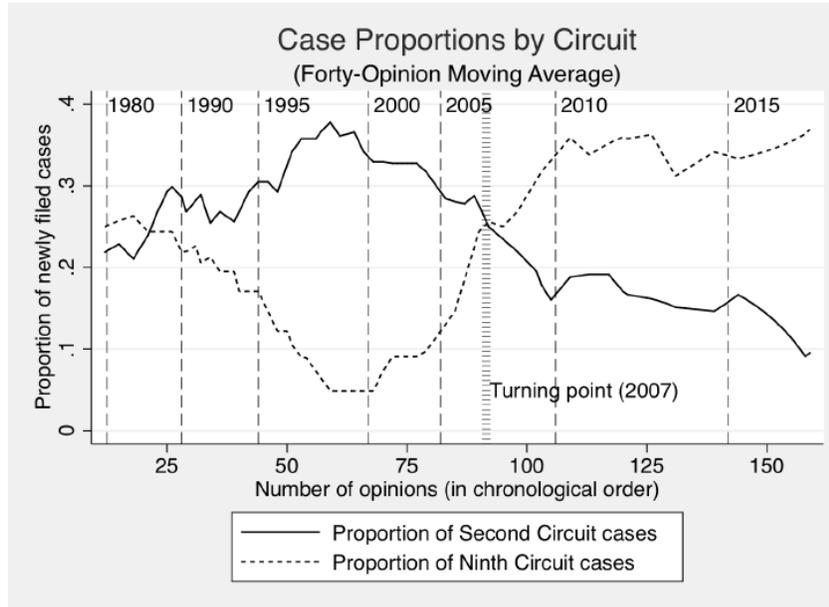
Figure 1: Number of Foreign Trademarks Registered per year with the USPTO 1900–2017



B. THE DANGER OF FORUM SHOPPING

Forum shopping is always a concern for the federal U.S. legal system, as it strives for consistency and predictability in decision-making. The circuit split before *Belomora* already led to a clear trend of forum shopping in trademark litigation. The Ninth Circuit became an increasingly popular destination for filing trademark law cases involving non-U.S. infringers or infringement activities allegedly happening overseas. In Figure 2, Professor Dornis presents that since 1997, the Ninth Circuit has seen a continuous increase in the proportion of newly-filed cases relating to the extraterritorial interpretation of the Lanham Act. The ratio of cases filed in the Ninth Circuit finally exceeds that of the Second Circuit in 2007 after the *ITC* decision. It would be reasonable to project that the Fourth Circuit will become the next popular court for foreign trademark owners seeking Lanham Act protection.

Although the data presented in Professor Dornis's paper focused on cases with U.S. trademark owners as plaintiffs seeking protection from trademark infringement conduct happening outside of the United States, territoriality and extraterritoriality issues are so closely related that it seems the increased filing rate of international trademark cases in the Ninth Circuit is encouraged by the failure of the well-known mark exception claim in the Second Circuit.

Figure 2: Case Proportions by Circuit (Forty-Opinion Moving Average)¹⁸⁴

C. PROPOSED SOLUTIONS

Belmora created a new route to achieve extraterritoriality in the Lanham Act. In his discussion on whether the territoriality doctrine is a dying principle of trademark law, Professor Dinwoodie asked whether trademark law should be reactive or proactive to social change.¹⁸⁵ If reactive, the increasingly non-national nature of goodwill suggests that *Belmora* correctly engaged the basic objectives of trademark law, i.e., protecting the trademark owners' goodwill in the context of a global market. A reactive theorist would want to elevate the social aspect of territoriality and to protect the goodwill that the global market engenders. But a proactive theorist may "seek solace in the politically grounded aspects of territoriality and the practical value of national rights."¹⁸⁶ Therefore, parties that prefer international protection would be encouraged to use the efficiency-enhancing mechanisms of section 44(e) and the Madrid Protocol, and would be promoted through a narrow interpretation of "use in commerce." Thus, the practical suggestions would enhance the international trademark registration system and encourage international collaboration on trademark protection in reciprocal way.

184. See Tim W. Dornis, *Behind the Steele Curtain: An Empirical Study of Trademark Conflicts Law, 1952–2016*, 20 VAND. J. ENT. & TECH. L. 3, 566, Figure 7 (2018).

185. See Dinwoodie, *supra* note 12, at 955–56.

186. *Id.*

According to Professor Dinwoodie's reactive perspective, the *Belmora* court made a defensible move to achieve one of the goals of trademark law. However, Professor Dinwoodie's proactive perspective could be counter-productive. Given the proven ineffectiveness of the international trademark registration system and the toothless TRIPS Agreement on international collaborations in trademark protection, it is better to draw on the equity principle in the Lanham Act and request protection for non-U.S. trademark owners against unauthorized users' bad faith behavior. *Belmora*'s intentional mimicking of the FLANAX package is a particularly good example of such bad faith behavior.

Providing a clear path for optimal extraterritorial trademark protection would require reform from courts, the legislature, and practitioners alike. First, Congress should take a proactive role and clarify in the Lanham Act that non-U.S. trademarks are covered by the statute as long as they can prove harm by unauthorized users' capitalization of the goodwill of their trademarks. Therefore, non-U.S. trademark owners may bring in causes of action on the basis of the unfair competition clause in the Lanham Act. Moreover, the Congress should also explicitly include the well-known mark exception in the statute. Ideally, Congress should provide guidance on how to determine the well-known mark statutes based on a combination of social science research findings and the practical considerations of efficiency and administrability.

Second, before Congress amends the Lanham Act, the U.S. Supreme Court should revisit the well-known mark exception doctrine and the unfair competition clause, and endorse the Ninth and Fourth Circuits' efforts in reconfiguring the territoriality principle under the Lanham Act.

Third, practitioners should keep encouraging non-U.S. trademark owners to register in the United States and be vigilant about potential infringement from local users. Even though Bayer won at the Fourth Circuit, on remand in the district court, Bayer lost because the statute of limitations ran in September 2018.

VI. CONCLUSION

The *Belmora* decision in 2017 further exacerbates the pre-existing circuit split on the extraterritorial application of the Lanham Act. Before *Belmora*, the debate between the Ninth Circuit and the Second and Federal Circuits focused on whether the well-known mark exception can be applied to non-U.S. trademark owners against infringement activities by U.S. junior users. The *Belmora* court decided to focus on the unfair competition clause of the Lanham Act and allows foreign trademark owners with no trademark rights in the United States to file a claim against U.S. junior users if harmful activities conducted in bad faith were involved. With the help of data from USPTO trademark registrations and lawsuit case data collected by Professor Dornis,

this Note advocates for the importance of addressing the extraterritorial applications of the Lanham Act. In conclusion, *Belmora* is a commendable effort made by the Fourth Circuit in response to a gray area in Lanham Act jurisprudence, which supports the protection of foreign trademark owners from bad faith mimicking by U.S. junior users.

THE CLOUD ACT: CREATING EXECUTIVE BRANCH MONOPOLY OVER CROSS-BORDER DATA ACCESS

Miranda Rutherford[†]

In 2013, law enforcement officers in New York applied for a warrant under the Stored Communications Act (SCA), ordering Microsoft to disclose information relating to the email account of one of its users, whom the officers suspected of narcotics trafficking.¹ Microsoft complied with the portions of the warrant covering data stored in the United States, but stated that the rest of the data requested was stored in Ireland, which it argued was not covered under the parameters of the warrant.² Microsoft then moved to quash the warrant.³ The magistrate judge and the district court denied the motion to quash.⁴ The Second Circuit reversed, reasoning that the language and purpose of the SCA did not extend to overseas data.⁵ Rather, the court found that when the SCA was written, “international boundaries were not so routinely crossed as they are today,” and the act never could have foreseen a situation in which international data would be demanded.⁶ The United States appealed to the Supreme Court, where the case was argued as *U.S. v. Microsoft Corp.*

Microsoft’s attempt to quash the search warrant brought to the forefront an issue concerning the SCA that had been percolating in the minds of lawmakers and scholars for years: how the SCA could function in the era of internationalized data storage. Beginning in 2014, Senator Orrin Hatch had repeatedly introduced the Law Enforcement Access to Data Stored Abroad (LEADS) Act, which would have solved the problem in *U.S. v. Microsoft* by extending the SCA to data stored abroad.⁷ The Obama administration

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. *U.S. v. Microsoft Corp.*, 138 S. Ct. 1186, 1187 (2018).

2. *In re Warrant to Search a Certain E-Mail Account Controlled and Maintained by Microsoft Corporation*, 829 F.3d 197, 200–01 (2d Cir. 2016).

3. *Id.*

4. *Id.* at 201.

5. *Id.*

6. *Id.*

7. S. 2871, 113th Cong. (2014).

proposed similar legislation in 2016.⁸ However, none of the variations of the LEADS Act, or its successor, the Clarifying Lawful Overseas Use of Data (CLOUD) Act (introduced in both the House and the Senate in February 2018), gained traction in Congress or even received hearings.

Yet once the *Microsoft* case proceeded to oral arguments at the Supreme Court, whatever brakes had been on the SCA reform train came off. Without much warning, the CLOUD Act was incorporated as the last section in a massive omnibus spending bill signed into law on March 23, 2018.⁹ The Act addressed the issue at play in *Microsoft*, amending the SCA so that warrants issued under the SCA could be used to compel disclosure of overseas data held by American companies.¹⁰ The Supreme Court summarily declared the issue in *Microsoft* moot after the CLOUD Act was signed into law.¹¹

However, the CLOUD Act does not merely address American warrants for overseas data. It also streamlines the process by which foreign law enforcement can access data stored in the United States, allowing American service providers to disclose information to foreign governments that have an “executive agreement” with the United States.¹² Further, the Act allows for real-time interception of data inside the United States by foreign governments outside of the requirements set by the Wiretap Act.¹³ Such international access had previously been administered via Mutual Legal Assistance Treaties (MLATs). MLATs are bilateral treaties between nations wherein governments commit to mutual aid in criminal investigations.¹⁴ The MLAT process ensures that all access demands pass through the legal system of the country where the data is being stored, rather than being served by the foreign government directly on the private entity storing the data.¹⁵ This process can move quite slowly, wasting prosecutors’ time in a criminal investigation.¹⁶ Under the CLOUD Act, once an executive agreement is in place, law enforcement authorities in a foreign country can go directly to companies in the United States with their demands, rather than proceeding through executive channels.¹⁷ Since executive agreements are established by the Department of Justice, the executive branch is given significant power to set the constraints

8. Jean Galbraith, *Congress Enacts the Clarifying Lawful Overseas Use of Data (CLOUD) Act, Reshaping U.S. Law Governing Cross-Border Access to Data*, 112 AM. J. INT’L L. 487, 488 (2018).

9. 115 H.R. 1625, Pub. L. 114-141, 115th Cong. (2018).

10. 18 U.S.C. § 2701.

11. *U.S. v. Microsoft Corp.*, 138 S. Ct. 1186, 1188 (2018).

12. 18 U.S.C. § 2511(2)(j).

13. *Id.*

14. *Validity, Construction, and Application of Mutual Legal Assistance Treaties (MLATs)*, 79 A.L.R. FED 2D 375 (2013).

15. *Id.*

16. Galbraith, *supra* note 8, at 487.

17. *Id.*

on extraterritorial data access, which can lead to problems of both due process and conflicts of values.

This paper will first outline the international data storage regime prior to the CLOUD Act, with a particular focus on the problems the CLOUD Act endeavored to solve. It will then explain how the CLOUD Act was composed and passed, and its effects on cross-border data access. Finally, a critique will be offered of the CLOUD Act's impact on due process and creation of conflicts of values, with an examination of the first executive agreement formed under the CLOUD Act's new regime.

I. INTERNATIONAL DATA STORAGE AND THE STORED COMMUNICATIONS ACT

A. THE STORED COMMUNICATIONS ACT AND MUTUAL LEGAL ASSISTANCE TREATIES

Law enforcement demanded Microsoft's data via a warrant under § 2703 of the Stored Communications Act (SCA).¹⁸ The SCA is a section of the Electronic Communications Privacy Act (ECPA), which was passed in 1986 to oversee newly developed electronic communications technology by both penalizing unauthorized wiretapping of the new services and providing measures by which law enforcement could wiretap electronic communications or access electronically-stored data.¹⁹ The SCA "governs data transmitted or held by a third-party service provider," including both providers of electronic communications services (which send or receive communications) and providers of remote computing services (which store data or provide server space or other remote computing resources).²⁰ Service providers such as Microsoft often play both roles, hosting email messages while also transmitting them.²¹ The SCA requires law enforcement to follow specific procedures depending on the type of information demanded, based on how private the drafters of the SCA perceived this information to be.²² Basic subscriber information merely requires a subpoena.²³ The SCA has more complicated rules for the content of stored email. It has been the practice of the U.S.

18. *In re Warrant to Search a Certain E-Mail Account Controlled and Maintained by Microsoft Corporation*, 829 F.3d 197, 200 (2d Cir. 2016).

19. JAMES P. MARTIN & HARRY CENDROWSKI, *CLOUD COMPUTING AND ELECTRONIC DISCOVERY* 55 (2014).

20. *Id.* at 57.

21. Orin S. Kerr, *A User's Guide to the Stored Communications Act, and a Legislator's Guide to Amending It*, 72 GEO. WASH. L. REV. 1208, 1215–16 (2004).

22. MARTIN & CENDROWSKI, *supra* note 19, at 65.

23. *Id.*

Department of Justice for some years to obtain a warrant when seeking stored email, which is how law enforcement proceeded in the *Microsoft* case.²⁴

The SCA as passed in 1986 has proved inadequate to handle some of the more complex technological questions that have emerged in the 21st century. This has been most evident with the rise of cloud computing. Major U.S.-based companies store data in servers around the world,²⁵ whereas smaller companies (and some large ones) make use of global hosting services such as Amazon Web Services.²⁶ At the same time, the internet has facilitated international crime, enabling criminals to communicate with each other across the globe.²⁷ As both data and crime have become cross-border, law enforcement agencies have found it necessary to access data stored in other countries. This does not pose a problem when it comes to, for example, Irish law enforcement trying to gain access to Microsoft's data located in Ireland: Irish officials can use local procedures to access that data. However, the SCA does not mention any extraterritorial application of its warrants, leaving it unclear whether or not American law enforcement could gain access to Microsoft's data located in Ireland.²⁸

While the SCA was unclear regarding outbound demands for data (from the United States to other countries), it effectively blocked American companies from responding to inbound demands for data (from other countries to the United States).²⁹ As many of the major technology companies that store data for customers worldwide, including Google, Apple, and Microsoft, are located in the United States, this made it much more difficult for law enforcement officials in other countries to investigate and prosecute crimes using digital evidence.

24. *Id.*; see *In re Warrant to Search a Certain E-Mail Account Controlled and Maintained by Microsoft Corporation*, 829 F.3d 197, 200 (2d Cir. 2016).

25. See, e.g., *Data Center Locations*, GOOGLE DATA CTRS., <https://www.google.com/about/datacenters/inside/locations/index.html> [<https://perma.cc/S77Q-HL39>] (last visited Mar. 20, 2019); *Data Management at Microsoft*, MICROSOFT TRUST CTR., <https://www.microsoft.com/en-us/TrustCenter/Privacy/where-your-data-is-located> [<https://perma.cc/J6JL-ELSL>] (last visited Mar. 20, 2019).

26. See *Case Studies & Customer Success*, AMAZON WEB SERVS., <https://aws.amazon.com/solutions/case-studies/all/> [<https://perma.cc/9CNC-HFBP>] (last visited Mar. 20, 2019).

27. See, e.g., MARK LATONERO ET AL., *THE RISE OF MOBILE AND THE DIFFUSION OF TECHNOLOGY-FACILITATED TRAFFICKING* (2012) (discussing how technology has facilitated human trafficking); Barbara Perry & Patrik Olsson, *Cyberhate: The Globalization of Hate*, 18 INFO. & COMM. TECH. L. 185 (2009) (discussing how technology has facilitated hate crimes); Anita Lavorgna, *Wildlife Trafficking in the Internet Age*, 3 CRIME SCI. 1 (2014) (discussing how technology has facilitated wildlife trafficking).

28. See 18 U.S.C. § 2703.

29. See 18 U.S.C. § 2702.

To enable both inbound and outbound data access, nations developed the Mutual Legal Assistance Treaties (MLAT) framework. MLATs are treaties established between governments to promise “intergovernmental cooperation in investigating and prosecuting crimes, allow[ing] each of the parties to invoke the legal procedures of the other in aid of criminal investigations and prosecutions.”³⁰ MLATs can cover a “broad range of cooperation measures between the [United States] and foreign countries in criminal matters,” which can include identifying witnesses and affected people, serving documents, and collecting fines.³¹ However, their data access provisions are most relevant to the discussion of the CLOUD Act. MLATs are based on government-to-government protocols, requiring that when American law enforcement needs access to data stored in another country, it must proceed through the legal procedures of that country rather than seeking the data directly from the entity holding it.³² Similarly, if a foreign government wants data from a U.S.-based company, its demand must be funneled through the U.S. Department of Justice rather than served directly on the company.³³ International data access was thus treated like all other transnational criminal investigative procedures: by a process of diplomatic cooperation routed through the Department of Justice.

These government-to-government protocols have meant that MLATs can be time-consuming. The statute of limitations and the Speedy Trial Act have “pause buttons” of three years and one year respectively for MLAT processes, indicating how long an MLAT process can often take.³⁴ A three-year evidence-gathering process can seriously hamper criminal investigations, particularly if the crime being investigated is of a time-sensitive nature. And of course, the process of negotiating an MLAT can itself be time-consuming.³⁵

Unsurprisingly, the slowness of MLAT processes has made them unpopular. The magistrate judge who initially ruled on the SCA warrant’s extraterritoriality in *Microsoft* was concerned that obtaining the necessary digital data through the MLAT process would levy a “substantial” burden on the

30. *Validity, Construction, and Application of Mutual Legal Assistance Treaties (MLATs)*, 79 A.L.R. FED 2D 375. Countries without MLATs with the United States can still engage in an even lengthier process to demand data: “letters rogatory.” *Id.*

31. Stephen C. Thaman, *Report on USA*, in *TRANSNATIONAL INQUIRIES AND THE PROTECTION OF FUNDAMENTAL RIGHTS IN CRIMINAL PROCEEDINGS* 509, 513 (Stefano Ruggeri ed., 2013).

32. *Validity, Construction, and Application of Mutual Legal Assistance Treaties (MLATs)*, 79 A.L.R. FED 2D 375.

33. *Id.*

34. *Id.*

35. *See id.*

government and would “seriously impede[]” law enforcement efforts.³⁶ The increasing need for electronic data had also severely strapped the Department of Justice’s Office of International Affairs (OIA), which reviews MLAT procedures.³⁷ The Department of Justice reported in 2017 that “[s]ince 2000, the number of foreign requests for assistance to OIA has increased nearly 85% and the number of requests for computer records has increased over 1000%. Staffing and resources at OIA had not kept pace with the growth in its work.”³⁸ The MLAT process had become nearly untenable.

B. ACADEMIC CRITIQUES OF EXTRATERRITORIALITY

The SCA, and ECPA more broadly, have long been the subject of criticism for being unduly cumbersome and outpaced by technology.³⁹ Critics of the SCA began to focus specifically on international data demands as cloud computing and international data storage became more prevalent. Jennifer Daskal suggested in 2015 that international data storage introduced a never-before-seen element to questions of international data access and international criminal procedure more broadly.⁴⁰ Because data can travel so easily, quickly, and arbitrarily across borders, and its storage location may have no relation to where it is being used or managed, Daskal argued that territorial approaches to data were inadequate.⁴¹ As the Fourth Amendment is applied only to citizens and those with substantial contacts with the United States, the mobility of data leaves “‘the people’ insufficiently protected by a territorial Fourth Amendment.”⁴² In Daskal’s view, the only way to address this disparity between the Fourth Amendment’s reach and the extraterritoriality of data would be to re-think the territoriality of Fourth Amendment principles themselves, not just to amend statutes.⁴³

Myra Din echoed these concerns when she argued that the extraterritoriality of data raised new problems that judges seemed to be struggling with, particularly when the battle was animated by differing

36. *In re* Warrant to Search a Certain E-Mail Account Controlled and Maintained by Microsoft Corporation, 829 F.3d 197, 221 (2d Cir. 2016).

37. CRIMINAL DIV., U.S. DEP’T OF JUSTICE, PERFORMANCE BUDGET: FY 2017 PRESIDENT’S BUDGET 23 (2016), <http://www.justice.gov/jmd/file/820926/download> [<https://perma.cc/DF8C-KYYG>].

38. *Id.*

39. See generally Kerr, *supra* note 21 (presenting critiques of the SCA’s structure and outdated nature).

40. Jennifer Daskal, *The Unterritoriality of Data*, 125 YALE L.J. 326, 326 (2015).

41. *Id.*

42. *Id.* at 380.

43. *Id.* at 381.

international conceptions of privacy.⁴⁴ Din suggested that to some extent, preserving territorial boundaries in the law is a lost cause.⁴⁵ Instead, in assessing inbound and outbound data demands, judges should engage in “active cross-referencing,” whereby U.S. judges would “analyze various foreign laws and policies and compare them to U.S. counterparts without presuming that one set is superior to the other.”⁴⁶ Yet as Peter Swire and DeBrae Kennedy-Mayo noted in an analysis of the European Union’s and the United States’ approaches to privacy, these jurisprudential and policy disagreements between countries underscore the problems with the MLAT system and would need to be considered in MLAT agreements, rather than on a case-by-case basis by individual judges.⁴⁷ As countries have their own approaches to privacy and criminal procedure, each MLAT treaty would need to be reformed based on the priorities and values of the two parties in order to address these policy concerns.⁴⁸

Whereas scholars such as Daskal argued that data by its nature cannot be territorial and others emphasized the vast differences among international values and priorities, Andrew Woods countered these approaches by drawing a comparison between data and other intangibles that are nonetheless considered like physical property, such as money or debt.⁴⁹ As these “older” intangibles have also been accompanied by jurisdictional debates which courts have successfully resolved, Woods argued that data’s territorial debates could be resolved just as easily, and by using similar mechanisms.⁵⁰ Woods suggested amending ECPA by removing the sections of the SCA which blocked inbound data demands, so that these demands would not have to proceed through the MLAT process to reach companies.⁵¹ Woods also advised courts to focus on case-by-case comity analysis, which would more equitably and clearly resolve conflict of laws issues.⁵² Woods expressed suspicion that—given the different conflicts that could arise with data demands—overarching diplomatic treaties could resolve such conflicts, and proposed using the same types of balancing tests that courts currently use to decide international conflicts of laws.⁵³

44. Myra F. Din, *Data Without Borders: Resolving Extraterritorial Data Disputes*, 26 J. TRANSNAT’L L. & POL’Y 1, 4 (2016).

45. *Id.* at 6.

46. *Id.* at 7.

47. Peter Swire & DeBrae Kennedy-Mayo, *How Both the EU and the U.S. are Stricter than Each Other for the Privacy of Government Requests for Information*, 66 EMORY L.J. 617, 618 (2017).

48. See Peter Swire et al., *A Mutual Legal Assistance Case Study: The United States and France*, 34 WIS. INT’L L.J. 323, 359 (2016).

49. Andrew Keane Woods, *Against Data Exceptionalism*, 68 STAN. L. REV. 729, 729 (2016).

50. *Id.*

51. *Id.* at 781.

52. *Id.*

53. *Id.*

C. STEPS TOWARDS THE CLOUD ACT

1. *The LEADS Act*

In this context of governmental dissatisfaction with the delays in the MLAT process and scholarly critiques of the theory underlying the status quo, legislative solutions were proposed to update the MLAT process and modernize cross-border access to data. In September 2014, Senator Orrin Hatch introduced the Law Enforcement Access to Data Stored Abroad (LEADS) Act, which aimed “to safeguard data stored abroad from improper government access.”⁵⁴ It proposed to amend the ECPA so that search warrants issued under ECPA would require the disclosure of communications regardless of where they were stored if the account holder was a “United States person.”⁵⁵ However, the LEADS Act never emerged beyond the Committee on the Judiciary during the 113th Congress. Senator Hatch reintroduced it in 2015 during the 114th Congress, but the LEADS Act again never left the Committee on the Judiciary.

2. *Recommendations from the Obama Administration*

The Obama administration also attempted to spur action on cross-border data access, but with no greater success. In a response to the slowness and difficulty of MLAT data access, particularly for the United States’ closest allies such as the United Kingdom, the administration began to discuss establishing a special treaty with the United Kingdom—and eventually with other countries—that would allow such countries to directly serve American companies with demands for digital data.⁵⁶ As part of this effort, the administration sent to Congress a legislative proposal in 2016 that would implement a UK-US bilateral data exchange agreement, which Assistant Attorney General (AAG) Kadzik explained was spurred by the Second Circuit’s decision in the *Microsoft* case.⁵⁷ Although AAG Kadzik focused on the potential UK-US treaty, he acknowledged that the MLAT process had grown untenable, and that crafting a legislative solution would not only benefit UK-US relations, but also relations with the other sixty-some countries that had MLAT agreements with the United States.⁵⁸ While AAG Kadzik’s proposal was never officially taken up by Congress, it was similar in content to

54. S. 2871, 113th Cong.

55. S. 2871 § 5(2).

56. Letter from Peter J. Kadzik, Assistant Attorney General, to The Honorable Joseph R. Biden, Vice President of the United States of America (July 15, 2016).

57. *Id.*

58. *Id.*

Congress's next attempt at solving the international data problem: the CLOUD Act.⁵⁹

D. *U.S. V. MICROSOFT*

In 2013, a magistrate judge in the Southern District of New York issued a search warrant under the SCA ordering Microsoft to disclose the contents of an MSN email account, including contents of the emails, contact lists, and any information about the owner of the account.⁶⁰ Some information about the account owner was stored on servers in the United States, which Microsoft disclosed, but the contents of the account's emails were stored on a server in Dublin.⁶¹ Microsoft moved to quash the portions of the search warrant that applied to the Dublin records.⁶² Microsoft argued that warrants under the SCA functioned just as traditional warrants do, and thus it would be outside the magistrate judge's jurisdiction to serve a warrant on the Irish data center.⁶³ However, the magistrate judge viewed the SCA differently: its warrants were "more akin to a subpoena," and thus by serving Microsoft's office in the United States with a warrant, law enforcement officials were entitled to obtain access to any data "owned, maintained, controlled, or operated by Microsoft Corporation."⁶⁴ Accordingly, the magistrate judge denied Microsoft's motion to quash.⁶⁵ The Southern District affirmed the magistrate judge's ruling.⁶⁶

Upon appeal, the Second Circuit reversed the District Court's ruling, in a decision that focused primarily on the text of the SCA; in particular, its use of the term "warrant" as opposed to "subpoena."⁶⁷ In reaching this decision, the Second Circuit studiously avoided any broader policy considerations about extraterritorial data and barely touched upon how the SCA's meaning might have evolved since the 1980s.⁶⁸ The court also did not discuss what could happen when a foreign government wishes to gain access to data held within the United States. Subsequently, the Supreme Court granted certiorari. After oral arguments, Congress took action, and brought the CLOUD Act to the floor.

59. David Callaway & Lothar Determann, *The New US Cloud Act—History, Rules, and Effects*, 35 COMPUTER & INTERNET L. 1, 3 (2018).

60. *In re Warrant to Search a Certain E-Mail Account Controlled and Maintained by Microsoft Corporation*, 829 F.3d 197, 203 (2d Cir. 2016).

61. *Id.* at 204.

62. *Id.*

63. *Id.* at 209.

64. *Id.*

65. *Id.* at 204.

66. *Id.* at 205.

67. *Id.* at 221.

68. *Id.* at 205–06.

II. THE CLARIFYING LAWFUL OVERSEAS USE OF DATA ACT

A. LEGISLATIVE HISTORY

During the 115th session of Congress, while the *Microsoft* case was pending in the Supreme Court, Senator Orin Hatch was finally successful in passing a bill tackling international demands for data. In February 2018, he introduced a new version of the CLOUD Act. Senator Hatch's bill contained a section amending the SCA to cover data stored overseas by American companies as well as a section authorizing the use of "executive agreements" by which foreign governments could demand data stored within the United States.⁶⁹ Throughout February and March, the CLOUD Act gained ten co-sponsors, five Democrats and five Republicans, but no hearings were held. Simultaneously, Representative Doug Collins introduced an identical version of the CLOUD Act in the House of Representatives. Again, no hearings were held.

Meanwhile, Congress had been drafting the Consolidated Appropriations Act for the fiscal year that was already well underway. Congress began debate on the Consolidated Appropriations Act on March 22, 2018. Its very last section, page 2116 of a 2148-page bill, incorporated the Senate/House versions of the CLOUD Act nearly word-for-word. On March 23, the Consolidated Appropriations Act unanimously passed both the Senate and the House, with the CLOUD Act tucked in amidst agricultural programs, defense spending, and other agency budget items. There was no discussion in either body of the CLOUD Act.

B. OUTBOUND DEMANDS

The CLOUD Act has two major sections. The first, and shorter, section attempts to solve the problem raised by *Microsoft*: amending the SCA to apply to data held by United States companies overseas (outbound demands). Specifically, the Act adds a new section to ECPA, 18 U.S.C. § 2713, which states:

A provider of electronic communication service or remote computing service shall comply with the obligations of this chapter to preserve, backup, or disclose the contents of a wire or electronic communication and any record or other information pertaining to a customer or subscriber within such provider's possession, custody, or control, *regardless of whether such communication, record, or other information is located within or outside of the United States.*⁷⁰

69. 115 H.R. 1625.

70. 18 U.S.C. § 2713 (emphasis added).

This allows U.S. law enforcement agencies to avoid the *Microsoft* problem when demanding data from companies that hold data overseas; a U.S.-issued warrant served on a U.S. company (or any company otherwise subject to a U.S.-issued warrant) would mandate disclosure of data no matter where it is held.

The CLOUD Act does include a process by which companies can object to outbound demands. However, the grounds upon which a company can object are fairly narrow. When served with an outbound warrant, a company can move to quash or modify the warrant only if the company can show “(i) that the customer or subscriber is not a United States person and does not reside in the United States; and (ii) that the required disclosure would create a material risk that the provider would violate the laws of a qualifying foreign government.”⁷¹ “Qualifying foreign governments” are only those governments with which the United States has established an executive agreement (as described below). This implies that if, for example, Microsoft received a warrant for data stored on behalf of an American customer in Ireland, and the United States has not established an executive agreement with Ireland, Microsoft would not be able to move to quash the warrant even if there is a material risk that disclosing the data would violate Ireland’s laws. Even if a company is able to meet these two requirements, the court can grant the motion to quash or modify the warrant only if it finds that

(i) the required disclosure would cause the provider to violate the laws of a qualifying foreign government; (ii) based on the totality of the circumstances, the interests of justice dictate that the legal process should be modified or quashed; and (iii) the customer or subscriber is not a United States person and does not reside in the United States.⁷²

In considering the second of these factors, the court must conduct a “comity analysis,” taking into account, “as appropriate,” the following factors:

- (A) [T]he interests of the United States, including the investigative interests of the governmental entity seeking to require the disclosure;
- (B) the interests of the qualifying foreign government in preventing any prohibited disclosure;
- (C) the likelihood, extent, and nature of penalties to the provider or any employees of the provider as a result of inconsistent legal requirements imposed on the provider;

71. 18 U.S.C. § 2703(h)(2)(A).

72. 18 U.S.C. § 2713(h)(2)(B).

(D) the location and nationality of the subscriber or customer whose communications are being sought, if known, and the nature and extent of the subscriber or customer's connection to the United States, or if the legal process has been sought on behalf of a foreign authority pursuant to section 3512, the nature and extent of the subscriber or customer's connection to the foreign authority's country;

(E) the nature and extent of the provider's ties to and presence in the United States;

(F) the importance to the investigation of the information required to be disclosed;

(G) the likelihood of timely and effective access to the information required to be disclosed through means that would cause less serious negative consequences; and

(H) if the legal process has been sought on behalf of a foreign authority pursuant to section 3512, the investigative interests of the foreign authority making the request for assistance.⁷³

In short, a court must weigh the costs and benefits of disclosing the data given the interests of the domestic entity seeking disclosure, the importance of disclosure, and the interests of the provider storing the data. The section of the Act concerning outbound demands also contains provisions allowing a company to preserve but not produce data while challenging an outbound demand, and allowing a company to inform its foreign entities of any legal challenges to the outbound demand.⁷⁴

C. INBOUND DEMANDS

The remainder of the Act tackles a problem that *Microsoft* did not raise, but which has been broached by many scholars in the field: how to handle demands from foreign governments for data stored in the United States ("inbound demands"). The CLOUD Act adds a new section to ECPA that allows companies to comply with demands served directly upon them by pre-approved foreign governments (either for release of stored data or for real-time surveillance) without going through the Department of Justice, as required under MLATs. This preapproval process is called an "executive agreement."⁷⁵ The Act specifies detailed standards for such agreements, which must be described in a written certification drafted by the Attorney General, with the approval of the Secretary of State, and submitted to Congress for

73. 18 U.S.C. § 2713(h)(3).

74. 18 U.S.C. § 2713(h)(4).

75. 18 U.S.C. § 2523. The executive agreement process does not abrogate the separate MLAT process; countries without executive agreements can still share data under MLATs.

review.⁷⁶ In order to establish an executive agreement with the United States, countries must show that they meet four civil liberties and procedural standards: (1) privacy and civil liberties protections; (2) procedures to minimize information acquisition, retention, and dissemination regarding the American person being surveilled; (3) no obligations on the providers to decrypt data or prevent them from decrypting data; and (4) specific restrictions on the agreement to ensure that any inbound demands are made in good faith (for instance, on what grounds the demand can be made and how the surveillance can be minimized).⁷⁷ However, the Act does not specify how to measure compliance with these four standards. The majority of the standards require that “adequate” or “appropriate” means be taken without specifying what “adequate” or “appropriate” entails.⁷⁸

The Attorney General’s determination that a country qualifies for an executive agreement cannot be judicially or administratively reviewed.⁷⁹ Congress may object to an executive agreement via a joint resolution of disapproval, but otherwise the executive agreement will go into force.⁸⁰ The Attorney General and the Secretary of State must renew executive agreements every five years to determine if the country has made any changes to the agreement or to its laws and if there are any problems with or controversies regarding the agreement.⁸¹ The Attorney General must then present a report with these findings to Congress, but the Attorney General makes the final decision of whether or not to renew the agreement.⁸² Finally, the Act specifies that executive agreements must be published in the Federal Register and that any surveillance falling under an executive agreement must follow minimization procedures as specified by the Foreign Intelligence Surveillance Act.⁸³

III. IMPLEMENTATION OF THE CLOUD ACT

While the CLOUD Act did address the problems inherent in the *Microsoft* case and the delays and inconvenience of the MLAT process, it also created a number of new problems. These problems stem from the way in which the entire data demand process is controlled by the executive branch, with little to no judicial oversight over large portions of the process. In particular, any

76. 18 U.S.C. § 2523(b).

77. 18 U.S.C. § 2523(b).

78. *See* 18 U.S.C. § 2523.

79. 18 U.S.C. § 2523(c).

80. 18 U.S.C. § 2523(d)(2), (5)–(7).

81. 18 U.S.C. § 2523(e).

82. *Id.*

83. 18 U.S.C. § 2523(g)–(h).

executive agreement will face two types of problems: problems relating to due process, and problems relating to conflicts of values.

A. DUE PROCESS

The CLOUD Act's language leaves many gaps in both the process of developing executive agreements and the procedures for handling individual data demands. The executive agreement process is left entirely within the control of the Department of Justice, meaning that executive agreements can be formed without any transparency or input from outside stakeholders or judicial oversight. Once an executive agreement is established, countries can demand data following their own national procedures, which may not adhere to U.S. standards. This Section will first discuss the due process issues inherent in developing executive agreements, and then examine the issues with individual data demands.

1. *Process of Making Executive Agreements*

The CLOUD Act does not require a clear, transparent process for forming executive agreements. Instead, it establishes a wholly internal process within the Department of Justice, which is not required to consult with any external stakeholders nor with the judicial branch. Its executive agreements are only reviewed for rejection (but not amendment) by Congress.⁸⁴ The Department of Justice's full control over the process gives the executive branch significant power to dictate not only the countries with which the United States enters into executive agreements, but also the terms of those agreements.

First, there is no requirement that the text of the executive agreement be made public before approval by Congress. This aspect of the executive agreement process has been strongly criticized by the American Civil Liberties Union (ACLU) and other privacy and civil liberties groups.⁸⁵ Corporate responses have echoed some of the same concerns; Dropbox and Microsoft have both advocated for transparency in forming executive agreements, with Dropbox in particular supporting "public notice of [the Department of Justice's] intent to negotiate an agreement with a country and engage widely and openly with stakeholders during negotiations."⁸⁶ Microsoft has suggested

84. 18 U.S.C. § 2523(d)(5)–(7).

85. American Civil Liberties Union, *The Cloud Act Is a Sinister Piece of Legislation*, MEDIUM (March 13, 2018, 4:15 PM), <https://medium.com/aclu/the-cloud-act-is-a-sinister-piece-of-legislation-816f7e1fdac4> [<https://perma.cc/BT84-WSHN>].

86. *The CLOUD Act Passed: What's Next*, DROPBOX (Apr. 12, 2018), <https://www.dropbox.com/news/company/the-cloud-act-passed--what-s-next> [<https://perma.cc/V54R-65PA>]; see Brad Smith, *A Call for Principle-Based International Agreements to Govern Law Enforcement Access to Data*, MICROSOFT (Sept. 11, 2018),

that “at minimum, governments must be required to publish the text of the proposed agreement prior to its adoption to allow for meaningful public input.”⁸⁷ Dropbox has also suggested making the text of executive agreements public in order for companies like Dropbox—as well as, presumably, civil liberties groups and other stakeholders—to make the most of the Congressional review period the CLOUD Act provides and to lobby Congress accordingly.⁸⁸ This may be strategically difficult, given the extent to which executive agreements depend on diplomatic compromise; the executive branch and other governments may not want to put all of their cards on the table. Revealing the text of the agreements could also reveal law enforcement investigative techniques or country-specific national security concerns. However, these sensitive sections could be redacted, which would at least allow technologists and lawyers, as well as the general public, to comment on agreements and raise issues the Department of Justice may have overlooked.

Second, the process of forming executive agreements also gives the Department of Justice significant power to determine which countries can qualify for agreements. Because the process is so opaque, this may lead to countries being “safe-listed” by the Department of Justice for entrance into executive agreements, even if those countries have committed human rights abuses or otherwise have poor track records in preserving civil liberties.⁸⁹ The Act does require a period of Congressional review, giving the legislative branch the opportunity to disapprove the executive agreement when it is first presented to Congress.⁹⁰ Yet the determination of whether a country qualifies for an agreement is explicitly barred from review,⁹¹ and the joint resolution of disapproval requires a veto-proof majority in Congress.⁹² Although the CLOUD Act contains minimum standards of civil liberties protections by which a country must abide in order to form an executive agreement, these standards are vague and can easily be interpreted to indicate different levels of civil liberties protections based on the executive branch’s own diplomatic

<https://blogs.microsoft.com/on-the-issues/2018/09/11/a-call-for-principle-based-international-agreements-to-govern-law-enforcement-access-to-data/> [https://perma.cc/BR4R-72ZF].

87. Smith, *supra* note 86.

88. *The CLOUD Act Passed*, *supra* note 86.

89. Neema Singh Guliani & Naureen Shah, *The CLOUD Act Doesn't Help Privacy and Human Rights: It Hurts Them*, LAWFARE (Mar. 16, 2018, 1:08 PM), <https://www.lawfareblog.com/cloud-act-doesnt-help-privacy-and-human-rights-it-hurts-them> [https://perma.cc/XL5K-QAC5]; see American Civil Liberties Union, *supra* note 85.

90. Chris Cook, *Cross-Border Data Access and Active Cyber Defense: Assessing Legislative Options for a New International Cybersecurity Rulebook*, 29 STAN. L. & POL'Y REV. 205, 228 (2018).

91. 18 U.S.C. § 2523(c).

92. Paul M. Schwartz, *Legal Access to the Global Cloud*, 118 COLUM. L. REV. 1681, 1750 (2018).

priorities at the time. Furthermore, as Neema Singh Guliani and Naureen Shah, writing for the ACLU and Amnesty International respectively, observe, “a dizzying array of countries that have ratified major human rights treaties and reflect those obligations in their domestic laws . . . in fact, have arrested, tortured and killed people in retaliation for their activism or due to their identity.”⁹³ The process by which the Department of Justice unilaterally decides which countries are worthy of executive agreements can overlook important concerns that experts or advocates in the field might raise. Their seat at the table is not guaranteed by the CLOUD Act, which only guarantees a seat for the Department of Justice.

Finally, the CLOUD Act does not ensure that real-time developments in countries’ politics would be taken into account if laws were to change or new politicians were to take power.⁹⁴ Agreements are only reviewed every five years, so in the case of rapid legal and political changes, an agreement may remain in place even if the country no longer complies with the CLOUD Act’s civil liberties requirements.⁹⁵ As Guliani and Shah note,

[I]n early 2014, Turkey may have met the CLOUD Act’s vague human rights criteria But since the attempted coup in mid-2016, the Turkish government has arrested more than 50,000 people—including journalists and activists Under the CLOUD Act, neither Congress nor U.S. courts would be able to prompt a review or a temporary moratorium for a case like Turkey. Users, without notice, would have little practical ability to lodge complaints with the U.S. government or providers. Even if the U.S. government were to take action, the CLOUD Act fails to ensure a sufficiently quick response to protect activists and others whose safety could be threatened.⁹⁶

In contrast, Jennifer Daskal and Peter Swire view the executive agreement process as being a net positive in comparison to the MLAT, as it provides an alternative to the MLAT’s lengthy diplomatic processes.⁹⁷ However, even as they support the CLOUD Act’s foundation,⁹⁸ Daskal and Swire acknowledge the opacity issue. They focus on this aspect when suggesting how the CLOUD Act could be implemented. They identify nine different areas in which the CLOUD Act falls short, which they suggest should be addressed in all

93. Guliani & Shah, *supra* note 89.

94. *Id.*

95. *Id.*

96. *Id.*

97. Jennifer Daskal & Peter Swire, *Why the CLOUD Act is Good for Privacy and Human Rights*, LAWFARE (Mar. 14, 2018, 12:00 PM), <https://www.lawfareblog.com/why-cloud-act-good-privacy-and-human-rights> [<https://perma.cc/SM5L-QMWP>].

98. *Id.*

executive agreements or departmental procedures formed to implement the CLOUD Act.⁹⁹ These include input from experts and stakeholders in the field when drafting executive agreements, transparency regarding the terms of the executive agreements, specific procedures for the regular compliance reviews, mechanisms by which to challenge executive agreements, and a point of contact at the Department of Justice for inquiries related to the CLOUD Act.¹⁰⁰ Daskal and Swire also suggest including the Privacy and Civil Liberties Oversight Board in reviewing executive agreements.¹⁰¹

These suggestions would go a long way towards ensuring due process in the implementation of executive agreements: input from stakeholders and transparency regarding terms would enable parties other than the executive branch to weigh in on the agreements, and creating mechanisms to review and challenge the executive agreements would provide a means of responding to changes in governments. In addition, the Department of Justice could provide more specific guidelines for the standards countries must meet in order to form executive agreements, as this would give the executive branch less extensive control over the process. Yet none of these suggestions are required by the CLOUD Act. Even if the Department of Justice were to streamline procedures in this way, they would not be required to abide by those procedures.

2. *Process of Evaluating Individual Inbound Data Demands*

Once an executive agreement is formed, inbound data demands are made under the standards of the demanding country, without U.S. judicial review or notice to users whose data is demanded.¹⁰² This is markedly different from the MLAT process, which requires judicial review of all inbound demands.¹⁰³ Instead, under the CLOUD Act, companies must challenge inbound demands through the requesting country's own legal system,¹⁰⁴ which effectively bars U.S. companies who lack the means to engage in international legal processes from objecting to inbound demands.

99. Jennifer Daskal & Peter Swire, *Suggestions for Implementing the Cloud Act*, LAWFARE (Apr. 30, 2018, 9:00 AM), <https://www.lawfareblog.com/suggestions-implementing-cloud-act> [<https://perma.cc/7B4R-JG8D>].

100. *Id.*

101. Jennifer Daskal & Peter Swire, *Privacy and Civil Liberties Under the CLOUD Act: A Response*, LAWFARE (Mar. 21, 2018, 7:00 AM), <https://www.lawfareblog.com/privacy-and-civil-liberties-under-cloud-act-response> [<https://perma.cc/Z452-7HDT>].

102. 18 U.S.C. § 2511(2)(j).

103. *See Validity, Construction, and Application of Mutual Legal Assistance Treaties (MLATs)*, 79 A.L.R. FED 2D 375.

104. *See* 18 U.S.C. § 2511(2)(j) (failing to provide any cause of action for a company to take in a U.S. court).

A coalition of civil liberties groups, including the Electronic Frontier Foundation, the Center for Democracy & Technology, and the National Association for Criminal Defense Lawyers, has identified serious concerns with the CLOUD Act's process for inbound demands, given that they would not be reviewed by the Department of Justice or any U.S. judge.¹⁰⁵ This process could allow countries to obtain data in circumstances where U.S. law enforcement would be prohibited from doing so. For instance, countries could obtain real-time intercepts under standards lower than those applicable to U.S. law enforcement agencies under the Wiretap Act—arguably one of the most concerning portions of the CLOUD Act.¹⁰⁶ Also, foreign governments could access stored data under standards lower than the Fourth Amendment search and seizure standards and could then share that information with U.S. law enforcement, circumventing the Fourth Amendment.¹⁰⁷ Even if U.S. citizens' data is not demanded under the CLOUD Act, U.S. civil liberties groups see intrinsic importance in U.S. privacy and civil liberties protections, and U.S. companies and non-U.S. users of those companies' services value those protections, even if other countries do not meet those standards.

This issue has specifically been raised by the ACLU, which has noted that “foreign governments would be able to get emails and other electronic information without any additional scrutiny by a U.S. judge or official.”¹⁰⁸ Guliani and Shah also emphasize this, stating that “the bill would not even require notifying the U.S. government or a user regarding a[n inbound data] request.”¹⁰⁹ The Electronic Frontier Foundation has objected to the CLOUD Act, arguing that “U.S. laws will be bypassed on U.S. soil.”¹¹⁰ Dropbox and Microsoft have both identified the lack of U.S. judicial review as an area to improve upon when implementing the CLOUD Act, and both have openly supported U.S. judicial review of inbound demands for data as well as a clearer

105. Letter from Access Now, Advocacy for Principled Action in Government, American Civil Liberties Union, Amnesty International USA, Asian American Legal Defense and Education Fund, Campaign for Liberty, Center for Democracy & Technology, CenterLink: The Community of LGBT Centers, Constitutional Alliance, Defending Rights & Dissent, Demand Progress Action, Electronic Frontier Foundation, Equality California, Free Press Action Fund, Government Accountability Project, Government Information Watch, Human Rights Watch, Liberty Coalition, National Association of Criminal Defense Lawyers, National Black Justice Coalition, New America's Open Technology Institute, Open Media, People For the American Way, and Restore The Fourth, to the United States Congress (Mar. 12, 2018) [hereinafter Coalition Letter].

106. See Coalition Letter, *supra* note 105; David Ruiz, *Responsibility Deflected, the CLOUD Act Passes*, ELECTRONIC FRONTIER FOUND. (Mar. 22, 2018), <https://www.eff.org/deeplinks/2018/03/responsibility-deflected-cloud-act-passes> [<https://perma.cc/DG9X-2QYB>].

107. Coalition Letter, *supra* note 105.

108. American Civil Liberties Union, *supra* note 85.

109. Guliani & Shah, *supra* note 89.

110. Ruiz, *supra* note 106.

legal process overall.¹¹¹ Dropbox has found that requiring independent judicial review would allow the CLOUD Act's requirements to be treated "as a floor—and not a ceiling" for privacy protections.¹¹²

Yet judicial review would likely clash with other countries' concerns regarding the time-sensitive nature of investigations. U.K. Deputy National Security Advisor Paddy McGuinness explains that the United Kingdom's support of the CLOUD Act was based at least in part on the rapidity with which investigations could occur when law enforcement was not hampered by an MLAT.¹¹³ Given the need to streamline data collection during time-sensitive situations and before a crime has actually been committed (such as during investigations of potential terrorist cells), countries may be unwilling to impose further delays.¹¹⁴

Even if the demands are reviewed by the demanding country's law enforcement or judicial branch, this puts a great deal of faith in the due processes of countries where "courts greenlight, rather than check, police and intelligence services to go after human rights activists . . ." ¹¹⁵ Further, when the demanding country establishes an executive agreement with the United States, it can set its own standards as to how data demands are issued. A country could include a nondisclosure requirement such that companies cannot tell users that their data is being demanded or get advice from outside counsel.¹¹⁶ Microsoft's statement seems to demonstrate particular concern with the burden the CLOUD Act places on companies to act as gatekeepers for data demands, viewing independent judicial review as a way to lift companies' obligation to ensure that warrants are founded on an adequate legal basis.¹¹⁷ Even if a company does identify an improper demand, it "may not have the resources, expertise, or even financial incentive to deny a foreign government request."¹¹⁸ More importantly, their own corporate values might not match their users' values, with the result that they would not choose to object to a request even if their users might wish it.

111. See Smith, *supra* note 86, *The CLOUD Act Passed*, *supra* note 86.

112. *The CLOUD Act Passed*, *supra* note 86.

113. Andrew Keane Woods, *Interview: The British Perspective on the Cross-Border Data Problem*, LAWFARE (Feb. 7, 2018, 11:00 AM), <https://www.lawfareblog.com/interview-british-perspective-cross-border-data-problem> [<https://perma.cc/S3AP-XANU>].

114. *See id.*

115. Guliani & Shah, *supra* note 89.

116. Peter Swire & Justin Hemmings, *Recommendations for the Potential U.S.-U.K. Executive Agreement Under the Cloud Act*, LAWFARE (Sept. 13, 2018, 10:22 AM), <https://www.lawfareblog.com/recommendations-potential-us-uk-executive-agreement-under-cloud-act> [<https://perma.cc/6NJ4-YH24>].

117. Smith, *supra* note 86.

118. Guliani & Shah, *supra* note 89.

Instead of barring U.S. judicial review entirely or requiring it in all circumstances as with the time-consuming MLAT process, the CLOUD Act should have taken a middle ground: creating a system of appeal to U.S. courts. Allowing companies to appeal demands to U.S. courts would ensure that improper demands were scrutinized; and all companies, even those without the funds for international legal proceedings, could ensure they were properly responding to demands. Unfortunately, under the CLOUD Act, inclusion of due process safeguards may depend on the U.S.'s diplomatic relationships and on the political capital other countries bring to the bargaining table—not a reassuring resolution for those concerned about safeguarding due process.

B. CONFLICT OF VALUES

Just as importantly, the CLOUD Act fails to solve—and in fact introduces additional—problems relating to conflicts of values. Conflicting approaches to law enforcement behavior, criminal prosecution, and evidence collection have plagued the MLAT system. The CLOUD Act was designed to avoid these problems by creating a clear mechanism by which data disputes could be adjudicated; namely, by ironing out these issues when forming executive agreements. In fact, a letter from five major technology companies in advance of the Act's passage cited “reducing international conflicts of law” as one of their primary rationales for supporting the CLOUD Act.¹¹⁹

Yet while the CLOUD Act reduces traditional conflicts of laws by ensuring that countries can agree ahead of time on how incompatible laws will be reconciled,¹²⁰ it fails to address the conflicts of *values* that underpin the conflicts of laws. Governments would necessarily need to make compromises between conflicting laws, which would lead to the values underpinning one country's laws gaining priority over another's. The CLOUD Act's executive agreements could lead to improved transnational data sharing and cooperation due to these

119. Letter from Apple, Facebook, Google, Microsoft and Oath to CLOUD Act bill sponsors (Feb. 6, 2018), <https://blogs.microsoft.com/datalaw/wp-content/uploads/sites/149/2018/02/Tech-Companies-Letter-of-Support-for-Senate-CLOUD-Act-020618.pdf> [<https://perma.cc/RQ38-CGYJ>].

120. While the CLOUD Act has reduced many of the traditional conflicts of laws surrounding extraterritorial data access, it has left a few questions open, particularly how the Act would function when confronted with data demands involving three or more countries. For instance, if the *Microsoft* case had involved British law enforcement trying to access data stored by an American company in the Republic of Ireland, how should law enforcement proceed? Because executive agreements are implied to be strictly bilateral, the Act is not immediately equipped to address this. The problem would have to be addressed in every subsequent executive agreement, and given the lack of transparency in executive agreements, a solution to this problem would not be guaranteed. Courts might be required to handle such disputes as they arise.

compromises,¹²¹ promoting reciprocity rather than U.S.-dominated investigative principles.¹²² But because executive agreements are diplomatic documents, these compromises might be made based on diplomatic priorities rather than on a full analysis of the underpinning values. And because of the due process concerns outlined in the previous Section, the agreements would be made in the dark, without a country's citizenry being able to weigh in on what values matter most to them.

The issue of conflict of values under the CLOUD Act is likely to be raised in regard to both inbound and outbound demands. This Section will examine each of these demands in turn.

1. *Inbound Demands*

First, CLOUD Act procedures may face conflicts of values when inbound demands are made on U.S. companies. For example, a country with weaker free speech protections than the United States—such as the United Kingdom, which has a number of speech-related statutes that criminalize speech that the United States protects¹²³—could demand from a United States company data that is First Amendment-protected speech in the United States. This conflict has been legally ironed out in the executive agreement between the United States and the United Kingdom (as discussed below), but the agreement does not address what could happen if government officials agree to data disclosure despite a clash with publicly-accepted norms. There is no way under the CLOUD Act for a U.S. company to object to an otherwise legal demand for data related to protected speech, and there is no requirement for notice to users so that the users could object to the disclosure of their data. The only gatekeeper in this circumstance would be the Department of Justice.

As the ACLU has noted, inbound demands could be made by countries with which the United States has a relatively sound diplomatic accord, but which call for data regarding investigations that run counter to American values. For example,

in recent months, the Polish government has taken steps to pass laws that restrict speech and, in 2017, the government raided the offices of several human rights groups, seizing documents and computers only a day after women staged a march to protest the country's abortion laws. The [CLOUD Act] would provide no protection against requests in these situations, which wrongly target activists

121. Schwartz, *supra* note 92, at 1742.

122. *Id.* at 1745.

123. Swire & Hemmings, *supra* note 116 (detailing U.K. speech-related statutes that could conflict with First Amendment protections, including criminalizing sending electronic messages that are “indecent or grossly offensive”).

and threaten to undo the progress we have made on global human rights.¹²⁴

Daskal and Swire are somewhat dismissive of the conflict of values problem, suggesting that the United States could use the diplomatic pressure of establishing an executive agreement to push countries into adopting more stringent privacy or civil liberties standards.¹²⁵ Daskal points to new judicial review standards for data demands the United Kingdom established in anticipation of an executive agreement with the United States.¹²⁶ However, there is no guarantee that this kind of diplomatic pressure would be successful for all countries, particularly given the opaque nature of the executive agreement process. Even if countries work to meet “adequate” data privacy standards, there is no way to measure whether “adequate” standards match what the country’s citizenry or American data holders deem to be “adequate,” nor to meaningfully evaluate if countries are making improvements. This also would not address sheer disparities in values, where one country might not want to compromise in the name of a diplomatic agreement; nor would it address instances where the United States might be willing to compromise its own civil liberties standards in order to establish an agreement. Either scenario would be perfectly plausible under the Act’s current language.

In addition, Daskal and Swire raise the objection that requiring countries to adhere to American privacy or civil liberties standards is “imperialistic.”¹²⁷ They argue that the CLOUD Act’s executive agreement process must be able to compromise on some of these conflicts, particularly when conflicts are more procedural in nature—for example, the lack of truly independent judicial oversight in countries where judges play investigatory roles.¹²⁸ In such circumstances, where the conflicts arise from procedural and governmental disparities, the executive agreements could of course include compromises on some U.S. norms, like the role of the judiciary, in adapting to other countries’ legal systems. However, in criticizing the imposition of U.S. privacy and civil liberties standards, Daskal and Swire do not specify who exactly would chafe at U.S. standards as “imperialistic.” When this argument is applied to privacy and civil liberties conflicts, it ignores the very real plight of journalists, activists, and others in countries who may be targeted by their own governments and have their data demanded under the CLOUD Act.¹²⁹ In this case, the

124. Guliani & Shah, *supra* note 89.

125. Daskal & Swire, *supra* note 97; *see also* Cook, *supra* note 90, at 229.

126. Jennifer Daskal, Microsoft Ireland, *The CLOUD Act, and International Lawmaking 2.0*, 71 STAN. L. REV. ONLINE 9, 15 (2018).

127. Daskal & Swire, *supra* note 99.

128. *Id.*

129. *See* Guliani & Shah, *supra* note 89.

Department of Justice would need to determine whose interests executive agreements should value and prioritize: the interests of governments, or of their citizens. Due to the full executive control over the process, affected parties would have little or no opportunity to weigh in and affirm exactly which values they would like executive agreements to respect.¹³⁰

2. *Outbound Demands*

Although much of the criticism of the CLOUD Act's treatment of conflicts of values has focused on inbound demands, possibly due to a perception that the United States has stricter standards for privacy and civil liberties than many other countries, conflicts are also likely to arise from outbound demands where other countries may object to the United States' legal values. A conflict that is already under debate is that of privacy norms, especially relating to the General Data Protection Regulation (GDPR) in the European Union. As the GDPR restricts when data held in the European Union can be transferred out of the European Union, European countries are likely to closely scrutinize executive agreements with the United States to ensure GDPR compliance and may require a case-by-case analysis of any outbound demands from the United States¹³¹ or a different agreement set up with the European Union as a whole.¹³² Compliance with European privacy standards is not an abstract concern: in 2015, the Irish High Court ruled that American data collection under the National Security Administration violated the privacy protections of the Irish Constitution;¹³³ the European Court of Justice affirmed that the United States needed to use data protection measures "essentially equivalent" to the European Union, which it was not doing at the time.¹³⁴ This might create pressure for U.S. law enforcement to comply with GDPR strictures as well, just as American companies are facilitating compliance with the GDPR by implementing privacy protections for all their users. While this could be a boon for user privacy, it could also lead to pressure on the United States to adopt policies to which civil liberties groups have

130. The primary exception to this may be the possibility of Congressional lobbying during the period of review for the executive agreement. However, as explained above, this review only takes place every five years, and given the limitations on Congressional review, would not guarantee full input from the citizenry.

131. Daskal, *supra* note 126, at 12.

132. Schwartz, *supra* note 92, at 1688.

133. Din, *supra* note 44, at 27–28.

134. Din, *supra* note 44, at 29 (citing Case C-362/14, Maximilian Schrems v. Data Prot. Comm'r, EU:C:2015:627).

already objected, such as the “right to be forgotten” or the “link tax” currently being debated in the European Union.¹³⁵

Another prospective issue may stem from conflicts over crime and punishment norms. For instance, the United Kingdom has abolished capital punishment.¹³⁶ If American law enforcement were pursuing evidence for a capital crime, the U.K. government might be resistant to allowing law enforcement access to this data. The U.S.-U.K. executive agreement does address this issue, which is likely to surface given the U.K. government’s interest in data-sharing for terrorism and other serious offenses.¹³⁷ However, public perception of British cooperation with a state execution could be politically damaging, prompting the government to take a more conservative approach towards data-sharing regardless of diplomatic pressures. Just as with conflicts of values regarding inbound demands, a government’s diplomatic priorities could be pitted against the priorities of its citizenry. Depending on the outcome, this could either lower public trust in the government or hamper law enforcement investigations—either way, an undesirable result, and one the CLOUD Act was intended to avoid but fails to mitigate.

IV. THE U.S.-U.K. EXECUTIVE AGREEMENT

On October 3, 2019, the United States and the United Kingdom entered into the first executive agreement formed under the CLOUD Act (“Agreement”).¹³⁸ This Agreement addresses some of the concerns about due process and conflicts of values outlined above: it establishes standards by which inbound and outbound orders will be issued,¹³⁹ mechanisms by which providers such as Google or Microsoft can raise objections to orders,¹⁴⁰ and

135. The European Court of Justice has ruled that European citizens have a “right to be forgotten”—that is, to request search engines to remove links to private information about them. *See The Right To Be Forgotten (Google v. Spain)*, ELECTRONIC PRIVACY INFO. CTR., <https://epic.org/privacy/right-to-be-forgotten/> [<https://perma.cc/LCG3-37NJ>] (last visited Mar. 20, 2019). The “link tax” refers to a provision being proposed in Article 13 of the European Union’s Directive on Copyright in the Digital Single Market, which requires online platforms to pay publishers to link to their articles. *See, e.g.,* Matt Reynolds, *Google’s Article 13 Link Tax Threat Has Put Publishers On Red Alert*, WIRED (Nov. 21, 2018), <https://www.wired.co.uk/article/article-13-link-tax-eu-11> [<https://perma.cc/P5YZ-F65H>].

136. The Human Rights Act 1998 (Amendment) Order 2004, no. 1574 (Eng.).

137. *See* Woods, *supra* note 113.

138. Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of America on Access to Electronic Data for the Purpose of Countering Serious Crime, Oct. 3, 2019, Dept. of Justice Press Release No. 19-1065.

139. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 5 § 1–2.

140. *Id.* at § 11.

constraints against the use of data when the essential interests of the United States are implicated by freedom of speech concerns or those of the United Kingdom by capital punishment, unless the receiving country gives permission.¹⁴¹ In particular, the Agreement has been praised for implementing additional procedural safeguards beyond the baseline established by the CLOUD Act.¹⁴² Specifically, orders must be issued under the issuing party's law based on "articulable and credible facts, particularity, legality, and severity regarding the conduct under investigation," with review and certification by a representative of the Attorney General if the United States is the issuing party, and the Secretary of State for the Home Department if the United Kingdom is the issuing party.¹⁴³ The orders are subject to minimization procedures which include sealing or deleting unnecessary information, appropriate targeting procedures, and provisions prohibiting the targeting of U.S. persons by the United Kingdom and targeting of persons within the United Kingdom by the United States. When providers receive an order, they may raise reasonable objections with the issuing party's designated authority (in the case of inbound orders to the United States, with the U.K. government).¹⁴⁴ If such objections cannot be resolved, the provider may then raise objections to the receiving party's designated authority (such as to the Attorney General of the United States), and then both parties may confer to resolve objections.¹⁴⁵ The Agreement also adds privacy protection: for example, guidelines for orders to be issued in accordance with the issuing party's privacy and freedom of information laws,¹⁴⁶ consent requirements for transfer of data to third parties,¹⁴⁷ extension of extant privacy laws to data shared under the Agreement,¹⁴⁸ and periodic review of compliance and of the Agreement

141. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 8 § 4.

142. See Jennifer Daskal & Peter Swire, *The U.K.-U.S. CLOUD Act Agreement Is Finally Here, Containing New Safeguards*, LAWFARE (Oct. 8, 2019, 2:33 PM), <https://www.lawfareblog.com/uk-us-cloud-act-agreement-finally-here-containing-new-safeguards> [https://perma.cc/25WT-SZA9].

143. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 7.

144. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 5 § 11.

145. *Id.*

146. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 8 § 1.

147. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 8 § 2.

148. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 9.

itself.¹⁴⁹ Finally, the Agreement restricts orders to those concerning offenses “punishable by a maximum term of imprisonment of at least three years.”¹⁵⁰ By detailing its data-sharing processes, the Agreement takes significant steps to clarify how conflicts between providers and governments can be addressed. Given the breadth of interpretation possible under the CLOUD Act, this Agreement is more promising than might have been expected.

Nevertheless, concerns remain. While the Agreement codifies some due process protections, it has not addressed other blind spots in the CLOUD Act. The Agreement has been criticized by a coalition of human rights and privacy organizations¹⁵¹ as well as by academics¹⁵² for not requiring prior judicial authorization for data demands, not providing notice to the data subject or individual remedies to individuals whose data is targeted, and permitting interception of communications sent by those in third countries. These issues perpetuate the due process problems in the CLOUD Act as outlined above, placing significant responsibility on providers to monitor and challenge any faulty orders on behalf of their customers—and just as in the CLOUD Act, under the Agreement service providers can only challenge orders in the courts of the issuing party, without any recourse in their own jurisdictions.¹⁵³ The Agreement may have made improvements, but the problems that remain indicate that the Agreement is not necessarily a model by which other Agreements should be constructed.

Further, the due process protections the Agreement does establish are not necessarily generalizable for future executive agreements. The Agreement emphasizes that it is based on “standards such as probable cause, necessity and proportionality, independent judicial oversight, and the requirements of laws

149. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 12.

150. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 1 § 14.

151. Letter from Access Now, American-Arab Anti-Discrimination Committee (ADC), Constitutional Alliance, Consumer Action, Defending Rights & Dissent, European Digital Rights (EDRi), Electronic Frontier Finland, Electronic Frontier Foundation, Electronic Privacy Information Center (EPIC), Government Accountability Project, Homo Digitalis, Human Rights Watch, Initiative für Netzfreiheit, Liberty Coalition, Open Rights Group, New America’s Open Technology Institute, Restore the Fourth, State Watch, TechFreedom, and Vrijdschrift, to the United States Congress (Oct. 29, 2019).

152. See, e.g., Albert Gidari, *Can the US-UK CLOUD Act Agreement Be Fixed?*, CTR. FOR INTERNET & SOC’Y AT STAN. L. SCH. (Nov. 18, 2019, 1:07 PM), <http://cyberlaw.stanford.edu/blog/2019/11/can-us-uk-cloud-act-agreement-be-fixed> [<https://perma.cc/DW3E-HRNE>].

153. See Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 5 § 11.

relating to the handling and processing of data relating to individuals”¹⁵⁴—standards that the United States and the United Kingdom generally have in common, whether from their shared common law history or from the U.K.’s Crime (Overseas Production Orders) Act 2019, which revised how the United Kingdom handles foreign data orders in order to allow the subsequent Agreement under the CLOUD Act.¹⁵⁵ Other countries which lack either shared criminal procedure standards or laws aligning data production with U.S. laws may struggle to establish an agreement with the same level of due process protection as the U.K.’s Agreement.

Finally, while the Agreement does address two major conflicts of laws outlined in Section III.B, free speech and capital punishment, it does not address the conflict of values underpinning the conflict of laws. The Agreement resolves the conflict of laws by prohibiting the use of contested data unless the country receiving the demand for the data grants permission “subject to such conditions as it deems necessary.”¹⁵⁶ Although the agreement does expressly recognize the different values the United Kingdom and the United States hold regarding individual rights, it allows such values to be overridden solely at the discretion of an executive branch official: the determination to release information is made by the Attorney General in the United States or the Secretary of State for the Home Department in the United Kingdom,¹⁵⁷ without any opportunity for the public to comment on the appropriateness of the conditions set or the decision itself. Even if this solves the problem of any direct legal contradictions, it does not address whether the public would accord this decision legal legitimacy or object to the use of data stored in their country for a prosecution they fundamentally do not support. Rather, the Agreement perpetuates a conflict between the countries’ executive branches and the countries’ citizens, where the executive branches may waive particular rights without the citizens approving or even knowing of the executive branches’ actions.

As with the issue of due process, conflicts of values are likely to continue as additional agreements are established—for instance, the differences in perceptions of data privacy between the United States and the European Union discussed above. The uncertainties regarding both due process and conflicts of values might even compound each other. For instance, countries

154. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 2 § 3(d).

155. The Crime (Overseas Production Orders) Act 2019 (c.5) (Eng.).

156. Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 8 § 4.

157. *See* Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, Art. 1 § 8.

will need to amend their criminal laws to allow for inbound and outbound data demands in order to establish an executive agreement; citizens of these countries may strongly object to even the idea of U.S. law enforcement gaining access to data from their country's providers.¹⁵⁸ Even as such conflicts are addressed legally and diplomatically under executive agreements, the full impact of values conflicts will not be seen until the first demands under the CLOUD Act are served.

V. CONCLUSION

It is likely that the next executive agreement to be formed under the CLOUD Act will be with Australia: diplomatic talks are already underway between the two countries.¹⁵⁹ This executive agreement will test whether the U.S.-U.K. Agreement was a high-water mark for due process protections or whether the weak points in the Agreement will be addressed. Yet given the tension between diplomatic pressure to form an agreement and distinct differences in legal norms surrounding issues such as civil liberties and punishment, it remains to be seen which pattern will emerge as further agreements are signed: cooperative data-sharing at any cost, or protections of user privacy and due process based on careful consideration of each country's legal norms. It also remains to be seen whether the Department of Justice will undertake a transparent and equitable process when forming future executive agreements.

The CLOUD Act has addressed many of the issues that plagued the MLAT process, and could pave the way for rapid, targeted acquisition of data for legitimate law enforcement investigations. However, the vague language of the Act means there is no guarantee of this outcome. The world instead could be faced with widespread data exchange between companies and governments with very little protection of privacy and civil liberties. The choice between the two now lies in the hands of the Department of Justice and the countries with which it forms executive agreements.

158. See David T.S. Fraser, *What a CLOUD Act Agreement Will Look Like for Canada*, CANADIAN PRIVACY L. BLOG (Oct. 14, 2019), <https://blog.privacylawyer.ca/2019/10/what-cloud-act-agreement-will-look-like.html> [<https://perma.cc/JK5F-6K64>] (raising potential concerns about Canadian conflicts of values with American data demands).

159. *Joint Statement Announcing United States and Australian Negotiation of a CLOUD Act Agreement by U.S. Attorney General William Barr and Minister for Home Affairs Peter Dutton*, Department of Justice Office of Public Affairs Press Release No. 19-1,075 (Oct. 7, 2019).

ERECTING A PRIVACY WALL AGAINST TECHNOLOGICAL ADVANCEMENTS: THE FOURTH AMENDMENT IN THE POST-*CARPENTER* ERA

Elle Xuemeng Wang[†]

I. INTRODUCTION

*Carpenter v. United States*¹ is perhaps the “most important data privacy case of a generation.”² Not only did this case expand the scope of Fourth Amendment searches, it also redefined the applicability of what has been considered for decades as a categorical rule—the third-party doctrine.³

Carpenter involved a type of information called cell-site location information. Cell-site location information is recorded by cell phone carriers’ towers.⁴ When a cell phone is being used, the cell phone always connects to the nearest cell tower.⁵ As the user moves, the cell phone connects from tower to tower.⁶ Putting together all the location information recorded by all of these towers generates a mosaic of the cell phone user’s movements.⁷ In *Carpenter*, without first securing a warrant, the government obtained cell-site location records from towers operated by several phone carriers.⁸ Using this information, the government arrested and indicted Carpenter and several accomplices.⁹ The crux of the case was whether obtaining cell-site location records constituted a search within the meaning of the Fourth Amendment.¹⁰

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[†] J.D., University of California, Berkeley, School of Law, Class of 2019.

1. 138 S. Ct. 2206 (2018).

2. Stephen Vladeck, *The Supreme Court Phone Location Case Will Decide the Future of Privacy*, MOTHERBOARD (June 16, 2017), https://motherboard.vice.com/en_us/article/59zq5x/scotus-cell-location-privacy-op-ed [<https://perma.cc/5RRT-FYSA>].

3. For a detailed analysis, see *infra* Section IV.A.

4. *See Carpenter*, 138 S. Ct. at 2211.

5. *See id.*

6. *See id.*

7. *See id.* at 2212.

8. *See id.*

9. *See id.*

10. *See id.* at 2212–13.

The Court reached a 5–4 decision with the majority holding that it was a search and that the third-party doctrine did not apply.¹¹

While *Carpenter* was a big win for data privacy advocates, it has spurred polarized views among scholars and commentators. The Court’s treatment of the third-party doctrine has especially triggered vigorous debates. Because it is unlikely that the Supreme Court will hear another data privacy case in the reasonably foreseeable future, the fate of the Fourth Amendment protections and the third-party doctrine lies in the hands of district and circuit court judges—those who will be interpreting *Carpenter*. This Note aims to provide a helpful guideline to aid district and circuit court judges with interpreting the meaning of *Carpenter* and how to apply it to future cases.

This Note will first discuss, in Part II, the landscape of the Fourth Amendment in the pre-*Carpenter* era. Part III summarizes *Carpenter*’s procedural history, the majority opinion, and dissenting opinions. Part IV interprets the majority opinion and discusses how *Carpenter*’s instructions can be applied to two technological advancements. Part V concludes.

II. LEGAL BACKGROUND AND HISTORY

The pre-*Carpenter* era is segmented by a series of seminal cases: *Boyd v. United States*,¹² *Olmstead v. United States*,¹³ *Katz v. United States*,¹⁴ and *United States v. Miller*¹⁵ and *Smith v. Maryland*.¹⁶ Each segment represents a significant stop in shaping the Fourth Amendment right to privacy.

A. PRE-KATZ ERA: UNTYING AND RETYING PRIVACY TO PHYSICAL TRESPASS

The Fourth Amendment protects “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.”¹⁷ For much of its history, the Fourth Amendment was tied to common-law trespasses to persons and homes, until in 1886, Justice Bradley, for the first time, extended the protection of Fourth Amendment beyond “the sanctity of a man’s home” to “the privacies of life.”¹⁸ In *Boyd*, the government attempted a warrantless seizure of thirty-five cases of glass imported by Boyd

11. *See id.* at 2223.

12. 116 U.S. 616 (1886).

13. 277 U.S. 438 (1928).

14. 389 U.S. 347 (1967).

15. 425 U.S. 435 (1976).

16. 442 U.S. 735 (1979).

17. U.S. CONST. amend. IV.

18. *Boyd v. United States*, 116 U.S. 616, 630 (1886).

and Son.¹⁹ The government's act was later found to be unconstitutional.²⁰ Justice Bradley, writing for the majority, found that the

invasion of his indefeasible right of personal security, personal liberty, and private property, where that right has never been forfeited by his conviction of some public offense . . . any forcible and compulsory extortion of a man's own testimony, or of his private papers to be used as evidence to convict him of crime, or to forfeit his goods, is within the condemnation of that judgment.²¹

To Justice Bradley, the essence of a search was not merely rummaging through homes and drawers but also “the invasion of his indefeasible right of personal security”²² With this characterization, Justice Bradley opened the Fourth Amendment to another possibility—that searches can take place without physical trespass—and redefined the “very essence of constitutional liberty and security.”²³

However, forty years after the groundbreaking decision in *Boyd*, the Court switched back to its old common-law trespass interpretation in *Olmstead v. United States*.²⁴ *Olmstead* was the leading conspirator of a criminal enterprise.²⁵ The government wiretapped his office phone by inserting a small wire along the telephone wires.²⁶ Notably, the insertion of the small wire did not trespass upon *Olmstead*'s office, but rather were “made in the basement of the large office building.”²⁷ The insertion of this wire became the determining factor of whether the government violated the Fourth Amendment. The Court held that

one who installs in his house a telephone instrument with connecting wires intends to project his voice to those quite outside, and that the wires beyond his house and message while passing over them are not within the protection of the Fourth Amendment. Here those who intercepted the projected voices were not in the house of either party to the conversation We think, therefore, that the wiretapping here disclosed did not amount to a search or seizure within the meaning of the Fourth Amendment.²⁸

With that, the Court once again linked the Fourth Amendment to the common-law trespass theory: The Fourth Amendment's protection did not

19. *See id.* at 638.

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.* at 630.

24. *See Olmstead v. United States*, 277 U.S. 438 (1928).

25. *See id.* at 456.

26. *See id.* at 456–57.

27. *Id.* at 457.

28. *Id.* at 466.

reach beyond private territory, and as long as the government did not invade one individual's house or property, a warrant was not required.

This remained the leading interpretation of the Fourth Amendment from 1928 to 1967. Then *Katz* came along and changed the world.

B. *KATZ'S NEW FRONTIER: THE REASONABLE EXPECTATION OF PRIVACY*

Katz was a landmark Fourth Amendment case for many reasons. The most prominent is that it opened the Fourth Amendment horizon to a world of possibilities beyond physical trespass.

Katz was convicted of transmitting wagering information by telephone across the state lines.²⁹ The FBI monitored and recorded Katz's phone conversation by attaching a "listening and recording device" outside of a public telephone booth where Katz placed his calls.³⁰ Because the *public* telephone booth was, arguably, not a private space, the question presented to the Court was "[w]hether physical penetration of a constitutionally protected area is necessary before a search and seizure can be said to be violative of the Fourth Amendment to the United States Constitution."³¹ The Court called the formation of this issue "misleading" and disagreed on two grounds: first, "the correct solution of Fourth Amendment problems is not necessarily promoted by incantation of the phrase 'constitutionally protected area,'" and second, "the Fourth Amendment cannot be translated into a general constitutional 'right to privacy.'"³²

For the first time in nearly forty years, the Court shifted the attention of the Fourth Amendment from "places" to "people."³³ A person can be in his own house or office or a "constitutionally protected area" but not entitled to Fourth Amendment protections for what he "knowingly exposes to the public."³⁴ On the flip side, "what [a person] seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."³⁵ Essentially, the government could trigger Fourth Amendment issues without any physical impingement of individuals' private spaces.³⁶

The most impactful part of *Katz* came from Justice Harlan's concurrence, where he stated that "a person has a constitutionally protected *reasonable expectation of privacy*"³⁷ This concept of "reasonable expectation of privacy"

29. *Katz v. United States*, 389 U.S. 347, 348 (1967).

30. *Id.*

31. *Id.* at 350.

32. *Id.*

33. *Id.* at 351.

34. *Id.*

35. *Id.*

36. *See id.* at 350.

37. *Id.* at 360 (emphasis added).

has become a cornerstone of the modern definition of searches. Since *Katz*, a Fourth Amendment search no longer requires an “invasion of a constitutionally protected *area*”—an intrusion upon an individual’s reasonable expectation of privacy is sufficient to trigger the plethora of protections under the Fourth Amendment.³⁸

C. THE BIRTH OF THE THIRD-PARTY DOCTRINE

Not long after lifting the physical intrusion requirement, the Court created a carve-out rule under Fourth Amendment search—the third-party doctrine. Two cases marked the beginning of this new era—*United States v. Miller* and *Smith v. Maryland*.

In *Miller*, the government subpoenaed copies of Miller’s check and bank records to prove that Miller committed tax fraud.³⁹ The subpoenaed records “had been maintained by the banks in compliance with the requirements of the Bank Secrecy Act of 1970, 84 Stat. 1114, 12 U.S.C. § 1829b(d).”⁴⁰ Miller moved to suppress these records at trial on Fourth Amendment grounds, arguing that these records were the fruit of an unreasonable search and seizure. However, the Court found no protectable Fourth Amendment interest in the subpoenaed documents.⁴¹ The Court held that the documents at issue were not subject to the Fourth Amendment protection as it “perceived no legitimate ‘expectation of privacy’ in their contents.”⁴² Specifically, the Court found “[t]he checks are not confidential communications but negotiable instruments to be used in commercial transactions. All of the documents obtained, including financial statements and deposit slips, contain only information voluntarily conveyed to the banks and exposed to their employees in the ordinary course of business.”⁴³ Furthermore, the Court held that demanding records from a third party did not violate the rights of the defendant, because “the Fourth Amendment does not prohibit the obtaining of information revealed to a third party and conveyed by him to Government authorities”⁴⁴

Three years after *Miller*, the Court refined the third-party doctrine in *Smith v. Maryland*.⁴⁵ In *Smith*, the police requested that the phone company install a

38. *Id.* at 361.

39. *See* *United States v. Miller*, 425 U.S. 435, 437 (1976).

40. *Id.*

41. *See id.*

42. *Id.* at 442.

43. *Id.*

44. *Id.* at 443.

45. *See* *Smith v. Maryland*, 442 U.S. 735, 737 (1979).

pen register⁴⁶ to record the numbers that Smith, a robbery suspect, dialed from his home phone.⁴⁷ The register later revealed that Smith had called a robbery victim.⁴⁸ Based on this evidence, the police arrested Smith, who was identified by the victim as the man who had robbed her.⁴⁹ Smith was soon indicted.⁵⁰

Smith sought to suppress the phone number recorded by the pen register on pretrial motions on the ground that the police “had failed to secure a warrant prior to its installation.”⁵¹ The Court, however, rejected that argument on two grounds. First, the Court questioned whether

[p]eople in general entertain any actual expectation of privacy in the numbers they dial. All telephone users realize that they must ‘convey’ phone numbers to the telephone company All subscribers realize . . . that the phone company has facilities for making permanent records of the numbers they dial⁵²

Though the Court acknowledged that Smith might hold some subjective expectations of privacy which “cannot be scientifically gauged,” it was hard to “believe that phone subscribers . . . harbor any general expectation that the numbers they dial will remain secret.”⁵³

Second, the Court reasoned that “even if [Smith] did harbor some subjective expectation . . . this expectation is not ‘one that society is prepared to recognize as reasonable.’”⁵⁴ These two reasons led to the conclusion that Smith

can claim no legitimate expectation of privacy here. When he used his phone, petitioner voluntarily conveyed numerical information to the telephone company and ‘exposed’ that information to its equipment in the ordinary course of business. In so doing, [Smith] assumed the risk that the company would reveal to police the numbers he dialed.⁵⁵

Consequently, the Court held that “the installation and use of a pen register . . . was not a ‘search,’ and no warrant was required.”⁵⁶

46. A pen register is “a device or process which records or decodes dialing, routing, addressing, or signaling information transmitted by an instrument or facility from which a wire or electronic communication is transmitted.” 18 U.S.C. § 3127(3) (2012).

47. *See id.*

48. *See id.*

49. *See id.*

50. *See id.*

51. *Id.*

52. *Id.* at 742.

53. *Id.* at 743.

54. *Id.* at 743 (quoting *Katz v. United States*, 389 U.S. 347, 361 (1967)).

55. *Id.* at 744.

56. *Id.* at 745–46.

With that, the third-party doctrine was solidified. When an individual voluntarily reveals information to a third party, the individual harbors no reasonable expectation of privacy in that information.⁵⁷ *Miller* and *Smith* marked the beginning of the third-party doctrine, and at that stage, no limit was placed on this doctrine—it could arguably govern any type of information voluntarily disclosed to third parties, regardless of the nature of the information. Throughout the years, the Court has not had a chance to confront this question or address its scope. Thus, its applicability was always presumed unless clearly prohibited by the Court.

Until *Carpenter*.

III. CASE SUMMARY & REACTIONS

A. FACTUAL BACKGROUND

In April 2011, four men were arrested for a series of robberies of Radio Shack and T-Mobile stores. One of them confessed and gave the FBI a list of fifteen others who had participated in the robbery.⁵⁸ Pursuant to the Stored Communication Act, but without obtaining a warrant, the FBI obtained an order from a magistrate judge and demanded from MetroPCS and Sprint the “transactional record” from sixteen phone numbers, including Carpenter’s. The record included the “cell-site information for the target telephones at call origination and at call termination for incoming and outgoing calls.”⁵⁹ The government used this record to show that Carpenter was in the vicinity of the stores at the time of the robberies, and he was charged with six counts of robbery.⁶⁰

B. PROCEDURAL HISTORY

Prior to trial, Carpenter sought to suppress the cell-site location information evidence, arguing its acquisition by the government was a warrantless Fourth Amendment search.⁶¹ The district court denied the motion, and Carpenter was convicted on all counts of robbery and was sentenced to more than one hundred years in prison.⁶²

On appeal to the Sixth Circuit, Carpenter argued that the government’s acquisition of the cell-site location information was an unreasonable search because the government did not have a warrant supported by probable cause.⁶³ The Sixth Circuit relied on the third-party doctrine from *Miller* and *Smith* and

57. See *United States v. Miller*, 425 U.S. 435, 442–43 (1976); *Smith*, 442 U.S. at 745–46.

58. See *Carpenter v. United States*, 138 S. Ct. 2206, 2212 (2018).

59. *Id.*

60. *Id.*

61. *Id.*

62. See *id.* at 2213.

63. See *id.*

held that the government did not violate the Fourth Amendment because Carpenter “lacked a reasonable expectation of privacy in the location information . . . [because he] voluntarily convey[ed] cell-site data to . . . [his] carrier[] as ‘a means of establishing communication.’”⁶⁴ The Supreme Court granted certiorari on the Fourth Amendment issue.⁶⁵

C. MAJORITY OPINION

The majority began with a discussion of what the Fourth Amendment protects in the digital age as advancements in technology greatly enhanced the government’s surveillance power.⁶⁶ Acknowledging the Fourth Amendment’s historical tie to physical intrusions, Chief Justice Roberts pointed out that even in the pre-*Katz* era, the Fourth Amendment not only protected property interests, but also “seeks to secure ‘the privacies of life’ against ‘arbitrary power.’”⁶⁷ Other precedents provided that the Fourth Amendment was aimed at “[placing] obstacles in the way of a too permeating police surveillance.”⁶⁸ With these foundations in mind, the Court proceeded to discuss how the Court has traditionally applied the Fourth Amendment to technological innovations in surveillance tools.

Technological advancements have greatly empowered government surveillance tools to “encroach upon areas normally guarded from inquisitive eyes”⁶⁹ Because technology greatly enhanced the government’s surveillance capacity, Chief Justice Roberts suggested the Court should “assure[] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted.”⁷⁰ The Court then used *Kyllo* and *Riley* as examples of how the Court had applied the above principles when deciding cases that involved technological advancements in surveillance tools.⁷¹

The Court then moved on to apply the Fourth Amendment understandings to Carpenter’s case. The Court first acknowledged that, although cell-site location information is data maintained by a third-party, this

64. *Id.*

65. *See id.*

66. *See id.* at 2214.

67. *Boyd v. United States*, 116 U.S. 616, 630 (1886).

68. *Carpenter*, 138 S. Ct. at 2214 (citing *United States v. Di Re*, 332 U.S. 581, 595 (1948)).

69. *Id.*

70. *Id.*

71. *See id.* (the Supreme Court held that the government’s warrantless search was unconstitutional in both *Kyllo* and *Riley*. Both involved advanced technologies that the government used as surveillance tools. In *Kyllo*, the Court found the government’s usage of a thermal detector without a warrant a violation of the Fourth Amendment because the technology could “leave homeowners ‘at the mercy of advancing technology’” Likewise in *Riley*, the Court required the government to obtain a warrant before searching the content of a phone because of its “immense storage capacity”).

particular information does not fit squarely under existing precedent.⁷² Rather, it lies at the intersection of two lines of cases: one that “addresses a person’s expectation of privacy in his physical location and movements,” and the one that addresses “what a person keeps to himself and what he shares with others.”⁷³ In the first line of cases, the Court distinguished *Knotts*, a case involving a tracking beeper, from *Jones*, a case involving GPS.⁷⁴ The Court distinguished the amount of surveillance implicated in *Knotts* and *Jones*. The GPS in *Jones* was a more sophisticated form of tracking device than the beeper in *Knotts*, because it tracked and monitored “every movement” of a vehicle.⁷⁵ The Court agreed with concurring Justices in *Jones* in that “‘longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy’—regardless whether those movements were disclosed to the public at large.”⁷⁶

In the second line of cases, the Court distinguished between “what a person keeps to himself and what he shares with others.”⁷⁷ According to the Court’s decision in *Miller* and *Smith*, a person could not have a legitimate expectation of privacy if that person voluntarily shared information with a third-party. A strict application of the rule would mean the government could not have triggered any Fourth Amendment issues when it demanded the voluntarily disclosed information from third-parties.⁷⁸

However, the Court declined to apply *Miller* and *Smith* in *Carpenter*.⁷⁹ As the Court recognized, the phenomenon presented in *Carpenter* was a “qualitatively different category” from those in *Miller* and *Smith*.⁸⁰ The technology in *Carpenter* had “the ability to chronicle a person’s past movements through the record of his cell phone signals. Such tracking partakes of many of the qualities of the GPS monitoring [the court] considered in *Jones*.”⁸¹ Thus, as in *Jones*, “an individual maintains a legitimate expectation of privacy in the record of his physical movements as captured through [cell-site location information],” and “[a]llowing government access to cell-site records contravenes that expectation.”⁸²

72. *See id.*

73. *Id.* at 2215, 2216.

74. *See id.* at 2215.

75. *Id.*

76. *Id.*

77. *Id.* at 2216.

78. *Id.*

79. *Id.* at 2217.

80. *Id.* at 2216.

81. *Id.*

82. *Id.* at 2217.

The fact that cell-site location information required a cell phone triggered greater concern for the Court.⁸³ As it had previously noted in *Riley*, the feature that made a cell phone stand out was that

[u]nlike the bugged container in *Knotts* or the car in *Jones*, a cell-phone—almost a ‘feature of human anatomy,’—tracks nearly exactly the movements of its owner . . . [it] faithfully follows its owner beyond public thoroughfares and into private residences, doctor’s offices, political headquarters, and other potentially revealing locales Accordingly, when the Government tracks the location of a cell phone it achieves near perfect surveillance, as if it had attached an ankle monitor to the phone’s user.⁸⁴

In addition to the intrusiveness of cell phones, the Court also found the quality of the cell-site location data critical, as they opened the door for the government to “a category of information otherwise unknowable.”⁸⁵ Because cell-site location information is continuously being recorded by phone carrier companies for each and every device in the United States—that is, nearly 400 million devices—the capacity of this information is daunting. The government could easily obtain, without passing the hurdle of the Fourth Amendment, an individual’s whereabouts for the past five years.⁸⁶

The Government disputed the accuracy of the cell-site location data, contending that cell-site location was less precise than GPS.⁸⁷ Nevertheless, the Court refused to entertain that argument.⁸⁸ The accuracy only reflected the current state of the technology, the Court reasoned, and new technology would be able to pinpoint location, just like GPS.⁸⁹ Wary of the capacity of the rapidly developing surveillance technology, the Court determined that “[a]t any rate, the rule the Court adopts ‘must take account of more sophisticated systems that are already in use or in development.’”⁹⁰ With that, the Court concluded that accessing cell-site location information “invaded Carpenter’s reasonable expectation of privacy in the whole of his physical movement.”⁹¹

The Government’s next contention was that the case should be governed by the third-party doctrine as “cell-site records . . . are ‘business records’ created and maintained by the wireless carriers.”⁹² However, the Court pointed out that the Government failed to take into account the “seismic shifts in

83. *See id.* at 2218.

84. *Id.*

85. *Id.*

86. *Id.*

87. *See id.*

88. *See id.*

89. *See id.* at 2219.

90. *Id.* at 2218.

91. *Id.* at 2219.

92. *Id.*

digital technology.”⁹³ It has been decades since *Smith* and *Miller*, and there has been “a world of difference” between the technology then and now.⁹⁴ This case turned on “a detailed chronicle of a person’s physical presence compiled every day, every moment, over several years.”⁹⁵ Such a chronicle, the Court held, “implicates privacy concerns far beyond those considered in *Smith* and *Miller*.”⁹⁶

Next, the Court considered whether cell-site location information fits squarely within the “voluntary exposure” rationale of the third-party doctrine.⁹⁷ The Court found that it did not.⁹⁸ First, the location information was not truly voluntarily “shared” because cell phones were a “pervasive and insistent part of daily life” and not using one to avoid exposing location information to cell towers is not a realistic option in this era.⁹⁹ Second, “[v]irtually any activity on the phone, without any affirmative act on the part of the user beyond powering up,” could generate cell-site location data.¹⁰⁰ It was therefore impossible not to share that information unless the phone was off.¹⁰¹ Thus, the Court concluded that “in no meaningful sense does the user voluntarily ‘assume[] the risk’ of turning over a comprehensive dossier of his physical movements.”¹⁰² The Court subsequently declined to extend the third-party doctrine to this case and held that “[t]he government’s acquisition of the cell-site records was a search within the meaning of the Fourth Amendment.”¹⁰³

This decision was, in the Court’s own words, “a narrow one”—the Court did not venture to decide how this decision would apply to other modern digital technologies.¹⁰⁴

D. DISSENTING OPINIONS

Carpenter was a 5–4 decision with each dissenting Justice filing a separate opinion. While the dissenting Justices all wrote extensively, in the interest of time, this Section summarizes their main standpoints from a high level.

Their main arguments against the majority were 1) the historical interpretation of the Fourth Amendment has always been tied to personal

93. *Id.*

94. *Id.*

95. *Id.* at 2220.

96. *Id.*

97. *Id.*

98. *See id.*

99. *Id.*

100. *Id.*

101. *See id.*

102. *Id.*

103. *Id.*

104. *Id.*

property; 2) the third-party doctrine should apply to cell-site location information; and 3) the compulsory process was an important investigative tool for the government to solve crimes. Justice Gorsuch's dissent suggested three potential frameworks that could be used in analyzing data privacy cases: 1) apply *Smith* and *Miller* and live with the consequences; 2) go back to *Katz*'s reasonable expectation of privacy test; and 3) look for an answer elsewhere.¹⁰⁵ Throughout his dissent, Justice Gorsuch expressed his resentment towards *Katz*'s reasonable expectation of privacy and the third-party doctrine. He disagreed "with the Court's decision [] to keep *Smith* and *Miller* on life support, supplement them with a new and multilayered inquiry that seems to be only *Katz*-squared."¹⁰⁶

E. COMMENTATORS & LOWER COURT REACTIONS

Carpenter is a relatively new decision, and there are only a handful of law review articles¹⁰⁷ and a draft of two chapters of a book dedicated to *Carpenter* and its impact.¹⁰⁸ Most comments and reactions exist in multiple online forums and blogs.

Notably, the reputable Fourth Amendment scholar, Orin Kerr, who filed an amicus brief on behalf of the United States, suggested that this case falls squarely within his "equilibrium-adjustment" theory.¹⁰⁹ The equilibrium-adjustment theory suggests that "when new tools and new practices threaten to expand or contract police power in a significant way, courts adjust the level of Fourth Amendment protection to try to restore the prior equilibrium."¹¹⁰ What this means is that if a new technology grants power to the government that could lead to potential abuse based on old rules, the Court will "expand[] legal protection to restore old levels of power and limit abuses."¹¹¹ By the same token, if a technology that narrows the power of the government would "unduly limit the government's ability to solve crimes under old rules," the Court will restrict the scope of the legal protection "to restore old levels of power and ensure the government can still solve enough cases."¹¹² *Carpenter*,

105. *See id.* at 2262.

106. *Id.* at 2272.

107. *See, e.g.,* Susan Freiwald & Stephen Wm. Smith, *The Carpenter Chronicle: A Near Perfect Surveillance*, 132 HARV. L. REV. 205 (2018).

108. *See* Orin S. Kerr, *Implementing Carpenter* (USC Law Legal Studies Working Paper No. 18-29, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3301257 [<https://perma.cc/4KLR-Z2GV>].

109. *See* Orin Kerr, *Understanding the Supreme Court's Carpenter Decision*, LAWFARE (June 22, 2018), <https://www.lawfareblog.com/understanding-supreme-courts-carpenter-decision> [<https://perma.cc/6B7N-4TWL>].

110. Orin Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476, 480 (2011).

111. Kerr, *supra* note 109.

112. *Id.*

as Orin Kerr saw it, was the Court expanding Fourth Amendment protection to prevent the government from abusing its power using advanced surveillance technology.

Professors Freiwald and Smith saw this decision as the Court “confront[ing] the challenges of twenty-first-century technology.”¹¹³ They suggested that the Court adopt a multifactor analysis, including whether the cell-site location information is hidden, continuous, indiscriminate, or intrusive and its expense and efficiency to determine “whether CSLI acquisition is a search under the Fourth Amendment.”¹¹⁴ The Article criticized the third-party doctrine as being a framework “rest[ing] on a shaky foundation.”¹¹⁵ Acknowledging that the majority’s decision was a narrow one, Professors Freiwald and Smith argued that “the scope and rationale of the opinion send clear signals for certain other location monitoring techniques” and “provides a useful framework for courts to evaluate Fourth Amendment limits on the state’s access to digital database”¹¹⁶ Towards the end of the Article, they lamented the “extraordinary length of time” it took the Court to “reach a definitive answer on how the Constitution applies to the data continuously emitted by the signature device of our era—the cell phone.”¹¹⁷ Lastly, they called for a better system of policing the constitutional constraints on law enforcement’s conducts in the face of their powerful new surveillance tools.¹¹⁸

Other comments from online forums about *Carpenter* are polarized as the commentators disagree over the applicability and the precedential value of *Carpenter*.¹¹⁹ Some criticized the Court for wasting too much time on reasonable expectations of privacy and the third-party doctrine while overlooking the fact that the problem can be solved easily by the heart of the Fourth Amendment—it “protects people, not places.”¹²⁰ Several applauded

113. Freiwald & Smith, *supra* note 107, at 206.

114. *See id.* at 220–21.

115. *Id.* at 225.

116. *Id.* at 227.

117. *Id.* at 227, 231.

118. *Id.* at 234–35.

119. *See* Paul Rosenzweig, *Carpenter v. United States and the Law of the Chancellor’s Foot*, LAWFARE (June 27, 2018), <https://www.lawfareblog.com/carpenter-v-united-states-and-law-chancellors-foot> [<https://perma.cc/M7LV-UY3D>] (criticizing the Court’s opinion being too narrow and its lack of predictability).

120. Mike Godwin, *What’s Next for the Reasonable Expectation of Privacy? The Supreme Court’s Ruling in Carpenter Raises New Questions*, SLATE (June 27, 2018), <https://slate.com/technology/2018/06/after-the-supreme-courts-carpenter-ruling-where-is-the-reasonable-expectation-of-privacy-heading.html> [<https://perma.cc/QTH7-Y3UW>] (arguing that the main issue in *Carpenter* was not the record, but rather, “when your phone company gathers location information about your phone . . . they’re searching (or in some sense, seizing) *you*”).

Justice Gorsuch's dissent for openly criticizing the third-party doctrine.¹²¹ Some even went as far to say that “[u]ltimately, the future of Fourth Amendment jurisprudence may be in the hands of Justice Gorsuch, who has clearly indicated that the third-party doctrine . . . needs to be discarded.”¹²²

However, these reactions failed to capture the essence of the *Carpenter* holding. The equilibrium-adjustment theory, while seemingly predicting outcomes correctly, can explain almost everything in hindsight. This theory tries to broadly hew the Court's decisions to the notion of “equilibrium,” whose very definition is indeterminant. Had *Carpenter* come out the other way, this theory would also be the perfect vehicle to explain its reasoning—it could be easily argued that a warrant is not required because it leaves law enforcement with too little power to solve crimes. The theory suggests that there will be, at some point, some form of pushback on government power if it goes too far. It requires the assessment of how much power is too much. However, that assessment is subjective, and it is impossible to know where that line lies until the Court reaches a decision. When the same theory can justify opposing outcomes, it is not a helpful guide for the Justices.

As for whether the fate of the third-party doctrine ultimately lies in the hands of Justice Gorsuch, it is too early to tell. The five Justices in the majority opinion are still sitting on the bench, while Justice Kennedy has retired. Although Justice Kavanaugh has authored several opinions in which he “consistently favored law enforcement and government surveillance over the privacy of individuals,”¹²³ it is unclear whether he will follow Justice Kennedy's path. With the current composition of the Court, it is unlikely that Justice Gorsuch could single-handedly change the landscape of the third-party

121. *See id.* (“Justice Neil Gorsuch's dissent is . . . in some ways . . . the best of the dissents [as he] is looking toward the future as well as the precedential past.”); *see also* Taylor Millard, *Justice Gorsuch's Fascinating, Constitutional Dissent in Carpenter*, HOT AIR (June 24, 2018), <https://hotair.com/archives/2018/06/24/justice-gorsuchs-fascinating-constitutional-dissent-carpenter/> [<https://perma.cc/4RNW-68YQ>] (“[Gorsuch's] arguments are beyond sound and something which is sorely missing in American legal theory.”).

122. Ashley Baker, *Gorsuch's Dissent in 'Carpenter' Case Has Implications for the Future of Privacy*, HILL (June 26, 2018), <https://thehill.com/opinion/cybersecurity/394215-gorsuchs-dissent-in-carpenter-case-has-implications-for-the-future-of> [<https://perma.cc/B6J8-SW96>].

123. Elec. Privacy Info. Ctr., *Brett M. Kavanaugh and Privacy*, EPIC.ORG, <https://epic.org/privacy/kavanaugh/> [<https://perma.cc/W6T6-M2KD>] (last visited Dec. 17, 2018); *see, e.g.*, *Klayman v. Obama*, 957 F. Supp. 2d 1 (2013) (defending post-9-11 surveillance of the American public on third-party doctrine and national security grounds); *United States v. Maynard*, 615 F.3d 544 (2010), *aff'd*, 565 U.S. 400 (2012) (Kavanaugh, J., dissenting) (finding that the law enforcement officer's “unauthorized physical encroachment within a constitutionally protected area” a more important issue than the tracking power of GPS); *United States v. Askew*, 529 F.3d 1119 (2008) (Kavanaugh, J., dissenting) (finding that it was reasonable for a police officer to unzip a suspected armed robber's jacket).

doctrine. Nevertheless, nothing can be said with any level of certainty, as it is unlikely that the Court will hear another privacy case for a while.

Since the ruling came down in June 2018, courts have only had a handful of opportunities to grapple with the *Carpenter* decision and apply it to other types of data, including utility records,¹²⁴ IP addresses,¹²⁵ and real-time location information.¹²⁶ However, almost six months later, courts have yet to extend *Carpenter* to location information beyond cell-site location information.¹²⁷ This outcome is not in conflict with *Carpenter*, though, as none of the above types of data generate any exhaustive record that chronicles an individual's physical location over many years like cell-site location information.

These arguments do have their merits, but commentators failed to recognize that *Carpenter* was not a groundbreaking decision. Commentators have overlooked the consistent pattern that the Court has followed when treating cases involving technological advancements. *Carpenter* was, in effect, an extension of a course that the Supreme Court has charted since the beginning of the century.¹²⁸

IV. ANALYSIS & APPLICATION

Carpenter ultimately came down to a 5–4 decision, with the majority upholding the privacies of life that the Fourth Amendment seeks to protect. Despite the numerous interpretations and theories offered by commentators, district and circuit court judges will eventually have to go back to the majority opinion to determine what is and is not protected by the Fourth Amendment. This Part of the Note interprets the majority's opinion, its implications, its

124. See *United States v. Chad Lightfoot*, No. CR 17-0274, 2018 WL 4376509, at *6 (W.D. La. Aug. 30, 2018) (holding that *Carpenter* does not extend to “information retained by other service related industries, including utility records”).

125. See, e.g., *United States v. Contreras*, No. 17-11271, 2018 WL 4689962 (5th Cir. Oct. 1, 2018) (finding that residence information obtained through IP addresses “falls comfortably within the scope of the third-party doctrine”); *Cryer v. Idaho Dep’t of Labor*, No. 1:16-CV-00526-BLW, 2018 WL 3636529 (D. Idaho July 30, 2018); *United States v. Monroe*, No. CR 16-00055 WES, 2018 WL 5717367 (D.R.I. Nov. 1, 2018); *United States v. Rosenow*, No. 17CR3430 WQH, 2018 WL 6064949, at *11 (S.D. Cal. Nov. 20, 2018).

126. See, e.g., *Andres v. State*, No. SC15-1095, 2018 WL 4496567 (Fla. Sept. 20, 2018) (finding that *Carpenter* does not extend to “real-time cell-site location information to locate [the defendant] for the purposes of executing the warrant”); *United States v. Hammond*, No. 3:18-CR-5 RLM-MGG, 2018 WL 5292223 (N.D. Ind. Oct. 24, 2018) (denying defendant's motion to suppress government's use of real-time location under the good-faith exception).

127. See *People v. Simpson*, No. 01027-2017, 2018 WL 6210585, at *2 (N.Y. Sup. Ct. Sept. 4, 2018) (extending *Carpenter* to collection of three days of cell-site location data and holding that “[t]he distinction between the seven days of CSLI in the *Carpenter* decision and the three days of CSLI in the instant case is de minimis”).

128. See *infra* Part IV.

impact on the third-party doctrine and the reasonable expectation of privacy, and the extent of the Fourth Amendment's protection in the digital age.

A. THE "PRIVACIES OF LIFE" IN THE DIGITAL ERA & THE ROAD TO *CARPENTER*

Some Fourth Amendment scholars, like the dissenting Justices, thought that *Carpenter* strayed too far from the historical property-based understanding of privacy. To the contrary, the Court has long been devoted to protecting individual's information privacy in the face of seismic shifts in technology. The next Section examines the reasoning and the outcomes of three pre-*Carpenter* privacy cases, *Kyllo*, *Jones*, and *Riley*, and how these cases paved a clear path that eventually led to *Carpenter*.

1. *Kyllo*

*Kyllo v. United States*¹²⁹ was one of the first cases that dealt with the government's use of advanced technology and the parameters of Fourth Amendment protection. In *Kyllo*, an agent was suspicious that Kyllo was growing marijuana in his home.¹³⁰ Knowing that growing marijuana indoors requires high-intensity lamps, the agent scanned Kyllo's house using a thermal imager to detect the amount of heat emitting from the house.¹³¹ The scan showed that the roof over the garage was hotter compared to other rooms of the house, which made the agent conclude that Kyllo was using high-intensity lamps in his house to grow marijuana.¹³² Based on this evidence, the agent obtained a warrant, searched Kyllo's home, seized the marijuana, and indicted him.¹³³ Kyllo moved to suppress the evidence from the thermal imager but was unsuccessful.¹³⁴

In rejecting Kyllo's challenge, the district court found that the thermal imager was not intrusive as it "emits no rays or beams and shows a crude visual image of the heat being radiated from the outside of the house . . . [it] 'cannot penetrate walls or windows to reveal conversations or human activities' . . . and 'no intimate details of the home were observed.'"¹³⁵ The Supreme Court disagreed. Justice Scalia wrote for the Court and first reinforced that "'[a]t the very core' of the Fourth Amendment 'stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusions.'"¹³⁶ Second, Justice Scalia backed Justice Harlan's concurrence in

129. 533 U.S. 27 (2001).

130. *Id.* at 29.

131. *Id.*

132. *Id.* at 30.

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.* at 31 (citing *Silverman v. United States*, 365 U.S. 505, 511 (1961)).

Katz that “a Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable.”¹³⁷ Turning to the facts in *Kyllo*, Justice Scalia concluded that using a thermal imager constituted a Fourth Amendment search, as the government obtained information that they could not have obtained “without physical ‘intrusion into a constitutionally protected area.’”¹³⁸ Thus, information collected from the thermal imager was the fruit of a search.

Fearing that the rapid development of technology might “leave the homeowner at the mercy of advancing technology,” the Court felt it necessary to adopt a rule that “take[s] account of more sophisticated systems that are already in use or in development.”¹³⁹ With that, the Court announced its direction going forward, which was to protect individuals’ privacies of life from the government’s exploitative use of sophisticated technology.

2. Jones

Jones followed the steps of *Kyllo*.

To understand the significance of *Jones*, one must first take note of a preceding case: *United States v. Knotts*.¹⁴⁰ *Knotts* was decided in 1983, a time when the technology of tracking devices was still rudimentary. In *Knotts*, law enforcement agents placed a beeper on a chloroform container that was loaded onto a vehicle in order to monitor and trace it.¹⁴¹ The agents followed signals given off by the beeper and traced the chloroform container from Minnesota, where it was purchased, to Knott’s secluded cabin in Wisconsin.¹⁴² With this evidence, the law enforcement agents arrested Knotts for conspiring to manufacture controlled substances.¹⁴³ Knotts objected to the beeper recordings on the ground that it was a warrantless search.¹⁴⁴ The Court disagreed.¹⁴⁵ It held that “[a] person travelling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movement from one place to another.”¹⁴⁶ Beepers, as the Court pointed out, “are merely a more effective means of observing what is already public.”¹⁴⁷ Thus, the Court held that the government’s act did not violate the Fourth Amendment.

137. *Id.* at 33 (citing *Katz v. United States*, 389 U.S. 347, 361 (1967)).

138. *Id.* at 34.

139. *Id.* at 35–36.

140. 460 U.S. 276 (1983).

141. *See id.* at 277.

142. *See id.*

143. *See id.* at 279.

144. *See id.*

145. *See id.* at 280.

146. *Id.* at 281.

147. *Id.* at 285.

What the Court did not anticipate in 1983 was the rapid development of tracking devices—GPS quickly became prevalent and ubiquitous by 2012. That was when *Jones* came before the Court, prompting it to reconsider the capacity of tracking devices.¹⁴⁸

Jones was the suspect of drug trafficking and was being investigated by the FBI.¹⁴⁹ The FBI employed several techniques, including

install[ing] a GPS tracking device on the undercarriage of the Jeep Over the next 28 days, the Government used the device to track the vehicle’s movements, and . . . [b]y means of signals from multiple satellites, the device established the vehicle’s location within 50 to 100 feet, and . . . relayed more than 2,000 pages of data over the 4-week period.¹⁵⁰

With these records, the government obtained a multiple-count indictment against Jones.

The case made its way to the Supreme Court where the Court held that the “installation of a GPS device on a target’s vehicle, and its use of that device to monitor the vehicle movements, constituted a ‘search.’”¹⁵¹ In particular, Justice Sotomayor’s concurrence pointed out that “long term GPS monitoring in investigations of most offenses impinges on expectations of privacy.”¹⁵² Though both involved tracking devices, *Jones* differed from *Knotts* in that, unlike the beeper, “GPS monitoring generates a precise, comprehensive record of a person’s public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations . . . [and] [t]he government can store such records and efficiently mine them for information years into the future.”¹⁵³ Justice Sotomayor also emphasized the advancement of GPS tracking technology compared to other forms of tracking techniques, in that “GPS monitoring is cheap in comparison to the conventional surveillance techniques, and by design, proceeds surreptitiously, it evades the ordinary checks that constrain abusive law enforcement practices: ‘limited police resources and community hostility.’”¹⁵⁴ Applying the reasonable expectation test in *Katz*, it seemed obvious whether “people reasonably expect that their movements will be recorded and aggregated in a manner that enables the government to ascertain, more or less at will, their political and religious beliefs, sexual habits, and so on.”¹⁵⁵ GPS can be easily abused by law

148. *United States v. Jones*, 565 U.S. 400 (2012).

149. *See id.* at 402.

150. *Id.* at 403.

151. *Id.* at 404.

152. *Id.* at 415.

153. *Id.*

154. *Id.* at 415–16.

155. *Id.* at 416.

enforcement to chronically track individuals in their private spaces and, without any oversights, can lead to “a too permeating police surveillance.”¹⁵⁶ Thus, the Court held that GPS monitoring was a search.¹⁵⁷

3. Riley

Fast forward to the age of Apple, Android, and Samsung: *Riley v. California*,¹⁵⁸ decided in 2014, involved an even more powerful technology—cell phones.¹⁵⁹

Riley was pulled over by a police officer for driving with an expired registration.¹⁶⁰ Over the course of this stop, the police officer discovered that Riley was in possession of a concealed and loaded gun.¹⁶¹ He was arrested and his cell phone was seized and its contents reviewed.¹⁶² A detective who had “fully examined the contents of the cell phone” testified that the content in the phone confirmed that Riley was a gang member.¹⁶³ Riley was charged based on this evidence.¹⁶⁴ He moved to suppress the evidence the police obtained from his phone on Fourth Amendment grounds.¹⁶⁵

The Court agreed with Riley and concluded that “the fact that an arrestee has diminished privacy interests does not mean that the Fourth Amendment falls out of the picture entirely.”¹⁶⁶ Especially with regard to cell phones, the Court expressed its grave concern that they, “as a category, implicate privacy concerns far beyond those implicated by the search of a cigarette pack, a wallet, or a purse.”¹⁶⁷ The feature that distinguished cell phones from the rest of these items was their vast capacity:

Cell phones differ in both a quantitative and a qualitative sense from other objects that might be kept on an arrestee’s person. The term “cell phone” is itself misleading shorthand; many of these devices are in fact minicomputers that also happen to have the capacity to be used as a telephone. They could just as easily be called cameras, videos players, rolodexes, calendars, tape recorders, libraries, albums, televisions, maps or newspapers.¹⁶⁸

156. *Id.* at 416–17 (citing *United States v. Di Re*, 332 U.S. 581, 595 (1948)).

157. *Id.* at 402.

158. 134 S. Ct. 2473 (2014).

159. *See generally id.*

160. *See id.* at 2480.

161. *See id.*

162. *See id.*

163. *Id.* at 2480–81.

164. *Id.* at 2481.

165. *Id.*

166. *Id.* at 2488.

167. *Id.* at 2488–89.

168. *Id.* at 2489.

What is even more notable is their “immense storage capacity.”¹⁶⁹ Most people cannot carry with them the physical copy of every piece of mail they have received over the course of several years, the books and articles that they have read, the pictures and videos they have taken, the webpages they have visited—“nor would they have any reason to attempt to do so.”¹⁷⁰ However, one can easily do so by carrying a current top-selling cell phone, as they have the capacity to store enough information to “construct a virtual clone of that individual.”¹⁷¹

The Court went on to discuss what it meant to have such a vast storage capacity and its impact on privacy. First, the Court found that a phone was an all-in-one device for an “address book, a note, a prescription, a bank statement, a video—that reveal much more in combination than any isolated record.”¹⁷² Second, even if a phone had just one feature, its capacity “allows even just one type of information to convey far more than previously possible.”¹⁷³ Just take photos for example, where “an individual’s private life can be reconstructed through a thousand photographs labeled with dates, locations, and description.”¹⁷⁴ Third, the phone records data can be traced back to months or even years.¹⁷⁵ As the Justices pointed out, “[a] person might carry in his pocket a slip of paper reminding him to call Mr. Jones; he would not carry a record of all his communications with Mr. Jones for the past seven months, as would routinely be kept on a phone.”¹⁷⁶

Finally, the Court addressed the sensitivity of cell phone records.¹⁷⁷ Prior to having phones, people “did not typically carry a cache of sensitive personal information with them as they went about their day.”¹⁷⁸ But we are in a different world—nearly 75% of cell phone users stay within five feet of their phones most of the time. Some even use phones in their shower.¹⁷⁹ “Today . . . it is no exaggeration to say that many of the more than 90% of American adults who own a cell phone keep on their person a digital record of nearly every aspect of their lives—from mundane to the intimate.”¹⁸⁰

169. *Id.*

170. *Id.*

171. Aaron Brown, *This Is How Much YOUR Smartphone Knows About You Right NOW*, EXPRESS (May 7, 2016), <https://www.express.co.uk/life-style/science-technology/667868/Smartphone-Knows-About-You-Tracking> [<https://perma.cc/M2ZD-5MUZ>].

172. *Riley*, 134 S. Ct. at 2489.

173. *Id.*

174. *Id.*

175. *See id.*

176. *Id.*

177. *See id.* at 2490.

178. *Id.*

179. *See id.*

180. *Id.*

Cell phone records' intrusiveness goes beyond the amount of information they can store. Some of the stored information is qualitatively different from physical records. For example, internet searches can reveal an individual's private interests; application software can reveal an individual's political interest, intimate, financial, and other sensitive information.¹⁸¹ The truth is, cell phones are not just advanced technological devices. What they are capable of storing, and the sensitive nature of the information they store are what many Americans call "the privacies of life."¹⁸² The fact that this technology came along in the twenty-first century "does not make the information any less worthy of the protection for which the Founders fought" in the eighteenth century.¹⁸³ With that, the Court held that the government may not search a cell phone without a warrant supported by probable cause.¹⁸⁴

4. *The Road to Carpenter*

A closer read of the precedent reveals that the Court has always been wary of sacrificing individual's "privacies of life" to the government's dazzling new gadgets. The Court had long recognized the power of technology and had been extending the scope of Fourth Amendment protection every time the government's sophisticated technology posed new threats to individual's privacy. Throughout the years, the Court had been consistent in that position. It was consistent in *Kyllo*, *Jones*, and *Riley*, and it was consistent in *Carpenter*.

Starting from *Kyllo*, the Court disallowed the use of technology that could circumvent "physical intrusion" on an individual's home.¹⁸⁵ The Court recognized that using a sense-enhancing thermal imager to detect heat radiation from a house allows the government to easily know everything inside the house without physically raiding it. Using a surveillance device like this to "explore details of the home that would previously have been unknown without physical intrusion . . . is a 'search' and is presumptively unreasonable without a warrant."¹⁸⁶ The Court departed from the mechanical interpretation of the Fourth Amendment so as not to "leave the homeowner at the mercy of advancing technology."¹⁸⁷ This departure from the historical interpretation of the Fourth Amendment set the first stone towards the Court's long battle against advanced technologies that impinge on personal privacies.

The Court continued to pave the way in *Jones*. Comparing GPS technology with the bumper beeper in *Knotts*, the Court recognized that GPS was much more sophisticated—it could generate a wealth of "precise, comprehensive

181. *See id.*

182. *Id.* at 2494–95.

183. *Id.* at 2495.

184. *See id.*

185. *Kyllo v. United States*, 533 U.S. 27, 40 (2001).

186. *Id.*

187. *Id.* at 35.

record[s]” of a person’s movements.¹⁸⁸ The individual being tracked by a GPS would have no place to hide.¹⁸⁹ Concerned about the intrusive and revealing nature of GPS, the Court ultimately held that using GPS to track an individual’s location was a search.¹⁹⁰ The Court, again, did not sacrifice personal privacy in the face of advancing technology.

Later in *Riley*, the Court followed the same path when it came to cell phones. Cell phones had a vast capacity to store sensitive information that was both qualitatively and quantitatively different from what the Court had previously seen.¹⁹¹ Allowing the government to search one’s cell phone is to expose one’s life to the mercy of the government, because a cell phone can store enough data to reconstruct the user’s life.¹⁹² Facing such a powerful, advanced technology, the Court, again, chose to protect the privacies of life—as it had done in *Kyllo* and *Jones*.

From *Kyllo* to *Jones* to *Riley*, the Court had been sending a clear and consistent message. Whenever a “seismic shift” in technology produced information that was qualitatively and quantitatively different, the Court always protected individuals’ privacy rights. Since the first time the Court took notice of the use of “sophisticated technology” in *Kyllo*, the Court announced its course going forward: The Court would not allow advancements in technology to erode individuals’ reasonable expectations of privacy.

Thus, *Carpenter*’s outcome is no surprise. Cell-site location information was the fruit of a search using sophisticated digital technologies—ones that were unimaginable in the age of *Smith* and *Miller*. With its capability of tracking one’s physical movements for five years, cell-site location information was a detailed record of one’s whereabouts.¹⁹³ This exhaustive chronicle, with its sensitive, pervasive, and intrusive nature, implicated the Fourth Amendment protection against unreasonable searches and seizures.¹⁹⁴ Consistently following the path set by *Kyllo*, *Jones*, and *Riley*, the Court, unsurprisingly, sided with personal privacy against sophisticated technologies by concluding that obtaining cell-site location information was a search.

5. *The Crossover Between the Use of Advanced Technologies and the Third-Party Doctrine*

Carpenter was a special case in many ways. Most prominently, it was a crossover of both the modern interpretation and the traditional interpretation of the Fourth Amendment. The modern interpretation was, as discussed in the

188. *United States v. Jones*, 565 U.S. 400, 415 (2012) (Sotomayor, J., concurring).

189. *See id.*

190. *Id.* at 404.

191. *See Riley v. California*, 134 S. Ct. 2473, 2490 (2014).

192. *See id.* at 2489.

193. *See Carpenter v. United States*, 138 S. Ct. 2206, 2219 (2018).

194. *See id.* at 2217.

previous Section, protecting privacy rights in the face of advanced technologies; and the traditional interpretation was the third-party doctrine. Under the modern interpretation, obtaining cell-site location information would be a search. Under the straightforward application of the traditional interpretation, it would not.

However, at least as articulated in *Miller* and *Smith*, there was another crucial component required for the third-party doctrine to apply—the nature of the information sought.¹⁹⁵ As the Court pointed out in *Carpenter*, the check records and the phone numbers being demanded in *Miller* and *Smith*, respectively, were not of a sensitive nature.¹⁹⁶ Rather, they were information that had only “limited capabilities” and were not private.¹⁹⁷ The cell-site location information that the Court confronted in *Carpenter*, on the other hand, was “a new phenomenon” produced by sophisticated technology.¹⁹⁸

In this clash between the modern and traditional interpretation, the Court chose the former.¹⁹⁹ When confronting a type of information that has such a unique nature as the cell-site location information, “the fact that the information is held by a third party does not by itself overcome the user’s claim to Fourth Amendment protection.”²⁰⁰

B. THE FATE OF THE THIRD-PARTY DOCTRINE POST-CARPENTER

Despite the *Carpenter* decision being a big win for advocates of personal privacy, it did not gain universal approval and garnered polarized reactions. On one hand, Andrew Ferguson called it “a blockbuster Fourth Amendment case,” signaling “a new openness to expand the Fourth Amendment to fit digital criminal investigations.”²⁰¹ On the other hand, Orin Kerr and Paul Rosenzweig called the majority opinion uncertain and, blatantly, “not law.”²⁰² Most disputes were over the majority’s treatment of the third-party doctrine: While there seems to be a consensus that the third-party doctrine has been

195. *See id.* at 2219 (“*Smith* and *Miller*, after all, did not rely solely on the act of sharing. Instead, they considered ‘the nature of the particular documents sought’ to determine whether ‘there is a legitimate expectation of privacy concerning their contents.’”).

196. *See id.*

197. *Id.* (citing *Smith v. Maryland*, 442 U.S. 735, 742 (1979)).

198. *Id.* at 2216.

199. *See id.* at 2217.

200. *Id.*

201. Andrew Guthrie Ferguson, *Future-Proofing the Fourth Amendment*, HARV. L. REV. BLOG (June 25, 2018), <https://blog.harvardlawreview.org/future-proofing-the-fourth-amendment/> [<https://perma.cc/C99Q-9XV7>].

202. Rosenzweig, *supra* note 119.

largely curtailed, to what extent it has been curtailed and how the lower courts should apply this ruling in future cases is still up in the air.²⁰³

Since the third-party doctrine first came down in the 1970s, it has been considered a categorical rule—i.e., it applies to any type of information voluntarily given to a third party. However, upon a closer examination of the *Carpenter* majority, the Court implied that that was not the case—the third-party doctrine applicability was meant to be limited, depending on the nature of the information.²⁰⁴

As Justice Frankfurter instructed in *Northwest Airlines* when considering new technology innovations, “the Court must tread carefully in such cases, to ensure that we do not ‘embarrass the future.’”²⁰⁵ To put it in context, *Miller* was decided when people were using cash and check to make purchases, and *Smith* was decided before the idea of portable telephones was even conceived. Digital technology has indisputably undergone a seismic shift throughout the decades since *Miller* and *Smith*. Payment methods and telecommunication gadgets have been revolutionized and a great deal of information can be shared with a third party with a lot less voluntary control. For example, cell-site location information is not a like a nosy neighbor that keeps an eye on you as you come and go. It is a detailed, exhaustive, chronicled record of every single physical location at any point in time for the past several years. Its memory is “nearly infallible.”²⁰⁶ Moreover, there is no way to avoid having such a record unless one switches off the internet connection completely or abandons the cell phone altogether.²⁰⁷ Taking into account the advancement of new surveillance technologies, the Court concluded:

There is a world of difference between the limited types of personal information addressed in *Smith* and *Miller* and the exhaustive chronicle of location information casually collected by wireless carriers today. The Government thus is not asking for a straightforward application of the third-party doctrine, but instead a *significant extension* of it to a distinct category of information.²⁰⁸

The phrase “significant *extension*” here bears special importance. Whereas scholars and courts have assumed that the third-party doctrine covered all data in the hands of third parties, the Court here makes it clear that a “straightforward application” of the third-party doctrine would only address

203. See, e.g., Ferguson, *supra* note 201 (“*Carpenter* signals the end of the third-party doctrine as traditionally understood.”); Kerr, *supra* note 109 (“[The third-party doctrine] lives, but there is an equilibrium-adjustment cap on it.”).

204. See *Carpenter*, 138 S. Ct. at 2219.

205. *Id.* at 2220 (citing *Northwest Airlines, Inc. v. Minn.*, 322 U.S. 292, 300 (1944)).

206. *Id.* at 2219.

207. *Id.* at 2220.

208. *Id.* at 2219 (emphasis added).

the “limited types of personal information addressed in *Smith* and *Miller*.”²⁰⁹ Anything beyond those “limited types” necessarily requires an *extension*. With that, the Court effectively rejected the traditional view that the third-party doctrine was a categorical rule.

This means that the third-party doctrine is still alive, but its applicability is significantly narrowed. However, for lower courts, this holding can be vague. On one end of the spectrum, the limited-type information in *Miller* and *Smith* requires a straightforward application of the third-party doctrine. On the other end, the exhaustive record of someone’s location represented by cell-site data would require a significant extension that the Court is not willing to grant. As for the rest of the spectrum between these two ends, the Court did not give a clear guideline as to when the third-party doctrine applies.

Although there is no bright-line rule to determine under what circumstances the third-party doctrine applies and under what circumstances it does not, the Court provided several factors from precedents for the lower courts to consider, including invasiveness and sensitivity from *Kyllo*, pervasiveness and precision from *Jones*, and volume and exhaustiveness from *Riley*. The fundamental question is how much the information sought intrudes upon the individual’s privacies of life.

Professor Orin Kerr, in his upcoming book, dedicated one entire chapter on how the ruling of *Carpenter* can be implemented so as to make it less convoluted and subjective.²¹⁰ He proposed three possible tests: the Subjective Approach, the Mosaic Theory, and the Source Rule.²¹¹ The Subjective Approach focuses on when the government learns private, *Carpenter*-like information—i.e., a search is triggered “the moment the government learns a private fact about a person that is among the type *Carpenter* regulates.”²¹² However, this approach entails a good amount of judgment calling, especially when it comes to *when* the information becomes *too* private. Some information, standing alone, might not be as invasive as seven days of cell-site location information, but could reveal intimate, private details when cumulated together.²¹³

209. *Id.*

210. *See* Kerr, *supra* note 108, at 27–28.

211. *See id.*

212. *Id.* at 27.

213. *See id.* at 29. Professor Kerr used several scenarios in his paper to demonstrate the power of information accumulation. “The key lesson is that the invasiveness of information is contingent on what else is known. We find information invasive when it supports a conclusion about a person . . . the sense of invasiveness occurs when learning fact A implies sensitive fact B. But whether A implies B often depends on whether we also know C.” *Id.* at 34.

The Mosaic Theory focuses on whether the quantity of information obtained is sufficient to trigger the *Carpenter* safeguard.²¹⁴ Under this approach, “a search occurs when an information transfer to the government includes a large quantity of *Carpenter*-protected information.”²¹⁵ However, this approach also calls for a decent amount of subjectivity, as it requires the courts to draw a line between how much information is not broad and how much is too broad. How much is too much? *Carpenter* concluded that seven days of cell-site location information is impermissible, but what about two days? What if the government first collected two days of information and then collected another two days of information? Should courts consider the two two-days separately or together?²¹⁶ This approach provides more questions than answers and “offers no clarity about how much surveillance is enough to trigger a search.”²¹⁷

The Source Rule is a bright-line rule, as it focuses on the source that generates the information.²¹⁸ This approach takes out the line-drawing process required by the above two approaches and “asks only whether any information revealed to the government was dependent or relied on use of a technology that *Carpenter* covers.”²¹⁹ Applying this rule is easy—if a court determines that the information revealed is a product of the seismic shift—an advancement—in technology, then all information produced is protected—“[o]ne datum is just as protected as the entire database. It’s all protected.”²²⁰ Professor Kerr zealously advocates for the Source Rule.²²¹ However, while the Source Rule provides clarity, it has some significant drawbacks: it can be both over-inclusive and under-inclusive. The Source Rule provides that any information obtained through a *Carpenter*-protected method, even if only a single data point, is protected as a search.²²² However, this practice is over-inclusive because not every data point generated by a *Carpenter*-protected method is enough to be a search. What made the cell-site location data a search in *Carpenter* was that the hundreds of thousands of data points *collectively* created a chronical of someone’s life. But one discrete data point is unlikely to have the same effect.

214. *Id.* at 28.

215. *Id.* at 28.

216. *See id.* at 37.

217. *Id.* at 39. Professor Kerr is also against the Mosaic Theory, as this theory asks the judges to “make judgments about time, about numbers of events, and about how much the combination of time and numbers leads to a feeling that a line has been crossed.” *Id.* at 38.

218. *See id.* at 28.

219. *Id.* at 28.

220. *Id.* at 40.

221. *See id.* at 42. Professor Kerr considered the Source Rule as being able to “reduce the morass of complex questions raised by *Carpenter* into something more manageable . . . the Source Rule brings the challenge of implementing *Carpenter* from seemingly-impossible to just really-hard.” *Id.*

222. *See id.* at 40.

On the flip side, this approach is under-inclusive as it only covers the existing technologies examined by the Supreme Court but not the upcoming new technologies that are being constantly developed and deployed by the government and private sector. Given the speed of technology advancement, sooner or later, the government will have a new gadget, not covered by *Carpenter*, that could trigger Fourth Amendment concerns—how then should the courts decide? The lower courts would then have to go back to the holding of *Carpenter* and seek answers there—i.e., considering various factors and decide how much information is *too much*.

C. THIRD-PARTY DOCTRINE APPLIED TO TECHNOLOGIES IN THE POST-CARPENTER ERA

This Section is devoted to discussing how the majority’s decision in *Carpenter* could apply to several technological advancements in the post-*Carpenter* digital era, such as cell-site simulators (aka Stingray), voice-command home devices, such as Amazon Echo, and credit card records.

1. *Cell-Site Simulator (Stingray)*

Cell-site simulators, or more colloquially known as Stingray,²²³ are devices that “mimic cell phone towers and send out signals to trick cell phones in the area into transmitting their locations and identifying information.”²²⁴ Cell-site simulators emit stronger signals than the cell towers nearby and trick cell-phones to disconnect from legitimate cell towers and connect to these simulators.²²⁵ It is difficult, if not impossible, for cell-phone users to know when their phones are connecting to a simulator.²²⁶ Once a device has connected to a simulator, the simulator can track the user’s location and read “identifying data directly from [the] mobile device.”²²⁷ Advanced simulators can even intercept incoming phone calls and messages and “divert calls and text messages, edit messages, and even spoof the identity of a caller in text messages and calls.”²²⁸

223. See generally Stephanie K. Pell & Christopher Soghoian, *Can You See Me Now?: Toward Reasonable Standards for Law Enforcement Access to Location Data That Congress Could Enact*, 27 BERKELEY TECH. L.J. 117 (2012).

224. *Stingray Tracking Devices*, ACLU, <https://www.aclu.org/issues/privacy-technology/surveillance-technologies/stingray-tracking-devices> [<https://perma.cc/9XSB-KJDX>] (last visited Apr. 9, 2019).

225. *Cell-Site Simulators/IMSI Catchers*, ELECTRONIC FRONTIER FOUND., <https://www EFF.org/pages/cell-site-simulatorsimsi-catchers> [<https://perma.cc/TH5K-AD43>] (last visited Apr. 9, 2019) [hereinafter *EFF on Cell-Site Simulators*].

226. *Id.*

227. *Id.*

228. *Id.*

State and local police departments nationwide possess this surveillance technology.²²⁹ Their prevalence is concerning, as not only can cell-site simulators be used to uncover information about a suspect, when they are used to track someone's cell phone, they can also simultaneously gather information "about the phones of countless bystanders who happen to be nearby."²³⁰ Furthermore, cell-site simulators can be used discretely, as some are small enough to fit in a police vehicle and can be driven around to multiple locations, gathering data from every mobile device around those areas—including devices located in traditionally protected areas, such as someone's home.²³¹

Given the wide coverage and the capability of cell-site simulators—in some cases one simulator can connect up 10,000 mobile devices at a time²³²—it seems like there is no doubt that location data collected by these simulators deserve Fourth Amendment protection. First of all, cell-site simulators, by their very nature, generate the same type of data as cell towers do. Thus, all the *Carpenter* rationales are applicable here. Second, cell-site simulators have a wider coverage than cell towers because they can travel around in police cruisers. These simulators graze neighborhoods, collect location data from mobile devices in houses, apartments, and private spaces, triggering serious privacy concerns. Third, the data collected by these simulators are indiscriminate. While law enforcement officers might have a warrant to track a suspect's device,²³³ cell-site simulators collect much more information than is covered by that warrant, as they could potential collect information from thousands of other non-suspect devices. The breadth of the search "raises the specter of an illegal general warrant."²³⁴ Fourth, cell-site simulators can do more than just passively receiving data—they can also intercept calls and texts and identify the caller. Treading into individual's private communication is no less intrusive than searching someone's cell-phone, as in *Riley*. Lastly, unlike the cell-site location information in *Carpenter*, cell-site simulators are operated by law enforcement officers, and the data are collected by law enforcement officers, not by a third-party provider. Thus, there is no third-party doctrine issue at play that could shield a Fourth Amendment violation. Based on the

229. *Stingray Tracking Devices: Who's Got Them*, ACLU, <https://www.aclu.org/issues/privacy-technology/surveillance-technologies/stingray-tracking-devices-whos-got-them> [<https://perma.cc/KP9P-JC7A>] (last visited Apr. 9, 2019) (noting the ACLU has identified "75 agencies in 27 states that the District of Columbia that own stingrays").

230. *Id.*

231. *Id.*

232. *EFF on Cell-Site Simulators*, *supra* note 225.

233. Since 2016, DOJ requires law enforcement officers to seek a Rule 41 warrant to use cell-site simulators. *See* DEP'T OF JUSTICE, DEPARTMENT OF JUSTICE POLICY GUIDANCE: USE OF CELL-SITE SIMULATOR TECHNOLOGY 3 (2015).

234. *Freiwald & Smith*, *supra* note 107, at 229.

foregoing, it should be the case that the data collected by cell-site simulators are subject to Fourth Amendment protection.

2. “Alexa, call XXX”

The next technology advancement discussed in this Section is Amazon’s home smart speaker, Amazon Echo. Today, nearly sixteen percent of Americans, or around 39 million people, own a smart speaker, including four percent of Google Home users and eleven percent of Amazon Echo users.²³⁵ Amazon Echo and its shorter kin, Echo Dot, were the top sellers in 2017.²³⁶

Amazon Echo is a comprehensive home electronic artificial intelligence system that performs multiple tasks with verbal commands.²³⁷ Here is how it works: The default name of Echo is “Alexa,” which Amazon calls the devices’ “wake-up word.”²³⁸ Echo will always be listening for the wake up word, and when it hears it, a ring of blue LED light will light up, indicating that Echo is starting to record.²³⁹ For example, the owner can command by saying “Alexa, play some relaxing music,” or “Alexa, tell me the weather today.” Echo records these commands and uploads the audio files to Amazon’s cloud server.²⁴⁰ The cloud server translates the audio into text, figures out the best way to respond, transmits that response back to Echo speaker, and the speaker converts the texts back into a spoken response.²⁴¹

But Echo can do so much more than just responding to basic commands.²⁴² It can control the lights and room temperature; it can connect to and become a remote control for compatible TVs; it can set up alarm clocks and calendar reminders; it can make purchase orders on Amazon; it can generate a to-do list; it can retrieve cooking recipes for boeuf bourguignon and chocolate chip cookies; it can flip a coin and roll a die; it can order coffee, pizza, or a Lyft ride; and it can even have a conversation with a interested user.²⁴³ The brilliant minds at Amazon are enlarging Echo’s capabilities day-by-day. Just recently, Echo revolutionized and redefined the concept of “home

235. See Sarah Perez, *39 Million Americans Now Own a Smart Speaker, Report Claims*, TECHCRUNCH (Jan. 12, 2018), <https://techcrunch.com/2018/01/12/39-million-americans-now-own-a-smart-speaker-report-claims/> [https://perma.cc/GQ9G-D43C].

236. See *id.*

237. See Andrew Gebhart Crist, *Everything You Need to Know About the Amazon Echo*, CNET (Sept. 21, 2018), <https://www.cnet.com/how-to/amazon-echo-alexa-everything-you-need-to-know/> [https://perma.cc/9J89-Z7WF].

238. *Id.*

239. See *id.*

240. See *id.*

241. See *id.*

242. See Taylor Martin & David Priest, *The Complete List of Alexa Commands So Far*, CNET (Sept. 24, 2018), <https://www.cnet.com/how-to/amazon-echo-the-complete-list-of-alexa-commands/> [https://perma.cc/2DGA-3V2F].

243. See *id.*

phone” by enabling users to call friends and families with just a verbal command.²⁴⁴ The user now can simply say “Alexa, call my friend Smith,” and Alexa will dial the phone number saved as “my friend Smith” in the user’s phone book. Needless to say, Echo diligently records and uploads a tremendous amount of intimate information about its users’ lives. Where does all that information go? Amazon servers.²⁴⁵

Obviously, the government cannot search an Echo device itself without a warrant, as obtaining the device requires physically entering into someone’s home and thus requires a warrant. But can the government go to Amazon’s headquarters and demand Amazon to turn over the database on its cloud servers? Under a straightforward application of the third-party doctrine, yes—Amazon is a third party to which the users voluntarily and knowingly send information. But based on *Riley* and *Carpenter*? Probably not.

Whereas the phone numbers collected in *Smith* are merely individual strings of numbers that bear no other significance, the information Echo records and transmits to Amazon servers is something else. The calling feature allows Amazon to access user’s contact list; the ordering/reordering feature allows Amazon to know the user’s payment information and shipping addresses; search functions reflect the user’s personal preference; and on top of everything, Echo transmits clips about its user’s private life *at home*.²⁴⁶ Thus, Echo is more akin to the phone in *Riley*. With its capability to transmit not only an exhaustive volume of information, but also sensitive and personal details of a user’s private life, the recordings that Echo turns over to Amazon cloud servers is both qualitatively and quantitatively different from the phone numbers in *Smith*. This type of information is exactly what the Court would call “the privacies of life,” and it is the very type of information the Fourth Amendment seeks to protect. Thus, any attempt to obtain such information from Amazon’s servers would constitute a search within the meaning of the Fourth Amendment.

Echo is a world of difference from a pen register—from a single-function recording device to a sophisticated smart home system with new functions constantly implemented. This difference is exactly what the *Carpenter* majority would call a “seismic shift” in technology.²⁴⁷ Therefore, the type of

244. See Maggie Tillman, *What Is Amazon Alexa Calling and Messaging and How Does It Work?*, POCKET-LINT (Sept. 19, 2018), <https://www.pocket-lint.com/smart-home/news/amazon/140981-amazon-alexa-calling-and-messaging-what-is-it-how-does-it-work-and-where-can-you-use-it> [https://perma.cc/DRQ9-LXQW].

245. See Tim Moynihan, *Alexa and Google Home Record What You Say. But What Happens to That Data?*, WIRED (Dec. 5, 2016), <https://www.wired.com/2016/12/alexa-and-google-record-your-voice/> [https://perma.cc/HU28-2HK8].

246. See Crist, *supra* note 237.

247. *Carpenter v. United States*, 138 S. Ct. 2206, 2219 (2018).

information Echo records is closer to the *Carpenter* extreme of the spectrum and is not covered by the third-party doctrine.²⁴⁸

When this Note was under production, Echo recordings were involved in a double-murder case in New Hampshire.²⁴⁹ Law enforcement believed that an Echo located in the two victims' kitchen might have "picked up 'audio recordings capturing the attack' and 'any events that preceded or succeeded the attack.'" ²⁵⁰ In line with the analysis above, the government in this case had to show *probable cause* before the court issued an order of search allowing the government to demand information from Amazon servers.²⁵¹ This case perfectly exemplified that obtaining Echo recordings constitutes a search and is not covered by the third-party doctrine.

3. Credit Card Records

The third technology discussed advances *Miller's* checkbook by leaps and bounds—credit cards. *Miller* was decided back when people were carrying around cash and checkbooks. Needless to say, the world has changed since the invention of credit cards. Each time a card holder makes a transaction, the nature of that transaction will be recorded, including the vendor's name, the amount of the transaction, the time of the transaction to the exact second, and the location where the transaction took place. There is, arguably, "a world of difference" between the check records in *Miller* and credit card records.²⁵²

First, the two records differ in their pervasiveness. One has to recognize how frequently credit cards are used nowadays as compared to checks used in the 1970s. Back in the 1970s, people used checks for paying salaries and rent but not on miscellaneous transactions, such as buying a cup of coffee or a blueberry muffin.²⁵³ Check transactions only constituted a little portion of an individual's overall transaction records. In the present day, however, credit cards are used on a full range of things.²⁵⁴ Whether an individual buys a can of soda, a candy bar, or an expensive car, they can pay for all of them with a credit card.

248. *Id.*

249. See Zack Whittaker, *Judge Orders Amazon to Turn over Echo Recordings in Double Murder Case*, TECHCRUNCH (Nov. 14, 2018), <https://techcrunch.com/2018/11/14/amazon-echo-recordings-judge-murder-case/> [<https://perma.cc/9UAL-NRLV>].

250. *Id.*

251. See *id.*

252. *Carpenter*, 138 S. Ct. at 2219.

253. Interview with James Dempsey, Dir., Berkeley Ctr. for Law & Tech., in Berkeley, Cal. (Nov. 2018) (transcript on file with author).

254. See Jason Steele, *Payment Method Statistics*, CREDITCARDS (May. 30, 2018), <https://www.creditcards.com/credit-card-news/payment-method-statistics-1276.php> [<https://perma.cc/6R96-QBEJ>].

Second, credit card records and check records are very different in nature. The check records in *Miller*, as the *Carpenter* Court recognized, did not have a “revealing nature.”²⁵⁵ A credit card record, on the other hand, can potentially reflect a card holder’s daily routine: getting a cup of coffee and bagel for breakfast, taking an Uber to the workplace, shopping on Amazon.com for cat litter, buying a salad for lunch, getting another coffee in the afternoon, more shopping online, buying groceries from Wholefoods, and having a drink at a bar before heading back home, and so on. The vast amount of information a credit card record can reveal is frightening, as it permeates through every aspect of the card holder’s daily life.

Third, checks cannot track location, while credit cards can. In fact, credit card companies and banks constantly monitor the location where transactions take place to detect potential fraudulent transactions.²⁵⁶ Credit card companies monitor by looking for unusual activities and unusual transactions.²⁵⁷ However, to know what is *unusual*, they must first know what is usual, e.g., in which cities the card is being used, which store the card holder frequents, and the typical range of the amount spent on the card.²⁵⁸ For example, if a card holder lives in the Bay Area and has been using the card predominantly in that location, a sudden transaction in Loxahatchee, Florida, is likely fraudulent. By the same token, if a card holder typically spends no more than \$2,000, a \$12,500 transaction will likely trigger some alert. How do the credit card companies do that? Depending on the technologies used, companies either do a fully automated fraud-alert process or a machine-human combined process to combat fraud.²⁵⁹ The process involves analyzing massive amounts of credit card transaction data to learn patterns for each individual card holder to be

255. *Carpenter*, 138 S. Ct. at 2219. Chief Justice Roberts found that cell-site location information distinguishes from the records in *Smith* and *Miller* due to its “revealing nature.” In particular, he characterized cell-site location information as “a detailed chronicle of a person’s physical presence compiled every day, every moment, over several years. Such a chronicle implicates privacy concerns far beyond those considered in *Smith* and *Miller*.” *Id.* at 2220.

256. For example, Bank of America has a global information security team that monitors all the activities 24/7 to detect fraudulent transactions. *See Here’s What You Need to Know (and Do) to Stay as Safe as Possible*, BANK OF AM., <https://www.bankofamerica.com/privacy/overview.go> [<https://perma.cc/GZ26-F7PA>] (last visited Dec. 17, 2018). Credit card companies and banks are dedicated to catching fraudulent behaviors, as the card owners are only responsible for up to \$50 for any fraudulent transactions—the rest is on the credit card companies and the banks. *See Selena Maranjian, How do Credit Card Companies Spot Fraud?*, MOTLEY FOOL (Sept. 29, 2017), <https://www.fool.com/credit-cards/2017/09/29/how-do-credit-card-companies-spot-fraud.aspx> [<https://perma.cc/HF6D-9SJ4>].

257. *See* Maranjian, *supra* note 256.

258. *See id.*

259. *See id.*

able to recognize and pick out transactions that “might be fraud.”²⁶⁰ When potential fraud is detected, the credit card companies either call, or text, the card holders to alert them. At the same time, the companies decline the suspicious transaction and suspend the card until the card holders approve or disapprove the suspicious transaction.²⁶¹ This means that credit card companies and banks are monitoring and tracking card holders’ every move and every transaction.²⁶²

In a way, credit card records are more or less akin to cell-site location information in that they chronically track the movement of card holders and record location information whenever a transaction has been made. If card holders elect not to use this form of payment, they are potentially subject to various forms of “penalties,” such as being robbed for carrying too much cash, losing money to fraudulent transactions, etc. They are also likely be marginalized by modern society—a society that runs and relies on this type of technological advancement.²⁶³ Again, given the importance of using credit cards, and the revealing nature of credit card reports, credit card report information should also be considered as being one of the “privacies of life,” entitling it to the plethora of protections afforded by the Fourth Amendment. Thus, obtaining credit card records should constitute a search.

Adding up all three differences together, it is fair to say that credit card records are qualitatively and quantitatively different from the check records in *Miller*. Credit card records not only have a much higher volume of personal information, they are also a chronicle of each card holder’s transactions and location data. These meaningful differences are the “world of difference” brought by the seismic shifts in credit card technology.²⁶⁴ Thus, according to *Carpenter*’s holding, credit card records are not covered by the third-party doctrine.

260. Steve Adcock, *How Credit Card Fraud Detection Works*, THINKSAVERETIRE (Sept. 14, 2015), <https://thinksaveretire.com/how-credit-card-fraud-detection-works/> [<https://perma.cc/FKE9-4NXX>]; see also Kimberly Palmer, *How Credit Card Companies Spot Fraud Before You Do*, U.S. NEWS (July 10, 2013), <https://creditcards.usnews.com/articles/how-credit-card-companies-spot-fraud-before-you-do> [<https://perma.cc/962M-QDT3>].

261. See Palmer, *supra* note 260.

262. See *id.*

263. See Christy Rakoczy Bieber, *Why Is Credit Important?*, CREDIT KARMA (Dec. 4, 2018), <https://www.creditkarma.com/advice/i/why-is-credit-important/> [<https://perma.cc/7WDL-ZJE6>] (listing various reasons why having a good credit score is important in life); Liz Weston, *Why Your Credit Score Is Important*, NERDWALLET (Oct. 1, 2018), <https://www.nerdwallet.com/blog/finance/great-credit-powerful-tool/> [<https://perma.cc/UJ9P-SZ88>] (characterizing credit score as “an integral part of our financial lives”).

264. *Carpenter v. United States*, 138 S. Ct. 2206, 2219 (2018).

V. CONCLUSION

Carpenter is no doubt another landmark case in the history of data privacy cases. The decision shows that the Court is moving further away from a “mechanical interpretation” of the Fourth Amendment to be more adaptive to the digital era.²⁶⁵ Looking back to the path that the Court has paved, from the infrared technology in *Kyllo*, to the GPS in *Jones*, to the cell phone in *Riley*, the Court has been careful not to allow government’s newest and most sophisticated, “progress[es] of science” to erode individuals’ privacies.²⁶⁶ It is therefore no surprise that *Carpenter* followed that exact path.

Carpenter is also a landmark decision for redefining the limit of the third-party doctrine. Confronted with the seismic shift in technology, the Court significantly limited the applicability of what has been considered a categorical rule. The *Carpenter* decision grounded the third-party doctrine to the limited, less-revealing types of personal information in *Miller* and *Smith*. Any information sought after that is qualitatively and quantitatively different and is not covered by the third-party doctrine.

The looming question in the post-*Carpenter* era is no doubt “where we draw the line”? If location information is considered sensitive because of the inferences that can be drawn, what about other information that is arguably sensitive, like internet search terms? Home surveillance technologies? Pet cameras? Where does the slippery slope end remains to be an important piece of puzzle in the Fourth Amendment jurisprudence. At least for now, the Court’s consistency in expanding the scope of Fourth Amendment protections to account for powerful technologies elucidates the direction that the Court is going forward: The privacies of life are not at the mercy of technology advancements in the digital era.

265. *Id.* at 2214.

266. *Id.* at 2223.

UNTANGLING SESTA/FOSTA: HOW THE INTERNET’S “KNOWLEDGE” THREATENS ANTI-SEX TRAFFICKING LAW

Megan McKnelly[†]

I. INTRODUCTION

Section 230 of the Communications Decency Act of 1996,¹ called “the bedrock of the Internet,”² has been cited as a critical element enabling the YouTubes and Facebooks of the internet to innovate and flourish.³ Section 230 shields interactive computer services (ICSs)⁴—including internet service providers⁵ and platforms⁶—from liability for content posted by third-party users.⁷

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law.

1. Telecommunications Act of 1996, Pub. L. No. 104-104, tit. V (1996).

2. See Tom Jackman, *Internet companies drop opposition to bill targeting online sex trafficking*, WASH. POST, Nov. 7, 2017.

3. See *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Chris Cox, Outside Counsel, Netchoice) (“[L]iability protection [under § 230] has not only become the foundation supporting sites like Yelp, eBay, . . . and other well-known web brands . . . but also the entire Web 2.0 revolution through which thousands of smaller, innovative platforms have offered a range of socially useful services.”); *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Jeff Kosseff, Assistant Professor, United States Naval Academy) (“Section 230 is Responsible for the Internet that Americans Know Today”); see generally Jeff Kosseff, *Defending Section 230: The Value of Intermediary Immunity*, 15 J. TECH. L. & POL’Y 124 (2010).

4. ICSs are “any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server” 47 U.S.C. § 230(f)(2) (2012).

5. H.R. REP. NO. 115-572, pt. 1, at 4 (2018) (“It has been uniformly held that Internet service providers are ‘interactive computer service’ providers.”).

6. See Kosseff, *supra* note 3, at 157 (“[Section 230] is Congress’s chosen method of preserving free speech on an emerging platform.”).

7. See 47 U.S.C. § 230(c) (2012); see, e.g., *Hassell v. Bird*, 420 P.3d 776 (Cal. 2018) (holding that § 230 shielded Yelp in its decision to not take down defamatory remarks posted on the site); see generally Paul Ehrlich, *Communications Decency Act § 230*, 17 BERKELEY TECH. L.J. 401 (2002).

Under § 230, an ICS cannot be “treated as the publisher or speaker” of content posted by third-party users of the ICS.⁸ This shield extends to ICSs that employ good faith monitoring strategies.⁹ For example, if Facebook, in good faith, monitors and takes down user-posted content that violates federal terrorist recruitment statutes, Facebook will not be liable for that criminal content.

Although many have praised § 230’s role in fostering internet innovation, others have criticized it as a defender of inappropriate, or even illegal, activity on the internet.¹⁰ Some of the strongest and most sustained criticism of § 230 focused on Backpage.com. Facially, Backpage was an online classified advertisement service.¹¹ However, victims, advocates, and government officials alleged that Backpage was facilitating and encouraging sex trafficking of children behind the shield of its § 230 immunity.¹² Several parties filed suit against Backpage, but Backpage was consistently successful in wielding this shield.¹³

Then, in January 2017, the Senate Permanent Subcommittee on Investigations published a report condemning Backpage’s conduct.¹⁴ The

8. *See Doe v. Backpage.com, LLC*, 817 F.3d 18 (1st Cir. 2016); 47 U.S.C. § 230(c) (2012).

9. *See Doe*, 817 F.3d at 18 (“[Section 230] allows website operators to engage in blocking and screening of third-party content, free from liability for such good-faith efforts.”); 47 U.S.C. § 230(c) (2012).

10. *See, e.g.*, Danielle Keats Citron & Benjamin Wittes, *The Problem Isn’t Just Backpage: Revising Section 230 Immunity*, 2 GEO. L. TECH. REV. 455 (2018) (“The CDA’s origins in the censorship of ‘offensive’ material and protections against abuse are inconsistent with outlandishly broad interpretations that have served to immunize platforms dedicated to abuse and others that deliberately tolerate users’ illegal activities.”); *see generally* Mary Graw Leary, *The Indecency and Injustice of Section 230 of the Communications Decency Act*, 41 HARV. J. L. & PUB. POL’Y 553 (2018).

11. *See* Tom Jackman & Jonathan O’Connell, *Backpage has always claimed it doesn’t control sex-related ads. New documents show otherwise.*, WASH. POST, July 11, 2017.

12. *See id.* (“For years, Backpage executives have adamantly denied claims made by members of Congress, state attorneys general, law enforcement and sex-abuse victims that the site has facilitated prostitution and child sex trafficking.”).

13. *See, e.g.*, *Backpage.com, LLC v. Hoffman*, Civil Action No. 13-cv-03952 (DMC) (JAD), 2013 U.S. Dist. LEXIS 119811 (D.N.J. Aug. 20, 2013); *Backpage.com, LLC v. Cooper*, No. 3:12-cv-00654, 2013 U.S. Dist. LEXIS 43852 (M.D. Tenn. Mar. 27, 2013); *Backpage.com, LLC v. McKenna*, No. C12-954 RSM, 2012 U.S. Dist. LEXIS 134216 (W.D. Wash. Sept. 18, 2012).

14. *Backpage.com’s Knowing Facilitation of Online Sex Trafficking: Hearing Before the Permanent Subcomm. on Investigations of the Comm. on Homeland Sec. and Gov’tal Affairs*, 115th Cong. 2–3 (2017) (“This report contains three principal findings. **First**, Backpage has knowingly concealed evidence of criminality by systematically editing its ‘adult’ ads. . . . **Second**, Backpage knows that it facilitates prostitution and child sex trafficking. . . . **Third**, despite the reported sale of Backpage to an undisclosed foreign company in 2014, the true beneficial owners of the company are James Larkin, Michael Lacey, and Carl Ferrer.”).

Subcommittee found that Backpage had edited its adult services ads by automatically and manually deleting incriminatory language prior to ad publication. Backpage had also coached its users on how to avoid using incriminatory language.¹⁵ That same day, Backpage took down adult services ads on its website.¹⁶ However, Backpage's practices had already ignited controversy over § 230's twenty-year-old shield.

Three months later, Representative Ann Wagner introduced the Allow Victims and States to Fight Online Sex Trafficking Act of 2017 (FOSTA),¹⁷ which later merged with the Senate's Stop Enabling Sex Trafficking Act of 2017 (SESTA).¹⁸ The legislation progressed at a rapid pace, and President Donald Trump signed SESTA/FOSTA into law in April 2018.¹⁹

SESTA/FOSTA creates new criminal and civil penalties for sex trafficking, attempts to enable states and prosecutors to more easily prosecute sex traffickers, and clarifies that § 230 immunity does not protect ICSs from sex trafficking-related activity by their users.²⁰ Most significantly for the purposes of this Note, SESTA/FOSTA defines a term—"participation in a venture"—in the existing sex trafficking statute.²¹

This Note asserts that SESTA/FOSTA muddles the existing sex trafficking statute by interjecting a "knowledge" standard in the definition of participation in a venture. Part II relates the history of SESTA/FOSTA, touching on the origins of § 230 before turning to SESTA/FOSTA's path through Congress. Part III examines the text of SESTA/FOSTA and the changes it made to existing law. Finally, Part IV asserts that courts, when interpreting SESTA/FOSTA, should not apply traditional knowledge requirements to ICSs with regards to user-posted, sex trafficking-related content. This Note argues that courts should instead draw on other areas of the law as well as real-world ICS practices in defining ICS knowledge.

15. *Id.* at 17–35, 37 (“While Backpage claims its filters and moderation policies actively prohibit and combat illegal content, the company guided its users on how to easily circumvent those measures and post ‘clean’ ads.”).

16. See Derek Hawkins, *Backpage.com shuts down adult services ads after relentless pressure from authorities*, WASH. POST, Jan. 10, 2017.

17. 163 *Cong. Rec.* H2629 (2017).

18. See Stop Enabling Sex Traffickers Act of 2017, S. 1693, 115th Cong. (as introduced, Aug. 1, 2017).

19. See Remarks on Signing the Allow States and Victims To Fight Online Sex Trafficking Act of 2017, Daily Comp. Pres. Docs., 2018 DCPD No. 201800233 (Apr. 11, 2018).

20. See Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 §§ 3–4, 6 (2018).

21. See *id.* at § 5.

II. HISTORY OF SESTA/FOSTA

SESTA/FOSTA is rooted in the aspiration to amend § 230 of the Communications Decency Act of 1996 to prevent ICSs from enabling sex trafficking.²² This Part examines this history, beginning with an overview of § 230 before turning to the events—both outside and inside of Congress—that led to the enactment of SESTA/FOSTA.

A. SECTION 230 OF THE COMMUNICATIONS DECENCY ACT OF 1996

Congress passed the Communications Decency Act (CDA) as Title V of the Telecommunications Act of 1996²³ in an effort to “protect minors from harmful material on the [i]nternet.”²⁴ The CDA prohibited “the knowing transmission of obscene or indecent messages to any recipient under 18 years of age” as well as “the knowing sending or displaying of patently offensive messages in a manner that is available to a person under 18 years of age.”²⁵

While the CDA placed liability on ICSs, the Telecommunications Act overall sought “to remove unnecessary regulation and open the way for freer markets” on the internet.²⁶ Members of Congress developed § 230 to encourage internet innovation, as Senator Ron Wyden described:

What section 230 was all about was laying out the legal rules of the road for the web. There were innovative new businesses sprouting up all over and novel forms of communication and media connecting and informing people in new ways. But it seemed clear that a quick way to strangle this promising set of developments in their infancy was for these new companies to be held legally liable for every piece of content that users posted on their platforms.²⁷

The First Circuit described the shielding activity of § 230:

Section 230(c) limits this sort of liability in two ways. Principally, it shields website operators from being “treated as the publisher or

22. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 (2018) (stating that the purpose of SESTA/FOSTA is “[t]o amend the Communications Act of 1934 to clarify that section 230 of such Act does not prohibit the enforcement against providers and users of interactive computer services of Federal and State criminal and civil law relating to sexual exploitation of children or sex trafficking, and for other purposes”).

23. Telecommunications Act of 1996, Pub. L. No. 104-104, tit. V (1996).

24. *Reno v. ACLU*, 521 U.S. 844 (1997); see Ehrlich, *supra* note 7, at 401 (“Congress passed the Communications Decency Act (‘CDA’) in 1996 to address the myriad problems surrounding the regulation of obscene, illegal, or otherwise tortious content found on the Internet.”).

25. *Reno*, 521 U.S. at 859 (1997).

26. See Statement on Signing the Telecommunications Act of 1996, Daily Comp. Pres. Docs. (Feb. 8, 1996).

27. S. REP. NO. 115-49, at S1866 (2018).

speaker” of material posted by users of the site, 47 U.S.C. § 230(c)(1), which means that “lawsuits seeking to hold a service provider liable for its exercise of a publisher’s traditional editorial functions—such as deciding whether to publish, withdraw, postpone or alter content—are barred,” *Zeran v. Am. Online, Inc.*, 129 F.3d 327, 330 (4th Cir. 1997). Relatedly, it allows website operators to engage in blocking and screening of third-party content, free from liability for such good-faith efforts. See 47 U.S.C. § 230(c)(2)(A).²⁸

Section 230 never shielded ICSs from liability under federal criminal statutes.²⁹ However, § 230 precluded liability under state criminal statutes when there was a conflict between state and corresponding federal criminal statutes.³⁰ Additionally, § 230 precluded civil suits.³¹

Although the CDA’s ban on “indecent” transmission and “patently offensive” display was struck down,³² § 230 immunity has survived.³³ Circuit courts have broadly interpreted this statutory immunity,³⁴ and some courts have interpreted this immunity to even shield ICSs allegedly involved in sex trafficking.³⁵

Section 230 immunity has been contested since its early days, generating a variety of scholarly praise and criticism. Some scholars and commentators

28. *Doe*, 817 F.3d at 18.

29. See 47 U.S.C. § 230(e)(1) (2000).

30. See 47 U.S.C. § 230(e)(3) (2000).

31. See 47 U.S.C. § 230(e)(1) (2000); *Doe*, 817 F.3d at 23 (“The plain-language reading of section 230(e)(1)’s reference to ‘the enforcement of . . . any . . . Federal criminal statute’ dictates a meaning . . . exclude[ing] civil suits.”).

32. *Reno*, 521 U.S. at 844, 874 (“The Communications Decency Act of 1996 (CDA), 47 U.S.C.S. § 223, presents a great threat of censoring speech that, in fact, falls outside the statute’s scope. Given the vague contours of the coverage of the statute, it unquestionably silences some speakers whose messages would be entitled to constitutional protection. That danger provides further reason for insisting that the statute not be overly broad. The CDA’s burden on protected speech cannot be justified if it could be avoided by a more carefully drafted statute.”).

33. See Leary, *supra* note 10, at 559 (“In *Reno v. ACLU*, the Supreme Court struck down as vague some of the more controversial criminal provisions of the CDA, such as the prohibition on the transmission of ‘indecent material.’ However, § 230 was not challenged, and this protection remains effective law to this day.”) (internal citations omitted).

34. See Mark D. Quisi, Comment, *Plumbing the Depths of the CDA: Weighing the Competing Fourth and Seventh Circuit Standards of ISP Immunity under Section 230 of the Communications Decency Act*, 20 GEO. MASON L. REV. 277 (2012); see, e.g., *Universal Commc’n Sys., Inc. v. Lycos, Inc.*, 478 F.3d 413, 419 (1st Cir. 2007); *Green v. Am. Online (AOL)*, 318 F.3d 465, 470–71 (3d Cir. 2003); *Ben Ezra, Weinstein, & Co. v. Am. Online Inc.*, 206 F.3d 980, 986 (10th Cir. 2000); *Zeran v. Am. Online, Inc.*, 129 F.3d 327 (4th Cir. 1997). But see Chi. Lawyers’ Comm. for Civil Rights Under Law, Inc. v. Craigslist, Inc., 519 F.3d 666 (7th Cir. 2008); *Fair Hous. Council v. Roommates.com, LLC*, 521 F.3d 1157 (9th Cir. 2008); *Doe v. GTE Corp.*, 347 F.3d 655 (7th Cir. 2003).

35. See, e.g., *Doe*, 817 F.3d at 21–23.

praise § 230 for allowing internet-related companies to innovate online platforms.³⁶ Others criticize § 230 for protecting bad actors, enabling them to carry on or facilitate criminal activities.³⁷ Through the praise and criticism, § 230 remained untouched by Congress until SESTA/FOSTA.

B. HISTORY OF SESTA/FOSTA

In the fall of 2015, the Senate Permanent Subcommittee on Investigations (“Subcommittee”) published a report on its “Human Trafficking Investigation.”³⁸ The report alleged that many ICSs—most notably Backpage—were facilitating sex trafficking on the internet.³⁹ The report also highlighted § 230 as a “shield” protecting these ICSs from criminal liability.⁴⁰

Around this time, the Subcommittee subpoenaed Backpage for materials related to Backpage’s “moderation and ad-review, basic financial information, and other topics” to investigate Backpage’s allegedly criminal conduct relating to human trafficking.⁴¹ Backpage refused to comply with the subpoena, claiming that its practices were protected under the First Amendment.⁴² In response, in February 2016, the Subcommittee recommended enforcement of the subpoena, citing further evidence and motivation for investigating

36. See, e.g., Kosseff, *supra* note 3, at 157–58 (“Although Section 230 is far from perfect, it has allowed intermediaries to experiment with various policies and practices that allow free speech to thrive on the Internet.”).

37. See, e.g., Leary, *supra* note 10, at 572–73; Gregory M Dickinson, *An Interpretive Framework for Narrower Immunity Under Section 230 of the Communications Decency Act*, 33 HARV. J.L. & PUB. POL’Y 873–74 (2010); Ehrlich, *supra* note 7, at 414.

38. See *Human Trafficking Investigation: Hearing Before the Permanent Subcomm. on Investigations of the Comm. on Homeland Sec. and Gov’tal Affairs*, 114th Cong. 1 (2015).

39. See *id.* at 7 (“We are here to talk about the online lucrative sale of America’s children for sex, which in our experience occurs most prominently on the website Backpage.com.”).

40. See *id.* at 20–21.

41. *Recommendation to Enforce a Subpoena Issued to the CEO of Backpage.com, LLC: Hearing Before the Permanent Subcomm. on Investigations of the Comm. on Homeland Sec. and Gov’tal Affairs*, 114th Cong. 1 (2016).

42. See *id.*

Backpage.⁴³ A federal court ordered Backpage to produce the subpoenaed documents in August 2016.⁴⁴

Using the obtained documents, the Subcommittee published a follow-up report—“Backpage.com’s Knowing Facilitation of Online Sex Trafficking”—in January 2017.⁴⁵ The report officially condemned Backpage for concealing evidence of criminal conduct, “facilitat[ing] prostitution and child sex trafficking,” and money laundering.⁴⁶ In response, Backpage took down its adult services ads.⁴⁷

A few months later, in April 2017, Representative Ann Wagner introduced the Allow Victims and States to Fight Online Sex Trafficking Act of 2017 (FOSTA) in the House of Representatives.⁴⁸ This bill was intended to

amend the Communications Act of 1934 to clarify that section 230 of such Act does not prohibit the enforcement against providers and users of interactive computer services of Federal and State criminal and civil law relating to sexual exploitation of children or sex trafficking, and for other purposes⁴⁹

The bill would also have amended 18 U.S.C. § 1591—the sex trafficking statute—to define participation in a venture to mean the “knowing or reckless conduct by any person or entity and by any means that furthers or in any way aids or abets” sex trafficking.⁵⁰ On August 1, 2017, Senator Rob Portman introduced a companion bill—the “Stop Enabling Sex Traffickers Act of 2017” (SESTA)—in the Senate.⁵¹

43. *Id.* at 2–3. The Subcommittee explained:

First, we find substantial evidence that Backpage edits the content of some ads, including by deleting words and images, before publication. . . . *Second*, the Subcommittee has additional concerns about the steps Backpage takes to ensure that it can be helpful when called upon to cooperate with law enforcement investigations of potential human trafficking. . . . *Third*, the Subcommittee has attempted to learn more about Backpage’s corporate structure and finances. . . . *Finally*, the Subcommittee has learned that, at least in one case, Backpage customers were able to evade limits placed on its access to credit card networks by a major financial institution.

44. *Backpage.com’s Knowing Facilitation of Online Sex Trafficking: Hearing Before the Permanent Subcomm. on Investigations of the Comm. on Homeland Sec. and Gov’tal Affairs*, 115th Cong. 1 (2017).

45. *Id.*

46. *See id.* at 3, 9.

47. *See* Hawkins, *supra* note 16.

48. 164 *Cong. Rec.* H1319 (2018).

49. 163 *Cong. Rec.* H2629 (2017).

50. Allow Victims and States to Fight Online Sex Trafficking Act of 2017, H.R. 1865, 115th Cong. (as introduced, Apr. 3, 2017).

51. Stop Enabling Sex Traffickers Act of 2017, S. 1693, 115th Cong. (as introduced, Aug. 1, 2017).

The House held a hearing on FOSTA in October 2017.⁵² Several opponents of the bill—including Evan Engstrom (a technology entrepreneur), Jeff Kosseff (an internet law scholar), and Chris Cox (a representative of NetChoice, a trade association representing large technology-based companies)—testified at the hearing.⁵³ These witnesses emphasized the importance of § 230 in promoting internet innovation as well as the myriad of alternatives to FOSTA for fighting online sex trafficking.⁵⁴ One supporter of the bill also testified at the hearing.⁵⁵ Professor Mary Graw Leary testified that the CDA was never meant “to provide absolute immunity to service providers.”⁵⁶

Several stakeholders—including civil rights groups, sex trafficking victim advocacy groups, and some large ICSs⁵⁷—opposed the bill due to concerns

52. *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Mary Graw Leary, Professor, Catholic University of America, Columbus School of Law) (asserting that the bill would effectively narrow Section 230 immunity and be a “positive step in ending [the Section 230] loophole”).

53. *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Chris Cox, Outside Counsel, Netchoice) (expressing concern that the “original intent of Congress [in writing Section 230] be upheld”); *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Evan Engstrom, Executive Director, Engine) (providing “perspective of how some of the proposed solutions to this problem may impact the startup ecosystem in unintended ways”); *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Jeff Kosseff, Assistant Professor, United States Naval Academy) (discussing how Section 230 has “fundamentally shaped the nature of the Internet”).

54. *See Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Chris Cox, Outside Counsel, Netchoice) (“There are immediate actions [other than SESTA/FOSTA] that Congress can take to advance the cause of law enforcement in pending cases and investigations, both federal and state, involving sex-trafficking.”); *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Evan Engstrom, Executive Director, Engine) (“[W]e simply would not have the Internet or the startup community we have today without Section 230.”).

55. *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Mary Graw Leary, Professor, Catholic University of America, Columbus School of Law).

56. *Id.*

57. Although several large ICSs initially opposed SESTA/FOSTA, they eventually dropped their opposition to the bill. Journalist Tom Jackman reported that before dropping their opposition to the bill, several large technology companies (Big Tech) such as Google and Facebook, represented by the Internet Association, had worked with Senate staff members to alter the language of the bill. Jackman, *supra* note 2. First, Big Tech had been concerned about the bill’s definition of participation in a venture as “knowing conduct, by an individual or

regarding freedom of speech,⁵⁸ the potential for the legislation to worsen sex trafficking,⁵⁹ the potential for the legislation to stifle internet innovation,⁶⁰ and the existence of non-legal options for regulating ICSs.⁶¹ Some critics suggested

entity, *by any means*, that assists, supports or facilitates a violation” of sex trafficking laws. *See id.* (emphasis added). As Jackman describes, “Internet companies thought the phrase ‘by any means’ had the potential to be broadly interpreted when analyzing a website’s actions.” *Id.* The compromise between Congress and the technology companies changed the language to define participation in a venture as “knowingly assisting, supporting, or facilitating a violation” of sex trafficking laws. *See id.* The compromise between Congress and Big Tech also changed the language of the bill to “requir[e] [state prosecutors] to meet the federal standard, including the new definition above [of participation in a venture], rather than those established by state law, which can vary widely.” *See id.*

58. *See, e.g.*, Letter from ACLU et al., to Mitch McConnell, Majority Leader, United States Senate and Chuck Schumer, Minority Leader, United States Senate (Aug. 4, 2017) (on file with the Center for Technology and Democracy) (“The risk of federal and state criminal and civil liability for user speech would create an incredibly strong incentive for intermediaries to err on the side of caution and take down any speech that is flagged to them as potentially relating to trafficking.”).

59. Before SESTA/FOSTA became law, some critics asserted that SESTA/FOSTA would incentivize sex traffickers to use harder-to-find websites in “dark[er]” areas of the internet. *See S. REP. NO. 115-49*, at S1866 (2018). By making sex trafficking websites harder to find, the statute may make law enforcement and criminal prosecution more difficult. It has been suggested that SESTA/FOSTA will not prevent sex trafficking—rather it will encourage sex traffickers to revert to pre-internet practices that were more dangerous for consensual sex workers and victims of sex trafficking alike. *See* Scott Cunningham et al., *Craigslist’s Effect on Violence Against Women**, (2017) (unpublished manuscript) (available at <https://www.documentcloud.org/documents/4442319-Craigslist-s-Effect-on-Violence-Against-Women.html>) [<https://perma.cc/A42B-PUH3>] (last visited Feb. 11, 2019) (providing an empirical study suggesting that the availability of online platforms promoted the safety of both consensual and nonconsensual sex workers and finding that Craigslist’s erotic services tab correlated with a reduced female homicide rate in cities where the erotic services tab was available). Additionally, there is anecdotal evidence that SESTA/FOSTA may be leading to more dangerous circumstances for consensual and nonconsensual sex workers. *See, e.g.*, Timothy Williams, *Backpage’s Sex Ads Are Gone. Child Trafficking? Hardly.*, N.Y. TIMES (Mar. 11, 2017), <https://www.nytimes.com/2017/03/11/us/backpage-ads-sex-trafficking.html> [<https://perma.cc/ZG2S-3WGS>]; Ted Anderson et al., *The Scanner: Sex workers returned to SF streets after Backpage.com shut down*, S.F. CHRON. (Oct. 15, 2018, 11:45 AM), <https://www.sfchronicle.com/crime/article/The-Scanner-Sex-workers-returned-to-SF-streets-13304257.php> [<https://perma.cc/N2R7-BEWD>]. As it is currently difficult to draw causal connections between the passing of SESTA/FOSTA and significant changes in sex trafficking, this Note will not further analyze these potential unintended consequences.

60. *See, e.g.*, *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Evan Engstrom, Executive Director, Engine) (“[W]e simply would not have the Internet or the startup community we have today without Section 230.”).

61. *See, e.g.*, Susan Molinari, *Google’s Fight Against Human Trafficking*, GOOGLE (Sept. 7, 2017), <https://www.blog.google/outreach-initiatives/public-policy/googles-fight-against-human-trafficking/> [<https://perma.cc/DRR8-KDLP>] (“[Google has] helped pioneer the use of technologies that identify trafficking networks to make it easier and quicker for law

that FOSTA was not necessary to ameliorate sex trafficking because websites like Backpage that enable criminal activity could be criminally liable under existing laws.⁶²

On December 12, 2017, the House Judiciary Committee held a markup of the bill and ordered it to be reported to the full House.⁶³ In the process, the committee adopted an amendment in the nature of a substitute proposed by Representative Bob Goodlatte. Significantly, the amendment differed from the introduced bill in that the amendment did not define participation in a venture.⁶⁴ The House Committee on the Judiciary filed its report, with the amendment in the nature of a substitute, on February 20, 2018.⁶⁵

A week later on February 26, the House Committee on Rules held a hearing on the bill as reported in which Members of the House proposed amendments.⁶⁶

The following day, February 27, the Department of Justice (DOJ) provided a letter in which it supported the goals and overall thrust of FOSTA.⁶⁷

enforcement to arrest these abusers.”); Letter from Cope Engine et al., to Rob Portman, Chairman, Senate Permanent Subcommittee on Investigations and Richard Blumenthal, United States Senate (on file with Section 230 Matters) (“[T]he tech industry has been deeply engaged in a number of different programs to help fight trafficking, and these efforts have been found to be among the most effective in actually stopping such trafficking.”).

62. See *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Chris Cox, Outside Counsel, Netchoice) (“Some mistakenly claim that Section 230 prevents action against websites that knowingly engage in, solicit, or support sex- trafficking. . . . Section 230 provides no protection for any website, user, or other person or business involved even in part in the creation or development of content that is tortious or criminal.”). Alternatives to increasing penalties for ICSs include passing legislation to increase penalties for sex traffickers themselves or legislation to increase funds for investigating and prosecuting alleged sex traffickers. See S. REP. NO. 115-49, at S1861 (2018). Some critics have even suggested that the true problem lies with enforcement by the DOJ and not with online platforms. See Letter from R Street et al., to Mitch McConnell, Majority Leader, United States Senate, and Chuck Schumer, Minority Leader, United States Senate (Aug. 3, 2017) (“The problem today is not a lack of legal remedies but under-enforcement . . .”).

63. 163 *Cong. Rec.* D1313 (2017).

64. H.R. REP. NO. 115-572, at 2 (2018).

65. *Id.* at 1 (“The Committee on the Judiciary, to whom was referred the bill (H.R. 1865) to amend the Communications Act of 1934 to clarify that section 230 of such Act does not prohibit the enforcement against providers and users of interactive computer services of Federal and State criminal and civil law relating to sexual exploitation of children or sex trafficking, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.”).

66. H.R. REP. NO. 115-583 (2018).

67. Letter from Stephen E. Boyd (Assistant Attorney General) to Representative Robert W. Goodlatte (Feb. 27, 2018) (“H.R. 1865 . . . would take meaningful steps to end the industry of advertising trafficking victims for commercial sex. . . . Section 4 of H.R. 1865 also sets forth

However, the DOJ objected to one proposed amendment—proposed by Representative Mimi Walters—defining “participation in a venture” in a way that the DOJ argued would effectively create new elements for prosecutors to prove.⁶⁸ The DOJ also warned that this amendment might violate the Constitution’s Ex Post Facto Clauses by adding a retroactive clause to FOSTA.⁶⁹

That same day, the bill was considered in the House. The House adopted three amendments. First, the House adopted Representative Goodlatte’s amendment to make “technical changes” to the bill.⁷⁰ Second, in spite of the DOJ’s warnings, the House adopted Representative Mimi Walters’s amendment to “[a]llow[] enforcement of criminal and civil sex trafficking laws against websites that knowingly facilitate online sex trafficking.”⁷¹ This amendment defined participation in a venture to mean “knowingly assisting, supporting, or facilitating a violation of” the sex trafficking statute.⁷² Also, the amendment added a retroactive clause so that the revised § 230(e) would apply “regardless of whether the conduct alleged occurred . . . before, on, or after such date of enactment.”⁷³ Third, the House adopted Representative Sheila Jackson Lee’s amendment to require a GAO study.⁷⁴ The House voted to pass

critical revisions to the CDA to permit state prosecutors to bring criminal actions related to sex trafficking and the use of the internet with the intent to promote or facilitate prostitution. The Department believes that the existence of this exception to the CDA will alter the landscape of the industry involved in advertising prostitution.”).

68. *Id.* at 2.

69. *Id.* (“Insofar as this bill would ‘impose[] a punishment for an act which was not punishable at the time it was committed’ or ‘impose[] additional punishment to that then prescribed’ it would violate the Constitution’s Ex Post Facto Clause. *Cummings v. Missouri*, 4 Wall. 277, 325–326 (1867); see *Beazell v. Ohio*, 269 U.S. 167, 169–70 (1925); U.S. Const. art I, § 9, cl. 3.”). *But see* Memorandum from the American Law Division on the Ex Post Facto Implications of the Allow States and Victims to Fight Online Sex Trafficking Act of 2017 (H.R. 1865), as Passed by the House of Representatives to Representative Ann Wagner (March 7, 2018) (on file with the Congressional Research Service) (“Because [SESTA/FOSTA] would amend the Communications Act to allow states to prosecute online facilitators of sex trafficking but would not create any new federal crimes or enhance the punishment for any existing federal crimes, the Ex Post Facto Clause does not appear likely to bar Congress from making these amendments.”). However, the Ex Post Facto issues regarding SESTA/FOSTA are outside the scope of this Note.

70. H.R. REP. NO. 115-583, at 2–3 (2018) (“[Representative Goodlatte made] technical changes to the bill, add[ed] ‘attempt’ language that had been inadvertently omitted, clarifie[d] that only sex trafficking victims may recover restitution, and permit[ted] the existing affirmative defense to be raised in cases where a defendant is being prosecuted under subsection 2421A(b)(1).”).

71. *Id.*

72. *Id.* at 3–4.

73. *Id.* at 3.

74. *Id.* at 2.

FOSTA, as amended, with a 388–25 vote, with 14 Republicans and 11 Democrats opposed.⁷⁵

Soon after, the House bill was placed on the Senate calendar. On March 21, 2018, the full Senate took up the House bill for immediate consideration. Senator Ron Wyden (a co-author of § 230⁷⁶) objected to the bill, warning that the bill would “send [sex traffickers] . . . to the shadowy corners of the dark web.”⁷⁷ Senator Wyden also emphasized the DOJ’s concerns about the constitutionality of the retroactive clause and that the “legislation . . . [would] make it harder, not easier, to root out and prosecute sex traffickers.”⁷⁸ That same day, the Senate passed, without amendment, the House version of SESTA/FOSTA with a 97–2 vote, with one Republican and one Democrat opposed.⁷⁹ President Donald Trump signed SESTA/FOSTA into law on April 11, 2018.⁸⁰

However, a few days before the enactment of SESTA/FOSTA, federal authorities were able to seize Backpage.com.⁸¹ The DOJ was able to indict Backpage without the legal backing of SESTA/FOSTA, using existing law and judicial findings.⁸² Although a bipartisan Congress enacted SESTA/FOSTA arguably to target Backpage, SESTA/FOSTA was not necessary to achieve the end goal of punishing a bad-acting ICS for facilitating sex trafficking on the internet.

75. 164 *Cong. Rec.* H1317–19 (2018).

76. *See* S. REP. NO. 115-49, at S1866 (2018).

77. *See id.* (“I fear that the legislation before the Senate now is going to be another failure. I fear that it is going to do more to take down ads than to take down traffickers. I that fear it will send these monsters, these evil people who traffic beyond the grasp of law enforcement to the shadowy corners of the dark web, a place where every day search engines don’t go, and it is going to be even easier for criminals—these vicious traffickers—to find a safe haven for their extraordinarily evil acts. . . .”).

78. *See id.* at S1868 (2018).

79. *Id.* at S1872.

80. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 (2018); Remarks on Signing the Allow States and Victims To Fight Online Sex Trafficking Act of 2017, Daily Comp. Pres. Docs., 2018 DCPD No. 201800233 (Apr. 11, 2018) (“If we work together, we can get the criminal traffickers off our streets and off of the internet. We can bring safety and hope to every community across the country, and we can create a culture that respects the dignity of every child of God.”).

81. *See* Nitasha Tiku, *Feds seize Backpage.com, site linked to sex trafficking*, WIRED (Apr. 6, 2018, 8:40 PM), <https://www.wired.com/story/feds-seize-backpagecom-site-linked-to-sex-trafficking/> [<https://perma.cc/8KYS-HHTN>].

82. Indictment, 5, ¶ 16, *United States v. Lacey* (D. Ariz. 2018) (“[T]he BACKPAGE DEFENDANTS are charged in this indictment with the crimes of facilitating prostitution (18 U.S.C. § 1952), concealment, transactional, and international promotional money laundering (18 U.S.C. §§ 1956 and 1957), and/or conspiracy to commit these offenses (18 U.S.C. § 371 and 1956).”).

III. SESTA/FOSTA

SESTA/FOSTA has five major prongs: (1) creating a federal crime for “[w]hoever . . . owns, manages, or operates an interactive computer service . . . or conspires or attempts to do so, with the intent to promote or facilitate the prostitution of another person”;⁸³ (2) imposing federal civil liability for violating the new federal crime;⁸⁴ (3) imposing state civil liability for sex trafficking by amending 18 U.S.C. § 1595 to authorize state attorneys general to bring civil actions for violations of § 1591 (a sex trafficking statute);⁸⁵ (4) amending § 230 to strip immunity for ICSs that exhibit “the intent to promote or facilitate the prostitution of another person”;⁸⁶ and (5) amending existing sex trafficking law 18 U.S.C. § 1591 to provide a definition for participation in a venture.⁸⁷

A. CREATING A FEDERAL CRIME: 18 U.S.C. § 2421A(A)–(B)

Sex trafficking has been a federal crime in the United States since 2000.⁸⁸ SESTA/FOSTA enacts a new provision—18 U.S.C. § 2421A, “Promotion or facilitation of prostitution and reckless disregard of sex trafficking”—creating criminal liabilities specifically for ICSs.⁸⁹

Section 2421A(a) makes it a crime to “own[], manage[], or operate[] an interactive computer service . . . or conspire[] or attempt[] to do so, with the intent to promote or facilitate the prostitution of another person.”⁹⁰

Section 2421A(b) creates an aggravated felony for

[w]hoever . . . owns, manages, or operates an interactive computer service . . . or conspires or attempts to do so, with the intent to promote or facilitate the prostitution of another person and—

83. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 3 (2018); *see* 18 U.S.C. § 2421A(a) (2012).

84. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 3 (2018); *see* 18 U.S.C. § 2421A(c) (2012).

85. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 6 (2018); *see* 18 U.S.C. § 1595(d) (2012).

86. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 4 (2018); *see* 47 U.S.C. § 230(e)(5) (2012).

87. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 5 (2018); *see* 18 U.S.C. § 1591(e) (2012).

88. Victims of Trafficking and Violence Protection Act of 2000, Pub. L. No. 106-386 § 112 (creating 18 U.S.C. § 1591 (2012)—“Sex trafficking of children or by force, fraud, or coercion”); Justice for Victims of Trafficking Act of 2015, Pub. L. No. 114-22 (creating 18 U.S.C. § 2421 (2012)—“Transportation generally”).

89. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 3 (2018).

90. *Id.* § 3(a).

- (1) promotes or facilitates the prostitution of 5 or more persons; or
- (2) acts in reckless disregard of the fact that such conduct contributed to sex trafficking, in violation of 1591(a)⁹¹

Although 2421A(a) and 2421A(b)(1) differ in their requirements and punishments, defendants under both 2421A(a) and 2421A(b)(1) may assert the affirmative defense that “promotion or facilitation of prostitution is legal in the jurisdiction where the promotion or facilitation was targeted.”⁹² However, this defense is not available when a defendant exhibits reckless disregard under 2421A(b)(2).

B. IMPOSING FEDERAL CIVIL LIABILITY: 18 U.S.C. § 2421A(c)

Under 18 U.S.C. § 2421A(c), “[a]ny person injured by reason of a violation of section 2421A(b) [an aggravated felony] may recover damages and reasonable attorneys’ fees.”⁹³ Any person injured by sex trafficking is also entitled to mandatory restitution.⁹⁴

C. AUTHORIZING STATE ATTORNEYS GENERAL: 18 U.S.C. § 1595

SESTA/FOSTA amends 18 U.S.C. § 1595⁹⁵ by adding a subsection that authorizes state attorneys general to use § 2421A (ICS promotion or facilitation of sex trafficking) and § 1591 (sex trafficking) to bring state criminal and civil actions against violators of § 2421A and § 1591, respectively.⁹⁶ State court judges wishing to charge a defendant under § 2421A or § 1591 must follow three steps: (1) ask whether the defendant’s conduct violates the state sex trafficking statute, (2) ask whether the defendant’s conduct violates the federal sex trafficking statute, and (3) bring charges under state law for both federal and/or state sex trafficking statute violations. If the defendant’s conduct does not violate the federal sex trafficking statute, then the defendant cannot be liable under the state sex trafficking statute.

91. *Id.*

92. 18 U.S.C. § 2421A(e) (2012). In the United States, prostitution is legal only in certain jurisdictions in the state of Nevada. Nev. Rev. Stat. Ann. § 201.354.

93. 18 U.S.C. § 2421A(c) (2012).

94. 18 U.S.C. § 2421A(d) (2012) (notwithstanding 18 U.S.C. § 3663 (2012) (“Order of restitution”) or 18 U.S.C. § 3663A (2012) (“Mandatory restitution to victims of certain crimes”)) (must be consistent with 18 U.S.C. § 2327(b) (2012) (“Mandatory restitution”).

95. 18 U.S.C. § 1595 (2012) (“Civil remedy”).

96. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 6(a) (2018); H.R. REP. NO. 115-572, pt. 1, at 9–10 (2018) (“The language used in the carve out is designed to ensure that interactive computer services are subject to one set of criminal laws, rather than a patchwork of various state laws. In order to qualify for this carve out, a state law’s elements should mirror those in 2421A and 1591(a).”).

D. AMENDING ICS LIABILITY: 47 U.S.C. § 230(E)(5)

The stated purpose of SESTA/FOSTA is to amend § 230 of the CDA.⁹⁷ SESTA/FOSTA adds a subsection to § 230(e)—“Effect on other laws”—to clarify that § 230 does not shield ICSs from civil actions or criminal prosecution under state law.⁹⁸ This revised § 230 applies “regardless of whether the conduct alleged occurred . . . before, on, or after such date of enactment.”⁹⁹

E. DEFINING “PARTICIPATION IN A VENTURE”: 18 U.S.C. § 1591

SESTA/FOSTA amends 18 U.S.C. § 1591, a sex trafficking statute, to clarify that participation in a venture means “knowingly assisting, supporting, or facilitating a violation.”¹⁰⁰ With the addition of the definition of participation in a venture, 1591(a) effectively reads:

Whoever knowingly—

(1) . . . recruits, entices, harbors, transports, provides, obtains, advertises, maintains, patronizes, or solicits by any means a person; or

(2) benefits, financially or by receiving anything of value, from **[knowingly assisting, supporting, or facilitating a violation]** which has engaged in an act described in violation of paragraph (1), knowing, or, except where the act constituting the violation of paragraph (1) is advertising, in reckless disregard of the fact, that means of force, threats of force, fraud, coercion described in subsection (2), or any combination of such means will be used to cause the person to engage in a commercial sex act, or that the person has not attained the age of 18 years and will be caused to engage in a commercial sex act¹⁰¹

97. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 (2018) (stating that the purpose of SESTA/FOSTA is “[t]o amend the Communications Act of 1934 to clarify that section 230 of such Act does not prohibit the enforcement against providers and users of interactive computer services of Federal and State criminal and civil law relating to sexual exploitation of children or sex trafficking, and for other purposes”).

98. *Id.* at § 4 (“Nothing in this section . . . shall be construed to impair or limit—(A) any claim in a civil action brought under [18 U.S.C. § 1595] . . . ; (B) any charge in a criminal prosecution under State law if the conduct underlying the charge would constitute a violation of [18 U.S.C. § 1591] . . . ; or (C) any charge in a criminal prosecution brought under State law if the conduct underlying the charge would constitute a violation of [18 U.S.C. § 2421A] . . .”).

99. *Id.* at §§ 4, 7 (“Nothing in this Act or the amendments made by this Act shall be construed to limit or preempt any civil action or criminal prosecution under Federal law or State law . . . that was not limited or preempted by section 230 of the Communications Act of 1934 (47 U.S.C. 230) . . .”).

100. *Id.* at § 5.

101. 18 U.S.C. § 1591(a) (2012).

Now prosecutors must prove both knowledge with regards to benefitting from the violation and knowledge with regards to “assisting, supporting, or facilitating” the violation.

IV. SESTA/FOSTA AND ICS “KNOWLEDGE”

With regards to ICS knowledge, SESTA/FOSTA amends § 1591 to clarify that it is a crime for

a) Whoever **knowingly**—

(1) . . . recruits, entices, harbors, transports, provides, obtains, advertises, maintains, patronizes, or solicits by any means a person; or

(2) benefits, financially or by receiving anything of value, from **[knowingly assisting, supporting, or facilitating a violation]** which has engaged in an act [of sex trafficking]¹⁰²

Knowledge in criminal law involves “nothing more than . . . [a] degree of certainty” as it is “nothing more than a man’s firm belief.”¹⁰³ For an ICS to have statutory “knowledge” that its activities are “assisting, supporting, or facilitating a violation” of sex trafficking laws, the ICS must have a degree of certainty that its activities are “assisting, supporting, or facilitating a violation.”¹⁰⁴

The intentions of Congress, in introducing a knowledge standard targeting ICSs in SESTA/FOSTA, must be called into question. Although knowledge as *mens rea* is well-known and unambiguous in criminal law,¹⁰⁵ there are currently no federal criminal statutes that apply *mens rea* knowledge specifically to ICSs. In enacting SESTA/FOSTA, Congress did not explain what might constitute ICS knowledge. Nor did SESTA/FOSTA explain what an ICS’s knowledge looks like in the context of monitoring user content.¹⁰⁶ Although Congress’s intention in imposing an ICS knowledge standard is unclear, courts must now interpret ICS knowledge in the context of SESTA/FOSTA.

102. 18 U.S.C. § 1591(a) (2012) (emphasis added); *see supra* Section III.E.

103. *See What is Knowledge?*, LAW DICTIONARY, <https://thelawdictionary.org/knowledge/> [<https://perma.cc/4WCZ-5RTU>] (last visited Dec. 22, 2018).

104. *See* 18 U.S.C. § 1591(a) (2012).

105. *See Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Mary Graw Leary, Professor, Catholic University of America, Columbus School of Law).

106. *See* Letter from R Street et al., to Mitch McConnell, Majority Leader, United States Senate, and Chuck Schumer, Minority Leader, United States Senate (Aug. 3, 2017) (“[T]he proposed bill is unclear as to what constitutes ‘knowing conduct.’ Is it actual knowledge of specific ads for human trafficking, general awareness that some human trafficking is taking place, or something else?”).

This Part asserts that courts should not apply the traditional *mens rea* knowledge standard to ICSs with regards to user-posted, sex trafficking-related content. First, this Part explains how this ICS knowledge standard imposes vague monitoring expectations on ICSs, suggesting that courts will need to clarify this standard. Second, this Part examines how holding ICSs to an uncertain knowledge standard with regards to user-posted content will have unintended, and potentially perverse, consequences. Finally, this Part argues that, if courts do hold ICSs to the knowledge standard set forth in SESTA/FOSTA, courts should use ICS-specific knowledge standards developed in other areas of the law when interpreting SESTA/FOSTA.

A. VAGUE MONITORING EXPECTATIONS

Neither SESTA/FOSTA nor § 230 impose formal statutory monitoring expectations on ICSs.¹⁰⁷ Under § 230, an ICS will not be treated as the publisher or speaker of user-posted content.¹⁰⁸ Even if an ICS chooses to monitor user-posted content in good faith, the ICS will still not be treated as the publisher or speaker of said content.¹⁰⁹

Because of SESTA/FOSTA, this shield no longer applies when user-posted content violates federal anti-sex trafficking laws.¹¹⁰ In other words, if said user-posted content violates federal anti-sex trafficking laws, the ICS is not immune from liability.¹¹¹ Now, if an ICS is found to violate § 1591—if the ICS “knowingly assist[s], support[s], or facilitate[s]” sex trafficking¹¹²—the ICS will not be able to wield its § 230 shield.¹¹³ However, the knowledge standard in § 1591 is not clear, as Congress did not explain what would constitute ICS knowledge of user-posted content.

Whether or not an ICS has knowledge will likely hinge on the ICS’s monitoring strategy. If an ICS’s monitoring strategy detects sex trafficking-

107. See 47 U.S.C. § 230 (2012).

108. See 47 U.S.C. § 230(c)(1) (2012).

109. 47 U.S.C. § 230(c)(2) (2012) provides:

(2) Civil liability No provider or user of an interactive computer service shall be held liable on account of—

(A) any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected; or

(B) any action taken to enable or make available to information content providers or others the technical means to restrict access to material described in paragraph (1).

110. See 47 U.S.C. § 230(e)(5) (2012).

111. See *id.*

112. See 18 U.S.C. § 1591 (2012).

113. See 47 U.S.C. § 230(e)(5) (2012).

related content, it might be argued that the ICS *knows* that it has “support[ed]” sex trafficking in providing a platform for the sex trafficker.¹¹⁴ It is theoretically possible that an ICS can be criminally and civilly liable if the ICS gains knowledge of sex trafficking-related content in the course of trying to root out sex trafficking-related content. At the moment the ICS gains this knowledge, the ICS *knows* that it has “support[ed]” sex trafficking.¹¹⁵

Although SESTA/FOSTA does not impose a formal duty to monitor, it effectively imposes monitoring expectations if an ICS chooses to monitor. If an ICS does not monitor user content, it is not clear how the ICS can affirmatively act to gain knowledge of criminal sex trafficking content.¹¹⁶ However, if an ICS monitors user content, the ICS must employ a monitoring safety net to avoid liability for criminal sex trafficking content.¹¹⁷

ICSs are able to employ an almost infinite number of monitoring strategies, yet it is unclear which of these monitoring strategies would satisfy § 1591’s knowledge standard. It is extremely difficult to accurately screen millions¹¹⁸ of user-generated posts and other content per day. The complexity of monitoring algorithms only compounds this difficulty. ICSs such as Facebook tend to take a two-pronged approach to monitoring user conduct: (1) manually reviewing content that users have “flagged” as containing objectionable images or messages, and (2) using computer-implemented algorithms to automatically detect objectionable images or messages.¹¹⁹ If the ICS deems an image or

114. See 18 U.S.C. § 1591 (2012).

115. See *id.*

116. However, an ICS that does not monitor can still satisfy the knowledge standard if a user or other party notifies the ICS of criminal sex trafficking content. Additionally, under 47 U.S.C. § 230(e)(5), an ICS that does not monitor user-posted content can still be liable for user-posted content that violates federal anti-sex trafficking laws other than § 1591—that is, if the ICS’s conduct relating to the content violates the new 18 U.S.C. § 2421A. Section 2421A contains an “intent” *mens rea* standard as well as a “reckless disregard” *mens rea* standard. This Section focuses only on ICS conduct relating to § 1591’s “knowledge” standard.

117. See Eric Goldman, *The Complicated Story of FOSTA and Section 230*, 17 FIRST AMEND. L. REV. 279, 288 (2019) (suggesting that SESTA/FOSTA’s knowledge standard leaves ICSs with three options: “(1) Perfectly implement content moderation efforts to ensure no such promotions appear on the service, and if any promotions slip through despite these moderation efforts, hope that the service has done enough to satisfy prosecutors and the courts that they did not “know” of the rogue promotions. (2) Turn off content moderation efforts to negate the possibility of “knowing” about the content. (3) Exit the industry”).

118. Digital marketing consulting firm Zephoria estimates that 510,000 comments are posted on Facebook every 60 seconds. See *The Top 20 Valuable Facebook Statistics – Updated January 2019*, ZEPHORIA DIGITAL MARKETING, <https://zephoria.com/top-15-valuable-facebook-statistics/> [<https://perma.cc/79KQ-8KRY>] (last visited January 28, 2019).

119. See Richard Allan, *Hard Questions: Who Should Decide What Is Hate Speech in an Online Global Community?*, FACEBOOK NEWSROOM (June 27, 2017), <https://newsroom.fb.com/news/2017/06/hard-questions-hate-speech/> [<https://perma.cc/E6MR-GBPW>]; Hayley

message objectionable, the ICS will remove that image or message from the site and send take-down notices as appropriate. ICSs differ in the parameters they use to determine what is “objectionable.” For example, Facebook’s definition of prohibited hate speech is “anything that directly attacks people based on what are known as their ‘protected characteristics’—race, ethnicity, national origin, religious affiliation, sexual orientation, sex, gender, gender identity, or serious disability or disease.”¹²⁰ ICSs design monitoring algorithms to detect user content that falls within these parameters, and particular monitoring algorithms differ in their success rates. SESTA/FOSTA does not distinguish between these parameters or algorithms, calling only for “knowledge.”

SESTA/FOSTA’s knowledge standard may force courts to interpret vague monitoring expectations, which will lead to unintended consequences.

B. UNINTENDED CONSEQUENCES OF AN ICS KNOWLEDGE STANDARD

Imposing knowledge requirements on ICSs might lead to narrowed liability for ICSs stakeholders; broadened liability for ICSs generally, which is likely to increase over-policing of user-generated content; and uncertain litigation prospects for large and small ICSs alike.

1. *Narrow Liability*

Before the enactment of SESTA/FOSTA, the DOJ suggested that inserting a knowledge standard into the definition for participation in a venture would create new elements that prosecutors must prove.¹²¹ This could result in narrowed liability, where some guilty parties will not be found guilty. For example, under the previous law, a shareholder in Website X could be liable for “knowingly . . . benefit[ing], financially . . . from participation in a venture which has engaged” in sex trafficking. Under the previous law, the shareholder did not have to know about the sex trafficking; the shareholder need only knowingly benefit from participation in the venture. Under the new law, a prosecutor must show that the same shareholder (1) knowingly benefitted from participation in the venture and (2) “knowingly assist[ed], support[ed], or facilitate[ed] a violation.”¹²² Now, a prosecutor must prove that the shareholder knew of the violation itself.

Tsukayama, *Facebook adds 3,000 employees to screen for violence as it nears 2 billion users*, WASH. POST, May 3, 2017.

120. See Allan, *supra* note 119.

121. Letter from Stephen E. Boyd (Assistant Attorney General) to Representative Robert W. Goodlatte (Feb. 27, 2018).

122. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164 § 5 (2018) (emphasis added).

Thus, the new § 1591 may exonerate certain guilty parties—such as those financially benefitting in sex trafficking activities—if a prosecutor is unable to prove knowledge of the sex trafficking activity.

2. *Broad Liability and Over-Policing*

On the other hand, the new § 1591 might incriminate ICSs that allow even vague references to sex trafficking. Because ICSs can now be held liable for a single bad judgment call in monitoring sex trafficking-related content, ICSs are likely to alter their user-monitoring practices to over-police user content.

Facebook seemingly responded to this threat of broad liability by adopting its Sexual Solicitation policy in December 2018.¹²³ This was potentially a response to an October 2018 lawsuit filed against Facebook after a sex trafficker recruited a fifteen-year-old girl through Facebook messaging and posted ads for the girl on Backpage.com.¹²⁴ However, the stated rationale behind the policy was that “people use Facebook to discuss and draw attention to sexual violence and exploitation. [Facebook] recognize[s] the importance of and want to allow for this discussion. [Facebook] draw[s] the line, however, when content facilitates, encourages or coordinates sexual encounters between adults.”¹²⁵ The policy prohibits everything from “[c]ontent that attempts to coordinate or recruit for adult sexual activities” to “[c]ontent that engages in implicit sexual solicitation” and “[v]ague suggestive statements, such as ‘looking for a good time tonight.’”¹²⁶

With such a broad definition of sexual solicitation, it would appear as though the fears of civil rights groups such as the Electronic Frontier Foundation are coming true: ICSs are over-policing user content.¹²⁷ Facebook

123. See *Facebook Community Standards, 15. Sexual Solicitation*, FACEBOOK, https://www.facebook.com/communitystandards/sexual_solicitation [https://perma.cc/97CV-BMGX] (last visited Dec. 21, 2018).

124. See Juan A. Lozano, *Lawsuit Accuses Facebook of Enabling Human Traffickers*, U.S. NEWS (Oct. 2, 2018, 7:11 PM), <https://www.usnews.com/news/best-states/texas/articles/2018-10-02/lawsuit-accuses-facebook-of-enabling-human-traffickers> [https://perma.cc/B9XU-TQR7]; Dan Whitcomb, *Facebook, responding to lawsuit, says sex trafficking banned on site*, REUTERS (Oct. 3, 2018, 6:11 PM), <https://www.reuters.com/article/us-sex-trafficking-facebook-lawsuit/facebook-responding-to-lawsuit-says-sex-trafficking-banned-on-site-idUSKCN1ME038> [https://perma.cc/3HNT-S9N7].

125. *Facebook Community Standards*, *supra* note 123.

126. See *id.*

127. Civil rights groups including the Electronic Frontier Foundation filed a case challenging the constitutionality of SESTA/FOSTA. See *Woodhull Freedom Found. v. United States*, 334 F. Supp. 3d 185 (D.D.C. 2018); *Woodhull Freedom Foundation et al. v. United States*, ELECTRONIC FRONTIER FOUND., <https://www EFF.org/cases/woodhull-freedom-foundation-et-al-v-united-states> [https://perma.cc/HWT6-TLHN] (last visited Dec. 21, 2018) (“Both through direct restrictions and because of multiple layers of ambiguity, FOSTA is driving constitutionally protected speech off the Internet at a rapid pace . . .”).

has developed a broad monitoring net, catching a wide variety of content that might be related to sex trafficking. It is likely Facebook's hope that this broad monitoring net will prevent Facebook from gaining knowledge of the conduct, protecting it from criminal liability under § 1591.

3. *Concerns Involving ICS Litigation*

Due to the uncertainty surrounding the judicial interpretation of SESTA/FOSTA's ICS knowledge standard, there is increased uncertainty surrounding potential civil and criminal suits against ICSs. With regard to civil litigation, some critics have predicted that the new liability imposed by SESTA/FOSTA will lead to a "barrage of frivolous litigation targeting platforms."¹²⁸ When there is an unclear scope of liability, plaintiffs are more likely to pursue suits against ICSs than suits against individual content creators, as ICSs tend to have deeper pockets and are easier to identify and track down than individual content creators.¹²⁹

This uncertainty is likely to affect large ICSs and small ICSs in different ways. Large ICSs are likely to respond to this barrage of litigation in two ways: (1) through settling frivolous lawsuits¹³⁰ and (2) altering their content monitoring strategies. To the first point, instead of risking an adverse judicial ruling, large ICSs are likely to find that it is more economical to settle.¹³¹ And to the second point, large ICSs will likely have to alter their content monitoring strategies to avoid liability. Pre-SESTA/FOSTA, some critics argued that large ICSs would likely "err on the side of caution" when monitoring user content, resulting in the take down of relatively benign speech, as discussed in previous Section.¹³² Based on Facebook's example of setting a wide net for sex trafficking-related content, this concern might soon be a reality. On the other

128. See *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Evan Engstrom, Executive Director, Engine) (warning against "fishing expeditions searching for any evidence that might be used against" online platforms); Emma Llansó, *SESTA Would Undermine Free Speech Online*, CTR. FOR DEMOCRACY & TECH. (Aug. 1, 2018), <https://cdt.org/blog/sesta-would-undermine-free-speech-online/> [<https://perma.cc/85M3-R7L6>] ("[O]ne of the key problems with [SESTA] . . . is that it creates potential liability for a broad and dynamic range of intermediaries.").

129. See *id.* (noting that "it is often far easier to pressure intermediaries into serving as online censors with the threat of litigation than it is to find an individual speaker and hold her accountable").

130. See Daphne Keller, *SESTA and the Teachings of Intermediary Liability*, 3 (Nov. 2, 2017) (available at <http://dx.doi.org/10.2139/ssrn.3121296>).

131. See *id.*

132. See Letter from ACLU et al., to Mitch McConnell, Majority Leader, United States Senate and Chuck Schumer, Minority Leader, United States Senate (Aug. 4, 2017); Llansó, *supra* note 128 ("[M]any intermediaries would face the choice of risking potentially bankrupting lawsuits, or erring in favor of taking down challenged speech.").

hand, some critics argued that large ICSs would be tempted to under-police user-generated content, in an effort to prevent gaining knowledge of sex trafficking-related content.¹³³ Alternatively, it is possible that large ICSs will largely not be affected by SESTA/FOSTA, as they have the resources to develop more stringent monitoring strategies to prevent liability altogether.

While the uncertainty of ICS knowledge might constrain large ICSs, it could stifle small ICSs that lack the resources of large ICSs.¹³⁴ For example, small ICSs lack the capital needed to settle frivolous lawsuits. These ICSs might also lack the technical and financial power to develop additional and more stringent monitoring strategies.¹³⁵ In turn, this judicial uncertainty might discourage entrepreneurs from building new platforms and discourage investors from investing in new platforms.¹³⁶ Thus, by imposing an ICS knowledge standard, SESTA/FOSTA might have the unintended consequence of impeding both small ICS-driven innovation and large ICS-driven innovation.

133. See Molinari, *supra* note 61 (“While large companies are more likely to continue their proactive enforcement efforts and can afford to fight lawsuits, if smaller platforms are made liable for ‘knowledge’ of human trafficking occurring on their platforms, there is a risk that some will seek to avoid that ‘knowledge’; they will simply stop looking for it. This would be a disaster.”); Letter from ACLU et al., to Mitch McConnell, Majority Leader, United States Senate and Chuck Schumer, Minority Leader, United States Senate (Aug. 4, 2017) (on file with the ACLU) (“[T]he risk of liability would likely discourage intermediaries from engaging in good-faith efforts to screen or moderate content, since such review of content could create “actual knowledge” for the intermediary of potentially illegal content and trigger potential criminal and civil penalties.”); *Online Sex Trafficking: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary, Subcomm. on Crime, Terrorism, Homeland Security and Investigations*, 115th Cong. (2017) (statement of Evan Engstrom, Executive Director, Engine) (“These provisions [of SESTA/FOSTA] could end up disincentivizing platforms from engaging in proactive monitoring efforts. As currently drafted, this legislation could potentially subject platforms to liability for facilitating trafficking activity on their sites even if they do not have any actual knowledge that any trafficking is occurring.”).

134. See, e.g., *House Judiciary Committee Hearing on Social Media Filtering Practices: Hearing on H.R. 1865 Before the H. Comm. On the Judiciary*, 115th Cong. (2018) (statement of Berin Szoka, President, Techfreedom) (“Ironically, a Fairness Doctrine for social media would benefit the largest websites by insulating them against competition from smaller sites: large, well-funded companies like Facebook, Twitter and Google already have thousands of people handling content moderation issues and the resources to face litigation over how they administer their platforms. While they would surely resent having to administer such a vague and arbitrary standard, they would also be able to manage the burden, while the startups vying to become the next Facebook, Twitter or Google would not.”).

135. See *id.*

136. See Keller, *supra* note 130, at 3 (“[T]he same uncertainty will make . . . new entrepreneurs and investors less likely to build new platforms to compete against today’s tech giants.”).

SESTA/FOSTA's knowledge standard may lead to several unintended consequences. But if courts appropriately apply this standard, they may be able to mitigate these harms.

C. POSSIBLE INTERPRETATIONS OF "KNOWLEDGE" FOR ICSS

Although it is unclear how courts will interpret SESTA/FOSTA's ICS knowledge standard, courts should draw upon existing standards of ICS knowledge in determining ICS knowledge of sex trafficking-related content. In particular, courts could draw on the standards of knowledge used in contributory trademark infringement and the Digital Millennium Copyright Act's (DMCA) safe harbor provisions to determine what constitutes ICS knowledge in the context of § 1591. Courts might also draw on the ICSSs themselves and consider how an ICS such as Facebook monitors user content and defines their own knowledge of user content.

1. *Contributory Trademark Infringement*

One possible interpretation of "knowledge" for an ICS comes from contributory trademark infringement. In *Tiffany Inc. v. eBay Inc.*, Tiffany (the renowned jeweler) filed a lawsuit against eBay, claiming that some eBay users were selling counterfeit Tiffany jewelry.¹³⁷ In order for eBay to be liable for contributory trademark infringement, it must "intentionally induce[] another to infringe a trademark, or . . . continue[] to supply its product to one whom it *knows or has reason to know* is engaging in trademark infringement."¹³⁸ The court reasoned that

if eBay had reason to suspect that counterfeit Tiffany goods were being sold through its website, and intentionally shielded itself from discovering the offending listings or the identity of the sellers behind them, eBay might very well have been charged with knowledge of those sales A service provider is not, we think, permitted willful blindness.¹³⁹

The court went on to hold that knowledge of violating activity as a "general matter" was not enough to trigger a mental state of knowledge.¹⁴⁰

The court considered that eBay took several actions after receiving notice of counterfeit goods. These actions included deleting the product listing, warning sellers and buyers, and canceling fees it earned from the listing of the counterfeited product.¹⁴¹ Although eBay may have briefly known of trademark

137. *Tiffany Inc. v. eBay Inc.*, 600 F.3d 96 (2d Cir. 2010).

138. *Id.* at 104 (quoting *Inwood Labs. v. Ives Labs.*, 456 U.S. 844, 854 (1982)).

139. *Id.* at 110.

140. *See id.*

141. *See id.* at 106.

infringement, it did not continue to support the product listing. Additionally, eBay did not exhibit that it was willfully blind to the counterfeit products, as it took several measures to prevent counterfeit products from being sold on the site. Therefore, eBay was not liable for trademark infringement.¹⁴²

In the context of § 1591, a court may be able to relate *Tiffany's* definition of knowledge to ICS knowledge of sex trafficking activities. First, eBay was not liable where it had knowledge of trademark infringement but immediately acted to remove the infringing material.¹⁴³ Similarly, in the context of § 1591, a court may find that an ICS is not liable if it knows about the sex trafficking content but then immediately takes adequate measures to remove the content. Also, eBay would have been liable if it had been willfully blind to the trademark infringement.¹⁴⁴ In the context of § 1591, this could mean that a court might similarly hold an ICS liable if it exhibits willful blindness towards sex trafficking content. In the case of an ICS, this could take the form of under-policing user-posted content. Lastly, eBay was not liable for having general knowledge of the infringing activity.¹⁴⁵ In the context of § 1591, a court could extend this principle to ICSs by holding that an ICS will not be held liable if it had only general knowledge of sex trafficking activity.

2. *DMCA Safe Harbors*

A second possible interpretation of ICS knowledge comes from 17 U.S.C. § 512(c), a DMCA “safe harbor” provision. This provision protects a “service provider” from copyright infringement liability that occurs when a user stores copyright-infringing material on the service provider’s system.¹⁴⁶ If the service provider has actual knowledge of the infringing material, then the service provider is not protected by § 512(c).¹⁴⁷ Additionally, in order to retain the safe harbor, the service provider must also implement a “repeat infringer” policy—“the termination in appropriate circumstances of subscribers and account holders of the service provider’s system or network”¹⁴⁸—as well as “standard technical measures . . . used by copyright owners to identify or protect copyrighted works.”¹⁴⁹ The service provider must also “not receive a financial

142. *See id.* at 110.

143. *See id.* at 106.

144. *See id.* at 109.

145. *See id.* at 107.

146. *Viacom Int'l, Inc. v. YouTube*, 676 F.3d 26 (2d Cir. 2012) (quoting 17 U.S.C. § 512(c) (2012)).

147. *See id.* at 32.

148. 17 U.S.C. §§ 512(k)(1)(B), 512(i)(1)(A) (2012).

149. 17 U.S.C. §§ 512(i)(1)(A), 512(i)(1)(B), 512(i)(2) (2012).

benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity.”¹⁵⁰

In *Viacom Int’l, Inc. v. YouTube*, plaintiffs filed a lawsuit against YouTube for direct and secondary copyright infringement for video clips posted on the site.¹⁵¹ The court held that “actual knowledge or awareness of facts or circumstances that indicate specific and identifiable instances of infringement will disqualify a service provider from the safe harbor.”¹⁵² For example, receiving a takedown notice would constitute “actual knowledge or awareness.”¹⁵³ However, a service provider retains the protection of the safe harbor if it “acts expeditiously to remove, or disable access to, the material.”¹⁵⁴

In the case of YouTube, there was evidence of YouTube executives emailing about particular clips that were likely infringing copyright.¹⁵⁵ The executives knew of this infringing activity, yet they chose to wait until they received cease and desist letters before taking the clips down.¹⁵⁶ YouTube did not “act[] expeditiously to remove, or disable access to, the material” even though YouTube executives had identified instances of copyright infringement.¹⁵⁷

In the context of § 1591, a court may be able to analogize *Viacom*’s definition of knowledge to ICS knowledge of sex trafficking activities. In *Viacom*, the court’s definition of knowledge required “specific and identifiable instances of infringement” instead of a “general awareness that infringement may be occurring.”¹⁵⁸ This is similar to *Tiffany*, where eBay was not liable for having general knowledge of the infringing activity.¹⁵⁹ When analyzing a potential § 1591 violation, a court might rely on this definition in reasoning that an ICS must have “specific and identifiable instances” of sex trafficking in order for the ICS to be held liable for its knowledge. A general awareness of sex trafficking occurring on an ICS would not be enough to constitute knowledge of sex trafficking.

3. ICS Standards of Best Practices

Lastly, a court may rely on existing ICS monitoring strategies to determine an appropriate definition for ICS knowledge. Courts commonly rely on

150. 17 U.S.C. § 512(c)(1)(B) (2012).

151. *See Viacom*, 676 F.3d at 25.

152. *Id.* at 32.

153. *See id.* at 27–28.

154. *See id.* at 30 (quoting 17 U.S.C. § 512(c)(1)(A)(iii) (2012)).

155. *See id.* at 33–34.

156. *See id.*

157. *See id.* at 30 (quoting 17 U.S.C. § 512(c)(1)(A)(iii) (2012)).

158. *See id.* at 26, 35.

159. *See Tiffany Inc. v. eBay Inc.*, 600 F.3d 96, 109 (2d Cir. 2010).

industry customs when determining cases involving other areas of the law, including contract law and tort law. For example, courts have interpreted industry custom to be a minimum threshold in determining negligence in torts cases.¹⁶⁰

In determining industry customs for ICSs, a court may look to high-profile ICSs—such as Facebook—which might be able to set best practice standards for the industry. If a court views Facebook’s policy as a standard of best practices, then any ICS that monitors any less than Facebook may not be adequately monitoring user content for evidence of sex trafficking. However, Facebook is one of the largest, most sophisticated players in the ICS field, and therefore likely has more advanced monitoring capabilities than smaller ICSs. A small ICS might have fairly strong monitoring algorithms that still pale in comparison to algorithms developed by Facebook’s world-class engineering teams. For that reason, it would be more appropriate for a court to look at ICS monitoring practices more broadly instead of holding small ICSs to the best practices of Facebook or similar large ICSs.

If an ICS is not adequately monitoring user content, then the ICS may be accused of under-policing or willful blindness. As discussed in *Tiffany*’s definition of knowledge above, a court might equate willful blindness to a form of knowledge. Additionally, a court might determine that adequate monitoring strategies require ICSs to monitor a wide range of content parameters, such as Facebook detecting and removing content with “[v]ague suggestive statements.”¹⁶¹

4. *How Should Courts Define SESTA/FOSTA’s ICS Knowledge Standard?*

Overall, courts should draw on ICS knowledge standards from trademark and copyright law as well as real-world monitoring practices in interpreting SESTA/FOSTA’s ICS knowledge standard. In particular, ICS knowledge should require specific instances of knowledge rather than general knowledge. Additionally, willful blindness should be a form of knowledge. Although § 1591 does not impose a duty to monitor, courts might be more likely to infer willful blindness where an ICS does not use adequate monitoring strategies. In turn, adequate monitoring strategies are best determined by examining the industry customs in the ICS field.

Under this application of ICS knowledge, ICSs will be incentivized to immediately remove sex trafficking-related content as soon as they have knowledge of said content. Where an ICS does not have a monitoring strategy, this application of ICS knowledge will encourage the ICS to develop a

160. *See, e.g.*, *The T.J. Hooper*, 60 F.2d 737 (2d Cir. 1932).

161. *See* Facebook Community Standards, *supra* note 123.

monitoring strategy to root out sex trafficking rather than be found willfully blind. This is in the best interest of sex trafficking victims—ICSs are in the best position to monitor user content. If ICSs are incentivized to more stringently monitor and quickly take down sex trafficking-related content, more victims may ultimately be saved.

ICSs should be liable for sex trafficking-related content if the ICSs under-police user-posted content or exhibit other forms of willful blindness towards sex trafficking-related content. ICSs should not be liable for letting a single piece of sex trafficking-related content slip through the cracks where the ICSs have good faith, stringent monitoring strategies. This Note's application of the ICS knowledge standard accounts for both of these concerns.

However, as most cases will not be so clear, it will be up to the courts to develop an appropriate balance in the ICS knowledge standard.

V. CONCLUSION

With the enactment of SESTA/FOSTA, Congress has amended § 230 for the first time in twenty years. It is too soon to see if this chip in § 230 immunity will lead down a slippery slope towards broad intermediary liability. But legislation incriminating ICS knowledge of other forms of deplorable and illegal content—such as revenge porn and terrorist recruitment—is now plausible. In turn, the infrastructure ICSs are developing to prevent liability for user-posted, sex trafficking-related content might be used to prevent liability for other kinds of user-posted content.

If Congress continues to chip at § 230 immunity, this could mean changes—both policy-related and technical—for ICSs. In the meantime, the courts must apply these new laws in such a way as to punish the horrible crimes associated with sex trafficking while mitigating the unintended consequences of SESTA/FOSTA.

THE FOREIGN RISK REVIEW MODERNIZATION ACT: HOW CFIUS BECAME A TECH OFFICE

Evan J. Zimmerman[†]

International trade and its deep links to investment have a long history in American policymaking. The first major law passed by the United States Congress was the Tariff Act of 1789.¹ As a result of that Act and its progeny, tariffs generated the majority of federal tax revenue until the U.S. Constitution was amended in 1915 to allow income taxes.² On top of driving revenue, controlling imports formed the basis for Alexander Hamilton’s theory of development, where “infant industries” were protected from foreign competition thus stimulating domestic investment. Economists called this theory “import substitution” when it was revived in the 1950s and 1960s.³

The historical profile of international trade and investment is also political and strategic. The Tariff Act was justified not only by calling for the paying off of national debts but also “the encouragement and protection of manufactures.”⁴ Hamilton’s *Report on Manufactures*, which made the original case for American industrial policy, was “largely military and strategic in nature,” reminiscing on the material wants of the Revolutionary War.⁵ At the turn of the century, the Trading with the Enemy Act of 1917⁶ was used to

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law. I am appreciative of comments from Cathleen Cimino-Isaacs (Congressional Research Service), Mark Cohen (Berkeley Law), James K. Jackson (Congressional Research Service), Scott Kupor (Andreessen Horowitz), and Robert Merges (Berkeley Law).

1. 1 Stat. 24.

2. See Andrew Reamer, U.S. Int. Trade Comm., A CENTENNIAL HISTORY OF THE UNITED STATES INTERNATIONAL TRADE COMMISSION, USITC 4744, 35 (2017).

3. See Anne O. Krueger, *Trade Policy and Economic Development: How We Learn*, 87 AM. ECON. R. 1, 11–12 (1997). Import substitution fell out of favor when the experience of the Asian tigers, such as Taiwan, South Korea, and China, departed from this conventional wisdom, leading to the more modern Washington consensus.

4. 1 Stat. 24.

5. RON CHERNOW, ALEXANDER HAMILTON 374 (2005). The result was a dispute between Treasury and State. Jefferson and Hamilton frequently duelled over the scope of their offices, as Treasury entirely depended on tariffs, thus causing foreign policy and economics to clash. *Id.* at 394. Echoes of this dispute appear throughout the history of CFIUS, with the GAO frequently clashing with Treasury over CFIUS’s scope.

6. 40 Stat. 411. This act is still in force.

nationalize assets during World War I⁷ and to block all foreign investment during World War II.⁸ International commerce still sits at the nexus of politics and economics today, as recently leaked Chinese documents indicated that China was retaliating against American tariffs by targeting specific political constituencies with their own retaliatory tariffs.⁹

The Committee for Foreign Investment in the United States (CFIUS) has lurked quietly in the background. CFIUS is an interagency committee that can block mergers, acquisitions, and takeovers by foreign entities that could create a national security risk.¹⁰ Despite that significant power, it is the subject of few law review articles¹¹ and has only been party to a single lawsuit.¹² Furthermore,

7. See Daniel A. Gross, *The U.S. Confiscated Half a Billion Dollars in Private Property During WWI*, SMITHSONIAN MAG. (July 28, 2014), <https://www.smithsonianmag.com/history/us-confiscated-half-billion-dollars-private-property-during-wwi-180952144/> [<https://perma.cc/EMU9-D9QE>]. Among other German pharmaceutical and chemical houses, Bayer was seized, placing aspirin in the public domain by nationalizing the patent.

8. See M. Maureen Murphy, Cong. Research Serv., RL34254, EXECUTIVE ORDER 13438: BLOCKING PROPERTY OF CERTAIN PERSONS WHO THREATEN STABILIZATION EFFORTS IN IRAQ 5 (2011).

9. See Samuel Wade, *Minitrue: On U.S.-China Trade Tensions*, CHINA DIGITAL TIMES (June 29, 2018), <https://chinadigitaltimes.net/2018/06/minitrue-on-u-s-china-trade-tensions/> [<https://perma.cc/PWS4-QMUH>] (describing the “tit for tat” strategy). The targeting appears to have worked, as 82% of counties affected by recent Chinese tariffs, especially soyabean tariffs, opted for President Donald Trump over Hillary Clinton in 2016. See Mark Muro et al., Brookings Institution, *How China’s Proposed Tariffs Could Affect U.S. Workers and Industries* (Apr. 9, 2018), <https://www.brookings.edu/blog/the-avenue/2018/04/09/how-chinas-tariffs-could-affect-u-s-workers-and-industries/> [<https://perma.cc/9KQT-24GY>] (“[T]he Chinese tariff lists seem optimally designed to especially agitate President Trump’s red-state base.”).

10. National security is generally difficult to define, and even many well-known definitions are vague or circular. See, e.g., WALTER LIPPMANN, U.S. FOREIGN POLICY: SHIELD OF THE REPUBLIC 51 (1943) (“A nation has security when it does not have to sacrifice its legitimate interests to avoid war, and is able, if challenged, to maintain them by war.”); HAROLD LASSWELL, NATIONAL SECURITY AND INDIVIDUAL FREEDOM 51 (1950) (“The distinctive meaning of national security means freedom from foreign dictation.”); Arnold Wolfers, “National Security” as Ambiguous Symbol, 67 POL. SCI. Q. 481, 485 (1952) (“[S]ecurity, in an objective sense, measures the absence of threats to acquired values, in a subjective sense, the absence of fear that such values will be attacked.”); JOSEPH J. ROMM, DEFINING NATIONAL SECURITY 5 (1993) (“National security . . . is best described as a capacity to control those domestic and foreign conditions that the public opinion of a given community believes necessary to enjoy its own self-determination or autonomy, prosperity, and wellbeing.”) (quoting Charles Maier’s 1990 definition). This difficulty is evidenced by the lack of an explicit definition for national security in the context of CFIUS. See James K. Jackson, Cong. Research Serv., RL33312, THE EXON-FLORIO NATIONAL SECURITY TEST FOR FOREIGN INVESTMENT 7 (2010) (“Neither Congress nor the Administration have attempted to define the term national security as it appears in the Exon-Florio statute.”).

11. A Westlaw search turns up only 391 law review articles with the term “CFIUS” anywhere in the text as of February 6, 2019; far fewer mention CFIUS as more than a passing example. WESTLAW NEXT, <http://www.next.westlaw.com> (Go to “Secondary Sources”; click “Law Reviews & Journals”; then search for “CFIUS”).

12. *Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, 758 F.3d 296 (D.C. Cir. 2014).

most of the data it uses for its decisions is classified, so the public's only window into its operations is its public testimony, Congressional research reports, and mandated reports since 2007. Thus, though it has played a key role in some important transactions, it remains little known. In the wake of the Foreign Investment Risk Review Modernization Act (FIRRMA), the newly-passed, largest-ever expansion of CFIUS, the scramble to understand CFIUS is more furious than ever. This Note addresses just that in three parts.

Part I reviews the history and review process of CFIUS. It was created haphazardly and became an important part of the national security apparatus not by design but by circumstance. This Part shows that CFIUS historically evolved through a consistent pattern. Its profile tended to increase in response to high-profile tentpole transactions involving the potential takeover of a U.S. firm by a foreign acquirer from a politically sensitive country. During those times, a consistent set of long-simmering disputes came to a boil and were resolved by new legislation. All such legislation tended towards increasing CFIUS's power, expanding the scope of national security it is charged with considering, and increasing its disclosure to Congress.

Part II explains the context and content of FIRRMA itself. FIRRMA was born out of the nexus of increased fear regarding China's growing strategic and economic clout and the potential loss of American technology supremacy, with urgency injected by the attempted Broadcom-Qualcomm merger. The resulting legislation attracted significant industry attention, especially from venture capital. FIRRMA expands CFIUS in three principal ways. First, it expands CFIUS's *mandate* by requiring it to prevent the transfer of critical technologies and consider new factors in approving a transaction. Second, it expands CFIUS's *scope* by covering new types of transactions, including passive investments. Third, it expands CFIUS's *authority* by establishing it as a full-fledged and fully-funded agency with vast new powers.

Part III argues that though CFIUS's expansion is motivated by protecting American technology, FIRRMA does not properly equip CFIUS to succeed in its new, technology-oriented role. First, its scope cannot fulfill its mandate, as technology transfer usually occurs outside of CFIUS's purview. Second, its authority does not meet its mandate, as CFIUS does not have the technical resources or incentives to operate competently. Lastly, CFIUS's new mandate itself is difficult to define due to the tricky nature of protecting national technological supremacy, risking inconsistency and mission creep.

This paper concludes by framing FIRRMA in the larger context of an overall American technology strategy. FIRRMA is just the first step of a broader realignment towards more restrictive trade policies, especially surrounding technology, pitting the Western world increasingly against China. It can also be seen as part of a more restrictive domestic economic framework.

Furthermore, the nature of important emerging technologies in the coming years will cause CFIUS's scope to potentially touch most high-tech businesses.

I. A BRIEF HISTORY OF THE ACCIDENTAL AGENCY

Though obscure, CFIUS has a relatively long history compared to many other modern, better-known agencies: it is 2.6 times older than the TSA is and three years older than the Government Office of Ethics.¹³ CFIUS was created in 1975 by an executive order from President Gerald Ford, not by legislation.¹⁴ Originally, it was an eight-member advisory body intended to advise and inform the President on foreign investment in the United States.¹⁵ Its specific charges related mostly to the compiling of reports and statistics, and its “primary continuing responsibility” was “monitoring the impact of foreign investment in the United States.”¹⁶ A Treasury memorandum indicated that the purpose of the committee was, ironically, to “dissuade” Congressional regulation in the face of aggressive investment on the part of OPEC state-owned enterprises (SOEs).¹⁷

The first change to CFIUS, four years later and also by executive order under President Jimmy Carter, was mostly cosmetic, adding more CFIUS principals without expanding its authority.¹⁸ Though there is little in the public record indicating what work CFIUS did during its early years, it seems fair to say that CFIUS remained largely unchanged for its first thirteen years of life, during which time it did little of importance. In fact, Richard Perle, the Assistant Secretary of Defense for Global Strategic Affairs under President Ronald Reagan, reflected that during his tenure CFIUS “almost never met, and

13. See Aviation and Transportation Security Act, Pub. L. No. 107-71 (creating the TSA in 2001); Ethics in Government Act of 1978, Pub. L. No. 95-521 (creating the Office of Government Ethics in 1978).

14. See Exec. Order No. 11858, 40 F.R. 20263 (May 7, 1975).

15. The original principals were the Secretaries of State, Defense, Treasury, and Commerce, as well as the United States Trade Representative, the Chairman of the Council of Economic Advisors, the Attorney General, and the Director of the Office of Management and Budget. *Id.* at § 1(a). The original key figure appears to have been the Secretary of Commerce, who was the only cabinet member furnished with specific, substantive duties. *Id.* at § 2. This would later change, as CFIUS is now housed under Treasury.

16. *Id.* at § 1(b). In 1976, President Ford signed the International Investment and Trade in Services Survey Act of 1976, granting the President “unambiguous authority” to collect data on “international investment.” 22 U.S.C. § 3101. This was apparently in response to concerns that the President lacked the authority to collect such information. See James K. Jackson, Cong. Research Serv., RL33388, THE COMMITTEE ON FOREIGN INVESTMENT IN THE UNITED STATES (CFIUS) 4 (2018).

17. *The Operations of Federal Agencies in Monitoring, Reporting on, and Analyzing Foreign Investments in the United States: Hearing Before the H. Subcomm. on Government Operations*, 96th Cong. 334–45, 335 (statement of C. Fred Bergsten). According to this testimony, CFIUS only met six times in its first few years.

18. Exec. Order No. 12188, 45 F.R. 989 (Jan. 2, 1980) §§ 1-105(f)(1)–(2).

when it deliberated it was usually at a fairly low bureaucratic level.”¹⁹ This is perhaps unsurprising, as it was not until 1988—the last year of the Reagan Administration—that CFIUS would have a mandate other than study.

On October 23, 1986, Fujitsu, a Japanese electronics conglomerate, announced that it would purchase 80% of Fairchild Semiconductor,²⁰ sparking a public panic. Fujitsu’s acquisition offer came on the heels of a Japanese buying spree of American firms and assets, including supercomputers,²¹ the Mobil building in New York City,²² and a Ford Motors steel subsidiary.²³ Paul Harvey, a radio broadcaster, declared the Japanese wave as “buying our country with our money” and on the way to an “economic Pearl Harbor.”²⁴ Though Japan’s lost decades were just around the corner, at the time there was a real American fear that Japan would buy the whole world.

The potential acquisition of Fairchild, though, was seen as particularly chilling. Fairchild was a computer chip company created by former employees of the failed startup Shockley Semiconductor, named for co-inventor of the semiconductor Bill Shockley.²⁵ Fairchild and its spinoff “Fairchildren” created Silicon Valley²⁶ and supplied technology critical to national security tools like missile guidance systems. As such, efforts led by Commerce Secretary Malcolm Baldrige singled out the semiconductor industry for protection²⁷ out of fear that it was the “opening gun” of a broader Japanese assault on American

19. *Bush, Congress in Dark About Port Deal*, CBS 4 DENVER (Feb. 22, 2006), https://web.archive.org/web/20060310080155/http://cbs4denver.com/national/topstories_story_053102937.html [<https://perma.cc/SVW3-MR4Z>]

20. See Susan Chira, *International Report; Fujitsu, A Match for I.B.M., Making Further Inroads in U.S.*, N.Y. TIMES (Nov. 3, 1986), <https://www.nytimes.com/1986/11/03/business/international-report-fujitsu-a-match-for-ibm-making-further-inroads-in-us.html> [<https://perma.cc/55TA-XADX>].

21. *Japanese Firm Buys US Computer*, MILWAUKEE J., Apr. 1, 1987, at 5C.

22. *Japanese Buy Mobil Building in New York*, EUGENE REGISTER-GUARD, Aug. 28, 1987, at 10B.

23. Hamish McDonald, *Japan Buys into Ford Steel*, SYDNEY MORNING HERALD, July 23, 1982, at 14.

24. Paul Harvey, *Japan Buys US with Our Money*, KY. NEW ERA, Sept. 6, 1988, at 4A.

25. WALTER ISAACSON, *THE INNOVATORS: HOW A GROUP OF HACKERS, GENIUSES, AND GEEKS CREATED THE MODERN WORLD* 184–85 (2014). Bill Shockley co-invented the semiconductor at Bell Labs, for which he shared the Nobel Prize in Physics.

26. *Id.* at 199. Silicon Valley is literally named for silicon, the chemical semiconductor used in computer chips.

27. See Douglas A. Irwin, *Trade Politics and the Semiconductor Industry*, in *THE POLITICAL ECONOMY OF AMERICAN TRADE POLICY* 11–72, 11 (Anne O. Kreuger, 1996) (“Few industries ever receive the sustained, high-level attention needed to result in the negotiation of a governmental agreement on trade in just one sector.”). American action in the semiconductor industry was quite aggressive in contrast to most other industries. In 1987, President Reagan instituted the then-only ever unilateral tariffs against an allied nation. Further, in 1986 Japan and the United States reached an agreement in response to the threat of a WTO anti-dumping action, which would have been unprecedented if taken.

technological supremacy.²⁸ There appeared to be no law or governmental tool to stop the incursion, shocking the public consciousness. Fujitsu had awakened the beast: Fairchild was CFIUS's only investigation that year,²⁹ and it would result in Congress's first substantive CFIUS legislation.

After nearly a year of hearings, Congress enacted the Exon-Florio amendment as part of the Omnibus Trade and Competitiveness Act of 1988.³⁰ The President and its designees were empowered to review any and all mergers and acquisitions that may result in foreign control of "persons engaged in interstate commerce" for purposes of national security.³¹ If the President determined that such control would "impair national security," the office was to take such action necessary to suspend or prohibit the takeover.³² President Reagan quickly delegated this responsibility to CFIUS, thus cementing its place as a body of consequence in international investment even though it never actually appears in the text.³³ He also added the Attorney General and Director of the Office for Management and Budget as CFIUS members.³⁴ In November 1991, the Secretary of Treasury released its regulations governing the Exon-Florio notification process.³⁵ Fujitsu's acquisition offer for Fairchild collapsed, and most of its assets were acquired later that year by National Semiconductor at a discount.³⁶

Importantly, Exon-Florio's legislative history indicates that this expanded power was only intended for national security and not for economic purposes, as the omnibus bill was originally vetoed in part to remove "essential commerce" from its mission.³⁷ Congress itself was also concerned with

28. William C. Rempel & Donna K.H. Walters, *The Fairchild Deal: Trade War: When Chips Were Down*, L.A. TIMES, Nov. 30 1987, http://articles.latimes.com/1987-11-30/news/mn-16900_1_fairchild-semiconductor [<https://perma.cc/82PB-HKW9>].

29. *Id.*

30. Omnibus Trade and Competitiveness Act of 1988 ("Exon-Florio"), Pub. L. No. 100-418 § 5021.

31. *Id.* at § 5021(a).

32. *Id.* at § 5021(d).

33. *See* Exec. Order No. 12661, 54 F.R. 779 (Dec. 27, 1988).

34. *Id.* The makeup of CFIUS would change several more times, either in responses to statutory expansions of CFIUS or the creation of new agencies. President Bill Clinton added the Director of the Office of Science and Technology Policy, the National Security Advisor, and the Assistant of the President for Economic Policy. *See* Exec. Order No. 12860, 58 F.R. 47201 (Sept. 3, 1993). President George W. Bush would add the Secretary of Homeland Security upon its creation and, later, the United States Trade Representative, as well as adding five observer agencies. *See* Exec. Order No. 13286, 68 F.R. 10619 (Mar. 5, 2003); Exec. Order No. 13456, 73 F.R. 4677 (Jan. 23, 2008).

35. Regulations Pertaining to Mergers, Acquisitions, and Takeovers by Foreign Persons. 31 C.F.R. § 800.

36. Andrew Pollack, *Fairchild Being Sold to National*, N.Y. TIMES (Sept. 1, 1987), <https://www.nytimes.com/1987/09/01/business/fairchild-being-sold-to-national.html> [<https://perma.cc/D99H-5PAZ>].

37. Jackson, *supra* note 16, at 6.

disturbing the generally open investment climate of the U.S. economy.³⁸ Indeed, the President was only enabled to take action if other remedies were insufficient to the national security threat posed.³⁹ Nonetheless, the President was still directed to consider domestic production necessary to fulfill national security needs as one of its three factors for consideration, foreshadowing future neuroses.⁴⁰

The Exon-Florio regime essentially instated a four-step process. First, a domestic target company would voluntarily notify CFIUS of a contemplated foreign acquisition, merger, or takeover.⁴¹ For various reasons, companies were incentivized to self-report.⁴² This informal notice consultation, though not required, was common. Once reported, CFIUS had a thirty-day window to decide whether to investigate the transaction, which they then have forty-five days to complete. If they determined a risk to national security, the President had fifteen days to act to block the transaction. This action had unclear judicial review until recently. CFIUS could also require a mitigation agreement, in which the companies agreed to certain national security measures to ensure clearance.

CFIUS activity increased sharply from 1989–1992.⁴³ At its peak in 1990, CFIUS reviewed just shy of 300 transactions. However, even after the initial rush of notices subsided, there was a new normal. Far from meeting on average twice per year, CFIUS issued dozens of notifications every year. However, as Figure 1 shows,⁴⁴ notifications rarely led to full investigations, and although some deals collapsed under political pressure following a CFIUS investigation,

38. *Id.* at 7.

39. Exon-Florio §§ 5021(c)–(d).

40. *Id.* at § 5021(e)(1). In any case, the very next section of that law declared as its first finding that “[t]he future well-being of the United States economy depends on a strong manufacturing base and requires continual improvements in manufacturing technology.” *Id.* at § 5111. During the 2010s American production capacity would once again emerge as a flashpoint in the larger CFIUS debate.

41. This is typically a joint filing with the foreign company proposing the merger, acquisition, or takeover.

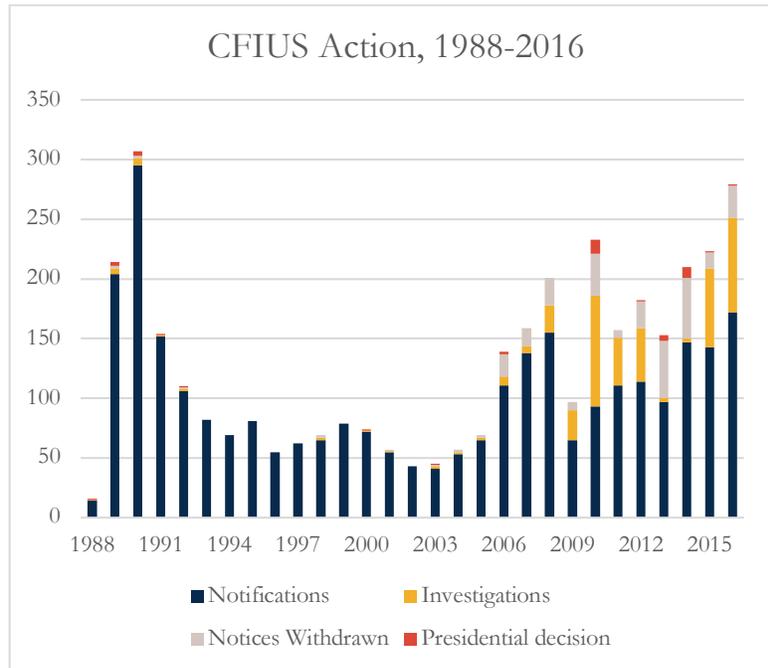
42. See Kristy E. Young, *The Committee on Foreign Investment in the United States and the Foreign Investment and National Securities Act of 2007: A Delicate Balancing Act That Needs Revision*, 15 U.C. DAVIS J. OF INT. L. & POL’Y 43, 49 (2009). Note that prior to this step companies frequently enter discussions with CFIUS informally. Companies are incentivized to report to avoid public embarrassment and political outrage, as well as to secure a favorable mitigation agreement.

43. EDWARD GRAHAM & DAVID MARCHICK, US NATIONAL SECURITY AND FOREIGN DIRECT INVESTMENT 57 (2006).

44. The data for Figure 1 comes from Graham and Marchick for 1988–2007 and the FINSAs-mandated reports published by CFIUS for 2008–2016. See *id.* at 57.

almost no investigations ever led to presidential action. Indeed, some commentators thought the Exon-Florio regime was too lenient.⁴⁵

Figure 1.



So, too, did Congress. In the intervening years, several acquisitions had taken place involving SOEs. Examples include the possible acquisition of LTV Corporation, a missile company, by Thomson C.S.F., a French corporation, and of MAMCO by CATIC, a Chinese company, which earned President George H.W. Bush's sole CFIUS action during his presidency.⁴⁶ The result was the Byrd Amendment to the 1993 National Defense Authorization Act.⁴⁷ The Byrd Amendment's key provisions introduced mandatory review of transactions involving persons acting on behalf of foreign governments, which included SOEs, and review of the "potential effects" of the sale of military equipment and technological know-how in areas relevant to national security.⁴⁸

45. See, e.g., Deborah M. Mostaghel, *Dubai Ports World Under Exon-Florio: A Threat to National Security or a Tempest in a Teapot?*, 70 ALB. L. REV. 583, 600 (2007) ("[MAMCO and Thomson-LTV] fueled Congress's belief that Exon-Florio must be revised to be able to aggressively protect national security.").

46. See Young, *supra* note 42, at 46–47.

47. See National Defense Authorization Act of 1993 ("Byrd Amendment"), Pub. L. No. 102-484, § 837.

48. *Id.*

This was also criticized as too lax,⁴⁹ particularly by the U.S. Government Accountability Office (GAO), which considered Treasury's definition of national security too narrow and feared that CFIUS was too timid for fear of dampening foreign investment.⁵⁰ This debate would come to a boil in 2005 when Dubai Ports World ("DP World") proposed an acquisition of Peninsular and Oriental Steam Navigation Company, a British company that owned six American ports. DP World's offer had the misfortune of arriving within a few months of a highly contentious all-cash offer for Unocal Oil by China's state oil company, CNOOC.⁵¹ The combination of the two contentious offers created a flare-up in Congress.

DP World was a political nightmare due to the UAE's associations with al-Qaida, but it was also much more: it was such an operational catastrophe that its failure would shape CFIUS reform. There was no initial indication that the transaction would be controversial. Out of caution, DP World met with CFIUS for several briefings prior to its takeover announcement.⁵² CFIUS quickly reached a mitigation agreement and declined a formal review. This was received poorly by Congress, whose attitudes towards international investment had fundamentally shifted after the September 11th attacks.⁵³ In response to public outcry, DP World resubmitted for a formal review. During this time, there was a communication breakdown, and senior CFIUS officials often heard about key developments about DP World from the news.⁵⁴ Congress thus did not receive timely communications from CFIUS.⁵⁵ Furthermore, there was a disconnect between Congress and CFIUS on the interpretation of the Byrd Amendment and whether the DP World takeover required a formal review.⁵⁶ Due to political pressure, not CFIUS action—CFIUS had not yet

49. See, e.g., Christopher F. Corr, *A Survey of United States Controls on Foreign Investment Operations: How Much is Enough?*, 9 AM. U. INT'L. & POL'Y 417, 431 (1994) (noting that Exon-Florio already permitted such investigations and that foreign governments would presumably already raise suspicion).

50. See U.S. Gen. Accounting Office, GAO-05-686 DEFENSE TRADE: ENHANCEMENTS TO THE IMPLEMENTATION OF EXON-FLORIO COULD STRENGTHEN THE LAW'S EFFECTIVENESS, 13–15, 18–19 (2005).

51. See Jonathan Weisman & Peter S. Goodman, *China's Oil Bid Riles Congress*, WASH. POST (June 24, 2005), <http://www.washingtonpost.com/wp-dyn/content/article/2005/06/23/AR2005062302065.html> [<https://perma.cc/884U-SWEE>]. This transaction was also investigated by CFIUS.

52. See CFIUS and the Protection of the National Security in the Dubai Ports World Bid for Port Operations, DEP'T OF THE TREASURY (Feb. 24, 2006), <https://www.treasury.gov/press-center/press-releases/Pages/js4071.aspx> [<https://perma.cc/8PEZ-F456>].

53. See Jackson, *supra* note 16, at 1–2.

54. See H.R. REP. NO. 110-24, at 12 (2007).

55. See *id.*

56. Briefing by Representatives from the Departments and Agencies Represented on the Committee on Foreign Investment in the United States (CFIUS) to Discuss the National Security Implications of the

finished its formal investigations of either transaction—both CNOOC and DP World abandoned their offers.⁵⁷

Nonetheless, the cat was out of the bag. DP World was such a flashpoint that in 2006, all four external links on CFIUS's website related to DP World.⁵⁸ Congress acted to strengthen CFIUS with the Foreign Investment and National Security Act of 2007 (FINSAs).⁵⁹ FINSAs formalized all aspects of CFIUS, including its existence.⁶⁰ Its expanded board included nine principals, with Presidential authority to add to it as necessary.⁶¹ The Director of National Intelligence was added as an *ex officio* member whose role includes acting as a liaison between CFIUS and the intelligence community.⁶² The Secretary of Labor was also added as a nonvoting member.⁶³

The expansion of CFIUS's membership paled in comparison to the expansion of its scope. FINSAs expanded CFIUS's scope to review any "covered transaction" of a U.S. company.⁶⁴ Though the beginning of the FINSAs text could be read as a codification of the Exon-Florio-Byrd process,⁶⁵ it actually expanded the Byrd Amendment by requiring a CFIUS review not only of mergers, acquisitions, and takeovers when there was a foreign government-controlled acquirer, but also any time an acquisition threatened national security or would result in foreign control of "critical infrastructure."⁶⁶ Though "control" was rigorously defined in the regulations, "national security" was not.⁶⁷ The statutory considerations for a covered transaction review were also broadened. In addition to national security, CFIUS was to

Acquisition of Peninsular and Oriental Steamship Navigation Company by Dubai Ports World, a Government-Owned and -Controlled Firm of the United Arab Emirates (UAE), S. Armed Services Comm., 109th Cong. 109-782 (2006).

57. See Young, *supra* note 42, at 52–55 (describing the regulatory process by which neither transaction ultimately proceeded).

58. *Committee on Foreign Investments in the United States (CFIUS)*, WAYBACK MACHINE (Mar. 25, 2006), <https://web.archive.org/web/20060325064442/https://www.treas.gov/offices/international-affairs/exon-florio/> (last visited Dec. 24, 2019) [<https://perma.cc/9WNY-XZXT>].

59. Foreign Investment and National Security Act of 2007 (FINSAs), Pub. L. No. 110-49.

60. *Id.* § 3.

61. *Id.* § 3.

62. *Id.* § 2(b)(4).

63. *Id.* § 2(b)(3).

64. FINSAs § 2(b)(1)–(2). This language is similar to the term "covered securities" in the Securities Act of 1933. 48 Stat. 74 § 18(b). "Covered transaction" is any transaction that falls under the purview of CFIUS, and the rhetorical framework for FINSAs and FIRRMA is in defining whether a transaction is covered or not.

65. *Id.* § 2(b)(1)(A)–(D).

66. *Id.* § 2(b)(2)(B)(III).

67. See Christopher M. Tipler, *Defining 'National Security': Resolving Ambiguity in the CFIUS Regulations*, 35 U. PA. J. INT'L L. 1223, 1239 (2014).

consider the impact of a transaction on critical infrastructure and even long-term national energy requirements.⁶⁸

The review process itself kept the basic outline of Exon-Florio but was otherwise overhauled. For each covered transaction Treasury had to designate a “lead agency” for each investigation.⁶⁹ FINSA codified the use of mitigation agreements by empowering CFIUS to enforce its agreements as necessary,⁷⁰ as determined by the lead agency.⁷¹ It also granted authority for unilateral review of previously approved transactions if the parties submitted “false or misleading material information” during the investigation or if the parties “materially breached” the mitigation agreement.⁷² Any such information had to be certified by the acquiring company’s CEO.⁷³ Furthermore, FINSA clarified that any Presidential action was not subject to judicial review.⁷⁴ It also addressed Congress’s longstanding disclosure concerns, creating a formalized reporting system thorough enough that CFIUS has been called a “Congressional notification service.”⁷⁵

While FINSA completely overhauled CFIUS, its history fit into the same broad pattern as the other CFIUS legislation: a political panic in response to foreign investment from one of the United States’ main rivals, resulting in an expansion of CFIUS intended to strike a balance between the perceived need for more oversight and preservation of the generally permissive U.S. investment climate. It codified many aspects of CFIUS that previously existed only by custom or executive action, expanded them, and introduced new vocabulary. This set the stage for FIRRMA, which was also borne from a political panic surrounding a rising Asian power.

II. CFIUS’S NEW GROOVE AS A TECHNOLOGY AGENCY

A. HOW WE GOT HERE: CONTEXT AND LEGISLATIVE HISTORY

Previous expansions of CFIUS began with a bang, with Congress reacting to a particular, high-profile tentpole transaction. Like its predecessors,

68. FINSA § 4(4).

69. *Id.* § 3.

70. *Id.* § 5.

71. *Id.*

72. *Id.* § 2(b)(1)(D)(ii). This was actually a codification of a mitigation agreement in the Alcatel-Lucent merger, one of the Bush Administration’s attempts to mollify Congress. See Stephanie Kirchgaessner, *Alcatel Completes Acquisition of Lucent*, FIN. TIMES (Nov. 30, 2006), <https://www.ft.com/content/f25293f4-80b6-11db-9096-0000779e2340> [https://perma.cc/YM9S-ZWV2].

73. FINSA § 8. There is a similar provision in Sarbanes-Oxley. See Young, *supra* note 42, at 57.

74. FINSA § 6.

75. See, e.g., David Zaring, *CFIUS As a Congressional Notification Service*, 83 S. CAL. L. REV. 81 (2009).

FIRMA was born out of fear of a rival, in this case China. During the Obama Administration, Congress began to show increasing skepticism of Chinese investment in American companies. Initially, many major acquisitions, like Lenovo's 2005 purchase of IBM Thinkpad, received approval with no objections.⁷⁶ In 2011, members of Congress rang the alarm over the potential acquisition of 3Leaf Systems by Huawei, a Chinese telecom giant, and CFIUS's posture regarding sovereign wealth funds more generally.⁷⁷ In 2013, Congress expressed concern over a potential acquisition of Smithfield, a pork processor and producer, by Shanghui, a Chinese food company. Senator Debbie Stabenow declared that CFIUS must take Shuanghui's "troubling track record on food safety into account," connecting national security and the health of American families more generally.⁷⁸ In 2016, CFIUS again ignored loud Congressional fears when it allowed ChemChina to acquire Syngenta.⁷⁹ Syngenta had previously turned down an offer from American agriculture giant Monsanto, much to Congress's consternation.⁸⁰

An environment of suspected intellectual property theft by a rising China during this period introduced a general cloud of suspicion towards Chinese motivations. Though China employs several techniques to acquire foreign technology, the most brazen and controversial methods include hacking or inserting moles into American companies, as in the theft of the Boeing C-17 designs.⁸¹ Chinese IP theft, unsurprisingly, tends to spike in areas of strategic interest. For example, ex-Apple engineer Xiaolang Zhang was dramatically arrested while boarding his flight to Beijing at San Jose Airport and indicted for stealing Apple trade secrets relating to autonomous vehicles, a recent area of interest for China.⁸²

76. See Mike Musgrove, *U.S. Panel Clears IBM Deal With Chinese Firm*, WASH. POST (Mar. 10, 2005), <https://www.washingtonpost.com/archive/business/2005/01/29/national-security-panel-will-evaluate-ibm-deal/90b98e69-ba9b-421a-a13e-8baa261647af/> [<https://perma.cc/N5M4-QRNV>]. Note that this does not mean that China was viewed as harmless—indeed, even the 1999 Cox Commission report indicated that China used acquisitions to acquire advanced technology. See H.R. REP. NO. 105-851, at 44 (1999).

77. See James K. Jackson, Cong. Research Serv., RL33388, *THE COMMITTEE ON FOREIGN INVESTMENT IN THE UNITED STATES* 2, 22 (2012).

78. Christopher Doering, *Secretive U.S. Panel Eyes China's Smithfield Deal*, U.S.A. TODAY (June 9, 2013), <https://www.usatoday.com/story/money/business/2013/06/09/smithfield-foods-pork-foreign-investment/2396187/> [<https://perma.cc/6E49-FAWC>].

79. See Jacob Bunge et al., *Powerful U.S. Panel Clears Chinese Takeover of Syngenta*, WALL ST. J. (Aug. 23, 2016), <https://www.wsj.com/articles/powerful-u-s-panel-clears-chinese-takeover-of-syngenta-1471914278> [<https://perma.cc/X6FZ-9F86>] (describing Senator Grassley's concerns over the Syngenta acquisition).

80. See Arno Schuetze & Pamela Barbaglia, *UPDATE 4-ChemChina Close to Striking Deal for Syngenta -Sources*, REUTERS (Feb. 2, 2016), <http://www.reuters.com/article/syngent-ag-ma-chemchina-idUSL3N15H4AJ> [<https://perma.cc/GCX5-9UNQ>].

81. See Plea Agreement, *U.S. v. Su Bin*, No. SA CR 14-131 (C.D.C.A. 2016), Exhibit A.

82. See Complaint at 11, 12, *U.S. v. Zhang*, No. 5:18-mj-70919-MAG (N.D.C.A. 2018).

Congressional concerns also extended more generally to commerce. In 2012, Congress controversially recommended that American telecom companies purchase no Huawei equipment.⁸³ In a 2012 hearing, Representative Peter Visclosky expressed concern that Chinese acquisitions led to lost jobs and lost technology, combining economic and national security concerns, while David Gordon of the Eurasia Group testified that “commitment to openness can’t be at the expense of all of these other factors.”⁸⁴ The Obama Administration, however, held steady to its commitment to an “open investment policy” with the traditional justification that “inbound investment has long been an important component of our overall economy.”⁸⁵

That posture would not last, and CFIUS became far more aggressive in the Administration’s second term. The quantity of CFIUS notices increased overall, as well as the number of failed transactions. In 2012, President Obama blocked a deal by Ralls Corporation,⁸⁶ the first formal presidential action since 1990,⁸⁷ over concerns that it would acquire real estate near a sensitive naval base.⁸⁸ Ralls immediately filed suit and, on appeal, established that its due process rights had been violated,⁸⁹ though many questions remained

83. *Who’s afraid of Huawei?*, *ECONOMIST* (Aug. 4, 2012), <https://www.economist.com/leaders/2012/08/04/whos-afraid-of-huawei> [<https://perma.cc/82NZ-W7F5>]. In contrast, Lenovo was permitted to purchase Thinkpad, an IBM personal computer subsidiary, a few years earlier.

84. *Chinese State-Owned and State-Controlled Enterprises: Hearing Before the H. U.S.-China Economic and Security Review Commission*, 112th Cong. 52 (2012) (statement of Peter J. Visclosky). *Id.* at 115 (statement of David F. Gordon).

85. *Statement by the President on United States Commitment to Open Investment Policy*, WHITE HOUSE (June 20, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/06/20/statement-president-united-states-commitment-open-investment-policy> [<https://perma.cc/2EPD-ETHF>].

86. *See* 77 F.R. 60281 (Oct. 3, 2012).

87. *See* Edward J. Krauland et al., *CFIUS Report: Significant Increase In Scuttled Deals*, *MONDAQ* (Jan. 13, 2014), http://www.mondaq.com/unitedstates/x/285836/international+trade+investment/CFIUS+Report+Significant+Increase+In+Scuttled+Deals&email_access=on [<https://perma.cc/6NSA-HSHS>].

88. *See* Rachelle Younglai, *Obama Blocks Chinese Wind Farms in Oregon Over Security*, *REUTERS* (Sept. 28, 2012), <https://www.reuters.com/article/us-usa-china-turbines/obama-locks-chinese-wind-farms-in-oregon-over-security-idUSBRE88R19220120928> [<https://perma.cc/PU5Y-38EN>]. Ultimately, Ralls would be required to divest its Oregon wind farm assets.

89. *Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, 758 F.3d 296, 302 (D.C. Cir. 2014), (“[T]he orders violate the Due Process Clause . . . because neither CFIUS nor the President . . . provided Ralls the opportunity to review and rebut the evidence upon which they relied.”). *Ralls Corporation and the Obama Administration eventually settled. Joint Status Rep. and Joint Mot. Stay Litigation Deadlines, Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, No. 1:12-cv-01513-ABJ (D.D.C. 2015), Doc. 79.

unanswered.⁹⁰ Chinese transactions were disproportionately represented among CFIUS investigations from 2013–2015—almost double the next highest country, Canada⁹¹—and almost all formally blocked acquisitions were Chinese. In contrast, the first FINSA report in 2009 did not even mention China as a significant country.⁹² The numbers understate the extent of CFIUS’s stringency towards Chinese acquisitions, as CFIUS is also less favorable towards mitigation agreements with Chinese acquirers.⁹³ The most high-profile CFIUS cases of the modern era have been almost exclusively post-FINSA and have included a Chinese counterparty about half the time.⁹⁴ A Rhodium Group report found that in 2017, CFIUS either blocked or forced the abandonment of three deals alone worth \$8 billion.⁹⁵

Many of the notable Chinese transactions investigated or blocked by CFIUS related to technology, especially telecommunications and semiconductors. In 2016, President Obama blocked the acquisition of Aixtron,⁹⁶ a semiconductor manufacturer, by Fujian Grand, a Chinese company, in the first use of CFIUS to block a transaction prior to its consummation.⁹⁷ Treasury noted that the national security risks included “the military applications of the overall technical body of knowledge and experience of Aixtron.”⁹⁸ CFIUS also moved to block acquisitions that would expose sensitive information, like the attempted Ant Financial acquisition of

90. See, e.g., Judy Wang, *Ralls Corp. v. CFIUS: A New Look at Foreign Direct Investments to the US*, 54 COLUM. J. TRANSNAT’L L. BULL. 30, 53 (2016) (describing potential challenges by the plaintiffs).

91. See 2015 CFIUS Ann. Rep. at 16 (Table I-8).

92. See generally 2008 CFIUS Ann. Rep. at 43.

93. See David Blumenthal et al., *CFIUS and Chinese Investments in the United States—A Closed Door?*, Latham & Watkins Article Reprint Number 2352, 1 (June 4, 2018) (originally published in the Financial Times in Chinese) (outlining several challenges Chinese firms face in the CFIUS process).

94. See generally James K. Jackson, Cong. Research Serv., RL33388 THE COMMITTEE ON FOREIGN INVESTMENT IN THE UNITED STATES 21–29 (2017) (specifying the twenty most significant covered transactions).

95. Thilo Hanemann & Daniel H. Rosen, *Chinese FDI in the US in 2017: A Double Policy Punch*, RHODIUM GROUP (Jan. 17, 2018), <https://rhg.com/research/chinese-fdi-us-2017-double-policy-punch/> [<https://perma.cc/7FA5-8SDG>] (“Prominent transactions that were abandoned during the year because of unresolved CFIUS concerns included Canyon Bridge Capital’s acquisition of Lattice Semiconductor, Zhongwang’s acquisition of Aleris Corp, Orient Hontai’s acquisition of a stake in Applovin and HNA’s acquisition of a stake Global Eagle Entertainment.”).

96. 81 F.R. 88607 (Dec. 7, 2016).

97. See Mark Plotkin et al., *President Obama Blocks Chinese Acquisition of Aixtron SE*, COVINGTON (Dec. 5, 2016), https://www.cov.com/-/media/files/corporate/publications/2016/12/president_obama_blocks_chinese_acquisition_of_aixtron_se.pdf [<https://perma.cc/V9EX-LSKE>].

98. Statement on the President’s Decision Regarding the U.S. Business of Aixtron SE, TREASURY DEP’T (Dec. 2, 2016), <https://www.treasury.gov/press-center/press-releases/Pages/jl0679.aspx> [<https://perma.cc/C2BE-8V82>].

MoneyGram.⁹⁹ Most notably, in 2018, President Trump moved to block Broadcom from acquiring Qualcomm,¹⁰⁰ a merger of semiconductor giants that if completed, would have been the largest technology acquisition of all time.¹⁰¹ This is particularly significant because Broadcom is Singaporean, not Chinese—however, the race to 5G against China, and Huawei in particular, colored the entire public debate.¹⁰² Treasury made a novel argument that one of the largest impacts of the acquisition on national security was not the acquisition of military know-how but the “reduction in Qualcomm’s long-term technological competitiveness and influence in standard setting,”¹⁰³ most likely due to Broadcom’s reputation for private equity-style hollowing out of R&D spending.¹⁰⁴

This novel argument came on the heels of significant Chinese investment in American technology firms. China has long been accused of intellectual property theft, but in recent years it was perceived as using joint ventures (JVs) and minority investments to circumvent CFIUS, which could only review mergers and acquisitions.¹⁰⁵ Chinese foreign direct investment (FDI) in the

99. See Greg Roumeliotis, *U.S. Blocks MoneyGram Sale to China’s Ant Financial on National Security Concerns*, REUTERS (Jan. 2, 2018), <https://www.reuters.com/article/us-moneygram-intl-m-a-ant-financial/u-s-blocks-moneygram-sale-to-chinas-ant-financial-on-national-security-concerns-idUSKBN1ER1R7> [<https://perma.cc/DVK5-N54C>].

100. 83 F.R. 11631 (Mar. 12, 2018).

101. Cecilia Kang & Alan Rappoport, *Trump Blocks Broadcom’s Bid for Qualcomm*, N.Y. TIMES (Mar. 12, 2018), <https://www.nytimes.com/2018/03/12/technology/trump-broadcom-qualcomm-merger.html> [<https://perma.cc/GX7B-KYG7>].

102. Qualcomm had a tricky relationship with Huawei prior to the acquisition. They are competitors in 5G technology even though Huawei purchases Qualcomm chips for its consumer products. Furthermore, Huawei licenses patents from Qualcomm, which has the largest 5G patent portfolio in the world. See Adam Jourdan, *Balancing act: Chip Giant Qualcomm Caught Between Washington and Beijing*, REUTERS (Mar. 14, 2018), <https://www.reuters.com/article/us-qualcomm-m-a-broadcom-china/balancing-act-chip-giant-qualcomm-caught-between-washington-and-beijing-idUSKCN1GR0M0> [<https://perma.cc/Z6NH-8G87>].

103. Letter from Aimen N. Mir, Deputy Assistant Secretary of Investment Security at Dep’t of Treasury, to Mark Plotkin, Covington and Burling, and Theodore Kassinger, O’Melveny & Myers, 2 (Mar. 5, 2018), https://www.sec.gov/Archives/edgar/data/804328/000110465918015036/a18-7296_7ex99d1.htm#Exhibit99_1_081114 [<https://perma.cc/9BRF-T4VC>].

104. See Alex Sherman, *Microsoft and Google Have Concerns with Broadcom’s Attempt to Buy Qualcomm, Sources Say*, CNBC (Dec. 8, 2017), <https://www.cnn.com/2017/12/08/microsoft-google-concerned-about-broadcom-qualcomm-deal.html> [<https://perma.cc/7ES7-LQTF>] (“The companies have also privately expressed concerns with Tan’s reputation of cutting costs at the expense of increasing spending on innovation, two of the people said.”).

105. Heidi Vogt, *U.S. Companies Brace for Wider Scrutiny of Chinese Deals*, WALL ST. J. (Jan. 29, 2018), <https://www.wsj.com/articles/u-s-companies-brace-for-wider-scrutiny-of-chinese-deals-1517230800> [<https://perma.cc/86B6-X34Q>] (“Several security experts say China has been sidestepping [CFIUS] controls by taking minority stakes in U.S. technology companies or entering joint licensing ventures.”).

United States soared in the 2010s,¹⁰⁶ especially in technology, where investment continues to treble even as Chinese FDI in the United States generally fell over the last two years.¹⁰⁷ Hone Capital, the venture outlet for Chinese billionaire Shan Xiangshuang, was credibly reported to be the most prolific seed investor in American startups in 2017.¹⁰⁸ In corporate venture capital, Alibaba and Tencent, the two largest Chinese technology firms, have replicated their strategy of strategic investment over American-style acquisitions, thus becoming important players in American technology. Tencent alone has invested in over forty technology firms since 2011, including Snap and Tesla.¹⁰⁹

At the same time, China now rivals America in technology. It is perceived as competitive, though not necessarily leading, in areas like artificial intelligence and biotechnology.¹¹⁰ The world's largest venture-backed company, Ant Financial, and largest startup, Bytedance, are both Chinese,¹¹¹ and Chinese startups achieve a billion dollar valuation roughly eighteen months faster than American ones.¹¹² China also has several big-dollar initiatives to improve its technology in other areas, including the National Medium and Long Term

106. See Thilo Hanemann et al., *Two-Way Street: 2018 Update US-China Direct Investment Trends*, RHODIUM GROUP (Apr. 10, 2018), <https://rhg.com/research/two-way-street-2018-update-us-china-direct-investment-trends/> [<https://perma.cc/H9DA-VQN2>] (plotting cumulative value of FDI in Figures ES- 1 and ES-2).

107. See Don Weinland, *Chinese VC funds pour \$2.4bn into Silicon Valley start-ups*, FIN. TIMES (July 17, 2018), <https://www.ft.com/content/463b162a-8a3d-11e8-b18d-0181731a0340> [<https://perma.cc/FQ6B-U2K2>].

108. See Michael J. Coren, *A Chinese Billionaire Has Quietly Become One of the Biggest Seed Investors in Silicon Valley*, QUARTZ (Dec. 11, 2017), <https://qz.com/1150944/a-chinese-billionaire-started-a-fund-in-2015-that-is-now-the-biggest-seed-investor-in-silicon-valley/> [<https://perma.cc/K7MT-3KAF>] (describing Hone Capital's investment strategies).

109. See Steven Russolillo & Wayne Ma, *Tencent Continues to Snap Up Stakes in U.S. Startups*, WALL ST. J. (Nov. 8, 2017), <https://www.wsj.com/articles/tencent-continues-to-snapup-stakes-in-u-s-startups-1510187357> [<https://perma.cc/2Z7E-N8A9>] (detailing Tencent's portfolio).

110. See, e.g., Jeffrey Ding, *Deciphering China's AI Dream*, U. OF OXFORD, 1–2 (Mar. 2018), https://www.fhi.ox.ac.uk/wp-content/uploads/Deciphering_Chinas_AI-Dream.pdf [<https://perma.cc/FH3H-KEUR>].

111. See Adam Jourdan & Cate Cadell, *Ant Financial Raises \$14 Billion in World's Largest-Ever Single Fundraising*, REUTERS (June 7, 2018), <https://www.reuters.com/article/us-ant-financial-fundraising/ant-financial-raises-14-billion-in-worlds-largest-ever-single-fundraising-idUSKCN1J407Y> [<https://perma.cc/GF6L-J6CB>]; *Meet the 35-Year-Old Chinese Software Engineer Behind ByteDance, the World's Most Valuable Start-Up*, S. CHINA MORNING POST (Oct. 1, 2018), <https://www.scmp.com/tech/start-ups/article/2166424/meet-35-year-old-chinese-software-engineer-behind-bytedance-worlds> [<https://perma.cc/5KR6-RV6Y>].

112. Kane Wu & Julie Zhu, *What Bubble? China's Record-Breaking Venture Capitalists Charge Ahead*, REUTERS (July 25, 2018), <https://www.reuters.com/article/us-china-venturecapital-analysis/what-bubble-chinas-record-breaking-venture-capitalists-charge-ahead-idUSKBN1KG0I6> [<https://perma.cc/5W6H-356V>] (citing Pitchbook data).

Plan¹¹³ and the approximately \$49 billion Big Fund, intended to fund improvements in semiconductors.¹¹⁴ On the basis of these facts, American technology luminaries like Michael Moritz of Sequoia and Reid Hoffman of Greylock are enthusiastic about Chinese technology,¹¹⁵ while Chinese technologists like Kai-Fu Lee are openly confident.¹¹⁶ This development came as a shock to Congress when Mark Zuckerberg would not say that today Facebook could only be created in America, citing “strong Chinese internet companies” to the flabbergasted indignation of Senator Dan Sullivan and the viral delight of Chinese Weibo users.¹¹⁷

Though specific reference to China ultimately does not appear in the final text of FIRRMA with one small reporting exception, early versions of the bill and statements by members of Congress make clear that FIRRMA was drafted with China firmly in mind. Senator Marco Rubio and Representative Chris Smith demanded strengthening CFIUS as part of a package to “challeng[e] [the] Chinese government to abide by its international commitments” and “[r]espond to [d]igital [p]rotectionism.”¹¹⁸ In fact, an early version of the 2019 National Defense Authorization Act reinstated sanctions against ZTE.¹¹⁹

113. See generally THE STATE COUNCIL OF THE PEOPLE’S REPUBLIC OF CHINA, *The National Medium-and Long-Term Science and Technology Development Plan Outline (2006–2020): An Outline* (2005) [hereinafter “Medium and Long Term Plan”].

114. See Cheng Ting-Fang, *China’s semiconductor ‘Big Fund’ to focus on advanced chips*, NIKKEI ASIAN REV. (Mar. 16, 2018), <https://asia.nikkei.com/Business/Business-Trends/China-semiconductor-Big-Fund-to-focus-on-advanced-chips> [https://perma.cc/K859-ZZMF] (noting that the Big Fund had raised \$21.95 billion at then-present yuan-dollar exchange rates with plans to raise at least \$26.9 billion more, totaling at \$48.8 billion).

115. See *The Next Silicon Valley Is...?*, MASTERS OF SCALE (Dec. 9, 2017), <https://mastersofscale.com/linda-rottenberg-the-next-silicon-valley-is/> [https://perma.cc/3KYN-4CFE] (Reid Hoffman interviewing Linda Rottenberg, CEO of Endeavor) (“Beyond Silicon Valley itself, I believe that the next Silicon Valley is undoubtedly China.”); Michael Moritz, *Silicon Valley Would Be Wise to Follow China’s Lead*, FIN. TIMES (Jan. 17, 2018), <https://www.ft.com/content/42daca9e-facc-11e7-9bfc-052cbba03425> [https://perma.cc/ET3K-GRTD] (“As the Chinese technology companies push ever harder outside the mainland, the habits of western companies will start to seem antique.”).

116. See Jon Russell, *China is Beating the US on AI, Says Noted Investor Kai-Fu Lee*, TECHCRUNCH (Sept. 5, 2018), <https://techcrunch.com/2018/09/05/china-is-beating-the-us-on-ai-says-noted-investor-kaifu-lee/> [https://perma.cc/R9VJ-QR5P] (“‘Coming from way behind, now [China] is actually ahead of the U.S. in AI implementation,’ Lee said.”).

117. Shanghaiist, *Zuckerberg Praised by Chinese Netizens for Surprising Answer to Senator’s Question on China*, SHANGHAIIST.COM (Apr. 11, 2018), <https://medium.com/shanghaiist/zuckerberg-praised-by-chinese-netizens-for-surprising-answer-to-senators-question-on-china-c3be6160639f> [https://perma.cc/X362-3GMD].

118. Letter from Senator Marco Rubio and Representative Chris Smith to President Donald Trump (Oct. 31, 2017), <https://www.rubio.senate.gov/public/index.cfm/press-releases?ID=8A3E1AE0-55A3-4A35-853C-86BC7662761D> [https://perma.cc/YP4L-2UTR].

119. See John S. McCain National Defense Authorization Act for Fiscal Year 2019, H.R. REP. NO. 115-874 at 918.

Senator Rubio later tweeted that Congress “had to cave on #ZTE in order to get” FIRRMA to pass.¹²⁰ Congress’s official website for legislative information still lists “China” as a tag for both drafts of FIRRMA.¹²¹

Due to the technology focus of FIRRMA, the technology and venture capital industries became intensely interested in it. CFIUS was frequently covered by the technology industry press throughout the legislative process.¹²² Congress heard from important figures in technology, including Scott Kupor, managing partner at top venture capital firm Andreessen Horowitz and president of the National Venture Capital Association (NVCA), and Christopher Padilla, a Vice President of policy at IBM.¹²³ The Information Technology Industry Council, a technology industry trade group, lobbied Congress so aggressively that Senator John Cornyn rebuked it in a speech on the Senate floor.¹²⁴

On November 8, 2017, FIRRMA was introduced in the House as H.R. 4311 by Representative Robert Pittenger¹²⁵ and in the Senate as S. 2098 by Senator Cornyn.¹²⁶ H.R. 4311 had 50 cosponsors and S. 2098 received 12 cosponsors, both with bipartisan support. The final text was passed in the

120. Marco Rubio (@marcorubio), TWITTER (July 20, 2018, 7:48 AM), <https://twitter.com/marcorubio/status/1020274310437572609> [<https://perma.cc/B28E-3LUQ>].

121. *Congress.gov Congressional Search*, WAYBACK MACHINE (Dec. 18, 2018), <https://web.archive.org/web/20181218195418/https://www.congress.gov/search?q=%7B%22source%22%3A%22legislation%22%2C%22congress%22%3A%22115%22%2C%22ge-o-subject%22%3A%22China%22%27D&searchResultViewType=expanded> [<https://perma.cc/94UT-LZ82>].

122. *See, e.g.*, Erica Pandey & Dan Primack, *Scoop: Anti-China Investment Bill Gets Pro-Business Changes*, AXIOS (Mar. 15, 2018), <https://www.axios.com/cfius-china-cornyn-feinstein-foreign-investment-changes-a2df9ec1-00f6-4bf0-86d8-f78d35131d45.html> [<https://perma.cc/72JA-DYL8>] (describing pro-business changes to FIRRMA); Saleha Mohsin & Ben Brody, *Tech Firms May Beat Trump in Debate Over Chinese Joint Ventures*, BLOOMBERG (Apr. 17, 2018), <https://www.bloomberg.com/news/articles/2018-04-17/tech-firms-may-beat-trump-in-debate-over-chinese-joint-ventures> [<https://perma.cc/H22V-K8DK>] (describing tech lobbying on FIRRMA); Bobby Franklin, *A New Foreign Investment Bill Will Impact Venture Capital and the US Startup Ecosystem*, TECHCRUNCH (Aug. 17, 2018), <https://techcrunch.com/2018/08/17/a-new-foreign-investment-bill-will-impact-venture-capital-and-the-u-s-startup-ecosystem/> [<https://perma.cc/PQJ2-KR3P>] (describing FIRRMA to a tech industry audience).

123. *CFIUS Reform: Examining the Essential Elements*, Hearing Before the S. Committee on Banking, Housing, and Urban Affairs, 115th Cong. (2018).

124. *See* Saleha Mohsin & Ben Brody, *A Top Senate Republican Slams Tech Lobby’s CFIUS Bill Push*, BLOOMBERG (Apr. 19, 2018), <https://www.bloomberg.com/news/articles/2018-04-19/top-senate-republican-cornyn-slams-tech-lobby-s-cfius-bill-push> [<https://perma.cc/FSZ3-RTNF>].

125. H.R. 4311, 115th Cong. (2017).

126. S. 2098, 115th Cong. (2017).

John. S. McCain National Defense Authorization Act for Fiscal Year 2019 under Title XVII Subtitle A.¹²⁷

B. KEY FIRRMA PROVISION

FIRRMA changes CFIUS in three primary ways. First, FIRRMA expands CFIUS's mandate by transforming it from an entity with a clear mission to one with a more open-ended one. While before CFIUS was intended to prevent the foreign control of assets sensitive for national security, under FIRRMA it has a vaguer mandate to maintain technological supremacy. Second, FIRRMA expands CFIUS's scope by vastly increasing the range of covered transactions beyond mergers, acquisitions, and takeovers. The most significant change is coverage of minority investments, but there are several other ways previously exempt transactions may become covered. Finally, FIRRMA expands CFIUS's authority by turning it into a quasi-agency. For the first time, CFIUS will have its own staff, dedicated funding, and new powers to enforce its decisions.

1. *First Expansion: Mandate*

The first key expansion is one of mandate. Prior to FIRRMA, CFIUS was primarily an agency whose purpose was to prevent the acquisition of sensitive companies and critical technologies by foreign actors. While this purpose remains, CFIUS is now also charged with protecting America's important technology capabilities. Indeed, the sense of Congress makes clear that the primary interest in expanding the universe of covered transactions was primarily one of protecting general technological supremacy.¹²⁸ Thus, rather than "threats," CFIUS is appropriately now in the business of assessing "risks."¹²⁹

CFIUS's mandate explicitly includes technology in a more expansive sense than before. For example, CFIUS may now consider whether a potential transaction "would affect United States leadership" or whether the acquirer has a "pattern" of acquiring similar sensitive assets and the effects of the acquisition on "the availability of human resources," directly echoing the concerns expressed in the Broadcom-Qualcomm merger.¹³⁰ The sense of Congress is that CFIUS may even consider whether a foreign entity's country has a "strategic goal" or interest in a particular technology.¹³¹ Codifying the concerns of some recent cases, CFIUS is to consider whether a transaction would expose "sensitive data" of U.S. citizens that a foreign entity could

127. Foreign Investment Risk Review and Modernization Act of 2018 (FIRRMA), Pub. L. No. 115-232, Title XVII Sub. A. Though FIRRMA was ultimately passed as part of the 2019 NDAA, it originally passed as H.R. 5841 by a resounding, bipartisan 400–2 vote.

128. FIRRMA § 1702(c) (detailing Congress's considerations on covered transactions).

129. *Id.* § 1718(4)(A)(iii) (amending 50 U.S.C. § 4565(I)(2)(A)).

130. *Id.* § 1702(c)(1)–(4).

131. *Id.* § 1702(c)(1).

“exploit.”¹³² And though the definition of critical technologies is mostly external, CFIUS is no bystander: it can participate in the interagency process and recommend classifying a technology as critical.¹³³

Though no country or company in particular is targeted in FIRRMA, it does empower CFIUS to do so. CFIUS may now also consider a company’s “history of complying with United States laws,” a subtle reference to companies like ZTE that escaped sanction, as well as cybersecurity more generally.¹³⁴ Indeed, CFIUS must also prescribe regulations to consider a foreign entity’s relationship with a foreign government.¹³⁵ Furthermore, CFIUS now covers transactions where the foreign governments have a “substantial interest” in the foreign acquirer directly or indirectly, even if the entity is not an SOE,¹³⁶ or if the transaction would result in a foreign government acquiring a substantial interest in a domestic company, even indirectly.¹³⁷ Furthermore, CFIUS is to include homeland security in its national security mandate,¹³⁸ a longtime concern of Representative Peter King that went mostly unaddressed by FINSAs.¹³⁹ These measures were actually watered-down from previous versions of FIRRMA, which would have permitted CFIUS to whitelist¹⁴⁰ or blacklist¹⁴¹ individual countries.

2. *Second Expansion: Scope*

The next key expansion of CFIUS is one of scope. Previously, CFIUS only covered mergers, acquisitions, and takeovers, but now is intended to cover a vast new expanse of investment activity. Most significantly, covered transactions now include “any other investment” in businesses that operate

132. *Id.* § 1702(c)(5). Interestingly, the section references not just personally identifiable information but also genetic information. Unlike the other types of sensitive information, like financial data, there has not yet been a notable public CFIUS case involving genetic information.

133. FIRRMA § 1703(6) (amending 50 U.S.C. § 4565(a)(6)(B)(i)).

134. *Id.* § 1702(c)(3), (6). Note that the cybersecurity considerations explicitly include election cybersecurity.

135. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(E)).

136. *Id.* § 1706 (amending 50 U.S.C. § 4565(b)(1)(C)(v)(IV)(bb)(AA)).

137. *Id.* § 1703(7) (amending 50 U.S.C. § 4565(a)(7)).

138. FIRRMA § 1703 (amending 50 U.S.C. § 4565(a)(1)).

139. *See The Need for CFIUS to Address Security Concerns: Full Hearing Before H. Comm. of Homeland Security*, 109th Cong. (May 24, 2006), <https://www.gpo.gov/fdsys/pkg/CHRG-109hhrg37216/html/CHRG-109hhrg37216.htm> [<https://perma.cc/63G2-QHNU>].

140. *See* S. 2098 § 3(a)(5)(C)(iii) (applying CFIUS unless the foreign entity was from an “identified country,” such as a NATO signatory).

141. *See* H.R. 4311 § 3(a)(4) (empowering CFIUS to consider whether the foreign entity was from a “country of special concern” and applying special conditions on such transactions).

critical infrastructure, produce critical technologies, or hold sensitive data.¹⁴² In other words, in addition to mergers, acquisitions, and takeovers, minority investments without a change of control now fall within CFIUS's purview. CFIUS shall specify which "critical technologies" qualify in future regulations.¹⁴³ The expansion of covered transactions to cover certain minority investments appears to have been spurred by an unpublished Pentagon report titled "How Chinese Investments in Emerging Technology Enable a Strategic Competitor to Access the Crown Jewels of U.S. Innovation," which claimed that the Chinese government was specifically using minority stakes to avoid CFIUS oversight.¹⁴⁴

The governing principles of minority investments are control and access to information. A minority investment is a covered transaction if it grants a foreign person access to "material nonpublic technical information" regarding a critical technology.¹⁴⁵ Specifically, "knowledge, know-how, or understanding, not available in the public domain" related to critical infrastructure or nonpublic information related to the production or operation of critical technologies, "including processes, techniques, or methods."¹⁴⁶ Confidential financial performance data is exempt.¹⁴⁷ Furthermore, an investment that would grant a foreigner representation on a "governing body" or influence over "substantive decisionmaking" is a covered transaction.¹⁴⁸

However, this language collides with the reality of venture capital in two important ways. First, many venture funds have foreign investors, even if they are entirely domestic and run by American persons. However, fund-investor relationships are defined by limited partner agreements, which "by design" give investors "very limited rights in the ongoing fund entity."¹⁴⁹ As such,

142. FIRRMA § 1703 (amending 50 U.S.C. § 4565(a)(4)(B)(iii)). The major change is that by expanding from mergers, acquisitions, and takeovers, CFIUS now covers mere minority investments. Note that if the nature of a transaction changes so that an investment would result in foreign ownership of a business that would otherwise not qualify as a covered transaction, the change is itself a covered transaction. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(B)(iv)).

143. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)(I)).

144. Paul Mozur & Jane Perlez, *China Tech Investment Flying Under the Radar, Pentagon Warns*, N.Y. TIMES (Apr. 7, 2017), <https://www.nytimes.com/2017/04/07/business/china-defense-start-ups-pentagon-technology.html> [<https://perma.cc/CGX2-VZ98>].

145. FIRRMA § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(i)(I)).

146. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)(I)).

147. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)(II)).

148. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(i)(II)–(III)).

149. *CFIUS Reform: Examining Essential Elements: Hearing Before the S. Committee on Banking, Housing, and Urban Affairs*, Jan. 18, 2018 (written testimony of Scott Kupor) [hereinafter "Kupor testimony"]. Limited partner agreements allow for minimal to no influence over investment decisions and provide for periodic reports on fund performance but little more, meaning that foreign limited partners have no real avenue to obtain confidential technical information or influence the decisions of a foreign company.

NVCA suggested clarifications of FIRREA's original language for funds to "reflect true passivity," as most limited partner agreements provide no access to nonpublic technical information.¹⁵⁰ Second, corporate venture capital (CVC) is increasingly international and has risen to "its highest levels in history,"¹⁵¹ with around a third of all venture rounds featuring a CVC.¹⁵² CVCs often provide strategic assistance and, most critically, provide financing for later rounds that increasingly require a scale of capital only found on balance sheets.¹⁵³ Consequently, the original language would penalize important strategic relationships that rarely expose technical information.

These concerns are directly addressed by the special clarification for investment funds.¹⁵⁴ So long as the investment fund is solely managed by a domestic general partner and its advisory committees (which may have foreign members) cannot control or influence any investments or access material nonpublic technical information, investment by domestic funds are not deemed covered transactions.¹⁵⁵ Furthermore, investors that have no means to influence critical technologies other than through voting by shares are exempt, thus saving many strategic investors from CFIUS coverage.¹⁵⁶

In addition to minority investments, CFIUS now covers other types of transactions. Real estate transactions, either by sale or lease, are covered transactions if they meet certain national security requirements, including impairing national security or creating opportunities for surveillance.¹⁵⁷ Furthermore, mere proximity to certain government properties like military installations is sufficient to qualify for CFIUS coverage¹⁵⁸ so long as the land in question is in "close proximity" to the relevant government interest.¹⁵⁹ This section is a direct codification of the desired outcome in *Ralls*.¹⁶⁰ CFIUS may

150. Letter from Bobby Franklin, CEO of NVCA, to Congresspeople Jeb Hensarling, Andy Barr, Maxine Waters, and Gwen Moore, 3 (Apr. 11, 2018), <https://nvca.org/wp-content/uploads/2018/04/FIRREA-statement-for-record-House-Financial-Services-hearing.pdf> [<https://perma.cc/FS63-YQ8L>] [hereinafter "Franklin letter"].

151. Louis Lehot & Mark F. Radcliffe, *Corporate venturing hitting record highs, intensifying global innovation*, DLA PIPER (Mar. 2018), <https://www.dlapiper.com/en/us/insights/publications/2018/03/corporate-venturing-hitting-record-highs-intensifying-global-innovation/>.

152. See Teddy Himler, *Corporate VC Is On The Rise: Here's What To Know*, FORBES (Feb. 14, 2017), <https://www.forbes.com/sites/valleyvoices/2017/02/14/corporate-vc-on-the-rise/#17edfa21bbf2> [<https://perma.cc/Q3H9-26V2>] (describing the benefits of a CVC approach).

153. See Franklin letter, *supra* note 150, at 5 (detailing the importance of foreign strategic corporate investors specifically).

154. FIRREA § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(iv)).

155. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(iv)(I)).

156. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(i)(III)).

157. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(B)(ii)).

158. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(B)(ii)(II)(bb)(AA)).

159. FIRREA § 1703 (amending 50 U.S.C. § 4565(a)(4)(C)(ii)).

160. See *Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, 758 F.3d 296 (D.C. Cir. 2014).

also request that the written filing include partnerships or side agreements.¹⁶¹ CFIUS's purview is now also expanded to cover bankruptcy proceedings,¹⁶² which seems to be intended to fill a gap identified when Avatar Integrated Systems attempted to purchase sensitive assets in the bankruptcy of ATop Tech, a semiconductor manufacturer, with no formal review by CFIUS.¹⁶³

Just as important is what is not included. The above provisions all relate to inbound investment, but early versions of FIRRMA were aggressive in controlling not only the investment activity into U.S. corporations, but their outbound business activities as well. The House bill originally deemed as a covered transaction the contribution of a foreign entity to an American critical technology or critical intellectual property by “any type of arrangement,” including JVs.¹⁶⁴ The only exception was an “ordinary customer relationship.”¹⁶⁵ As “any type of arrangement” did not specify foreign or domestic, this would have granted CFIUS the ability to control American outbound investment, creating significant concern that CFIUS would turn into what Padilla called a “supra-export control agency” that would duplicate existing regulations and “unilaterally limi[t] the ability of American firms to do business around the world.”¹⁶⁶ As such, the final FIRRMA text makes no mention of anything related to outbound investment.

3. *Third Expansion: Authority*

The last key expansion is one of authority, as CFIUS grows from a small coordination agency in FINSA to a well-funded investment control body in FIRRMA. A GAO report noted that from 2011 to 2016, the number of CFIUS cases increased 55% while its staff only increased 11%, sparking concerns that it was unequipped to deal with the increasing volume and complexity of an anticipated increased workload.¹⁶⁷ This report was cited in the “Sense of Congress” and motivated an increase in resources.¹⁶⁸ In total, Congress granted CFIUS funding of \$20 million per year for five years¹⁶⁹ and granted it the right

161. FIRRMA § 1705 (amending 50 U.S.C. § 4565(b)(1)(C)(iv)).

162. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(F)).

163. Cory Bennett & Bryan Bender, *How China acquires 'the crown jewels' of U.S. technology*, POLITICO (May 22, 2018, 5:10 AM), <https://www.politico.com/story/2018/05/22/china-us-tech-companies-cfius-572413> [<https://perma.cc/GQH9-3CXN>].

164. H.R. 4311 § 3 (proposing amending 50 U.S.C. § 4565(a)(5)(B)(v)).

165. *Id.*

166. *CFIUS Reform: Examining Essential Elements: Hearing Before the S. Committee on Banking, Housing, and Urban Affairs*, 115th Cong. 2, 4 (Jan. 18, 2018) (statement of Christopher Padilla).

167. See U.S. Gen. Accounting Office, GAO 18-249, COMMITTEE ON FOREIGN INVESTMENT IN THE UNITED STATES: TREASURY SHOULD COORDINATE ASSESSMENT OF RESOURCES NEEDED TO ADDRESS INCREASED WORKLOAD 14-18 (2018) [hereinafter GAO FIRRMA report].

168. FIRRMA § 1702(a)(4)–(5).

169. *Id.* § 1723 (amending 50 U.S.C. § 4565(p)(2)).

to levee fees to review transactions equal to the lesser of \$300,000 or 1% of the transaction value, with the right to request more funds from Congress.¹⁷⁰ To complement its enlarged role, CFIUS also has more extensive reporting requirements.¹⁷¹

The committee itself will now be composed of dedicated staff members, as every member agency will be required to designate a Senate-confirmed Assistant Secretary to CFIUS, including the newly-created Treasury Assistant Secretary of Investment Security.¹⁷² The lead agency structure is preserved, and lead agencies are now also encumbered with the responsibility of creating and adhering to all compliance plans.¹⁷³ In addition, the CFIUS chair, as well as all member agencies, may request additional staff and are required to submit a staffing plan.¹⁷⁴ Critically, these “coordination and collaboration” functions may be centralized in CFIUS itself.¹⁷⁵ CFIUS is also broadly empowered to share information with other agencies and allied countries.¹⁷⁶

With these new resources come new powers. FIRRMA updates the review process by bifurcating it into a so-called light filing and an updated Exon-Florio investigation. The expedited light filing will consist of a declaration of no more than five pages,¹⁷⁷ which CFIUS must define by regulation.¹⁷⁸ For those transactions that require a more thorough review, the Exon-Florio process has been extended and deepened. CFIUS must act within thirty days of receiving a voluntary declaration.¹⁷⁹ Furthermore, CFIUS shall produce regulations expanding the universe of mandatory declarations beyond the Byrd amendment, which only mandated a declaration when the purchaser was a government or SOE.¹⁸⁰ However, even the Byrd amendment itself has expanded to include mandatory declarations for entities where a foreign

170. *Id.* § 1723 (amending 50 U.S.C. § 4565(p)(1), (3)).

171. *Id.* § 1719. The reporting requirements include a specific report on Chinese investment in the United States and a report on China’s Made in China 2025 initiative. *Id.* § 1719(b). The Made in China 2025 initiative is a government program to increase Chinese manufacturing in certain strategic industries. *See generally* “Made in China 2025” Plan Unveiled to Boost Manufacturing, GB TIMES (May 20, 2015), <https://gbtimes.com/made-china-2025-plan-unveiled-boost-manufacturing> [<https://perma.cc/LT7E-8A9U>] (describing the China Made in 2025 initiative).

172. FIRRMA § 1717(a) (amending 50 U.S.C. § 4565(k)(4)(A)(i)) (giving the agency special hiring authority).

173. *Id.* § 1718(7)(C) (amending 50 U.S.C. § 4565(l)).

174. *Id.* § 1721(a)–(b).

175. *Id.* § 1724 (amending 50 U.S.C. § 4565(q)).

176. *Id.* § 1713 (amending 50 U.S.C. § 4565(c)(2)–(3)).

177. The pilot program light filing regulations are quite extensive, with eighteen separate requirements, many of which have several subparts. 31 C.F.R. § 801.403.

178. FIRRMA § 1706 (amending 50 U.S.C. § 4565(b)(1)(C)(v)(II)).

179. *Id.* § 1706 (amending 50 U.S.C. § 4565(b)(1)(C)(v)(III)(bb)).

180. *Id.* § 1706 (amending 50 U.S.C. § 4565(b)(1)(C)(v)(IV)(aa)).

government would merely acquire a “substantial interest.”¹⁸¹ Furthermore, CFIUS is granted the authority to undertake unilateral reviews¹⁸² and must police transactions that are non-identified and non-declared even though they should have been.¹⁸³ Once an investigation begins, CFIUS now has forty-five days, not thirty, to complete its investigation, and may request a fifteen-day extension for “extraordinary circumstances.”¹⁸⁴ Heeding the *Ralls* court, CFIUS investigations are subject to judicial review in the D.C. Circuit with *ex parte* and *in camera* provisions for privileged information.¹⁸⁵

CFIUS has enlarged, new powers both during and after its investigations. During an investigation, CFIUS has the authority to suspend a transaction.¹⁸⁶ It has the power to impose mitigation agreements even if a transaction is abandoned as a condition of such agreement¹⁸⁷ and is empowered to enforce any agreement it requires as a condition of approving a transaction.¹⁸⁸ CFIUS is barred from entering a mitigation agreement unless it actually resolves the national security concern in a way that is “effective,” allowing for compliance in a “verifiable way,” and “enabl[ing] effective monitoring.”¹⁸⁹ In any case, CFIUS will periodically review the “appropriateness” of its agreements and may modify or terminate them if they are no longer sufficient.¹⁹⁰ In the event of noncompliance, CFIUS may initiate a unilateral review of the covered transaction, resulting in a new agreement, or even seek injunctive relief.¹⁹¹

Thus, FIRRMA upgrades CFIUS to a full-fledged agency. Beyond that, it is no longer only an international investment outfit but a technology committee with the scope to oversee a large fraction of all FDI in the United States. Though many questions remain pending future regulation, it is abundantly clear that its presence in commerce will greatly increase. However, CFIUS may not be properly equipped to quite fill its new shoes.

181. *Id.* § 1706 (amending 50 U.S.C. § 4565(b)(1)(C)(v)(IV)(bb)). Under certain circumstances this can be waived. *Id.* (amending 50 U.S.C. 4565(b)(1)(C)(v)(IV)(bb)(CC)).

182. *Id.* § 1708(2)(B) (amending 50 U.S.C. § 4565(b)(1)(D)(i)).

183. FIRRMA § 1710 (amending 50 U.S.C. § 4565(b)(1)).

184. *Id.* § 1709(2) (amending 50 U.S.C. § 4565(b)(2)(C)(i)–(ii)).

185. *Id.* § 1715(2) (amending 50 U.S.C. § 4565(e)(2)–(3)).

186. *Id.* § 1718(3) (amending 50 U.S.C. § 4565(I)(1)).

187. *Id.* § 1718(4)(A)(ii) (amending 50 U.S.C. § 4565(I)(4)(A)(iv)).

188. FIRRMA § 1718(4)(A)(iv) (amending § 50 U.S.C. 4565(I)(3)(A)(ii)–(iii)).

189. *Id.* § 1718(4)(C) (amending 50 U.S.C. § 4565(I)(3)(C)(i)–(iii)).

190. *Id.* § 1718(4)(B) (amending 50 U.S.C. § 4565(I)(3)(B)).

191. *Id.* § 1718(7) (amending 50 U.S.C. § 4565(I)(6)(D)).

III. THE VERY MODEL OF AN UNPREPARED GENERALIST

A. MISMATCH 1: SCOPE CANNOT FULFILL MANDATE

There is broad recognition that China has a coordinated strategy to fill in gaps in its technology portfolio and leapfrog the competition,¹⁹² which CFIUS is intended to address as part of a constellation of programs. When conducting business abroad, multinational corporations typically consider a country's intellectual property rights: if they are weak, the company may prefer a wholly-owned foreign entity rather than a joint venture, where the risk of theft is greater.¹⁹³ Attempts by countries to require companies to enter into disadvantageous arrangements, or to otherwise share their technologies with foreign entities like SOEs, is called "forced technology transfer." U.S. Ambassador to the WTO Dennis Shea recently called such practices the "unwritten rule for companies trying to access China's burgeoning marketplace" at the WTO.¹⁹⁴ The challenge is that much of China's forced technology transfer does not occur on American soil, meaning that CFIUS's scope does not match its mandate.¹⁹⁵

Forced technology transfer starts with total domestic control of ownership structure. In essence, China imposes inbound investment controls far more stringently than CFIUS. One is the use of Chinese JVs. So-called equity JVs are a popular means of doing business in China due to their comparatively lax requirements. Given that their stated purpose is to "raise the scientific and technological standards of China," they may be capitalized by many means, including technology and international property rights.¹⁹⁶ For many industries, companies must be at least 51% owned by a Chinese national, thus ceding control.¹⁹⁷ By forcing companies to give up control, China induces technology transfer by requiring the training of locals and by introducing significant risk of theft.

There are three broad techniques China uses to force technology transfer outside of ownership structure: "lose the market," "no choice," and "violate

192. See Bennett & Bender, *supra* note 163.

193. See Mikhaelle Schiappacasse, *Intellectual Property Rights in China: Technology Transfers and Economic Development*, 2 BUFF. INTELL. PROP. L.J. 164, 172–73 (2004).

194. Tom Miles, *U.S. and China Clash Over 'Technology Transfer' at WTO*, REUTERS (May 28, 2018), <https://www.reuters.com/article/us-usa-trade-china/u-s-and-china-clash-over-technology-transfer-at-wto-idUSKCN1IT11G> [<https://perma.cc/LP9G-YYH5>].

195. Technology transfer is not in itself an offensive term. Many universities, for instance, license their intellectual property for commercial ventures through technology transfer offices.

196. See Roy J. Girasa, *Legal Aspects of Doing Business in China*, 20 WESTCHESTER B.J. 305, 309, 312–13 (1993).

197. See Francis Nocolai Acosta, *China Relaxes JV Ownership Rules*, FUND SELECTOR ASIA (Apr. 30, 2018), <https://fundselectorasia.com/china-relaxes-jv-ownership-rules/> [<https://perma.cc/KL74-DC7L>] (describing the 51% rule but also noting recent efforts to relax it).

the law.”¹⁹⁸ China uses its economic largesse to require technology transfer for market access, a “lose the market” technique that may even require teaching locals to transfer know-how.¹⁹⁹ Unfair intellectual property rulings may also force a company to transfer a technology by subjecting it to a “no choice” situation.²⁰⁰ Additionally, the Chinese government may exploit ambiguously written laws, such as export control laws, antitrust laws, and intellectual property licensing laws.²⁰¹ These statutes give Chinese authorities flexibility to define relevant terms, such as “essential” technologies, in ways that suit them. As a result, multinational corporations that innocently entered the Chinese market find themselves faced with the difficult choice of whether to fall afoul of a “violate the law” policy.²⁰² Outside of these broad categories are occasionally creative transfer techniques, such as expensively acquiring foreign talent.²⁰³

U.S. Trade Representative Robert Lighthizer’s recent 301 report outlined other examples of abuse.²⁰⁴ For instance, China has a myriad of administrative license regimes that often informally require technology transfer, such as the transfer of intellectual property rights to a Chinese partner.²⁰⁵ JV approval from the central Ministry of Commerce may require locating R&D facilities in China²⁰⁶ or placing cloud servers domestically, requiring companies to train locals.²⁰⁷ Administrative approvals, such as permission to build a factory, may require the disclosure of trade secrets to local officials.²⁰⁸ Furthermore, China attempts to acquire foreign technology through cyber espionage, and even has a dedicated military unit, 61398, for this purpose.²⁰⁹ The purpose of such techniques is to go through a process of “IDAR”: introducing new technology,

198. See Dan Prod’homme et al., “Forced Technology Transfer” Policies: Workings in China and Strategic Implications, 134 TECHNOLOGICAL FORECASTING & SOC. CHANGE 150, 157 (2018) (summarizing the “most significant” Chinese policies on “forced technology transfer”). The effectiveness of these techniques is dependent on the context in which they are used and the nature of the underlying technologies themselves. *Id.* at 162–64.

199. See *id.* at 157–58.

200. See *id.* at 158 (describing how intellectual property rulings are the primary vehicle for “no choice” policies).

201. See *id.* (describing the various legal regimes involved to obtain this end).

202. *Id.*

203. See Dan Wang, *The New Challenger In Memory Chips*, Gavekal Dragonomics at 5 (Mar. 7, 2018).

204. See generally Office of the U.S. Trade Rep., FINDINGS OF THE INVESTIGATION INTO CHINA’S ACTS, POLICIES, AND PRACTICES RELATED TO TECHNOLOGY TRANSFER, INTELLECTUAL PROPERTY, AND INNOVATION UNDER SECTION 301 OF THE TRADE ACT OF 1974 (2018) [hereinafter “301 report”].

205. *Id.* at 38.

206. *Id.* at 39.

207. *Id.* at 41.

208. *Id.* at 42.

209. 301 report, *supra* note 204, at 155.

digesting it, absorbing it in Chinese business, and “reinnovating” improvements.²¹⁰ This is especially relevant with JVs, where domestic technology transfer may be used to capitalize JVs but with several restrictions of the intellectual property rights of the JV that effectively result in a transfer of the technology to a local partner.²¹¹

The challenge is that outbound licensing and outbound investment are the main methods of forced technology transfer but remain outside of CFIUS’s scope. CFIUS does not, and indeed cannot, affect most such practices given their domestic nature. Forced technology transfer plays hand-in-hand with the “going out” strategy CFIUS can control and is intended to prevent.²¹² The original FIRRMA bill restricted domestic JVs,²¹³ which was rightfully removed for being too restrictive. This directly conflicts with its expanded mandate and stated purpose of protecting American technological supremacy²¹⁴ and enters the realm of export controls.

Licenses pose a particularly challenging loophole for CFIUS.²¹⁵ In China, technology licenses or transfers are valid consideration for the creation of a JV.²¹⁶ The Export Administration Act has a similar concept, where a controlled export need not physically leave the United States if a license produces “foreign availability,”²¹⁷ making the license itself an export.²¹⁸ Releasing any technical data of a controlled technology is a “deemed export” for export control purposes.²¹⁹ CFIUS’s control over outbound investment was removed from FIRRMA. This would leave the outright sale of technologies solely within the domain of export controls and totally uncovered by CFIUS, which only covers investments or corporate acquisitions, and would have to be amended by statute.

There may yet be a merger of export control and investment oversight. CFIUS is required to consider whether technologies factor into strategic

210. *Id.* at 12.

211. *Id.* at 49–50. Examples of the restrictions include providing the JV with the rights to technology improvements and indemnification of the local partner.

212. *Id.* at 66. The “going-out” strategy is the Chinese industrial policy of investing abroad in strategically important areas.

213. H.R. 4311 § 3 (proposing amending 50 U.S.C. § 4565(a)(5)(B)(v)).

214. FIRRMA § 1702(c)(1).

215. License reform did, however, take place under the Export Control Reform Act, but that is mostly in the domain of export control. Export Control Reform Act, Pub. L. No. 114-232 Title XVII Sub. B.

216. *See Girasa, supra* note 196, at 312–13 (“If the foreign party contributes industrial property rights or technology, it must furnish proof of its registration abroad as well as the basis for the value affixed to it.”).

217. 15 C.F.R. § 768.2; *see also* EDWARD G. HINKELMAN, *DICTIONARY OF INTERNATIONAL TRADE* 78 (6th ed. 2005) (defining foreign availability).

218. 22 C.F.R. § 120.17(b).

219. 22 C.F.R. § 120.17(a)(2).

national planning, which will necessarily involve coordination with export control authorities. Some of CFIUS's new powers, such as consideration of an entity's previous unlawful activity,²²⁰ call to mind parallel export control penalties, such as "debarment" from any participation in the export of any goods in the face of an egregious violation.²²¹ Intriguingly, there are three agencies that issue export licenses: State, Treasury, and Commerce,²²² all of which are represented on CFIUS. The United States has been weighing creating a single licensing agency for export control for about a decade, with little progress,²²³ and export controls already have a role in preventing technology transfer.²²⁴ Perhaps, as the business community feared, CFIUS will in fact become a supra-export control agency²²⁵ in the next round of export control reform. After all, export and investment control are but bricks in the same wall.

B. MISMATCH 2: AUTHORITY DOES NOT MEET MANDATE

CFIUS is not properly equipped to serve its new role, as its staffing structure has not adjusted to conform with its new technology focus, resulting in authority that does not match its new mandate. With the exception of the creation of an Assistant Secretary of Investment Security, the board of CFIUS has not expanded.²²⁶ Consequently, the sole scientific member of CFIUS is the Director of the Office of Science and Technology Policy as required in FINSAs.²²⁷ That excludes the agencies, such as USDA, FDA, USPTO, NIST, and NIH, that are relevant to many of China's "frontier technologies" of interest, including biotechnology and artificial intelligence.²²⁸ While CFIUS may consult with them, once consulted, they are not entitled to a vote while CFIUS members with little to no relevant domain expertise retain theirs.²²⁹ And in any case, even though CFIUS is enabled to centralize its coordinating powers, it is not required anywhere in FIRRMA to hire or even consult with technical staff.

220. FIRRMA § 1702(c)(3).

221. 22 C.F.R. § 127.7 (defining debarment in the arms control context).

222. State issues licenses through Directorate of Defense Trade Controls, Treasury through the Office of Foreign Asset Control, and Commerce through the Bureau of Industry and Security.

223. See Ian F. Fergusson & Paul K. Kerr, Cong. Research Serv., *R41916, The U.S. Export Control System and the President's Reform Initiative*, 10–13 (2013).

224. See generally Matthew Crane, *U.S. Export Controls on Technology Transfers*, 2001 DUKE L. & TECH. REV. 30 (2001).

225. See Padilla testimony, *supra* note 166, at 2.

226. FIRRMA § 1717(a) (amending 50 U.S.C. § 4565(k)(4)(A)(i)(II)).

227. FINSAs § 3(k)(2) (amending 50 U.S.C. App. 2170).

228. See Medium and Long Term Plan, *supra* note 113.

229. FIRRMA § 1724 (amending 50 U.S.C. § 4565(q)(1)). Note, however, that CFIUS is empowered to establish a non-CFIUS member as the lead agency, as it has done with USDA three times. See GAO FIRRMA report, *supra* note 167, at 18 tbl. 2.

This is concerning, as assessing technology and its impact is now part of CFIUS's mandate. It is supposed to determine whether an acquisition would result in foreign access to material nonpublic technical information.²³⁰ It is required to evaluate whether that information is already in the public domain, and if not, whether it is “necessary to design, fabricate, develop, test, produce, or manufacture” a critical technology.²³¹ As another example, CFIUS may now consider not only whether a transaction contributes to “cumulative control of, or pattern of recent transactions involving, any one type” but also whether there is a risk to such a pattern in and of itself—as well as how to balance that risk.²³² It is anyway unclear that even with more funding CFIUS will have the proper staffing to vet deals in a timely manner, likely resulting in oversights and time delays that would normally be untenable in a fast-paced environment.

These tasks require not just technical information, which can be provided, and not just context in the stream of commerce, which CFIUS already does on its own, but a broader technological context. For example, the controversial 2013 case of Wanxiang acquiring A123 Systems, a battery maker, in bankruptcy court requires not just an understanding of battery systems but also the general technological importance and current limitations of lithium-ion batteries, the national security implications of electric vehicles, and an understanding of the legitimate reasons that might be driving the acquisition. In this case, as Wanxiang also acquired Fisker Automotive in bankruptcy, its motivation was likely to create a full-stack electric automaker.²³³

CFIUS's new need for technological expertise heightens the need to incentivize cross-agency coordination. Establishing CFIUS as its own agency instead of a pure coordinating body risks the creation of a “soft hierarchy,” which often results in agency conflict.²³⁴ There is an inherent tension between centralization and coordination, as centralization can be a helpful tool for horizontal information sharing within an agency at the cost of disincentivizing vertical communication between agencies, hence deterring coordination.²³⁵ FIRRMA's broad mandate means that CFIUS reviews must cover more complex subject matter that touches a broader set of concerns, necessitating

230. FIRRMA § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)).

231. *Id.* § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)(I)(aabb)). This function is similar to USPTO, which regularly assesses the novelty and sufficiency of a technology's enablement.

232. *Id.* § 1702(c)(2).

233. See Susan Berfield, *Batteries With a Political Charge*, BLOOMBERG BUSINESSWEEK (Oct. 29, 2015), <https://www.bloomberg.com/news/articles/2015-10-29/batteries-with-a-political-charge-a123-s-chinese-led-turnaround> [<https://perma.cc/44TW-9SGW>] (describing A123's recovery under Wanxiang management).

234. See Daniel A. Farber & Anne Joseph O'Connell, *Agencies as Adversaries*, 105 CALIF. L. REV. 1375, 1394–95 (2017) (defining “soft hierarchy” relationships as those involving “adversarial actors in a mixed hierarchical and advisory relationship”).

235. See Ricardo Alonso et al., *When Does Coordination Require Centralization?*, 98 AM. ECON. REV. 145 (2008) (quoting research by Alfred D. Chandler).

more communication with more agencies, especially ones with essential technical knowledge. To do so, CFIUS should adopt a process by which it can regularly bring in non-CFIUS members on specific issues and give them a vote.

This mismatch extends to enforcement, as well. While FIRRMA's needs require technical staff and superior agency coordination, a wider set of challenges also requires a larger toolkit. CFIUS's raw enforcement powers are only mitigation agreements, which are enforced by vaguely defined injunctive relief²³⁶ and the raw realpolitik of visible, painful investigations that a sufficiently determined acquirer may anyway be able to overcome. This is in sharp contrast with the export control regime, which has dedicated administrative enforcement agencies. Commerce has the ability to impose crippling administrative sanctions²³⁷ and even deny export privileges,²³⁸ all with dedicated administrative judges.²³⁹ Technology is inherently complex, and a mandate to prevent its transfer must be met with a broad variety of strategies.

C. MISMATCH 3: A TECHNOLOGY MANDATE IS AMORPHOUS

In addition to CFIUS's inability to serve its new technology focus, its expansion as an agency muddies the mission itself, resulting in a mandate that is clearly new but protean at the same time. These ambiguities have always been present in CFIUS's mandate, but its expansion as a technology agency exacerbates this challenge.²⁴⁰ As civilian technologies exceed military capabilities, they enter military supply chains and become integral to military operations, such as a supercomputer built from PlayStation 3's.²⁴¹ As the "historical one-way street" of Chinese technology transfer becomes reciprocal, as it has in Canada,²⁴² legitimately co-developed technologies will become unavoidable. Control over critical technologies like semiconductors not only gives significant advantages in their use in military applications but also presents significant non-kinetic leverage.²⁴³ And many technologies that seem

236. FIRRMA § 1718(7)(C) (amending 50 U.S.C. § 4565(I)(4)(D)(iii)).

237. 15 C.F.R. § 764.3.

238. 15 C.F.R. § 766.25.

239. 15 C.F.R. § 766.2.

240. See, e.g., Amy Josselyn, *National Security at All Costs: Why the CFIUS Review Process May Have Overreached Its Purpose*, 21 GEORGE MASON L. REV. 1347 (2014) (arguing that CFIUS endangers international commerce in its pursuit of national security).

241. See Lisa Zyga, *US Air Force Connects 1,760 PlayStation 3's to Build Supercomputer*, PHYS.ORG (Dec. 2, 2010), <https://phys.org/news/2010-12-air-playstation-3s-supercomputer.html> [https://perma.cc/2TC8-DCMV].

242. Margaret McCuaig-Johnston, *From Field Surgery to Advanced Robotics: Sino-Canadian Relations in Science and Technology, 1938–2018*, 4 China Institute Occasional Paper Series No. 2 at 39 (2017).

243. *China Must Face its Weakness in Semiconductors Squarely, Says Head of State-Backed Fund*, S. CHINA MORNING POST (Aug. 24, 2018, 11:24 PM), <https://www.scmp.com/tech/article/2161178/china-must-face-its-weakness-semiconductors-squarely-says-head-state-backed>

innocuous may have dual uses, like social media, which can be used for sharing cat photos or for sophisticated election influence operations, which CFIUS is specifically charged with preventing. The scope of technology is broad and at times uncertain, so the mission's borders are amorphous.²⁴⁴

FIRRMA's Sense of Congress emphasizes the importance of international trade, explicitly rejecting the consideration of "national interest absent a national security nexus."²⁴⁵ The use of the term "national interest" is no accident—Chinese officials and scholars use it to justify the doctrine of "economic security,"²⁴⁶ in which the "continued stable development of China's economy and society" is a "core interest" alongside issues of sovereignty and security.²⁴⁷ Chinese power theory imagines a multidimensional "competition for comprehensive power," including both economic and technological considerations.²⁴⁸

This is in sharp contrast with the more traditional Washington consensus promoting free trade, though with notable national security exceptions enshrined in, for instance, GATT Article XXI²⁴⁹ and NAFTA,²⁵⁰ as well as American tariff laws.²⁵¹ Those texts, which supposedly limit protectionism to strict national security crises, are difficult to square with the United States' increasing adoption of a national interest policy in other contexts. Recent

[<https://perma.cc/GL9U-G3H2>] (explaining Chinese determination to develop a homegrown semiconductor industry).

244. Indeed, the recent proposed Commerce definition of "emerging technologies," which will influence which technologies CFIUS scrutinizes closely, is extremely broad. *See* 15 C.F.R. 744. Examples of such technology categories include "reinforcement learning," a fundamental artificial intelligence technique; "mobile electric power" in the context of manufacturing; and "genomic and genetic editing." *Id.* While these categories are broad and subject to change pending public comment, it is unclear what limiting principle would prevent CFIUS from expanding its purview to wide swathes of the entire technology industry.

245. FIRRMA § 1702(b)(9).

246. Daojiong Zha, *Chinese Considerations of "Economic Security"*, 5 J. OF CHINESE POL. SCI. 69, 82–83 (1999) (equating "economic security" with the Chinese search for "national greatness").

247. Michael D. Swaine, *China's Assertive Behavior Part One: On "Core Interests"*, 34 CHINA LEADERSHIP MONITOR 1, 4 (2011). This is strikingly similar to Dr. Gordon's exhortation to consider the balancing act of national security against other interests in his 2012 testimony on CFIUS. Gordon testimony, *supra* note 84 at 114–15. Recall that Exon-Florio's statutory history indicates that the review process is not intended to be an economic nationalist tool; this clause explicitly reaffirms that.

248. Yong Deng, *The Chinese Conception of National Interests in International Relations*, 154 CHINA Q. 308, 314–15 (1998). China has seven distinct institutional schools of thought regarding its national identity and the use of its power, though China's recent policies reflect the success of its realist, self-interested school. *See* David Shambaugh, *Coping with a Conflicted China*, 34 WASH. Q. 7, 9, 21–22 (2011).

249. *See* General Agreement on Tariffs and Trade art. xxi, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194.

250. *See* N. Am. Free Trade Agreement art 1018(1) 32 ILM 289 (1993).

251. *See, e.g.*, Trade Expansion Act of 1962, Pub. L. No. 87-794 § 232.

Trump Administration actions have utilized national security exceptions, including steel tariffs against American allies,²⁵² that stretch credulity, especially in light of tweets by government officials that “Our Tariffs are in response to [Canada’s tariffs] of 270% on dairy!”²⁵³ Similarly, Treasury’s letter regarding the Broadcom-Qualcomm merger used language like “technological leadership” and “core R&D”²⁵⁴ that call to mind China’s language of core interests, as well as Xi Jinping’s new “core technologies” concept whereby the development of foundational technologies is in itself in the national interest.²⁵⁵ This is distinct from so-called “dual-use” technologies, which have both civilian and military use cases. Export control regimes have long regulated dual-use technologies through agreements like the Wassenaar Arrangement, but dual-use technologies are traditionally narrowly defined. The difficulty lies in the inherent tension between national security and domestic policy, especially in the United States, which has a civil-military “gap” in relations.²⁵⁶

Technology is complex and multifaceted, so a mandate based on general technology superiority instead of identifying specific dual-use technologies is inherently murkier. Consider, for instance, the acquisition of Genworth Financial by China Oceanwide, an investment company, which was eventually approved by CFIUS²⁵⁷ after refiling four different times since 2017, sparking initial skepticism that the merger would be approved.²⁵⁸ Genworth Financial is a largely profitable S&P 400 financial company primarily dealing with mortgages, making it a worthwhile target for any company. However, Genworth’s products involve significant personal data of American citizens, which would entail significant risk of exposure of such data. Indeed, Genworth

252. See Presidential Proclamation 9704 83 F.R. 11619 (Mar. 8, 2018).

253. Donald J. Trump (@realDonaldTrump), TWITTER (June 9, 2018, 7:04 PM), <https://twitter.com/realDonaldTrump/status/1005586562959093760> [<https://perma.cc/AW6V-6V23>].

254. Letter from Aimen N. Mir, *supra* note 103, at 2, 3.

255. Cao Densheng, *Breakthroughs in Core Technologies Called Imperative*, CHINA DAILY (July 14, 2018), <http://www.chinadaily.com.cn/a/201807/14/WS5b4933bda310796df4df66ae.html> [<https://perma.cc/H63Y-H6J2>].

256. See, e.g., Joseph J. Collins & Ole R. Holsti, *Civil-Military Relations: How Wide is the Gap?*, 24 INT’L SECURITY 199 (1999) (discussing the empirics of the civil-military “gap” in the United States).

257. See *Committee on Foreign Investment in the United States Completes Review of Proposed China Oceanwide and Genworth Financial Transaction*, GENWORTH INVESTOR RELATIONS (June 9, 2018), <http://investor.genworth.com/investors/news-releases/archive/archive/2018/Committee-on-Foreign-Investment-in-the-United-States-Completes-Review-of-Proposed-China-Oceanwide-and-Genworth-Financial-Transaction/default.aspx> [<https://perma.cc/2MKJ-WX2S>] (announcing the completion of review).

258. See Mike Maher, *Genworth Set To Fly On CFIUS Approval*, SEEKING ALPHA (June 11, 2018), <https://seekingalpha.com/article/4180777-genworth-set-fly-cfius-approval> [<https://perma.cc/ZS84-6ECQ>] (“Genworth and Oceanwide had withdrawn and reapplied to CFIUS four different times since the original application in January of 2017.”).

and China Oceanwide ultimately entered into a mitigation agreement with CFIUS involving a third-party service to protect American personal data, suggesting this was likely CFIUS's primary concern.²⁵⁹

That said, there are other national security considerations. For instance, control over the financial system is generally essential to national security tools, like enforcing sanctions through the Society for Worldwide Interbank Financial Telecommunications (“Swift”), the self-professed “utility” that produces interbank exchange codes.²⁶⁰ Furthermore, homeownership is considered the “engine of middle-class wealth”—and for most Americans, it is acquired through precisely the financial products provided by companies like Genworth.²⁶¹ What are the boundaries, and when does a general welfare concern stemming from a foreigner extend to national security? This is unclear, and FIRRMA gives CFIUS no guidance to make such a determination as to when an issue that affects Americans—perhaps even physically, like an issue of food safety—becomes a concern of national security. Paul Rosenzweig, a CFIUS official during the Bush Administration, mused that all the world is now touched by technology which “in some sense, means CFIUS really should be managing all global trade.”²⁶²

IV. WHY CAN'T WE JUST GIVE TRADE A CHANCE?

FIRRMA is arguably the largest expansion of CFIUS in its history. Unlike its predecessors, FIRRMA was born not out of outrage from a specific transaction that exposed a gap in an otherwise established process but a general malaise surrounding forced technology transfer. As such, it is qualitatively different. It turned the accidental agency into a significant center of power with its own staff and funding. CFIUS will now have the power to review a large fraction of total inbound investment in the United States. Most importantly, it changed CFIUS from a mere investment advisory committee into a technology agency charged with protecting America's most treasured secrets. But it may not be equipped to do the job.

The United States has long been the world's biggest beneficiary of trade and investment, but its financial dominance has been eroding. The United States no longer attracts 90% of venture dollars like in 1990; it attracted a mere

259. See GENWORTH INVESTOR RELATIONS, *supra* note 257.257.

260. Michael Peel & Jim Brunsten, *Swift Shows Impact of Iran Dispute on International Business*, FIN. TIMES (June 5, 2018), <https://www.ft.com/content/9f082a96-63f4-11e8-90c2-9563a0613e56> [<https://perma.cc/MJR8-YN5T>].

261. Christopher Ingraham, *The One Surefire Way to Grow Your Wealth in the U.S.*, WASH. POST (Sept. 28, 2017), <https://www.washingtonpost.com/news/wonk/wp/2017/09/28/the-one-surefire-way-to-grow-your-wealth-in-the-u-s/> [<https://perma.cc/XPC2-XHAU>]; see also GENWORTH INVESTOR RELATIONS, *supra* note 257 (explaining Genworth's business model).

262. Bennett & Bender, *supra* note 163.

54% in 2017.²⁶³ While American venture activity continues to reach new heights, this is driven by increasing deal size, not deal volume,²⁶⁴ and indeed American cities are falling in global startup cities rankings—not due to a deterioration of the American startup environment, but to increased competition with others.²⁶⁵ Unlike venture capital, FDI in the United States generally has “fallen near postcrisis lows” and may fall further in the face of ascendant protectionism and a softening global economy.²⁶⁶ In this light, CFIUS must be viewed as partially strategic and partially economic.

On the strategy side, CFIUS might turn out to just be an opening salvo in a broader trade dispute.²⁶⁷ China is currently subject to two²⁶⁸ rounds²⁶⁹ of Section 301 tariffs in direct response to its technology transfer and intellectual property practices and has been challenged by the United States at the WTO.²⁷⁰ The United States and China are also negotiating a Bilateral Investment Treaty, intended to grant American companies “equal [investment] rights as Chinese firms”²⁷¹ on issues like intellectual property. And though it is not in the headlines, Western countries are increasingly grappling with Chinese state-sponsored hacking of their industrial and military secrets. Looming in the

263. Kupor testimony, *supra* note 149, at 1 (citing Pitchbook data).

264. See PITCHBOOK, 3Q 2018 VENTURE MONITOR 3–5 (2018).

265. See *Rise of the Global Startup City*, CTR. FOR AM. ENTREPRENEURSHIP 3 (Oct. 2018), <http://startupsusa.org/global-startup-cities/report.pdf> [https://perma.cc/5R7D-U7AT] (“Though its relative share of global venture capital investment has declined, America’s absolute levels of venture capital investment have increased substantially.”).

266. Adam S. Posen, *The Cost of Trump’s Economic Nationalism: A Loss of Foreign Investment in the United States*, PETERSON INST. FOR INT’L ECON. BLOG (July 24, 2018), <https://piie.com/blogs/trade-investment-policy-watch/cost-trumps-economic-nationalism-loss-foreign-investment-united> [https://perma.cc/JTM5-75L2].

267. This dispute is certainly not purely in the domain of foreign policy. Recall that most forms of forced technology transfer actually involve domestic policy techniques. See *generally* 301 report, *supra* note 204.

268. See Office of U.S. Trade Rep., *USTR Issues Tariffs on Chinese Products in Response to Unfair Trade Practices* (June 2018), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/june/ustr-issues-tariffs-chinese-products> [https://perma.cc/73CY-B4DA].

269. See Office of U.S. Trade Rep., *USTR Finalizes Second Tranche of Tariffs on Chinese Products in Response to China’s Unfair Trade Practices* (Aug. 2018), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/august/ustr-finalizes-second-tranche> [https://perma.cc/95P2-QA9K].

270. See World Trade Organization, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/1 (Mar. 26, 2018).

271. *Bilateral Investment Treaty (BIT)*, US-CHINA BUS. COUNCIL, <https://www.uschina.org/advocacy/bilateral-investment-treaty> (last visited Feb. 11, 2019) [https://perma.cc/STN5-ZK8J].

background, however, is the specter of protectionism and “globally minded state capitalism” that may change the face of international trade forever.²⁷²

On the economic side, CFIUS is a piece in the puzzle of domestic policy competition for technology-heavy industries. Ideas and capital enable the creation of contemporary industry and job creation, but they are also fungible, meaning that domestic attractiveness is essential. Chief among those concerns is immigration, where H1-B visas have become so tight that tech workers are moving to countries with less restrictive policies like Canada’s Global Skills Visa²⁷³ and utilizing subsidies like China’s Thousand Talents Plan.²⁷⁴ Also critical is government investment in core R&D, which has stagnated.²⁷⁵ Though CFIUS’s professed aims relate to international investment, by potentially restricting capital inflows it also functions as a domestic policy in a suite of restrictions that further diminish American competitiveness.

State-guided investment generally has turned international trade on its head. Traditional international trade theory assumes that countries only limit supply in the form of protectionism; in the modern world, states also act as buyers of strategic assets as an extension of industrial or military policy.²⁷⁶ As such, there is a gap in international accords. There are international trade bodies, like the WTO, that address specific trade disputes, and international export control regimes, such as the Wassenaar Arrangement and Missile Technology Control Regime. There is no similar body or agreement governing international investment,²⁷⁷ and it is possible that as the world order continues

272. Quinn Slobodian, *You Live in Robert Lighthizer’s World Now*, FOREIGN POL’Y (Aug. 6, 2018), <https://foreignpolicy.com/2018/08/06/you-live-in-robert-lighthizers-world-now-trump-trade/> [https://perma.cc/UWL9-SRDZ].

273. See Ethan Baron, *H-1B: As immigration furor roils Silicon Valley, Canada smooths way for techies*, MERCURY NEWS (Oct. 13, 2018), <https://www.mercurynews.com/2018/10/08/h-1b-as-immigration-furor-roils-silicon-valley-canada-smooths-way-for-techies/> [https://perma.cc/3UHS-9FE2] (noting the popularity of a website, Moving2Canada.com, that has become popular among the American technology workers for this purpose).

274. Hepeng Jia, *China’s plan to recruit talented researchers*, 553 NATURE S8 (2018) (explaining the Chinese program to lure back Chinese professionals living abroad).

275. J. John Wu, *Why U.S. Business R&D Is Not as Strong as It Appears*, 6 INFO. TECH. & INNOVATION FOUND. (June 2018).

276. Jeffrey N. Gordon & Curtis J. Milhaupt, *China as a ‘National Strategic Buyer’: Towards a Multilateral Regime for Cross-Border M&A* at 4 (Columbia L. and Econ. Working Paper Series No. 585, 2018) (arguing that much of modern state activity is as a buyer of assets rather than as restraints on global supply, as in traditional trade theory).

277. While twenty-four of the largest sovereign wealth funds have agreed to a general statement of principles called the Santiago Principles, they only call for transparency in individual investments and state that the main principle of a sovereign wealth fund is to maximize returns. See *id.* at 35. Indeed, by failing to explicitly reject strategic investment, these funds arguably all but admitted that strategic national interests governed at least some investments.

to be rebuilt one of its new structures will be a new accord governing cross-border state investment.²⁷⁸ Presumably, CFIUS would expand to enforce it.

Rosenzweig's prediction that CFIUS will control all international trade and investment may turn out to be quite prescient. CFIUS's ability to propose critical technologies is the first step to enmeshing it in export control, as its recommendations may be included in future export control lists.²⁷⁹ However, CFIUS's tentacles could quickly expand past mere dual-use technologies, which are strictly defined through complex and detailed export control schedules. CFIUS's prerogative to consider the strategic interests of other countries and general American technological supremacy may lead to its limiting investment, and eventually the deemed export of, so-called "horizontal" technologies²⁸⁰ like artificial intelligence or genetic editing. Horizontal technologies are so broad that they are not merely dual-use but so fundamental that they are inputs themselves in purely commercial products. CFIUS's workings are mostly privileged, and so it could plausibly cover a horizontal technology so elementary that its coverage expands past any existing dual-use regime completely undetected. The strategic nature of these technologies means that CFIUS will almost surely be active in those technology spaces; their wide span of use makes it a near certainty that CFIUS, even accidentally, will interfere with global economic integration.

China may find that FIRRMA is just the first line of defense across the Western world. Germany, France, and Italy have called for a more rigorous, EU-wide process of restricting foreign investment in European companies out of a similar fear of Chinese forced technology transfer.²⁸¹ China itself is simultaneously liberalizing and tightening its trade posture. Jeremy Zucker, co-chair of International Trade and Government Regulation at Dechert LLP, noted that "when the Western world heard [China's Made in 2025], it sounded like a declaration of war."²⁸² Hopefully, the casualties will not include American competitiveness or technological progress.

278. *See id.* at 30–32 (exploring what such a regime might look like).

279. *See* FIRRMA § 1703 (amending 50 U.S.C. § 4565(a)(4)(D)(ii)(I)). "Critical technologies" is somewhat amorphous. But aside from a catch-all provision, Treasury does specifically draw on existing export control lists, such as ITAR and the Commerce Control List, and dual-use treaties. *See* 31 C.F.R. § 801.204 (listing newly controlled technologies for CFIUS purposes).

280. *See* Franklin letter, *supra* note 150, at 4–5.

281. Liz Alderman, *Wary of China, Europe and Others Push Back on Foreign Takeovers*, N.Y. TIMES (Mar. 15, 2018), <https://www.nytimes.com/2018/03/15/business/china-europe-canada-australia-deals.html> [<https://perma.cc/Q95C-CHHC>].

282. Jodi Xu Klein, *It's Not Just the U.S.: Around the World, Doors are Shutting on Chinese Investment*, POLITICO (Sept. 13, 2018, 5:10 PM), <https://www.politico.com/story/2018/09/13/china-us-investment-788834> [<https://perma.cc/SNH2-T7D4>].

DEFINING THE MARKET FOR TWO-SIDED PLATFORMS: THE SCOPE OF *OHIO V. AMERICAN EXPRESS*

Sanjana Parikh[†]

Regulators worry about the pervasiveness of platform businesses in modern commerce and everyday life.¹ Today's consumer increasingly fulfills every need through a well-known startup-turned-verb ("Just Google it"; "We'll Uber there"; or "Yeah, Instagram that!").² Internet platforms have transformed "the ways we produce, consume, work, finance, and learn."³ Recently, commentators, such as antitrust scholars and economic journalists, have expressed concerns that traditional antitrust principles may be poor tools to contend with this new generation of technology companies.⁴ The Supreme Court's decision in *Ohio v. American Express* ("AmEx") furthered the uncertainty of what kind of antitrust liability technology platforms may face.⁵

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[†] J.D. Candidate, 2020, University of California, Berkeley, School of Law. My sincerest gratitude to Professor Kenneth A. Bamberger for supervising and inspiring this Note. I am also thankful to Professor Robert Merges, Ted Kang, and fellow participants in the Law and Technology Writing Workshop for invaluable support and helpful feedback.

1. See, e.g., DEPARTMENT OF JUSTICE, CONCENTRATING ON COMPETITION: AN ANTITRUST PERSPECTIVE ON PLATFORMS AND INDUSTRY CONSOLIDATION (Dec. 14, 2018), <https://www.justice.gov/opa/speech/principal-deputy-assistant-attorney-general-andrew-finch-delivers-keynote-address-capitol> [<https://perma.cc/2M77-7L3W>].

2. For a list of "matchmaker" businesses, see DAVID S. EVANS & RICHARD SCHMALENSSEE, MATCHMAKERS: THE NEW ECONOMICS OF MULTISIDED PLATFORMS 1 (2016).

3. Orly Lobel, *The Law of the Platform*, 101 MINN. L. REV. 87, 89 (2016).

4. See, e.g., Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710 (2017) [hereinafter Khan, *Amazon*] (arguing that current antitrust law is incapable of reigning in the dominance of a business such as Amazon); see also *American Tech Giants Are Making Life Tough for Startups*, ECONOMIST (June 2, 2018), <https://www.economist.com/business/2018/06/02/american-tech-giants-are-making-life-tough-for-startups> [<https://perma.cc/89Z9-WSYD>].

5. See *Ohio v. American Express*, 138 S. Ct. 2274 (2018); see, e.g., Joshua D. Wright & John M. Yun, *Ohio v. American Express: Implications for Non-Transaction Multisided Platforms 2* (George Mason University Law & Economics Research Paper Series No. 18-50) (forthcoming in *Media Markets and Competition Law*, Antonio Bavasso et al. eds., COMPETITION POL'Y INT'L (2019)); see also Lina M. Khan, *The Supreme Court Case That Could Give Tech Giants More Power*, N.Y. TIMES (Mar. 2, 2018) [hereinafter Khan, *Supreme Court Case*], <https://www.nytimes.com/2018/03/02/opinion/the-supreme-court-case-that-could-give->

Although the case focused on a traditional platform, the Court's reasoning previewed how an antitrust claim might proceed against other businesses that create value by connecting two or more groups of consumers.⁶ Some scholars read the majority opinion to confer "de facto antitrust immunity" on multisided platforms.⁷ However, I argue that *AmEx* is unlikely to provide all technology businesses with broad protection from antitrust scrutiny as critics fear.

The *AmEx* ruling serves as a cautionary tale for courts attempting to translate cutting-edge economics into law. The majority shifted antitrust law's rule of reason doctrine on the basis of still-disputed economic literature, potentially blunting the holding's precedential impact. This Note considers the majority's proposition that the relevant market for two-sided transaction platforms includes both sides of the platform and evaluates the embedded economic principles justifying this conclusion. If lower courts adopt *AmEx*'s market definition jurisprudence in accordance with the Court's underlying economic justifications, then this rule should not apply in every technology platform case. Part I of the Note situates the *AmEx* ruling in antitrust law and explores the case itself. Part II identifies and analyzes the economic reasoning in the majority opinion. It examines whether iconic technology platforms exhibit the economic prerequisites necessary to justify applying the Court's rule. Part III concludes that an economically-sensitive reading of the Court's decision should not shield all powerful technology platforms from antitrust liability.

I. BACKGROUND

Antitrust law scrutinizes powerful companies that undermine the efficiency of markets.⁸ Platform companies, in turn, pique antitrust

tech-giants-more-power.html [https://perma.cc/5VBA-44L7] (describing the case's "sweeping ramifications").

6. The technology industry, manifesting its interest in the outcome of this case, filed an amicus brief supporting defendant American Express. See Brief for The Computer & Communications Industry Association as Amici Curiae Supporting Respondents, *Ohio v. American Express*, 138 S. Ct. 2274 (2018) (No. 16-1454).

7. Khan, *Supreme Court Case, supra* note 5 ("Indeed, the reason that the tech giants are lining up behind the Second Circuit's approach is that—if ratified—it would make it vastly more difficult to use antitrust laws against them."); see also A. Douglas Melamed & Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets* (2018) (manuscript at 1–5, 25–26) (summarizing popular criticisms of the current antitrust approach toward platforms and *Ohio v. American Express*).

8. See HERBERT HOVENKAMP, *PRINCIPLES OF ANTITRUST* 34 (1st ed. 2017) (showcasing various interpretations of Congressional intent behind the Sherman Act); see also

regulators' concern because of their tendency towards dominance.⁹ Undoubtedly, platform businesses have been hugely successful. By market valuations, Google, Microsoft, Facebook, and Amazon rank “among the top ten most valuable American companies of any kind.”¹⁰ Moreover, platform markets exhibit a “rich-get-richer” phenomenon: as technology companies attain success, data advantages and network effects protect them from insurgent competitors.¹¹

Network effects entrench incumbents as more users adopt the platform.¹² *Direct* network effects exist when members on one side of a platform benefit from the presence of additional members on the same side.¹³ For example, Facebook users benefit when others join the social network as they can interact with a greater number of people. *Indirect* network effects make a multisided platform more valuable to one set of consumers if more of another set of consumers uses it.¹⁴ Airbnb guests benefit when more hosts list their available properties for booking on the website, for instance. These network effects serve as barriers-to-entry and heighten antitrust concerns about technology platforms' competitive strategies.

Although the economic impact of technology companies can be easily observed, scholars struggle to define “platforms.” Technology platforms may be “online marketplaces, desktop and mobile computing environments, social networks, virtual labor exchanges, payment systems, [or] trading systems.”¹⁵ Because industries and forms vary, scholars identify platforms by

Khan, *Amazon*, *supra* note 4, at 740 (“The law was ‘for diversity and access to markets; it was against high concentration and abuses of power.’”).

9. See Kenneth A. Bamberger & Orly Lobel, *Platform Market Power*, 32 BERKELEY TECH. L.J. 1051, 1064 (2017) (quoting *The Economist*: “Something about the internet clearly favours such mushrooming quasi-monopolies”).

10. See Farhad Manjoo, *Tech’s Frightful 5’ Will Dominate Digital Life for Foreseeable Future*, N.Y. TIMES (Jan. 20, 2016), <https://www.nytimes.com/2016/01/21/technology/techs-frightful-5-will-dominate-digital-life-for-foreseeable-future.html> [<https://perma.cc/4RA9-F2KV>].

11. See Julie E. Cohen, *Law for the Platform Economy*, 51 U.C. DAVIS L. REV. 133, 145–46 (2017).

12. See David S. Evans, *Multisided Platforms, Dynamic Competition, and the Assessment of Market Power for Internet-Based Firms* 7 (Coase-Sandor Institute for Law and Economics Working Paper No. 753, 2016) [hereinafter Evans, *Multisided Platforms*].

13. See, e.g., Erik Hovenkamp, *Platform Antitrust*, J. CORP L. (forthcoming 2019) (manuscript at 10 n.39).

14. *Ohio v. American Express*, 138 S. Ct. 2274, 2280–81 (2018).

15. Cohen, *supra* note 11, at 136; see also Lobel, *supra* note 3, at 95 (describing the range of industries the platform economy has affected: hotels, office space, parking spaces, transportation, restaurants, used clothing, household tools, outdoor gear, capital,

their function as facilitators.¹⁶ Professor Julie Cohen suggests that platforms are driven by their potential to gather and translate data into insights.¹⁷ Professor Orly Lobel views internet platforms as fulfilling the role historically played by middlemen, or intermediaries facilitating exchanges.¹⁸ Both theories concur that platforms succeed by reducing transaction costs for groups seeking to interact with each other.¹⁹

While academics debate how best to circumscribe platform businesses, courts must nonetheless proceed to identify them as the relevant market for platform antitrust cases. Market definition is a critical step in antitrust analysis.²⁰ Because antitrust law mainly concerns itself with business entities that are dominant players, estimating a platform's standing in the market vis-à-vis its competitors is a prerequisite to regulatory action.²¹ Therefore, antitrust law must attempt to characterize platform markets, even if scholars have yet to reach a consensus.

A. LEGAL BACKGROUND AND THE RULE OF REASON

In *Ohio v. American Express*, the Court explicitly considered whether multisided platforms face unique competitive constraints relative to traditional businesses.²² Prosecutors charged American Express with violating Section 1 of the Sherman Act, an antitrust statute that prohibits agreements “in restraint of trade.”²³ Plaintiffs alleged that the defendant, a credit card platform, had conspired to illegally restrain trade by requiring merchants to

broadcasting, legal services, medical services, academic services, everyday errands, and specialized errands).

16. See Michael Katz & Jonathan Sallet, *Multisided Platforms and Antitrust Enforcement*, 127 YALE L.J. 2142, 2150 (2018).

17. See Cohen, *supra* note 11, at 142 (“The commercial and extractive logics that drove emergence of the platform business model success now impose their own design imperatives . . .”).

18. Lobel, *supra* note 3, at 94; see also Evans, *Multisided Platforms*, *supra* note 12, at 2 (“Many online businesses operate multi-sided platforms that help different types of participants get together and enter into value-increasing exchanges.”).

19. See Lobel, *supra* note 3, at 106 (hypothesizing that platforms reduce three types of transaction costs: “(1) search costs; (2) bargaining and decision costs; and (3) policing and enforcement costs”); see also Evans, *Multisided Platforms*, *supra* note 12, at 6.

20. See, e.g., Dennis W. Carlton, *The Anticompetitive Effects of Vertical Most-Favored-Nation Restraints and the Error of Amex*, 2019 COLUM. L. REV. 93, 104 (2019) (“Market definition is always at most a crude first step in any antitrust analysis . . .”).

21. See HOVENKAMP, *supra* note 8, at 61, 63 (explaining how courts use market share to approximate market power).

22. See Melamed & Petit, *supra* note 7 (manuscript at 25).

23. 15 U.S.C. § 1 (2012); see also Melamed & Petit, *supra* note 7 (manuscript at 7) (“The statute is proscriptive, not prescriptive. It bans specific kinds of agreements (Section 1) and specific kinds of conduct (Section 2).”).

sign a contract agreeing not to “steer” customers to an alternate payment platform when making a sale (“the anti-steering clause”).²⁴ The Court held these contracts were legal under the rule of reason framework.

Courts typically employ the rule of reason framework to analyze Section 1 violations.²⁵ The rule of reason applies when a challenged agreement is “vertical” (between firms at different levels of the supply chain).²⁶ The framework operates as follows:

- *First*, the plaintiff has the initial burden of proving that the vertical restraint has substantial anti-competitive effects through direct or indirect evidence of harm to consumers in a market.²⁷
- *Second*, the burden shifts to the defendant to prove a pro-competitive rationale, or “legitimate objective,” for the restraint.²⁸
- *Finally*, the plaintiff can carry the case by proving that the “legitimate objective” can be achieved through less anti-competitive or less restrictive means.²⁹

Courts show great concern when defining the relevant market because the market definition largely determines the controlling anti-competitive effects and pro-competitive efficiencies that must be balanced under the rule of reason.³⁰ Market definition is often hotly contested,³¹ and the *AmEx* dissent even contended that the exercise was unnecessary given direct evidence of competitive harm.³²

In general, courts rely on “the substitution principle” to define relevant markets, which theorizes that markets include goods or services that are reasonably interchangeable for the product at issue.³³ Substitute products constrain the price of a given good because customers can switch to a

24. *See infra* Section I.B for a summary of the plaintiffs’ theory of harm.

25. *See* *Ohio v. American Express*, 138 S. Ct. 2274, 2284 (2018) (listing the cases supporting this precedent).

26. *See id.* at 2284. Under antitrust law, “horizontal” agreements (between competitors) are generally unreasonable per se. *See id.* at 2283–84.

27. *See id.* at 2284.

28. *See id.* at 2291 (Breyer, J., dissenting).

29. *See id.*

30. *See generally* David Glasner & Sean P. Sullivan, *The Logic of Market Definition* (U. Iowa Legal Studies Research Paper, No. 18-14, 2018) (criticizing common approaches towards market definition).

31. *See* HOVENKAMP, *supra* note 8, at 75 (criticizing the Court’s relevant market definition in *United States v. Aluminum Co.*, 377 U.S. 271 (1965)).

32. *See* *Ohio v. American Express*, 138 S. Ct. 2274, 2296–97 (2018) (Breyer, J., dissenting). The majority relied on *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877, 886 (2007) to require market definition in evaluating a vertical restraint.

33. *See, e.g.*, *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 404 (1956).

competitor's products in response to price increases.³⁴ However, courts sometimes deviate from this fundamental tenet because of economic realities.³⁵ For example, in *United States v. Grinnell Corp.*,³⁶ the Court combined security services into one market even though customers would not view the services as interchangeable.³⁷ This "economies of scope" exception permits combining individual markets when it is much cheaper to provide products together rather than independently; the typical antitrust application is a hospital.³⁸

Despite the absence of precedent directly applicable to the modern platform economy,³⁹ the Court has previously defined the market for businesses connecting groups of consumers. In *Times-Picayune Publishing Co. v. United States*,⁴⁰ prosecutors alleged that a New Orleans newspaper had restrained advertisers from choosing whether to purchase space in its companion newspaper. This practice, known as "tying," also violates Section 1 of the Sherman Act.⁴¹ The Court noted the multisided nature of newspaper businesses: "every newspaper is a dual trader in separate though interdependent markets," catering to advertisers and readers, even while newspapers need advertising dollars to operate.⁴² Because the newspaper's tie restrained advertisers, the Court decided that only market power on the advertiser side should be "decisive" in assessing the potential violation.⁴³ Thus, courts have incorporated developing economic concepts in market definition, demonstrating that it is an evolving art in antitrust law.⁴⁴ So long as the Court relies on market definition to analyze competitive injury, defining the appropriate market will be essential to deciding antitrust cases.

34. See *AmEx*, 138 S. Ct. at 2295 (2018) (Breyer, J., dissenting); see also Katz & Sallet, *supra* note 16, at 2154.

35. See HOVENKAMP, *supra* note 8, at 81 (criticizing the Ninth Circuit for once including complementary goods in a market). For more on the inappropriateness of including complementary goods in a relevant market, see *infra* Section I.D.

36. 384 U.S. 563 (1966).

37. See *id.* at 573; see also *AmEx*, 138 S. Ct. at 2299 (Breyer, J., dissenting).

38. See HOVENKAMP, *supra* note 8, at 82.

39. See Jeffrey L. Harrison, *Ohio v. American Express: Misunderstanding Two-Sided Platforms, the Charge Card "Market," and the Need for Procompetitive Justifications* (2018) (manuscript at 1).

40. 345 U.S. 594 (1953).

41. *Id.* at 600.

42. *Id.* at 610.

43. *Id.*

44. See Glasner & Sullivan, *supra* note 30, at 5 ("Part of the reason that the logic of market definition is so obscure today is that relatively little effort has been devoted to saying what *shouldn't* factor into the exercise.").

B. PROCEDURAL HISTORY OF *OHIO V. AMERICAN EXPRESS*

The Eastern District of New York was the first tribunal to apply the aforementioned rule of reason to *AmEx*.⁴⁵ Plaintiffs, the United States and seventeen state governments, sued Visa, MasterCard, and American Express on behalf of merchants who accepted credit cards for sales.⁴⁶ American Express remained the lone defendant after Visa and MasterCard settled.⁴⁷ Plaintiffs challenged American Express's anti-steering clause for preventing merchants from encouraging customers to use an alternate card at the point of purchase, despite sellers' financial incentive to prefer non-American Express payment platforms.⁴⁸ Under the plaintiffs' theory of harm, American Express's vertical restraint restricts price competition on the merchant side of the credit card market. American Express charges merchants higher fees than its competitors, reducing the profit a seller recoups from a transaction completed on the platform.⁴⁹ On the other hand, American Express encourages customers to prefer its platform for purchases by providing better cardholder rewards than its competitors.⁵⁰ Consequently, merchants must balance the desirability of welcoming a loyal American Express cardholder against the higher fees owed to the credit card company from any resulting transaction.⁵¹ The anti-steering clause limits merchants' abilities to signal which platform they would prefer customers use to pay. This reduces

45. *United States v. American Express*, 88 F. Supp. 3d 143, 151 (E.D.N.Y. 2015), *rev'd*, 848 F.3d 179 (2d Cir. 2016), *aff'd*, 138 S. Ct. 2274 (2018). For more on the rule of reason, see *supra* Section I.A.

46. *Ohio v. American Express*, 138 S. Ct. 2274, 2283 n. 5 (2018).

47. *See id.* at 2293 (Breyer, J., dissenting).

48. *See id.* at 2292–93.

49. *See id.* at 2292. Even with the steering restraint, the price charged to the customer remains the same. The dissent notes that merchants may markup all retail prices to compensate for the higher fees paid on behalf of customers who use American Express. *See id.* at 2294; *see also* Lina Khan, *The Supreme Court just quietly gutted antitrust law*, VOX.COM (July 3, 2018), <https://www.vox.com/the-big-idea/2018/7/3/17530320/antitrust-american-express-amazon-uber-tech-monopoly-monopsony> [<https://perma.cc/H2D3-SHLZ>] (noting that these higher retail costs entail distributive concerns because they are borne by low-income consumers, who may not have credit cards or are unlikely to be reimbursed in the form of American Express cardholder rewards).

50. *AmEx*, 138 S. Ct. at 2282–83 (“Amex’s business model thus focuses on cardholder spending rather than cardholder lending.”).

51. *See id.* at 2289–90. The majority suggests that American Express customers are more desirable for merchants to attract because they tend to be “wealthier and spend more money.” *Id.* at 2282–83. For the District Court’s factual findings on this point, see *United States v. American Express*, 88 F. Supp. 3d 143, 159 (E.D.N.Y. 2015). Economists call American Express’s high-paying customers “marquee” customers, who are highly valued by the other side of the market. *See* David S. Evans, *Some Empirical Aspects of Multi-sided Platform Industries*, 2 REV. NETWORK ECON. 197–98 (2003) [hereinafter Evans, *Empirical Aspects*].

the incentive for other credit card companies to offer merchants favorable terms because merchants cannot effectively translate lower fees into reallocations of market share.⁵²

After a seven-week bench trial, the district court concluded that American Express's anti-steering clause violated the Sherman Act. It found that plaintiffs had shown harm suffered by merchants, and the defendant had not sufficiently demonstrated the practice's pro-competitive effects.⁵³ American Express had repeatedly raised fees on merchants without suffering any loss in demand, which indicated market power.⁵⁴ Further, American Express's competitors were unable to enter the market with more favorable merchant pricing models. Discover's failure to launch a lower-fee network was direct evidence of competitive harm.⁵⁵ The court also found no countervailing pro-competitive effects on the merchant-side of the market, dismissing the survival of American Express's business model as an invalid justification for an anti-competitive restraint.⁵⁶ Critically, the court's relevant market definition enabled it to discount American Express's pro-competitive justifications on the cardholder-side of the market.⁵⁷ The trial court defined two distinct, but "inextricably linked" product markets: a "network services" market where card networks provide merchants with the capacity to complete transactions and a "card issuance market" where card networks compete to acquire cardholders.⁵⁸

The Second Circuit reversed and remanded the decision, deeming the district court's separate market definition "fatal."⁵⁹ The appeals court concluded that the trial court had overly relied on the market definition from a previous Sherman Act case concerning card networks, *United States v. Visa*.⁶⁰ Because the restraints at issue in *AmEx* affected conduct by merchants, not the card network's horizontal competitors (like Visa or

52. See *AmEx*, 138 S. Ct. at 2298 (Breyer, J., dissenting).

53. *United States v. American Express*, 88 F. Supp. 3d at 150–52.

54. See *id.* at 151, 196 ("Amex's Value Recapture initiatives comprised at least twenty separate price increases accomplished through a combination of increased discount rates, new or increased per transaction fees, and reduced side payments to merchants.").

55. See *id.* at 213–14.

56. See *id.* at 227–28 ("[N]o legal authority . . . support[s] the remarkable proposition that a restraint that effectively blocks interbrand competition on price across an entire market may be justified under Section 1 because the defendant firm would be less able to compete effectively in its absence.").

57. See *id.* at 229.

58. See *id.* at 171–73.

59. *United States v. American Express*, 838 F.3d 179, 196 (2d Cir. 2016), *aff'd*, 138 S. Ct. 2274 (2018).

60. *Id.* at 197; see also *United States v. Visa*, 344 F.3d 229 (2d Cir. 2003).

MasterCard) the Second Circuit declined to extend *Visa's* separate market definition. Instead, the Second Circuit accepted the defendant's market definition: the relevant market should include cardholders and merchants—both sets of platform consumers.⁶¹ The appeals court viewed it necessary to elevate the platform's two-sidedness into market definition to ensure that ensuing rule of reason analysis would sufficiently account for the competitive reality of platforms characterized by feedback effects between two groups of customers.⁶² By not including both sides of the market, the district court had incorrectly “focus[ed] entirely on the interests of merchants” while ignoring the interests of cardholders under the rule of reason.⁶³

C. THE HOLDING OF *OHIO V. AMERICAN EXPRESS*

The *AmEx* majority, in an opinion penned by Justice Thomas, held that American Express's vertical restraints in its merchant contracts were not anti-competitive under Section 1 of the Sherman Act.⁶⁴ First, the Court affirmed the Second Circuit's market definition. It relied on economics to justify evaluating a “two-sided market for credit card transactions” “as a whole” under the rule of reason.⁶⁵ The Court specifically recognized the role of indirect network effects and interconnected pricing and demand in two-sided platforms that facilitate the joint consumption of “a single, simultaneous transaction.”⁶⁶ In the case of a credit card, these characteristics produce a platform that subsidizes cardholder use of the platform through rewards while charging merchants, who are comparatively less sensitive to price, a higher fee.⁶⁷

Second, the majority found no proof of harm to the relevant market, defined as both sides of the platform, from the defendant's challenged restraint. It held that plaintiffs must show net harm to platform users to carry the burden of the first stage of the rule of reason. The majority expected

61. *United States v. American Express*, 838 F.3d at 198, 204–05.

62. *See id.* at 198, 200 (outlining the court's concern that cross-platform effects might be overlooked by the District Court's approach). *Cf. Visa*, 344 F.3d at 238–39 (defining the relevant market as “network services,” separate from general purpose cards).

63. *United States v. American Express*, 838 F.3d at 206.

64. *Ohio v. American Express*, 138 S. Ct. 2274, 2283 (2018).

65. *See id.* at 2287.

66. *See id.* at 2285–87. *See infra* Section II for an analysis of the economic characteristics in the Court's definition of two-sided transaction platforms.

67. *Id.* at 2288; *see also* Rob Frieden, *The Internet of Platforms and Two-Sided Markets: Implications for Competition and Consumers*, 63 VILL. L. REV. 269, 274 (2018) (describing how credit card companies that provide “free” or negative priced-services to customers may convert this side of a platform into a profitable one when a customer fails to pay back their short-term loan with the company and is then subject to high interest payments).

output-based evidence of harm: an increase in the price of credit card transactions over the competitive level, a reduction in the overall number of transactions completed by credit card, or an otherwise deleterious effect on competition in the credit card market.⁶⁸ The plaintiffs' case, which focused solely on the increase in merchant fees, satisfied none of these options.⁶⁹ The Court further inferred that American Express's anti-steering practice had not unlawfully restricted output, because the number of transactions conducted by credit cards had increased overall, even if prices had risen somewhat.⁷⁰ Finally, the Court set aside evidence from the district court about Discover's failure to enter the market, citing heightened competition to American Express from Visa and MasterCard's premium rewards cards and broader merchant acceptance.⁷¹ The majority argued that the anti-steering provision could be considered pro-competitive for preserving American Express's "viability" as a cardholder option and encouraging inter-brand competition.⁷²

D. THE DISSENT IN *OHIO V. AMERICAN EXPRESS*

Justice Breyer refuted the Court's position in a much lengthier opinion, focusing closely on the factual record from the district court. The dissent disagreed with the majority on three grounds. First, plaintiffs had sufficiently demonstrated anti-competitive effects from the anti-steering clause under stage one of the rule of reason. Second, the majority's market definition rested on dubious economic assumptions. Third, the holding unacceptably altered the rule of reason framework.⁷³

In the dissent's view, plaintiffs had sufficiently satisfied their burden under step one of the rule of reason. Justice Breyer chastised the majority for neglecting key facts in the case record, which proved that the anti-steering clause had inflicted anti-competitive harm.⁷⁴ For example, Discover was unable to compete with lower merchant fees, and American Express's

68. *AmEx*, 138 S. Ct. at 2287.

69. *Id.*

70. *See id.* at 2288.

71. *See id.* at 2289.

72. *See id.* at 2289–90 (discussing how American Express consumers expect "welcome acceptance" and when the card is rejected, the likelihood the cardholder continues using the card decreases). *Cf.* *United States v. American Express*, 88 F. Supp. 3d 143, 227 (E.D.N.Y. 2015). The District Court notes the important antitrust principle that antitrust law protects competition, not competitors. It recognized the inherent contradiction in the defendant's argument that the anti-steering restraint preserved the competitive process by ensuring the viability of its business model.

73. *See infra* Section I.E; *see also AmEx*, 138 S. Ct. at 2303 (Breyer, J., dissenting).

74. *AmEx*, 138 S. Ct. at 2303.

repeated price increases had not reduced its market share.⁷⁵ Further, plaintiffs had shown harm to the market “as a whole” because the increase in merchant fees did not equal the increase in cardholder rewards.⁷⁶ The dissent argued that even under the majority’s output-based standard of harm, this imbalance was evidence that the net platform price was higher than the competitive level.

The dissent also vehemently disagreed with the Court’s new direction in market definition. As a preliminary matter, the dissent found the exercise unnecessary after plaintiffs demonstrated direct evidence of harm.⁷⁷ Next, it contended that the majority overinterpreted “two-sided transaction platforms” as a term of art.⁷⁸ Instead, the dissent advocated for greater deference to the substitution principle.⁷⁹ The dissent viewed card services sold to merchants and cardholders as complementary goods, not substitutes.⁸⁰ Therefore, the dissent preferred establishing interrelated, but separate markets for merchant and cardholder services—treating credit card platforms like the newspaper in *Times-Picayune Publishing*—rather than combining complementary services into one market.⁸¹

E. THE RULE OF REASON AFTER *OHIO V. AMERICAN EXPRESS*

Finally, the dissent criticized the majority for altering the rule of reason analysis for two-sided platforms. The new rule asks plaintiffs to show net harm to the market “as a whole” in order to satisfy their burden under the first stage of the rule of reason.⁸² Such an approach requires plaintiffs to demonstrate that the anti-competitive effects of a restraint outweigh the restraint’s potential pro-competitive justifications on another side of the platform. In the dissent’s view, stage three of the rule of reason better

75. *Id.* at 2296–97.

76. *Id.* at 2301–02.

77. *Id.* at 2296–97.

78. *Id.* at 2298–300. In section III.D.1 of the dissent, Breyer explores the similarities between a “two-sided transaction platform” and a farmers’ market, finding the economic characteristics salient to the majority’s market definition rather common.

79. *Ohio v. American Express*, 138 S. Ct. 2274, 2295 (2018) (Breyer, J., dissenting) (“The reason that substitutes are included in the relevant market is that they restrain a firm’s ability to profitably raise prices, because customers will switch to the substitutes rather than pay the higher prices.”); *see also supra* note 34 and accompanying text.

80. *See id.* at 2295–96. The majority disputes this characterization of platform services as product complements, arguing that complementary goods are typically consumed by the same customer. *See id.* at 2286 n. 8.

81. *Id.* at 2295 (describing the market definition in *Times-Picayune Publishing Co. v. United States*, 235 U.S. 594 (1953)); *see also supra* Section I.A.

82. *See id.* at 2287; *see also supra* Section I.C for a summary of the majority opinion.

balances these anti-competitive effects and pro-competitive efficiencies.⁸³ Shifting the burden to plaintiffs under stage one makes it more difficult for plaintiffs to successfully plead Section 1 claims or for courts to arrive at the correct answer in evaluating Section 1 allegations.⁸⁴

Critics argue that this change to the rule of reason defies the age-old prescription against creating “The Law of the Horse.”⁸⁵ Judge Easterbrook, who coined the phrase, warned against creating special rules for new technologies, instead preferring to approach innovation with “[t]he same principles that lawmakers have always applied.”⁸⁶ In *AmEx*, government economists cautioned against developing “a specialized doctrine applicable only to multisided platforms.”⁸⁷ The district court’s approach demonstrated that the rule of reason could accommodate “the competitive realities” of multisided platforms.⁸⁸ If plaintiffs pleaded harm on one side of the platform, defendants could show cross-platform efficiencies on the other side and the rule of reason could net out harm through its multiple stages.⁸⁹ However, the majority’s approach, although motivated by the desire to accurately account for the economic characteristics of two-sided platforms, ignored opportunities to factor those economic characteristics in within the existing rule of reason and created a new rule for platform defendants.⁹⁰

83. *See id.* at 2303 (Breyer, J., dissenting) (“[T]he Court of Appeals would properly consider procompetitive justifications not at step 1, but at steps 2 and 3 of the ‘rule of reason’ inquiry.”).

84. *See* Melamed & Petit, *supra* note 7 (manuscript at 29) (arguing the Court’s decision in *AmEx* likely increases finding false negatives).

85. *See* Lobel, *supra* note 3, at 142–43 (describing Judge Easterbrook’s famous essay on the phrase); *see also* Carlton, *supra* note 20, at 106 (“[H]aving different legal rules for promotional activity depending on whether the market is one-sided or two-sided is a mistake.”).

86. *Id.* at 143.

87. *See* Katz & Sallet, *supra* note 16, at 2169.

88. *See* *United States v. American Express*, 88 F. Supp. 3d 143, 175 (E.D.N.Y. 2015). One of the economic characteristics of multisided platforms the District Court specifically mentioned was interconnected price and demand. The Court agreed with the defendant that either side of the platform could serve as a “competitive constraint” on their business model.

89. The dissent noted that a normal rule of reason analysis might have resulted in a less favorable outcome for the defendant. For example, the defendant could have failed at stage two because courts typically do not accept showings of pro-competitive benefits in another market to justify an anti-competitive restraint in one market. *See* *Ohio v. American Express*, 138 S. Ct. 2274, 2302 (2018); *see also infra* Section II.B.4 for economists’ suggestions on analyzing separate effects within the rule of reason.

90. *See, e.g.*, Hovenkamp, *supra* note 13 (manuscript at 40, 46) (summarizing the role of the rule of reason’s multiple stages in ensuring courts arrive at the correct judgment regarding competitive effects); *see generally* Tim Wu, *The American Express Opinion, Tech Platforms & the Rule of Reason*, 7 J. ANTITRUST ENFORCEMENT 104 (2019) (framing the

The *AmEx* holding could affect the fairness, efficiency, and accuracy of judgments under the rule of reason in two-sided platform antitrust cases. Some scholars are concerned that the change renders the multi-step framework moot, “collaps[ing]” all of the stages “into the plaintiff’s prima facie case.”⁹¹ Plaintiffs, who already face an uphill battle under the rule of reason, now bear an even greater burden.⁹² Requiring plaintiffs to investigate and balance pro-competitive efficiencies claimed by the defendant also imposes discovery costs, leading to judicial inefficiencies.⁹³ Plaintiffs are less likely to accurately compare the pro-competitive efficiencies of defendants’ business models, especially without the benefit of the other side’s proprietary data.⁹⁴ Proponents of the majority’s approach justify these costs, arguing that a rule of reason biased toward finding false positives would deter legitimate, pro-competitive conduct.⁹⁵

AmEx answered important questions about the application of antitrust law to two-sided platforms that characterize the modern economy, but the holding’s potential to effectuate wide-ranging consequences suggests the need for a cautionary approach to its scope. The decision increased the burden for plaintiffs under the rule of reason and specialized the relevant market inquiry for two-sided businesses. The following Part focuses on the implications of the latter: the Court’s new approach to market definition for two-sided transaction platforms. While the decision seems helpful to potential Sherman Act defendants, the Court left open the question of what kinds of businesses may qualify for such treatment.⁹⁶

majority opinion backing away from the rule of reason entirely and embracing a new per se rule for defendants).

91. See Hovenkamp, *supra* note 13 (manuscript at 46).

92. See *id.* (manuscript at 47) (citing a study by Michael Carrier, which found that 97 percent of plaintiffs’ cases fail at step one of the rule of reason).

93. See Katz & Sallet, *supra* note 16, at 2173 (“[T]he burden should tend to fall on the side with the lower expected cost of producing the evidence . . .”).

94. See Hovenkamp, *supra* note 13 (manuscript at 45).

95. See Brief for The Computer & Communications Industry Association, *supra* note 6, at 17–18; see also *AmEx*, 138 S. Ct. at 2287 (citing *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007) to acknowledge the potential efficiency loss from a decision for the plaintiffs); Melamed & Petit, *supra* note 7 (manuscript at 39) (“[Finding false negatives] might be of special importance in platform industries, at least in digital platforms, because those industries have been characterized by short innovation cycles and disruptive innovation.”).

96. See Michael L. Katz, *Platform economics and antitrust enforcement: A little knowledge is a dangerous thing*, 28 J. ECON. & MGMT. STRATEGY 138, 141 (2019) (noting that *AmEx* may provide special antitrust treatment to multisided platforms but fails to define “what it means to be multisided”).

II. ANALYSIS OF TWO-SIDED TRANSACTION PLATFORMS IN ECONOMIC THEORY AND IN PRACTICE

The key question for a technology platform after *Ohio v. American Express* will be whether its two-sided business model shares sufficient similarities with American Express's two-sided business model such that the majority's market definition method applies.⁹⁷ The majority's reliance on a specific set of economic characteristics to identify such businesses intuits that this inquiry should be grounded in the economic principles underlying the Court's decision. This Part identifies these particular economic characteristics from the majority opinion, summarizes the economic literature behind them, and offers examples of them in popular platform businesses.

AmEx will not radically shift antitrust law if its application is guided by the underlying economic principles in the majority's reasoning. Closely reading the decision through an economic lens reveals that the competitive constraints the Court sought to recognize do not characterize every online platform. Instead, the economic literature posits a spectrum of two-sidedness, where only one end meets the economic criteria the Court proposed as indicative of a "two-sided transaction platform."⁹⁸ Platform businesses must understand their placement on the spectrum: whether they are "more like credit cards or . . . more like newspapers."⁹⁹ This Part develops the Court's three-part test for platform businesses seeking antitrust protection through the *AmEx* ruling and analyzes different technology platforms the decision may impact.

97. See Wright & Yun, *supra* note 5 (manuscript at 8) ("One area, however, that the Court did not fully address is whether the principles underlying its analysis apply, and if so, to what extent, to what it describes as 'non-transaction platforms.'").

98. See Katz, *supra* note 96, at 140 (summarizing Marc Rysman, *The economics of two-sided markets*, 23 J. ECON. PERSPECTIVES 127 (2009), who acknowledges that all markets can be characterized by two-sidedness, so defining two-sidedness must be tied to "determining outcomes of interest").

99. See Matthew Perlman, *AmEx Ruling Moves Ball Only Slightly on Rule of Reason*, LAW360.COM (July 12, 2018), <https://www.law360.com/articles/1062890/amex-ruling-moves-ball-only-slightly-on-rule-of-reason> [<https://perma.cc/JZB5-7FBV>]. To illustrate the breadth of potential applications of two-sided platform analysis, see, for example, David Bardley and Luigi Siciliani, *Nursing Homes' Competition and Distributional Implications when the Market is Two-Sided* (Toulouse School of Economics Working Papers, No. TSE-931, 2018) (analyzing the traditional nursing home industry as a two-sided market).

A. TWO-SIDED TRANSACTION PLATFORMS IN THE MAJORITY OPINION

The *AmEx* holding can be read narrowly: for two-sided *transaction* platforms, “only one market should be defined.”¹⁰⁰ In its introduction, the majority recognized that many businesses “offe[r] different products or services to two different groups who both depend on the platform to intermediate between them.”¹⁰¹ Compared to this expansive starting point, the Court’s rule only focuses on platforms that facilitate immediate interactions between groups. The Court emphasized that facilitating such a transaction entails “more pronounced indirect network effects and interconnected pricing and demand.”¹⁰² The Court distinguished two-sided transaction platforms from platforms where these economic effects weakly influence exchanges.¹⁰³

The Court identified three qualifying economic characteristics that justified defining the market as a whole for American Express: it was a platform that (1) experienced significant indirect network effects, (2) exhibited interconnected pricing and demand, and (3) facilitated a single, simultaneous transaction to promote joint consumption of one product.¹⁰⁴ The dissent mischaracterized the majority’s three-part test as embracing platforms that “(1) offer different products or services, (2) to different groups of consumers, (3) whom the ‘platform’ connects, (4) in simultaneous transactions.”¹⁰⁵ The majority and dissent disputed whether the platform offered the same or different goods to each side. The majority’s definition insists the platform exchanges a single product—transactions in the case of the credit card industry.¹⁰⁶ The majority’s market definition is more limited than the dissent claims because its unit for measuring interactions between the two sides of the platform is narrow.

100. *Ohio v. American Express*, 138 S. Ct. 2274, 2287 (2018) (citing David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 COLUM. BUS. L. REV. 667, 671 (2005)).

101. *AmEx*, 138 S. Ct. at 2280.

102. *See id.* at 2286.

103. *See id.*

104. *See id.* at 2285–86.

105. *Ohio v. American Express*, 138 S. Ct. 2274, 2298 (2018) (Breyer, J., dissenting). Recall the dissent notes that “two-sided transaction platform” is not a term of art or well-defined in any literature base.

106. *See id.* at 2286; *see also id.* at 2280 (emphasizing that transaction platforms “cannot make a sale to one side of a platform without simultaneously making a sale to the other”).

Each prong of the majority's three-part test highlights an economic effect that the Court sought to protect from dissuasive antitrust scrutiny.¹⁰⁷ First, by recognizing indirect network effects, the Court acknowledged the challenge platforms face in ensuring sufficient participation on multiple sides.¹⁰⁸ Platforms may charge different customer groups different prices to attract enough users to the business to facilitate a profitable number of interactions. Accordingly, the Court recognized that pricing in a multisided market may be removed from the traditional notion of cost-based price because price accounts for varying demand elasticity across customer groups.¹⁰⁹ The Court conceded that the mere presence of multiple customer groups for a business does not signify the influence of indirect network effects or interconnected pricing and demand.¹¹⁰ For example, the majority and dissent agreed that these concerns are "minor" for a newspaper.¹¹¹ Finally, the Court extrapolated that the competitors of two-sided platforms are other similarly whole, two-sided systems.¹¹²

B. TWO-SIDED TRANSACTION PLATFORMS IN ECONOMICS

Academics have long-recognized and debated the economic characteristics of two-sided transaction platforms that formed the basis of the *AmEx* court's market definition. This Part contextualizes the majority's three-part test in the economic literature on two-sided platforms. Given that each component invokes some academic controversy, the test should be modestly incorporated into antitrust law.

107. *See id.* at 2287 (quoting *Matsushita Elec. Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986): "[W]e must be concerned lest a rule or precedent that authorizes a search for a particular type of undesirable pricing behavior end up by discouraging legitimate price competition").

108. *See id.* at 2280–81. See also *infra* Section II.B.1 for a discussion of the economic literature on indirect network effects.

109. *See id.* at 2281, 2286. See also *infra* Section II.B.2 for a discussion of the economic literature on interconnected pricing and demand.

110. *See Ohio v. American Express*, 138 S. Ct. 2274, 2286 (2018).

111. *Id.* at 2286; see also *supra* note 81 and accompanying text. *Cf. AmEx*, 138 S. Ct. at 2300–01. The dissent still found the majority's rule too absolute compared to the "flexible" approach followed by the District Court and prescribed by the economic literature.

112. *See id.* at 2287. Wright & Yun argue that the Court erred in this conclusion. *See* Wright & Yun, *supra* note 5 (manuscript at 12) (showing that transaction platforms such as Uber and Airbnb compete with conventional businesses); see also Wu, *supra* note 90 (manuscript at 10) (illustrating the potential consequences of this conclusion in the merger review context).

1. *Indirect Network Effects*

Economists define indirect network effects as an externality “that users on one side [of a platform] impose on members of the other side by virtue of using the platform.”¹¹³ This critical pillar of the Court’s market definition is a well-established feature of two-sided platform business models. Indirect network effects explain that demand for a platform’s product by one set of consumers is not driven independently.¹¹⁴ A given consumer’s desire to use the platform is directly influenced by the number of consumers on the other side.¹¹⁵ Economists consider this influence an externality because customers themselves do not internalize the cost or recoup the benefit of their own presence on the platform.¹¹⁶ Indirect network effects are distinct from *direct* network effects, which are more common to platform ecosystems.¹¹⁷

Proponents of the Court’s view argue that indirect network effects are a competitive constraint for platform business models.¹¹⁸ Studies recognize that the need to acquire a “critical mass of users” on each side of a multisided platform poses a challenge for new platform businesses.¹¹⁹ The presence of indirect network effects can enhance competition if platforms offer favorable pricing and introduce innovative features to attract an optimal number of consumers on each side.¹²⁰ But, the difficulty in amassing customers may also represent a “high barrier[] to entry” for competitors, depressing the likelihood that new entrants will challenge a dominant incumbent platform.¹²¹ Thus, indirect network effects can also explain why platforms tend toward dominance.¹²²

Even if indirect network effects play an important role in platform dynamics, some academics dispute the necessity of incorporating this economic characteristic into market definition. Recall the substitution

113. See, e.g., Hovenkamp, *supra* note 13 (manuscript at 10).

114. See Evans, *Multisided Platforms*, *supra* note 12, at 2–3 (“First, the demands by the different groups of participants served by multi-sided platforms are interdependent.”).

115. See Lapo Filistrucchi et al., *Market Definition in Two-Sided Markets: Theory and Practice*, 10 J. COMP. L. & ECON 293, 296 (2014) (“[In a] two-sided market . . . demand from one group of consumers depends on the demand from the other group and, possibly, vice versa.”).

116. See *id.* at 299.

117. See Hovenkamp, *supra* note 13 (manuscript at 10 n.39); see also *supra* note 13 and accompanying text.

118. See, e.g., Filistrucchi et al., *supra* note 115, at 319 (describing how indirect network effects link product differentiation effects in two-sided markets).

119. See Bamberger & Lobel, *supra* note 9, at 1068.

120. *Id.* at 1071.

121. *Id.*

122. *Id.* at 1064.

principle defended by the dissent.¹²³ This school of economists argues that because a platform actually sells two different products, consumers do not “substitute” their consumption of a product with the product offered to the other side of the platform when a platform raises prices. For example, a newspaper is a two-sided platform mediating between advertisers and readers. If the newspaper increases subscription prices for readers, readers would not purchase advertising as a “substitute” for their news consumption. The majority’s reliance on indirect network effects to include both sides of a platform in the relevant market violates commonsense economics.

Still, the majority’s refusal to strictly apply the substitution principle can be reconciled by a focus on platform competition. The Court sided with economists who argue that indirect network effects constrain prices more than substitute platforms.¹²⁴ A customer may not view rival firms as true alternatives due to the presence or absence of users on the other side of the platform.¹²⁵ Indirect network effects may prevent other businesses in the market from amassing a critical number of customers on either side. This concern is particularly acute for platform businesses, which must reduce transaction costs to provide users value. A platform’s core function is making it easier for buyers to find sellers, riders to find drivers, or advertisers to find readers.¹²⁶ If a platform’s business model cannot overcome indirect network effects, the platform provides no comparative benefit over non-platform alternatives and the platform cannot serve the price-constraining role that a substitute normally fulfills.

2. *Interconnected Pricing and Demand*

The next step in the Court’s test examines whether a two-sided platform experiences interconnected pricing and demand.¹²⁷ Economists recognize that due to indirect network effects, two-sided platforms exhibit a non-neutral price structure.¹²⁸ Platforms “calibrate” their prices, charging varying amounts to different user groups in an attempt to entice a sufficient number

123. See *supra* Section I.D.

124. See, e.g., Filistrucchi et al., *supra* note 115, at 294–95.

125. See Frieden, *supra* note 67, at 318 (“The existence of alternatives, by itself, does not evidence ample multi-homing options.”).

126. See Cohen, *supra* note 11, at 137 (asserting that a platform’s function is to “rende[r] users legible to those seeking to market goods and services to them”).

127. See generally E. Glen Weyl, *A Price Theory of Multi-Sided Platforms*, 100 AM. ECON. REV. 1642 (2010) (discussing platform pricing strategy in two-sided markets).

128. See Filistrucchi et al., *supra* note 115, at 299 (describing observations from Jean-Charles Rochet & Jean Tirole, *Two Sided Markets: A Progress Report*, 37 RAND J. ECON. 645 (2006)).

of consumers from each group to engage with the platform.¹²⁹ The total price charged to both sides—and the ratio of how much is borne by either side—directly affects consumer welfare, measured in the volume of platform interactions.¹³⁰ For example, *AmEx* cardholders paid a negative price, or received benefits, for using the platform, while merchants paid higher-than-competitive fees to transact with customers on the network. Increasing the price charged to cardholders decreases cardholder demand for the platform, in turn decreasing merchant demand.¹³¹ Suppose a reduction in cardholder rewards saves American Express \$1 million.¹³² This reduction would be profitable only if the resulting loss in merchant fees is less than \$1 million.¹³³ Platforms maintain this skewed pricing structure only if they exhibit non-pass-through capability.¹³⁴ If transaction costs do not prevent users from engaging in side payments, platforms cannot control demand through charging different prices to either side.¹³⁵

Recognizing interconnected pricing and demand is important to antitrust analysis because it challenges the traditional notion that competitive firms do not price below marginal cost.¹³⁶ Even in the presence of competition, two-sided platforms may choose to subsidize participation on one side to attract paying users on another side.¹³⁷ A view of the market that accounts for only one side may lead to two mistaken inferences: first, it may render the subsidized side of the market invisible to antitrust regulators because the group is effectively charged no price; and second, it may obscure potential competitors by focusing only on rival platforms that choose to charge the

129. Frieden, *supra* note 67, 278 n.33 (quoting Evans & Noel, *supra* note 100, at 696, who describe how the platform price factors in demand elasticity, indirect network effects, and marginal costs).

130. See Giacomo Luchetta, *Is the Google Platform a Two-Sided Market*, 10 J. COMP. L. & ECON. 185, 189 (2014); see also Richard Schmalensee, *An Instant Classic: Rochet & Tirole, Platform Competition in Two-Sided Markets*, 10 COMP. POL'Y INT'L 175 (2014).

131. See Evans, *Multisided Platforms*, *supra* note 12, at 2–3.

132. See *id.* at 25 (proffering the example of an attention platform decreasing spending on content to attract viewers and advertisers).

133. *Id.*

134. See Filistrucchi et al., *supra* note 115, at 299.

135. See Luchetta, *supra* note 130, at 189; see also *Ohio v. American Express*, 138 S. Ct. 2274, 2294 (2018) (Breyer, J., dissenting) (suggesting that in the absence of a perfect price pass-through mechanism to users of the American Express platform, merchants raised prices overall on all consumers to accommodate American Express's higher fees).

136. See Schmalensee, *supra* note 130, at 178; see also Evans, *Empirical Aspects*, *supra* note 51, at 195 (“An important characteristic of two-sided markets is that the demand on each side tends to vanish if there is no demand on the other – regardless of what the price is.”).

137. See Evans, *Multisided Platforms*, *supra* note 12, at 24.

same side.¹³⁸ For example, it would be incorrect to presume that a newspaper, which charges readers a subscription fee, does not compete with a free periodical, which relies on advertising for revenue, simply because the latter does not charge customers on one side.¹³⁹

Economists argue that the Court's emphasis on interconnected pricing and demand leads to misguided conclusions about consumer harm.¹⁴⁰ The Court uses this criterion to argue that a one-sided price hike, without a correlating increase in total platform price, does not signal anti-competitive behavior.¹⁴¹ However, the Court may have overinterpreted the disassociation between one-sided price and cost. The Court's focus on total platform price ignores that user surplus can suffer even if total platform price decreases and the volume of platform transactions increases. This effect can be seen when platforms restrict normal market mechanisms.¹⁴² For example, American Express's steering clause prevented merchants from signaling preferences through price. Distortion of normal market functions taxes customers willing to pay through cheaper means than American Express, resulting in "unambiguous harm."¹⁴³ The Court's emphasis on total price as output-based evidence of harm obscures differing economic effects experienced by different consumer groups.¹⁴⁴

3. *Single, Simultaneous Transaction of One Product*

The final distinguishing characteristic in the Court's test for two-sided transaction platforms is whether the platform facilitates "a single, simultaneous" exchange of "only one product."¹⁴⁵ The dissent rightfully recognized that many businesses qualify as two-sided platforms if the primary identifying characteristics are indirect network effects and non-neutral price

138. See Filistrucchi et al., *supra* note 115, at 326 ("[W]e argue here that the choice of financing mechanism is not linked to demand substitutability.").

139. See Bamberger & Lobel, *supra* note 9, at 1083 (arguing that asymmetric pricing to incentivize user growth may "create network effects that raise switching costs" on one side of a market).

140. See Katz, *supra* note 96, at 144 ("[R]eliance on the change in the two-sided price as a measure of the consumer-welfare effects . . . is an example of a fallacy. . . .").

141. See *Ohio v. American Express*, 138 S. Ct. 2274, 2286 (2018).

142. See Katz, *supra* note 96, at 147 (illustrating the conditions under which user surplus falls even while the price level decreases).

143. See Carlton, *supra* note 20 (manuscript at 7–8) (describing anti-competitive effects of vertical "most favored nation" restraints, such as anti-steering clauses); see also Katz, *supra* note 96, at 147.

144. *AmEx*, 138 S. Ct. at 2288.

145. See *id.* at 2286.

structure.¹⁴⁶ Facilitating the immediate transaction of one product drives the influences of indirect network effects and interconnecting pricing and demand on a two-sided platform.¹⁴⁷ This prong of the test has two crucial implications: first, it distinguishes two-sided platforms from two-sided *transaction* platforms. It serves as a threshold for recognizing the importance of indirect network effects and pricing and demand; in non-transaction platforms, these economic effects weakly affect the platform's business model. Second, this characteristic allows for the administrability of the majority's standard for competitive harm centered on output. For example, American Express's metric of platform success was the number of transactions completed on the platform.¹⁴⁸

Economists cited by the Court agree that requiring a single, simultaneous transaction saves the term "two-sided transaction platform" from overbroad applications.¹⁴⁹ Professor Lapo Filistrucchi and others focus on the "observability" of the interaction between customer groups on the platform as a distinct characteristic of two-sided transaction platforms.¹⁵⁰ A key indicator of observability is whether a platform has the ability to charge a "two-part tariff." Two-sided transaction platforms should be able to charge a price for joining the platform and a price for each user interaction on the platform.¹⁵¹

A single, simultaneous transaction affects competitive dynamics by introducing usage externalities to platform markets. This particular kind of indirect network effect operates by increasing the value of the platform to users on one side from the other side's readiness to turn to the platform for every unique exchange sought.¹⁵² This is distinct from membership externalities, which stem simply from the presence of additional members on the other side. Dynamic platform studies suggest that users' ongoing

146. *See id.* at 2299 (Breyer, J., dissenting) (considering the presence of indirect network effects in a farmers' market); *see also id.* at 2300 (criticizing the majority for "carv[ing] out a much broader exception" than the economics literature actually supports).

147. *See id.* at 2286 ("Thus, whenever a credit-card network sells one transaction's worth of card-acceptance services to a merchant it also must sell one transaction's worth of card-payment services to a cardholder.").

148. *See id.*

149. *See* Luchetta, *supra* note 130, at 189.

150. *See* Filistrucchi et al., *supra* note 115, at 298.

151. *See id.* Note that a firm need not necessarily charge a user at both points. It must simply have the capacity to do so.

152. *See id.*; *see also* Luchetta, *supra* note 130, at 192 (explaining that for non-transaction platforms, the "chicken-and-egg" dilemma becomes a matter of business strategy, and not essential to platform survival, because the transaction is not the interaction facilitated by the platform).

decisions about whether to use the platform implicate both its size and success.¹⁵³

For critics of the Court's direction, emphasis on the granularity of a platform interaction is "overstated."¹⁵⁴ Some think that even platforms that do not facilitate a single, simultaneous transaction sufficiently navigate the challenges of indirect network effects and interconnected pricing and demand.¹⁵⁵ For others, this characteristic obscures that platforms actually offer different products to either side. Recall the dissent argued that the products American Express offered were complements, not substitutes. Accordingly, economists dispute that platforms offer both sides of a platform the same product because incentives on either side often diverge. Allowing platform businesses to abstract away this misalignment ignores competitive realities, potentially legitimizing anti-competitive conduct.¹⁵⁶

4. *The Market as a Whole*

In addition to criticisms leveled at each prong, economists contend that evaluating the market as a whole raises questions about the kind of harm evaluated in antitrust law. General antitrust jurisprudence holds that anti-competitive behavior cannot be defended by appeals to overall welfare.¹⁵⁷ But, evaluating the market as a whole legitimizes harm to one side of the platform if it benefits users on another side.¹⁵⁸ Furthermore, courts tend to shy away from judgments about consumer welfare, instead focusing on the competitive process.¹⁵⁹ To avoid these deliberation issues caused by combining both sides of a two-sided market, economists propose defining multiple, interrelated markets. This "separate effects analysis" comports with

153. See Luís Cabral, *Towards a theory of platform dynamics*, 28 J. ECON. & MGMT. STRATEGY 60, 61 (2019); see also Filistrucchi et al., *supra* note 115, at 302 (noting that a two-part tariff affects consumer behavior on a platform because "customers 'anticipate the cost' " of secondary transactions in the platform aftermarket).

154. See Wright & Yun, *supra* note 5 (manuscript at 10) ("[I]n order to understand the participation level for one side of a platform, it is still necessary to understand the participation level for the other side.").

155. *Id.* (manuscript at 3) ("[T]he economic principles detailed in American Express also apply to non-transaction platforms.").

156. See Katz, *supra* note 96, at 144, 146.

157. *Ohio v. American Express*, 138 S. Ct. 2274, 2302 (2018) (Breyer, J., dissenting) (quoting *United States v. Topco Associates, Inc.*, 405 U.S. 596, 611 (1972), to caution against judicial determinations of beneficial competition).

158. See, e.g., Katz & Sallet, *supra* note 16, at 2165–66 (citing cases where the Supreme Court has rejected "net-welfare defenses" in favor of promoting competition as the ultimate goal of antitrust).

159. See *id.* at 2166 (illustrating the risks of a judicial strategy focused on achieving specific market outcomes).

the existing rule of reason and could more effectively assess the impact of a platform on competition.¹⁶⁰

Even though the Court's market definition rule may seem uninformed in light of these deep academic disagreements, it represents an important attempt to incorporate economic theory into law.¹⁶¹ Although authors on different sides of the decision may disagree about where to draw the line between two-sided transaction platforms and platforms that behave more classically, the overlap in their scholarship suggests that two-sidedness exists in a spectrum.¹⁶² In the family of businesses that balance indirect network effects and interconnected pricing and demand to bring together two consumer groups, the Court identified a subset where these effects dominate competitive considerations—when both sides must consume one product simultaneously.¹⁶³ One possible reconciliation to minimize the Court's amplification of specific economic theories might be to apply the Court's reasoning narrowly, only where it clearly operates. If a business does not strictly meet the criteria set forth in the majority opinion, it should still be subject to the established rule of reason. Refusing to extend the Court's heightened antitrust protection to platform defendants merely exhibiting some degree of two-sidedness seems appropriate in light of economic literature.

A conservative application of the *AmEx* decision would also not contravene the holding.¹⁶⁴ There are points of convergence between the majority, the dissent, and the literature—the example of the newspaper. Economists and legal scholars agree that the market for newspapers, although connecting two groups of consumers, should be defined as two

160. *See id.* at 2169–70.

161. *See* Hovenkamp, *supra* note 13 (manuscript at 6) (“Whether or not one agrees with its holding, the *AmEx* decision is inarguably a watershed moment for platform antitrust.”); *see also* Wu, *supra* note 90 (manuscript at 1) (arguing that a flaw of the *AmEx* opinion is its “tendency to elevate theory over evidence”).

162. *See, e.g.*, Luchetta, *supra* note 130, at 188 (quoting Rochet and Tirole who once summarized literature on two-sided markets as of a “‘you know a two-sided market when you see it’ flavor”); *see also* Hovenkamp, *supra* note 13 (manuscript at 9) (“[T]wo-sidedness is a matter of degree.”); Wright & Yun, *supra* note 5 (manuscript at 8) (“Early in the development of the economic literature on platforms, researchers recognized that not all platforms share the same features . . .”).

163. *See* *Ohio v. American Express*, 138 S. Ct. 2274, 2286 (2018) (“But two-sided transaction platforms, like the credit-card market, are different.”).

164. *See id.* (“To be sure, it is not always necessary to consider both sides of a two-sided platform.”).

separate, yet interrelated markets.¹⁶⁵ The majority recognized that *Times-Picayune Publishing Co.* was correctly decided because a newspaper market exhibits weak indirect network effects.¹⁶⁶ Advertisers care whether a newspaper has amassed a sufficient number of readers on one side to justify their investments, but readers largely do not seek out newspapers to encounter advertisers.¹⁶⁷ Thus, the Court recognized limits to its market definition rule in two-sided markets. Its economic reasoning should serve as a guide to determining when combining both sides of a two-sided platform is appropriate.

C. HYPOTHETICAL APPLICATIONS OF A FEATURES-DRIVEN DEFINITION OF TWO-SIDED TRANSACTION PLATFORMS

Applying the Court's test for two-sided transaction platforms illuminates the limits imposed by an economically-sensitive reading of the *AmEx* decision.¹⁶⁸ Lower courts may ultimately choose to construe *AmEx* liberally, without confirming the presence of all three factors when presented with a platform case.¹⁶⁹ However, the preceding Part's analysis suggests that while the Court was eager to account for modern market realities, the yet-developing doctrine should be carefully framed. If the Court's new market definition rule is applied in adherence to the economic principles driving its decision, not all online platforms will meet the test. This Part analyzes real-world platform businesses, which may or may not qualify as two-sided transaction platforms, depending on the presence or absence of economic characteristics from the Court's three-part test.

Examining the paradigmatic examples of Uber and Google demonstrates that the antitrust ramifications of the Court's atypical market definition can be checked. Both of these companies merit attention because their innovative business models led massive disruptions that ushered in the modern platform economy. Google represents a generation of platforms known as "Attention Brokers," which facilitate connections between a

165. See, e.g., Filistrucchi et al., *supra* note 115, at 298, 315 (rationalizing the outcome in *Times-Picayune Publishing* because the platform facilitated no transactions); Katz & Sallet, *supra* note 16, at 2154 (basing its support for this decision on the substitution principle).

166. See *AmEx*, 138 S. Ct. at 2286.

167. See *id.*

168. See Khan, *Amazon*, *supra* note 4, at 790 (suggesting the need for more evaluations of antitrust as applied to internet platform markets).

169. See generally Wright & Yun, *supra* note 5 (arguing that the Court's decision should also apply to non-transaction platforms).

captive audience and advertisers.¹⁷⁰ On the other hand, Uber was so successful in launching a “gig economy” platform that copycat businesses pitched as “Uber but for” various industries followed in droves.¹⁷¹ The Court’s treatment of two-sided transaction platforms touches upon an existing divide in platform markets: between attention platforms, which enable off-platform exchanges, and “gig” or “sharing economy” platforms, which facilitate interactions in themselves.¹⁷² While both Uber and Google revolutionized traditional industries by facilitating new kinds of interactions between groups of consumers, Google is unlikely to receive deferential treatment under *AmEx* if closely scrutinized. This Part suggests that a single simultaneous transaction could be a critical differentiator on the spectrum of two-sidedness.

1. *A Paradigmatic “Sharing Economy” Platform: Uber*

Uber, an undisputedly successful platform business,¹⁷³ is already a target of antitrust scrutiny.¹⁷⁴ This is an interesting development because the platform itself was a response to a monopoly by the taxicab industry.¹⁷⁵ Uber broke the stranglehold of taxicab medallions by empowering non-commercial drivers to find riders willing to travel in regular cars.¹⁷⁶ It introduced innovations such as GPS tracking and cashless payments to the

170. See generally TIM WU, *THE ATTENTION MERCHANTS: THE EPIC SCRAMBLE TO GET INSIDE OUR HEADS* (2016) (classifying Google as a classic example of an “Attention Broker”).

171. See Lobel, *supra* note 3, at 95 (citing Kate Cox, *Nobody Really Knows What to Do About Regulating the Sharing Economy*, CONSUMERIST (June 10, 2015), <https://consumerist.com/2015/06/10/nobody-really-knows-what-to-do-about-regulating-the-sharing-economy/> [<https://perma.cc/3FU2-LZ7M>]).

172. See, e.g., Oliver Budzinski & Björn A. Kuchinke, *Modern Industrial Organization Theory of Media Markets and Competition Policy Implications* 21, 25 (Ilmenau Economics Discussion Papers, No. 115, 2018) (distinguishing peer-to-peer sharing platforms and zero-price content-based services, such as social media, messaging, search, and maps).

173. See *From Zero to Seventy (Billion)*, ECONOMIST (Sept. 3, 2016), <https://www.economist.com/briefing/2016/09/03/from-zero-to-seventy-billion> [<https://perma.cc/Z3D3-5YCD>]. A recent estimate placed Uber’s IPO price at \$120 billion. See Liz Hoffman, Greg Bensinger & Maureen Farrell, *Uber Proposals Value Company at \$120 Billion in a Possible IPO*, WALL ST. J. (Oct. 16, 2018 1:28 PM), <https://www.wsj.com/articles/uber-proposals-value-company-at-120-billion-in-a-possible-ipo-1539690343> [<https://perma.cc/V6B8-9BJQ>].

174. See *Meyer v. Kalanick*, 174 F. Supp. 3d 817 (S.D.N.Y. 2016).

175. See Bamberger & Lobel, *supra* note 9, at 1057.

176. Benjamin Edelman, *Uber Can’t Be Fixed—It’s Time for Regulators to Shut It Down*, HARV. BUS. REV. (June 21, 2017), <https://hbr.org/2017/06/uber-cant-be-fixed-its-time-for-regulators-to-shut-it-down> [<https://perma.cc/55KM-VMNP>]; see also Bamberger & Lobel, *supra* note 9, at 1071.

paid car ride industry.¹⁷⁷ At the same time, Uber demonstrated a tendency towards monopolizing the ridesharing market in a given geographic area.¹⁷⁸ This analysis suggests that if charged with a Sherman Act violation, Uber would likely qualify as a two-sided transaction platform under the Court's three-part test.

First, a court would examine the platform for the presence of indirect network effects. To satisfy this criterion, Uber's challenge must be ensuring a "critical mass" of drivers and riders use its platform.¹⁷⁹ Uber meets the classic definition because the presence or absence of passengers seeking rides affects the number of drivers who turn to the platform to earn money; and, the availability of drivers influences the number of riders who choose to book a ride through the platform. These are not *direct* network effects because the presence of more riders does not necessarily increase the value of the platform to the riders, and respectively for drivers.¹⁸⁰ Uber's platform serves its intermediary function of reducing search costs for two distinct sets of consumers and internalizing "the resulting indirect network externalities."¹⁸¹

Under the second component of the Court's test, Uber's platform must exhibit interconnected pricing and demand. Uber's pricing algorithm demonstrates great concern with calibrating price in real time to coordinate demand on either side of the platform.¹⁸² For instance, riders dread surge pricing, but its existence demonstrates that demand from one side of the market cannot be satisfied absent additional incentives to increase the number of drivers on the other side of the platform. Extreme subsidization is also a core part of Uber's competitive strategy.¹⁸³ This practice attracts riders

177. See Edelman, *supra* note 176.

178. See Bamberger & Lobel, *supra* note 9, at 1069.

179. See *id.* at 1068.

180. See *id.* In fact, the platform can demonstrate negative direct network effects if too many customers are competing for a few drivers or too many drivers are competing for a few riders. See, e.g., *From Zero to Seventy (Billion)*, *supra* note 173. This analysis applies to conventional Uber services, and not, for example, UberPool, which might demonstrate direct network effects.

181. See Evans, *Empirical Aspects*, *supra* note 51, at 191.

182. See James Surowiecki, *In Praise of Efficient Price Gouging*, 117 MIT TECH. REV., no. 5, 2014, at 74, 76. Uber also uses non-price incentives to keep drivers on the road. See Francesca Gino, *Uber Shows How Not to Apply Behavioral Economics*, HARV. BUS. REV. (Apr. 13, 2017), <https://hbr.org/2017/04/uber-shows-how-not-to-apply-behavioral-economics> [<https://perma.cc/V5AT-P68C>]; see also Khan, *Amazon*, *supra* note 4, at 789 (claiming Uber manipulates both sides of the market rather than reflecting "real-time supply and demand").

183. See Tracey Lien, *As Uber spends big to compete with Lyft, profitability in the U.S. is not in sight*, LA TIMES (Nov. 9, 2017 2:05 PM), <http://www.latimes.com/business/technology/la-fi-tn-uber-lyft-profit-20171109-story.html> [<https://perma.cc/57KD-EB3V>]; see also Khan,

to the platform and prevents multihoming¹⁸⁴ by drivers, who will switch to other platforms unless Uber channels a steady supply of passengers toward them. In this sense, Uber drivers may be more sensitive than American Express merchants. Overall, Uber can demonstrate that it manages interconnected pricing and demand.

Finally, the Court's market definition rule requires that Uber facilitate the single, simultaneous transaction of one product. Like American Express, which evaluated performance through volume of transactions, Uber's metric for success is similarly centered on the number of interactions between consumer groups: rides given and taken.¹⁸⁵ While the English language may not always offer a unitary term for the product to reference on both sides of the market—transactions, rides—the majority's point was that for “a credit-card network [to] sel[l] one transaction's worth of card-acceptance services to a merchant it also must sell one transaction's worth of card-payment services to a cardholder.”¹⁸⁶ Additionally, Uber satisfies this criterion in Filistrucchi's vocabulary of observability because the platform meticulously records each interaction completed on the platform due to built-in monitoring for safety and quality.¹⁸⁷ Uber sufficiently resembles American Express under this criterion.

Analyzing Uber's business model under the Court's three-part test suggests that a Sherman Act case against Uber may involve combining both sides of the platform.¹⁸⁸ Plaintiffs would have to show net harm under the rule of reason. The Court might then extend the relevant market to include other two-sided transaction platforms, such as Didi or Lyft, which can effectively compete for both coveted customer groups of riders and

Amazon, *supra* note 4, at 787 (finding similarities between Uber and Amazon's predatory pricing schemes, prioritizing market share over revenue).

184. Multihoming occurs when a user has several platform options and can “toggle between them.” *See* Frieden, *supra* note 67, at 278; *see also supra* note 125 and accompanying text.

185. *See* Biz Carson, *Lyft Doubled Rides In 2017 As Its Rival Uber Stumbled*, FORBES (Jan. 16, 2018 9:00 AM), <https://www.forbes.com/sites/bizcarson/2018/01/16/lyft-doubled-rides-in-2017/#3e99e5167d6b> [perma.cc/M53R-D4BF] (surveying Uber rival's, Lyft's, rise as a competitor in terms of ride growth); Johana Bhuiyan, *Uber powered four billion rides in 2017. It wants to do more – and cheaper – in 2018*, RECODE (Jan. 5, 2018 4:09 PM), <https://www.recode.net/2018/1/5/16854714/uber-four-billion-rides-coo-barney-harford-2018-cut-costs-customer-service> [https://perma.cc/7ARN-V7LA] (using total trips as a company milestone).

186. *See* *Ohio v. American Express*, 138 S. Ct. 2274, 2286 (2018).

187. Lobel, *supra* note 3, at 152 (discussing Uber's revolutionary dynamic rating system).

188. *See* Wu, *supra* note 90 (manuscript at 9) (providing an example of anti-competitive conduct by Uber that could be challenged).

drivers.¹⁸⁹ Economists might applaud this outcome, pointing to the marked indirect network effects and interconnected pricing and demand on Uber’s platform.

2. *A Paradigmatic “Attention Broker” Platform: Google Search*

Google is another technology giant that could stand to gain from heightened protection from antitrust scrutiny.¹⁹⁰ Like Uber, its monolithic growth is surprising—initially, Google planned to monetize its innovative PageRank algorithm by selling search technology as a product.¹⁹¹ Instead, Google attained profitability when its business strategy pivoted to selling advertisements in search. This Part does not focus on some of the other platforms Google operates as part of its parent company, Alphabet, because Google primarily maintains dominance through its search advertising business (Google Search).¹⁹² Google’s attempts to protect the pre-eminence of Search have drawn the ire of European competition authorities.¹⁹³ In the United States, however, regulators have found Google’s conduct to have pro-competitive effects.¹⁹⁴ Google Search is unlikely to qualify as a two-sided transaction platform if the Court’s three-part test is strictly applied.

First, the Search platform is weakly characterized by indirect network effects. Unlike Uber and American Express, Search’s “chicken-and-egg” dilemma seems diminished.¹⁹⁵ The externalities from the numerosity of Google Search’s customer groups—advertisers and searchers—flow

189. See *AmEx*, 138 S. Ct. at 2287; see also Lien, *supra* note 183 (narrating some competitive challenges Uber faces).

190. See Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Case Against Google*, 34 HARV. J. L. & PUB. POL’Y 171, 190 (2011) (“Google is likely to face antitrust enforcement for several reasons.”).

191. See Giovanna Massarotto, *From Standard Oil to Google: How the Role of Antitrust Law Has Changed*, 41 WORLD COMPETITION no. 3, 2018, at 407–08; see also Manne & Wright, *supra* note 190, at 193.

192. Google also owns a website, browser, and mobile operating system, which could potentially be analyzed as platforms. See Robert Levine, *Antitrust law never envisioned massive tech companies like Google*, BOSTON GLOBE (June 13, 2018), <https://www.bostonglobe.com/ideas/2018/06/13/google-hugely-powerful-antitrust-law-job/E1eqrlQ01g11DRM8I9FfwO/story.html> [<https://perma.cc/K9QR-9EXK>]; see also Massarotto, *supra* note 191, at 408.

193. See, e.g., EUROPEAN COMMISSION, ANTI-TRUST: COMMISSION FINES GOOGLE €2.42 BILLION FOR ABUSING DOMINANCE AS SEARCH ENGINE BY GIVING ILLEGAL ADVANTAGE TO OWN COMPARISON SHOPPING SERVICE (2017); see also John M. Yun, *Understanding Google’s Search Platform and the Implications for Antitrust Analyses*, 14 J. COMP. L. & ECON. 311, 313 (2018).

194. See, e.g., FEDERAL TRADE COMMISSION, STATEMENT OF THE FEDERAL TRADE COMMISSION REGARDING GOOGLE’S SEARCH PRACTICES, IN THE MATTER OF GOOGLE INC. FTC FILE NUMBER 111-0163 (2013).

195. See Luchetta, *supra* note 130, at 195.

unidirectionally: advertisers benefit from more searchers, but searchers rarely benefit from more advertisers.¹⁹⁶ Google Search experiences network effects more like a traditional media platform, needing “end users to have advertisers, but not vice versa.”¹⁹⁷ These are also not *direct* network effects because searchers or advertisers do not necessarily benefit from more members in their respective groups using the platform.¹⁹⁸

The next component of the Court’s test for two-sided transaction platforms asks whether Google Search exhibits interconnected pricing and demand. Google Search administers a tell-tale sign of this characteristic: skewed price structure. Google Search’s service for searchers is free.¹⁹⁹ Given that Google Search is profitable, Google Search must charge the advertiser side of the platform. This resembles American Express’s business model of subsidizing cardholder usage through higher fees on merchants. Google Search can influence searcher demand for its product by reducing the reward offered—for example, by decreasing the quality of search results. Reducing the searcher subsidy would be profitable only if any loss in searcher demand does not translate to a greater loss from advertising dollars.²⁰⁰ Google Search’s price structure has important consequences for evaluating competition. First, new entrants cannot attract coveted searcher-side customers based on price incentives because Google Search already charges these users a zero price.²⁰¹ Second, Google Search’s business model of giving away valuable search content for advertising attention competes more with traditional media business models, exhibiting a relationship between customer groups more typically seen in television or radio.²⁰²

Finally, to qualify as a “two-sided transaction platform,” Google Search must facilitate a single, simultaneous interaction promoting the joint consumption of one product. Google Search is notably different from American Express in that the platform actually facilitates two distinct

196. *See id.* (estimating ten percent of searches, those engaging in “transactional queries,” benefit from the presence of advertisers); *see also* Manne & Wright, *supra* note 190, at 208.

197. *See* Luchetta, *supra* note 130, at 192.

198. *See* Manne & Wright, *supra* note 190, at 211 (“Except to the limited extent that the quality of a search algorithm may be affected by the number of users over a relevant range of users, end users receive no incidental benefit from others’ use of the same search engine.”).

199. *See* Yun, *supra* note 193, 315. *Cf.* Luchetta, *supra* note 130, at 192 (noting some academics suggest that search is not free because user data collected from a query is an “in kind payment” to the platform).

200. *See* Yun, *supra* note 193, at 323–24; *see also supra* note 133 and accompanying text.

201. *See* Manne & Wright, *supra* note 190, at 211.

202. *See* Yun, *supra* note 193, at 315 (“Like other advertising contexts such as broadcast television and local radio, Google operates a multi-sided platform that offers users free access to its content.”).

transactions.²⁰³ Users identify themselves to the search engine through a query. Separately, advertisers pay for preferential placement on the search results page, bidding on relevant keywords to a potential query.²⁰⁴ The detached order of these transactions reinforces the earlier observation of minimal indirect network effects. Unlike platforms demonstrating “pronounced” indirect network effects, Google Search is concerned with attracting a sufficient number of users so that it can charge advertisers who follow; a drop-off in advertisers would not exacerbate the challenge of stimulating enough demand on the searcher side of the platform.²⁰⁵

A court might also question whether Google sells each side of the platform a different product. Search users receive content—ideally, an answer to their query. Advertisers purchase searchers’ attention.²⁰⁶ These products are less closely linked than merchants and customers in *AmEx* or riders and drivers on Uber, who seek to engage in a particular exchange. Google’s business model might be better suited to the approach taken to newspapers of defining separate, but interrelated markets.²⁰⁷

If a court determines that Google Search does not meet the *AmEx* test for a two-sided transaction platform, allowing Google Search to take advantage of the Court’s adjusted rule of reason could lead to an incorrect judgment in a Section 1 Sherman Act case. This finding could be consequential for the paid-side of the market: advertisers who may wish to sue Google over high fees and harsh terms, like American Express’s merchants.²⁰⁸ A “sensible starting point” for a market definition inquiry involving Google Search should begin with the side where a positive price is imposed and then factor in indirect network effects and interconnected pricing and demand, as the district court suggested in *AmEx*.²⁰⁹

203. See Luchetta, *supra* note 130, at 194, 207.

204. See Jared Kagan, *Bricks, Mortar, and Google: Defining the Relevant Antitrust Market for Internet-Based Companies*, 55 N.Y. L. SCH. L. REV. 271, 287–88 (2010) (explaining how Google AdWords works).

205. See *Ohio v. American Express*, 138 S. Ct. 2274, 2286 (2018). This does not suggest that a platform where one side’s participation is free or negatively priced will never qualify for the Court’s market definition.

206. See Tim Wu, *Blind Spot: The Attention Economy and the Law*, 82 ANTITRUST L.J. 3, 771–72 (2019).

207. See *supra* Section II.B.4; see also Kagan, *supra* note 204, at 287 (suggesting that internet advertising functions similarly to traditional media outlets that offered up a captive audience).

208. See Benjamin G. Edelman & Joshua D. Wright, *Debate on Antitrust Scrutiny of Google*, 2 J.L. 445, 454 (2012) (providing evidence of advertiser harm under Google Search’s business model).

209. See Manne & Wright, *supra* note 190, at 211–12.

These paradigmatic examples demonstrate that not all two-sided platforms will qualify for market definition “as a whole” under an economically-sensitive reading of the *AmEx* ruling. A hypothetical evaluation of Uber and Google Search’s economic characteristics reveals the importance of checking for a single, simultaneous exchange of one product. This factor filters out two-sided transaction platforms from other business models that exhibit some degree of two-sidedness. Courts should carefully analyze the interaction facilitated by a platform before requiring plaintiffs to plead net harm at stage one of the rule of reason.

A test-driven formulation of the *AmEx* ruling may incentivize two-sided platforms to stylize themselves as facilitating unique transactions of a single product. For instance, Google may argue that the single, simultaneous interaction enabled by Google Search is a “click.”²¹⁰ Like Uber’s metric of rides and American Express’s metric of transactions, Google could claim that platform output should be measured in “clicks.” Internal business documents quantifying Google Search’s success in terms of “cost-per-click” support this contention.²¹¹ If Google succeeds, it may persuade a court to define Google Search as a two-sided transaction platform and include both sides of the platform in its relevant market. Accordingly, regulators should be wary of traditional platforms manipulating the Court’s test to appear as two-sided transaction platforms.

However, the increasing number of platforms appearing to facilitate the joint consumption of one product may not be entirely disingenuous. Trends in platform markets suggest that the divide between general two-sided platforms and two-sided transaction platforms may fade as a new generation of “sharing economy” platforms rises to prominence.²¹² Platforms continue to further efficiency by commodifying increasingly smaller units of capital, promoting customization, and replacing traditional consumption with more peer-to-peer exchanges.²¹³ While the Court’s market definition may not apply to attention platforms delivering content (such as Google), the Court’s holding may be extremely consequential as “gig” or “sharing economy” platforms (such as Uber) grow.²¹⁴ Although this Note proposes that the

210. See Filistrucchi et al., *supra* note 115, at 298 n. 11.

211. See Luchetta, *supra* note 130, at 189–90.

212. See FEDERAL TRADE COMMISSION, THE “SHARING” ECONOMY: ISSUES FACING PLATFORMS, PARTICIPANTS & REGULATORS (2016).

213. See Lobel, *supra* note 3, at 108–12 (describing how platforms are reducing the transactional unit of exchange).

214. Brad Stone, *The \$99 Billion Idea*, BLOOMBERG BUSINESSWEEK (Jan. 26, 2017), <https://www.bloomberg.com/features/2017-uber-airbnb-99-billion-idea/>

single, simultaneous exchange of one product can limit applications of the Court's rule, this conclusion may be challenged by changes in platform markets themselves.

III. CONCLUSION

As technology platforms amass economic power, antitrust regulators will seek to counteract platforms' anti-competitive strategies. The Supreme Court's recent attempt to extend traditional antitrust jurisprudence to platform markets provoked concerns that its approach may be too lenient to protect consumer welfare. Looking at the economics that drove the decision in *Ohio v. American Express*, however, suggests that there are restraints embedded in the Court's changes to antitrust law. This Note teases out the economic justifications in the Court's ruling, explores their validity, and applies them to commonly-known platform examples. If the principles emerging from economic literature can be maintained in applications of *AmEx*, the decision's most severe effects may be more limited than critics fear.

[<https://perma.cc/Z34R-L9RK>] (discussing Uber and Airbnb as emblematic of the third wave of internet platforms).

SURVEY OF ADDITIONAL TOPICS IN IP LAW

I. COPYRIGHT LAW

A. *RED LABEL MUSIC PUBL'G, INC. V. CHILA PRODS.*

Earlier this year, the United States District Court for the Northern District of Illinois upheld a fair use defense against a copyright infringement claim regarding the defendants' Super Bowl documentary, which used video excerpts from the plaintiffs' 1985 "The Super Bowl Shuffle" music video.¹ The plaintiffs' motion to strike was denied, as the court found the strike was improperly used.² In summary judgment, the court held that ultimately using eight seconds of the music video in a film chronicling the Chicago Bears' 46–10 Super Bowl XX victory did not violate the Copyright Act.³

Red Label Music Publishing, Inc., who "owns the copyrights to the words, music, sound recording, and video of the Super Bowl Shuffle," and marketing agency Renaissance sued Chila Productions for using video excerpts of the Shuffle without permission.⁴ The defendants' 2016 documentary, "'85: The Greatest Team in Football History," featured the said hip-hop song, in which the team rapped about their desire to be victorious over the New England Patriots, a feat they successfully accomplished.⁵ The film featured eight seconds of the song with video, as well as fifty-one seconds of silent video footage while commentators spoke.⁶ The producers included the video excerpts hoping to reveal the "historical record" of the Bears' nearly undefeated season.⁷

First, the court conducted a two-step analysis when denying the plaintiffs' motion to strike.⁸ It scrutinized the motion's lateness:⁹ because the plaintiffs filed their motion outside the twenty-one-day window for four of the defendants, the court held that the motion was not valid.¹⁰ Arguing in the alternative, however, the court relied on the Second Circuit's persuasive

1. *Red Label Music Publ'g, Inc. v. Chila Prods.*, 388 F. Supp. 3d 975, 979 (N.D. Ill. 2019).

2. *Id.* at 983.

3. *Id.* at 990.

4. *Id.* at 979.

5. *Id.*

6. *Id.*

7. *See id.* at 984.

8. *Id.* at 981–83.

9. *Id.* at 981–82.

10. *Id.* at 981.

approach in applying *Twombly* and *Iqbal* to affirmative defenses to deny the motion regardless, by applying the plausibility standard.¹¹ It held that the defendants “alleged facts that enable the court to draw the reasonable inference that they are not liable for the misconduct alleged.”¹²

Next, the court analyzed the defendants’ fair use defense. It held that the new purpose of the film and brief length of the video excerpts weighed in favor of fair use.¹³ The music video was “originally intended to entertain and raise money” while the documentary intended to “comment on the sport-social phenomenon that was the 1985 Chicago Bears.”¹⁴ As a result, plaintiff and defendant had different purposes in using the video.¹⁵ For the defendants in particular, the Shuffle snippets were used “not for [their] expressive content, but rather for [their] factual content.”¹⁶ In other words, the video was used to chronicle history.¹⁷ The court held that this kind of historical commentary “adds something new”¹⁸ Although the documentary was made for commercial gain, the court still reasoned that this was only incidental, since it did not compete in the same market as the music video.¹⁹ Thus, the first factor of fair use weighed in favor of the defense.²⁰

The second factor, the nature of the copyrighted work, was neutral, because the music video and documentary complemented one another.²¹ The third factor, considering the amount taken “in relation to the copyrighted work as a whole,” revealed that 17% of the music video only made up 1% of the film.²² This too weighed in favor of fair use, especially since it reinforced the earlier finding that the film was not seeking to duplicate the Shuffle.²³ Finally, the fourth factor, the market effect, was also largely neutral, as it was inconceivable that the video excerpts in the documentary would dissuade a viewer from purchasing the song.²⁴

The court ultimately concluded that the first and third factors weighed in favor of fair use, granting the defendants’ motion for summary judgment.²⁵ It

11. *Id.* at 982–83.

12. *Id.* at 983.

13. *Id.* at 983–85, 986.

14. *Id.* at 984.

15. *Id.*

16. *Id.*

17. *See id.* at 985.

18. *Id.* at 984.

19. *Id.* at 985.

20. *Id.*

21. *Id.*

22. *Id.* at 986.

23. *See id.* at 984, 986.

24. *See id.* at 989.

25. *Id.* at 989–90.

cited the Fourth Circuit, which stated that fair use “protects filmmakers and documentarians from the inevitable chilling effects of allowing an artist too much control over the dissemination of his or her work for historical purposes.”²⁶ The court held that this was what the Copyright Act had intended when providing a shield against infringement.²⁷

B. *HIQ LABS, INC. V. LINKEDIN CORP.*

The United States Court of Appeals for the Ninth Circuit recently upheld a preliminary injunction which, in effect, allows hiQ Labs to copy information from public profiles on LinkedIn using a computer program²⁸—a practice known as “scraping.”²⁹ HiQ Labs is a data analytics company that uses information scraped from public LinkedIn profiles to power two of its products: “Skill Mapper” and “Keeper.”³⁰ “Skill Mapper” summarizes the skills of a client’s employees, enabling the client to identify “skill gaps” “so that they can offer internal training in those areas.”³¹ “Keeper” utilizes scraped data to identify the employees within a client’s company who are most likely to “[be] recruited away.”³² About one month before LinkedIn launched “a data analytics tool similar to [hiQ’s] products,” the company sent hiQ Labs a cease-and-desist letter and placed barriers on its site to prevent hiQ Labs from scraping.³³ Shortly thereafter, hiQ Labs brought an action against LinkedIn seeking to enjoin them from restricting access to the information on public profiles.³⁴ The United States District Court for the Northern District of California granted a preliminary injunction against such.³⁵

The Ninth Circuit, in determining whether to uphold the preliminary injunction, applied a four-pronged test: the plaintiff must show (1) that they will likely suffer irreparable harm if preliminary relief is not granted, (2) “that the balance of equities tips in [their] favor,” (3) that they are “likely to succeed on the merits,” and (4) “that an injunction is in the public interest.”³⁶ In administering the test, the court used a “sliding scale approach” where a

26. *Id.* at 989 (quoting *Bouchat v. Balt. Ravens Ltd. P’ship*, 737 F.3d 932, 944 (4th Cir. 2013)).

27. *See id.*

28. *HiQ Labs, Inc. v. LinkedIn Corp.*, 938 F.3d 985, 991, 1005 (9th Cir. 2019).

29. *Id.* at 1004.

30. *Id.* at 991.

31. *Id.*

32. *Id.*

33. *See id.* at 991–92, 998.

34. *Id.* at 992; *see hiQ Labs, Inc. v. LinkedIn Corp.*, 273 F. Supp. 3d 1099 (N.D. Cal. 2017).

35. *HiQ Labs, Inc.*, 938 F.3d at 992.

36. *Id.*

“stronger showing of one element could offset a weaker showing of another.”³⁷

In analyzing the first prong, the court examined whether hiQ Labs would suffer irreparable harm if the preliminary injunction was not granted.³⁸ HiQ Labs’ business model relies entirely on access to LinkedIn’s information, as there is no viable alternative source.³⁹ LinkedIn argued that Facebook could be an acceptable alternative, but Facebook’s information is not readily accessible and therefore not equivalent.⁴⁰ The court found that hiQ Labs’ lack of access to information had already caused them to lose financing and ultimately threatened the company with total extinction absent a preliminary injunction.⁴¹ In light of this, the court concluded that the first prong was met.⁴²

Under the second prong, the court held that “the balance of the equities” tipped in favor of hiQ Labs.⁴³ LinkedIn contended that user privacy should be prioritized over hiQ Labs’ ability to conduct business, arguing that a public profile did not authorize every use of user information.⁴⁴ However, the court reasoned that users with public profiles do not have an expectation of privacy that scraping would violate.⁴⁵ Furthermore, LinkedIn undermined its argument by launching its own version of hiQ’s products.⁴⁶ By contrast, the court found significant interest in hiQ Labs staying in business and completing its contracts.⁴⁷ Thus, the court reasoned that the “balance of the equities” tipped in favor of hiQ Labs.⁴⁸

In its evaluation of the third prong, the “likelihood-of-success prong,” the court focused its inquiry on whether hiQ Labs had “raised serious questions on the merits.”⁴⁹ As a preliminary matter, the court held that hiQ Labs could likely establish all the elements required to show tortious interference with a contract.⁵⁰ In an attempt to raise an affirmative defense, LinkedIn cited the Computer Fraud and Abuse Act (CFAA), asserting that hiQ’s scraping violated

37. *Id.* (internal quotations omitted) (quoting *Alliance for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1131 (9th Cir. 2011)).

38. *Id.* at 993.

39. *Id.*

40. *Id.*

41. *Id.* at 993–94.

42. *Id.* at 994–95 (quoting *CTIA-The Wireless Ass’n v. City of Berkeley*, 928 F.3d 832, 852 (9th Cir. 2019)).

43. *Id.* at 994.

44. *Id.*

45. *See id.*

46. *Id.* at 994–95.

47. *Id.* at 995.

48. *Id.* at 994–95.

49. *Id.* at 995.

50. *Id.* at 999.

the provision⁵¹ that prohibited “intentionally access[ing] a computer without authorization or exceed[ing] authorized access, and thereby obtain[ing] . . . information from any protected computer.”⁵² However, the court rejected LinkedIn’s defense on two grounds.⁵³

First, the court concluded that, for the purposes of the CFAA, “[a]uthorization is an affirmative notion” where access is granted to selected parties.⁵⁴ LinkedIn could not claim that access to its public profiles required authorization, since the profiles are accessible by anyone with a computer.⁵⁵ Therefore, hiQ Labs’ scraping did not “exceed authorization”⁵⁶ because no authorization was required to begin with.⁵⁷

Secondly, the court concluded that the legislative intent behind the CFAA was to prohibit the computer equivalent of “breaking and entering.”⁵⁸ As hiQ Labs merely gleaned information which was open and available to the public and did not breach any protective barriers, such as passwords, to access the information, the court reasoned that their scraping was not analogous to “breaking and entering.”⁵⁹ Thus, the CFAA did not apply as an affirmative defense and accordingly, the court determined that hiQ Labs had raised serious questions on the merits.⁶⁰

Finally, the court found that public interest factors tipped in favor of hiQ Labs.⁶¹ Though LinkedIn argued that its ability to prevent “malicious” attacks on its servers constituted a substantial public interest, hiQ Labs countered that the greater public interest was in allowing the collection of information.⁶² The court sided with hiQ Labs, reasoning that LinkedIn’s barriers were not preventing a malicious attack, but denying access to information that the company did not even own.⁶³ Furthermore, striking the preliminary injunction down would be antithetical to public interests because LinkedIn would gain a monopoly over publicly available information.⁶⁴ Conversely, the court agreed with hiQ Labs that data scraping serves a significant public interest since many

51. *Id.*

52. *Id.* (quoting 18 U.S.C. § 1030(a)(2)(C) (2019)).

53. *HiQ Labs, Inc.*, 938 F.3d at 1000.

54. *Id.*

55. *See id.* at 1001–02.

56. 18 U.S.C. § 1030(a)(2)(C).

57. *HiQ Labs, Inc.*, 938 F.3d at 1003–04.

58. *Id.* (quoting H.R. REP. NO. 98-894, at 20 (1984)).

59. *Id.* at 1001, 1003–04.

60. *Id.* at 1004.

61. *See id.* at 1005.

62. *Id.* at 1004–05.

63. *Id.* at 1005.

64. *See id.*

researchers use it to gather information.⁶⁵ In all, the court reasoned that the public interest factors favored hiQ Labs.⁶⁶

The Ninth Circuit thus concluded that all four prongs of the preliminary injunction test were met, upheld the District Court's preliminary injunction enjoining LinkedIn from prohibiting hiQ Labs' scraping, and remanded for further proceedings.⁶⁷

II. TRADEMARK LAW

A. *PATAGONIA, INC. V. ANHEUSER-BUSCH, LLC*

The United States District Court for the Central District of California denied a motion to dismiss brought by Anheuser-Busch, LLC regarding several of Patagonia, Inc.'s claims for violations of state and federal trademark law.⁶⁸ Patagonia's claims arose from Anheuser-Busch's use and procurement of the trademark PATAGONIA in the beer industry.⁶⁹

Patagonia regards its PATAGONIA trademark and P-6 logo as among "the most identifiable brands in the world."⁷⁰ The company has also built a brand around environmental consciousness, in part through an environmental non-profit established by Patagonia's CEO.⁷¹ Patagonia and its related companies have predominately used the trademark and logo in the context of apparel.⁷² However, Patagonia has used its PATAGONIA PROVISIONS mark to identify and promote food items, including beer.⁷³

The story of how Anheuser-Busch came to regard itself as the owner of the PATAGONIA trademark as it pertains to beer is hazy.⁷⁴ An Anheuser-Busch attorney filed a Statement of Use on behalf of their competitor—another beer importer—to avoid termination of the trademark, which the competitor held at the time.⁷⁵ The competitor had exhausted its ability to request extensions to show the use of the trademark from the United States Patent and Trademark Office (USPTO).⁷⁶ Prior to the termination of the final

65. *See id.* at 1004.

66. *Id.* at 1005.

67. *See id.*

68. *Patagonia, Inc. v. Anheuser-Busch, LLC*, No. 2:19-cv-02702-VAP-JEMx, at *20 (C.D. Cal. Sept. 3, 2019).

69. *Id.* at 3.

70. *Id.* at 2. The P-6 logo depicts six mountains with "Patagonia" written at the base of those mountains. *Id.* at 4.

71. *Id.* at 2.

72. *See id.*

73. *Id.*

74. *See id.* at 2–3.

75. *Id.* at 4.

76. *Id.*

extension window, the Anheuser-Busch attorney pointed to a single bottle of PATAGONIA beer in the aforementioned Statement of Use filed on behalf of the competitor.⁷⁷ The USPTO, regarding this showing as proof of the use of the trademark in interstate commerce within the requisite time window, issued the trademark to the competitor, who then assigned it to Anheuser-Busch.⁷⁸

Years later, Anheuser-Busch brewed up and acted on a plan to launch a PATAGONIA beer.⁷⁹ The promotional launch of the beer took place at a ski resort.⁸⁰ The beers were sold out of a stand bearing a logo with several mountain peaks and the text “Patagonia Cerveza” at the base of those mountains.⁸¹ The beer bottles had the same logo.⁸² The Anheuser-Busch staff selling the beer wore jackets with the same logo as well.⁸³ Finally, the promotion also included a pledge from Anheuser-Busch to “plant one tree for every case of beer purchased.”⁸⁴

Patagonia brought several trademark-related claims against Anheuser-Busch in response to Anheuser-Busch’s use and procurement of the trademark.⁸⁵ Anheuser-Busch filed a Federal Rules of Civil Procedure Rule 12(b)(6) motion to dismiss the federal trademark dilution claims, California trademark statutory law claims, and the federal Lanham Act claims.⁸⁶

The court reviewed the trademark dilution claim by assessing whether Patagonia sufficiently pleaded that the PATAGONIA trademark was “famous and distinctive.”⁸⁷ The court considered four non-exclusive factors in its review: the duration of the publicity of the mark, the volume of sales conducted under the mark, the public’s recognition of the mark, and the registration status of the mark.⁸⁸ Patagonia argued that their decades-long use of the trademark, bolstered by the company’s “enormous” investments in advertisement and promotion, qualified PATAGONIA as famous since well before its use by Anheuser-Busch.⁸⁹ In holding the allegations as true and construing the facts in favor of Patagonia, the court held that Patagonia had

77. *Id.* at 18.

78. *Id.* at 5.

79. *Id.* at 3.

80. *Id.*

81. *Id.*

82. *Id.*

83. *Id.* at 4.

84. *Id.* at 3.

85. *Id.* at 5.

86. *Id.* at 8, 10–11.

87. *Id.* at 8.

88. *Id.* at 9.

89. *Id.*

adequately made out its claim by alleging a trademark registration date of 1982, \$10 billion in sales since 1985, and a global market for Patagonia products.⁹⁰

For the California trademark law claims, the court analyzed whether Patagonia's allegations sufficiently put Anheuser-Busch on notice of specific state law claims.⁹¹ According to Anheuser-Busch, Patagonia cited "inapplicable statutes" and, furthermore, failed to provide facts supporting claims under potentially relevant statutes.⁹² Patagonia asserted that the substance of their complaint sufficed for notice and that discovery could resolve any issues in identifying the proper statutes.⁹³ The court sided with Patagonia's view and denied the motion.⁹⁴

Finally, the court addressed the motion to dismiss three of Patagonia's Lanham Act claims.⁹⁵ The claims pertained to (1) the "anti-trafficking" rule, (2) the bar against the use of a trademark in a manner that falsely suggests a connection with another entity, and (3) the ban of use of fraudulently procured trademarks.⁹⁶

The anti-trafficking rule within the Lanham Act prohibits assigning an intent-to-use application before the applicant files a verified statement that they are using the mark.⁹⁷ Patagonia pleaded that Anheuser-Busch actually was assigned the intent-to-use application prior to its competitor filing a Statement of Use.⁹⁸ The court found Patagonia's anti-trafficking and abandonment claims sufficient to overcome Anheuser-Busch's motion to dismiss.⁹⁹

Anheuser-Busch contested Patagonia's arguments for two reasons.¹⁰⁰ First, they argued that "[Patagonia] cannot offer allegations that are 'merely consistent with' their favored explanation" ¹⁰¹ But the court held that the allegations did more than support Patagonia's favored explanation because they tended "to exclude the possibility that Anheuser-Busch's explanation . . . is true."¹⁰² Second, Anheuser-Busch denied that Patagonia had adequately alleged abandonment of the trademark.¹⁰³ Here, the court agreed with

90. *Id.* at 9–10.

91. *Id.* at 10.

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.* at 11. The Lanham Act permits federal courts to cancel an invalid trademark registration. *Id.*

96. *Id.* at 14–17.

97. *Id.* at 11.

98. *Id.* at 12–13.

99. *Id.* at 15.

100. *Id.* at 13–14.

101. *Id.* at 13.

102. *Id.* at 13–14.

103. *Id.* at 14.

Patagonia that the several years between Anheuser-Busch's registration of the trademark and its use of the trademark evidenced discontinuance.¹⁰⁴

The court likewise denied Anheuser-Busch's motion to dismiss the false suggestion claim.¹⁰⁵ Anheuser-Busch contested two of the four elements of Patagonia's claim: the second element—that the mark was a near approximation of that used by Patagonia, and the fourth element—that Patagonia had attained enough fame to infer that someone viewing Anheuser-Busch's PATAGONIA trademark would presume a connection with Patagonia.¹⁰⁶ Regarding the second element, the court determined that a 12(b)(6) motion did not facilitate the “fact-intensive inquiry” required for evaluating the approximation; therefore, the court held Patagonia's allegation that PATAGONIA “uniquely and unmistakably identified Patagonia” as true and denied the motion.¹⁰⁷ Regarding the fourth element, Anheuser-Busch argued that Patagonia failed to allege sufficient facts to show that consumers, at the time of the registration of the mark, would assume the mark belonged to Patagonia.¹⁰⁸ But Patagonia's showing of how U.S. consumers regarded the trademark sufficed to convince the court otherwise.¹⁰⁹

The court denied Anheuser-Busch's motion to dismiss the false procurement claim because Patagonia pleaded with sufficient particularity.¹¹⁰ For example, the court cited as specific enough Patagonia's evidence that Anheuser-Busch falsely asserted the trademark was being used in a commercial context.¹¹¹ The specificity standard for that evidence was met because a single bottle of beer in a white-walled room could be alleged to not indicate commercial use.¹¹² Hence, based on the photo and similar specific evidence, the court did not find fault with the particularity of Patagonia's fraud allegations.¹¹³

In a war between Big Beer and Big Vest, it appears the first battle went to Big Vest.

104. *Id.* The court also agreed that Anheuser-Busch failed to show any commercial intention to use the trademark during that window, as indicated by a lack of press releases and promotional statements relating to Anheuser-Busch's intent to use the trademark. *Id.*

105. *Id.* at 17.

106. *Id.* at 15.

107. *Id.* at 15–16.

108. *Id.* at 16.

109. *Id.* at 16–17.

110. *Id.* at 19.

111. *Id.*

112. *Id.*

113. *Id.*

B. BANKSY'S FAKE STORE

On October 1, 2019, famed international street artist Banksy announced he was opening a shop in London named Gross Domestic Product.¹¹⁴ Banksy claimed he had to open shop and sell his artwork in order to protect his name in a legal dispute against a greeting card company named Full Colour Black.¹¹⁵ He alleged that Full Colour Black was contesting the trademark to his art, while also attempting to take custody of his name so the company could “sell their fake Banksy merchandise legally.”¹¹⁶ The three-person company photographed Banksy's public graffiti art to place on greeting cards.¹¹⁷ Full Colour Black claimed its purpose was to make Banksy's official canvases available to “the public,” who cannot afford his art because “Banksy never makes anything available to his fans.”¹¹⁸

The trademark dispute began in March 2019 when Full Colour Black commenced invalidity proceedings to cancel an E.U. trademark on one of Banksy's famous murals, *Rage, The Flower Thrower*.¹¹⁹ Pest Control Office Limited, the entity which authenticates his art, registered the trademark for this piece in August 2014.¹²⁰ In the European Union, if an entity does not use its

114. Banksy (@Banksy), INSTAGRAM (Oct. 1, 2019), https://www.instagram.com/p/B3FAJKonJ_z/ [<https://perma.cc/83DA-PY2U>].

115. Lisette Voytko, *Banksy Puts His Art Up For Sale In London, Starting at \$12*, FORBES (Oct. 1, 2019), <https://www.forbes.com/sites/lisettevoytko/2019/10/01/banksy-puts-his-art-up-for-sale-in-london-starting-at-12/#79f1b3213d51> [<https://perma.cc/DY3T-GZEN>]; see Tim Lince, “*A frankly pointless step*” – *Why Banksy pop-up shop could hinder trademark case*, WORLD TRADEMARK REV. (Oct. 2, 2019), <https://www.worldtrademarkreview.com/brand-management/frankly-pointless-step-why-banksy-pop-shop-could-hinder-trademark-case> [<https://perma.cc/2ZF4-UGQK>].

116. Lanre Bakare, *Banksy launches homewares shop in dispute over trademark*, GUARDIAN (Oct. 1, 2019), <https://www.theguardian.com/artanddesign/2019/oct/01/banksy-launches-homewares-shop-in-dispute-over-trademark> [<https://perma.cc/RR7A-PDES>]; see Lince, *supra* note 2.

117. See Full Colour Black, @FullColourBlack, FACEBOOK (Oct. 4, 2019), <https://www.facebook.com/notes/full-colour-black/public-statement-release/2557627524344258/> [<https://perma.cc/Z8B5-WQYT>].

118. *Id.*

119. Enrico Bonadio, *How Banksy's latest trademark row could backfire*, CONVERSATION (Oct. 10, 2019), <https://theconversation.com/how-banksys-latest-trademark-row-could-backfire-124919> [<https://perma.cc/BR9A-ZZ5W>]. The European Intellectual Property Office does not have a name on file for the art piece. The name is often interchangeable between *Rage, the Flower Thrower*, *Flower Thrower*, and *Love Is In The Air*. See (*Trade mark without text*) 012575155, EUROPEAN UNION INTEL. PROP. OFF., <https://euipo.europa.eu/eSearch/#details/trademarks/012575155> [<https://perma.cc/ET63-2ZHN>] (last visited Dec. 13, 2019); see also *Banksy Artworks*, ART STORY, <https://www.theartstory.org/artist/banksy/artworks/> [<https://perma.cc/5BN5-DH8J>] (last visited Dec. 13, 2019) (referring to the piece as “Rage, the Flower Thrower”).

120. Bonadio, *supra* note 6.

trademark in commerce, the trademark may be transferred to someone who will use it for commercial purposes.¹²¹ Banksy has not used Rage, the Flower Thrower, in any commercial endeavors and therefore has a questionable trademark title to this piece.¹²² To prevent the trademark transfer, Banksy's legal team advised him to open up Gross Domestic Product to fulfill the trademark requirements under E.U. law.¹²³ The shop's doors never opened, as Banksy conducted the sales through an online server with prices starting at \$12.¹²⁴

Full Colour Black's attorney, Aaron Wood, argued that opening up shop is "frankly pointless" because the company was not attempting to revoke the trademark, but rather to challenge its legitimacy.¹²⁵ Wood further alleged that the shop strengthened the trademark challenge because Full Colour Black is not arguing that the trademark fails for lack of use in commerce.¹²⁶ Instead, the greeting card business was challenging the legitimacy of Banksy's trademark entirely, claiming that Banksy is using trademark law to skirt the requirements of copyright law and to "monopolise his work in bad faith."¹²⁷ Because artwork is generally protected through copyright law, the company alleges that Banksy's trademark registrations were done in bad faith to avoid exposing himself through copyright law.¹²⁸

Banksy pushes the protection of his name through trademark law rather than copyright law, claiming that "copyright is for losers."¹²⁹ Note that Banksy is famous in part for his ability to reach a global audience while keeping his identity hidden.¹³⁰ If Banksy were to begin a copyright suit, this would require Pest Control to reveal his true identity in order to prove his ownership over his art.¹³¹ Moreover, Full Colour Black has allegedly written Banksy and his legal team on multiple occasions since 2010 to suggest paying him royalties,

121. See Lince, *supra* note 2.

122. *Id.*; see (*Trade mark without text*), *supra* note 7 (demonstrating adversarial proceedings against the piece).

123. Ellie Harrison, *Banksy attacked for 'tricking fans' in ferocious statement by company at centre of trademark row*, INDEPENDENT (Oct. 5, 2019), <https://www.independent.co.uk/arts-entertainment/art/news/banksy-full-colour-black-custody-claim-trademark-merchandise-london-store-a9144231.html> [<https://perma.cc/FD92-QBD6>].

124. Voytko, *supra* note 2.

125. Lince, *supra* note 2.

126. See *id.*

127. *Id.*

128. Sharon Kirby, *Copyright is for losers, trade marks are for Banksy – the Banksy trade mark case explained*, LEXOLOGY (Oct. 23, 2019), <https://www.lexology.com/library/detail.aspx?g=3ce410d3-e5a2-4cd2-917d-b1ff02e755be> [<https://perma.cc/B8AF-2B5Y>].

129. See Bonadio, *supra* note 6.

130. *Id.*

131. *Id.*

which Banksy declined.¹³² By refusing to accept these royalties, Full Colour Black alleges that Banksy has refused his copyright and trademark rights to these art pieces.¹³³

As the legal battle ensues, several questions remain unanswered, specifically, whether Banksy's artwork, or anyone's art piece, can provide a trademark right.¹³⁴ Furthermore, it is uncertain if Banksy's quick actions will be seen as a genuine use of the trademark and whether it matters that the artist began using the art as commerce after the trademark was registered.¹³⁵ If Banksy knew that the work did not act as a trademark, but deliberately sought trademark protection to circumvent copyright law, the E.U. Intellectual Property Office may find the registration invalid.¹³⁶

132. Full Colour Black, *supra* note 4.

133. *See* Bonadio, *supra* note 6.

134. Lince, *supra* note 2.

135. *Id.*

136. *See id.*