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THE INNOVATOR'S DILEMMA

MAX S. OPPENHEIMER*

INTRODUCTION

The United States patent system is designed to force innovators to make a choice: maintain their innovations as trade secrets or disclose them in exchange for patent protection.

Trade secret protection offers the prospect of perpetual protection, but it may be defeated by independent discovery of the secret.[1] Conversely,

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1. Uniform Trade Secrets Act § 1 (1979) (amended 1985) (stating that a trade secret is "information that: (i) derives independent economic value . . . from not being generally known to, and not being readily ascertainable by proper means . . . and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its

patent protection offers protection against independent discovery, but it limits the term of protection.[2]

The patent system is often referred to in contract terms: the public obtains information which the innovator had the right to keep secret plus the right to use the innovation once the patent expires, while the innovator obtains enhanced protection for the innovation during the term of the patent. It is elementary contract law that there must be a "meeting of the minds";[3] each party must know what they are giving up and what they are receiving.

Through the mid-twentieth century, innovators were able to make rational decisions between the two forms of protection; the decision did not need to be made until the terms of the patent on offer were finalized. Therefore, the innovator could compare known patent protection against known trade secret protection, fully understanding the bargain.

Four developments have made innovators' decisions more of a gamble and less of a contract: (1) patent office disclosure of innovations before reaching a decision on patentability, resulting from the introduction of pre-grant publication;[4] (2) delay in processing patent applications resulting from increased volume of applications;[5] (3) restrictions and uncertainty as to what is patentable, resulting from Supreme Court decisions regarding statutory subject matter;[6] and (4) incentives to file patent applications early (and possibly prematurely), resulting from the change from a first-to-invent system to a first-to-file system.[7]

Combined, these developments force innovators to guess what might be on the other side of the bargain. They know that they must give up trade secret protection but they no longer know what, if any, patent protection they will get in exchange.

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secrecy.") There is no fixed term—as long as the definitional requirements are met, trade secret rights continue. However, those rights only extend to prevention of "misappropriation"—acquisition or use of the trade secret by one who obtained it by "improper means." Thus, there is no protection against subsequent independent invention, since it does not meet the definition of misappropriation.

2. 35 U.S.C. § 154(a)(2) (2011) ("Subject to the payment of fees under this title, such grant shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States.").

3. Bowsher v. Merck & Co., 460 U.S. 824, 864 (1983) ("A contract, after all, is a meeting of the minds."); *see also* RESTATEMENT (SECOND) OF CONTRACTS § 17 (1981).

4. 35 U.S.C. § 122 (stating in pertinent part that "each application for a patent shall be published . . . promptly after the expiration of a period of 18 months from the earliest filing date for which a benefit is sought under this title").

5. *See infra* p. 381.

6. *See infra* p. 385.

7. *See infra* p. 383.

This Article begins by describing the fundamental patent bargain: the federal government's offer of patent rights to an innovator in exchange for the innovator's trade secret rights. It then describes how the bargain was reached in "the good old days"—prior to the recent wave of patent reform. It then describes that wave of patent reform and how the modernization movement changed the nature of the bargain, with an emphasis on four changes: (1) the statutory revision that mandated publication of patent applications while they were still pending; (2) the administrative delays in deciding whether an innovation was patentable or not; (3) the statutory change to a first-to-file system and the resultant pressures on the patent office; and (4) Supreme Court decisions casting uncertainty on the likelihood of patentability of certain categories of innovation. It then catalogs and evaluates options for improving innovators' options.

I. THE FUNDAMENTAL PATENT BARGAIN

All inventions start as trade secrets. The Uniform Trade Secrets Act defines a trade secret as information that—

> (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.[8]

Thus, until the inventor discloses the invention to someone else, it meets the definition of a trade secret because, prior to disclosure, there is no way other persons can learn it by proper means and the inventor is, by definition, taking reasonable steps to maintain its secrecy. A trade secret lasts as long as the definitional requirements are met; it has the theoretical potential to be a perpetual right. Publication of a patent destroys any trade secrets contained in the application by making them generally known.[9] The inventor therefore must make a choice: keep the trade secret (perhaps forever) or give it up in exchange for a patent. More precisely, the exchange is not for a patent but rather for a possibility of a patent.[10] It is this difference (possibility instead of certainty) that creates the dilemma facing innovators.

The owner of a trade secret can prevent misappropriation, which is generally defined as disclosure or use of a trade secret obtained by

8. Uniform Trade Secrets Act § 1(4) (1979) (amended 1985).

9. MPEP § 1309 (9th ed., Mar. 2014); *see also id.* § 1 (allowing publication would also destroy the trade secret as a failure to make reasonable efforts to maintain its secrecy).

10. *See infra* pp. 380-83.

improper means,[11] while the owner of a patent can prevent infringement, which is generally defined as the manufacture, use, sale or importation of a product incorporating a patented invention for a period starting on the date the patent is issued[12] and ending twenty years after the date the patent application was filed.[13]

While enforcement of a trade secret turns on whether the alleged infringer obtained the information from the trade secret owner, enforcement of a patent does not.[14] Thus, subsequent independent discovery is a defense against trade secret misappropriation but not against patent infringement. In addition, once a second party has independently discovered the trade secret information, that party is free to disclose it and thereby destroy the original trade secret owner's rights; a patent is not invalidated by subsequent independent discovery.[15] The patent system therefore provides motivation for holders of patent-eligible trade secrets to disclose them (and therefore surrender protection under trade secret law) in exchange for rights that are broader in scope but potentially shorter in duration. A patent has a fixed, but guaranteed, expiration date[16] while the term of a trade secret is uncertain and depends on events beyond the owner's control.[17]

A patent represents a bargain between the federal government and an innovator, as envisioned by the Constitution.[18] The Constitution authorizes

11. Uniform Trade Secrets Act § 1(2).

12. 35 U.S.C. § 154(a)(2) (2011).

13. *Id.* § 154 (stating that the patent expires twenty years after the date the earliest application was filed (i.e., if there are a series of related patent applications, referred to as "continuing applications," the term is measured from the date the first in the series was filed) and that it is subject to adjustment in certain circumstances related to delays in processing by the Patent Office).

14. *Id.* § 271(a) ("Except as otherwise provided in this title, *whoever* 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.") (emphasis added).

15. *Id.* § 102 (providing that under the first-to-file system, a second inventor can destroy the first inventor's right to a patent by disclosing the invention before the first inventor discloses the invention (and files an application within a year from the disclosure) or files a patent application. The first inventor can minimize or eliminate this risk by filing a patent application as soon as an invention is made. A problem under the first-to-file system is the difficulty of determining just when an invention has been made.).

16. *Id.* § 154 (stating that it is subject to the owner's payment of periodic maintenance fees).

17. Uniform Trade Secrets Act § 1 (1979) (amended 1985).

18. U. S. CONST. art. I, § 8, cl. 8 ("To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries [. . . .]"); *see also* Congoleum Indus., Inc. v. Armstrong Cork Co., 366 F.Supp. 220 (E.D. Pa.1973) (explaining that the "Public

Congress to motivate scientific progress by granting limited term monopolies to inventors. Congress implemented this power early,[19] creating a system that promotes progress by motivating innovators to give up trade secret protection in exchange for a limited term, federally protected monopoly on the innovation.[20] The patent laws are not "primarily designed to provide a special private benefit .... [They are] intended to motivate the creative activity of authors and inventors . . . and to allow the public access to the products of their genius after the limited period of exclusive control has expired."[21] However, in order to motivate that creative activity, the statute offers inventors several benefits; in return, the public gets disclosure.[22]

In theory, the disclosure required by the patent system benefits society more broadly than trade secret protection because broad disclosure provides the starting point for further research to a larger pool of researchers.[23]

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policy of promoting the progress of the useful arts is achieved by granting a limited monopoly to an inventor who fully discloses his invention to the public in a United States patent"); Edward C. Walterscheid, *To Promote the Progress of Science and Useful Arts*, 2 J. INTELL. PROP. L. 1, 31-34 (1994) (detailing how the clause was adopted).

19. Patent Act of 1790, 1 Stat. 109 (1790) (repealed 1793).

20. *See* U.S. CONST. art. I, § 8, cl. 8 ("The Congress shall have Power . . . [t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."). Note that this particular exchange is Congress' invention—the Constitution does not require disclosure of the invention in order to obtain the exclusive rights conferred by a patent.

21. Sony Corp. v. Universal City Studios, 464 U.S. 417, 429 (1984). *Sony* is not a patent case. It involved alleged infringement of copyrights. However, both copyright and patent laws are authorized by the same clause of the Constitution, and the *Sony* copyright analysis relies in part on patent precedents.

22. The Constitution speaks of promoting "progress," not "disclosure." Professor Malla Pollack has analyzed the meaning of the term "progress" in the Constitution and has concluded that the best interpretation is that Congress was instructed to promote disclosure and dissemination of inventions and discoveries. Malla Pollack, *What Is Congress Supposed to Promote?: Defining "Progress" in Article i, Section 8, Clause 8 of the United States Constitution, or Introducing the Progress Clause*, 80 NEB. L. REV. 754 (2001) (noting that there are multiple possible interpretations of "progress" in Art. I Sec 8 Cl. 8: "quality improvement in the knowledge base, quantity improvement in the knowledge base (numerically), quantity improvement in the knowledge base (judged economically), and spread (distribution to the population)" but concluding that "'progress means 'spread,' i.e. diffusion, distribution"); *see also id.* at 755 ("Disclosure and dissemination" is also the interpretation which supports the requirements of 35 USC §§ 112 and 122.").

23. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974); *see also* Peter Lee, Note, *Patents, Paradigm Shifts and Progress in Biomedical Science*, 114 YALE L.J. 659 (2004) (arguing that patents promote hypothesis generation).

II. THE GOOD OLD DAYS

The innovators ideal would be to have the exclusive right to sell products embodying their innovations forever. This would enable them to charge monopoly prices and maximize profits. This ideal cannot be achieved.

An innovator can choose to maintain the innovation as a trade secret. There is no time limit on the trade secret.[24] However, there is an "event limit" on the term of trade secret protection. If a second innovator independently makes the same innovation, it is not a misappropriation,[25] and therefore, the second innovator is free to make use of that innovation to compete. Thus, the holder of a trade secret risks competition from another innovator. Moreover, it is not a misappropriation,[26] (and therefore, the second innovator is free) to make a public disclosure of the innovation. Thus, the holder of a trade secret risks destruction of the trade secret and the resulting competition from the general public, and he or she can do nothing to preclude this risk.[27]

This provides the motivation to seek a less fragile form of protection for innovation, and the consideration (in the form of a patent) that the public might provide in a contract to obtain disclosure of the trade secret information. In the normal contract situation, each party knows what it is giving up and what it is gaining.[28]

As initially contemplated, the patent system provided innovators with a clear understanding of what the contract bargain involved, allowing innovators to make reasoned decisions concerning whether to maintain their innovations as trade secrets (and take the chance that someone else might independently recreate the same innovation and thereby destroy their competitive invention) or to accept instead a patent whose terms were known at the time the choice was made.

In "the good old days," lasting roughly from 1793 until the wave of patent harmonization and modernization that began in the mid-twentieth century, patent applications were maintained in confidence until issued as

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24. *See supra* p. 373.

25. *See supra* note 1.

26. *See supra* p. 374.

27. *See supra* p. 374 (explaining that in order to maintain a trade secret, the innovator must take reasonable steps to prevent disclosure of the secret information. While that is necessary, it is not sufficient.); *see also supra* note 8 (noting that an additional requirement for maintaining trade secrecy is that the information not become generally available by improper means. Therefore, even if the innovator is entirely successful in taking reasonable steps to prevent disclosure, there is still a risk that the trade secret will be lost.).

28. The consideration may depend on external factors (as do, for example, production contracts or requirements contracts) but not to the point that there is no consideration on one side of the contract.

patents. Therefore, the patent process did not destroy trade secrets until the patent actually issued.[29]

The process of patenting an innovation begins with the filing of a patent application,[30] which includes specific, one-sentence-long claims which define the invention and set forth what competitors may not use, sell, or import.[31] In considering whether to issue a patent, the U.S. Patent and Trademark Office ("PTO" or "Patent Office") examines the application[32] to determine whether it discloses and claims an invention that meets the statutory criteria: principally, that the claimed invention is patentable subject matter,[33] that it is novel,[34] that it is non-obvious,[35] and that it is adequately described in the application.[36] The PTO then advises the applicant which, if any, of the claims it is willing to allow. The applicant then has several options, including attempting to convince the PTO to allow additional claims, amending claims to overcome the PTO's concerns, or abandoning the application. Applicants are generally allowed at least six months to reply to an examiner's action regarding an application.[37]

Patent applications used to be maintained in confidence until the patent

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29. Other events could, of course, still destroy the trade secret during pendency of the patent application. For example, if a competitor independently discovered the trade secret information and decided to publish it, the trade secret would be destroyed. However, provided that this occurred after the patent application had been filed, it would have no effect on patentability. In this situation, the competitor would face infringement (for using its own independent invention) once the innovators patent issued.

30. There are two types of utility patent applications—provisional and non-provisional. Only Non-Provisional applications are examined. 35 U.S.C. § 111 (2011).

31. 35 U.S.C. § 112 (2011).

32. *Id.* § 131.

33. *Id.* § 101.

34. *Id.* § 102.

35. *Id.* § 103.

36. *Id.* § 112 (requiring the application to contain a written description (and drawings, if necessary to understand the invention as per § 113) in sufficient detail to enable one of ordinary skill in the art to make and use the invention).

37. 35 U.S.C. § 133 (2011) ("Upon failure of the applicant to prosecute the application within six months after any action therein . . . or within such shorter time . . . as fixed by the Director in such action, the application shall be regarded as abandoned."); *see also* 37 C.F.R. § 1.136(1) (2002) (noting that the Patent Office usually sets an administrative deadline of less than six months but its administrative rules provide that such deadlines can be extended up to the statutory six months by paying late fees); MPEP § 710.02(e) (9th ed., Mar. 2014) ("If an applicant is required to reply within a nonstatutory or shortened statutory time period, applicant may extend the time period for reply up to the earlier of the expiration of any maximum period set by statute or five months after the time period set for reply, if a petition for an extension of time and the fee set in § 1.17(a) are filed.").

issued.[38] Thus, at any point prior to issuance of the patent, the applicant could withdraw the application, and its contents would remain secret. As a result, there was a bargain in the contract sense.[39] The applicant traded a trade secret for a patent, and both parties knew exactly what they were giving up and what they were getting.[40]

Patents lasted for seventeen years from the date the patent issued. Therefore, delays in the patent office did not reduce the term of the patent.[41]

Thus, in "the good old days," the fundamental bargain – limited term monopoly in exchange for the disclosure of a trade secret – comported with standard contract notions. The owner of a trade secret made an informed decision to exchange that property for specific other property.[42]

The fundamental bargain began to become complicated, as the patent reform movement changed the date when that decision needed to be made, then provided strong incentives that increased the number of patent applications and so increased the pendency of applications, while the Supreme Court cast doubt on the reliability of predictions of patentability.

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38. 35 U.S.C. § 122(a).

39. RESTATEMENT (SECOND) OF CONTRACTS § 17 (1981) ("The formation of a contract requires a bargain in which there is a manifestation of mutual assent to the exchange and consideration.").

40. Even an issued patent can be invalidated, and the Commissioner can withdraw a patent (although that power is rarely exercised). Either of these situations deprives the applicant of nothing if the invalidation is based on prior art, but poses a problem if the invalidation is based on qualification as statutory subject matter.

41. While delays did not reduce the term of the patent, they did shift the term. One of the motivations for the shift from the seventeen year from date of issue term to the current twenty year from date of application term was the fear of an abuse known as the submarine patent - an application kept pending for a long period while competitors invested in product development and promotion, only to find that they could not market their products once the patent issued. An extreme example, U.S. Pat. 2,705,484 (Mechanism for Controlling the Starting and Operation of Internal Combustion Engines), was filed in 1932 and not issued until 1955. Jorgensen v. Kingsland, 83 F. Supp. 319 (D.D.C. 1949). Delay in issuing a patent does not always work to the innovator's advantage. Fad products, for example, may lose market value before the patent issues, and therefore, the patent has no value in constraining competition. Delays in gaining patent protection can also give competitors time to build market power before being constrained by the threat of patent infringement. For example, it took Texas Instruments nearly thirty years to obtain the Japanese patent on the integrated circuit, the key to the modern computer industry. Texas Instruments applied for the patent on February 6, 1960, and it did not receive conditional approval until 1986. Japanese companies filed objections which further delayed issue until 1989. Some thought the Japanese government acquiesced in the delay in order to help its domestic computer industry develop. John Burgess, *Japan Gives U.S. Firm Circuit Patent*, WASH. POST, Nov. 22, 1989, at E2.

42. Interesting contract issues, beyond the scope of this article, arise where the trade secret owner is a minor.

III. THE MODERNIZATION MOVEMENT

Beginning in the 1970s, patents began to play a larger role in business. The emergence of high technology industries—the semiconductors and the personal computer industry, which enabled computer software and biotechnology—focused public attention on the importance of patents. With that attention came proposals to modernize the patent statute and increased patent litigation (and with it opportunities for courts to modernize interpretations of the statute).

Four developments, in particular, complicated the innovator's decision whether to surrender trade secret protection in order to obtain patent protection: a statutory change which allowed publication of patent applications eighteen months after filing, whether the patent had issued or not; delays in patent office processing which pushed the average time before patents were issued well beyond the eighteen month period thus forcing a decision before the patentability of the innovation was known; a statutory change awarding patents based on filing date rather than date of invention, with the effect of motivating additional patent filings and therefore greater pressure on the patent office's backlog; and Supreme Court statutory interpretations that limit the categories of patentable innovations.

A. Pre-Grant Publication

In 1975, as part of an international harmonization effort, the statute was amended to provide for publication of pending patent applications.[43] With certain exceptions, the new law provided that patent applications would be published eighteen months after their initial filing date.[44] If the PTO reviews an application and issues a final decision within eighteen months, there is no problem. The innovator can make a decision whether to accept the offered patent before the PTO publishes the application and destroys its trade secrets. In the case where the PTO concludes that the innovation is not patentable (or the scope of protection offered by the PTO is not satisfactory to the innovator), the innovator can abandon the application, and the patent will not be published – the trade secrets will remain intact. If the PTO agrees to a scope of patent protection satisfactory to the innovator, the innovator can allow the patent to be issued, thereby destroying its trade secrets but obtaining an acceptable patent in return.

43. 35 U.S.C. § 122(b) (stating that applications are published eighteen months after their priority date).

44. It is common to file patent applications which claim priority from earlier-filed patent applications. In many cases, there are advantages to establishing the earliest priority date possible. The publication rule measures the eighteen months from the date of the earliest filed application from which priority is claimed.

Thus, the fundamental contract bargain is maintained if the patent office disposes[45] of applications before publication. However, if the PTO has not reached a final decision on patentability before the eighteen-month date is reached, the innovator is faced with balancing not trade secret protection against determined patent protection but trade secret protection against a range of possibilities of patent protection. The innovator's dilemma is even more acute if the application has not even been reviewed substantively at the time the applicant must make the decision. In that case, not only does the applicant not know the final form of patent protection, the applicant does not even have information regarding the PTO's position on patentability. In other words, the decision is more a lottery than a traditional contractual bargain.

B. The Pendency Problem

In "the good old days," pendency was generally not an issue for applicants. Patentees could maintain trade secret protection for as long as the application remained pending, so there was no trade-secret-related cost of delay. With the introduction of publication at eighteen months after filing, pendency became important.

There are two pendency periods of interest. "First action pendency" is the time from the filing of a complete patent application until a patent examiner substantively reviews the application and issues a first action regarding patentability), and "disposition pendency" is the time from filing until the application is disposed of, either by allowance and issue as a patent or by abandonment). While the PTO measures both[46] and both are of interest to an applicant, first action pendency is the applicant's first opportunity to gain insight into how the PTO views the application and therefore the applicant's first opportunity to make an informed evaluation of the chances of obtaining a patent and the likely scope of protection.[47]

The ability of the applicant to make this evaluation is important because of the "trade secret disclosure in exchange for patent protection" trade.

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45. Disposition - i.e., either allowance of claims or final denial of the application-would be ideal. A first substantive patent office evaluation of the application prior to publication would at least give the applicant an indication of the likelihood of obtaining patent protection before the irrevocable decision to surrender trade secret protection had to be made.

46. 2013 USPTO PERFORMANCE AND ACCOUNTABILITY REP. 14.

47. The inventor still faces uncertainty, as the first substantive action is rarely the end of prosecution. The first action does, however, provide important information indicating how the Patent Office views the application. In particular, under the current system, this is the earliest date on which the inventor will learn whether the Patent Office perceives an issue regarding statutory subject matter. Of course, there is still uncertainty even if the Patent Office sees no such issue, as the issue can still be raised as a defense in an infringement action.

Under pre-1975 law, the problem did not arise because patent applications were maintained in confidence until the patent issued,[48] so at any point prior to issuance of the patent, the applicant could withdraw the application and its contents would remain secret. There was a bargain in the contract sense. The applicant traded a trade secret for a patent, and both parties knew exactly what they were giving up and what they were getting.[49] With the 1975 statutory amendment[50] that provided for publication of pending patent applications,[51] the fundamental contract bargain could still be maintained if the patent office disposed[52] of applications before publication. However, if the application has not even been reviewed substantively at the time the applicant must make the decision, the decision is more a lottery than a traditional contractual bargain.

The Patent Office faces a significantly different world today than it did in 1975. In 1975, roughly 100,000 utility patent applications were filed, and 72,000 were issued as patents.[53] In 2013 (the latest year for which there is available data), nearly 575,000 applications were filed, and more than 275,000 patents were issued.[54] Expectations are that the transition to first-to-file under the America Invents Act ("AIA") will result in even more applications being filed, as nervous inventors will be motivated to file multiple applications on the same invention in order to reduce the risk that an anticipatory prior art reference will be created while the inventor is perfecting the invention.[55]

While the Patent Office has made progress in the last five years, it has been unable to provide a first substantive review of most patent applications within eighteen months of their filing date, and the average

48. 35 U.S.C. § 122(a).

49. *See supra* note 40.

50. Pub. L. No. 93-596, 88 Stat. 1949 (1975).

51. 35 U.S.C. § 122(b) (stating that applications are published eighteen months after their priority date).

52. Disposition - i.e., either allowance of claims or final denial of the application- would be ideal. A first substantive patent office evaluation of the application prior to publication would at least give the applicant an indication of the likelihood of obtaining patent protection before the irrevocable decision to surrender trade secret protection had to be made.

53. U.S. PATENT STATISTICS CHART CALENDAR YEARS 1963-2013, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (showing that the exact numbers were 101,014 applications filed and 72,000 issued. Of course, the issued patents were unlikely to have been filed in the same year they were issued because of the time taken to examine an application. The numbers, however, are representative. Between 1970 and 1980, applications ranged from 99,298 to 104,329, and issued patents ranged from 48,854 to 78,317.).

54. *Id.*

55. Sean T. Carnathan, *Patent Priority Disputes-A Proposed Re-Definition of "First-to-Invent"*, 49 ALA. L. REV. 755, 796 (1998).

time to reach a final decision on patentability approaches two and a half years.[56] Assuming that two weeks would be sufficient time for an inventor to receive a first substantive action, evaluate it, and make a decision whether to continue with the application or abandon it, the average pendency to first action would need to be reduced to sixteen-and-a-half months in order to allow for a decision to abandon the application to be communicated to the PTO in time to withdraw the application from publication.[57]

In part, the pendency problem can be traced to a PTO policy known as "compact prosecution," i.e., the identification of all issues related to patentability in the first substantive response to the applicant.[58] Patent Office guidance to its examiners cautions against "piecemeal prosecution":

> Piecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . . . Rejections on grounds such as lack of proper disclosure, lack of enablement, indefiniteness and res judicata should be applied where appropriate even though there may be a seemingly sufficient rejection on the basis of prior art.[59]

On the positive side, compact prosecution gives the applicant as complete a picture as possible of the hurdles (if any) to patentability. There is, however, also a negative side because compact prosecution requires more work and therefore extends the time from filing until an application is even examined, delaying the point at which the applicant gets initial insight into the Patent Office's position on patentability.[60]

Prior to the adoption of pre-grant publication, this delay would have had no adverse impact on the innovator, as trade secret rights remained intact during the delay. Therefore, prior to issue (and surrender of the trade

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56. USPTO PERFORMANCE AND ACCOUNTABILITY REP., *supra* note 46, at 16 (revealing that average pendency to first action was 18.2 months and to disposition 29.1 months in 2010. Five years ago, the average time to first action was 26.9 months, and the average time to disposition was 34.7 months.).

57. 37 C.F.R § 1.138(c) (2002) (stating that an applicant can avoid publication by filing an express abandonment of an application under). *Cf.* MPEP § 1120 (9th ed., Mar. 2014) ("The Office cannot discontinue the pre-grant publication process during the last two to four weeks of the publication process.") It would therefore appear that the Patent Office must receive notice of abandonment no later than (and possibly earlier than) seventeen months from the effective application date.

58. 37 C.F.R § 1.104(b) ("The examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before further action is made."); MPEP § 706.03.

59. MPEP § 707.07(g).

60. An administrative decision to relax the rules of compact prosecution would benefit innovators. *See* Max S. Oppenheimer, *Rethinking Compact Prosecution*, 25 ALB. L.J. SCI. & TECH. 257 (2015).

secrets disclosed by the patent), the innovator would have received (and approved) the exact language reflecting what the patent claims would cover (and therefore deny to competitors). The patent bargain reflected a fully informed choice by the innovator, made at a time when both options (trade secrecy or defined patent protection) were available.[61]

However, with the publication clock ticking, a policy which delays the time at which the innovator can make an informed evaluation of what the Patent Office might offer in exchange for the innovator's trade secrets is a negative.

C. The Redefinition of Inventorship: First-to-File

The move from the historical first-to-invent system to a first-to-file system was highly contentious.[62] During that debate, proponents of the historical system worried about the impact of the change on the quality and pendency of patent applications. Under the historical first-to-invent system, the first inventor was entitled to a patent if an application was filed within a year of the first public disclosure or offer of sale of the invention.[63] Under a first-to-file system, if the technology claimed in a patent application is already in the prior art[64] as of the date the application is filed, the application will be rejected.[65] Critics of the first-to-file system were therefore concerned that such a system would force inventors to file multiple premature and sketchy disclosures for fear of losing out to a later inventor who managed to draft an application more quickly.[66] This, critics

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61. Even an issued patent is, of course, subject to subsequent challenge. A patent owner also has options for dealing with errors in an issued patent, provided the errors were not made with deceptive intent.

62. President's Commission on the Patent System, To Promote the Progress of . . . Useful Arts in an Age of Exploding Technology at 5 (1966) (The proposed change was formally aired in the 1966 recommendation by President Johnson's Commission on the Patent System.); *see also* Statement of Donald J. Quigg, Assistant Sec'y & Comm'r of Patents & Trademarks (Mar. 16, 1987), available at http://www.uspto.gov/go/og/con/files/cons123.htm (supporting the 1987 move by the Clinton Administration); Max S. Oppenheimer, *Harmonization Through Condemnation: Is New London the Key to World Patent Harmony?*, 40 VAND. J. TRANSNAT'L L. 445 (2006) (noting arguments for and against the two systems).

63. 35 U.S.C. § 102 (2012).

64. *Id.* § 102(a)(1)-(2) (explaining that "prior art" refers to information which is relevant to a determination of patentability: information which was available to the public through a printed publication, through public use, through an offer of sale, "or otherwise available to the public," expanded by the legal fiction that issued patents and published patent applications are treated as though they were published on their filing date, not the date on which the public has access to them).

65. 35 U.S.C. § 101; *see also id.* § 102 (defining prior art which may be used as the basis for rejecting claims as not novel and also as the basis for rejecting claims as obvious under 35 U.S.C. § 103).

66. *See, e.g.*, MAURICE H. KLITZMANN, PATENT INTERFERENCE LAW AND PRACTICE

worried, would lead to an increased burden on the Patent Office, which would need to respond either by lowering examination quality or tolerating increased application pendency.[67] Former Patent Commissioner, Donald W. Banner, noted that the negative impact of the system would fall disproportionately on inventors with limited resources.[68]

On March 15, 2013, the debate ended, and the first-to-file system went into full effect.[69]

While it is too soon for definitive data, one commentator pointed to Japan as a first-to-file country whose experience was predictive: over five times as many applications are filed in Japan than in the United States, and many of the 600,000 Japanese applications are "scraps of papers written by the inventors and submitted for a priority date."[70]

United States standards would penalize such cursory applications because the Patent Act sets a higher standard of disclosure, one sufficient to enable those of ordinary skill in the field to make and use the invention.[71] If the United States continues to maintain its standards of enablement, United States inventors will face a disadvantage since they are required to file their applications in the United States,[72] and the higher standards

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24 (1984) (noting that first-to-file would encourage a race to the patent office with "hasty application drafting with limited experimental exemplification or support"); Sean T. Carnathan, *Patent Priority Disputes--A Proposed Re-Definition of "First-to-Invent"*, 49 ALA. L. REV. 755, 755, 796 (1998) (arguing that applicants may be "forced to file continuation-in-part applications in increased numbers" under a first-to-file system); Gregory J. Wrenn, *What Should Be Our Priority: Protection for the First to File or the First to Invent?*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 872, 885 (1990) (cautioning that "there are significant risks that result from over-encouraging early filing").

67. *See, e.g.*, Vito J. DeBari, *International Harmonization of Patent Law: a Proposed Solution to the United States' First-to-file Debate*, 16 FORDHAM INT'L L.J. 687, 704 (1993).

68. Donald W. Banner, *Patent Law Harmonization*, 1 U. BALTIMORE INTELL. PROP. L. J. 9 (1992).

69. America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (prior to 2013 amendment) (technical corrections amendments); *see also* 35 U.S.C. § 100.

70. Charles R. Macedo, *First-to-File: Is American Adoption of the International Standard in Patent Law Worth the Price?*, 8 COLUM. BUS. L. REV. 543, 573 (1988) (noting the major part of a Japanese application contains marketing and sales promotion aspects of an invention. The actual detailed description of the invention itself is typically done in a very general manner [and] . . . the detail of black boxes is generally left undescribed even though the specific contents may not be readily available on the market.). *See also* Samson Helfgott, *Differences Between U.S. and Japanese Patent Applications*, 1 U. BALT. INTELL. PROP. L.J. 1, 3 (1992) (stating that, in the United States, "black boxes" would fail the disclosure requirements of 35 U.S.C. § 112).

71. 35 U.S.C. § 112.

72. *Id.* § 184 (requiring United States inventors to file in the United States and wait six months before filing abroad or to obtain a foreign filing license).

translate into longer time to prepare the application (and therefore a later priority date). Therefore, a prudent United States inventor, unable to take advantage of more relaxed filing requirements abroad, would need to file at least two applications per invention: a minimal application to protect against lower-standard foreign filings and a fully-enabled application to meet United States standards. Therefore, even if inventive activity does not increase, it would be expected that filings would increase. These additional filings would increase the burden on the PTO and would be expected to increase pendency times.

D. Supreme Court Activism

Adding even greater complexity, the Supreme Court's evolving definition of patentable subject matter has made it harder to predict whether an innovation will be patentable or not,[73] even if it represents a dramatic breakthrough.

Patents are only granted for certain types of inventions, known as "statutory subject matter" and defined in 35 U.S.C. § 101 as machines, manufactures, compositions of matter and processes.[74] The list of patentable subject matter, though broad,[75] is exclusive.[76]

More than 250 years ago, the Supreme Court held that Congress has "plenary" power to decide how to implement the Constitutional power to promote progress through the patent system,[77] and more recently, the Court

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73. *See infra* pp. 391-92 (stating that there is always uncertainty in predicting patentability of an invention. Under 35 U.S.C. §§ 102 and 103, a patent will be denied if the claimed invention was already known or is merely an obvious extension of what was already known. Because it is impossible to fully characterize the prior art (some of which may be contained in patent applications which have been pending less than eighteen months and are therefore inaccessible), there is always an element of uncertainty around a patentability opinion. This is an unavoidable aspect of the priority system and one that is not even fully removed upon grant of the patent. Even an issued patent is subject to invalidation based on prior art that was not before the Patent Office during examination. However, the issue of patentable subject matter is a different (and solvable) uncertainty.).

74. 35 U.S.C. § 101.

75. S. REP. NO. 82-1979, at 5 (1952); H.R. REP. NO. 82-1923, at 6 (1952) (stating that manufacture includes "anything under the sun that is made by man"); *see also* Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980) (rejecting the argument that a genetically engineered bacterium was implicitly excluded from statutory subject matter because, although a "composition of matter" it was alive).

76. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 483 (1974) ("[N]o 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 . . . . ").

77. McClurg v. Kingsland, 42 U.S. 202, 206 (1843) ("[T]he powers of Congress to legislate upon the subject of patents is plenary by the terms of the Constitution, and . . . there are no restraints on its exercise . . . . "); *see also* Evans v. Jordan, 13 U.S. 199 (1815); Bloomer v. McQuewan, 55 U.S. 539 (1852); Bloomer v. Millinger, 68 U.S. 340

warned lower courts not to read words into the patent statute.[78] This has not stopped the Court from creating exceptions to the categories of statutory subject matter[79] that are established by the clear words of the statute.

> While the statutory language chosen by Congress is broad and has remained largely unchanged since first enacted in 1790, the Supreme Court has engrafted limitations on what otherwise appears to be a clear statement of Congressional intent. Moreover, the Court has revised its interpretation several times, leaving researchers uncertain as to what can be protected (and therefore what research might be justified economically).[80]

While the statute authorizes four categories of statutory subject matter, the Supreme Court has excluded "laws of nature, natural phenomena, and ideas"[81] from patent protection (even if they fall within one of the four categories) because "[p]henomena of nature . . . mental processes, and abstract intellectual concepts are . . . the basic tools of scientific and technological work."[82] This matters, not only because the Court's definition is narrower than the statute's, but more importantly because the Court's definition is less predictable than the statute's. The unpredictability of the Supreme Court's definition is clearly shown by the difficulty the Federal Circuit has had in applying it; in every recent statutory subject matter case reaching the Supreme Court, it has reversed the Federal Circuit.[83] In dealing with these reversals, the Federal Circuit has noted the difficulty of fathoming the Supreme Court's instructions. Its frustration is evident in passages such as the following:

> The Supreme Court has not been clear . . . as to whether such subject matter is excluded from the scope of Sec. 101 because it represents laws of nature, natural phenomena, or abstract ideas. The Supreme Court also has not been clear as to exactly what kind of mathematical subject matter

(1864); Eunson v. Dodge, 85 U.S. 414 (1873).

78. Diamond v. Diehr, 450 U.S. 175 (1981).

79. *Id.*; *see also* Parker v. Flook, 437 U.S. 584 (1978); Gottschalk v. Benson, 409 U.S. 63 (1972).

80. Max S. Oppenheimer, *Patents 101: Patentable Subject Matter and Separation of Powers*, 15 VAND. J. ENT. & TECH. L. 1 (2012).

81. *Diamond*, 450 U.S. at 185 ("Laws of nature, natural phenomena, and abstract ideas are . . . unpatentable."); *Gottschalk*, 409 U.S. at 71-72 ("Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable as they are the basic tools of scientific and technological work."); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948) ("Laws of nature . . . are part of the storehouse of knowledge . . . free to all men and reserved exclusively to none.").

82. *Gottschalk*, 409 U.S. at 67.

83. Alice Corp. Pty. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014).

> may not be patented . . . . The Supreme Court has not set forth, however, any consistent or clear explanation . . . . [84]

Given this uncertainty at the nation's specialized patent court, it is understandable that patent applicants would face difficulty in evaluating this aspect of patentability of their inventions - and therefore in evaluating the wisdom of surrendering trade secret protection. This uncertainty as to property rights is a disincentive for inventors to spend the time on fundamental research and for investors to provide the necessary funding.[85]

The clearest explanation of the theoretical underpinnings of these judicial exclusions may be found in Justice Breyer's dissent from the dismissal of certiorari in *Laboratory Corp. of America v. Metabolite.*[86]

> The relevant principle of law "[e]xclude[s] from . . . patent protection . . . laws of nature, natural phenomena, and ideas."[87] The justification for the principle does not lie in any claim that "laws of nature" are obvious, or that their discovery is easy, or that they are not useful. To the contrary, research into such matters may be costly and time-consuming; monetary incentives may matter; and the fruits of those incentives and that research may prove of great benefit to the human race. Rather, the reason for the exclusion is that sometimes *too much* patent protection can impede rather than "promote the Progress of Science and useful Arts," the constitutional objective of patent and copyright protection. U.S. Const., Art. I, § 8, cl. 8. The problem arises from the fact that patents do not only encourage research by providing monetary incentives for invention. Sometimes their presence can discourage research by impeding the free exchange of information . . . . [88]

As noted by Federal Circuit Judge Newman in 1994 "[t]he boundary between patentable and unpatentable subject matter is not always a bright line."[89] Matters have not improved in the interim. The definition of

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84. *In re* Alappat, 33 F.3d 1526 (Fed. Cir. 1994).

85. At a minimum, uncertainty results in higher costs of investment capital.

86. Lab. Corp. of Am. Holdings v. Metabolite Labs. Inc., 548 U.S. 124 (2006).

87. Diamond v. Diehr, 450 U.S. 175, 185 (1981).

88. *Lab. Corp. of Am. Holdings*, 548 U.S. at 126-27.

89. *Alappat*, 33 F.3d at 1568 n.19 ("The Supreme Court has not been clear, however, as to whether such subject matter is excluded from the scope of § 101 because it represents laws of nature, natural phenomena, or abstract ideas."); *see also Diehr*, 450 U.S. at 186 (viewing mathematical algorithm as a law of nature); *Gottschalk*, 409 U.S. 63, 71-72 (1972) (treating mathematical algorithm as an 'idea'). The Supreme Court also has not been clear as to exactly what kind of mathematical subject matter may not be patented. The Supreme Court has used, among others, the terms 'mathematical algorithm,' 'mathematical formula,' and 'mathematical equation' to describe types of mathematical subject matter not entitled to patent protection standing alone. The Supreme Court has not set forth, however, any consistent or clear explanation of what it intended by such terms or how these terms are related, if at all.

statutory subject matter has puzzled the Federal Circuit[90] and commentators.[91]

The Supreme Court itself noted that the "line between a patentable process and an unpatentable principle is not always clear."[92] The PTO and Federal Circuit, in trying to implement the Supreme Court's evolving definition of statutory subject matter, have announced and then abandoned (or had overruled), a series of patentable subject matter rubrics: the "technological arts" test[93]; the "Freeman-Walter-Abele test"[94]; the "mental step" test[95]; the mathematical algorithm test[96]; the "machine implemented"

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90. *See infra* pp. 388-89.

91. Joshua D. Sarnoff, *Patent-Eligible Inventions after Bilski: History and Theory*, 63 HASTINGS L.J. 53 (2011); Aaron J. Zakem, Note, *Rethinking Patentable Subject Matter: Are Statutory Categories Useful?*, 30 CARDOZO L. REV. 2983, 2988 (2009) ("[I]t has proven difficult to draw an exclusionary line which disallows inhibitive patents without prejudicing claims on novel and non-obvious technology. . ."; *see also* Max S. Oppenheimer, *Patents 101: Patentable Subject Matter and Separation of Powers*, 15 VAND. J. ENT. & TECH. L. 1 (2012).

92. Parker v. Flook, 437 U.S. 584, 589 (1978)

93. *In re* Musgrave, 431 F.2d 882 (CCPA 1970) (announcing the test); *Gottschalk*, 409 U.S. at 63 (rejecting the "technological arts" test).

94. Developed in three patent office decisions (*Freeman*, *Walter*, and *Abele*), the test essentially consisted of first determining whether a mathematical algorithm was recited directly or indirectly in the claim and, if so, next determining whether the claimed invention as a whole is no more than the algorithm itself or is applied to or limited by physical elements or process steps. See AT&T Corp. v. Excel Commc'ns, Inc., 172 F.3d 1352 (Fed. Cir. 1999) (rejecting the Freeman-Walter-Abele test) abrogated by *In re* Bilski, 545 F.3d 943 (Fed. Cir. 2008) (rejecting the same test for it was too restrictive a formulation).

95. *In re* Musgrave, 431 F.2d 882, 893 (CCPA 1970) ("We cannot agree . . . that these claims . . . are directed to non-statutory processes merely because some or all the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the processes to think.").

96. Parker v. Flook, 437 U.S. 584, 593 (1978) (finding that a claim to a method of updating "alarm limits" was not covered by 35 U.S.C. § 101 since it amounted to the discovery of a mathematical formula which, although novel and since it was "not the kind of 'discovery' that the statute was enacted to protect"); *Gottschalk*, 409 U.S. at 71 (stating a claim to a method of converting binary-coded decimal numbers into decimal numbers was not an "invention or discovery" under § 101, even though the claimed method was to be performed by a computer, since the method had "no substantial practical application except in connection with a digital computer"); *cf.* Diamond v. Diehr, 450 U.S. 175, 185 (1981) (holding that a claim to a process for operating a rubber-molding press was within "101, even though one element of the claim was the calculation of the appropriate time to open the press. The Court distinguished *Flook* as not containing any disclosure relating to the chemical processes at work, the monitoring of process variables, or the means of setting off an alarm system" and noted "excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas . . . . Our recent holdings in *Gottschalk v. Benson* and *Parker v. Flook*, both of which are computer-related, stand for no more than these long-established principles.").

test[97]; and the "transformation" test.[98]

The two industries most affected by the narrowing of the statutory language are computer software and medical technology – two of the most important industries in the U.S. economy.

The early cases of *Gottschalk,*[99] *Flook,*[100] and *Diehr*[101] seemingly settled the question for the computer industry, but *Bilski*[102] and *Alice*[103] have reopened it. Most recently, the Supreme Court has held that certain types of medical treatment inventions, although within the meaning of "process," are nevertheless excluded from the definition of "statutory subject matter" and therefore cannot be patented because they represent no more than observing a correlation between a biological datum and a preferred method of treatment.[104] Further, it held that other types of inventions, although within the meaning of "composition of matter," are nevertheless excluded from the definition of "statutory subject matter" and therefore cannot be patented because they represent no more than extracting something which previously existed in nature.[105]

At a minimum, these cases complicate the innovator's decision concerning whether to seek patent protection for computer implementations or medical discoveries in general. Complication and uncertainty have two important consequences. They tend to favor trade secrecy in two fields where trade secret protection is a viable option,[106] and they increase the cost of financing innovation in two fields where innovation is economically important. For example, while Congress would certainly have the power to exclude the provision of medical services from the type of progress the

97. *In re* Grams, 888 F.2d 835, 841 (1989) ("The fact that a nonstatutory method is carried out on a programmed computer does not make the process claim statutory.").

98. Alice Corp. Pty. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014); Bilski v. Kappos, 561 U.S. 593 (2010).

99. *Gottschalk*, 409 U.S. 63 (1972).

100. *Flook*, 437 U.S. 584.

101. Diamond v. Diehr, 450 U.S. 175 (1981).

102. *Bilski*, 561 U.S. 593 (holding that although not all business methods were "categorically outside of '101'" the computer implemented method of "hedging risk and the application of that concept to energy markets" were not patentable as processes "because they are attempts to patent abstract ideas").

103. *Alice Corp.*, 134 S. Ct. at 2347 (holding that the claims did not "do more than simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer" and were therefore not patentable).

104. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012).

105. Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013).

106. Computer programs can be maintained in secret while offering "Software As Service." Diagnostic test companies can maintain processes and evaluation criteria in secret and insist that samples be sent to them for analysis.

nation wants to encourage,[107] it would be astonishing if it chose to do so, given the recent emphasis on the importance of improving access to medical care and cost containment and the hope that better data management will help reach those goals.

IV. IMPROVING INNOVATORS' OPTIONS

Innovators have three categories of options for dealing with the dilemma: (1) lobby for statutory change or challenge the constitutionality of the statute, (2) lobby for regulatory reform, or (3) work within the system.

A. Statutory Reform and Constitutional Challenge

Both the eighteen-month publication and the transition to first-to-file were part of a movement to harmonize United States patent law with international standards. Both were the result of lengthy lobbying and negotiation,[108] and it seems unlikely that lobbying could reverse the trend, absent a major problem in implementation.

It is tempting to argue that the publication of trade secrets before a patent is granted is, in effect, a taking of property (the trade secrets) without compensation in violation of the Fifth Amendment.[109] However, the rule has been in effect for more than forty years without challenge, and success seems unlikely. As discussed *infra*, an applicant can opt out of the eighteen-month publication requirement if the application is not also being filed in another country which publishes after eighteen months. Thus, it could be argued that the trade secret would be lost in any event, so nothing is being taken.

The transition to first-to-file is more recent than the eighteen-month publication amendment, and it is also more open to constitutional challenge.[110] Commentators have noted the practical problems created by a

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107. It has done so in several areas. Nuclear weapons technology and tax strategy patents and claims "directed to or encompassing a human organism" are specifically excluded from patentability. 42 U.S.C. § 2181(a) (2010) ("No patent shall hereafter be granted for any invention or discovery which is useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon."); America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011). Although theoretically patentable, medical procedures are, in effect, not worth patenting as Congress has denied remedies for infringement. *See also* 35 U.S.C. § 287(c)(1) (2002).

108. *See generally* Oppenheimer, *supra* note 62.

109. U.S. CONST. amend. V ("[N]or shall private property be taken for public use, without just compensation." To constitute an unconstitutional taking, it would need to be shown that the applicant had a trade secret at the time it was "taken" by government publication.).

110. *See* Oppenheimer, *supra* note 62, at 470-88 (discussing the arguments for and against constitutionality).

first-to-file system and its negative impact on innovators.[111] Congress, however, has the power to make laws that hurt innovators. The basic argument that the first-to-file system exceeds congressional power revolves around the constitutional authorization to offer limited term monopolies to "authors" and "inventors"[112] and the contemporary definition of inventor,[113] as reflected in every patent statute[114] prior to the AIA amendments.[115] All focus turns on an inventor being the first person to make a discovery, not the first person to reach the patent office. As the Constitution only authorizes rewards to "inventors," the first-to-file system is beyond constitutional authorization.

B. Regulatory Reform

One of the factors contributing to the delay in the PTO is its administrative requirement of "compact prosecution" under which, when a patent application is examined substantively, the PTO examiner is instructed that the review is to be "complete as to all matters"[116] and that "piecemeal examination should be avoided."[117] While this may be a theoretically efficient way to examine applications, it results in delaying the time when an applicant receives a first substantive response to the application.[118]

This system could be modified by administrative action, a process which is much easier to achieve than statutory reform. Especially given the uncertainty created by recent Supreme Court decisions on statutory subject matter, modifying the system to allow applicants to opt out, or to at least request an early determination as to statutory subject matter, would provide

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111. *See supra* note 67.

112. U.S. CONST. art. I, § 8, cl. 8.

113. JOHNSON'S DICTIONARY OF THE ENGLISH LANGUAGE 1123 (1st ed. 1755) (defining inventor as "a finder of something new"); *see also* WILLIAM C. ROBINSON, THE LAW OF PATENTS AND USEFUL INVENTIONS, 211 n.2 (1890).

114. Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 57 (1884) (noting the first two patent statutes were adopted in early sessions of Congress. "The construction of the Constitution by the first act of 1790 . . . by the men who were contemporary with its formation, many of whom were members of the convention which framed it, is of itself entitled to very great weight, and when it is remembered that the rights thus established have not been disputed during a period of nearly a century, it is almost conclusive.").

115. *See* Patent Act of 1790 §§ 1, 5, 1 Stat. 109, 109-10, 111 (1790); Patent Act of 1793 §§ 3, 6, 1 Stat. 318, 321-22 (1793); Patent Act of 1836 § 9, 5 Stat. 117, 121 (1836).

116. 37 C.F.R. § 1.104(b) (2002).

117. MPEP § 707.07 (9th ed., Mar. 2014).

118. *See generally* Oppenheimer, *supra* note 60 (detailing compact prosecution and a proposal for modifying the system).

significantly greater certainty at the time when the decision must be made whether to surrender trade secret protection by allowing publication of the application.

From the perspective of the constitutional bargain, the requirements of 35 U.S.C. § 101 are qualitatively different from the Section 102 and 103 requirements that a patent be issued only for new, non-obvious inventions. If an application is rejected because the claimed invention fails to satisfy Section 102 or 103, it means there is already publicly available information describing the claimed invention[119] or rendering it obvious,[120] and therefore, since the information was publicly available, there was no trade secret to protect.[121] A Section 101 rejection, however, can apply even if the public does not have access to the information disclosed in the application (meaning that the applicant is, in fact, surrendering a trade secret.)

There is precedent for preliminary determinations, even under compact prosecution. Even before an application receives a filing date, it is examined for compliance with certain requirements of the statute: whether the application appears to be complete, whether it includes any required drawings, whether it contains claims if a non-provisional application, whether it identifies the inventor, and whether the appropriate fees have been paid.[122] These examinations are carried out quickly, typically within a month of filing the application.

In addition, there is at least one instance in which, even under the current system of compact prosecution, there is a preliminary examination for compliance with the requirements of 35 U.S.C. § 101: where disclosure is directed to perpetual motion.[123] If the patent examiner believes the claims are directed to perpetual motion, the examiner is instructed to challenge the claims under 35 U.S.C. § 101 without also conducting a prior art search or

119. 35 U.S.C. § 102 (2011).

120. *Id.* § 103.

121. Uniform Trade Secrets Act § 1 (1979) (amended 1985) (defining a trade secret as "information that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy"). Thus, for at least three reasons there can be no trade secret. By definition, a trade secret must be information which the applicant's competitors do not know. If publicly available, competitors can gain access through proper means, negating trade secret status. Finally, if publicly available, there is no way the applicant can take reasonable steps to protect it.

122. MPEP § 503 (9th ed., Mar. 2014).

123. MPEP § 707.07g(D) (instructing that "the best prior art readily available should be cited and its pertinency pointed out without specifically applying it to the claims"); *see also* Newman v. Quigg, 877 F.2d 1575, 1581 (Fed. Cir. 1989) (upholding a rejection of claims to an "Energy Generation System Having Higher Energy Output Than Input" as unpatentable for lack of 35 U.S.C. § 101 utility).

engaging in any of the other usual steps in examination.

A determination of qualification as statutory subject matter is closely analogous to these types of determinations. It is an essentially legal analysis and does not require comparison of the claimed invention with prior art.[124]

Authorizing a preliminary evaluation of statutory subject matter eligibility should therefore be within the PTO's authority to manage the prosecution process. Moreover, such a preliminary determination might well save costs by terminating some applications early in light of a negative view of patentable subject matter eligibility. This would benefit the PTO by saving examination costs, and it should also help reduce overall pendency times by reducing the need for examiners to conduct prior art searches[125] and would preserve the innovator's option to maintain trade secrets by abandoning an application where the PTO concludes that the subject matter is not patentable.

The biotech and computer software industries would likely be the principal beneficiaries of this change. They are the industries that are front and center in the Supreme Court's definitional cases. They are enormously important to the U.S. economy, and they are industries which rely heavily on patent protection and suffer from above-average pendency times[126] because of their reliance on patents to protect their massive investments in research and development.[127]

> In many cases the availability of patent protection for corporations engaging in biotechnology R&D is essential to their survival . . . [b]ecause it generally takes so much investment to develop and get approval for a new therapeutic . . . .[128]

Besides the argument for enhanced industry security, allowing patent protection would stimulate this and related business sectors by creating jobs and contributing to a positive balance of trade that the United States generally enjoys within the intellectual property marketplace.[129]

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124. AT&T Corp. v. Excel Commc'ns, 172 F.3d 1352, 1355 (Fed. Cir. 1999) (holding that statutory subject matter is a legal issue and is reviewed by courts without deference).

125. As an indication of the relative complexity of statutory subject matter determinations and prior art evaluations, the MPEP covers the former in four pages, while the latter requires more than 100 pages.

126. Thus, even if the Patent Office reaches its goal of reducing average pendency below eighteen months, it is unlikely that the average in these art units will reach that level.

127. *See infra* note 129 (noting that estimates vary widely but put the cost to bring a new drug to market in the billions).

128. Byron V. Olsen, *The Biotechnology Balancing Act: Patents for Gene Fragments, and Licensing the "Useful Arts"*, 7 Alb. L.J. Sci. & Tech. 295, 321 (1997).

129. *Id.* 321-22 (positing that today's development costs for a new drug are in the

Even Justice Breyer's argument against patent protection for basic discoveries acknowledges the difficulty and value of these discoveries.[130]

There is thus a reasonable case to be made for the PTO to revise its rules, at least to permit early determination of whether a claimed invention satisfies the statutory subject matter requirement.

C. Interim Options

In the absence of statutory change or regulatory reform, innovators have other options for mitigating the dilemma posed by the need to decide to surrender trade secrets before being assured of acceptable patent protection. The options are limited and imperfect. In some circumstances, an applicant can opt out of pre-grant publication. In other circumstances, an applicant can request expedited examination, and an applicant can use the Provisional Application option and a strategy of multiple filings to increase options (but at significant cost and without entirely eliminating the dilemma).

1. Non-Publication Requests

Current rules allow an applicant to affirmatively opt out of the pre-grant publication program.[131] In order to do so, the applicant must represent that the application will not be filed in any country that publishes applications before the grant of a patent, including under the Patent Cooperation Treaty.[132] While this solution technically avoids the dilemma presented by the need to decide whether to surrender a trade secret in the absence of critical information, it exacts a significant price. In effect, it merely transfers the dilemma from "surrender trade secret or not" to "surrender international protection or not."

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billions of dollars. The Tufts Center for the Study of Drug Development Annual estimate places the cost of developing a drug at $2.558 billion.); *see also* Matthew Herper, *The Cost Of Creating A New Drug Now $5 Billion, Pushing Big Pharma To Change*, FORBES (Aug. 11, 2013), http://www.forbes.com/sites/matthewherper/2013/08/11/how-the-staggering-cost-of-inventing-new-drugs-is-shaping-the-future-of-medicine/ (putting the cost of creating a new drug at $5 billion).

130. Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc., 548 U.S. 124, 127 (2006) (Breyer, J., dissenting) ("The justification for the principle does not lie in any claim that "laws of nature" are obvious, or that their discovery is easy, or that they are not useful. To the contrary, research into such matters may be costly and time-consuming . . . and that research may prove of great benefit to the human race.") (internal citations omitted).

131. 35 U.S.C. § 122(b)(2) (2011); *see also* 37 C.F.R. § 1.213 (2002); MPEP § 1122 (9th ed., Mar. 2014).

132. MPEP § 1122.

2. *Expedited Processing Requests*

Current rules also allow an applicant to request expedited examination under certain conditions and upon payment of an extra fee.[133] The scope of the expedited examination does not differ from the scope of regular examination. The application is simply placed in a separate queue, ahead of those in the regular examination queue, and there is therefore no guarantee that the examination will take place ahead of the eighteen-month publication date.

3. *Provisional Filings*

Provisional Patent Applications are not published, but they may be used to establish a priority date for a subsequent Non-Provisional Patent Application.[134] However, if a Provisional Application is used to establish priority, then the publication calculation runs from the date the Provisional Application was filed.

A strategy can be used, however, to expand the applicant's options by filing multiple provisional applications.

For example, an innovator could file a Provisional Application, then refile it three months later, then refile it again in another three months, and then refile it again in another three months and so on.[135] Shortly before one year after the initial filing, the innovator must make a decision whether to proceed with a Non-Provisional Application or not. If so, then the application will be published eighteen months after the initial Provisional filing (or, roughly six months after the Non-Provisional filing). If the applicant is confident, however, that no one else is developing the same invention, the first Provisional Application can be abandoned. In that case, another decision must be made shortly before the one-year anniversary of the second Provisional filing. The process is then repeated.

It is not without risk. Another inventor may be working on the same innovation but not have made any public disclosure. If that inventor files first, they will get the patent.

A variation, then, involves filing multiple Provisional applications and filing multiple Non-Provisional applications at the one-year anniversary of each Provisional application. This allows the innovator to review the competitive landscape near the eighteen-month anniversary of each Provisional filing, and make a determination at that time whether to proceed or not. The strategy is expensive and risky, only providing

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133. *Id.* § 708.02.

134. 35 U.S.C. § 122.

135. *Id.* (providing that provisional applications expire after twelve months so the decision cannot be postponed beyond that point).

periodic backstops rather than certainty that the innovation is being protected as well as possible, but it does expand the options for maintaining trade secrecy longer if this is a tolerable risk. However, the riskiness and expense of this strategy is itself evidence of the need for reform.

CONCLUSION

Given the current system of pre-grant publication,[136] the pressures of a first-to-file system,[137] and the uncertainty as to the scope of statutory subject matter,[138] innovators face a dilemma: they must make an irrevocable decision to sacrifice trade secret protection before knowing whether they will get anything in return. Strategies exist to reduce the problem, but all come at a price and none are perfect.

The Constitution authorized creation of the patent laws "to motivate the creative activity of authors and inventors . . . and to allow the public access to the products of their genius after the limited period of exclusive control has expired.[139] Assuring inventors that their innovations will not be taken from them unfairly is a step toward motivating creativity and, more importantly, the disclosure that is the goal of the system.

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136. America Inventors Protection Act, Pub. L. No. 106-113, § 4502, 113 Stat. 1501, 501A-561 (1999) (providing for publication of most patent applications eighteen months after their initial filing date, whether the application had been allowed as a patent or not). Prior to 1999, patent applications were maintained in secrecy until issued as patents. Under that system, the problem of pendency did not arise. *See also* 35 U.S.C. § 122(b)(1)(a) (stating that patent applications are treated as confidential by the Patent Office until the eighteen-month publication date (or until the application is issued as a patent if the applicant certifies that international applications will not be filed)).

137. *See supra* p. 383.

138. *See supra* p. 385.

139. *Id.*

WHERE ARE THE JOBS IN THE JOBS ACT? AN EXAMINATION OF THE UNEASY CONNECTION BETWEEN SECURITIES DISCLOSURE AND JOB CREATION

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The JOBS Act, passed in April 2012, is designed to produce American jobs through removing various regulatory barriers for small companies to access investor capital. As the regulations continue to be implemented, commentators have dissected the various ways in which the JOBS Act attempts to achieve this goal. One of the methods involves making the IPO process initially less burdensome, through scaling back financial and corporate governance disclosures. Crowdfunding, which will eventually permit companies to raise investor capital through an online "funding portal," has garnered both deep criticism from regulators and praise from small business owners. Yet little attention has been paid to the notion that the very reason for disclosure reform is job creation. This matters because job creation has not historically played a direct role in the reform of securities disclosure statutes and regulations. This Article analyzes what role, if any, job creation should occupy in the reform of securities disclosure laws. After establishing the normative baseline for disclosure theory and reform, this Article highlights various unintended consequences of using job creation as a justification for reform and proposes a framework for understanding job creation-based disclosure reforms going forward.

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INTRODUCTION

Of the many ailments caused by the 2008 financial crisis, the unemployment rate in the United States served as a direct indicator of the challenges the American economy and its workers faced. Unemployment rose to yearly averages of over nine percent in 2009 and 2010. Only since October of 2012 has the figure dipped below eight percent despite relatively modest job gains.[1] Strengthening the American economy, with job creation at the helm, was a central issue during the 2012 presidential race that ultimately saw the incumbent Barack Obama victorious.

While various job-creation mechanisms have been employed, only one has utilized the federal securities laws as its catalyst: The Jumpstart Our Business Startups Act ("the JOBS Act" or "the Act"). The JOBS Act, signed into law on April 5, 2012, is somewhat unique among job-creation policies in that it works not through the tax code or the Federal Reserve but rather through federal securities laws. Indeed, the purpose of the Act is "[t]o increase American job creation and economic growth by improving access to the public capital markets for emerging growth companies ["EGCs"]."[2] The Act, really a series of five unique bills rolled into one, generally strives to make it easier and more efficient for EGCs to gain access to investor capital. More American jobs will be created, so the rationale goes, when small companies tap needed capital to grow and hire workers. The JOBS Act received nearly unanimous support in Congress,[3] as it attained a certain popularity summed up by the following sentiments from a congresswoman:

> The JOBS Act is a legislative package designed to move our economy and restore opportunities for America's primary job creators, our small businesses, start-ups, and entrepreneurs. These measures create capital formation, will spur the growth of start-ups and small businesses, and pave the way for more small-scale businesses to go public and create more jobs. In his State of the Union, the President asked us to send him a bill that helps small businesses and entrepreneurs, and that's exactly what the JOBS Act does.[4]

To achieve its goal of efficiently connecting EGCs with willing investors, the JOBS Act primarily reforms the disclosure requirements of the Securities Act of 1933 ("'33 Act"). For example, for companies pursuing an initial public offering ("IPO") Title I of the Act (part of which includes the "IPO on ramp") eases the public disclosure requirements over the first five years of its publicly listed status. As this paper will discuss in greater detail in Section III, data suggest that for EGCs, IPOs add a greater

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1. UNEMPLOYMENT RATE – SEASONALLY ADJUSTED, *available at* http://www.google.com/publicdata/explore?ds=z1ebjpgk2654c1_&met_y=unemployment_rate&idim=country:US&fdim_y=seasonality:S&dl=en&hl=en&q=us%20unemplo y.ment%20rate (last updated June 9, 2015).

2. Jumpstart Our Business Startups Act, Pub. L. No. 126-106, 126 Stat. 306 (2012).

3. *See* FINAL VOTE RESULTS FOR ROLL CALL 110 (2012), *available at* http://clerk.house.gov/evs/2012/roll110.xml; *see also* Edward Wyatt, *Senate Passes Start-Ups Bill, With Amendments*, N.Y. TIMES (Mar. 22, 2012), at B1.

4. 158 CONG. REC. H1219 (Mar. 7, 2012) (statement of Rep. Capito).

number of jobs than mergers or acquisitions.[5] Title I of the JOBS Act can be seen as a way to revive lagging IPO activity, while the cause of such stagnation serves as a topic for debate.

Another example of disclosure reform is found in Title III ("crowdfunding"), where certain emerging companies will be permitted to solicit investments from a broad range of retail investors over the Internet without having to register their issued securities. Instead of incenting companies to pursue an IPO, the crowdfunding provision provides a method for undertaking a private offering while still gaining access to everyday retail investors. Through crowdfunding, Congress might have realized that not all small businesses are willing or able to undertake an IPO yet still have a need for investor capital.

On the surface, these changes to the '33 Act (and others that round out the JOBS Act) appear to create workable solutions to the challenging issue of high unemployment. However, amidst all of the momentum surrounding the JOBS Act, one versed in United States securities law may rightly step back and ponder whether those laws should serve as a springboard for job creation. This paper asks what role, if any, should job creation play as a justification for securities disclosure reform. While American securities law is at least indirectly connected to job creation and the growth of various types of enterprises, to what extent should we use securities disclosure law as the means to achieve job growth? I identify at least three possible concerns with such direct usage of disclosure law in the job creation realm. Two of the concerns may be deemed "unintended consequences" of the JOBS Act and the third might be considered a definitional issue, equating "capital formation" with "job creation."

First, if investor protection is subordinated to achieve gains in capital formation and job creation, then it is likely that such investments will be seen as riskier or at least less certain than an investment at pre JOBS Act levels. Uncertainty and risk tend to raise the cost of capital for issuers. It is possible, therefore, that the benefits of the JOBS Act would be outweighed by the costs imposed by investors demanding investment price protection. Second, especially given concerns over the potential for deceitful activity in crowdfunding and the IPO on ramp, if investor capital is allocated to weak or fraudulent issuers, the result could be job losses not job gains. Finally, there is a concern with equating capital formation with job creation. While the two do overlap, I argue that they are not precisely the same and that there is a danger in not recognizing the differences.

5. *Rebuilding the IPO On-Ramp, Putting Emerging Companies and the Job Market Back on the Road to Growth*, IPO TASK FORCE, at 5 (2011), *available at* http://www.sec.gov/info/smallbus/acsec/rebuilding_the_ipo_on-ramp.pdf.

The paper proceeds as follows. Section II outlines the various justifications for disclosure law reform over the history of federal U.S. securities regulation, setting the normative baseline for such reform. Section III then analyzes whether and to what extent the JOBS Act alters disclosure theory. Section IV answers my primary question of what role, if any, job creation should play in the calculus of disclosure reform. Section V concludes.

II. JUSTIFICATIONS FOR DISCLOSURE REFORM: THE NORMATIVE BASELINE

Since their inception in 1933, federal securities laws have been reformed as a response to various influences. The Securities and Exchange Commission's ("SEC") mission is to "protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation".[6] This mission statement neatly tracks two primary justifications for securities disclosure reform: investor protection and capital formation. To be sure, one instance of disclosure reform may reflect the other justification. However, at its core, each reform highlights one of the two principal justifications. To illuminate the two categories of justifications, I will provide examples of disclosure reforms driven by each. Instead of delving into the technical operation of each reform, my goal is to tease out what exactly the reform says about the motivations behind changes to disclosure laws.

A. Investor Protection Reforms

1. The Securities Act of 1933

Investor protection may appear to be the most obvious or intuitive rationale for introducing or reforming securities disclosure laws and regulations. Regulation by its very nature can be seen as a way to place limits on private enterprises so that all participants may be treated fairly. For the sake of consistency, I will define investor protection reforms as those reforms designed primarily to benefit investors by requiring securities issuers to take some affirmative action by providing investors with material information about the investment. In addition, investor protection reforms are often coupled with enforcement mechanisms that offer recourse to investors claiming that issuers shirked their disclosure responsibilities.

The first such reform, the '33 Act, is perhaps the best example of an investor protection measure. While the '33 Act may rightly be categorized as a response to economic crisis (the Great Depression), the Act focuses its

6. *The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, SECURITIES AND EXCHANGE COMMISSION (2013), *available at* http://www.sec.gov/about/whatwedo.shtml.

immediate attention on laying out a system whereby securities issuers are compelled to disclose certain types of information to potential investors. James M. Landis, one of the '33 Act's principal drafters wrote firsthand about the impetus for federal legislation concerning the offer and sale of securities.[7]

> The act naturally had its beginnings in the high financing of the Twenties that was followed by the market crash of 1929. [A Senate Banking and Currency Committee investigation] indicted a system as a whole that had failed miserably in imposing those essential fiduciary standards that should govern persons whose function it was to handle other people's money. Investment bankers, brokers and dealers, corporate directors, accountants, all found themselves the object of criticism so severe that the American public lost much of its faith in professions that had theretofore been regarded with a respect that had approached awe.[8]

At the heart of the '33 Act regime is the concept of mandated disclosure. The drafters recognized that for too long securities issuers were able to select the information, if any, they disclosed to investors. As Landis wrote, "Our draft remained true to the conception voiced by the President . . . namely that its requirements should be limited to full and fair disclosure of the nature of the security being offered and that there should be no authority to pass upon the investment quality of the security."[9] Simply put, the '33 Act was instituted to ensure that companies issuing securities in public offerings would provide material *ex ante* disclosure to investors. While some state securities disclosure regimes passed on the merits of securities offerings (known as merit review), the '33 Act chose instead to favor disclosure and let investors decide on the merits.

While the decision was made to favor disclosure over merit review, the '33 Act contains various provisions that may subject issuers and related parties to civil liability for material misrepresentations or failure to disclose material information.[10] The disclosure and civil liability elements of the '33 Act reveal an important observation underpinning securities disclosure law: the push and pull between investor protection and capital formation.[11] On one hand, the '33 Act strives to leave behind the caveat emptor

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7. The federal securities laws came some ten to twenty years after the passage of state "blue sky" laws. *See generally* Paul G. Mahoney, *The Origins of the Blue-Sky Laws: A Test of Competing Hypotheses*, 46 J.L. & ECON. 229 (2003).

8. James M. Landis, *The Legislative History of the Securities Act of 1933*, 28 GEO. WASH. L. REV. 29, 30 (1959).

9. *Id.* at 34.

10. *See* 15 U.S.C. § 77k(a) (2013).

11. Paul S. Atkins & Bradley J. Bondi, *Evaluating the Mission: A Critical Review of the History and Evolution of the SEC Enforcement Program*, FORDHAM J. CORP. & FIN. L. 367, 368 (2008).

approach of pre-federal securities law.[12] On the other hand, there is the concern that too much government intervention could stifle capital formation and economic growth.[13] This paradigm is the essential tension of United States securities disclosure law.

2. Securities Exchange Act of 1934, Section 12(g)

Issuers of securities whose stock is traded on an exchange are required to release on-going disclosures pursuant to the Securities Exchange Act of 1934 ("'34 Act"). This makes sense because while issuers must release a registration statement during an initial public offering, as time goes on, material changes occur that require continuous updates, yet the issuer's securities will continue to be bought and sold by investors on the secondary market. However, before 1964, issuers of securities whose stock traded in the over the counter markets ("OTC") were not required to register and provide on-going investor disclosure. This split resulted in high transparency (and presumably more accurate pricing) in listed securities but not those trading in the OTC markets.

The split was recognized as a problem because of the ever-increasing prominence of the OTC markets. As one SEC Commissioner at the time noted:

> It is abundantly clear that the over-the-counter markets are not now, if indeed they ever were, insignificant in their scope and economic impact. They involve thousands of corporations and hundreds of thousands of investors. The Securities Act Amendments of 1964 effectively remove the distinction which has existed as to a large number of the companies whose securities are traded over-the-counter.[14]

Section 12 of the '34 Act was reformed in order to "remove the distinction" between the disclosures the two types of investors received. Prior to the JOBS Act, Section 12(g)(1) subjected issuers, with total assets exceeding $10 million and equities held of record by 500 or more persons, to the same on-going disclosure regime that exchange-listed companies must comply with.[15] This reform demonstrates at least one important characteristic of investor protection: fluidity. As the nature of the

12. Garland S. Ferguson, Jr., Commissioner, Federal Trade Commission, Address on the Securities Act of 1933 (Sept. 12, 1933).

13. David R. Burton *Reducing the Burden on Small Public Companies Would Promote Innovation, Job Creation, and Economic Growth,* THE HERITAGE FOUNDATION (June 20, 2014), http://www.heritage.org/research/reports/2014/06/reducing-the-burden-on-small-public-companies-would-promote-innovation-job-creation-and-economic-growth.

14. Hugh F. Owens, Commissioner, United States Securities and Exchange Commission, Address Before the Practicing Law Institute (Oct. 16, 1964).

15. 15 U.S.C. § 781.

marketplace changes, so too does the character of investor protection. While 12(g)(1) made an arbitrary cutoff at 500 holders of record, the SEC recognized that at least for relatively large OTC-traded companies, there was "no logical basis for the distinction made by the Exchange Act between listed and unlisted securities."[16]

Yet another lesson from investor protection reforms, shown clearly by 12(g), is that they may have negative unintended consequences for capital formation.[17] If an unlisted company crosses the investor threshold, they do not automatically become a "listed" company subject to S-1 registration. However, this is the practical effect. If a company must regularly disclose sensitive information, they may as well attempt to take advantage of the deep capital of the public markets. The most recent high profile example of this phenomenon is Facebook, who surpassed the then-existing 500 holders of record limit.[18] Much has been written about the Facebook IPO, but for purposes of this paper, it is simply worth noting that perhaps Facebook would have waited longer to go public had it not been required to register under 12(g). This problem can be true particularly for smaller companies that may have to take a less aggressive financing approach in order to stay below the 12(g) threshold.[19]

Investor protection reforms to securities disclosure follow a general pattern. First, there is a perceived ill that must be remedied in order to ensure that investors receive the assurance they need to participate in United States securities markets. Second, the remedy usually comes in the form of enhanced or more widespread disclosure from the issuer to the investor. Disclosure, not merit review, is the cornerstone of investor protection in United States securities law, and it is natural that protection reforms build upon that principle.[20] Third and finally, we can look at the reform's effects on capital formation and ask whether the costs to capital formation are offset by the benefits of investor protection. In summary, regulators and lawmakers who pass investor protection measures come to

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16. *See supra* note 14, at 3.

17. Sometimes the consequences are known at the time of reform, it is just that the benefits outweigh the costs in the eyes of the reformer.

18. *The "Facebook Problem," Secondary Market Trading and the 500 Shareholder Rule: Part 2 of a 4-Part Series on the Jobs Act*, PE HUB (April 24, 2012), https://www.pehub.com/2012/04/the-%E2%80%9Cfacebook-problem%E2%80%9D-secondary-market-trading-and-the-500-shareholder-rule-part-2-of-a-4-part-series-on-the-jobs-act/.

19. William K. Sjostrom, *Questioning the 500 Equity Holders Trigger*, 1 HARV. BUS. L. REV. ONLINE 43, 45 (2011). Note, however, that this problem may be significantly alleviated by the JOBS Act.

20. However, sometimes investor protection reforms come by way of rules that explicitly require or prohibit certain behaviors. *See* 15 U.S.C. § 78g (setting margin requirements for securities purchased on credit).

the conclusion that, while certain constituencies must bear the burden of greater disclosure, a net gain throughout the capital markets justifies the reform.

B. Capital Formation Reforms

1. Regulation D, Rule 506

Regulation D, a series of SEC rules grounded in the '33 Act, was promulgated in 1982. The rules operate to exempt certain "private" securities offerings from Section 5 registration. The most commonly relied upon of the Regulation D rules, Rule 506, serves as a non-exclusive safe harbor to Section 4(2)'s exemption for issuer transactions not involving a public offering.[21] Prior to Rule 506, the SEC had released a series of rules attempting to provide guidance on the availability of the private offering exemption.[22] The policy rationale for Rule 506 is well documented:

> Regulation D was designed to facilitate capital formation, while protecting investors, by simplifying and clarifying the existing exemptions for private or limited offerings, expanding their availability, and providing more uniformity between federal and state exemptions. Although Regulation D originated as an effort to assist small business capital formation, companies of all sizes may use the Regulation D registration exemptions.[23]

Rule 506 now exists as the cornerstone exemptive authority for many private securities offerings, from hedge funds to EGCs.[24] Based on concerns that an inconsistent registration exemption scheme would discourage companies from raising capital, Regulation D and Rule 506 in particular are classic examples of the SEC's dual concern for investor protection and capital formation. What is interesting for the purpose of this paper is what the invocation and amendment of Rule 506 tells us about the justifications for disclosure reform. Two observations are particularly relevant.

The first touches on the mindset of the SEC, if such a thing can be deciphered, when promulgating Regulation D. Nowhere in the thirty-three pages of its Regulation D release does the SEC mention job creation as either a direct or indirect rationale for the reform. Capital formation,

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21. *See* 17 C.F.R. § 230.506 (2011).

22. *See generally Revision of Certain Exemptions from Registration for Transactions Involving Limited Offers and Sales*, Securities Act Release No. 33,6389 (Mar. 8, 1982).

23. *Id.* at 2.

24. *See* VLAD IVANOV & SCOTT BAUGUESS, CAPITAL RAISING IN THE U.S.: THE SIGNIFICANCE OF UNREGISTERED OFFERINGS USING THE REGULATION D EXEMPTION 1 (2012).

however, is highlighted in the release's first paragraph.[25] This is important not because this means that the SEC, and others that influenced the Regulation D reform, did not ever consider the reform's effects on job creation. More important is the observation that for Regulation D purposes, capital formation may, but need not, touch on job creation; it is a broader concept.

The notion that capital formation is a broader concept than job creation is supported by data gathered on Regulation D filings for the years 2009 and 2010.[26] Two SEC economists were tasked with gathering and analyzing data on all Regulation D filings (done on Form D) during this two year period. The study was intended to "inform the Commission on the amount and nature of capital raised through unregistered offerings claiming a Regulation D exemption, and to provide some preliminary perspective on the state of competition and regulatory burden in capital markets."[27] Their findings detail two interesting sub-observations.

First, the data demonstrate that, of the various types of issuers using Regulation D, the majority (twenty-nine percent) are pooled investment vehicles as opposed to individual issuers.[28] Of that twenty-nine percent, the largest fund type using Regulation D is hedge funds fifty-five percent. This finding is highlighted not to suggest that hedge funds have some sort of unequal influence over the private formation of capital. Rather, the dominant use of Regulation D by pooled funds, especially hedge funds, strongly suggests that capital formation does not necessarily create jobs. Hedge funds are simply private funds that invest limited partner assets through the acquisition of securities in capital markets. Hedge funds do not aim to create jobs for their investors; they aim to create above-market returns through a variety of trading strategies. While this may sound nefarious, I would argue that capital formation through pooled investment funds is generally anything but that. Public mutual funds as well as private funds form capital to provide investors with professional money management for retirement or general capital appreciation.

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25. *See supra* note 22, at 1. The Commission announced the adoption of a new regulation governing certain offers and sales of securities without registration under the Securities Act of 1933 and a uniform notice of sales form to be used for all offerings under the regulation. The regulation replaced three exemptions and four forms, all of which were being rescinded. The new regulation was designed to simplify and clarify existing exemptions, to expand their availability, and to achieve uniformity between federal and state exemptions in order to facilitate capital formation consistent with the protection of investors.

26. *See* IVANOV & BAUGUESS, *supra* note 24. These were the first two full years that the SEC changed to electronic filing of Form D.

27. *See id.* at 1.

28. *Id.*

The second sub-observation that the data highlight is the trend from public to private capital raising. The authors note that beginning in 2010, private offerings raised eight percent more capital than public offerings.[29] The trend continued in 2011, as of the date of the study. The distinction between public and private offerings signals a well-detailed trend away from initial public offerings ("IPO") and the embrace of strategic combinations.[30] It is generally understood that IPOs are a greater job creator than mergers or acquisitions.[31] The trend in private offerings shows that to a large extent, issuers may be using Regulation D to raise capital with aspirations of becoming an attractive acquisition target. While it is true that private capital offerings can grow a business and position it to create jobs, if such a company is vying to be acquired, that job growth might be temporary at best or at worst could lead to short term job losses through the elimination of redundant positions.[32]

A second feature of Regulation D, as a capital formation reform, is the notion of investor sophistication. Capital formation reforms necessarily require Congress, and more likely the rule makers at the SEC, to weigh the tradeoffs to investor protection. The SEC has historically felt comfortable with a decrease in investor protection to so-called sophisticated investors: those thought to be able to "fend for themselves" because of their financial sophistication or previous investment experience.[33] Not all of Regulation D restricts sales exclusively to accredited investors. Rule 504 contains no minimum investor net worth or income test.[34] Designed to assist small issuers in raising private capital,[35] Rule 504 may appear to violate the investor sophistication theme of Regulation D, and it does to the extent that no accreditation standards are present. However, it must be noted that Rule 504 offerings are capped at $1 million in a twelve-month period.[36] This mechanism still favors the notion that issuers should be limited in the extent to which they may access "unsophisticated" investor capital. In addition, in order for an issuer to avoid the prohibition on general

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29. *Id.* at 3.

30. Xiaohui Gao, et al., *Where Have All the IPOs Gone?*, SECURITIES AND EXCHANGE COMMISSION, at 4-5 (2011), *available at* https://www.sec.gov/info/smallbus/acsec/acsec-090712-ritter-slides.pdf.

31. *See e.g.*, *supra* note 5, at 7.

32. *Id.*

33. *See* SEC v. Ralston Purina Co., 346 U.S. 119, 125 (1953) (supporting the proposition that those close to a transaction can bear the risk of an investment); *see also* 17 C.F.R. § 230.501 (2011).

34. 17 C.F.R. § 230.504.

35. *See supra* note 22, at 3. ("Rule 504 is an effort by the Commission to set aside a clear and workable exemption for small offerings by small issuers.").

36. *See supra* note 34.

solicitation in most cases, it must register the offering on the state level.[37] Thus, even when Regulation D eases the accreditation standards, it cabins in the extent to which non-accredited investors can participate in such offerings.

Regulation D, and other disclosure reforms that attempt to lower the regulatory burden on securities issuers, do naturally have some effect on job creation. It is not the goal of this paper to deny the impact that securities disclosure reform has on the macro economy in general and job creation specifically. To be sure, in the late 1970s there was a push to reexamine the impact of federal securities regulation on small businesses. The SEC was tasked with studying and making recommendations on how small businesses could access investor capital while still ensuring adequate investor protection. The SEC introduced the process as follows:

> The study of the problems confronting small businesses, while a topic of longstanding interest, has recently become the focus of considerable public attention. The wealth of concern for the well-being of that sector stems from the pivotal role it plays in the vitality of the general economy. The contribution of small businesses in supplying jobs, technical innovation, and generally in keeping our system competitive requires that unnecessary obstacles to their formation and growth be removed.
>
> Recent Congressional hearings and studies, studies by Government agencies and the professional literature have attempted to isolate and analyze the factors which impede the success of small businesses. These investigations have shown that the small business problem is exceedingly complex. In large part, it appears that the obstacles faced by small businesses are the product of factors deeply rooted in the economic environment as well as taxation and regulatory policies which are outside the scope of the federal securities laws. Nevertheless, there have been suggestions that the Commission's registration and periodic reporting requirements impose a relatively greater compliance burden on small companies than on large ones. Some have contended further that the net effect of these policies is to endanger the continued existence of smaller companies and to inhibit the formation of new enterprises.[38]

Regulation A is a series of SEC rules aimed at exempting from full registration, securities issued by small and emerging businesses. The offering limit in a twelve-month period has changed over time due to the nature of the marketplace. It currently stands at $5 million; however, the JOBS Act requires the SEC to expand the limit to $50 million.

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37. *See* 17 C.F.R. § 230.504(b)(1)(i).

38. *See generally Examination of the Effects of Rules and Regulations on the Ability of Small Businesses to Raise Capital,* Securities Act Release No. 33,5914 (Mar. 6, 1978).

My reason for highlighting the potentially job-creating policy of Regulation A is to argue that while jobs may occupy some space in the disclosure reform conversation, it is an indirect one. I further argue that job creation is one concept embodied by the broader term capital formation but that the two are not mutually exclusive.

2. *The Evolution of the SEC's Gun Jumping Rules up to the JOBS Act*

Section 5 of the '33 Act regulates public securities offerings. As a result of the once-dominant role of the IPO, this section serves a gatekeeping function with respect to the requirements an issuer must follow before offering or selling securities to the public. Section 5(a) makes it unlawful to sell a security unless a registration statement has been filed with the SEC, except for when the issuer relies upon a valid exemption.[39] Section 5(b) deems it unlawful to transmit a prospectus relating to a registered security unless that prospectus both meets the statutory requirements of a prospectus, and the sale of a security is either accompanied or preceded by such a valid prospectus.[40] Finally, and the area of focus for this paper's gun jumping analysis, Section 5(c) prohibits parties (usually directed at issuers and underwriters) from offering to sell a security unless a registration statement has been filed with the SEC.[41] The term "offer" or "offer to sell" is defined broadly as "every attempt or offer to dispose of, or solicitation of an offer to buy, a security or interest in a security, for value."[42]

This registration regime makes way for a fully temporal system regulating permissible communications prior to and during a public offering, known as "gun jumping" rules. The gun jumping rules are intended to confront an essential problem with Section 5(c)'s use of the word "offer" and its broad definition. What is a permissible communication before the registration statement has been filed and who may make it?[43] The SEC does not want interested parties to skirt the registration and disclosure rules prior to the time they take effect. Historically, oral and written "offers" by an issuer were not permitted prior to the filing of a registration statement. While serving a potential investor protection end, this policy was thought to hurt the capital formation process by cutting off valuable access to information in anticipation of an IPO.

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39. *See* 15 U.S.C. § 77e(a) (2010).

40. *Id.* § 77e(b).

41. *Id.* § 77e(c).

42. *See id.* § 77b(a)(3).

43. The gun jumping rules also deal with communications once the registration statement has been filed but before being accepted (known as the "waiting period").

One of the reforms designed to open up the stream of communication for issuers was SEC Rule 135. Rule 135 provides an issuer with a non-exclusive safe harbor to divulge certain pre-filing information about an up-coming public offering.[44] Under the rule, issuers may provide general notices including information such as the following: the issuer's name, title, amount, and basic terms of the security as well as the anticipated time of the offering. In addition, the issuer may briefly discuss the manner and purpose of the offering as long as the identity of the underwriter is not disclosed.[45] To ensure compliance, the SEC requires issuers to make a notice filing of any communications relied upon pursuant to the rule.[46] Along similar but slightly different lines, Rule 163A provides issuers with another non-exclusive safe harbor for communications made by or on behalf of an issuer during a period concluding thirty days prior to filing a registration statement.[47] The safe harbor is only available for communications that do not make reference to "a securities offering that is or will be the subject of a registration statement."[48] Both safe harbors are not meant to shield from securities' anti-fraud provisions.

Another area of gun jumping reform that receives fairly consistent attention focuses on research reports and fundamental analyses produced by financial analysts. Previous gun jumping rules could be construed such that analyst reports might violate Section 5(c)'s prohibition on premature securities offerings. SEC Rule 137 provides a safe harbor for certain research analysts to release reports about an issuer going through the IPO process. In a significant reform to Rule 137, the SEC noted, ". . . we believe it is appropriate to make measured revisions to the research rules that are consistent with investor protection but that will permit dissemination of research around the time of an offering under a broader range of circumstances."[49] Rule 137 requires analysis-producing broker-dealers to meet certain requirements in order to avoid potential gun jumping liability. For example, the broker-dealer must not be participating in the registered offering nor may they receive any compensation from the issuer or any of its affiliates for producing the analysis. Finally, the broker-dealer must publish or distribute the report in its regular course of

44. *See* 17 C.F.R. § 230.135 (2011).

45. *Id.*

46. *See generally Regulation of Takeovers and Security Holder Communications*, Securities Act Release No. 33,7760 (Oct. 22, 1999).

47. *See* 17 C.F.R. § 230.163A.

48. *Id.*

49. *See Securities Offering Reform*, Securities Act Release No. 33,8591, at 156 (Dec. 1, 2005).

business.[50] Analyst reforms were the result of an industry push to liberalize the scope of eligible communications prior to and during an issuer's IPO, reflecting new electronic communication methods.[51]

The gun jumping rules and their reforms reflect similar yet slightly different notes on the theme of capital formation compared with Regulation D. While Regulation D rules attempt to spur capital formation through private (exempt) securities offerings, the gun jumping reforms are in the context of public offerings. In one sense, capital formation reforms in the public arena can be seen as a more aggressive push toward encouraging capital formation. Instead of limiting the reform to the private, accredited investor population, the gun jumping reforms evince a willingness to cut into some of the investor protection so famously insisted upon in the public markets. Also relevant to the gun jumping reforms is the concept of the role of information in the public markets. At first blush, it might be easily understood that information in public markets can only serve positive ends. However, as demonstrated through the gun jumping rules, the SEC is sensitive to the timing of publicly released information. In other words, information to the public markets can be positive, but it must not be released too early, in violation of the gun jumping rules.

The history of securities law disclosure reform, as outlined above, serves as a useful baseline to understand the JOBS Act's disclosure reforms. This history reflects that disclosure reform has been driven by investor protection and capital formation concerns. Job creation has served, if at all, as a derivative of capital formation as seen in Regulation A.

II. THE JOBS ACT'S APPROACH TO SECURITIES DISCLOSURE THEORY

The JOBS Act's primary method in achieving its goal of job creation is to reform certain disclosure requirements of the '33 and '34 Acts. As mentioned above, disclosure is at the heart of the regulatory approach to securities transactions in both primary and secondary markets. As such, there is a well-documented body of scholarship on the issue of disclosure in federal and state securities regulation.[52] Background questions are debated (should we retain our mandatory federal disclosure regime?), as well as

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50. *Id.* at 162.

51. *Id.* at 1.

52. While the scholarship on disclosure theory includes dozens of articles, I have made the decision to highlight three perspectives that I believe articulates the debate on securities disclosure law and policy. *See* Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669 (1984) (offering a public choice theory behind the mandatory disclosure principle); *see also* Edmund W. Kitch, *The Theory and Practice of Securities Disclosure*, 61 BROOK. L. REV. 763 (1995) (describing the price "accuracy enhancement" theory of disclosure and its practical effect on the nature of information disclosed).

secondary questions (if we do retain federal disclosure, which disclosures should we require and what metrics do we use to answer that question?). These two questions will form the basis for this paper's review of securities disclosure theory. In order to understand the disclosure approach that the JOBS Act takes, it is important to discuss this securities disclosure orthodoxy. With that foundation in place, my analysis of the JOBS Act's disclosure reforms will be set in the right context.

A. Securities Disclosure Orthodoxy: From Mandatory Disclosure to Issuer Choice

This section attempts to provide the reader with an overview of past disclosure orthodoxy so that the JOBS Act's disclosure choices can be understood in context. Three prominent securities disclosure academics are highlighted, each reflecting a different approach to disclosure's benefits and burdens. Simultaneously, there exists a shared narrative around the parties directly affected by disclosure regardless of the tenor of the disclosure regime. The subsequent section analyzes how the JOBS Act may alter this thinking and what it means for modern securities disclosure.

1. Merritt Fox

Columbia Law School's Merritt Fox takes a somewhat law and economics approach to the issue of securities disclosure. He discusses disclosure as an activity that entails social costs and social benefits, as well as private costs and private benefits.[53] Disclosed information about securities issuers, according to Fox, produces social benefits such as improved selection of new investment opportunities, improved managerial performance, and lower investor risk. Social costs include the time spent by lawyers and accountants in meticulously preparing mandatory disclosure documents, as well as the "diversions" of issuer management and staff in the time spent gathering and producing disclosure information.[54] Fox goes on to state that "[t]he issuer's socially optimal level of disclosure is reached when the marginal social benefits equal the marginal social costs."[55] In other words, there is some point that we could call an equilibrium at which the level and amount of mandatory disclosure optimally balances Fox's social benefits and costs. Considering society's finite resources (time, capital, human resources), this equilibrium is the ultimate goal that securities disclosure should attempt to reach.

53. Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA L. REV. 1335, 1338-39 (1999).

54. *Id.*

55. *Id.* at 1339.

Against the backdrop of social optimality are an issuer's private disclosure benefits and costs. Issuers often gain private benefits from disclosure because it can reduce the cost of capital due to the reduced risks of the investment.[56] Importantly, Fox states that there are two variations of private costs of disclosure. First, operational costs are the "out-of-pocket expenses and the diversions of management and staff time that issuers incur to provide the required information."[57] While operational costs are also included in Fox's "social costs," there is little doubt that this cost is felt at the firm level. The second private cost, interfirm costs, "arise from the fact that the information provided can put the issuer at a disadvantage relative to its competitors, major suppliers, and major customers."[58] Fox notes that interfirm costs are just costs to the issuer because of the corresponding benefit that other firms attain from such disclosure.

This distinction between social and private cost and benefit is Fox's primary evidence for why we should retain mandatory federal securities disclosure laws ("mandatory disclosure") in the United States. "Issuer choice," discussed below in connection with Professor Romano, is the alternative to mandatory disclosure in that it would permit the issuer to choose which jurisdiction regulates it (the SEC, states, or possibly even foreign jurisdictions). Fox argues that if issuers were able to choose among a varying level of disclosure regimes, the issuer would rationally choose a lower disclosure level than would be socially optimal. This is because of the private costs of disclosure to issuers, particularly interfirm costs. Put a different way, Fox is saying that because of the private (firm-level) costs of disclosure, if they had the option, issuers would migrate to a jurisdiction that required a less socially optimal (but more privately optimal) level of disclosure. Fox notes that "[t]his divergence of private from social costs means that issuer choice will lead to market failure and thus presents a serious problem for the proponents of issuer choice."[59] Professor Fox's approach stands as a firm defense of the mandatory federal disclosure regime implemented by the SEC. Fox assumes that if they had the option, issuers would lead the "race to the bottom" to jurisdictions that reduced the private costs of disclosure.

2. *Michael Guttentag*

Professor Michael Guttentag of Loyola Law School takes a middle road position in the debate on mandatory disclosure versus issuer choice. He is

56. *Id.* at 1358.
57. *Id.* at 1345.
58. *Id.*
59. *Id.* at 1346.

unsatisfied that Fox assumes, without truly balancing costs and benefits of a particular disclosure requirement or proposal, that issuers would always choose less disclosure. Guttentag notes that "a comprehensive microeconomic analysis of disclosure actually can be used to determine the efficacy of specific disclosure requirements . . . ."[60]

Guttentag lays out three categories under which it is most useful to analyze disclosure requirements:

> (1) Costs and benefits realized whether or not a company has publicly traded securities (2) costs and benefits realized only when a company has publicly traded securities and (3) costs and benefits from disclosure that are not realized by the company making the disclosure (externalities).[61]

Guttentag pays homage to the generally accepted benefits from disclosures by an issuer, which include reduced agency costs, lower capital costs, improved liquidity for an issuer's shares, as well as many benefits that an issuer making a disclosure may not itself fully capture (analogous to Fox's "interfirm" costs). He does not, as Fox did, organize the costs and benefits of disclosure by social and private standards, although such standards do play into each of his three categories.

Category one, the costs and benefits realized whether or not a company has publicly traded shares, takes a broad approach because of the sheer number of firms that fall into it. Benefits of disclosure in such circumstances include reduced agency costs, as well as the reduction in the amount of information to which managers have exclusive access.[62] This latter benefit reduces the likelihood that firm managers can hold firms hostage by threat of departing to and sharing information with the competition. Costs of disclosure mostly include "production costs" being the direct cost to the firm of producing information.

The second category focuses on the costs and benefits of disclosure solely for public firms. The primary benefit is that of improved share price accuracy, which can also reduce agency costs and also provide investors with "a more reliable indicator of manager performance, and a more efficient means to reward value creation within the firm."[63] The cost centers around the "publication cost," which is the "competitive disadvantage that may result when a firm discloses proprietary information."[64]

The third category focuses on the costs and benefits of disclosure that are

60. Michael D. Guttentag, *An Argument for Imposing Disclosure Requirements on Public Companies*, 32 FLA. ST. U. L. REV. 123, 132 (2004).

61. *Id.*

62. *Id.* at 133-34.

63. *Id.* at 135.

64. *Id.* at 140.

not fully realized by the issuer making the disclosure. Three potential benefits outside the firm may result from disclosure. First, Guttentag discusses Professor Fox's "interfirm" theory that competitors can benefit from disclosed information at a direct cost to the issuer. However, Guttentag is skeptical that these effects are "always positive or that this externality can or should be rectified through regulatory intervention."[65] The second benefit of disclosure by parties outside the issuer is the economy as a whole. The idea here is that disclosures improve the allocation of assets through the greater economy and that more accurate share prices mean more efficient allocation of capital throughout the economy.[66] Guttentag admits, however, that "[a]rguments that relate asset allocation in the economy with public company disclosure requirements are, at best, anecdotal."[67] The final benefit of disclosure outside the issuer could go to investors that do not hold shares in the disclosing issuer. Such investors may get a "free look" at issuer fundamentals meaning that they bear no production costs. Finally, as for potential costs linked with parties in the third category, Guttentag lays out an example to demonstrate the idea. He imagines two firms that both have information that they use for a competitive advantage. If one of those firms is suddenly required to publicly disclose that informational advantage, the profits of both firms would reasonably be harmed due to the dependence on such information staying private.[68]

Guttentag notes that "[a] hybrid regulatory scheme, including some mandatory provisions and some provisions applicable only in certain regimes, could provide an attractive degree of flexibility."[69] Through his methodical balancing system, Guttentag attempts to demonstrate that some disclosure requirements may be justified but that others are not. While he attempts to answer this question through balancing, the test is extremely subjective and could vary widely in its application.

3. *Roberta Romano*

Yale Law School's Roberta Romano advocates for what she calls the "market approach" to securities regulation.[70] Also known as "issuer choice," this approach fundamentally disagrees with the existence of a mandatory federal securities regulation regime:

65. *Id.* at 136-37.

66. *Id.* at 137.

67. *Id.*

68. *Id.* at 141.

69. *Id.* at 193.

70. Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L. J. 2359, 2361 (1998).

> The market approach to securities regulation . . . takes as its paradigm the successful experience of the U.S. states in corporate law, in which the fifty states and the District of Columbia compete for the business of corporate charters. The proposed market approach can be implemented by modifying the federal securities laws in favor of a menu approach to securities regulation under which firms elect whether to be covered by federal law or by the securities law of a specified state, such as their state of incorporation.[71]

Romano's approach values regulatory competition because, as the argument goes, investors will be empowered through electing whether or not to allocate their capital to a firm based on the securities regime of the firm's elected regulator. Romano states that "when the choice of investments includes variation in legal regimes, promoters of firms will find that they can obtain a lower cost of capital by choosing the regime that investors prefer."[72] Taking a page out of the state competition for corporate charters, the market approach to disclosure posits that states will reform disclosure requirements away from current SEC standards and toward those thought to be attractive for firms and investors.

Whether both firms and investors would benefit in a market approach is beyond the scope of this discussion. It is important, however, to highlight whom Romano sees as the ultimate beneficiaries of the market approach: investors and firms. By attaining the flexibility to choose their securities disclosure regime, investors and issuers will ostensibly advance their interests in lower disclosure costs and higher returns, respectively. Despite the larger economic issues created by disclosure regime competition, such as the possibility that more firms would operate in the desired state, no mention is made of disclosure's effects on jobs.

4. *Disclosure Theory – Not About Jobs*

The overarching securities disclosure theory paradigm is designed to analyze the costs and benefits of disclosure. Whether a particular disclosure requirement is a desirable one depends on an analysis of whom the reform will benefit and whom it will harm and by how much. The common thread running through classic securities disclosure theory is that the cost/benefit analysis is largely done on a micro economic scale. That is, the costs and benefits of disclosure are considered as impacting parties in their individual or group-specific capacities as shareholders, issuers, and competitor firms. Classic securities disclosure theory does not factor in macro economic elements such as job creation into its mix of considerations.

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71. *Id.* at 2361-62.

72. *Id.* at 2366.

Professor Guttentag's three cost benefit categories focus on issues of agency costs (investors monitoring firm officers), time spent preparing and disseminating disclosure information (firm lawyers and auditors), and publishing proprietary information (competing firms). Only once, in the context of the impact of disclosure on parties other than issuers, does he mention an impact on the "greater economy." He argues that improved share price accuracy leads to more efficient asset allocation throughout the economy. However, not much else is stated as to how policy makers take efficient asset allocation under consideration when determining whether to require further disclosure or to scale it back. In addition, asset allocation decisions do not necessarily implicate job creation; efficient asset allocation may just mean that investors are more willing to invest in firms or projects that have no plans for any meaningful job expansion. Indeed, if assets are efficiently allocated to firms intending to seek a strategic buyer in a merger or acquisition event, such allocation may very well operate against job creation.[73] It is arguably the case that, before the JOBS Act and discussed in further detail below, disclosure burdens were not viewed as producing a negative externality to the macro economy.

Professor Fox's categories of social costs and benefits of disclosure may appear to understand disclosure's impact on the national economy. However, like Guttentag, Fox's sole macro factor centers on the improved selection of new investments, a social benefit. I believe this factor stands for the principle that disclosure aids investors. Such investors use society's finite resources to allocate capital in the most efficient manner, avoiding (to the extent possible) wasteful investments to unpromising firms. Nothing further is said about the actual benefits of this efficient allocation resulting from disclosure. Instead, Fox focuses on disclosure's costs and benefits at the individual and firm levels. Paying special attention to the private costs of disclosure, Fox says little in the way of social costs of disclosure except for the time and talent of disclosure professionals and the diversion that disclosure causes firms. Finally, Professor Romano's market approach to securities disclosure centers on two parties: the disclosing firms and their investors. Shareholders win, so goes her argument, when the firms they invest in are given the flexibility to choose their own disclosure regime.

B. How the JOBS Act Alters the Focus of Disclosure

Curiously, none of the three disclosure theorists make the connection between disclosure requirements and a burden on job creation. The notion that securities disclosure has a material impact on the macro employment picture is simply inconsistent with how we have historically understood

73. *See supra* note 5.

securities regulation – as a tool to protect investors and to foster capital formation. Certainly, there have been instances in the past where disclosure can be understood as having consequences beyond the firm and investor levels; Regulation A is such an example.[74] Regulation simply cannot be implemented in isolation. However, for the first time in the history of securities regulation, the sole and direct rationale driving the JOBS Act is that one of the costs of securities disclosure is fewer jobs across the economy. This is a departure from classical disclosure theory. While we are still examining the costs and benefits of disclosure, we are now stating unequivocally that a new brand of social cost exists in the form of burdened job growth. Furthermore, disclosure can apparently have an impact on those who are not direct participants in the public markets. Imagine a person who does not invest any of their own savings in the capital markets and struggles, like many, to find stable employment. The rationale behind the JOBS Act is that, despite not being a direct stakeholder in a public company, this person's unemployment is tied, to some extent, to the problem of a burdensome securities disclosure regime.

1. The Deregulatory Reaction to Sarbanes-Oxley and Dodd-Frank

The scholarly and public debate about the cost of disclosure reform has changed dramatically in the past decade. Specifically, there has been an aggressive pushback against regulatory reforms such as Sarbanes-Oxley and Dodd-Frank. Sarbanes-Oxley in particular has received attention from groups such as the American Heritage Foundation and the American Enterprise Institute.

Commentators view Section 404 of Sarbanes-Oxley as a prime example of securities disclosure's job-killing effects. Section 404 requires public company managers, in its annual reports to the SEC, to "state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting."[75] In addition, the report must "contain an assessment . . . of the effectiveness of the internal control structure and procedures of the issuer for financial reporting."[76] Perhaps, most controversially, Section 404(b) requires "[w]ith respect to the internal control assessment . . . each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer."[77]

74. *See supra* note 38.
75. 15 U.S.C. § 7262(a)(1) (2012).
76. *Id.* § 7262(a)(2).
77. *Id.* § 7262(b).

For the American Enterprise Institute and others, Section 404(b) has become a critical example of how disclosure requirements for public companies impede job creation. In order to understand the concern, an example may be useful. Suppose Private Co. is a four-year-old non-public company headquartered in Menlo Park, California, that produces and develops an intriguing and potentially valuable mobile application. It has a total staff of fifteen, including its two co-founders. To date, it has received venture financing to shoulder the considerable research and development expenses it faces. However, due to its founders' recognition in the Silicon Valley technology industry, there is some excitement about its growth prospects as well as some rumblings about a future IPO. In addition, there are rumors that two large technology companies are seriously considering making offers to acquire Private Co. Private Co.'s founders, as well as its venture capital partners, are trying to determine the company's next steps. What should the company consider as the costs and benefits of going public?

Alex J. Pollock, a Resident Fellow at the American Enterprise Institute argues that for Private Co., the decision to go public is significantly less attractive because of Sarbanes-Oxley Section 404:

> We now know, after the fact, with five years experience, that Sarbanes-Oxley did indeed unleash a host of expense, paperwork and bureaucracy, and this disproportionately affects small firms. It makes me think of a line from the Declaration of Independence which says, in the bill of particulars against King George III, "He has sent hither swarms of officers to harass the people and eat out their substance." You might say analogously about Sarbanes-Oxley that it has sent hither swarms of accountants to harass the people and eat out their substance.[78]

At this point, it should rightfully be asked what the connection is among Private Co., Sarbanes-Oxley, and job creation. A startup company's decision to go public, so the thinking goes, is deeply impacted by which regulatory requirements await them in its new life as a publicly traded entity. Sarbanes-Oxley Section 404, without an available exemption, is thought to create a far larger burden on companies less able to absorb the cost of compliance. If Section 404 and other recent regulatory reforms are a strong enough deterrent for private firms, they may delay a public offering or decide to forego one altogether, opting instead to stay private or seek a strategic buyer. If private firms remain private longer, the next step of the story is that fewer jobs are created. Why is that so?

There is a considerable body of evidence that the single largest job

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78. Alex J. Pollock, *Has Sarbanes-Oxley Harmed Entrepreneurs?*, AMERICAN ENTERPRISE INSTITUTE (May 24, 2007), http://www.aei.org/article/economics/fiscal-policy/has-sarbanes-oxley-harmed-entrepreneurs/.

creators in the U.S. economy are small companies that have gone public. In 2011, the IPO Task Force, a group of economists, industry experts, and legal academics and practitioners, released a report to the United States Department of the Treasury with its findings on the dwindling IPO market, its effects on job creation, and what can be done about it.[79] The report notes the following:

> The role of EGCs in creating American jobs cannot be understated. From 1980 to 2005, firms less than five years old accounted for all net job growth in the U.S. In fact, 92 percent of job growth occurs after a company's initial public offering.[80]

The report goes on to say –

> Over the last decade, the number of EGCs entering the capital markets through IPOs has plummeted. After achieving a one-year high of 791 IPOs in 1996, the U.S. averaged fewer than 157 per year from 2001 to 2008. Acquisitions by a shrinking number of larger companies (due to the lack of IPOs) have become the primary liquidity vehicle for venture capital-backed companies as compared to IPOs. This is significant because M&A events don't produce the same job growth as IPOs.[81]

The IPO Task Force's paper was almost completely adopted by Congress as Title I of the JOBS Act. Labeled "Reopening American Capital Markets to [EGCs]," Title I is a direct response to the declining IPO market.[82] The '33 Act is reformed to create a new category of securities issuer, an EGC.[83] Such companies must have less than $1 billion in annual gross revenues in the most recent fiscal year.[84] That status is retained for a period of five years post-IPO assuming that the EGC does not first exceed $1 billion in revenue in a given fiscal year or sell more than $1 billion in non-convertible debt over a three year period.[85] With this new status in mind, which would presumably sweep in a significant portion of private companies considering an IPO, Title I then scales back existing IPO regulations or institutes new rules in favor of a public offering.

Section 105 of the JOBS Act permits EGCs to "test the waters" for their public securities without avoiding securities laws as long as such testing is communicated to qualified institutional buyers.[86] The same section also

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79. *See supra* note 5.
80. *Id.* at 5.
81. *Id.*
82. *See* Jumpstart Our Business Startups Act, Pub. L. No. 126-106, § 101, 126 Stat. 306, 307 (2012).
83. *Id.*
84. *See* 15 U.S.C. § 77b(a)(19) (2012).
85. *Id.*
86. *See id.* § 77b(a)(3).

loosens the constraints on publically available information about the company. It will not be considered an "offer" under the '33 Act for a broker-dealer to publish and distribute a research report about the EGC even if the broker-dealer participates in the offering.[87] In addition, an analyst may communicate with the management of an EGC as long as an investment banker from the same firm is present.[88] More liberal analyst coverage leads to greater information in the market, which in turn can lead to accurate pricing, greater investor interest, and deeper liquidity for the security. At the same time, EGCs are given an opportunity (should it serve their interests) to file a confidential registration statement with the SEC.[89] The registration statement becomes public no later than twenty-one days before the company's road show.[90]

Perhaps, the centerpiece of Title I is its "on-ramp" provisions. In order to ease the all or nothing requirements of becoming a public company, the on-ramp eases the transition over a period of five years.[91] To carry the on-ramp analogy further, an EGC may now ease its way onto the public highway by scaling up to full disclosure once it has spent time getting used to its existence as a public company. The on-ramp uses the architecture of scaled back disclosure to achieve this goal. EGCs are exempt from Sarbanes-Oxley Section 404.[92] They need not comply with Dodd-Frank's "say on pay" provisions,[93] and they need only provide two (as opposed to three to five) years of financial audited statements.[94]

Title I has in mind a company much like Private Co.,[95] which has the potential to become a successful public company but which might consider full public disclosure in year one a less attractive option than a high

87. *See* Jumpstart Our Business Startups Act, Pub. L. No. 126-106, § 105.

88. *Id.*

89. *See* 15 U.S.C. § 77f(e).

90. *Id.*

91. *See* Jumpstart Our Business Startups Act, Pub. L. No. 126-106, § 101.

92. *See* 15 U.S.C. § 7262(b).

93. *See id.* § 78n-1(e).

94. *See id.* § 77g(a)(2). Professor Robert Bartlett has gathered some interesting findings on the early usage trends of the on-ramp. Of his own examination of fifty-seven registration statements declared effective between August 2012 and February 2013, nine provided a compensation disclosure and analysis, only six used confidential registration statement treatment, seventeen provided a full three years of audited financial statements, and thirty-six opted out of relief on new accounting standards. *See* Robert Bartlett, The JOBS Act—Where Do We Stand Today?, at 11 (2013) (hereinafter Bartlett Presentation).

95. The IPO Task Force report poses the following hypothetical: "Imagine how different Seattle, Cupertino or Austin would look today if—instead of going public—Microsoft, Apple or Dell had undergone an acquisition by an old-line conglomerate." *See supra* note 5, at 7.

acquisition valuation. While eventually rescinding such favorable treatment, Title I assumes that, generally, the five years of the on-ramp will make a difference in a company's decision to enter the public markets or not. Although there is some evidence to suggest that some eligible firms will not take advantage of the full on-ramp,[96] it is unclear whether the on-ramp (in conjunction with all of Title I) will be the catalyst for the re-emergence of the IPO market.[97]

Yet, not everyone aligns with the notion that IPOs create jobs as vigorously as the ninety-two percent rate suggests. In their 2012 Kauffman Foundation report (the "Ritter Report"), Kenney, Patton, and Ritter analyze employment and revenue growth of domestic operating companies having undergone an IPO from June 1996 to 2012 in the United States.[98] The Ritter Report finds that, for IPOs occurring between June 1996 and December 2000,[99] total post-IPO employment increased in these firms by sixty percent.[100] For EGC IPOs, post-IPO employment increased by sixty-two percent, which is "in contrast to a widely quoted number that 90 percent of job creation occurs after the IPO."[101] The Ritter Report links the ninety percent figure back to an IHS Global Insight study, paid for by the National Venture Capital Association.[102] In an article, after the release of the Ritter Report, Professor Ritter questioned the IPO sample on which the IHS study was based, claiming that there was a tendency to cherry-pick mega IPOs such as eBay and Google.[103] The point in highlighting the Ritter Report's critique is to evidence the broad range of factors supporting the JOBS Act reform, especially Title I.

Aside from the IPO employment numbers, the Ritter Report teases out IPO trends by industry sector. Using the same base sample of operating

96. *See* Bartlett Presentation, *supra* note 94; *see also* Skadden, Arps, Slate, Meagher & Flom, LLP, *The Jobs Act: What We Learned in the First Nine Months* (2013), http://www.skadden.com/sites/default/files/publications/The_JOBS_Act_What_We_Learned_in_the_First_Nine_Months.pdf (finding that Title I's reduced financial statement reform garnered "weak acceptance," testing the waters received "mixed acceptance" and that reforms on research reports" received "mixed acceptance," among other provisions).

97. *See supra* note 30, at 28.

98. Martin Kenney et al., *Post-IPO Employment and Revenue Growth for the U.S. IPOs*, KAUFMANN FOUNDATION, 1996-2010, at 3.

99. The author notes that this range was chosen because ten years of post-IPO data is available.

100. Kenney, *supra* note 98, at 7.

101. *Id.*

102. *Id.*

103. Jay R. Ritter, *The Facebook Effect: How Many Jobs Do IPOs Really Create?*, FORBES (May 21, 2012, 8:15 AM), http://www.forbes.com/sites/kauffman/2012/05/21/the-facebook-effect-how-many-jobs-do-ipos-really-create/.

company IPOs in the United States between 1996 and 2010, the report finds that the vast majority of IPOs occurred in the Internet, information and communication technology, and biomedical spheres.[104] Retail, manufacturing, and service industries lagged far behind in their IPO volume.[105] In addition, the report found that a few states and regions in particular had a monopoly in IPO events. The leaders are California, Massachusetts, New York, Texas, and Florida.[106] The report also found that among all EGC IPOs, venture capital firms funded more than fifty percent of all such companies and that venture capital involvement was most pronounced in Internet (77.6 percent), biomedical (80.2 percent), and information and communications technology firms (68.3 percent).[107]

2. Beyond the IPO Market: Equity Meets the Crowd

The JOBS Act starts rather than stops with IPO reform. Also reformed are Regulation D and Regulation A provisions as well as the '34 Act threshold, whereby private companies become required to produce Exchange Act reports. An additional provision, however, has received at least as much (if not more) attention than Title I. Title III, simply called "Crowdfunding" creates a new registration exemption from Section 5 of the '33 Act.[108] Taking the lead from previous non-equity crowdsourcing models such as Kiva, Kickstarter, and Indiegogo, Title III envisions connecting small businesses with potential investors using the power of the online "crowd." Title III is a momentous reform to United States securities law, one which is seen to "disrupt" traditional financing and is often heralded as "democratizing" it as well.

To achieve this goal, Title III permits crowdfunded issuers to sell securities directly to unaccredited retail investors without first having to register those securities under Section 5 of the '33 Act.[109] Crowdfunded offerings are exempt from state blue sky registration.[110] Investor protection advocates, including the SEC and state securities regulators, have expressed serious concerns about the mixture of information opacity and a presumed financially unsophisticated investor base.[111] They point to the

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104. *Supra* note 98, at 14.

105. *Id.* at 13-14.

106. *Id.* at 15.

107. *Id.* at 16.

108. *See* Jumpstart Our Business Startups Act, Pub. L. No. 126-106, § 201(c)(2)(C), 126 Stat. 306, 315 (2012).

109. *See* 15 U.S.C. § 77d(a)(6) (2012).

110. *See id.* § 77r(b)(4).

111. *Inside Focus: The Jobs Act,* NORTH AMERICAN SECURITIES ADMINISTRATORS ASSOCIATION, http://www.nasaa.org/issues-and-advocacy/issue-focus/.

enormous potential for fraud. In attempt to assuage concerns, the crowdfunding provisions sets limits on the three primary parties involved in a crowdfunded transaction.

First, investors are capped at the annual amount they can invest in a company relying on the crowdfunding exemption. For those earning less than $100,000 per year, their investment cannot exceed the greater of $2000 or five percent of annual income or net worth.[112] For investors earning more than $100,000 per year, investments cannot exceed ten percent of annual income or net worth, and in no case may the investment amount to more than $100,000.[113] Second, crowdfunded issuers are limited to raising no more than $1,000,000 in reliance on the exemption during the twelve month period prior to the date of the transaction.[114] Finally, while the House bill did not envision a middleman, the final version of Title III requires that sales of crowdfunded securities occur through registered "funding portals" that will be scrutinized akin to a broker-dealer.[115]

Title III as well as the other non-IPO reforms point to an interesting query; if the JOBS Act is motivated by job creation and if IPOs are the most significant job-creating events, why include the other provisions? In fact, these provisions (crowdfunding, Regulation D, Regulation A, and the reform to Section 12(g)) all allow companies to more easily remain private. This may appear to be an internal contradiction in the structure of the JOBS Act. However, perhaps it is more indicative of Congress' broad attempt to achieve the task of putting more Americans back to work. This congressional goal has changed the way in which we think about the costs and benefits of securities disclosure theory, and it sets a new precedent for future reforms.

3. *Recent Trends in Securities Disclosure*

After a thorough review of legal and financial papers on securities disclosure, it still cannot be said that much attention has been paid to the relationship between disclosure and job creation. However, as a result of the JOBS Act, there has been some commentary that appears to show a move toward making such a connection even if it is in critical response to the idea.

In his most recent paper on securities disclosure, Professor Michael Guttentag plays on a familiar theme by discussing when firms should be

112. 15 U.S.C. § 77d(a)(6)(B)(i).

113. *Id.* § 77d(a)(6)(B)(ii).

114. *Id.* § 77d(a)(6)(A).

115. *See id.* § 77d-1(a).

required to comply with federal disclosure requirements.[116] However, his paper was written in the context of the JOBS Act making it easier for firms to skirt federally mandated disclosure provisions which "were enacted based upon a virtually nonexistent legislative record and upended rules established only after careful consideration almost fifty years earlier."[117] Professor Guttentag's paper calls for the creation of a three-tiered system with respect to what he calls "federal periodic disclosure requirements" ("FPDRs").[118] First, firms with a market capitalization of less than $35 million would receive an automatic exemption from the federal securities disclosure regime.[119] Second, for firms that are not eligible for the automatic exemption, they may steer clear of disclosure if they take "specified ameliorative measures to minimize the societal costs from persistent underdisclosure."[120] Third, for firms that do not fit into category one or two, such firms must comply with the full range of FPDRs.[121]

While Professor Guttentag presents a new framework for securities disclosure, the most relevant comments with regard to the JOBS Act come in the form of discussing who benefits from its passage, specifically the rules allowing firms to more easily remain private. While he does not drill down on the job creation theme, he might be seen as dismissing the jobs rationale through his remarks on who the JOBS Act deems as winners. The first winners are firms that operate private exchanges, such as SecondMarket, Inc. Given Title V of the JOBS Act, which now permits companies with fewer than 2,000 holders of record, Professor Guttentag notes that "[m]any more firms will probably allow their securities to be traded on these secondary private markets."[122] The second beneficiary is technology firms and financial institutions. For venture-backed technology firms, this means that employees receiving options (or even fully vested shares) will not count toward the 2000 threshold. This provides such firms with added flexibility to recruit needed talent yet avoid federal disclosure obligations. Financial institutions, especially banks, will now also be able to more easily avoid disclosure. Professor Guttentag describes this deregulatory effort as one that was pushed through Congress with little

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116. *See* Michael D. Guttentag, *Patching a Hole in the JOBS Act: How and Why to Rewrite the Rules That Require Firms to Make Periodic Disclosures*, 88 IND. L.J. 151 (2013) (forming an alternative framework for when firms should be required to comply with federal disclosure requirements).

117. *Id.* at 151.

118. *Id.* at 155.

119. *Id.* at 200-01.

120. *Id.* at 199.

121. *Id.*

122. *Id.* at 175-76.

resistance from those that had fought so long to build a thoughtful disclosure regime.[123] It is almost as if he goes out of his way to discuss the utter lack of debate around such drastic changes to the disclosure status quo.

Professors Donald Langevoort and Robert Thompson, in a recent article on the dividing line between public and private company status, also highlight the JOBS Act's Section 12(g) reform.[124] Early in their paper, they discuss Facebook's pre-JOBS Act dilemma as it was creeping up on the then 500 shareholders of record threshold.[125] The authors find that Congress sympathized with Facebook's dilemma (i.e. the dilemma between raising capital and triggering the public reporting requirements of Section 12(g)) and that other technology firms had similar issues. Between the Section 12(g) reform, crowdfunding, and other JOBS Act reforms, the authors state that they were "all stylized as job creation mechanisms—a particularly potent political label heading into an election year—and bipartisan momentum grew."[126] And while the paper generally discusses the fault line between public and private company status as evidenced by Section 12(g), the authors take an opportunity to call crowdfunding "a pure trade-off of investor protection in the hope of job creation."[127]

Outside the legal academy, there has been at least one influential voice making the connection between securities disclosure and job creation. Speaking at the Council of Institutional Investors Spring Meeting just one year before passage of the JOBS Act, SEC Commissioner Luis Aguilar highlighted the connection between "the real economy" and "capital formation."[128] While suggesting that part of the SEC's mission, capital formation, was never specifically defined, he attempted to give some life to that phrase by noting that it "is about all the ways of creating productive capital in our economy, including but not limited to improving infrastructure, building plants, and hiring workers."[129] Commissioner Aguilar contrasts that with "raising capital."[130] He goes on to state that if capital formation were just about raising capital, then certain illiquid

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123. *Id.* at 177.

124. Donald C. Langevoort & Robert B. Thompson, *"Publicness" in Contemporary Securities Regulation After The JOBS Act*, 101 GEO. L.J. 337 (2013).

125. *Id.* at 338.

126. *Id.* at 339.

127. *Id.* at 339 n. 122.

128. Luis A. Aguilar, Commissioner, Securities and Exchange Commission, Address at the Council of Institutional Investors Spring Meeting: Facilitating Real Capital Formation (Apr. 4, 2011).

129. *Id.* at 2.

130. *Id.* at 3.

mortgage-backed securities as well as Ponzi schemes would fit the definition.[131] True capital formation, as a result, would have effects on the "real economy," which, in the wake of the financial crisis, Aguilar is particularly concerned with. What is striking is the confluence of events surrounding the passage of the JOBS Act. Commissioner Aguilar's statements, symbolic because of his position of authority at the SEC, accept the position that statutory and regulatory disclosure choices affect the real economy, including job creation. The "productive capital" understanding of capital formation provided an intellectual foundation on which the JOBS Act could solidly stand.

III. WHAT ROLE, IF ANY, SHOULD JOB CREATION PLAY IN THE REFORM OF SECURITIES LAW DISCLOSURE?

The issue of job creation has played a minor and indirect role in the history of American securities regulation. When it comes to securities disclosure requirements, the primary method of analyzing them has been through a cost/benefit analysis focused on the effects on those parties most directly involved – issuers and investors. Within the last ten to fifteen years, however, a new angle on securities disclosure has become prominent. This new inquiry expands on the historic analysis by examining disclosure's effects on the macro economy, particularly employment figures. In this final major section, I will first examine, through two distinct narratives, whether or not the JOBS Act really is about jobs. Second, I will highlight certain concerns about reforming disclosure law through the guise of job creation. Finally, I will propose a framework for what role job creation can safely play in the reform of securities disclosure law.

A. Is the JOBS Act Really About Jobs? Two Distinct Narratives

The JOBS Act, despite its extreme brevity (twenty-two pages) allows the imagination to wander. Why attempt to create jobs through securities disclosure? Why was there such a rush to push the bill through Congress, and why did it receive such unprecedented bi-partisan support? Is there another story, beyond job creation, that is a driving force behind this reform? I see at least two stories that can be told.

1. Story One: The JOBS Act as Job Creation Agent

There is ample evidence to support the narrative that the JOBS Act was passed to help small businesses access investor capital, expand, and in the process, create jobs. In its report, the IPO Task Force found that between

131. *Id.*

1997 and 2001 "the prevalence of IPOs versus acquisitions of EGCs has undergone a stunning reversal."[132] This matters, according to the report, because mergers and acquisitions ("M&A") do not result in the same high level job growth as IPOs do.[133] The report also noted that, according to United States Labor Department statistics, "up to 22 million jobs may have been lost because of our broken IPO market."[134] The link between IPOs and job creation is then made in clear terms: "[t]he losers of the IPO crisis are the [United States] workers who would have been hired by EGCs had they been able to go public and generate new jobs through their subsequent growth."[135]

Further examples of a compelling connection between securities disclosure, the IPO market, and job creation abound. Silicon Valley Bank conducted a survey of 270 executives of startup companies in late 2012.[136] The survey notes that thirty-five percent of respondents stated that their biggest challenge is the regulatory/political environment.[137] In addition, thirty-six percent of executives stated that access to equity financing was one of their greatest challenges.[138] As for the issue of hiring new workers, the survey found that eighty-three percent of startups have plans to add to their workforce over the next twelve months.[139] When asked about the "importance of potential changes in providing capital," sixty-nine percent of respondents answered that the IPO on-ramp structure was important.[140] Seventy-two percent answered that making it easier for private companies to raise capital from accredited investors was important.[141] Even though this survey was completed after the passage of the JOBS Act, it is the kind of persuasive evidence that forms the narrative that the JOBS Act is genuinely concerned about job creation.

Efforts to support the job creation story came on all fronts. Perhaps, most impactful, from a visceral perspective, were statements from small businesses owners themselves. Speaking to the House of Representatives, months before the passage of the final legislation, one small business owner made a plea that embodies the spirit of the job creation narrative:

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132. *See supra* note 5, at 6.

133. *Id.*

134. *Id.* at 7.

135. *Id.*

136. *See generally* SILICON VALLEY BANK, STARTUP 2012 OUTLOOK (2012), *available at* http://www.svb.com/startup-outlook-2012/.

137. *Id.* at 5.

138. *Id.*

139. *Id.* at 10.

140. *Id.* at 21.

141. *Id.*

> [A]s a small business owner, I know that it's tough to get access to capital . . . . If a company doesn't have the resources it needs to grow and expand, then it's virtually impossible to hire new workers. Without a doubt, by allowing companies access to the markets, we give them the opportunity to succeed, and, in turn, they will have the opportunity to create additional jobs, which is what we desperately need. With an unemployment rate of over 8 percent for the past 34 months and at least 9 percent for 28 of those months, it's about time that we moved forward on the jobs package that we're trying to push in the House. We need to step up and get America back to work.[142]

It is interesting to note that Congress, not the SEC, was the body to enact the JOBS Act (although the SEC plays a central role in various of the Act's rulemaking provisions). It supports the job creation story that Congress spoke so affirmatively. Job creation, after all, is an issue rife with political underpinnings. Had the SEC been the principal architect, I suggest that their reforms would have been narrower and more attuned to the principle of investor protection, not job creation.

2. *Story Two: The JOBS Act as More Than Meets the Eye*

Story two is a darker or at least a deeper story than story one. Story two is summarized by a statement from Senator Carl Levin (D-MI) who succeeded in amending the original house bill:

> The problem is that in the guise of job creation, this legislation rolls back important investor protections and transparency requirements that are fundamental to our capital markets. Under the legislation the House has sent us, investors will know less about the companies they are solicited to invest in. They will have less confidence those companies follow standard accounting practices. They will have no assurance that the solicitation they've just received over the Internet or by telephone is for a legitimate company and not a boiler room fraud operation.[143]

In other words, story two suggests that while job creation may have been a concern under the JOBS Act, it is at best a background issue. And if jobs are created through the various mechanisms that define the Act, that is all the better. But the primary objective is to scale back allegedly draconian disclosure regulations that have been piling up for decades, highlighted by the passage of Sarbanes-Oxley in 2002. Instead of using transparent language about its primary purpose, proponents of the JOBS Act found it more politically expedient to couch the reforms in terms of job creation. After all, what politician would wish to be seen as unsupportive of job-creating legislation?

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142. 157 CONG. REC. H9801-01 (Dec. 16, 2011) (statement of Mr. Dold).

143. 158 CONG. REC. S1776-02 (Mar. 19, 2012) (statement of Sen. Carl Levin).

As previously mentioned above, a vocal and influential deregulatory movement arose in the wake of Sarbanes-Oxley. Much attention was given to the issue of small public company compliance with Sarbanes-Oxley Section 404. For example, in 2007, The Heritage Foundation stated that the SEC underestimated the compliance cost of Sarbanes-Oxley Section 404.[144] They highlighted that some compliance cost estimates "put the average cost of direct compliance costs and outside auditing fees in 2006 at 2.5 percent of a company's revenues."[145]

Another critical piece of evidence that supports the second story is objective insight on which kind of entity is using the JOBS Act's job-creating provisions. Take the IPO on-ramp for example. In his assessment of fifty-seven EGC registration statements (filed pursuant to Title I of the JOBS Act), Berkeley Law Professor Robert Bartlett uncovered interesting data on who is taking advantage of the lessened disclosure. He found that at least twenty of the fifty-seven entities listed a Standard Industrial Classification for being a shell corporation or holding company and that at least nine were so-called blank check acquisition companies. Some were wholly owned subsidiaries of non-EGCs.[146]

Professor Usha Rodrigues has provided further insight into the connection between Title I and non-operating companies that are taking advantage of the IPO on-ramp provisions. She notes that special purpose acquisition corporations ("SPACs") are finding it attractive to use the IPO on-ramp. A SPAC is a blank check or shell corporation that engages in a public offering to raise a pool of cash in search for a target company to acquire. Investors buy interests in the SPAC itself, which derives returns from the target company that it acquires. Rodrigues calls SPACs "in essence, a one-off private equity fund."[147] SPACs permit ordinary investors to invest in pooled investment vehicles that, but for its public offering, retain a private equity strategy and investment opportunity that most public securities do not. Rodrigues notes that SPACs are not the operating companies that Congress envisioned using Title I.[148] Rodrigues uncovered certain findings with regard to SPAC use of Title I:

> Indeed, in the eight weeks after the JOBS Act's passage, over a dozen of

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144. David C. John & Nancy M. Marano, *The Sarbanes-Oxley Act: Do We Need a Regulatory or Legislative Fix?*, THE HERITAGE FOUNDATION (May 16, 2007), http://www.heritage.org/research/reports/2007/05/the-sarbanes-oxley-act-do-we-need-a-regulatory-or-legislative-fix#_ftn19.

145. *Id.*

146. *See* Bartlett Presentation, *supra* note 94, at 11.

147. Usha Rodrigues, *SPACs and the JOBS Act*, 3 HARV. BUS. L. REV. ONLINE 17 (2012).

148. *Id.* at 20.

> the companies taking advantage of the new on-ramp option were SPACs. Four months after the JOBS Act's passage, one out of every nine EGCs was a SPAC. The trend has not abated; in the first half of August 2012, one out of five firms that made use of the IPO on-ramp provision were SPACs. To say the least, SPACs are making good use of the EGC option.[149]

We should expect to see very little job creation coming out of SPAC use of Title I, which leads to the next line of narrative in story two. Rodrigues notes that "[n]othing in the JOBS Act requires that EGCs be job creators – they just have to have 'total annual gross revenues of less than $1 billion.'"[150] While we may take the definition of an EGC for granted, it is an incredibly important issue because it is the threshold question for whether a company (SPAC and operating company alike) may use Title I. If the JOBS Act was intended to create jobs, why not tie the definition of EGC to, well, job creation? This could be done in numerous ways. Before using EGC status, a company could be required to show detailed projections on how it will create jobs, which kinds of jobs, and how long they would last for. Alternatively, a company could be required to show that after, say, two years, it has created a certain threshold amount of jobs or risk losing EGC status. In any event, it is worth noting the complete lack of job creation metrics that go into the determination of whether or not a company may use Title I. This supports story two's concern that the JOBS Act has little or nothing to do with job creation and that it has everything to do with ratcheting back disclosure regulations at the cost of investor protection.

While the two narratives tell diverging stories about the purpose of the JOBS Act, it is also likely, of course, that the heart of the story is somewhere in between. Perhaps even the most cynical political observer would have difficulty suggesting that the JOBS Act was in no way about creating jobs. Likewise, it would be almost bad faith for an industry representative to suggest that there were not serious efforts to scale back disclosure requirements. The difficult, and for now unanswerable question, is whether the JOBS Act will create jobs, and if so, how many and whether the decrease in investor protection will have been a worthy tradeoff.[151]

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149. *Id.* at 19.

150. Usha Rodrigues, *SPACs and JOBS*, THE CONGLOMERATE (Jun. 5, 2012), http://www.theconglomerate.org/2012/06/spacs-and-jobs.html.

151. *America's JOBS Act, Still Not Working*, THE ECONOMIST (Mar. 30, 2013), *available at* http://www.economist.com/news/finance-and-economics/21574516-law-designed-jump-start-businesses-cant-get-ground-still-not-working.

B. Unintended Consequences of Reforming Disclosure Law Through the Gloss of Gob Creation

As noted above, the SEC's mission is to "protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation."[152] It could reasonably be argued, therefore, that the JOBS Act simply made the decision to favor capital formation over investor protection. However, I argue that job creation and capital formation are not the same and that reforming securities disclosure through the politically efficient guise of job creation can have various unintended consequences on United States securities markets.

First, the assumption that lowering the regulatory burden on issuers will leave them with more flexibility and room to create jobs is not without problems. Harvard Law School's John Coates testified in front of the House Subcommittee on Securities, Insurance, and Investment about the potential effects of the JOBS Act. Professor Coates began his remarks by suggesting that the framework for thinking about reformation of securities laws has not been communicated properly.[153] Coates stated that the JOBS Act proposals change the balance between the costs of raising capital on the one hand and the combined costs of fraud risk, asymmetry of information, and unverifiable information on the other.[154] Coates noted that investors charge a higher cost for their capital if there is an anticipation of fraud or the inability to verify information about their investment.[155] It follows, according to Coates, that disclosure, anti-fraud rules, and enforcement mechanisms lower the cost of capital.

Interestingly, lowering disclosure and other regulatory requirements can reduce job creation. This is because, as Professor Coates describes, "a reduction in [offering] costs can be more than offset in an increase in capital costs, if the reduction in direct offering costs decreases investor confidence or the content or reliability of information required by investors."[156] This may depend, as Coates concedes, on just how much the reforms lower offering costs, how widespread the use of the reforms is, how often fraud can be expected from the new reforms, and how much more difficult, if at all, it will be to verify company information.[157] While

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152. *See supra* note 6.

153. *Examining Investor Risks in Capital Raising, Hearing Before the Subcommittee on Banking, Housing, and Urban Affairs*, 112th Cong. 2 (2011) (written testimony of Professor John C. Coates IV).

154. *Id.*

155. *Id.*

156. *Id.* at 33.

157. *Id.*

the notion that disclosure can lower the cost of capital is well-supported,[158] as discussed in the previous section, the connection between disclosure and job creation has not traditionally been made.

Second, ensuring that small businesses gain fair access to investor capital is an interest that the SEC must meet, but the goal should not necessarily be that all small businesses receive investor-backed capital. For example, if more companies can access capital through the IPO on-ramp, through crowdfunding, or through various of the JOBS Act's other provisions, what does this say about job creation? If all provisions include lessened disclosure and fewer investor safeguards, more cash in the hands of new companies might create something of a bubble effect. Kathleen Shelton Smith, Co-Founder of Renaissance Capital, LLC testified in front of the Senate Committee on Banking, Housing, and Urban Affairs about just this problem.

> Measures to ease costly regulatory burdens that weigh most heavily on small firms may be helpful. At the same time, care must be taken in waiving certain disclosure and stock promotion rules that could result in misallocating capital to weak or fraudulent companies. Weak companies that ultimately fail cause job losses, not job creation, and result in serious stock market losses to investors who abandon the IPO market, as was the case after the internet bubble burst.[159]

While Congress nor the SEC will be able to perfectly locate the dividing line between job creation and job destruction, Shelton Smith's caution is a valid one. If nothing else, it cautions Congress, and the SEC as rulemaking implementer, that we should not get blinded by the excitement that more small businesses will receive investor money. Former SEC Chief Accountant Lynn E. Turner agrees. Testifying at the same hearing as Shelton Smith, Turner recalled the dotcom bubble of the late 90s:

> In fact, during the heydays of the IPO market of the 1990's, many companies went public and took money from investors that never should have. Yet shortly after going public, as Exhibit 2 notes, many failed, causing investors great losses in their retirement and college education savings accounts, and destroyed over a hundred thousand jobs. Many large pension funds have never been able to recover to their pre dot com bust funding levels, leaving Americans wondering where the money will come for their retirement.[160]

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158. *See supra* note 116, at 179.

159. *Spurring Job Growth Through Capital Formation While Protecting Investors, Hearing Before the Committee on Banking, Housing, and Urban Affairs*, 112th Cong. 44 (2012) (written testimony of Kathleen Shelton Smith).

160. *Spurring Job Growth Through Capital Formation While Protecting Investors, Hearing Before the Committee on Banking, Housing, and Urban Affairs*, 112th Cong. 10 (2012) (written testimony of Lynn E. Turner).

The second unintended consequence, in summary, is that of a bubble effect. Just because more companies can issue securities to a wider audience, it does not necessarily follow that these are sound investments. Best case scenario, investors will have more companies to invest in, perhaps diversifying their portfolio. Worst case scenario, investors rush to place capital in untested companies without regard for fundamentals, leading to a small issuer bubble. In any event, the SEC should be vigilant in bringing enforcement actions against fraudulent issuers, setting the precedent that systemic risks will be monitored closely.

The third issue is part unintended consequence and partially a plea that SEC's "capital formation" mission not be considered synonymous with job creation. While capital formation can lead to job creation, it does not necessarily do so. If we were to operate under the assumption that the job creation goal behind the JOBS Act is simply exercising the capital formation directive, I argue that this is going too far because it misconstrues the various other factors that capital formation embodies. Consider the various ways, through the following non-exhaustive list, whereby capital can be raised with little to no job creation resulting. First, an issuer could raise capital to invest in a certain technology that, instead of creating jobs, makes current jobs duplicative and eventually unnecessary. Second, a company could raise money to pay off certain debt obligations without investing in infrastructure or personnel. Third, and finally, entities could raise capital not for the purpose of adding to an operating company's human resources as is common in the financing of private funds. As discussed above in Section II, there is strong evidence that the most frequent users of Regulation D are not operating companies, but they are private investment funds such as hedge funds and private equity funds. The direct purpose of this capital formation is not job creation, although an argument could be made that some job creation could result from these private fund activities. Rather, the purpose of this kind of capital formation is to realize investor gains and for the general partner to operate a successful and lucrative management firm. In any event, the noteworthy issue here is that capital formation and job creation should not be confused as being fully aligned. While they do converge under various conditions, they also diverge in important ways. Because this is true, calling the JOBS Act a "capital formation" act does not reveal the full nuance of what capital formation is and how the SEC attempts to both encourage it and restrain it. If we conflate capital formation with job creation, we risk scaling back investor protections because the politically expedient notion of job creation could easily trump investor protection. It is important that we understand the full scope of the underpinnings of reform before we start any cost/ benefit analyses.

C. *What Is the Proper Role of Job Creation in Securities Disclosure Reform?*

The vast history of American securities regulation demonstrates that job creation plays, at best, an indirect relationship with the reformation of disclosure. In most cases, job creation does not play a role at all. Over the last decade, a shift has occurred to include the jobs picture in the same conversation as securities regulation, especially on the issue of disclosure. A vocal critical mass has reacted to what is perceived as an overzealous response to the accounting scandals of the early 2000s and the financial crisis of 2008. I would go so far to say that the issue of job creation is now a bona fide factor that merits some attention when considering public company disclosure requirements. It would seem that, given our connected financial markets, the days of a dividing line between capital markets and macro economic concepts is blurrier than it ever has been.

This change is clearly demonstrated by Title I of the JOBS Act. I would suggest that there is indeed a legitimate connection between the IPO market and job creation. This point is not only intuitive; it is also supported by empirical evidence.[161] The decision of whether or not to raise capital in the public markets necessarily involves an analysis of whether existence as a public company is worth the regulatory oversight.[162] With a more robust set of public company regulations after Sarbanes-Oxley and Dodd-Frank, that public/private decision is not necessarily a simple analysis. If IPOs really are the job-creating events that the data suggest they are, then there is truly something at stake for the United States employment picture. In passing Title I, I would argue that Congress does not have to predict the arch of the IPO market. While small company IPOs are down, that does not mean that Title I is an invalid idea. Additionally, it is important to remember that Title I does not relieve EGCs from full public company disclosure requirements forever. As much as EGCs can initially avoid certain disclosures, they must attain full public company compliance in at most five years. In summary, I believe that there is a valid connection between jobs and disclosure in Title I. The regulatory climate has changed to incorporate rather than exclude securities disclosure from larger economic issues such as employment rates. How then, do the other parts of the JOBS Act hold up in this new model? When should jobs be part of disclosure reform and when should they be excluded?

The majority of the remaining provisions in the JOBS Act are a different matter. For example, Title III's crowdfunding provisions do not possess an innate connection with job creation. While the provision does afford small

161. See *supra* note 5.

162. 15 U.S.C. § 78l(g) (2012).

businesses a unique new alternative to raise capital through equity sales, the net result is less about job creation and more about the ease with which capital formation takes shape. As I noted above, job creation and capital formation diverge in important ways. Small businesses, that could presumably take advantage of the crowdfunding provisions, have not had to rely on crowdfunding to form and operate their companies. Various sources of capital for such non capital-intensive businesses have and still are available: friends and family money, bank loans, and other loan financing and borrowing options. Whether jobs will all of a sudden be created by crowdfunding is a question that does not have an easy answer; time will tell whether such offerings produce jobs. A second example of the tenuous connection between jobs and the JOBS Act is found in Title V of the Act. Private companies may now avoid '34 Act reporting obligations (and therefore essentially refrain from being "forced" to go public) by maintaining fewer than 2,000 investors or fewer than 500 non-accredited investors. While the goal of permitting companies to stay private longer is not itself an ill-intentioned one, the job creation portion runs up against an internal inconsistency. If IPOs are the job-creating events that Tittle I suggests, then allowing companies to stay further and further away from an IPO may not align with the job creation vision. It could be argued that the JOBS Act is really a buffet line of choices for entrepreneurs to choose their best funding options. Be that as it may, it remains troubling to slap the "job creation" sticker on the entire Act even though various parts of the Act operate to the contrary.

Assuming that the job creation and employment themes are here to stay in securities disclosure, what then should be the proper role of this theme in future disclosure debates? This section concludes with a framework that I suggest could be a way to thoughtfully decide if job creation should play a direct role in securities disclosure reform. Each of the framework's three components is discussed in turn.

First, some empirical evidence about the connection between job creation and disclosure should be presented and analyzed. Because job creation is a relatively new direct consideration in reforming disclosure, I suggest that the burden of production rest with the party making the job creation connection. While I am not offering a precise mechanism to determine exactly how and when such a burden is met, the evidence that supported Title I of the JOBS Act is a good starting point. The IPO Task Force Report contained a detailed overview and analysis on the connection between the IPO market and the employment health of the United States[163]

163. While this data was disputed in the Ritter Report, my point is not to drum up controversy; rather, it is to suggest that some empirical work should be presented, leaving their merits up to Congress, the SEC, and the various other constituencies.

The remaining provisions in the Act were not accompanied by any such analysis. Because of the concerns about unintended consequences listed above, the job creation position should not simply be taken for granted as happened in the passage of the JOBS Act. There was almost a sense that Congress was scrambling to put all potential job creating options on the table despite a lack of reasoned analysis and evidence. In the future, the threshold step for job creation vis a vis securities disclosure should be a prima facie case demonstrating a legitimate connection.

Second, assuming a prima facie showing is made in step one, a cost/ benefit analysis should be done to determine whether the interests of reform outweigh the existing disclosure mechanism. This step is not unique to the job creation element. As mentioned above, the cost/benefit analysis is a traditional method to understand the merits of disclosure. There is no reason why the cost/benefit analysis should be eliminated despite a significant shift in the disclosure paradigm. It could be said that a cost/benefit analysis is broad enough to permit parties to skew the analysis in their favor. The reality is that the SEC is generally the arbiter of such analyses, and interested parties will be incentivized to have their points of view considered before the SEC promulgates final rules. Interestingly, Congress, not the SEC, was the body that could have done such a cost/ benefit analysis in the run up to the JOBS Act. In any event, the SEC will still have considerable JOBS Act discretion as it implements highly anticipated rules on crowdfunding and general solicitation, among others.

Third, and lastly, assuming that disclosure reform is perceived as the best way forward, the reform should be limited to the precise issue seen to be the burden on job creation. This final step comes from an observation about the JOBS Act. While the legitimate connection between job creation and disclosure was found in Title I, the job creation theme was used across the entire Act. In order to ensure that job creation is not an open ended label for non-job reforms, the reform should be "narrowly tailored" to use the United States Supreme Court's strict scrutiny language. One example of narrow tailoring in this context would be to examine which industry the proposed jobs would benefit. If we are discussing Internet or life sciences companies, there is a tighter fit between disclosure and job creation than in the manufacturing or services industries.[164] Similarly, if we are examining a disclosure proposal that would affect certain companies (regardless of industry sector) over others, what is the job-creation potential of such companies? While Title I does not condition its EGC definition to any job creation metrics, a more narrowly tailored examination of lessened disclosure would discover how such a company would produce jobs for the

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164. *See supra* note 98.

American economy. Had the narrow tailoring standard been applied to the JOBS Act, I suggest that Title I would have been the only provision to pass muster.

This framework is not intended to serve as an appellate court's standard of review. Nor is it easily applied to congressional action, which, apart from its constitutionally enumerated powers, need not follow any given formula to pass legislation. I would still argue that the framework offers useful guidance for explaining congressional action in the realm of securities disclosure law. The framework also applies to the SEC in its deliberations during the rulemaking process. Certainly the SEC will receive copious public comments about proposed changes to securities disclosure rules. The framework should be applied when those changes involve alleged job creating goals.

CONCLUSION

What role, if any, should job creation occupy in the reform of United States securities disclosure laws? To consider the connection between jobs and disclosure, historical analysis provides time-tested baseline justifications for disclosure reform. Investor protection reforms have focused on enhancing both the strength of disclosure tools and the audience eligible to reap their benefits. Capital formation reforms emphasize the need for securities-issuing firms to obtain flexibility in their offerings, especially to so-called sophisticated investors who may intrinsically need less disclosure. Both justifications for reform do not directly intend to bolster job creation. Capital formation has historically been limited to facilitating transactions between private parties as opposed to making a larger impact on the real economy. As Commissioner Aguilar points out, however, that view is now in question.[165]

Changes in disclosure theory also abound. While, historically, disclosure theory has focused on disclosure's costs and benefits to those parties immediately involved in a securities transaction, a steady deregulatory narrative, low employment numbers, and an election year have all contributed in shifting the disclosure conversation. Disclosure's costs and benefits (although primarily its costs) are now considered in the context of the real economy. While little academic attention has been paid to this directional shift, some commentators have expressed doubt about the connection between jobs and the JOBS Act.[166]

While the justification for JOBS Act reforms may be questioned as

165. *See supra* note 128.

166. *See* Guttentag, *supra* note 116; *see also* Langevort & Thompson, *supra* note 124.

having ulterior motives, there may be real and potentially damaging unintended consequences as a result of them. First, a reduction in offering costs (due to the lessened cost of disclosure) could be offset by an increase in the cost of raising capital due to lack of investor confidence in opaque investments. Second, allocating capital to weak or fraudulent companies (which attributes may more easily be kept hidden without robust disclosure) can cause job losses resulting from failed firms and potential market bubble effects caused by less informed and frenzied investor behavior. Finally, I argue that job creation is not necessarily capital formation and that capital formation reforms do not necessarily have to deemphasize investor protection.

It appears, however, that the real economy, with job creation as the cause du jour, is now a part of the disclosure conversation. This may be indicative of a broader trend toward the integration of the disparate facets of the global financial system, markets, financial institutions, and the economy sharing a common fate. Therefore, it is useful to consider how and when jobs should fit into the mix of variables that policymakers consider when reforming disclosure statutes and rules. First, some empirical connection between jobs and disclosure should be required. Without it, disclosure could take on an experimental character that could produce a less efficient capital markets system. Second, if there is a credible connection between jobs and disclosure, a traditional cost/benefit analysis should be done rather than assuming that disclosure's burdens outweigh its benefits. Should the disclosure reform prevail, it should be narrowly tailored to the precise issue that directly affects job creation. The JOBS Act's Title I is the best example of this closer fit; high technology and other venture-backed companies have turned away from the IPO mechanism in favor of strategic combinations through a merger or acquisition. However, no such direct connection exists (or has at least been convincingly shown) between small business owners looking to raise capital over the internet, as Title III will permit once the necessary crowdfunding rules are in place.

It is noteworthy that in May 2013, the period in which this paper concludes, the number of Americans seeking "initial jobless benefits" has decreased to the lowest level since January 2008.[167] The unemployment rate is down slightly at 7.5 percent.[168] Rarely do such reports discuss the

167. Eric Morath & Josh Mitchell, *U.S. Jobless Claims Fall to 5-Year Low*, WALL ST. J. (May 2, 2013, 11:24 AM), http://online.wsj.com/article/SB10001424127887324766604578458602085955608.html?mod=WSJ_hp_LEFTWhatsNewsCollection.

168. Sudeep Reddy, *Job Gains Calm Slump Worries*, WALL ST. J. (May 3, 2013, 8:20 AM), http://online.wsj.com/article/SB10001424127887323628004578460602683732428.html?mod=WSJ_hp_LEFTWhatsNewsCollection.

role that the JOBS Act plays in the employment sphere. In fact, the most recent jobs report disclosed that the increase of 176,000 private sector jobs occurred primarily in service industries.[169] The modest role played by the JOBS Act could be due to its relative immaturity and lack of fully implemented rules. We might not fully understand the job-creating potential of the legislation for years, until jobs data is available, particularly in the volume of venture-backed IPOs.

The story of the JOBS Act is one of fusion between capital markets and the macro economy. The reform is a sign of the times it was enacted in, much like the historical disclosure reforms before it. Yet, it is novel because never before has job creation served as such a direct justification for disclosure reform. This new direction must be understood and analyzed in the context of the larger disclosure regime that has been the foundation for United States capital markets since the Depression era. Instead of taking as a given the current premise that disclosure obligations hinder job creation, we should think critically about why we should reform our disclosure regime and what it will mean for the larger capital markets and each of its constituent parts. My hope is that this paper can contribute to just such a dialogue.

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169. *Id.*

SAC CAPITAL: FIRM CRIMINAL LIABILITY, CIVIL FINES, AND THE INSULATED CEO

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INTRODUCTION

Since 2009, the business pages of many major newspapers have been rife with stories about insider trading. The name most often in the headline of these stories is Preet Bharara, U.S Attorney for the Southern District of New York.[1] Since taking on the job of fighting insider trading on a large scale, he boasts a 78-1 record for convictions.[2] However, one man has evaded that scorecard even though his company and several employees have earned criminal and civil convictions.

S.A.C. Capital Advisors, L.P. ("SAC") was once a $14-billion hedge fund with one of Wall Street's best records for performance.[3] Steven A. Cohen, the owner and namesake of SAC, was the subject of admiring profiles in everything from the *New York Times*[4] to *Vanity Fair*.[5] He was

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1. *See Meet the U.S. Attorney Preet Bharara*, U. S. DEP'T JUSTICE, http://www.justice.gov/usao/nys/meetattorney.html (last updated May 14, 2015).

2. *See* Julia La Roche, *Here's Preet Bharara's Amazing 79-0 Insider Trading Conviction Score Card*, BUSINESS INSIDER (Feb. 6, 2014, 4:30pm), http://www.businessinsider.com/bharara-insider-trading-convictions-2014-2 (stating that the headline reports a 79-0 record but that the number has changed and will continue to change to include more losses for Bharara because a federal appellate court has held that the conduct an insider trading defendant was engaged in did not rise to the level of criminal insider trading); *see also* United States v. Newman, 773 F.3d 438 (2d Cir. 2014) (finding that the court reversed the conviction of hedge fund manager Anthony Chiasson because the government had not established that Mr. Chiasson actually knew that the information he was receiving from various networks was non-public information and it also found that some of the information came from other managers, brokers, and traders and that he would have no way of knowing if the information was non-public. On the heels of this reversal, lawyers for many of the other defendants were already working to have plea agreements set aside on the grounds that the law was misunderstood at the time of the pleas); Matthew Goldstein & Ben Protess, *Some Accused of Insider Trading May Rethink Their Guilty Pleas*, N.Y. TIMES Dec. 12, 2014, at B3 (emphasizing that the case turned on the element of scienter, or criminal intent).

3. Peter Lattman, *SAC Capital to Try to Reassure Investors*, N.Y. TIMES (Nov. 27, 2012, 3:30 PM), http://dealbook.nytimes.com/2012/11/27/sac-to-hold-client-call-amid-insider-trading-case/?_r=0.

4. Jenny Anderson et al., *A Fascination of Wall St., and Investigators*, N.Y. TIMES (Dec. 22, 2012), http://www.nytimes.com/2012/12/23/business/steven-cohen-of-sac-is-fascinating-to-investigators-too.html?_r=0.

5. Christopher Bateman, *Steve Cohen on Life, Love, His Art Collection, and Those Pesky Insider-Trading Rumors*, VANITY FAIR (June 2, 2010, 12:01am), http://www.va

once number thirty-six on *Forbes*' list of richest Americans worth an approximated $11 billion;[6] Mr. Cohen was called "the king of hedge funds."[7] Mr. Cohen received attention for his art collection (valued at $1 billion) and his thirty-room mansion in Connecticut.[8] However, as his wealth and successes increased, there was attention building and many questioned, "How does he do it?" The two questions that swirled around SAC were: (1) How did the hedge fund outperform every other fund?; and (2) Why were so many current and former SAC traders being indicted, convicted, or entering guilty pleas for insider trading?

As a result of these questions, the Financial Industry Regulatory Authority ("FINRA") began making referrals to the United States Securities and Exchange Commission ("SEC") in 2010 for possible insider trading by SAC. In July 2013, the Department of Justice ("DOJ") filed a criminal indictment against SAC Capital.[9]

I. IMPLICATIONS OF THE FIRM'S INDICTMENT

SAC lawyers originally entered a not guilty plea to the charges.[10] Employees and investors were sent an email saying that it would be business as usual for SAC's 1000 employees and its offices in eight cities around the world.[11] Eventually, SAC's strategy would shift from complete denial to acceptance as the company agreed to plead guilty to settle criminal and civil charges.[12] It is a rare move for federal prosecutors to indict a corporation, but as of mid-July 2013 (the time of the charges), SAC's main portfolio was up eleven percent when most hedge funds were

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nityfair.com/online/daily/2010/06/steve-cohen-on-life-love-his-art-collection-and-those-pesky-insider-trading-rumors.

6. *The World's Billionaires Steve Cohen*, FORBES, http://www.forbes.com/profile/steve-cohen/ (last updated June 18, 2015).

7. Bateman, *supra* note 5.

8. Julia La Roche, *The Fabulous Life of Hedge Fund Legend Steven Cohen*, BUSINESS INSIDER (Dec. 7, 2012, 10:26 AM), http://www.businessinsider.com/the-fabulous-life-of-steve-cohen-2012-12?op=1.

9. *United States v. SAC Capital Advisors LP*, No. 13-cr-00541 para. 1, http://www.justice.gov/sites/default/files/usao-sdny/legacy/2015/03/25/SAC%20Indictment%20%28Stamped%29.pdf [hereinafter *Indictment*].

10. Bernard Vaughn, *SAC Capital pleads not guilty to insider-trading charges*, REUTERS (July 26, 2013, 12:42 PM), http://www.reuters.com/article/2013/07/26/us-sac-fund-charges-idUSBRE96O0SD20130726.

11. Matthew Goldstein, *SAC Capital CEO Steven Cohen Throws a Party Despite Indictment*, HUFFINGTON POST (July 28, 2013, 3:15 PM), http://www.huffingtonpost.com/2013/07/28/steven-cohen-party-despite-indictment_n_3667713.html.

12. Christopher M. Matthews, *Judge Oks Guilty Plea in SAC Capital Insider-Trading Case*, WALL ST. J. (Apr. 10, 2014, 12:39 PM), http://blogs.wsj.com/law/2014/04/10/judge-oks-guilty-plea-in-sac-capital-insider-trading-case/.

up approximately 3.2 percent.[13] As more individual traders from SAC began to face individual criminal convictions and details of the pervasive criminal corporate culture began to surface, it became clear the investigation into SAC would continue.

In November 2013, there was an announcement of the settlement of the SAC criminal charges.[14] The government outlined the terms. SAC agreed to pay $900 million in forfeiture and a $900 million fine.[15] The firm received credit for a $616 million already paid to the SEC to settle civil charges, bringing the total fine to just under $1.2 billion.[16] SAC, and by extension Mr. Cohen as the owner of the firm, agreed to pay the fine.[17] However, Mr. Cohen was not charged criminally, and in statements released after the settlement, SAC pointed the finger at a small group of employees.[18] He maintains that he bears no personal criminal responsibility.[19] Mr. Cohen wisely seized on the weakness that the appellate court found in a previous case;[20] that the government needs to show that Mr. Cohen actually knew that the information his traders and managers were using was nonpublic.[21] Again, since the traders and managers gathered the information from different sources, including other brokers, traders, and managers, that direct line to nonpublic information is not easily established.

The case presents a series of unresolved legal questions about civil and criminal liability of financial firms, how the two types of cases are intertwined, and the role and culpability of firm leadership in these charges. Bharara has alleged that the company is a "magnet for market cheaters."[22]

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13. Goldstein, *supra* note 11.

14. Press Release, U.S. Dep't Justice, Manhattan U.S. Attorney Announces Guilty Plea Agreement With SAC Capital Management Companies (Nov. 4, 2013), http://www.justice.gov/usao-sdny/pr/manhattan-us-attorney-announces-guilty-plea-agreement-sac-capital-management-companies.

15. *Id.*

16. *Id.*

17. *Id.*

18. Michael Rothfeld, *SAC Agrees to Plead Guilty in Insider-Trading Settlement*, WALL ST. J., http://www.wsj.com/articles/SB10001424052702303482504579177602847708162 (last updated Nov. 4, 2013, 10:03 PM).

19. Linette Lopez, *Here's The 46-Page White Paper Steve Cohen Gave To SAC Employees Yesterday Explaining Why He Didn't Do Anything Wrong*, BUSINESS INSIDER (Jul. 23, 2013, 2:12 PM), http://www.businessinsider.com/cohen-sac-white-paper-2013-7.

20. United States v. Newman, 773 F.3d 438 (2d Cir. 2014).

21. *Id.*

22. Julie Creswell, *A Relentless Prosecutor's Crowning Case*, N.Y. TIMES (July 25, 2013, 8:24 PM), http://dealbook.nytimes.com/2013/07/25/a-relentless-prosecutors-crowning-case/?_php=true&_type=blogs&_r=0.

Is being a magnet for cheaters criminal activity? Can a culture that seems to breed insider trading be a basis for criminal charges? The case against SAC takes the firm's criminal culpability into uncharted waters.

Exploration of this potential criminal culpability and culture will begin with a review of the history of SAC and Mr. Cohen with respect to interactions with regulators. A summary of the insider trading cases brought against former and current SAC employees will follow. Finally, there is analysis of how and when activities and knowledge can be attributed to firms for purposes of imposing criminal culpability and how this has left Mr. Cohen seemingly untouchable.

II. A HISTORY OF FRAUD: COHEN'S LEGAL AND REGULATORY INTERACTIONS

Mr. Cohen first drew the attention of regulators early in his career. In 1991, as a young trader, Mr. Cohen was censured by the New York Stock Exchange and barred from trading for four weeks because he was alleged to have made a trade that inflated the price of a stock in order to protect him from losses.[23] The result of the inflation trade was that his position loss was cut in half. Mr. Cohen was terminated because of the trade, and SAC was born.[24]

Questions arose surrounding SAC, Mr. Cohen, and insider trading long before the current criminal indictment of the corporation. For example, in 2003, Holly B. Becker, formerly of Lehman Brothers, was investigated by the SEC for passing along advance information to her then husband, who was a principal in SAC.[25] There were indications that the trading positions of Ms. Becker's husband coincided with the information he may have received through advance copies of the reports, however, no charges were ever filed.[26]

Almost twenty years later, accusations still abounded. Mr. Cohen's former wife, Patricia Cohen, filed suit alleging that Mr. Cohen had made $20 million in profit by trading in advance of General Electric's ("GE") purchase of RCA Corporation based on an insider tip regarding the acquisition that he had received in advance of the GE announcement.[27] The case was peripheral to the couple's divorce, and no charges were ever brought.[28] As these individual issues were percolating through innuendo,

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23. Anderson et al., *supra* note 4.

24. *Id.*

25. Gretchen Morgenson, *Analyst and Her Husband Under Scrutiny*, N.Y. TIMES, Jan. 15, 2003, at C1.

26. *See id*; *see also* Anderson et al., *supra* note 4.

27. Anderson et al., *supra* note 4.

28. *Id.*

general questions about SAC continued to emerge in the business press. The "numbers" SAC achieved were labeled as "off the charts" and the compensation paid to SAC employees as "unmatchable," and those in the financial world sought to understand SAC's ability to defy market trends.[29] Interest into what was going on behind closed doors only continued to grow when individual former and current employees of the company began to be systematically indicted.[30]

III. CRIMINAL CULPABILITY THROUGH ATTRIBUTION OF CULTURE AND CONDUCT: WAS COMPLIANCE OR LACK OF COMPLIANCE A BASIS FOR CRIMINAL LIABILITY?

The forty-one-page indictment against SAC alleged that the corporate entities have

> criminal responsibility for insider trading offenses committed by numerous employees and made possible by institutional practices that encouraged the widespread solicitation and use of illegal inside information. Unlawful conduct by individual employees and an institutional indifference to that unlawful conduct resulted in insider trading that was substantial . . . [and] pervasive.[31]

A. Culture Factor One: Continuing Success Does Not Yield Scienter Even When Results Defy Odds

Tying Mr. Cohen to SAC's misdeeds, however, was a challenge for the federal government. SAC employees have noted that Mr. Cohen was not present at many of the compliance training sessions.[32] In a 2011 deposition, Mr. Cohen said that he had read SAC's compliance model but did not "remember exactly what it says."[33] Although it seems clear to many that Mr. Cohen was SAC and SAC was Mr. Cohen, finding him personally responsible has been a difficult task. It seems clear that Mr. Cohen may have tolerated, ignored, fostered, or otherwise allowed the insider trading culture of SAC, but proof of actual knowledge of the details of each trader's or manager's actions has been elusive. The distance between the Chief Executive Officer ("CEO") and employees in actual knowledge is great in these situations. An inkling that something nefarious may be afoot does not scienter make.

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29. *Id.*

30. *See id.*

31. *Indictment, supra* note 9 para. 1.

32. James B. Stewart, *At SAC, Compliance with an Edge*, N.Y. TIMES, Feb. 26, 2013, at B1, available at http://www.nytimes.com/2013/07/27/business/at-sac-rules-compliance-with-an-edge.html.

33. *Id.*

B. *Culture Factor Two: The Compliance Component*

Until 2008, SAC had a policy of purging all instant messages ("IMs") after thirty-six hours and all emails not specifically saved after thirty days. The indictment specified, that although the compliance department had recommended reviewing electronic communications by employees, they were "rarely reviewed."[34] However, SAC later boasted that it had a thirty-eight employee compliance department, which was one of the "earliest, most sophisticated, most expensive, and most far-reaching in the industry."[35] The claims by SAC in touting its compliance operations to investors was that those operations included the following:

> '[D]aily reviews' of email and IMs; a 100% electronic retention policy; restrictions on the use of expert networks; and even surveillance of employee communications. It is true that most of these key compliance measures were instituted after the trades that are the focus of the indictments, but it also appears they were instituted before SAC became aware of the current investigation.[36]

The indictment alleged that, regardless of their relatively new compliance policies, it has become clear that the culture fostered by SAC produced "hundreds of millions of dollars of illegal profits and avoided losses at the expense of members of the investing public."[37] The issue is, however, does sloppy compliance equal scienter? The indictment falls short of tying the activities of the traders to Mr. Cohen thus attributing to him the knowledge of ongoing and uncorrected criminal activity that is required for executive and corporate criminal culpability.[38]

Federal Bureau of Investigation ("FBI") Assistant Director George Venizelos said,

> SAC [. . .] and its management fostered a culture of permissiveness. SAC not only tolerated cheating, it encouraged it. According to the FBI, the aim all along has been to root out the wrongdoers, and send a message to anyone else inclined to break the law. If your information 'edge' is inside information, you can't trade on it.[39]

Ironically, Mr. Cohen said in a 2011 deposition that he found the law on

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34. *Indictment, supra* note 9 para. 24.

35. Roger Parloff, *USA v SAC A simply Unanswerable Indictment*, FORTUNE (July 26, 2013, 6:08 PM), http://fortune.com/2013/07/26/usa-v-sac-a-simply-unanswerable-indictment/.

36. *Id.*

37. *But see id.*

37. *Indictment, supra* note 9 para. 7.

38. United States v. Park, 421 U.S. 658 (1975).

39. Patricia Hurtado et al., *SAC Capital Indicted for Unprecedented Insider Trading Scam,* BLOOMBERG (July 25, 2013), http://www.bloomberg.com/news/2013-07-25/sac-capital-indicted-in-six-year-u-s-insider-probe.html.

insider trading to be "very vague."[40] It is difficult to find the records of internal audits on questionable trades at SAC, and sanctions against traders appear to be non-existent. Former SEC chairman, Harvey Pitt, who was a speaker at SAC explained, "[m]y sense was that it was a check-the-box mentality, not a serious commitment."[41]

IV. THE SAC EMPLOYEES AND FORMER EMPLOYEES WHO HAVE BEEN CHARGED WITH INSIDER TRADING

There is a "trail" of insider trading that surrounds SAC. Arguably, investigators just follow where the facts lead them, and many insider trading cases seem to lead back, in some way, to SAC through current or former employees.[42] This is evidence of the type of corporate culture fostered at SAC in which using questionable means to obtain an "edge" was commonplace.

The history of current and former SAC employees contains many who were accused, and convicted, of insider trading. Those who have been charged with insider trading with connections to SAC include Noah Freeman, Donald Longueuil, Jon Horvath, Wesley Wang, Mathew Martoma, Richard Choo-Beng Lee, and Michael Steinberg.[43] Mr. Martoma was found guilty on two counts of securities fraud and one count of conspiracy, and he was sent to prison for nine years.[44] Mr. Longueuil pleaded guilty but did not assist in the investigation.[45]

Former portfolio manager, Mr. Lee, plead guilty to insider trading on July 23, 2013, and he is cooperating with the investigation as are Mr. Freeman, Mr. Horvath, and Mr. Wang.[46] Among the traders Mr. Lee implicated was Richard Grodin who worked for SAC in the 1990s, and he was able to provide the FBI with information about the culture of the company, including the extensive use of expert networks.[47] Bharara has described the analysts and portfolio managers as maintaining a "tight-knit circle of greed."[48]

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40. Stewart, *supra* note 32.

41. *Id.*

42. *See* Bryan Burrough & Bethany McLean, *The Hunt for Steven Cohen*, VANITY FAIR (June 2013), http://www.vanityfair.com/news/business/2013/06/steve-cohen-insider-trading-case (detailing the history of investigations into insider trading with multiple links to SAC through current or former employees).

43. *Id.*

44. Kevin McCoy, *SAC Capital Trader Gets 9 Years*, USA TODAY, Sept. 9, 2014, at 2B.

45. Hutardo et al., *supra* note 39.

46. *Id.*

47. *See* Burrough et al., *supra* note 42.

48. Hutardo et al., *supra* note 39.

Although not named in the indictment, Mr. Cohen is alleged to have sold his entire portfolio of $12.5 million in Dell Inc. ("Dell") after an insider tip from Mr. Horvath.[49] This sell-off avoided losses of approximately $1.7 million.[50] After Dell publically reported lesser earnings, Mr. Cohen sent an email to Horvath that said "Nice job on Dell."[51] Mr. Cohen's lawyers say that he never read that first email.[52]

V. THE SAC HIRING PROCESS

There are times when traders go south because of the culture of a firm, but there are other times when traders have already gone south, and they are hired precisely because of their sordid past. For example, one of the young traders hired at SAC was Richard S. Lee, a 34-year-old trader who was hired from Citadel, a Chicago-based hedge fund.[53]

Mr. Lee was fired after one day on the job at Citadel because he signed onto the company's accounting system and altered the value of his holdings by $4.5 million.[54] Citadel's accounting system caught the problem, and he was terminated.[55] Ordinarily, this type of behavior by a trader would mean the end of a trader's career. No financial firm would want to risk having such an individual anywhere near client's funds or its accounting systems. SAC, on the other hand, was more than willing to hire someone whose career was over by market standards. Despite warnings from both Citadel (whose CEO had approved Lee's termination), as well as warning from SAC's own legal team about the compliance risks of bringing Mr. Lee into the firm, Mr. Lee was hired.[56] Mr. Lee has disclosed that he emphasized his reliance on expert networks in doing his job during his subsequent

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49. *Id.*

50. *Indictment, supra* note 9, para. 32a.

51. Press Release, SEC, SEC Charges Steven A. Cohen with Failing to Supervise Portfolio Managers and Prevent Insider Trading (July 19, 2013), http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539726923#.U4ye0PldVqU (alleging that Steinberg replied, "Thanks . . . this ole dog can still hunt."); *see also* Sheelah Kolhatkar, *Specter of Steven Cohen Haunts SAC Capital Portfolio Manager's Trial*, BLOOMBERG (Dec. 3, 2013) http://www.businessweek.com/articles/2013-12-03/specter-of-steven-cohen-haunts-sac-capital-portfolio-managers-trial.

52. *See* Katherine Burton, *SAC's Cohen Doesn't Recall Dell E-Mail Cited in SEC Order*, BLOOMBERG (July 23, 2013, 5:20 PM), http://www.bloomberg.com/news/2013-07-23/sac-s-cohen-doesn-t-recall-dell-e-mail-cited-in-sec-order.html (alleging that Cohen only opened approximately 11 percent of his email messages).

53. Hutardo et al., *supra* note 39.

54. Ben Protess & Peter Lattman, *Trader's Hiring Offers a Glimpse of SAC Practices*, N.Y. TIMES, Aug. 2, 2013, at A1.

55. *Id.*

56. *Id.*

interview with SAC.[57] Mr. Lee was indicted for insider trading, has entered a guilty plea, and has cooperated with the government on the SAC case.[58]

Mr. Lee has indicated that federal authorities have sought his cooperation by asking for information about the questions asked and statements made during his hiring process.[59] When SAC was asked for information about its hiring processes, it responded by indicating that it does not take the hiring process lightly and that it has refused to hire some individuals because of concerns about "compliance issues."[60] However, SAC has declined to give any examples of its refusal to hire someone because of compliance concerns.[61]

Insider trading cases against six former SAC employees have shed light on the expectations that came through the hiring process. Noah Freeman, shortly after graduating from Harvard, joined SAC and has told the FBI "that trafficking in corporate secrets was part of his job description at SAC."[62] An FBI agent's notes on SAC include the following, "Freeman and others at SAC Capital understood that providing Cohen with your best trading ideas involved providing Cohen with inside information."[63] Bharara noted that the "indictment is not just a narrative of names and numbers, it is more broadly an account of a firm with zero tolerance for low returns but seemingly tremendous tolerance for questionable conduct."[64]

E-mails within SAC emphasize some interesting credentials of new hires, including items such as the fact that a trader owned a share of a house in the Hamptons with one company's CEO or that another was "tight with management" of another company.[65] Education, former employers, and achievements are generally the focus of circulated information about new employees. However, at SAC, connections were touted as qualifications for the job.

VI. TESTING THE EVIDENCE: THE CONVICTION OF MICHAEL STEINBERG

Michael Steinberg was one of SAC's most senior portfolio managers.[66]

57. *Id.*

58. *Id.*

59. *Id.*

60. Stewart, *supra* note 32.

61. *Id.*

62. Peter Lattman, *Trail to a Hedge Fund, From a Cluster of Cases*, N.Y. TIMES, Dec. 5, 2012, at A1.

63. *Id.*

64. Hurtado et al., *supra* note 39.

65. Stewart, *supra* note 32.

66. Nate Raymond & Matthew Goldstein, *More Trouble for Cohen's SAC Capital*

He was close to Mr. Cohen, and the pair attended the same high school.[67] Mr. Horvath worked under Mr. Steinberg and was tasked with researching investments for him.[68] Mr. Horvath testified in court that Mr. Steinberg urged him to seek insider tips. In a meeting, Mr. Steinberg told Mr. Horvath "What I need you to do is go out and get me edgy, proprietary information that we can use to make money in these stocks."[69] Mr. Horvath explained that he took this as a push to go out and seek nonpublic information.[70]

A jury convicted Mr. Steinberg in December 2013 of conspiracy and securities fraud.[71] He was found guilty of five counts related to illegal tips on technology stocks provided by Mr. Horvath to bring in $1.4 million in illegal profits to SAC.[72] This was the first case in which federal prosecutors attempted to convince a jury in a criminal proceeding that there was enough evidence to prove insider trading at SAC.[73] Mr. Steinberg appeared to briefly faint after being convicted.[74]

On May 16, 2014, Mr. Steinberg was sentenced to forty-two months in prison but remains at home awaiting the result of his appeal.[75] This sentence length was considerably lower than the six and a half years sought by prosecutors. Approximately, seventy character letters were submitted on Mr. Steinberg's behalf for sentencing, and Justice Richard Sullivan acknowledged the support. However, Justice Sullivan noted that –

> The fact is you didn't need to commit these crimes . . . . There are very

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indicted in NY, REUTERS (Mar. 29, 2013, 2:35 PM), http://www.reuters.com/article/2013/03/29/us-sac-steinberg-insidertrading-idUSBRE92S06O20130329.

67. Sheelah Kolhatkar, *Why SAC Capital's Steven Cohen Isn't in Jail*, BLOOMBERG (Jan. 2, 2014), http://www.businessweek.com/articles/2014-01-02/why-sac-capitals-steven-cohen-isnt-in-jail#p1.

68. *Id.*

69. *Id.*

70. *Id.*

71. Patricia Hurtado, *SAC Manager Guilty as Insider Focus Turns to Martoma*, BLOOMBERG (Dec. 19, 2013, 12:00 AM), http://www.bloomberg.com/news/2013-12-18/sac-fund-manager-steinberg-guilty-in-insider-trading-case.html.

72. *Id.*

73. Christopher M. Matthews, *SAC's Steinberg Convicted in Insider-Trading Case*, WALL ST. J., http://online.wsj.com/news/articles/SB10001424052702304773104579266554036539982 (last updated Dec. 18, 2013, 9:16 PM).

74. Agustino Fontevecchia, *Preet Bharara Closing In On SAC's Steve Cohen After Michael Steinberg Found Guilty Of Insider Trading*, FORBES (Dec. 18, 2013, 6:25 PM), http://www.forbes.com/sites/afontevecchia/2013/12/18/preet-bhararas-insider-trading-crusade-takes-down-ex-sac-trader-michael-steinberg-is-steve-cohen-next/.

75. Sheelah Kolhatkar, *Former SAC Capital Manager Steinberg Sentenced to Three and a Half Years*, BLOOMBERG BUSINESSWEEK (May 16, 2014), http://www.businessweek.com/articles/2014-05-16/former-sac-capital-portfolio-manager-steinberg-sentenced-to-3-dot-5-years (as of the time of this writing).

> few people in the history of mankind who've had all the material things you had – not to mention the immaterial things, a family who loved you, people who relied on you. There were lots of reasons not to engage in this conduct.[76]

Mr. Steinberg was also ordered to pay a $2 million fine and forfeit approximately $365,000 gained through illegal trading.[77]

VII. BUILDING A BRIDGE TO COHEN: MATHEW MARTOMA'S CONVICTION

Mathew Martoma was, at one time, another high-ranking player at SAC.[78] As noted, he was found guilty of insider trading in February 2014, and his case is on appeal after receiving a nine-year sentence in September 2014.[79] However, Mr. Martoma's insider trading allegations provide a possible direct connection to Mr. Cohen himself. He was the only SAC official connected, in criminal court, directly to Mr. Cohen prior to making an illegal insider trade. This direct connection makes Mr. Martoma's conviction extremely valuable to prosecutors.

Mr. Martoma received private information from Dr. Gilman, an Alzheimer's expert at the University of Michigan. Dr. Gilman was overseeing the clinical trial of the Alzheimer's drug, bapineuzumab.[80] Two weeks before the final drug results were due, Mr. Martoma spoke to Dr. Gilman who told him the drugs were underperforming.[81] It could be inferred that Mr. Martoma directly discussed this inside information with Mr. Cohen during a twenty-minute phone conversation based on the fact that SAC began purging its holdings in the companies associated with the drug a day after the conversation took place.[82] The indictment alleges that Mr. Cohen encouraged Mr. Martoma to speak with the doctor running the clinical trials and took no action to determine whether the employees under his supervision were engaged in unlawful conduct.[83] After this

76. *Id.*

77. Kevin McCoy, *Ex-SAC Capital trader gets prison sentence*, USA TODAY (May 16, 2014, 2:46 PM), http://www.usatoday.com/story/money/business/2014/05/16/michael-steinberg-sentencing/9091093/.

78. *See* Kolhatkar, *supra* note 67.

79. Bob Van Voris, *SAC's Martoma Denied Bid to Remain Free in Insider Case*, BLOOMBERG BUSINESS (Nov. 12, 2014, 12:06 PM), http://www.bloomberg.com/news/articles/2014-11-12/steven-a-cohen-testimony-to-be-focus-of-martoma-appeal; *see also* Kevin McCoy, *Ex-SAC Capital trader gets 9-year sentence*, USA TODAY (Sept. 8, 2014, 8:14 PM), http://www.usatoday.com/story/money/business/2014/09/08/martoma-sentencing-insider-trading/15148411/.

80. Kolhatkar, *supra* note 67.

81. *Id.*

82. *Id.*

83. *In re* Steven A. Cohen, Investment Advisors Act Release No. 3634, 2013 WL 3776681, para. 69 (July 19, 2013), https://www.sec.gov/litigation/admin/2013/ia-

conversation with Mr. Cohen, SAC removed $700 million of investments affected by these trials surrounding the pharmaceutical companies Elan and Wyeth.[84] Mr. Martoma's insider trading deals provided SAC with approximately $275 million in illicit earnings.[85]

Mr. Martoma was drawn to SAC originally by a guarantee of specific profits from his own portfolio and a portion of proceeds in the Cohen and CR Intrinsic accounts.[86] This compensation package was a direct pathway to money that no other hedge fund was offering.[87] Mr. Martoma had a biology degree from Duke. He had work experience at the National Human Genome Research Institute, and he is married to a physician.[88] This background is what may have drawn him to pharmaceutical stocks.[89]

The year of the big pharmaceutical trade, Mr. Martoma was rewarded for his suspicious conduct with a $9.3 million bonus.[90] In 2009 and 2010, Mr. Martoma did not receive a bonus.[91] He was subsequently fired in 2010 for poor performance.[92] In a 2010 email, which suggested that Mr. Martoma be fired, a firm member wrote that Mr. Martoma was a "one trick pony."[93] This evaluation is some indication of the SAC culture; the rewards came only for the large deals based on "edgy" information (at best). The reprimands came for not replicating the same proficiency with other trades. When Mr. Martoma was first approached by federal investigators after allegations of insider trading, he fainted on his front lawn.[94] However, Mr. Martoma's conviction has not had a profound effect on Mr. Cohen because prosecutors at the U.S. Attorney's Office in Manhattan have not been able to convince Mr. Martoma to provide them with enough information to implicate Mr. Cohen personally.[95]

Turning on another executive in exchange for a more lenient sentence

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3634.pdf [hereinafter *SEC Proceeding*].

84. *Id.* para. 82.

85. *Id.* para. 90.

86. Kolhatkar, *supra* note 67.

87. *Id.*

88. *Id.*

89. *Id.*

90. *SEC Proceeding, supra* note 83, para. 91.

91. *Id.* para. 93.

92. *Id.* para. 94.

93. *Id.* para. 94.

94. *E.g.*, Ausustino Fontevecchia, *After Martoma's Insider Trading Conviction, Will Preet Bharara Finally Go After Steve Cohen*?, FORBES (Feb. 6, 2014, 6:30 PM), http://www.forbes.com/sites/afontevecchia/2014/02/06/after-martomas-insider-trading-conviction-will-preet-bharara-finally-go-after-steve-cohen/.

95. Kolhatkar, *supra* note 67.

has been a common occurrence on Wall Street.[96] The Former Chief Financial Officer ("CFO") of Enron, Andrew Fastow, received a more lenient sentence in exchange for testifying against his superiors.[97] Recent insider trading cases featured similar exchanges with Anil Kumar testifying against the Galleon Group Founder, Raj Rajaratnam, and Goldman Sachs Board Member, Rajat Gupta.[98] These cooperators plead guilty and avoided trial in their exchange for a lesser sentence.[99] The odds of Mr. Martoma providing prosecutors with information regarding Mr. Cohen may now be diminished because of the conviction, which may result in a reduced incentive to cooperate.

As noted, Mr. Martoma was sentenced in September of 2014.[100] Probation officials recommended eight years, while the federal sentencing guidelines suggested somewhere between 15.6 and 19.7 years, the sentence was for nine years.[101] Mr. Martoma's lawyers asked for a more lenient sentence considering his devotion to his family, his 100 support letters, and his history of helping others.[102] The judge went with the lesser figure for what appeared to be consideration for his family.

VIII. WHY MR. MARTOMA WILL NOT TALK

Months before Mr. Martoma was fired he wrote an email to Mr. Cohen that read,

> SAC is a special place to me. Having attended graduate and undergraduate programs at Harvard, Stanford and Duke; founded/sold my own healthcare company; and worked as a Director at the largest federally funded science initiative in the last 3 decades, I have a variety of experiences to compare against my time at SAC[.]

He continued, "through it all, it's clear to me that I am in my element here at SAC."[103] These strong feelings towards SAC, and the hefty profits made during his tenure, may provide some explanation for why Mr. Martoma has stood firm in his refusal to provide information to the federal

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96. *See*, Sheelah Kolhatkar, *On the Trial of SAC Capital's Steven Cohen*, BLOOMBERG BUSINESS (Jan. 17, 2013), http://www.bloomberg.com/bw/articles/2013-01-17/on-the-trail-of-sac-capitals-steven-cohen#p2.

97. Michael Bobelian, *What Does Martoma's Conviction Mean For SAC Capital's Steven Cohen?*, FORBES (Feb. 7, 2014, 11:36 AM), http://www.forbes.com/sites/michaelbobelian/2014/02/07/what-does-martomas-conviction-mean-for-sac-capitals-steven-cohen/.

98. *Id.*

99. *See id.*

100. McCoy, *supra* note 77.

101. *See id.*

102. *Id.*

103. Kolhatkar, *supra* note 67.

prosecutors. Mr. Martoma was also able to rely on SAC to pay his legal fees.[104]

The value of his testimony has also already been significantly diminished by facts that came out in his own criminal trial. Convictions on counts of fraud and conspiracy do not bolster his credibility.[105] In the course of his trial, it also became apparent that he was expelled from Harvard Law School for falsifying his transcript when he applied for a clerkship with a federal judge.[106] The end result was that the two SAC employees with direct contact to Mr. Cohen, Mr. Martoma and Mr. Steinberg, refused to cooperate with the government.[107] Business journalist Robert Boxwell noted, "to police Wall Street, go after the little guys."[108] The hope was that the "little guys" would sing, but there is a loyalty here that finds the little guys falling on their swords for the big fish.

The recent decision on insider trading will only increase this trend. The decision has muddied the waters on scienter and put in place a standard that requires a direct connection to an insider in order to establish criminal securities fraud. The research networks that resulted in so many indictments, pleas, and convictions are now a gray area of the law. Second-hand information is not the stuff of insider trading. In Mr. Martoma's case, even when the direct connection is established to the physician/scientist, the trader was unwilling to implicate principals in the firm in exchange for a lesser sentence.

IX. HOW COULD MR. COHEN BE HELD CRIMINALLY RESPONSIBLE FOR THE MISDEEDS OF SAC?

Interestingly, prosecutor Bharara published an article on the liability of corporate defendants in 2007.[109] He traced the genesis of corporate liability in the United States starting with the 1909 case of *NY Central & Hudson River Railroad Co. v. United States*.[110] That case focused on the concepts of vicarious liability and respondeat superior, and the court concluded that

104. Sheelah Kolhatkar, *A Novel Insider-Trading Defense? Any Defense at All*, BLOOMBERG BUSINESSWEEK (Jan. 30, 2014), http://www.businessweek.com/articles/2014-01-30/a-novel-insider-trading-defense-any-defense-at-all.

105. Massimo Calabresi, *New Guilty Verdict Could Be Bad News For SAC Capital's Steven Cohen*, TIME (Feb. 6, 2014), http://time.com/5312/mathew-martoma-sac-capital/.

106. *Id.*

107. Robert Boxwell, *To police Wall Street, go after the little guys*, REUTERS (May 16, 2014), http://blogs.reuters.com/great-debate/2014/05/16/to-police-wall-street-go-after-the-little-guys/.

108. *Id.*

109. Parloff, *supra* note 35.

110. 212 U.S. 481 (1909).

"the action of an agent, while exercising the authority delegated to him to make rates for transportation may be controlled in the interest of public policy by imputing his act to his employer and imposing penalties upon the corporation for which he is acting in the premises."[111] After discussing the collective entity doctrine, Bharara concluded that "the corporation is particularly ill equipped to defend itself, and certainly less well equipped than the traditional individual defendant, against the power of prosecutors to prove virtually any corporate entity guilty upon showing criminal conduct on the part of at least one employee."[112]

Bharara argued that there is a need to address overbroad corporate liability standards.[113] In this case, a federal judge admonished the government for coercing a company to interfere with its employee's constitutional rights.[114] The conduct was criticized because it allowed prosecutors to use unjustifiably heavy-handed techniques to compel corporations to cooperate in criminal investigations against their own employees.[115]

Bharara noted that corporations do not have the same ability to challenge various information gathering techniques by the government.[116] He analyzes the Thompson and McNulty Memorandum which narrowed prosecutor's criteria for charging corporate entities.[117] Prosecutors, under this Memorandum, are required to weigh the company's corporate culture, where criminal conduct is either discouraged or encouraged, and then it assesses the adequacy of the compliance program.[118] He discusses the problems with this method, as prosecutors are not trained in corporate governance problems and have a difficult task when it comes to assessing the company's corporate culture.[119] Prosecutors in the SAC case have met this challenge head on, unraveling the details of the corporate culture at SAC and using discretion to issue charges.[120] Bharara recommends that

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111. *Id.* at 494.

112. Preet Bharara, *Corporations Cry Uncle and Their Employees Cry Foul: Rethinking Prosecutorial Pressure on Corporate Defendants*, 44 AM. CRIM. L. REV. 53, 64-65, 71 (2007).

113. *See* Parloff, *supra* note 35.

114. Bharara, *supra* note 112, at 54.

115. *Id.* at n.64.

116. *Id.* at 65.

117. *Id.* at 112, memorandum from Larry D. Thompson, Deputy Attorney General, US Department of Justice, to Heads of Department Components, US Department of Justice (Jan. 20, 2003), http://www.justice.govsites/default/files/dag/legacy/2007/07/05 /mcnulty_memo.pdf [hereinafter "Thompson McNulty Memorandum"].

118. *Id.* at 112.

119. *Id.* at n.321.

120. *See* Parloff, *supra* note 35.

corporate criminal liability be brought in line with "common sense and common practice."[121] Prosecutors are given sole discretion to evaluate the factors set out in the Thompson and McNulty Memoranda when considering a charge, and Bharara hypothesizes that a codified rule or statute could shift some of this discretion to a judge or jury.[122]

Perhaps, it is the balance between long held beliefs in corporate liability and prosecutorial discretion that prompted Bharara to pursue criminal charges against SAC but not against Mr. Cohen. It is possible that with a codified rule or statute, Mr. Cohen could have been charged, as less discretion would lie in the hands of the prosecution.

X. THE DIFFICULTY IN CRIMINAL PROSECUTION UNDER INSIDER TRADING LAWS

The framework set out in *Dirks v. SEC* governs insider-trading offences.[123] Under this framework set out by the U.S. Supreme Court, a tippee is liable for insider trading if the tipper conveys nonpublic information to him and improperly breaches a fiduciary or fiduciary-like duty of trust and confidence to the shareholder.[124] Liability will attach when a tipper breaches his/her fiduciary duty by providing material nonpublic information leading to the conclusion that the tippee knew, or should have known, of the breach.[125]

There are allegations that Mr. Cohen received nonpublic information from those at his firm who have already been indicted.[126] The caveat is that only those insiders who were in the actual possession of the improperly obtained information when they made insider trades are liable, and the facts in the media do not indicate that Cohen was an a "actual or constructive insider of the firms about which the information as received."[127] One potential solution to bring Cohen under some form of criminal liability would be that he is a possible insider trading tippee, one who controlled and financed the insider traders.[128] However, Mr. Cohen did not always

121. *Id.* at 113.

122. *Id.* at 113.

123. 463 U.S. 646 (1983).

124. Joan MacLeod Heminway, *Willful Blindness, Plausible Deniability, and Tippee Liability: SAC, Steven Cohen, and the Court's Opinion in Dirks*, 15 TRANSACTIONS TENN. J. BUS. L. 47 (2013).

125. Christopher L. Garcia & Boyd M. Johnson III, DEFENDING CLIENTS IN INSIDER TRADING INVESTIGATIONS AND ENFORCEMENT ACTIONS, FROM DEFENDING CORPORATIONS AND INDIVIDUALS IN GOVERNMENT INVESTIGATIONS CH. 13, 649, Daniel Fetterman & Mark Goodman, Thomson West, 2012.

126. *See, e.g.*, *Kolhatkar*, *supra* note 67.

127. Heminway, *supra* note 124, at 48.

128. *Id.*

make the trades. The difficulty in connecting him is exacerbated by the fact that others did the trading, and he basically congratulated them for a good call.

For the breach of duty component of an insider trading action, the prosecutor would have to establish that the tipper had a duty of trust which included a duty not to disclose any material nonpublic information and not engage in insider trading, that he or she breached this duty, that the tippee knew that there was a duty, and that the tippee knew that the duty was breached by supplying that information.[129] With Mr. Cohen, it is not clear that Mr. Martoma and others were sharing with him how they got their information.

Under this framework, Mr. Martoma's case is instructive. If Mr. Cohen knew, or should have known (based on prior experiences with Mr. Martoma and his conduct), the origin of the information regarding the Alzheimer's clinical trials, culpability could be established. It is again difficult to establish that Mr. Cohen was aware that the people who shared information with Mr. Cohen's employees breached duties of trust by sharing information. From the information of the employees outlined above, it is unlikely that Mr. Cohen had actual knowledge of any informant's duty or breach. The issue becomes one of whether turning a blind eye and denying constructive knowledge is the intent of these insider trading provisions. The effect of the recent interpretation is that principals and executives in a firm can stand back and witness phenomenal avoidance of losses and spectacular gains with public events following shortly thereafter and be able to claim no knowledge of direct inside information. At some point, the duty of inquiry arises, and the culture issues play a part in establishing knowledge.

In *SEC v. Obus*, the court held that an analysis of what a tippee should have known involves "a fact specific inquiry turning on the tippee's own knowledge and sophistication, and on whether the tipper's conduct raised red flags that confidential information was being transmitted improperly."[130] The court in *United States v. Whitman* noted that a remote tippee's knowledge that the tipper was receiving some sort of benefit might be difficult to prove.[131] The court aptly said that this "'loophole,' is a product of the topsy-turvy like way the law of insider trading has developed in the courts and cannot be cured short of legislation."[132]

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129. *Id.* at 49.

130. SEC v Obus, 693 F.3d 276, 288 (2d Cir. 2012).

131. United States v. Whitman, 904 F. Supp. 2d 363 (S.D.N.Y. 2012), as corrected (Nov. 19, 2012), aff'd, 555 F. App'x 98 (2d Cir. 2014).

132. *Id.*

In reality, the manner in which securities laws are framed allows "aware" traders to set up an operation in which they shield themselves from liability. They can pay their fines, pay their employees' legal fees, and still have a corporation left to manage their personal fortune. This appears to be what has happened with SAC and Mr. Cohen.[133] Under this standard, the congratulatory emails, such as those between Mr. Horvath and Mr. Cohen on the Dell deal (for which he avoided $1.7 million in losses) and the information provided by Mr. Martoma on the medical insider information, show an awareness of phenomenal trades but not necessarily an awareness of the sources of information used to make the market moves.[134]

XI. THE FUTURE OF SAC CAPITAL

As a result of the criminal settlement, SAC must cease its investment advisor functions and will not be investing public money; instead, it is left investing Mr. Cohen's large personal fortune under the name Point72 Asset Management.[135] In March 2014, the SAC website disappeared from the Internet, and in its place was a page for Point72 Asset Management.[136] A disclaimer at the bottom of the new web page reminds visitors "Point72 Asset Management does not seek, solicit, or accept clients that are not eligible as family clients."[137] Even if the SEC bans Mr. Cohen from the securities industry, it will not impact his ability to trade his personal fortune.[138]

After announcing the criminal settlement, Bharara said,

> Individual guilt is not the whole of our mission. Sometimes, blameworthy institutions need to be held accountable too . . . . Today, [SAC], one of the world's largest and most powerful hedge funds, agreed to plead guilty, shut down its outside investment business, and pay the

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133. Michael Rothfeld et al., *SAC Capital's Steven Cohen Expected to Avoid Criminal Charges*, WALL ST. J. (July 4, 2013, 11:35 PM), http://online.wsj.com/news/articles/SB10001424127887323899704578585953480399358 ("U.S. prosecutors have concluded that they don't have enough evidence against hedge-fund billionaire Steven A. Cohen to file criminal insider-trading charges against him before a July deadline.").

134. *Indictment, supra* note 9, para. 32a.

135. Selena Maranjian, *See What This Infamous Money Manager Has Sold*, THE MOTLEY FOOL (May 27, 2014), http://www.fool.com/investing/general/2014/05/27/see-what-this-infamous-money-manager-has-sold.aspx.

136. *Point72 Asset Management*, POINT72, http://www.point72.com/ (last visited May 29, 2015).

137. *Id.*

138. Sheelah Kolhatkar, *SAC Capital to Pay $1.8 Billion, the Largest Insider Trading Fine Ever*, BLOOMBERG BUSINESS (Nov. 4, 2013), http://www.bloomberg.com/bw/articles/2013-11-04/sac-capital-to-pay-1-dot-8-billion-the-largest-insider-trading-fine-ever.

> largest fine in history for insider trading offenses. That is the just and appropriate price for the pervasive and unprecedented institutional misconduct that occurred here.[139]

In reality, the $1.2 billion settlement is less than the $1.3 billion Mr. Cohen personally made last year.[140] Mr. Cohen's net worth was recently reported at $9.4 billion, and it now appears that he will be left with a sizable $7 billion fortune.[141]

Mr. Cohen will personally pay for the fine even though he still denies personal wrongdoing.[142] He privately complained that he had to pay over $1 billion in fines for the actions of what he calls "rogue employees."[143] A press release issued after the settlement by SAC read "[t]he tiny fraction of wrongdoers does not represent the 3,000 honest men and women who have worked at the firm during the past 21 years. SAC has never encouraged, promoted or tolerated insider trading."[144] This statement angered federal prosecutors because it conflicted with SAC's admission of guilt. SAC offered a new statement that read. "Even one person crossing the line into illegal behavior is too many and we greatly regret this conduct occurred."[145]

A. *Future Prosecution of Mr. Cohen*

The door has not been shut to future prosecution of Mr. Cohen and others as Bharara stated in the settlement agreement that the "agreement today provides no immunity from prosecution for any individual."[146] In 2010, the government passed Section 1079A of the *Dodd-Frank Act*, which extended the statute of limitations for financial crimes to six years from five.[147] As of this writing, Bharara has run out of time to bring criminal

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139. Press Release, FBI New York Office, Manhattan U.S. Attorney Announces Guilty plea Agreement with SAC Capital Management Companies (Nov. 4, 2013), http://www.fbi.gov/newyork/press-releases/2013/manhattan-u.s.-attorney-announces-guilty-plea-agreement-with-sac-capital-management-companies.

140. Andre Damon, *No Criminal Charges for Hedge Fund SAC Capital – Fined $1.2 Billion for "Pervasive and Unprecedented" Insider Trading*, GLOBAL RESEARCH (Nov. 6, 2013), http://www.globalresearch.ca/no-criminal-charges-for-hedge-fund-sac-capital-fined-1-2-billion-for-pervasive-and-unprecedented-insider-trading/5357057.

141. *Id.*

142. *See* Kolhatkar, *supra* note 138.

143. Peter Latman & Ben Protess, *SAC Capital Agrees to Plead Guilty to Insider Trading*, N.Y. TIMES (Nov. 4, 2013, 11:06 AM), http://dealbook.nytimes.com/2013/11/04/sac-capital-agrees-to-plead-guilty-to-insider-trading/?_php=true&_type=blogs&_r=0.

144. *Id.*

145. *Id.*

146. Kolhatkar, *supra* note 138.

147. Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No.

charges against Mr. Cohen on the basis of his alleged conversation between Mr. Cohen and Mr. Martoma and the subsequent illegal insider trades of Elan and Wyeth occurred in July 2008.[148] At a conference in July 2013, Bharara confirmed that the *Dodd-Frank Act* enlarged securities limitations, and he reiterated "we still have a lot of legal theories we can pursue."[149]

In 2013, there was speculation that prosecutors were considering the possibility of racketeering charges, which carry lengthy prison sentences.[150] Decades ago, in New York, when Rudy Giuliani held Bharara's position, he brought racketeering charges against Princeton/Newport Limited Partners.[151]

Further, the racketeering claims brought by Mr. Cohen's ex-wife Patricia Cohen against Mr. Cohen were dismissed by a federal court in January 2014.[152] In the divorce Ms. Cohen accused him of hiding assets which were the product of insider trading.[153] She was unable to provide enough evidence to show that Mr. Cohen engaged in a pattern of insider trading, bank fraud, and money laundering in violation of the *Racketeer Influenced and Corrupt Organizations Act.*[154] She is still continuing with her separate claims of fraud and breach of fiduciary duty and has been able to obtain investors for her battle against Mr. Cohen.[155]

B. Administrative Action against Mr. Cohen

As of this writing, the only charges that have been laid against Mr. Cohen personally are an administrative action pursuant to the *Investment Advisors Act*[156] for failure to supervise his portfolio managers Mr. Martoma and Mr. Steinberg.[157] These are the same managers who have been

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111-203, § 1079 A, 124 Stat. 1376 (2010).

148. *See* Fontevecchia, *supra* note 94.

149. Sheelah Kolhakar, *Is the Government About to Move the Goal Posts on Steve Cohen?*, BLOOMBERG BUSINESS, (July 17, 2013), http://www.businessweek.com/articles/2013-07-17/is-the-government-about-to-move-the-goal-posts-on-steve-cohen.

150. Emily Flitter, *Prosecutors consider using racketeering law against SAC: source*, REUTERS (May 21, 2013, 7:50 PM), http://www.reuters.com/article/2013/05/21/us-saccapital-investigation-rico-idUSBRE94K1CD20130521.

151. John Cassidy, *Has Steven Cohen Bought Off the US Government?*, THE NEW YORKER (Nov. 4, 2013), http://www.newyorker.com/online/blogs/johncassidy/2013/11/has-steven-a-cohen-bought-off-the-us-government.html.

152. Patricia Hurtado & Chris Dolmetsch, *SAC's Cohen Wins Partial Dismissal of Ex-Wife's Claims*, BLOOMBERG (Jan. 27, 2014, 3:04 PM), http://www.bloomberg.com/news/2014-01-27/sac-s-cohen-wins-dismissal-of-ex-wife-s-fraud-claim.html.

153. *Id.*

154. *Id.*

155. *Id.*

156. 18 U.S.C. §§ 1961-68.

157. *SEC Proceeding*, *supra* note 83.

criminally charged and found guilty of insider trading.[158] It has been speculated that the worst possible outcome of this civil charge would be a lifetime ban from the securities business.[159] Because this action was filed through an administrative proceeding, it will limit Mr. Cohen's right to discovery.[160] There is some speculation that this was done to limit Mr. Cohen's ability to prepare a better defense in any future criminal case.[161] The choice, in proceeding through administrative action, also affords the case a lower burden of proof than a criminal case, providing for a potential warm-up.[162]

In the Order, *Instituting Administrative Proceedings*, the SEC alleges, "Cohen received highly suspicious information that should have caused any reasonable hedge fund manager in Cohen's position to take prompt action to determine whether employees under his supervision were engaged in unlawful conduct and prevent violations of federal securities law."[163]

Mr. Cohen appears to have taken the lesson to heart or at least to the point of prevention. He has been seeking to hire former prosecutors and others with government experience for the compliance function in his new firm.[164] Several FBI agents have already been hired.[165]

C. Shifting Prosecution Priorities

There have been shifting political winds and public pressures surrounding the manner and frequency with which the DOJ charges and prosecutes corporate defendants.[166] The DOJ received a great deal of public scrutiny for its failure to bring criminal charges against any financial institutions for their role in the 2008 financial crisis, which only intensified in the wake of their decision to pursue a deferred prosecution agreement

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158. *Id.*

159. Matt Taibbi, *Steve Cohen: The Feds Get Tough, Sort Of*, ROLLING STONE (Aug. 1, 2013), http://www.rollingstone.com/politics/news/steve-cohen-the-feds-get-tough-sort-of-20130731.

160. *Id.*

161. *Id.*

162. Christopher M. Matthews, *SAC's Steinberg Convicted in Insider-Trading*, WALL. ST. J. (Dec. 18, 2013, 9:16 PM), http://online.wsj.com/news/articles/SB10001424052702304773104579266554036539982.

163. *SEC Proceeding*, *supra* note 83, para. 3.

164. Matthew Goldstein, *Cohen Seeks Law Experts for Fund*, N.Y. TIMES, Dec. 16, 2014, at B1.

165. *Id.*

166. *See, e.g.*, Court E. Golumbic & Albert D. Lichy, *The "Too Big to Jail" Effect and the Impact on the Justice Department's Corporate Charging Policy*, 65 HASTINGS L.J. 1293 (2014).

with HSBC in 2012.[167] This scrutiny was not only coming from members of the public but also members of Congress and media outlets.[168]

There is a possibility that another shift may be occurring—one that would see the DOJ interested in ending the ability of a senior official to foster a culture of corporate fraud and insider trading. Rajat Gupta of Goldman Sachs was indicted for six criminal counts of insider trading, for passing nonpublic information to Raj Rajaratnam.[169] Federal prosecutors denounced the culture of Galleon, the hedge fund Mr. Rajaratnam founded, in which regular discussion included illegal tips.[170] Janice Fedarcyk, the FBI's Assistant Director in the agency's New York office, noted that "his eagerness to pass along inside information to Mr. Rajaratnam is nowhere more starkly evident than in the two instances where a total of thirty-nine seconds elapsed between his learning of crucial Goldman Sachs information and lavishing it on his good friend."[171] He was convicted on four of six charges, even though he was not accused of making any trades himself.[172]

The swath of insider trading cases that have emerged since Bharara's installment actually began with Mr. Rajaratnam in 2009.[173] Mr. Rajaratnam's Galleon Group, a hedge fund that at one time managed $3.7 billion dollars, was, for a time, the toast of Wall Street.[174] He was charged with securities fraud and with conspiracy to commit securities fraud.[175] He received the longest-ever term, eleven years, imposed in an insider-trading

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167. *Id.*

168. *Id.* (detailing a look at the political backlash of DOJ's decision to defer prosecution of HSBC); *see also*, Mark Gongloff, *Obama Administration Essentially Admits That Some Banks Are Too Big To Jail, Which Is Troubling*, HUFFINGTON POST, http://www.huffingtonpost.com/2012/12/11/hsbc-too-big-to-jail_n_2279439.html (last updated Dec. 12, 2012, 9:23 AM) (highlighting media criticism of DOJ's corporate prosecution policies).

169. Michael Rothfeld et al., *Gupta Case Targets Insider Culture*, WALL ST. J. (Oct. 27, 2011), http://online.wsj.com/news/articles/SB10001424052970203687504576654872764778968.

170. *Id.*

171. *Id.*

172. David Benoit, *Rajat Gupta Guilty: By the Charges*, WALL ST. J. (June 15, 2012, 3:17 PM), http://blogs.wsj.com/deals/2012/06/15/rajat-gupta-guilty-by-the-charges/.

173. *See, e.g.*, Ben Protess & Matthew Goldstein, *Preet Bharara's Wall St. Task Force Has a Shifting Roster of Lawyers*, N.Y. TIMES (Feb. 16, 2015, 6:42 PM), http://dealbook.nytimes.com/2015/02/16/preet-bhararas-wall-st-task-force-has-a-shifting-roster-of-lawyers/?_r=0.

174. *See* Jenny Strasburg & Chad Bray, *Six Charged in Vast Insider-Trading Ring*, WALL ST. J. (Oct. 17, 2009, 12:01 AM), http://www.wsj.com/articles/SB125570373292090093.

175. *Id.*

case.[176] Mr. Rajaratnam's case involved a rags-to-riches story, similar to Mr. Cohen's, that was colored by greed, fraud, and power.[177] The large difference between Mr. Rajaratnam's case and Mr. Cohen's situation is the presence of cooperating witnesses. A onetime Galleon employee cooperated with prosecutors and taped conversations with Mr. Rajaratnam, which led to more wiretaps.[178] Prosecutors had wiretap recordings of Mr. Rajaratnam actually collecting secrets from his sources.[179] Another difference between the Galleon case and that of SAC is that many of the co-accused testified against Mr. Rajaratnam and provided information throughout the investigation.[180] According to prosecutors, he gained $63.8 million throughout a seven-year conspiracy where he traded on inside information from corporate executives, bankers, consultants, and traders.[181]

D. *Who Is Accountable, How, and Why?*

The defense of willful ignorance among CEOs and CFOs was gutted by Sarbanes-Oxley ("SOX") because of the signature certification requirements.[182] The signature on the financial reports, when those reports contain false information is now, in and of itself, a crime.[183] The purpose of the signature requirement was to place responsibility on CFOs and CEOs and to eliminate the "I didn't know" defense.[184] Part of their jobs is to vouch for the veracity of the financial statements.[185] The market partially bases its purchasing decisions and valuations on the risk CEOs and CFOs incur: "In order for a certification signal to be credible, the certifying party

176. Susan Pulliam and Chad Bray, *Trader Draws Record Sentence*, WALL ST. J. (Oct. 14, 2011), http://online.wsj.com/news/articles/SB10001424052970203914304576627191081876286.

177. *See, e.g.*, *id.*

178. Strasburg, *supra* note 174.

179. David Glovin et al., *Rajaratnam Guilty in Insider-Trading* Case, BLOOMBERG BUSINESS (May 11, 2011, 5:21 PM), http://www.bloomberg.com/news/2011-05-11/rajaratnam-is-found-guilty-of-all-counts-in-galleon-insider-trading-trial.html.

180. *Id.*

181. *Id.*

182. 18 U.S.C. § 1350 (2002); *see also* David Dayden, *Why is Preet Bharara, the 'Scourge of Wall Street', taking a friendly tone towards mortgage bankers?*, THE GUARDIAN (Oct. 10 2014, 1:00 PM), http://www.theguardian.com/money/2014/oct/10/preet-bharara-wall-street-defend-arrest-prosecute-bankers-crisis (explaining the SOX rule and its impact on corporate prosecutions). Although a full discussion of SOX is beyond the scope of this paper, generally the Act is designed to ensure the accuracy and reliability of corporate disclosures in securities law to protect investors.

183. Dayden, *supra* note 182.

184. *What is Sarbanes-Oxley?*, SOX-ONLINE, http://www.sox-online.com/whatis.html (last visited May 29, 2015).

185. *See id.*

must suffer a loss of reputation or incur legal sanctions if it is negligent, colludes, or engages in other types of self-dealing."[186]

The willful ignorance defense has taken a beating beyond SOX because the "who knew" defense has the same effect on the corporation or organization as the loss of credibility in financial statements—trust is dissipated.[187] The Responsible Corporate Officer Doctrine ("RCOD") imposes risk on those who manage corporations through the imposition of criminal liability on them for conduct that harms or endangers the public.[188] This form of criminal liability for officers and directors results without proof of knowledge, recklessness, or intent, the three usual foundations for criminal responsibility. Initially, the RCOD was applied only in the health care sector, but it has now expanded to all areas of law where the purpose of the violated statute is public welfare.[189] For example, environmental protections, food safety, and industrial safety are all areas where there is corporate officer accountability.[190] Although much of the attention and concern regarding the RCOD focuses on the health care sector, the doctrine may also be used to enforce other public welfare statutes.

XII. THE CANADIAN PERSPECTIVE

Compared to the United States, Canada's approach to prosecuting insider trading, and securities violations, is far less aggressive. In 2010, the Ontario's Securities Commission ("OSC") took only four cases to court and only two in 2009. It did not bring any in 2008.[191] Nationwide, in 2010, Canadian provincial regulators concluded only thirteen insider trading cases and enforced fines of merely $1.9 million.[192] Differences in prosecution rates may be directly related to how the regulators operate in each country.

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186. Manuel Utset, *Fraudulent Corporate Signals: Conduct As Securities Fraud*, 54 B.C. L. REV. 645, 659 (2013).

187. *See id.* (arguing, among other things, for the importance of corporate credibility in financial statements).

188. Valorie Cogswell, *Catching the Rabbit: The Past, Present, and Future of California's Approach to Finding Corporate Officers Civilly Liable Under the Responsible Corporate Officer Doctrine*, 33 ENVIRONS ENVTL. L. & POL'Y J. 343, 345 (2009).

189. Andrew R. Ellis, *The Responsible Corporate Officer Doctrine: Sharpening a Blunt Health Care Fraud Enforcement Tool*, 9 N.Y.U. J. L. & BUS. 977, 980 (2013).

190. *Id.* at 979-80.

191. Martin Mittelstaedt, *A World Of Difference On Insider Trading Prosecutions*, THE GLOBE AND MAIL, http://www.theglobeandmail.com/report-on-business/small-business/sb-growth/a-world-of-difference-on-insider-trading-prosecutions/article1360483/ (last updated Aug. 23, 2012, 4:55 PM).

192. James H. Thompson, *A Global Comparison of Insider Trading Regulations*, 3 INT'L J. ACCT. & FIN. REP. 9 (2013).

In the United States, the SEC is a national regulator, working in cooperation with the DOJ and the FBI.[193] In Canada, this same cooperation is not available. There is no national regulator of the same scale, and each province has their own provincial regulator tasked with regulating the securities industry.[194] The Canadian Securities Administrators exists as an umbrella organization of the provincial regulators that seeks to harmonize and coordinate regulation.[195]

Utpal Bhattacharya is an Associate Editor of the *Review of Financial Studies and the Journal of Financial Markets*, and he was commissioned by the Task Force to Modernize Securities Legislation in Canada.[196] In his report, he found that the SEC enforces securities laws on a much larger scale,

> [w]hen scaled by the size of the stock market, the SEC prosecutes 10 times more cases for all securities laws violations than the OSC prosecutes, and 20 times more insider-trading violations. A detailed examination of insider trading cases shows that the SEC resolves the cases faster than the OSC, and fines 17 seventeen times more per insider trading case than the OSC does.[197]

Incarceration is rarely sought in Canada, and prosecution is more likely the option for the administrative tribunal set up by the Ontario Securities Commission.[198]

This difference in treatment comes from a stark difference in the law. The OSC has a public interest jurisdiction.[199] Insider trading requires the accused to be in a special relationship with the company whose shares are purchased or sold, and the accused must have knowledge of a material fact or change about the firm that has not been generally disclosed[200] whereas, in the United States, an accused is required to plead to breaching a specific

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193. Mittelstaedt, *supra* note 191.

194. *See id.*

195. *About CSA Overview*, CANADIAN SECURITIES ADMINISTRATORS, https://www.securities-administrators.ca/aboutcsa.aspx?id=45&linkidentifier=id&itemid=45 (last visited May 29, 2015).

196. Utpal Bhattacharya, *Enforcement and its Impact on Cost of Equity and Liquidity of the Market*, (May 24, 2006), *available at* http://www.tfmsl.ca/docs/V6(3)%20Bhattacharya.pdf (noting that the task force commissioned the research study to help modernize securities legislation in Canada).

197. *Id.* at 137.

198. Mittelstaedt, *supra* note 191.

199. *Proceedings*, ONTARIO SECURITIES COMMISSION, http://www.osc.gov.on.ca/en/About_our-role_index.htm (last visited May 29, 2015). *But See* Mittelstaedt, *supra* note 191 (arguing the laws are not particularly different between the countries).

200. Penny Becklumb, *Canada Business Corporations Act: Insider Trading*, LAW AND GOVERNMENT DIVISION, PARLIAMENT OF CANADA, http://www.parl.gc.ca/content/lop/researchpublications/prb9938-e.htm (last updated Oct. 14, 2008).

securities rule and provision of statute. In Canada, an accused may not meet the strict definition of insider trading but could still receive and settle a claim against him/her for acting contrary to the public interest.[201]

Canada only entered its first criminal conviction for illegal insider trading on November 6, 2009, accepting a guilty plea from Stan Grmovsek.[202] He and his co-accused started an illegal trading scheme after their graduation from law school in 1994.[203] He took nonpublic information and made trades for a profit.[204] As Emily Cole reports,

> In Canada, Grmovsek was charged with three offences: (i) fraud (for trades executed before the new *Criminal Code* insider trading provisions), (ii) illegal insider trading contrary to the *Criminal Code* and, (iii) money laundering contrary to the *Criminal Code*. In 2010, he was sentenced to 39 thirty-nine months imprisonment by the Ontario Court of Justice.[205]

As part of his plea agreement relating to a conspiracy to defraud charge in the United States, Mr. Grmovsek agreed to disgorgement orders to the SEC, a total of $8.5 million, with a waiver of all but nearly $1.5 million, and he owed the OSC a total of $1.03 million, as well as $250,000 towards the costs of the OSC investigation.[206] With so few criminal convictions and a fragmented regulation system, it is difficult to speculate how well equipped Canadian regulators would be if they were forced to regulate a Mr. Rajaratnam or Mr. Cohen-sized scheme.

CONCLUSION

Despite his host of legal problems, in March of 2014, Mr. Cohen increased his investment in the game-maker "Zynga" which makes games such as "FarmVille" and "Words with Friends."[207] Mr. Cohen increased his stake from 2.2 percent to 5.3 percent, making him the largest shareholder in Zynga.[208] His stake in the company, valued at $173 million, is worth just

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201. *Proceedings*, *supra* note 199.

202. Emily Cole, *Canada's First Criminal Conviction for Illegal Insider Trading*, MILLER THOMPSON (2010), http://www.millerthomson.com/en/publications/newsletters /securities-practice-notes/2010-archives/spring-2010/canadas-first-criminal-conviction-for-illegal (last visited May 29, 2015).

203. *Id.*

204. *Id.*

205. *Id.*

206. *Id.*

207. Nick Summers, *Troubled SAC Capital Doubles Its Stake in Troubles Zynga*, BLOOMBERG BUSINESS (Mar. 28, 2014), http://www.bloomberg.com/bw/articles/2014-03-28/troubled-sac-capital-doubles-its-stake-in-troubled-zynga.

208. John Kell, *Cohen's SAC Capital Increases Stake in Zynga*, FOX BUSINESS (Mar. 27 2014), http://www.foxbusiness.com/industries/2014/03/27/cohen-sac-capital-increases-stake-in-zynga/.

more than what Mr. Cohen paid for the 1932 Pablo Picasso painting "Le Rêve" he purchased in 2013.[209] Goldman Sachs joined JPMorgan Chase & Co. and Bank of America Corp in providing personal loans to Mr. Cohen largely based on his art collection.[210] Some note that many wealthy clients seek art loans because they can keep the paintings at their homes while "borrowing at rates as low as 2.5 percent."[211] Many agree that Mr. Cohen had nominal punishments for the alleged infractions he has been a part of. He continues to invest his personal fortune, and he continues to engage in the very public promotion of his private fortune.

As Joan MacLeod Heminway concludes in her article on SAC, perhaps this case is the reason to open the discussion on insider trading and what, "the law of insider trading should be—and why—as a matter of policy. If insider trading regulation and liability is to have any coherence in an era of expert networks, we must address and resolve this question."[212] If the classic goals of the criminal law are for deterrence, retribution, rehabilitation, and incapacitation, then it is questionable if some, or any of these goals, have been achieved in this situation.[213] Mr. Cohen is not personally suffering any of these consequences, and some would say that he is flaunting his good fortune which remains largely intact.[214] Although Mr. Cohen cannot invest public money, he has been keeping busy with his private fortune.

Some have said that the charges against SAC were merely a result of the inability of the government to collect enough evidence against Mr. Cohen himself.[215] However, destroying SAC might be the only way to attempt to punish Mr. Cohen. In August of 2013, the last outside investor of SAC pulled his support.[216] Ed Butowsky, the self-appointed "last man standing"

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209. Summers, *supra* note 207.

210. Miles Weiss, *Goldman Sachs Supports Cohen With Loan Backed By Fine Art*, BLOOMBERG BUSINESS (May 6, 2014, 9:47 AM), http://www.bloomberg.com/news/2014-05-06/goldman-sachs-supports-cohen-with-loan-backed-by-fine-art.html.

211. *Id.* (stating that Mr. Cohen had previously bought a sculpture of a shark in formaldehyde for $8 million and that Mr. Cohen did sell some of his prized art collection in 2013, including a Gerhard Richter painting "A.B. Courbet" for $26.5 million, and Andy Warhol's "Liz #1 (Early Colored Liz) for $20.3 million).

212. Heminway, *supra* note 124, at 58.

213. *See, e.g.*, IT Hadar Dancig-Rosenberg & Tali Gal, *Criminal Law Multitasking*, 18 LEWIS & CLARK L. REV. 893 (2014).

214. *See, e.g.* Taibbi, *supra* note 159 (detailing Cohen's decision to purchase an $155 million Picasso and $60 million mansion within weeks of SAC's guilty plea. "It was a big fat middle finger to the government, flipped by a man who clearly thought he was getting away with a slap on the wrist.").

215. Golumbic, *supra* note 166, at 51.

216. Jenny Strasburg, *SAC Loses One Of Its Most Loyal Investors*, Money Beat, WALL ST. J. (Aug. 28, 2013, 4:05 PM), http://blogs.wsj.com/moneybeat/2013

with SAC, defended the company by noting "the government says SAC has a culture of insider trading. What about a culture of working-my-a** off? Because that's what they're doing at SAC."[217] Questions still abound about the culture of SAC, but the law, as it existed at the time of the prosecutions and settlement, did not allow conviction based on culture. The law still requires that direct nexus of insider to defendant in order to prove the scienter element of insider trading.[218]

As with the SOX reforms that held CEOs and CFOs accountable through their signatures on the financial statements, perhaps the time has arrived for legislative action that requires CEO certification of compliance operations. In other words, until there is some additional statutory supplement, insider-trading convictions of corporations and CEOs will be elusive, absent the cooperation, taping, and wire-tapping of subordinates. Accountability for firm actions needs to be addressed in a manner not reliant upon the specific proof requirements of insider trading.

Certification could include requirements for examination of the timing of trading, periodic reviews of traders' accounts, and that supposed element of "serendipity" that seems to be tolerated in a world of logarithms, betas, and all things technical. That certification of review may be the answer to the insider trading escape clause that allows those who profit to walk away without criminal charges because, well, they knew nothing. The legislative approach should be one of tackling: Should they have known? And how can we measure that? If not, perhaps Mr. Cohen is the king of eluding criminal conviction, not just the king of hedge funds.

/08/28/sac-loses-one-of-its-most-loyal-investors/.

217. *Id.* ("I'm not doing this for Stevie Cohen . . . It's not like I go to bed with a Stevie doll. It's more like, what the hell is going on in this world?").

218. *See infra* note 2.

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COMMENTS

WELCOME TO THE SPACE JAM: HOW UNITED STATES REGULATORS SHOULD GOVERN GOOGLE AND FACEBOOK'S NEW INTERNET-PROVIDING HIGH ALTITUDE PLATFORMS

GEORGE V. JOHN*

There are still parts of the United States and the world that do not have access to wireless broadband Internet. To alleviate this Internet shortage, companies, such as Google and Facebook, are creating their own Internet-providing high altitude platforms ("HAPs"): balloons and Unmanned Aircraft Systems ("UAS") that will use radio spectrum and free space optics. This Comment will examine which agency or agencies should have complete or overlapping jurisdiction over these HAPs. It will then recommend that, although there are Federal Aviation Administration ("FAA") unmanned free balloon regulations, Google's Project Loon balloons might pose greater risks than traditional unmanned balloons; accordingly, the FAA should categorize these balloons as UAS. Next, to keep the airspace safe and to eliminate harmful radio interference, the FAA and Federal Communications Commission ("FCC") should work with the International Telecommunications Union and International Civil Aviation Organization to create "aerial slots" for all HAPs. Furthermore, the FCC should regulate those HAPs that will use free space optics since it is a communication that may be sent from

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* Executive Editor, American University Business Law Review, Volume 5; J.D. Candidate, American University Washington College of Law, 2016. I would like to give a heartfelt thank you to my dad, mom, and sister for their never-ending love and support. I also express my sincere gratitude to Professor Pamela Meredith for nurturing my love for the space, aviation, and telecommunications law fields. This piece would have been impossible to write if it were not for my tenth grade English teacher, Mrs. Brenda Hall and my Legal Rhetoric and Writing Instructor, Professor Elizabeth Beske; many thanks to both of you for molding me into the writer I am today. Finally, I would like to say thank you my best friends; Lamm, Davis, and Langer; for putting up with me throughout my law school journey and for helping me become a better person every day.

and received within the country and since it is in the public interest. Lastly, the National Oceanic and Atmospheric Administration ("NOAA") will need to update its remote sensing licensing criteria to accommodate the more unpredictable balloons and, in some cases, the unregulated laser-beaming HAPs.

INTRODUCTION

The Internet is an electronic communications network that connects computers, other electronic devices, people, and businesses.[1] It was the Internet that pushed the 2011 Arab Spring across the Middle East.[2] People across twenty countries used the Internet to unite, and the different countries' inhabitants posted thousands of tweets, Facebook messages, and YouTube videos to further their cause in toppling powerful existing governments.[3] This is just one of the many instances showcasing the power of the Internet.

The Internet has grown significantly since its mainstream inception in the 1990s.[4] Tim Berners-Lee brought his "World-Wide Web" to life in 1990, and Marc Andreessen launched "Mosaic," the first Internet browser, in 1993.[5] By 1995, the Internet had an estimated 16 million users.[6] Today, the Internet allows us to store, to communicate, and to compute information

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1. *See Internet*, MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.merriam-webster.com/dictionary/internet (providing the definition of "Internet").

2. *See* Fouad Ajami, *The Arab Spring at One*, FOREIGN AFF. (Mar./Apr. 2012), *available at* http://www.foreignaffairs.com/articles/137053/fouad-ajami/the-arab-spring-at-one (defining Arab Spring as a revolutionary wave of protests, riots, and civil wars in the Arab world that began on Dec. 18, 2010). *See generally* Catherine O'Donnell, *New study quantifies use of social media in Arab Spring*, UW TODAY (Sept. 12, 2011), http://www.washington.edu/news/2011/09/12/new-study-quantifies-use-of-social-media-in-arab-spring/.

3. *See* O'Donnell, *supra* note 2 ("After analyzing more than 3 million tweets, gigabytes of YouTube content[,] and thousands of blog posts, a new study finds that social media played a central role in shaping political debates in the Arab Spring.").

4. *See* Martin Hilbert & Priscila López, *The World's Technological Capacity to Store, Communicate, and Compute Information*, 332 SCIENCEMAG 60, 60 (Apr. 1, 2011), *available at* http://www.sciencemag.org/content/332/6025/60.full.pdf?keytype=ref&siteid=sci&ijkey=89mdkEW.yhHlM (estimating that the "digital supremacy" began in 1990).

5. *See Imagining the History of the Internet – A History and Forecast*, ELON UNIVERSITY SCHOOL OF COMMUNICATIONS, http://www.elon.edu/e-web/predictions/150/1960.xhtml; *see also* THE EVOLUTION OF THE WEB, http://www.evolutionoftheweb.com/ (revealing Mosaic as the predecessor to the Internet Browsers of today—Google Chrome, Mozilla Firefox, and Internet Explorer).

6. *See Imagining the History of the Internet – A History and Forecast*, *supra* note 5; *see also Internet Live Stats*, REAL TIME STATISTICS PROJECT, http://www.internetlivestats.com/internet-users/ (approximating that there are 3 billion and counting Internet users today).

much easier than ever before.[7]

Though communications technologies have developed significantly, there are parts of the United States and of the world that still do not have access to broadband wireless Internet. In August 2014, McKinsey & Company, a multinational managerial consulting firm, and Facebook, Inc. ("Facebook") created a report to quantify what the global offline population looks like.[8] The report estimated that there are over 7-billion people alive today but that more than half are offline.[9]

Since it appears that nearly two-thirds of the world remains unconnected,[10] companies such as Google, Inc. ("Google") and Facebook, whose services run on the Internet, are losing out on current and future revenue streams. Amongst its other profit-making services, Google makes a good portion of its revenue through its AdWords service,[11] and similarly, Facebook earns a percentage of its profits through its advertising service.[12] To grow their revenue streams and to expand these particular online services, the two companies, along with others, are trying to extend broadband wireless services for customers across the United States and the world. Future growth for these companies will come from those lacking a proper Internet connection today.

To alleviate this Internet shortage, the private sector is beginning to create Internet-providing vehicles or High Altitude Platform Stations ("HAPS,"

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7. *See* Hilbert & López, *supra* note 4, at 60–65 (giving statistics to reveal that the world's technological information processing capacities are quickly growing at exponential rates).

8. *See generally* Kara Sprague et al., *Offline and falling behind: Barriers to Internet adoption*, MCKINSEY & COMPANY TECHNOLOGY, MEDIA, AND TELECOM PRACTICE 1, 1–119 (2014), http://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/High%20Tech/PDFs/Offline_and_falling_behind_Barriers_to_Internet_adoption.ashx [hereinafter *The McKinsey Report*]; Tim Fitzsimons, *Why 4.4 Billion People Still Don't Have Internet Access*, NPR (Oct. 2, 2014), http://www.npr.org/blogs/alltechconsidered/2014/10/02/353288711/why-4-4-billion-people-still-dont-have-internet-access.

9. *See The McKinsey Report*, *supra* note 8, at 14 (reporting that there are still 4.4 billion people that do not have access to the Internet).

10. *See e.g.*, *id.* at 60, 73, 93 (stating that more than half of China's massive 1.3 billion-person population are still disconnected, that over 1 billion people in India are still offline, and that 50 million people remain off the Internet in the United States).

11. *See Google AdWords*, GOOGLE, https://www.google.com/adwords/ (marketing that Google AdWords offers pay-per-click advertising, site-targeted advertising for text, banner, rich-media ads, and remarketing); *see also* Nicholas Carlson, *This unknown Google exec fought a brutal internal battle and now controls a $60 billion business*, BUSINESS INSIDER (Apr. 6, 2015, 5:10 PM), http://www.businessinsider.com/google-exec-sridhar-ramaswamy-controls-a-60-billion-business-2015-4 ("Over the past year[, 2014], Google's ad products have generated over $60 billion in revenues.").

12. *See Ad Solutions*, FACEBOOK, https://www.facebook.com/advertising/solutions (publicizing that one of the major benefits of Facebook advertising is that advertisers can take advantage of users' demographic information and target their ads appropriately).

"HAPs," or "high altitude platforms").[13] These alternatives to traditional satellites can provide weather imagery and disaster relief in addition to Internet connectivity.[14] Additionally, these newer Internet-providing alternatives provide environmental assistance because all of the materials used to make these new vehicles are retrievable, meaning that the remaining debris will not remain in the atmosphere after usage as is the case with traditional satellites.[15] All in all, these new vehicles provide more services and appear to be more cost-effective than the normal commercial satellites that are in the marketplace.[16]

These HAPs are unique because they operate similar to airplanes for shorter periods of time than traditional satellites, are lower in the atmosphere than traditional satellites, and have communication capabilities. This Comment will analyze which regulator(s)—the FCC, FAA, or NOAA—should have control over these new Internet-providing high altitude vehicles, and it will also discuss the associated problems accompanying such

13. *See* 47 C.F.R. § 2.1 (2014) (defining a High Altitude Platform Station, as defined in the ITU regulations, as a radio station located on an object at an altitude of [approximately 66,000 to 164,000 feet or twenty to fifty kilometers respectively] and at a specified, nominal, fixed point relative to the Earth). *See generally High Altitude Platforms (HAPs) and Satellites: Projects*, UNIVERSITY OF YORK DEPARTMENT OF ELECTRONICS, https://www.elec.york.ac.uk/research/comms/haps.html. Please, note that the FAA and NOAA have not defined high altitude platforms and that it just a colloquial term.

14. *See e.g.*, Eric Mack, *Google Confirms Purchase Of Titan Aerospace For Data Drone Effort*, FORBES (Apr. 4, 2014, 2:40 PM), http://www.forbes.com/sites/ericmack/2014/04/14/google-reportedly-buying-solar-drone-maker-not-facebook/ (showing that atmospheric satellites could help bring Internet access to millions of people and help solve other problems including disaster relief and environmental damage, like deforestation); *see also* Leo Mirani, *These are the people who will build Facebook's drones*, QUARTZ (Mar. 28, 2014), http://qz.com/193045/these-are-the-people-who-will-build-facebooks-drones/ ("[Facebook's drones/systems] are designed for survey and real-time monitoring of detected signals or targeted information," and they "can be launched and recovered from a small footprint and [are] ideal for border surveillance, anti-poaching, communications intercept or private [communications].").

15. *Compare How Loon Works*, GOOGLE, http://www.google.com/loon/how/#tab=equipment (advertising that the balloons come down after 100 days in the air by gently releasing air), *and Connecting the World from the Sky*, FACEBOOK, https://fbcdn-dragon-a.akamaihd.net/hphotos-ak-ash3/t39.2365-6/851574_611544752265540_1262758947_n.pdf (showing that the drones are easily movable and are quicker to reuse and to dispose as opposed to traditional satellites), *with Advantages & Disadvantages of satellite communications*, SATCOM ONLINE (June 6, 2001), http://www.satcom.co.uk/article.asp?article=3&section=4 (including large up front capital costs, interference and propagation, and congestion of frequencies and orbit as disadvantages of traditional satellites).

16. *See* Ryan Zelnio, *The effects of export control on the space industry*, THE SPACE REVIEW (Jan. 16, 2006), http://www.thespacereview.com/article/533/1 (pricing one Geostationary Earth Orbit ("GEO") communications satellite, by itself, between $200–500 million, depending on its complexity).

regulation. It then recommends that no one agency take full jurisdiction over these Internet-providing HAPs and that the agencies should work together to complete the collective goal of ensuring safety in the air and on the ground and of preventing harmful radio interference.

I. GOOGLE AND FACEBOOK'S INTERNET-PROVIDING VEHICLES

Federal regulators need to determine whether Google and Facebook's HAPs are Unmanned Aircraft Systems ("UAS," "UAVs," or "drones"), satellites, or something else.[17] To comply with international and domestic obligations, regulators in the United States will look to ensure the health and safety of those spacecraft in the air already and those on the ground when regulating these HAPs.[18]

A. Google's Project Loon and Unmanned Vehicles Are No Longer Secrets

GoogleX is a semi-secret facility run by Google, and it is dedicated to making major technological advancements.[19] GoogleX is in the process of creating two HAPs, which will provide Internet access.[20] One of the platforms, named "Project Loon," is a network of balloons floating high up in the atmosphere.[21] The company has designed the balloons "to connect people in rural and remote areas, to help fill coverage gaps, and to bring people back online after disasters."[22] The balloons drift for up to 100 days at altitudes roughly between 60,000 feet and 88,000 feet (roughly eighteen

17. Please, note that UAS can be referred to as UAV (unpiloted aerial vehicle), RPAS (remote piloted aircraft systems), model aircraft, or drones.

18. *See generally* 49 U.S.C. § 40101 (2013) (assigning and maintaining safety as the highest priority in air commerce while also evaluating the safety implications of those services before authorizing new air transportation services).

19. *See* Brad Stone, *Inside Google's Secret Lab*, BLOOMBERG BUS. WK. (May 22, 2013), http://www.businessweek.com/articles/2013-05-22/inside-googles-secret-lab (giving details of Google's experiment lab for Larry Paige and Sergey Brin's "moonshot" projects).

20. *See generally What is Loon?*, GOOGLE, http://www.google.com/loon/ (revealing details of a constellation of balloons providing Internet). *But see Solara 50 Atmospheric Satellite, United States of America*, KABLE, http://www.aerospace-technology.com/projects/solara-50-atmospheric-satellite/ (describing Facebook's potential Internet-providing UAS).

21. *See generally What is Loon?*, *supra* note 20.

22. *Id.*; *see also Canterbury student to explain wider benefits of Project Loon*, DIGITAL ADVANCED LIMITED (Nov. 7, 2014, 6:30 AM), http://www.voxy.co.nz/technology/canterbury-student-explain-wider-benefits-project-loon/5/206761 (explaining that the balloons will also help improve climate models and provide better understanding of stratospheric transport processes, which will present better simulations of future climate change).

and twenty-seven kilometers respectively).[23] Operators on the ground guide the Loon balloons by rising or descending them into a layer of wind blowing in the direction they want them to go.[24] A single balloon can provide Internet to an area larger than 600 square miles, and it can transmit phone-friendly Long Term Evolution ("LTE") data.[25] Users can connect to the balloon network using a special Internet antenna attached to their building.[26]

Google's other Internet-providing vehicle is a type of UAS or drone.[27] These UAS, such as the Solara 50, will operate at an altitude of 65,000 feet (roughly twenty kilometers), where there is no weather present, for up to five years at a time.[28]

B. Facebook's Connectivity Lab Project May Also Connect the World

Facebook is also currently working on its own Internet-beaming HAP.[29] The Internet.org initiative ultimately seeks to use its solar-powered UAS to beam Internet to users via light instead of through radio spectrum.[30] Facebook's HAPs will be roughly the size of 747 or 767 airplanes, but they

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23. *Compare What is Loon?*, *supra* note 20 (describing Project Loon balloons as floating in the stratosphere, twice as high as airplanes and the weather and also noting that the balloons are fifteen meters in diameter), *with Airlines Use Low-Altitude Flights to Ease Delays*, ABC NEWS, http://abcnews.go.com/Travel/story?id=118812 (pointing out that standard cruising altitude for commercial jetliners is between 33,000 and 39,000 feet (roughly ten kilometers and twelve kilometers respectively)).

24. *See What is Loon?*, *supra* note 20.

25. *See id.*; *Long Term Evolution (LTE): A Technical Overview*, MOTOROLA, INC., at 2, http://www.3g4g.co.uk/Lte/LTE_WP_0706_Motorola.pdf ("[Long Term Evolution Internet] is scheduled to provide support for IP-based traffic with end-to end Quality of service ("QoS"). Voice traffic will be supported mainly as Voice over IP ("VoIP") enabling better integration with other multimedia services.").

26. *See How Loon Works*, *supra* note 15 (showing that the signal bounces from the antenna up to the balloon network and that it then bounces Internet back down to Earth).

27. *See Solara 50 Atmospheric Satellite, United States of America*, *supra* note 20 (describing Facebook's potential Internet-providing UAS); *see also* Jay Yarow, *Google Buys Drone Company Titan Aerospace*, BUSINESS INSIDER (Apr. 14, 2014, 2:03 PM), http://www.businessinsider.com/google-buys-drone-company-titan-aerospace-2014-4 (noting that, in 2014, Google acquired Titan Aerospace, which specializes in building pilotless drone aircrafts).

28. *See Solara 50 Atmospheric Satellite, United States of America*, *supra* note 20 (summarizing that the drone will be capable of carrying seventy pounds of telecommunications, reconnaissance, atmospheric sensors, and other payloads).

29. *See Announcing the Connectivity Lab at Facebook*, INTERNET.ORG (Mar. 27, 2014), http://www.internet.org/press/announcing-the-connectivity-lab-at-facebook (announcing Facebook's Connectivity Lab and its partnership with the Internet.org project); *see also* Mark Zuckerberg, FACEBOOK (Mar. 27, 2014, 1:03 PM), https://www.facebook.com/zuck/posts/10101322049893211 (announcing that Facebook's founder wants to bring Internet to the rest of the world).

30. *See Announcing the Connectivity Lab at Facebook*, *supra* note 29 (detailing the logistics of the HAPs that will provide Internet).

will be much lighter.[31] These particular UAS will be up in the sky for five years before they come back down to the Earth.[32]

1. *Free Space Optical Communication = Laser Beam Internet*

For Facebook's unmanned HAP, the company is looking to use free space optical communications ("free space optics") instead of using radio spectrum like traditional satellites.[33] Utilizing invisible infrared laser beams, free space optics employs light to transmit data through space.[34] The technology avoids the use of physical connections that may be impractical due to high costs.[35] It is a promising technology that will allow companies to dramatically boost the speed of Internet connections.[36]

LightPointe is one manufacturer of free space optics.[37] Currently, LightPointe's technology provides carriers, businesses, and government agencies with the capability to quickly connect two or more buildings, for communications purposes, without a regulatory license from the FCC.[38] In all, the technology does not use the typical mediums of wire or radio to transmit its communications; instead, it uses the power of light to beam Internet or data.

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31. *See* Kyle Russell, *Facebook's Aquila Drone Will Beam Down Internet Access With Lasers,* TECH CRUNCH (Mar. 26, 2015), http://techcrunch.com/2015/03/26/facebooks-aquila-drone-will-beam-down-internet-access-with-lasers/ (revealing that the Internet drones, the size of 767s, will fly in between 60,000 and 90,000 feet and that planes do not routinely fly in that altitude); *see also* Carl Franzen, *Facebook says its internet drones will be the size of 747s and fly for years*, THE VERGE (Sept. 24, 2014, 1:31 PM), http://www.theverge.com/2014/9/24/6839225/facebook-says-its-internet-drones-will-be-the-size-of-747s. Please, note that there are conflicting reports as to the actual size of the UAS; they will be either 747s or 767s.

32. Ben Coxworth, *Solar-powered UAV could fly in the upper atmosphere for 5 years at a time*, GIZMAG (Aug. 30, 2013), *available at* http://www.gizmag.com/solara-uav-atmospheric-satellite/28886/.

33. *See* Juliette Garside, *Facebook buys UK maker of solar-powered drones to expand internet*, THE GUARDIAN (Mar. 28, 2014, 2:59 PM), http://www.theguardian.com/technology/2014/mar/28/facebook-buys-uk-maker-solar-powered-drones-internet (announcing that Facebook will be using free space optics instead of radio spectrum to provide Internet).

34. *See Free Space Optics (FSO)*, LIGHTPOINTE, http://www.lightpointe.com/freespaceoptics.html.

35. *See id.* (discussing the advantages of free space optics).

36. *See id.* (contrasting the advantages of free space optics with the disadvantages of optical fiber cables or optical transmission lines).

37. *See generally* LIGHTPOINTE, http://www.lightpointe.com/home.html. Please, note that it is not clear yet if Facebook will use LightPointe as its manufacturer of free space optics.

38. *See Free Space Optics (FSO), supra* note 34 (summarizing that different entities can use this technology due to the minimal legal restrictions).

II. LEGAL BACKGROUND FOR SATELLITES

The potential regulatory scheme for these newer technologies, which Google and Facebook have created, may overlap with or may be the same as the current regulatory scheme for satellites. In fact, some of the only commercial platforms in the sky now are satellites,[39] and they require special licensing before their launches. The launching and/or operation of satellites constitute space activities and thus are subject to a regulatory regime. Article VI of the Outer Space Treaty ("OST") promotes the idea that international states are responsible for the authorization and supervision of all space activities.[40] States are liable for damages caused in outer space and on Earth under OST Article VII.[41] Moreover, OST Article VIII advances that states must retain jurisdiction and control over all space objects, and more importantly, it requires registration for all of them.[42] Finally, OST Article IX requires states to avoid harmful contamination of outer space.[43]

As noted, the United States is under an international obligation, as an OST signatory, to authorize or license and to supervise space operations by private parties under its jurisdiction.[44] Normally, satellite operators need to obtain licenses from different regulatory agencies to operate their satellites. First, the FAA issues licenses for launch vehicles that want to launch a payload, such as a satellite, into orbit.[45] Further, the United States requires satellite operators within its jurisdiction to obtain a license from the FCC to

39. *See Satellite*, MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.merriam-webster.com/dictionary/satellite (providing the definition of satellite as "a celestial body orbiting another of larger size").

40. *See* Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. VI, Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

41. *See id.* art. VII; *see also* Convention on International Liability for Damage Caused by Space Objects arts. I–X, Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. No. 7762, 961 U.N.T.S. 187 [hereinafter Liability Convention] (recognizing the need to elaborate effective international rules and procedures concerning liability for damage caused by space objects).

42. *See* Outer Space Treaty, *supra* note 40, art. VIII; *see also* Convention on Registration of Objects Launched into Outer Space art. II, Nov. 12, 1974, 28 U.S.T. 695, T.I.A.S. No. 8480, 1023 U.N.T.S. 15.

43. *See* Outer Space Treaty, *supra* note 40, art. IX.

44. *See id.*, art. VI; *see also* Pamela L. Meredith & Franceska O. Schroeder, *Privately-Owned Commercial Telecommunications Satellites: Licensing and Regulation by the Federal Communications Commission*, 27 CAL. W. L. REV. 107, 112 (1991) ("Private satellite operations are permitted as a matter of international law, provided they are authorized and supervised by a nation-state.").

45. 51 U.S.C. § 50904 (2012). *See generally* 51 U.S.C. § 50902(10) (2012) (defining payload as "an object that a person undertakes to place in outer space by means of a launch vehicle or reentry vehicle, including components of the vehicle specifically designed or adapted for that object").

commence radio communications.[46] Finally, if the satellite has a remote sensing capability, then the operator needs to obtain a license from NOAA.[47]

A. *The FAA's Launch Vehicle Licensing Process*

Prior to a vehicle launch, the FAA must issue a license to a prospective operator for both launch and reentry. Before the FAA issues a license for an unmanned launch, the applicant must state that the launch is consistent with the United States' national security interests and international obligations.[48] The FAA has the authority to prevent launches and reentries if the launch vehicle operator will not comply with payload requirements.[49] The Secretary of Transportation also establishes whether the operator has acquired all necessary licenses for a payload.[50]

B. *FCC's Role in Companies Gaining Licenses for Radio Transmission*

The FCC regulates radio frequency spectrum allocation for satellites in space.[51] The United States implements radio frequency allocations from the International Telecommunications Union ("ITU"), a specialized agency of the United Nations.[52] Since the enactment of the Communications Act of 1934 and the creation of the FCC, the government has assigned radio spectrum from the ITU to the public.[53]

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46. *See* 47 U.S.C. § 301 (2013).

47. *See* 51 U.S.C. § 60122 (2012).

48. *See id.* § 50901(a)(7) (stating that the mission must not detrimentally affect "the public health and safety, safety of property, or national security or foreign policy interest of the United States").

49. *See id.* § 50904(b) (declaring that the launch vehicle must comply with all payload requirements).

50. *See id.* § 50904(c) ("The Secretary of Transportation shall establish whether all required licenses, authorizations, and permits [such as those from the FCC and NOAA] required for a payload have been obtained.").

51. *See* 47 U.S.C. § 301 (stating that a private entity needs a license to operate a satellite); *see also* 47 C.F.R. § 25.103 (2014) (defining the different types of satellite services–Mobile-Satellite Service, Broadcasting-Satellite Service, and Fixed-Satellite Services).

52. *See also About ITU*, INTERNATIONAL TELECOMMUNICATIONS UNION, http://www.itu.int/en/about/Pages/overview.aspx ("[The ITU] allocate[s] global radio spectrum and satellite orbits, develop[s] the technical standards that ensure networks and technologies seamlessly interconnect, and strive[s] to improve access to [information and communication technologies] to underserved communities worldwide."). *See generally* U.N. Charter art. 57 (giving the U.N. authority to create specialized agencies to deal with "economic, social, cultural, educational, [and] health" issues).

53. *See* 47 U.S.C. § 303(c)–(d) (2013) (allowing the FCC to assign radio frequencies and to determine orbital locations); *see also* 47 U.S.C. §§ 151–152 (2013) (declaring that the Commission was created for the purpose of regulating "all interstate and foreign communication by wire or radio . . . which originates and/or is received within the United

1. How the ITU Allocates Worldwide Radio Spectrum to the United States

As a matter of international law, the ITU coordinates the use of the radio frequencies by its member states to prevent harmful interference.[54] To eliminate potential radio interference, it coordinates and registers frequency assignments made by national administrations, such as the FCC.[55] The ITU regulations oblige satellite operators to only use those frequencies allocated to its particular satellite service.[56]

2. ITU's Radio Spectrum Allocation for HAPs in the United States

Per the ITU Constitution, World Radiocommunication Conference members "can revise the Radio Regulations and any associated Frequency assignment and allotment Plans" and "address any radiocommunication matter of worldwide character."[57] In 2007, the meeting addressed the emergence of HAPs, and it noted that "the allocation to the fixed service in the bands 47.2–47.5 GHz and 47.9–48.2 GHz is designated for use by [HAPs]."[58] It also assigned in Region 2, the United States' region, the bands 1885–1980 MHz and 2110–2160 MHz for use as base stations for those HAPs providing International Mobile Telecommunications ("IMT").[59]

States . . . as well as to license and regulate all radio stations . . . . "). *See generally About ITU*, *supra* note 52 (delineating the ITU's responsibilities).

54. *See* Constitution and Convention of the International Telecommunication Union as amended by the 2010 Plenipotentiary Conference 2011, art. 33, [hereinafter ITU Constitution] (providing that all countries should have equitable access to radio frequencies).

55. *See* 47 U.S.C. § 303(c)–(d).

56. *See id.* § 152.

57. *World Radiocommunication Conferences (WRC)*, INTERNATIONAL TELECOMMUNICATIONS UNION, http://www.itu.int/en/ITU-R/conferences/wrc/Pages/default.aspx (noting that a WRC meeting occurs every three to four years); *see also* ITU Constitution, *supra* note 54, art. 13 (allowing the ITU to review and to revise the Radio Regulations, which is the international treaty governing the use of the radio frequency spectrum).

58. Int'l Telecomm. Union [ITU], Final Acts World Radiocommunication Conference (Geneva, 2007), at Resolution 122, (2008) http://www.itu.int/dms_pub/itu-s/oth/02/01/S020100002C4006PDFE.PDF; *see also* 47 C.F.R. § 2.106(5.552A) (2014) (explaining also that "the use of the bands 47.2–47.5 GHz and 47.9–48.2 GHz is subject to the provisions of Resolution 122 (Rev.WRC–07)"). *See generally List of ITU member countries by Regions*, INTERNATIONAL TELECOMMUNICATIONS UNION, http://life.itu.int/radioclub/rr/itureg.htm (listing the ITU's regional breakdown).

59. ITU, Final Acts World Radiocommunication Conference (Geneva, 2007), at Resolution 221 (2008) http://www.itu.int/dms_pub/itu-s/oth/02/01/S020100002C4006PDFE.PDF; *see also id.* Resolution 145 (developing criteria for allocations in the frequency bands 27.9–28.2 GHz and 31–31.3 GHz for HAPs in the fixed service for some countries in Regions 1 and 3); 47 C.F.R. § 2.106(5.388A) ("Their use by IMT–2000 applications using high altitude platform stations as base stations does not preclude

Outside of these bands, the FCC's Table of Frequency Allocations does not show any other available bands for HAPs in the United States.[60]

C. FCC's Control of Non-Radio Spectrum Internet Transmission

Currently, the FCC does not govern communications outside of radio and wire communications pursuant to Title 47 of the United States Code.[61] This governance of only radio and wire communications may be problematic for the FCC since there are new communication mechanisms developing. Specifically, engineers can now build free space optics communications systems that use, *inter alia*, laser beams that operate at visible-light frequencies, above the radio spectrum, to communicate data.[62] The World Radiocommunications Conference ITU-R Study Groups have been carrying out the preparatory studies on free space optical links.[63] To summarize their findings so far, "no evidence has been provided that interference between free-space optical systems is a concern."[64]

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the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations."). *See generally ITU global standard for international mobile telecommunications IMT-Advanced*, INTERNATIONAL TELECOMMUNICATIONS UNION, http://www.itu.int/ITU-R/index.asp?category=information&rlink=imt-advanced&lang=en ("IMT-Advanced systems support low to high mobility applications and a wide range of data rates in accordance with user and service demands in multiple user environments. IMT Advanced [sic] also has capabilities for high quality multimedia applications within a wide range of services and platforms, providing a significant improvement in performance and quality of service.").

60. *See generally* http://apps.fcc.gov/ecfs/document/view;jsessionid=8LGjP29WMGtjqk0KZjQ79pw3wrKTGB3vFTSG375Y4D0KjXhP2qXz!-1969853125!NONE?id=6520205829, 24 (highlighting that the FCC realizes that HAPs need more gateway link spectrum).

61. *See* 47 U.S.C. § 152(a) (2013) (revealing that the statute only applies to all interstate and foreign communication by wire or radio).

62. *See generally* Tom Garlington et al., *Analysis of Free Space Optics as a Transmission Technology*, UNITED STATES ARMY INFORMATION SYSTEMS ENGINEERING COMMAND (Mar. 2005), http://web.archive.org/web/20070613000248/http://www.hqisec.army.mil/isec/publications/Analysis_of_Free_Space_Optics_as_a_Transmission_Technology_Mar05.pdf.

63. *See generally* ITU, Report, *Study Group 1 Spectrum Management*, 1, 23 (May 2013), http://www.itu.int/dms_pub/itu-r/opb/gen/R-GEN-SGB-2013-PDF-E.pdf#page=18&pagemode=none.

64. Fabio Leite, *Optical Spectrum (> 3 THz) - WRC-12 to consider procedures for free-space optical links*, INTERNATIONAL TELECOMMUNICATIONS UNION (last updated June 9, 2010), http://www.itu.int/ITU-R/information/promotion/e-flash/4/article3.html (finding that interference between inter-satellite links would be rare due to directed and narrow beam-widths and the vast geometry of space of free space optics). *See generally* ITU, Report, *Fixed service applications using free-space optical links*, (Nov. 2010), http://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-F.2106-1-2010-PDF-E.pdf.

D. NOAA's Role in Remote Sensing Licensing

If satellite operators use their satellites for commercial remote sensing purposes, they will also need to receive a license from NOAA.[65] Remote sensing includes weather and meteorology imaging of the Earth in addition to reconnaissance or surveillance (i.e., missile tracking).[66] Section 60122 of Title 51 of the United States Code states that a remote sensing system needs to comply with national security provisions and international obligations of the United States, along with other requirements listed in the same section.[67]

III. THE FAA ALLOWS SOME BALLOONS TO FLOAT

The FAA also has regulations that allow unmanned free balloons ("unmanned balloons") to be in the air.[68] In the United States, there are two sets of regulations governing the launching and tracking of unmanned free balloons. One set of rules comes from the FCC since it regulates radio spectrum usage, and the other set of rules comes from the FAA since it governs those apparatuses' safety in airspace.[69]

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65. *See, e.g.*, Warren Ferster, *DigitalGlobe Wins Approval of Relaxed Operating Restrictions, with Proviso*, SPACE NEWS (June 13, 2014), *available at* http://spacenews.com/40898digitalglobe-wins-approval-of-relaxed-operating-restrictions-with-proviso/ (highlighting that Google obtains NOAA remote sensing licensing for satellites that take pictures for its Google Maps operations).

66. *See US Space Capabilities Doctrine, Roles and Systems*, THE AIR UNIVERSITY, http://www.au.af.mil/au/awc/awcgate/grayspc/doctrine/doctrin.htm; *see also* 15 C.F.R. § 960.3 (2014) (stating that remote sensing "refers to any device, instrument, or combination thereof, the space-borne platform upon which it is carried, and any related facilities capable of actively or passively sensing the Earth's surface, including bodies of water, from space by making use of the properties of the electromagnetic waves emitted, reflected, or diffracted by the sensed objects").

67. *See* 51 U.S.C. § 60122(b) (2012); *see also id.* § 60122(b)(5)–(6) (setting out operation, storage of data, and notification–of agreement(s) with other foreign entities–requirements when remote sensing).

68. *See e.g.*, *It's a Bird! It's a Plane! . . . No! It's a NOAA Weather Balloon!*, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, http://www.noaa.gov/features/02_monitoring/balloon.html (showing that the National Weather Service uses radiosonde, a type of unmanned free balloon, to track weather data).

69. *See* 47 U.S.C. §§ 151–152 (2013); 14 C.F.R. § 101.31 (2014); *see, e.g.*, Presidential Memorandum for the Heads of Executive Departments and Agencies, *Expanding America's Leadership in Wireless Innovation*, 78 Fed. Reg. 37431 (June 20, 2013) (stating that, where technically and economically feasible, spectrum sharing can and should be used to enhance efficiency among all users and to expedite commercial access to additional spectrum bands). *See generally* Letter from LightSquared to Federal Communications Commission, *IBFS File Nos. SAT-MOD-20120928-00160; SAT-MOD-20120928-00161; SES-MOD-20121001-00872; IB Docket No. 12-340; RM-11681* (Apr. 14, 2014), http://apps.fcc.gov/ecfs/document/view?id=7521098229 (discussing that current NOAA weather balloons operate in private, governmental 1675–1680 MHz radio bands).

IV. UNITED STATES' UAS REGULATORY REGIME

The FAA has jurisdiction over the United States National Airspace System ("national airspace"), but the FAA has not completely developed its UAS rules yet.[70] As set forth in the 2012 FAA Modernization and Reform Act, UAS refers to "an unmanned aircraft and associated elements includ[ing] communication links and the components that control the unmanned aircraft."[71] In 2007, the FAA announced that "no person may operate a UAS in the National Airspace System without specific authority."[72] The agency has repeatedly stated that the reason it does not certify commercial UAS flights currently is because of safety concerns.[73] However, the agency maintains a limited licensing regime to allow a select group of operators to fly each year.[74]

Within the United States, commercial UAS operators can currently circumvent regulations with the help of a waiver if they are either a public, civil, or model aircraft operation.[75] The Secretary of Transportation has the authority to determine if certain UAS may operate in the national airspace before the completion of a comprehensive rulemaking for UAS.[76] For UAS

70. *See also* Press Release, Federal Aviation Administration, DOT and FAA Propose New Rules for Small Unmanned Aircraft Systems (Feb. 15, 2015), http://www.faa.gov/news/press_releases/news_story.cfm?newsId=18295 (announcing the FAA's proposed rules for small UAS that are under fifty-five pounds). *See generally* FAA Modernization and Reform Act of 2012, Pub. L. No. 112–95, § 332, 126 Stat. 11, 73 (Feb. 14, 2012) (obliging the FAA to settle on a body of UAS regulations by Sept. 30, 2015).

71. *See* FAA Modernization and Reform Act of 2012, Pub. L. No. 112–95, § 331, 126 Stat. 11, 72 (Feb. 14, 2012) (stating in § 331 that "[t]he term 'unmanned aircraft system' means an unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system").

72. *See Unmanned Aircraft Systems*, FEDERAL AVIATION ADMINISTRATION, https://www.faa.gov/uas/ (asserting that, as of 2014, the FAA has made some progress towards UAS integration).

73. *See id.* (detailing that the United States "has the busiest, most complex airspace in the world" and that "[t]he FAA is taking an incremental approach to safe UAS integration").

74. *See Fact Sheet – Unmanned Aircraft Systems*, FEDERAL AVIATION ADMINISTRATION, http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=14153 (relying on a carve-out approach on an as-needed basis for providing exceptions to specific industries and stakeholders).

75. *See Unmanned Aircraft Systems*, *supra* note 72 (listing the different types of waivers available to UAS operators); *see also* Will Butler, *Can We Trust Google With the Stratosphere?*, THE ATLANTIC (Aug. 20, 2013, 10:51 AM), http://www.theatlantic.com/technology/archive/2013/08/can-we-trust-google-with-the-stratosphere/278797/ (highlighting that the UAS waivers were controversial during the passage of the 2012 FAA Modernization and Reform Act).

76. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-15-254T, UNMANNED AERIAL SYSTEMS: EFFORTS MADE TOWARD INTEGRATION INTO THE NATIONAL AIRSPACE CONTINUE, BUT MANY ACTIONS STILL REQUIRED 3 (2014).

operating as public aircraft, the authority is the Certificate of Authorization ("COA").[77] To operate a non-public aircraft, an operator can apply for a Section 333 exemption or for a Special Airworthiness Certificate.[78] Finally, for model aircraft, Advisory Circular 91-57 gives operators guidelines to operate.[79]

Each UAS has a need for radio spectrum usage since each will transmit data back to Earth while in the air.[80] Currently, there are no radio spectrum bands specifically designated for UAS operation like there are for satellites.[81] However, some domestic UAS operate in the bands called the ISM (Industrial, Scientific, Medical) bands; these ISM bands are unprotected airwaves.[82]

V. THE PRESENCE OF THE INTERNATIONAL CIVIL AVIATION ORGANIZATION

The International Civil Aviation Organization ("ICAO"), another

77. *See* 49 U.S.C. §§ 40102(a)(41), 40125 (2013) (providing the definition of Public Aircraft and the qualifications for public aircraft status); *Public Operations (Governmental)*, FEDERAL AVIATION ADMINISTRATION, https://www.faa.gov/uas/public_operations/ (describing the criteria to receive this particular Certificate of Waiver or Authorization waiver).

78. *See also Civil Operations (Non-Governmental)*, FEDERAL AVIATION ADMINISTRATION, https://www.faa.gov/uas/civil_operations/ (last modified Mar. 17, 2015, 10:42 AM) (laying out the criteria to fly under either Civil Operations waivers). *See generally* Airworthiness Certification of Unmanned Aircraft Systems and Optionally Piloted Aircraft Document Information, FAA No. 8130.34C, Order (Aug. 2, 2013), http://www.faa.gov/documentLibrary/media/Order/8130.34C.pdf

79. *See generally* Model Aircraft Operating Standards, FAA AC 91-57, Advisory Circular (June 9, 1981), http://www.faa.gov/documentLibrary/media/Advisory_Circular/91-57.pdf.

80. *See* FAA Modernization and Reform Act of 2012, Pub. L. No. 112–95, § 331, 126 Stat. 11, 72 (Feb. 14, 2012) ("The term 'unmanned aircraft system' means an unmanned aircraft and associated elements (including *communication links* and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system.") (emphasis added). *But see ESAA NPRM and Report and Order*, FCC No. 12-161 (Dec. 28, 2012), https://apps.fcc.gov/edocs_public/attachmatch/FCC-12-161A1.pdf (explaining how Wi-Fi Internet works on moving airplanes and how it is considered an Earth Station Aboard Aircraft rather than a satellite, UAS, or HAP).

81. *See United States Radio Spectrum Frequency Allocations Table*, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, http://www.ntia.doc.gov/files/ntia/publications/spectrum_wall_chart_aug2011.pdf (depicting the fact that there are no UAS-specific radio spectrum currently).

82. *See also id.* (showing that ISM bands are also very limited); Aeronautical Mobile Communications Panel (AMCP) Working Group C, The Use of Broadband Communications to Support Aeronautical Applications Paper, INTERNATIONAL CIVIL AVIATION ORGANIZATION (Oct. 11, 2000) (announcing particular concern at this meeting that ISM bands are unprotected).

specialized United Nations agency, codifies the international standards or rules for air navigation, and it promotes the safe and orderly growth of international air transportation.[83] With the expansion of UAS technology, it follows that ICAO may be able to offer some expertise with respect to enhancing the safety of these Internet-providing HAPs.[84]

VI. AIRPLANES VERSUS SATELLITES–THE ENSUING ADMINISTRATIVE AGENCY MESS?

Today's federal government would not function if Congress could not broadly delegate powers to agencies.[85] Time and resource restrictions, along with lower costs, make congressional delegation a "more desirable alternative."[86] Congress needs to delegate its policy-making authority because governing is complex and because it allows an agency with expertise in a field to implement a policy.[87] Moreover, "if one agency has expertise in a field and a second agency in another, Congress should delegate power to the most-informed agency."[88] However, there are instances where multiple agencies may have overlapping jurisdiction.[89] In such instances, Congress may make broad and ambiguous delegations of policy-making authority, so several agencies may have plausible claims that an issue arises within their jurisdiction.[90] Moreover, multiple agencies may claim that addressing a particular issue or performing a particular function enables them to address

83. *See generally About ICAO*, THE INTERNATIONAL CIVIL AVIATION ORGANIZATION, http://www.icao.int/about-icao/Pages/default.aspx.

84. *See generally* International Civil Aviation Organization [ICAO], Circular 328, 2011, http://www.icao.int/Meetings/UAS/Documents/Circular%20328_en.pdf (outlining general unbinding UAS framework).

85. *See* U.S. CONST., art. I, § 8, cl. 18 (Congress shall have the power "... [t]o make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.").

86. *See* Jacob E. Gersen, *Overlapping and Underlapping Jurisdiction in Administrative Law*, 2006 SUP. CT. REV. 201, 212 (2006).

87. *See generally* Mistretta v. United States, 488 U.S. 361, 370 (1989) ("[T]he separation-of-powers principle, and the non-delegation doctrine in particular, do not prevent Congress from obtaining the assistance of its coordinate Branches."); Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1184 (2012) (discussing the benefits of coordination on regulations).

88. Gersen, *supra* note 86, at 212.

89. *See e.g.*, U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-05-213, OVERSIGHT OF FOOD SAFETY ACTIVITIES FEDERAL AGENCIES SHOULD PURSUE OPPORTUNITIES TO REDUCE OVERLAP AND BETTER LEVERAGE RESOURCES 4–15 (2005) (highlighting an instance of overlapping jurisdiction where the United States Department of Agriculture, the Food and Drug Administration within the Department of Health and Human Services, the Environmental Protection Agency, and the National Marine Fisheries Service all have responsibility for regulating food safety).

90. *See* Gersen, *supra* note 86, at 201, 210.

other core issues or perform other core functions more effectively.

Legal scholars have determined some elements that an agency should look at when evaluating if there should be overlapping jurisdiction between or amongst agencies.[91] The answer depends on many factors, some which include–

> [t]he relationship between the overlapping agencies (are they collaborative or competitive, do they have complementary goals, or are their goals in tension with each other); the policy area (environmental law might require different structures than securities law); the internal dynamics of the agencies involved (different agencies may have different cultures and professional backgrounds); and the political context (different political pressures may shape how agencies act and react to each other) . . . .[92]

Even when agencies may have their mutually exclusive jurisdictions, they still might not anticipate every scenario that may arise, as is the case here with the potential overlapping FAA, FCC, and NOAA in-air regulatory authority over the new Internet-providing HAPs.

A. The Government Has Some Catching up to Do

On one hand, the HAPs operate as floating airplanes for extended periods of time; but on the other hand, they also have communication and, perhaps, remote sensing capabilities. The FAA, FCC, and NOAA will want to regulate the HAPs while they are in the air. This uncertainty may provide some confusion regarding which regulatory agency should govern the HAPs. So, should all three govern, or should one agency have all the regulatory authority?[93]

With reference to the criteria used to analyze whether there should be overlapping jurisdiction,[94] these agencies have different policy areas, and the internal dynamics of all three are dissimilar. The FAA cares about the safety

91. *Compare, e.g.*, William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1, 60 n.229 (2003) (arguing that redundancy may lead to free-riding and under-regulation by agencies), *and* Jason Marisam, *Duplicative Delegations*, 63 ADMIN. L. REV. 181, 222–25 (2011) (critiquing redundancy), *with* Freeman & Rossi, *supra* note 87, at 1138–45, 1151–55 (noting benefits of redundancy).

92. Eric Biber, *The More the Merrier: Multiple Agencies and the Future of Administrative Law Scholarship*, 125 HARV. L. REV. F. 78, 80 (2012).

93. *See generally* 49 U.S.C. § 40101 (2013); 47 U.S.C. § 301 (2013); 51 U.S.C. § 60122 (2012) (denoting the three agencies—the FAA, FCC, and NOAA—that govern the three different areas implicated in the potential regulation of HAPs: flight, communications, and remote sensing safety respectively).

94. *See generally* Biber, *supra* note 92 (applying the scholars' test, it is noticeable that each agency specializes in a different type of policy and that the FAA has pilots and aviation experts whereas the FCC has communication experts and spectrum engineers for example.).

of these vehicles while they are in the air.[95] On the other hand, the FCC is concerned with communication transmissions in general: the management of radio spectrum and the prevention of harmful interference.[96] Lastly, while NOAA does care for the safety of these vehicles in the air, it is more concerned with what these vehicles are remote sensing or imaging once they are in the air.[97] With three different duties and technical experts in-hand, all three agencies should have regulatory authority over the HAPs.

Congress has delegated these powers to each agency, so they can individually specialize in and not under-regulate a specific field.[98] Frankly, giving one agency complete reign over these vehicles would be inefficient and futile since each already licenses something completely different, and it would create unnecessarily redundant regulations.[99] It will be satisfactory for there to be overlapping in-air jurisdiction amongst all three agencies. However, each of the three agencies will want to revise its respective licensing and monitoring requirements to accommodate the novel issues that these new vehicles present and to make sure that there is not redundant or under-regulation: problems that often arise when there is overlapping jurisdiction.

1. *Project Loon May Have an Easier Time Taking Flight*

The Project Loon balloons may be problematic for the FAA to govern properly since the balloons are more sophisticated than the current unmanned free balloons that the agency regulates.[100] The Project Loon balloons do not have a pilot on-board; instead, there is an operator on the ground who can guide the balloons through the air by controlling which layer of the stratosphere the balloons are in at any time.[101]

Presently, the FAA has regulations for the operation of unmanned free balloons known as the "Subpart D Regulations."[102] The FAA's regulations

95. *See* 49 U.S.C. § 40101.

96. *See* 47 U.S.C. § 301.

97. *See* 51 U.S.C. § 60122.

98. *See* Buzbee, *supra* note 91, at 5.

99. *See* Marisam, *supra* note 91, at 222–23 (critiquing redundancy and explaining that the goal is to discover those areas where redundancies are cost-effective and build the redundancies there).

100. *See Google Project Loon Frequently Asked Questions*, GOOGLE, http://www.google.com/loon/faq (detailing that Project Loon balloons are higher in the sky, last longer, coordinate with other balloons, and go where they want to go); *see also NOAA National Weather Service Radiosonde Observations*, NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION, http://www.ua.nws.noaa.gov/factsheet.htm (depicting the characteristics of weather balloons, a type of unmanned free balloon).

101. *See How Loon Flies*, *supra* note 15.

102. *See* 14 C.F.R. § 101.31 (2014) (defining the FAA's regulations for unmanned free balloons).

are loose on balloons, as long as they operate safely and above 60,000 feet.[103] The agency can regulate these Loon balloons, if it chooses, under Subpart D, because the unmanned balloons will be flying above the 60,000 feet. To comply with the FAA's requirements, Google would have to make certain pre-launch notifications.[104] Similarly, the company would need to give balloon position reports every two hours; however, this requirement could be slightly problematic because Google does not have complete control over these balloons outside of moving them up and down in the stratosphere.[105] Essentially, the operators would be able to move the balloons, but there would be no guarantee as to the exact future location of the balloons.

ICAO has articulated its view on balloons of this nature.[106] The international agency has gone so far as to specifically exclude unmanned free balloons from its early UAS regulations, qualifying balloons as aircraft which cannot be managed on a real-time basis.[107] But because the Loon is different from traditional unmanned free balloons and is somewhat maneuverable, it could qualify as an UAS under this definition.

Contrary to ICAO's view, treating the more sophisticated Project Loon balloons as UAS rather than unmanned free balloons may make sense for the FAA because it will allow for the agency to follow its congressional mandate of ensuring public safety.[108] The 2012 FAA Modernization and Reform Act states that unmanned aircraft are aircraft that do not involve direct human intervention from within or on the aircraft.[109] Unlike typical unmanned balloons, these Loon balloons are capable of staying afloat for months.[110] Each Loon balloon is about fifty feet wide and forty feet high (roughly 15.24

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103. *See* 14 C.F.R. § 101.33(c) (stating the operating limitations for unmanned balloons).

104. *See* 14 C.F.R. § 101.37 (providing that unmanned free balloon operators need to notify the nearest FAA Air Traffic facility of eight criteria prior to launch).

105. *See* 14 C.F.R. § 101.39 (ordering unmanned free balloon operators forward position reports during operation every two hours and when descending).

106. *See generally The postal History of Aviation History : Human flights with balloons*, INTERNATIONAL CIVIL AVIATION ORGANIZATION, http://www.icao.int/secretariat/PostalHistory/aviation_history_human_flights_with_balloons.htm.

107. *See* ICAO, Circular 328, at 3 (2011) http://www.icao.int/Meetings/UAS/Documents/Circular%20328_en.pdf.

108. *See* 49 U.S.C. § 40101 (2013) (assigning and maintaining safety as the highest priority in air commerce).

109. *See* FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, § 331, 126 Stat. 11, 72 (Feb. 14, 2012).

110. *Compare* Will Oremus, *Not As Loony As It Sounds*, SLATE MAGAZINE (Dec. 2, 2014, 1:21 PM), http://www.slate.com/articles/technology/future_tense/2014/12/project_loon_how_google_s_internet_balloons_are_actually_working.single.html (revealing the balloons could stay in the air for 100 days), *with NOAA National Weather Service Radiosonde Observations*, *supra* note 100 (stating that balloons only last for a few hours).

meters wide and 12.19 meters high respectively), relying solely on helium for lift.[111] Since these are balloons, it is possible that a small pinhole could bring a balloon down. Google's operators can pilot the balloons from the ground, but there is no certainty yet regarding a balloon's route or where it will be. Considering that there are planes that fly not too far below the stratosphere,[112] the FAA does not want potential debris from balloons affecting flights below or, even worse, inhabitants on the ground.

Moreover, if these balloons are using radio spectrum, then they could potentially interrupt communications for planes and other radio spectrum-using devices.[113] For example, while testing Project Loon balloons in Oceania, the balloons have caused trouble by way of radio interference. Astronomers at the Square Kilometre Array ("SKA")[114] program, which has research facilities in both Australia and New Zealand, are upset that Google has been going ahead with its testing, supposedly in the ISM bands, of its Loon balloons in the region without considering the possible adverse effects on the scientific community.[115] Not only does the FAA have a safety interest in making sure planes below can communicate properly, but the FCC also has the responsibility of preventing harmful radio interference like what is currently happening in Oceania.

The balloons pose multiple safety risks, and if any of the listed occurrences were to happen, they would go against the FAA's congressional mandate of keeping the United States national airspace safe.[116] Therefore, the agency will want to create more stringent Subpart D Regulations, or it

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111. *See How Loon Flies*, *supra* note 15 (detailing the envelope, or "balloon" part of the balloon, is one-tenth of an inch-thick polyethylene fabric, lightweight and relatively delicate but strong enough to withstand the high-pressure differential of great altitudes).

112. *See generally* John Cox, *Ask the Captain: How high can a plane fly?*, USA TODAY (Feb. 2, 2014, 6:08 PM), http://www.usatoday.com/story/travel/columnist/cox/2014/02/02/maximum-altitude-airlines-concorde/5165635/ (stating most airliners are limited to 45,000 feet or less).

113. *See generally Aviation Radio Bands and Frequencies*, MARTEK, http://www.smeter.net/spectrum/aviation.php (listing different aviation communication bands and their respective altitudes).

114. *See generally* The SKA Organisation, SPACE KILOMETERE ARRAY, https://www.skatelescope.org/ska-organisation/.

115. *See* Richard Chirgwin, *Google launches broadband balloons, radio astronomy frets*, THE REGISTER (Jun. 17, 2013, 5:57 PM), http://www.theregister.co.uk/Print/2013/06/17/google_launches_broadband_balloons_astrophysics_frets/ (summarizing that SKA is a €1.5 billion space research telescope program run by a consortium of the world's universities and stating that Google's current usage of "lower ISM band sits squarely in the frequency range that astronomers want to scan to spot the formation of the universe's earliest galaxies").

116. *Cf.* 49 U.S.C. § 40101(a)(2) (2013) (stating that the Secretary of Transportation will evaluate the safety implication of those services before authorizing new air transportation services).

will want to classify these particular Loon balloons as UAS because of their sophistication and longevity in the air as compared to the current unmanned free balloons the agency regulates.

2. *Google and Facebook's UAS Will Need Domestic and International Help*

Since Congress delegated the priority of keeping the United States national airspace safe to the FAA, the agency will have jurisdiction over Google and Facebook's HAPs in-air.[117] Particularly, the FAA provides the national requirements for registration, airworthiness certification, licensing of personnel, and air usage.[118] As mentioned, the FAA's regulations for UAS are very limited, exemplified by the fact that the agency has made all civilian use of UAS illegal with a few exceptions.[119]

To avoid waiting for the FAA's UAS regulations, Google and Facebook could both make arguments that their HAPs are satellites and that they should be governed under the traditional satellite regulations rather than the FAA's forthcoming UAS regulations. For example, satellites are also unmanned aerial vehicles, just higher up in the sky.[120] Additionally, the FAA does not regulate the satellites in-orbit, so conceivably, the operators could argue that the FAA only needs to regulate the launch and reentry of Google and Facebook's HAPs.[121]

So, why cannot HAP operators properly state that their Internet-providing HAPs are satellites? To answer that question, it will be necessary to look at where and how these HAPs will be operating.

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117. *See id.* § 40101(a)(1) (assigning and maintaining safety as the highest priority in air commerce).

118. *See generally History and Evolving Duties*, FEDERAL AVIATION ADMINISTRATION, https://www.faa.gov/about/history/brief_history/.

119. *See Unmanned Aircraft Operations in the National Airspace System (NAS)*, FAA-N JO 7210.873 (July 11, 2014), http://www.faa.gov/documentLibrary/media/Notice/N_JO_7210.873_Unmanned_Aircraft_Operations.pdf (stating that the current FAA policy for UAS operations is that no person may operate a UAS in the National Airspace System without specific authority).

120. *See What is a Satellite?*, THE FEDERAL COMMUNICATIONS COMMISSION SATELLITE LEARNING CENTER, http://transition.fcc.gov/cgb/kidszone/satellite/kidz/parts_of_sat.html (explaining that operators can move satellites once they are in space through the use of rocket motors, fuel tanks, battery, and solar panels on board the satellite); *see, e.g.*, GPS World staff, *Misplaced Galileo Satellite Moving to New Orbit*, GPS WORLD (Nov. 10, 2014) *available at* http://gpsworld.com/galileo-satellite-set-for-new-orbit/ (alerting that a recent Galileo navigation satellite launch put a satellite in the wrong orbit and that the operators had to use on-board fuel and motors to move the satellite to the correct orbit).

121. *See* 51 U.S.C. § 50904 (2012) (noting that FAA has regulatory authority over spacecraft during launch and reentry).

i. Where Does Space Begin, and What Does It Take to Get There?

According to Title 14 of the Code of Federal Regulations ("C.F.R."), Classes B, C, D, and E of the United States National Airspace System are below 10,000 feet (roughly 3050 meters), and these specific classes are designed to control lower traffic around airports.[122] Class A includes the airspace between 18,000 and 60,000 feet (roughly eight miles or thirteen kilometers in difference).[123] Though there is no point where space begins, the Kármán Line, 327,360 feet (roughly sixty-two miles or 100 kilometers), has typically served as that marker.[124] Between where planes can fly in Class A airspace and the Kármán Line, there are almost 100,320 feet (roughly nineteen miles or thirty-one meters) of unregulated stratosphere.[125]

There are two types of flight into space: orbital and suborbital. In the past, many believed that in order to achieve spaceflight, a spacecraft must reach an altitude higher than the previously mentioned Kármán Line.[126] Orbital spaceflight happens "when a spacecraft is placed on a trajectory with sufficient velocity to place it into orbit around the Earth."[127] Instead, suborbital spaceflight occurs "when a spacecraft reaches space but its velocity is such that it cannot achieve orbit."[128] Altogether, the higher a HAP goes, the more likely it is that gravity will maintain the HAP in orbit without the assistance of an operator on the ground.

ii. Satellites Versus the New HAPs–Is There Any Difference in the Air?

A satellite is an artificial object that has been intentionally placed into orbital spaceflight.[129] In astronomy, an orbit is the gravitationally curved

122. *See* 14 C.F.R. §§ 91.119, 91.126–91.133 (2014).

123. *See* 14 C.F.R. § 91.135.

124. *See* Dr. S. Sanz Fernández de Córdoba, *The 100km Altitude Boundary for Astronautics*, FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE (May 25, 2012, 10:09 AM), http://www.fai.org/icare-records/100km-altitude-boundary-for-astronautics (defining the Kármán Line).

125. *See supra* note 122.

126. *See* Sanz Fernández de Córdoba, *supra* note 124.

127. *See What is the difference between orbital and suborbital spaceflights?*, FEDERAL AVIATION ADMINISTRATION, http://www.faa.gov/about/office_org/headquarters_offices/ast/faq/#cl6 (distinguishing orbital and suborbital flight).

128. *See id.*

129. *See Satellite*, MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.merriam-webster.com/dictionary/satellite (providing the definition of satellite as "a celestial body orbiting another of larger size"); *see e.g.*, *Satellite*, UNIVERSITY OF TORONTO PHYSICS, http://www.physics.utoronto.ca/~aerler/ENV235/students/KaiYan.pdf (listing that some common types of satellites include military and civilian Earth observation satellites, communications satellites, navigation satellites, weather satellites, and research satellites).

path of an object around a point in space.[130] Conversely, a HAP UAS is an aircraft that flies suborbitally and does not quite make it into orbit.[131] These Internet-providing vehicles are not gravitationally orbiting Earth.[132] Operators have mechanisms to maneuver these objects, which move between 70,000 to 110,000 feet in the air.[133] In other words, these HAPs do not gravitationally orbit the Earth like satellites do.

There are issues of security and safety that come with the operation of these HAPs, and they are issues that satellites do not present to operators. First, since the HAPs are not gravitationally orbiting the Earth, an operator on the ground will be moving the HAPs more frequently than satellites.[134] Second, these HAPs have shorter life spans than satellites.[135] This means that they will have to reenter more often from a significantly lower altitude. This hyper-movement, in and out of the air, could pose greater harm to planes below and, more importantly, to those on the ground as well.[136] The HAPs are the size of 747s, have many electronics on board to function, operate for periods of four to six years, and are only 35,000 feet (roughly

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130. *See Orbit*, ENCYCLOPEDIA BRITANNICA, *available at* http://www.britannica.com/EBchecked/topic/431123/orbit; *see also Low Earth Orbit (LEO)*, ACQNOTES, http://acqnotes.com/acqnote/careerfields/low-earth-orbit-leo (stating that the Low Earth Orbit ("LEO") is between ninety-nine and 1,200 miles in the sky).

131. *See High Altitude Platforms (HAPs) and Satellites: Projects*, *supra* note 13 (revealing that that these aircraft do not reach the LEO and do not gravitationally orbit the Earth).

132. *See* Ben Popper, *Google's balloons versus Facebook's drones: the dogfight to send internet from the sky*, VOX MEDIA (Mar. 7, 2014, 11:25 AM), http://www.theverge.com/2014/3/7/5473692/facebook-drone-titan-aerospace-project-loon (detailing that the altitudes that the Facebook and Google HAPs will reach is not close enough to the LEO); *see also* 47 C.F.R. § 2.1 (2014) (defining a satellite, used for communication purposes, as "[a] body which revolves around another body of preponderant mass and which has a motion primarily and permanently determined by the force of attraction of that other body").

133. *See* Popper, *supra* note 132.

134. *See id.*

135. *See id.* (explaining that Loon balloons will last over 100 days and that the Solara Facebook drones could last over 1826 days); *see also* Owen D. Curtin, *Satellite Life Extension: Reaching for the Holy Grail*, VIA SATELLITE (Mar. 1, 2013), *available at* http://www.satellitetoday.com/publications/2013/03/01/satellite-life-extension-reaching-for-the-holy-grail/ (highlighting geosynchronous satellites average fifteen years in the sky).

136. *See Fast Facts on Space Debris*, AUSTRALIAN SPACE ACADEMY, http://www.spaceacademy.net.au/watch/debris/sdfacts.htm ("The decay lifetime of a space object depends on its altitude, the level of solar activity, and its mass to cross-sectional area. Objects with a large mass to area ratio will remain in orbit longer as they are less affected by drag."); *see e.g.*, 47 C.F.R. §§ 25.114(d)(14)(i), (iv), 97.207(g)(1)(i), (iv) (emphasizing normal and amateur satellite operators need to include a description of the design and operational strategies that the space station will use to mitigate orbital debris).

eleven kilometers) above where today's planes fly.[137] Therefore, the FAA will want to make sure that it has in-air jurisdiction over these HAPs, unlike the limited jurisdiction it has when dealing with satellites.[138]

In the United States, the FAA's Office of Commercial Space Transportation ("FAA/AST") regulates the launch and reentry of commercial vehicles that launch satellites.[139] However, the agency only oversees the launch and reentry processes; it has no direct ability, or "on-orbit" authority, to regulate spacecraft, such as satellites, in between those two processes.[140] Presently, "on-orbit authority," during an orbital flight, is a gray area for commercial spacecraft, and FAA officials want authority over on-orbit activities for satellites. The FAA/AST's duty is to protect the interests of the United States and to promote commercial space transportation, so it would make sense for the agency to have on-orbit governance. The FAA authorities argue that granting on-orbit authority for something like satellites would reduce regulatory uncertainty when operators service satellites and undertake other commercial activities in space.[141] In fact, even the FCC agrees that it is time to explore on-orbital safety of commercial space transportation.[142]

So, it appears that the companies' potential satellite argument will soon be moot because the FAA and FCC are already in the process of thinking about obtaining on-orbit authority to make commercial space activities safer for those in space and for those on Earth. The FAA should designate these HAPs as UAS since HAPs are closer to the Earth and not in-orbit, have shorter life spans, and are more mobile than satellites. UAS regulations will allow regulators, such as the FAA, to have the necessary in-air authority to keep the national airspace safe as Congress requires.

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137. *See* Franzen, *supra* note 31. *But see* Virgil Labrador, ENCYCLOPEDIA BRITANNICA, *available at* http://www.britannica.com/EBchecked/topic/524891/satellite-communication/288217/How-satellites-work (last updated Feb. 18, 2015) (revealing satellites can operate in the air for up to twenty years).

138. *See* 51 U.S.C. § 50904 (2012).

139. *See* 14 C.F.R. § 401.3.

140. *See* Jeff Foust, *The quest for on-orbit authority*, THE SPACE REVIEW (May 19, 2014), http://www.thespacereview.com/article/2514/1 ("The FAA believes it's time to consider closing the current regulatory and safety gap between launch and reentry," said George Nield, FAA Associate Administrator for Commercial Space Transportation. "Our goal would be to promote orbital space transportation safety, including for orbital debris mitigation, for spacecraft whose primary function is transportation.").

141. *See id.*

142. *See id.* (reporting FCC International Satellite Bureau Deputy Division Chief Karl Kensinger's belief that "[t]he idea of regulating on-orbit activities isn't something that seems unnatural").

3. *The FCC May Have the Authority to Step in to Solve the Free Space Optics Dilemma*

Facebook's UAS HAP will use free space optics, as opposed to radio spectrum, for transmitting communications; however, there is no explicit language in C.F.R. Title 47 that details regulation of this new communications technology.[143] Since the FCC's authority extends only to "communication by wire or radio," it appears that the free space optics systems, which these HAPs will use, currently fall outside of the FCC's jurisdiction.[144]

For continued FCC non-regulation of free space optics, Facebook can contend that it is the policy of the United States to encourage new technologies and services for the public.[145] Specifically, it can claim that "[a]ny person or party, other than the FCC, who *opposes* a new technology or service proposed to be permitted shall have the burden to demonstrate that such proposal is inconsistent with the public interest."[146] Also, Facebook can argue that its HAP is consistent with the public interest, for as mentioned before, the ITU Study Group has not found any harmful implications of the technology.[147] For example, the laser beam cannot be detected with a spectrum analyzer or radio frequency meter,[148] and the laser beam is very narrow, making it almost impossible to intercept the data being transmitted.[149] If the situation described were to happen, an alarm would go off because the receiving site would sense that it was losing connection.[150] It appears as though the free space optics creators may have been able to make a product that does not require FCC regulation since there is not much potential for harmful interference and since the technology appears to be an "advanced telecommunications capability."[151]

143. *See generally* 47 U.S.C. §§ 151–152 (2013) (declaring that the FCC was created for the purpose of regulating "all interstate and foreign communication by wire or radio . . . which originates and/or is received within the United States . . . and to the licensing and regulating of all radio stations . . . . ").

144. *See id.* § 152.

145. *See id.* § 157 (highlighting the FCC's take on new technologies and services).

146. *See id.*

147. *See id.*; *see also supra* note 64, at 16–18; *cf.* Alessandro Casagni, *Radio spectrum: a limited resource, an infinite opportunity*, NEW EUROPE ONLINE (Mar. 6, 2012, 11:40 PM), http://www.neurope.eu/blog/radio-spectrum-limited-resource-infinite-opportunity (revealing radio spectrum is a valuable and limited resource).

148. *See Free Space Optics*, UNIVERSITY OF MISSOURI-ROLLA, http://web.mst.edu/~mobildat/Free%20Space%20Optics/index.html (emphasizing the beam is invisible, which makes it hard to intercept).

149. *See id.* (summarizing that one would have to be in the line of sight between the receiver and transmitter to be able to intercept the communication).

150. *See id.*

151. *See* 47 U.S.C. § 1302 (2013) (declaring that the FCC encourages the timely

Further, Facebook can point out that, as stated in 47 U.S.C. § 1301(2)-(3), the federal government should support the partnership of the public and private sectors in the continued growth of broadband services and information technology for the residents and businesses of the nation.[152] The FCC and the state commissions, with regulatory jurisdiction over telecommunications services, are supposed to encourage the deployment of advanced telecommunications to all Americans on a reasonable and timely basis.[153] Moreover, Facebook can assert that its HAPs will actually enable quicker and more accessible Internet, that the technology has little to zero public disapproval thus far, and that it has no real known harmful effects.[154]

Though free space optics are not currently under the FCC's jurisdiction, the agency could regulate it by making similar arguments to the ones the agency made when it started regulating satellite communications. In that instance, the FCC established jurisdiction over these satellites by finding that the satellites fall under the definition of a radio station as defined in Title 47.[155] Further, the agency noted that one of the deciding factors, on whether to regulate satellites, was that these satellite communications were originated and/or received in the United States.[156]

To further support its authority over satellites, the agency provided three additional arguments. First, the agency cited § 303(g), which states that the FCC may "[s]tudy new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of

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deployment of "advanced telecommunications capability" and defining "advanced telecommunications capability" as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology"). *See generally supra* note 64.

152. *See id.* § 1301(2)–(3) (stating Congress encourages the advancement of broadband technology and that it is vital to the nation's development).

153. *See id.* § 1302(a) ("The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.").

154. *See generally What is Free Space Optics?*, *supra* note 149 (noting free space technology has been around since 1960).

155. *See* 47 U.S.C. § 153(42) (2013) (defining a radio station as a "station equipped to engage in radio communication or radio transmission of energy"). *See generally id.* § 153(40) (declaring radio communication means the "transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services . . . .").

156. *See* 47 U.S.C. § 152(a).

radio in the public interest."[157] Second, the FCC cited previous courts' decisions that construed the Communications Act as "granting broad powers to the Commission which do not depend on a specific reference to the particular service, technology or practice in the statute."[158] Third, the agency cited the "public interest" standard as another reason why the FCC is able to govern satellites in space.[159] The FCC uses this standard during licensing and rulemaking proceedings, and the courts have previously noted that the test has been construed as leaving "wide discretion [for] and calling for imaginative interpretation" from the FCC.[160]

With the exception of two of its radio-related reasons, the FCC could establish its jurisdiction over free space optical communications by using some of the arguments it used when first establishing authority over satellite communications.[161] Foremost, the FCC could argue that it needs to regulate the new technology because it is a form of communication being originated and/or received by entities in the United States; moreover, similar to when it first started regulating satellites, the FCC could claim that it does not matter that this new form of communication is not one that is explicitly stated in a statute.[162] Finally, if the agency is to make rules regarding free space optics, it can point to the "public interest standard," which leaves the FCC with "wide discretion" to regulate communications.

To strengthen its "public interest" argument for free space optics regulation, the FCC could point to some of the potential disadvantages of free space optics technology. Safety can be a concern because the technology uses laser beams for data transmission.[163] The proper use of lasers and their safety has been discussed since free space optics devices first appeared in laboratories more than two decades ago.[164] The two major safety concerns involve eye exposure to light beams and high voltages within the light systems and their power supplies.[165] The International Electrotechnical

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157. 47 U.S.C. § 303(g); *see also Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities, Report and Order*, 22 F.C.C.2d 86, app. C, at 129 (1970) [hereinafter "*Domsat I*"] (describing the application of the public interest test).

158. *See Domsat I*, *supra* note 157, at 129 (citing *Nat'l Broad Co. v. United States*, 319 U.S. 190, 217–19 (1943)).

159. *See id.* (citing *FCC v. RCA Commc'ns, Inc.*, 346 U.S. 86, 90 (1953)).

160. *See id.*

161. Please, note that the FCC would not be able to argue that the free space optics HAP is a radio station since it does not use radio spectrum at all.

162. *See generally Domsat I*, *supra* note 157, at 129 (citing *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 217–19 (1943)).

163. *See generally FSO History and Technology*, LASEROPTRONICS, http://www.laseroptronics.com/index.cfm/id/57-66.htm.

164. *See generally id.*

165. *See What is Free Space Optics?*, *supra* note *supra* note 149 ("High-power laser

Commission ("IEC")[166] has set safety and performance standards for eye safety and protection. Since there are potential voltage and eye safety issues with free space optics usage, the FCC could show that the agency has previously issued safety standards for earth stations transmitting to satellites through radio frequencies, and it could then adopt the IEC standards for proper protection from the free space optics.[167]

Additionally, there is comparative law that the FCC could use as guidance if it were to adopt regulations for free space optics technology. The Telecommunications Regulatory Authority is the FCC's counterpart in the United Arab Emirates ("UAE").[168] The main articles of its free space optics regulations states that "the usage of any FSO [free space optics] link in the UAE is subject to a valid Authorization issued by the Authority."[169] Also, the operator must submit an application that includes link planning and equipment approval.[170] Third, and most importantly, free space optics link equipment must comply with the IEC standards for eye safety and protection.[171] Altogether, Facebook could make viable arguments for the non-regulation of free space optics. However, similar to the arguments it made when the agency first started regulating satellites, the FCC can and should establish jurisdiction to protect the public from potential safety issues

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beams can cause injury to skin, but risks of injury to the eye are more significant because of the eye's ability to focus light and thereby concentrate optical energy.")

166. *See generally Who we are*, INTERNATIONAL ELECTROTECHNICAL COMMISSION, http://www.iec.ch/about/profile/ (putting forth that the IEC is a non-profit, non-governmental international standards organization that prepares and publishes international standards for all electrical, electronic, and related technologies).

167. The FCC already regulates some aspects of satellite communications for safety purposes; specifically, FCC "OET Bulletin 65" sets forth the maximum permitted radiofrequency human exposure levels for existing transmitting facilities, operations, or devices. *See Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, FCC OET Bulletin 65 (Aug. 1997), https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf; *see also Safety of laser products – Part 12: Safety of free space optical communication systems used for transmission of information*, INTERNATIONAL ELECTROTECHNICAL COMMISSION (2004), https://webstore.iec.ch/preview/info_iec60825-12%7Bed1.0%7Den.pdf.

168. *See Regulations for Free Space Optics*, UNITED ARAB EMIRATES TELECOMMUNICATIONS REGULATORY AUTHORITY (imposing this regulatory scheme to increase the choice and plurality available for connectivity and to facilitate high data rate connectivity).

169. *See id.*

170. *See id.* (requiring an application charge and also an annual authorization renewal charge, which would be in accordance with the FCC Spectrum Fees Policy).

171. *See generally Safety of laser products – Part 12: Safety of free space optical communication systems used for transmission of information*, INTERNATIONAL ELECTROTECHNICAL COMMISSION (Feb. 12, 2004), https://webstore.iec.ch/preview/info_iec60825-12%7Bed1.0%7Den.pdf (putting forth steps entities can take to minimize harm while using free space optics for the transmission of information).

that may arise from the use of free space optics.

4. *After Jumping Through All the Hoops, NOAA's Requirements Could Prevent the HAPs from Complete Flight*

If, as private HAP operators, Facebook or Google intends to observe or to remotely sense the Earth's surface and/or its oceans, the operators need a NOAA license even though it may already have the requisite FAA and/or FCC license(s). Section 60122(b)(1) in Title 51 of the United States Code states that a licensee should "operate the system in such manner as to preserve the national security" of the United States and should observe "the international obligations" of the United States; likewise, subsections (b)(5) and (b)(6) of the same section require these systems to provide orbital and data collection characteristics to the Secretary and also to "notify the Secretary of any significant or substantial agreement the licensee intends to enter with a foreign nation [. . . .]"[172]

These particular license requirements may prove difficult for Google to follow if it chooses to use some of its balloons for remote sensing purposes.[173] The operators' lack of total control of the balloons is one factor that may greatly affect Google's ability to receive a NOAA license. The balloons are fairly unpredictable once in the air, and their limited mobility might provide concern for the regulator since these HAPs might not be able to give adequate orbital notifications as prescribed under subsection (b)(5). Again, these balloons will be flying suborbitally, so NOAA will want to make this distinction in its rules. On the same hand, the balloon is a balloon; if there is a hole, it will cause the balloon to come back down to Earth, allowing for little to no control over the balloon at that time. Not only could these balloons be remote sensing sensitive material, but they could also wreak havoc on the United States' and other countries' airplanes below and cause potential radio interference; similarly, if the now-deflated balloon falls somewhere where it was not supposed to fall, who knows who can get their hands on the data, if indeed some of it is stored on-board the balloon. These instances can prevent the HAPs from making the "national safety" and "international obligation" requirements set forth in subsection (b)(1).

Similarly, Facebook, or other operators using free space optics UAS, may have trouble following some of the NOAA criteria for remote sensing licensing, particularly subsections (b)(1) and (b)(6). The FCC does not currently regulate this technology, so it allows for more uncensored usage of

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172. *See* 51 U.S.C. § 60122(b)(1), (b)(5)–(6) (2012).

173. *See also* Butler, *supra* note 75 (highlighting that "scientific data collection, remote communications, GPS augmentation, intelligence gathering, persistent surveillance, reconnaissance, radar calibration, satellite simulation, incremental testing, and research and development of sensors" are mission possibilities for these balloons).

the technology and could lead to privacy issues whilst remote sensing within the country and outside of it. This reason could hinder the obligations of the United States in preserving its national security as set out in subsection (b)(1). Additionally, contrary to subsection (b)(6), companies could begin cutting agreements with other countries or other private foreign entities without notifying the United States because the companies realize that free space optics are harder to trace than radio frequencies (spectrum analyzers and radiofrequency meters cannot trace this light frequency), and this could push them to take part in activities that might not in the best national security interest of the United States. Unlike the FCC Table of Frequency Allocations, there is no domestic or international registry showing which free space optics frequency bands are available and who is allowed to use those bands.

For these reasons, NOAA will want to make sure that HAP operators make the same safety and notification disclosures that they will have to make during the FAA licensing process. Regardless of the FCC's status on governing free space optics usage, NOAA will want to temporarily forbid free space optics communications for now because of the sensitivity related to remote sensing, but the agency could remove this restriction once there is more data out on the new communications mechanism.

VII. THE FAA, FCC, AND NOAA'S FUTURE RESPONSIBILITIES AND THEIR NEED TO ACT FAST

The technology is gearing up to go, and the law, along with its associated regulators, is still playing catch-up.[174] First, the FAA will have to make critical decisions about how it wants to protect the United States' national airspace and how, or if, it wants to involve ICAO and other agencies in the development of a regulatory structure for the unmanned balloons and UAS. Next, the FCC may have the authority to govern free space optics, and it should use precedent to govern this new communications technology to make sure it meets the same safety standards that radio satellites meet. Finally, to preserve the national security of the United States and other countries when remote sensing, NOAA may need to refine its regulations to better accommodate the new HAPs that, unlike traditional satellites, will fly closer to the Earth for shorter periods of time and may use a communications technology that the FCC does not regulate.

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174. *See, e.g.*, *Where Loon is Going*, GOOGLE, http://www.google.com/loon/where/ (noting that Project Loon did a pilot test in 2013). *See generally* Alistair Barr and Andy Pasztorg, *Google Invests in Satellites to Spread Internet Access*, WALL ST. J. (June 1, 2014, 7:48 PM), http://www.wsj.com/articles/google-invests-in-satellites-to-spread-internet-access-1401666287 (summarizing that both Titan and Ascenta—Google and Facebook's UAS manufacturers respectively—have been able to test their UAS).

The FAA should regulate Google's Project Loon balloons under its forthcoming UAS regulations. The FAA could apply its Subpart D Regulations to the Project Loon balloons, but that route might not be the best solution[175] because the balloons pose a greater risk than normal balloons due to their size, close proximity to the Earth, usage of radio spectrum, and location unpredictability in the air. With those factors in play, the FAA needs to put together its UAS regulation as soon as possible to ensure the maintenance of air safety. If the FAA treats the Project Loon balloons as UAS, the agency will want to impose restrictions on areas where the balloons may function, how they will report, and how they will reenter the country–all in addition to the current unmanned free balloon in-air notification requirements.

Since HAPs provide novel problems that traditional satellites do not provide, the FAA, FCC, ICAO, and ITU should collaborate in the development of the regulations governing these vehicles. Currently, these HAPs, with many potential beneficial uses, present regulators with unique problems. The Project Loon balloons are generally unpredictable as to where they will float after an operator moves them. Facebook's UAS are worrisome in that they are the size of 747s and in that they hover in the stratosphere for periods of four to six years. Lastly, there are very small chunks of specifically designated UAS frequencies and ISM bands; these bands, by themselves, will not suffice for UAS usage.[176]

To control some of these problems, the ICAO, the FAA, and the FCC can use a system similar to what the ITU and the FCC use to ensure satellites do not interfere with each other. Though airspace is not as precious of a commodity as radio spectrum, it is conceivable that more countries will want to include these HAPs, both UAS and balloons, in their airspace because of their many added benefits,[177] so it is advantageous for both international and domestic agencies to start creating an effective structure for regulation.

It is advisable for the ICAO to collaborate with the ITU to make the airspace safe throughout the stratosphere and to avoid harmful radio interference in the same area. To complete this task, the two international agencies could work together to create "aerial slots" similar to satellite

175. *See generally* 49 U.S.C. § 40101 (2013) (assigning and maintaining safety as the highest priority in air commerce and also evaluating the safety implications of services before authorizing new air transportation services); 47 U.S.C. § 301 (2013); 51 U.S.C. § 60122 (2012).

176. *See United States Radio Spectrum Frequency Allocations Table, supra* note 81 (showing that ISM bands are very limited); *see also* 47 C.F.R. § 2.106 (5.552A), (5.388A) (2014); *supra* note 58.

177. *See, e.g.*, Mack, *supra* note 14; Mirani, *supra* note 14; *What is Loon?*, supra note 20; *Canterbury student to explain wider benefits of Project Loon*, *supra* note 22.

orbital slots.[178] These aerial slots would create a vertical altitude range, an enclosed horizontal boundary within that altitude range, and a radio frequency band requirement within a particular slot. Part of this aerial slot creation will also require the ITU to assign more radio frequencies bands for HAP usage—adding to the very few HAP-associated and ISM bands that exist currently. The ITU should be able to assign the necessary higher frequency ranges since there are not many other users currently utilizing them.[179] It is a lot to ask an international organization, such as ICAO, to create a structure like this since there are not many countries that have HAP technology readily available. However, the FAA and FCC could still step up and establish these aerial slots in the United States national airspace. Taking these steps will allow the FAA to better maintain the safety of the United States national airspace.

Though many of the HAPs will be using radio spectrum to provide Internet, there will be some that use infrared light to deliver this same service. Free space optical communications may have many advantages, but the FCC should use its authority to govern this new technology and to protect the public interest. The FCC may need to amend its Title 47 regulations to include the free space optics into its language since the technology is another type of communication being received in and sent from the United States. The FCC has precedent to regulate new communications technologies, and it should step in to ensure the communications' safety standards. Moreover, free space optical links equipment should comply with International Electrotechnical Commission standards for eye safety and general protection, so the agency could find it in the "public interest" to regulate this new technology. The FCC could adopt language similar to the UAE's free space optics regulations and to its own OET Bulletin 65 as starting points for its own regulation of free space optics.

Finally, with the HAPs having limited predictability while in the air and different communications methods onboard, NOAA should define its regulations in more detail if it plans on allowing HAPs to remotely sense the sense the Earth suborbitally. To start, the agency could include more detailed application requirements such as launch, in-air, and reentry plans, and an emergency plan in case of disaster. Next, even though the FCC may choose not to regulate free space optics, NOAA might want to temporarily forbid

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178. *See, e.g.*, ORBITAL SLOTS , [sic] FREQUENCIES, FOOTPRINTS AND COVERAGE, https://docs.google.com/presentation/d/1DNhLIqAKC2vV28UIdTmigB73iP5dx_hMCi39D_auBTA/preview?slide=id.p13 (defining orbital slots and how they apply to satellite location in space); Mark Holmes, *Hot Orbital Slots: Is There Anything Left?*, VIA SATELLITE (Mar. 1, 2008), *available at* http://www.satellitetoday.com/publications/via-satellite-magazine/features/2008/03/01/hot-orbital-slots-is-there-anything-left/ (explaining that orbital slots are a limited resource).

179. *See supra* note 81; *see also* 47 C.F.R. § 2.106(5.552A), (5.388A) (2014).

remote sensing through the use of free space optics because the light is infrared and hard to trace, especially if the FCC is not regulating it. However, as more data and studies come out regarding this new technology, perhaps, then NOAA can allow these HAPs to remote sense through free space optical communications. For right now, NOAA will want to preserve the country's national security and international obligations, and it can do this by restricting the use of free space optics users from the sensitive task of remote sensing the Earth.

CONCLUSION

Google and Facebook's actions are quite benevolent, but flying dozens or even hundreds of aircrafts or balloons in airspace over different sovereign nations, or even just the United States, can raise many legal questions. Though these Internet-providing vehicles do not orbit the Earth like traditional satellites, they still fly high up in the sky. They emit radio waves, and in aggregation, they could be using large portions of radio spectrum when in operation. Furthermore, some HAPs will even forgo the usage of radio spectrum and will attempt to utilize unregulated infrared light for communications purposes. The FAA, FCC, and NOAA will all have a role to play in updating their respective rules to properly govern these new Internet-providing HAPs.

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THE BUSINESS OF ART THEFT: ASSESSING AUCTION HOUSE STANDARD OF CARE AND THE SALE OF STOLEN CULTURAL PROPERTY

ALEXANDRA M. S. WILSON*

Art theft is the third largest criminal enterprise in the world. New York, the center of the international art exchange and home to major auction houses, has attempted to limit the profitability of the illicit art trade. However, the nature of the art market makes this issue difficult to alleviate, let alone solve. Auction houses' customary "no questions asked" policy towards ownership, naïve buyers unaware of market practices, incomplete provenance records, and lack of a uniform due diligence standard, are all factors that make this landscape hardly navigable. This Comment addresses the special role auction houses play in the commercial exchange of stolen art and what standard of care houses should be held to.

Auction houses are in a special position of power. Established art dealer liabilities and remedies inform the fact that auction houses are better equipped than good faith purchasers to discover stolen works and rectify the problem. In appropriating an economic framework, which has been used to establish art dealer liabilities when selling stolen works, I recommend that auction houses should be held liable, and the buyer should recover the benefit of his bargain plus interest when auction houses are indifferent to a work's provenance.

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INTRODUCTION

After gun and drug trafficking, art theft is the largest criminal enterprise in the world.[1] Further, the art and cultural property trade is the leading unregulated business on the planet.[2] While the full extent of the illegal art market is unknown,[3] across the world, 50,000-100,000 works are stolen each year,[4] and only five to ten percent of *all* stolen art is ever recovered.[5] Stolen art is often smuggled, traded internationally, and kept in private collections away from the public eye, only becoming public when it is sold through legitimate markets, including auction houses.[6]

New York, a major hub for international art exchange and home to auction houses including Sotheby's and Christie's,[7] has enacted laws that

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1. Kris Hollington, *After Drugs and Guns, Art Theft is the Biggest Criminal Enterprise in the World*, NEWSWEEK (July 22, 2014, 10:09 AM), http://www.newsweek.com/2014/07/18/after-drugs-and-guns-art-theft-biggest-criminal-enterprise-world-260386.html.

2. *Id. But see* JUDITH B. PROWDA, VISUAL ARTS AND THE LAW: A HANDBOOK FOR PROFESSIONALS 183 (2013) ("Paradoxically, auctions—historically one of the oldest institutions for buying and selling art—are perhaps the most stringently regulated entities in the art trade, while at the same time one of the least regulated industries in the US.").

3. Hollington, *supra* note 1.

4. *Id.* (adding that the FBI estimates that the criminal income generated from art theft is $6-8 billion each year).

5. Sydney M. Drum, Comment, *DeWeerth v. Baldinger: Making New York a Safe Haven for Stolen Art*, 64 N.Y.U. L. REV. 909, 911 (1989); *see also* Hollington, *supra* note 1 ("Successful prosecution [of art thieves] occurs even less frequently.").

6. *See* Drum, *supra* note 5, at 910-11.

7. *Id.* at 909 (recognizing that New York City is the Mecca of the art and

attempt to resolve art-theft issues specifically.[8] However, auction houses, art dealers, and collectors have played, and continue to play, an important role in encouraging art theft,[9] further increasing the tension between treating art as a for-profit business opportunity and treating art as personally and culturally invaluable historical patrimony.[10] For example, after World War II, auction houses and other art market players were reluctant to probe provenance—or chain of title—either out of indifference or out of real concern for how a famous work of art coincidentally made its way to market.[11]

The two major international auction houses, Sotheby's and Christie's,[12] have combined art sales of $11-12 billion a year.[13] Further, it is estimated that private sales amounted to $30 billion in 2008.[14] Although many works are consigned and sold through auction houses, the supply of traditionally stolen art (i.e. impressionist and modern art) is shrinking.[15] Moreover, many of these works will never return to auction or to the art market in

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antiquities market).

8. Kelly Walton, *Leave No Stone Unturned: The Search for Art Stolen by the Nazis and the Legal Rules Governing Restitution of Stolen Art*, 9 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 549, 590 (1999) (stating that New York courts have helped the state from becoming a safe haven for stolen art by applying laches to stolen art cases. Its courts hold "that if an owner cannot prove that she has thoroughly investigated a work's history, she will be forced to hand it back, or pay the original owners or their heirs the full market value.").

9. *See* Hollington, *supra* note 1 (stating that there is currently no legal obligation to publicly list art sales); *see also* Julia McCord, Note, *The Strategic Targeting of Due Diligence: A New Perspective on Stemming the Illicit Trade in Art*, 70 IND. L.J. 985, 1007 (1995) ("Without the opportunity to transfer art and antiquities through auction houses, the illicit art trade will be less profitable for art thieves.").

10. *See* Anna Dempster, *Trust, but verify, as they say*, ART NEWSPAPER (July 11, 2013), http://old.theartnewspaper.com/articles/Trust-but-verify-as-they-say/30096 ("The art world is riddled with tensions: between the rational and the emotional, commerce and culture, public and private, collectors and investors, amateurs and connoisseurs—and between trust and transparency in the art market.").

11. Walton, *supra* note 8, at 551.

12. *See* SARAH THORNTON, SEVEN DAYS IN THE ART WORLD 5 (2008) (maintaining that together, Sotheby's and Christie's account for "98 percent of the global auction market for art").

13. Hollington, *supra* note 1; *see also* DON THOMPSON, THE $12 MILLION STUFFED SHARK: THE CURIOUS ECONOMICS OF CONTEMPORARY ART 95 (2008) ("Christie's and Sotheby's form a duopoly, the name an economist gives a competitive paring that dominates a market: Coke and Pepsi, McDonald's and Burger King, or Boeing and Airbus.").

14. Hollington, *supra* note 1.

15. THOMPSON, *supra* note 13, at 54; *see also* THORNTON, *supra* note 12, at 6 (quoting Christie's head auctioneer, "We are running out of earlier material, so our market is being pushed closer to the present day . . . . The shortage of older goods is thrusting newer work into the limelight [.]").

general.[16] Perhaps, more importantly, most of these artworks will never have the opportunity to be seen in public again.

This Comment will address the role auction houses play in the commercial exchange of stolen art and what duty of care auction houses owe purchasers in regard to researching provenance and discovering stolen artworks in their possession. There are examples of stolen works that have been sold through major auction houses, such as Sotheby's and Christie's, and it is important to note that these auction houses have profited from these sales.[17] However, it is not yet clear what standard of care auction houses should be held to because there is no legal precedent; all cases have resulted in settlements before any auction house liability could be assessed. This Comment recommends that auction houses should be held liable, and the buyer should be able to recover the benefit of his bargain when auction houses are merely or blatantly indifferent to a work's provenance.

I. METHODOLOGY

Appropriating a law and economics framework that has been previously used when assessing art dealer standards of care owed to unwitting buyers of stolen artwork, it is necessary that an auction house has a legal obligation to a buyer, and the buyer should be made whole when stolen works make their way through auction. Using established art dealer liabilities and their economic justifications, I propose that these standards of care and their remedies should be extended to situations where auction houses facilitate the sale of stolen art.

I will first provide a brief overview of the current and complex art market landscape, which informs a need to apply an economic framework to the issue. Although there is an important legal distinction between auction houses and art dealers—a distinction that triggers a legal obligation for dealers to sell a work with good title—there are noteworthy instances in which auction houses have acted in bad faith and have been less than diligent but have escaped liability. These instances, as well as buyers' and art market participants' sophistication, provenance reliability, due diligence issues, the international aspect of the trade, and established art dealer liabilities, serve as evidence that the auction house standard of care when facilitating the sale of stolen works of art is an unresolved issue.

Second, I will analyze and provide an understanding of the economic justifications for current art dealer duty of care owed to purchasers.

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16. THOMPSON, *supra* note 13, at 54.

17. *See* PROWDA, *supra* note 2, at 186-87 (recognizing that houses receive fees from consigners including commission, and also collect fees from buyers including buyer's premium).

Because, like art dealers, auction houses occupy a special seat of power in the art market, there is an asymmetry of information between houses and purchasers, there are due diligence issues, purchasers are unable to efficiently evaluate and monitor their risk, and there are valid public policy concerns. These are justifications used to establish that art dealer liability is equally applicable to auction houses. Therefore, auction houses should owe the same duty of care to buyers, as art dealers do, when they sell stolen works of art.

II. THE CURRENT ART MARKET LANDSCAPE

Navigation in the present art market landscape is difficult for all stakeholders, including art dealers, consignors, collectors, museums, and purchasers. However, there are stakeholders, specifically auction houses, that are in social and economic positions to not only combat the illicit art trade but also help make the market more transparent and legitimate in general. The reality of the art market landscape warrants a reassessment of auction house liability when facilitating the sale of stolen works of art.

A. Art Dealers v. Auction Houses: A Legal Distinction

Although auction houses are in a position to help reduce the illicit art trade, houses are not currently legally obligated to do so. Obligation is triggered based on a business' relationship to the buyer and seller, which determines whether the Uniform Commercial Code ("U.C.C." or the "Code") applies. This triggered obligation can be explained by describing the traditional legal distinction between an art dealer and an auction house.

Traditionally, an art dealer directly purchases a work from the owner—becoming the work's owner and titleholder—and then sells the work to a third-party on his own behalf.[18] Therefore, the dealer is legally accountable to both the previous owner and the buyer.[19] The dealer has a direct financial stake in the work, the U.C.C. applies to his transactions, and he must be able to pass good title onto a subsequent purchaser.[20] An auction house, on the other hand, does not traditionally purchase the work itself from the owner. Instead, a house acts as an intermediary between the consignor and the third-party buyer.[21] When a work is sold, an auction

18. *See* Patty Gerstenblith, *Picture Imperfect: Attempted Regulation of the Art Market*, 29 WM. & MARY L. REV. 501, 554 (1988).

19. *See id.* at 554-55.

20. U.C.C. § 2-312(1)(a) (1999) (stating that a seller is required to ensure that "the title conveyed shall be good, and its transfer rightful").

21. *See* PROWDA, *supra* note 2, at 184 ("The job of the auction house is twofold: to attract consignments and to conduct the sale, both in a responsible manner"); *see also*

house collects commission from the consignor as well as fees from the buyer.[22] The house, therefore, is not subject to the U.C.C. and, unlike an art dealer, has no direct financial stake in the work.[23]

An auction house, as an agent of the consignor, has both an agency and fiduciary relationship with the consignor.[24] However, houses have no such relationship to the purchaser, even though buyers pay a special house fee ("buyer's premium") when their bid is successful.[25] Therefore, the buyer has little legal protection and recourse against the house if something goes wrong with the sale.[26]

This traditional distinction between art dealers and auction houses is diminishing, for dealers and houses have expanded their services and practices.[27] Most notably, houses can function as dealers and purchase works to then sell on their own behalf.[28] Because auction houses buy the work itself, they are not merely acting as agents of the seller. They have a

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Glossary, INT'L FOUND. FOR ART RESEARCH, *https://www.ifar.org/glossary.php* (last visited Mar. 20, 2015) (defining 'consignment' as "[t]he act of conveying goods to one [including auction houses] who will sell them for the owner or transport them for the owner").

22. *See* THOMPSON, *supra* note 13, at 102 ("The auction house performs a great many other functions in return for its seller's commission and buyer's premium. After obtaining the consignment, it stores and transports the art, researches authenticity and provenance . . . . Each function is taken for granted by consignors who assume that such prestigious firms will perform each competently.").

23. *See* Gerstenblith, *supra* note 18, at 555.

24. *Id.* at 553; *see also* PROWDA, *supra* note 2, at 184, 186 ("The auction house must act in the utmost good faith and in the best interest of the principal, the consignor, at all times. A breach of fiduciary duty could give rise to liability on the part of the auction house as agent for the consignor as principal, whether the cause of action is based in contract or negligence." Further, "[t]he auction house is also responsible for the safekeeping of the [consigned] work for sale and the collection and distribution of the auction proceeds . . . . ").

25. *See* Valerie Medelyan, *Says Who?: The Futility of Authenticating Art in the Courtroom*, 36 HASTINGS COMM. & ENT. L.J. 1, 6-7 (2014); *see also* THOMPSON, *supra* note 13, at 101 (finding that the term "buyer's premium" implies that an "auction house has no duty to the buyer. The terminology mirrors the legal reality that the auction house's fiduciary duty is only to the seller; otherwise there would be a conflict of interest").

26. *See* Gerstenblith, *supra* note 18, at 554; *see also* PROWDA, *supra* note 2, at 187 (noting that purchasers have limited recourse against auction houses in the event that the purchased work is inauthentic. "The buyer relies on the credibility and expertise of the auction house and on the representations about the property that are contained in the auction catalog. Therefore, if an auction house represents to the buyer that the work is authentic, the buyer has a right to rely on that information. Later, if questions arise concerning the authenticity of the work, the buyer will seek recourse from the auction house . . . . Both Sotheby's and Christie's provide limited warranties guaranteeing for five years from the date of sale . . . . ").

27. Gerstenblith, *supra* note 18, at 555-56.

28. *Id.* at 556.

direct financial interest in the work, and they are responsible to subsequent purchasers if the title to the work is less than whole.

B. Auction House Standard of Care: An Unresolved Issue

Auction houses, including Christie's and Sotheby's, have been sued for facilitating the sale of stolen works of art. However, auction houses have thus far been able to escape court-established liability, either through direct settlement with the buyer or by facilitating settlements between the seller and the original owner.[29] Although some cases suggest that the auction house in question—when selling stolen works of art—did act in good faith and performed extensive due diligence investigations, there are many instances when it appears that auction houses were either less than diligent or even acted in blatant bad faith by turning a blind eye to numerous red flags and suspicious provenance.

Abrams v. Sotheby Park-Bernet Inc. discussed, but did not resolve, the issues of auction house liability and the responsibility to investigate provenance of works offered for sale at auction.[30] In 1984, Sotheby's proffered a collection of Renaissance-era Hebrew books and manuscripts, originally belonging to a library in East Berlin, for sale.[31] Although the house was ultimately satisfied that the consignor was the true owner, Sotheby's misrepresented aspects of the works' chain of title.[32] Sotheby's thus failed to adequately disclose the works' questionable provenance to prospective buyers.[33] The court granted a temporary restraining order, preventing the distribution of the auctioned works, and it found that Sotheby's internal due diligence procedures may have been inadequate.[34]

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29. *See generally* Hanoch Sheps, *Lessons on Auction Houses from Sotheby's and the Case of the Stolen Renoir*, CENTER FOR ART LAW (Oct. 28, 2013), *http://itsartlaw.com/2013/10/28/lessons-on-auction-houses-from-sothebys-and-the-case-of-the-stolen-renoir/* (explaining that there is sparse legal precedent guiding auction house liability when there is a sale of stolen art. Further, "any liability incurred by the auction house—if it denies the request to return the piece—remains unclear."); *see also* Gerstenblith, *supra* note 18, at 528-29 ("Customary practice, according to the president of Christie's, is to refund the entire purchase price to the buyer [rescind the sale] and return the object to the rightful owner.").

30. Gerstenblith, *supra* note 18, at 526-27.

31. *Id.* at 526; *see also* McCord, *supra* note 9, at 1007 (describing the house's provenance investigation process. The house inquired with the FBI, studied stolen property lists and bills of sale, and assessed general public knowledge about the history of the objects. Sotheby's also consulted with a German law firm to research German and postwar restitution law).

32. Gerstenblith, *supra* note 18, at 526 (stating that the house made misrepresentations about which collections the works originated from in its catalogue prepared for the sale).

33. *Id.* at 526-527.

34. McCord, *supra* note 9, at 1007.

However, this suit never went to trial and was instead settled without any finding of fault or liability.[35]

Another example includes the Schloss family heirs.[36] The family has had numerous suits against the major auction houses for facilitating the sale of stolen art, including one suit regarding a Hals painting. The painting was stolen by the Nazis from the family in Paris, and on several occasions, it made its way through auction.[37] Christie's listed the painting for sale in a 1972 auction but failed to mention that it was stolen in its historical description.[38] Sotheby's listed the painting for sale in 1979 and noted in its description that the painting had been stolen.[39] Although Sotheby's performed a provenance investigation and uncovered the painting's tainted history, the house neither stopped the sale nor attempted to contact the work's true owners.[40]

The Hals painting was then offered for sale again at Christie's in 1989 without mention of its status as a stolen work of art.[41] The police seized the painting after a New York gallery owner bought and offered the painting for sale in 1990.[42] Christie's reimbursed the gallery owner, but Christie's and the Schloss heirs have been in various legal disputes ever since.[43]

Bad faith continues to be an issue, even though auction houses have internal policies regarding due diligence and provenance investigation.[44]

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35. Gerstenblith, *supra* note 18, at 527.

36. Stephanie Cuba, Note, *Stop the Clock: The Case to Suspend the Statute of Limitations on Claims for Nazi-Looted Art*, 17 CARDOZO ARTS & ENT. L.J. 447, 467 (1999) ("The Schloss collection was one of the most expansive collections in Paris before it was looted by the Nazis.").

37. Walton, *supra* note 8, at 569.

38. *Id.*

39. *Id.* (showing that the description noted that the painting was listed in the official "Catalog of French Property Stolen between 1939-1945").

40. *Id.*

41. *Id.* (suggesting that Sotheby's catalogue was either not read or it was ignored); *see also* Souren Melikian, *Buyer Beware: An Art World Nightmare Worthy of Kafka: The Mystery of a Looted Portrait*, N.Y. TIMES (2001), http://www.nytimes.com /2001/09/01/news/01iht-melik_ed3_.html (adding that when Christie's failed to find a buyer, a salesroom notice was even posted to dispel the rumor that the painting had been stolen).

42. Walton, *supra* note 8, at 569.

43. *Id.*

44. Gerstenblith, *supra* note 18, at 527-28 (discussing Sotheby's routine procedure, which includes checks with the FBI and studies of stolen property lists and bills of sale). *But see* Deborah DePorter Hoover, Note, *Title Disputes in the Art Market: An Emerging Duty of Care for Art Merchants*, 51 GEO. WASH. L. REV. 443, 457 n.108 (1983) ("Ordinarily, auction houses do not make extensive inquires into the consignor's possession of title. Rather, they tend to rely on the openness of their sale techniques and the fact that their catalogues are published.").

For example, Sotheby's has been caught many times auctioning looted antiquities.[45] In 1997, journalist Peter Watson uncovered that, on at least two occasions, sculptures from Angor Wat, Cambodia had been smuggled directly into Sotheby's London offices.[46]

Strikingly, between 1988 and 2010, Sotheby's offered 377 Khmer antiquities for auction,[47] and seventy-one percent of the 377 antiquities had no listed provenance.[48] Although auction houses are not required to disclose provenance information,[49] the information that was offered was suspect and created an illusion of legitimacy.[50] Since the works' suspect provenances suggest an illegal origin for much of the Khmer objects offered for auction, many organizations, scholars, and foreign governments have requested that Sotheby's provide information about these works' true origins, but the house has thus far refused.[51]

1. Buyer Sophistication and other Art Market Participants

The art market has evolved from one comprising experienced dealers and professional agents, acting on behalf of museums and collectors, to one with many novice and naïve participants bidding on their own behalf.[52] This developing class of auction bidders is rather ignorant about the objects on which it is bidding and unaware of the need to consult third-party evaluations of works offered at auction.[53] As a result, buyers, who are all too trusting, are susceptible to deception and manipulation in the auction

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45. Tess Davis, *Supply and Demand: Exposing the Illicit Trade in Cambodian Antiquities Through a Study of Sotheby's Auction House,* CRIME LAW & SOC. CHANGE 155, 159 (2011).

46. *Id.* at 160.

47. *Id.* at 162.

48. *Id.* at 163.

49. Walton, *supra* note 8, at 567.

50. Davis, *supra* note 45, at 166 (commenting that seventy-seven percent of the antiquities that had listed provenances were sourced to private collections. Twenty-five of the objects had been previously placed for auction. Of those twenty-five objects, twenty of them were previously offered for sale at Sotheby's. Moreover, none of the 337 works included provenance from an official scientific excavation even though the majority of them came from archeological sites. More notably, none of the works demonstrated that they were sold by or with permission of Cambodia even though Cambodia's law dictates that the country owns its archeological, cultural, and historical property. Furthermore, export permits for all Cambodian art and antiquities have been required since 1925, and there is no evidence that these works were removed from the country before that time).

51. *Id.* at 171 (arguing that this refusal is "hardly a testament to [Sotheby's] innocence.").

52. William Stuart, *Authenticity of Authorship and the Auction Market,* 54 ME. L. REV. 71, 72 (2002).

53. *Id.* at 72-73.

environment.[54]

Although novice buyers may fail to act in their best interest, sophisticated art market participants also have a history of acting irrationally and getting swept up in the auction process. This irrational behavior may be in part because there is a shrinking supply of traditional art as a result of widespread expansion of both museums and private collections.[55]

2. Provenance Reliability

The only chain of title that exists in art is the concept of provenance, or ownership history.[56] Although provenance can serve as proof of ownership if an artwork's legal title is contested, provenance records are notorious for being forged and inaccurate.[57] Moreover, complete records of ownership are rarely found,[58] especially for works produced before the 20th century.[59] Therefore, researching and tracing a work's provenance does not

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54. *Id.* at 72 (maintaining that buyers are specifically susceptible to misrepresentations of goods as well as general "manipulative practices devised to raise the ultimate price paid for those goods"); *see also* THOMPSON, *supra* note 13, at 117-18 ("Inexperienced buyers find the auction process itself to be reassuring: the catalogue entries written with great authority, references to auction house 'specialists,' and the fact that other sophisticated people are lusting after the same works." Further, many potential bidders "rely on auction specialists, who come to be perceived as art consultants rather than salespeople . . . . ").

55. THOMPSON, *supra* note 13, at 54 ("The past twenty-five years have seen a hundred new museums around the world, each intent on acquiring, on average, two thousand works of art." Further, as sophisticated art market participants, including museums and private collectors, become aware of the fact that the traditional art supply is shrinking, these participants accordingly approach art deals as "last chance" situations. These players often purchase works without importantly considering past prices—even in periods where there are no shortages of work, i.e. contemporary art).

56. Hollington, *supra* note 1.

57. *Provenance Guide*, INT'L FOUND. FOR ART RESEARCH, *http://www.ifar.org/provenance_guide.php* (last visited Mar. 19, 2015) (stating that art forgers "often falsify information establishing the provenance of a work of art—forging receipts of sale, ownership marks, dealers' records, exhibition labels, and collectors' stamps. For this reason, provenance history is seldom accepted as the sole proof of authenticity for a work of art."); *see also* Patty Gerstenblith, *Cultural, Aesthetic and Legal Perspectives on Authenticity*, 35 COLUM. L.J. & ARTS 321, 322-23, 338 (2011-2012) (discussing that there are forgery schemes involving the manufacture of fake provenance information and face authenticity certificates to convince the art world of a work's legitimacy).

58. *See Provenance Guide*, *supra* note 57 ("An ideal provenance history would include the following information: a documentary record of owners' names; dates of ownership, and means of transference, i.e., inheritance, or sale through a dealer or auction; and locations where the work was kept, from the time of its creation by the artist until the present day.").

59. *Id.*

necessarily diminish the risk that the work was once stolen.[60] Furthermore, auction houses are not required to disclose provenance information to a prospective purchaser, which hinders the individual's ability to perform a provenance investigation before the sale occurs.[61]

3. Due Diligence Considerations

Most art is housed in private collections, unlikely to be found by happenstance, and can effectively be found only through investigation.[62] However, there is an issue regarding who needs to perform, and what will satisfy, a due diligence investigation in any court because there is no set standard for any art market stakeholder.[63] Further, is not necessarily clear to an original owner whether he will be able to legally recover his patrimony. Specifically, there is inconsistency among the courts for when the prescribed limitation period begins to run against an original owner to make a claim for an object's return.[64] This complicates a buyer's ability to understand whether he is buying an artwork with clear title—because the statute has tolled—or if he is buying an artwork that can be claimed by the original owner at any unknown and hypothetical point in the future.[65]

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60. Marylin Phelan, *Scope of Due Diligence Investigation in Obtaining Title to Valuable Artwork,* 23 SEATTLE U. L. REV. 631, 688-89 (2000); *see also* Constance Lowenthal & Stephen E. Weil, *A Dialogue on Provenance and Due Diligence*, 3 IFAR J. 10, 14 (2000) (explaining that provenance information is generally easier to find once one is in the middle of a lawsuit, when there is a cause of action and the information is importantly needed).

61. Davis, *supra* note 45, at 165 (outlining three situations in which a house may decide to conceal a work's provenance. First, the provenance is legitimate, but the consignor does not want the information to be published; second, the provenance is known but is incriminating, i.e., stolen; or, third, the provenance is unknown).

62. Drum, *supra* note 5, at 931.

63. *See* Walton, *supra* note 8, at 599-601 (suggesting that when a work is acquired from suspicious circumstances, the following actions should be encouraged: reporting the theft to the police, FBI, Interpol, UNESCO, IFAR; consulting international auction houses; and contacting individuals from museums and galleries).

64. Herbert Hirsch, *Provenance and Legal Responsibility: What Constitutes Due Diligence?*, 3 IFAR J. 53, 53 (2000) (discussing that most states follow the 'discovery rule,' whereby "the limitation period starts when the theft victim discovers, or most likely would have discovered through a diligent search, the possessor of her stolen property . . . . " New York, the center of the international art exchange, is an outlier because its courts follow the 'demand-and-refusal rule.' "[T]he three-year limitation period to recover stolen property begins to run only after the theft victim demands that the good faith purchaser return her property and the purchaser refuses . . . . ")

65. *See id.* at 57 ("New York is a desirable state for an art theft victim to bring a recovery action because, effectively, there is no Statute of Limitations. The burden is on the good faith purchaser to show prejudice resulting from the delay in filing the lawsuit.").

4. The International Aspect of the Market

The art market is an international market, and each country has different standards that determine whether good title to the work has passed or not, even if the work was originally stolen.[66] Because artworks cross national boundaries, prospective art purchasers would need to know that they cannot assume that the work has clear title simply because there is an established chain of owners. In all, one author accurately asserts, "[e]ven the most diligent art consumer cannot typically access enough reliable information to determine with confidence whether a proposed art deal is a wise investment."[67]

5. Art Dealer Liability When Selling Stolen Works of Art

Although courts have not yet established a standard of care for auction houses facilitating the sale of stolen works, New York courts have placed an affirmative duty to investigate an artwork's title on art dealers,[68] as exemplified in the cases *Menzel v. List* and *Porter v. Wertz*. Together, these cases propose that an art dealer is strictly liable to a subsequent good faith purchaser, and the buyer is entitled to recover the benefit of his bargain if the dealer is merely indifferent to a work's provenance and the work was stolen.

In the leading 1969 case, *Menzel v. List*, Erna Menzel and her husband, the original owners of a Chagall painting, left their painting behind after fleeing Brussels during the Nazi invasion in 1941.[69] The painting made its way to a gallery in Paris and was subsequently purchased by Klaus Perls, an art dealer in New York, without inquiring into the painting's provenance.[70] Perls later sold the painting to a well-known art collector and good faith purchaser, Albert List, and the Menzels, after years of diligently searching and eventually learning of the painting's location,

66. Arabella Yip, *Stolen Art: Who Owns it Often Depends on Whose Law Applies*, 1 SPENCER'S ART L.J. (July 2010), http://www.artnet.com/magazineus/news/spencer/spencers-art-law-journal7-26-10.asp#yip (noting that in the United States, a thief cannot, under any circumstances, pass good title. Therefore, a good faith purchaser can rarely acquire superior title to the original owner. However, under Swiss law, a good faith purchaser can more easily acquire superior title to a stolen work of art. This suggests that just because an artwork can be freely bought and sold in Switzerland does not mean that it can be legitimately bought and sold in the United States).

67. Gregory Day, *Explaining the Art Market's Thefts, Frauds, and Forgeries (and Why the Art Market Does not Seem to Care)*, 16 VAND. J. ENT. & TECH. L. 457, 461 (2014).

68. *See* Hoover, *supra* note 44, at 444.

69. Menzel v. List, 267 N.Y.S.2d 804, 806 (App. Div. 1966).

70. *Id.* at 808.

demanded the painting's return.[71] Perls relied on industry custom and assumed, without performing his own investigations, that by buying a work from a reputable gallery, the gallery effectively represented that the work had clear title.[72]

The New York Court of Appeals criticized art dealer custom of not inquiring into the source of its artwork and held the art dealer liable for breach of implied warranty of title.[73] List was ordered to return the painting to the Menzels, but he was not without remedy.[74] The good faith buyer became whole by recovering the then-present value of the painting, which was valued at the date of the trial.[75] The court provided an important caveat and noted that had the gallery articulated the fact that the work had questionable title, the gallery would not have been held liable in this case.[76] In sum, the highest New York court established art dealer liability when selling stolen works of art, and it encouraged those in the art market to perform title searches.[77]

The New York Court of Appeals again encouraged art merchants to perform title searches in the 1981 case *Porter v. Wertz.*[78] In *Porter*, the court held that an art dealer's indifference to a work's provenance is inconsistent with both exercising good faith and observing reasonable commercial standards of fair dealing under the U.C.C.[79] By exhibiting indifference to the work's provenance, a dealer is subsequently liable to a good faith purchaser. Further, an art dealer can only become a good faith purchaser if he, prior to buying the work, has investigated the work's title.[80]

Samuel Porter, the original owner of a Utrillo painting, loaned his painting to a man using the alias of Peter Wertz.[81] Wertz, in turn, sold the painting to the Feigen gallery, and the gallery sold the work to a buyer in

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71. *Id.* at 806-07.

72. *Id.* at 808.

73. Menzel v. List, 246 N.E.2d 742, 745 (N.Y. 1969).

74. Hoover, *supra* note 44, at 452 n.68.

75. *Menzel*, 246 N.E.2d at 745; *see also* Walton, *supra* note 8, at 586 (suggesting that the court-ordered remedy is the same amount List would have been able to sell the painting for had Perls conveyed good title to the work).

76. *Menzel*, 246 N.E.2d at 745 ("Had the Perls taken the trouble to inquire as to title, they could have sold to List subject to any existing lawful claims unknown to them at the time of the sale.").

77. *See* Walton, *supra* note 8, at 586-87.

78. Hoover, *supra* note 44, at 449 (recognizing that *Porter* is the "most extensive judicial statement on an art dealer's duty to investigate title").

79. *Id.* at 447.

80. *See id.* at 444-45.

81. Porter v. Wertz, 416 N.Y.S.2d 254, 255 (App. Div. 1979).

Venezuela.[82] Feigen gallery did not inquire whether Wertz could pass good title, even though the gallery had reason to believe that the seller was using a false identify, and the real Peter Wertz was in fact a delicatessen employee.[83] The court did not resolve the issue of whether the gallery failed to act in good faith when it did not inquire into the ownership of the Utrillo painting.[84] However, had the court found a lack of good faith, the buyer, under the U.C.C., would be entitled to recover the benefit of his bargain.[85]

III. AUCTION HOUSE POWER: A PRACTICAL AND ECONOMIC PERSPECTIVE

Because auction houses do not convey a work of art's title onto a subsequent purchaser and are treated merely as transactional facilitators, houses are not currently subject to the same court-established standards of care as art dealers when they sell stolen works. However, an economic analysis of art dealer cases, including *Menzel* and *Porter*, as well as an economic understanding of the art market's landscape, indicates a need to apply established art dealer standards of care and remedies equally to auction houses.[86]

Considerations include that auction houses, like art dealers, hold a special seat of power in the art market—a seat that allows them to better absorb costs in the event clear title is not passed onto a subsequent good faith purchaser. Additionally, there is an asymmetry of information that benefits houses by perpetuating secrecy, which is a further major disadvantage to buyers. Moreover, realistic due diligence considerations suggest that original owners and buyers have valid concerns for not performing legally required investigations—investigations that auction houses are capable of performing. Further, buyers are currently unable to accurately and effectively monitor their risk, resulting in art market inefficiencies and disruption. Lastly, in conjunction with establishing and furthering effective public policy, establishing a new standard of care in a largely unregulated business can help to combat—and lessen the

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82. *Id.* at 256.

83. Porter v. Wertz, 421 N.E.2d. 500, 501 (N.Y. 1981).

84. *Id.* at 502.

85. *See* Hoover, *supra* note 44, at 452 n.68 (stating that under the U.C.C., the buyer is remedied with "the difference at the time and place of acceptance between the value of the goods accepted and the value they would have had if they had been warranted . . . . " Furthermore, if *Menzel* had been "decided under the U.C.C. the [remedy] would probably be the same").

86. *See generally* Dempster, *supra* note 10 (explaining that the art market deals are made based on trust. Although trust-based relationships can be beneficial—"[t]hey can reduce the costs of transacting and encourage exchange"—trust-based relationships have a dark side too).

profitability of—the illicit art and cultural property trade.

A. Understanding Art Dealer Liability: A Menzel and Porter Analysis

In *Menzel*, the court, for the first time, determined that art dealers should be subject to a standard of care when selling stolen works of art in part because of economic reasoning and justifications. An art dealer—an established merchant in a specialized field—is generally in a better position to assume the risk of inadequate title than a non-merchant purchaser.[87] The court proposed an economic efficiency argument when it suggested that art dealers, compared with good faith purchasers, are least-cost avoiders.[88] More specifically, dealers are in a better position to spread the costs associated with the mistake in title among all other purchasers (thereby recouping its costs), rather than heavily burdening a single, good faith buyer.[89]

Moreover, when assessing and establishing an appropriate remedy, the court further employed and relied on economic reasoning and justifications. List was awarded compensatory damages, allowing him to recover the benefit of his bargain.[90] Specifically, the New York Court of Appeals suggested that awarding List only the purchase price of the painting plus interest is insufficient when it stated, "an injured buyer is not compensated when he recovers only so much as placed him in *status quo ante* . . . ."[91] This remedy would not only place List in the same position he would have occupied had the sale never been made, but "such a recovery implicitly denies that he had suffered any damage."[92] The court acknowledged that, when determining a remedy, the amount must adequately reflect the fact that the buyer has suffered as a result of the merchant's bad business practice.[93] As a result, it is suggested that the remedy act not only to make the buyer whole but also to act as a deterrent for bad market practices.[94] Courts, including the *Menzel* court, seek to curb bad market practices such

87. *See* Gerstenblith, supra note 18, at 562.

88. *See id.*

89. *See id.*

90. *See* Menzel v. List, 246 N.E.2d. 742, 745 (N.Y. 1969).

91. *Id.*

92. *Id.*; *see also* McCord, *supra* note 9, at 1006 n.126 (suggesting that although present custom guiding the major international auction houses when settling a stolen art suit is to refund the purchase price to the buyer when an original owner successfully reclaims the stolen work, this remedy is neither a sufficient deterrent nor an ideal remedy for the good faith purchaser. With the constant increase in value of artworks and cultural property, this remedy may be far smaller than the fair market value at the time the work is returned.).

93. *See Menzel*, 246 N.E.2d. at 745.

94. *See id.*

as instances when art dealers fail to thoroughly research a work's provenance.[95]

Significantly, the *Menzel* court acknowledged the art dealer's special role in the art market, the dealer's seat of power, and the buyer's general lack of market influence when establishing and justifying List's remedy.[96] Simply, an art dealer is in a position to know whether his goods are legitimate or not, and a buyer is in a position to trust the dealer's judgment.[97] Although the art dealer in this case argued that the court's measure of damages would expose an "innocent seller to potentially ruinous liability" in instances where the object sold substantially appreciates in value, the court stated that this "potential ruin" is well within the seller's control.[98] This is because the dealer is in a special position, unlike a prospective purchaser, to take the necessary steps to research an artwork's provenance and ensure that the artwork has whole and transferable title.[99]

Furthermore, the court explained that, regardless of art market custom of not fully investigating a work's title, "it is not requiring too much to expect that, as a reasonable businessman, the dealer would himself either refuse to buy, or, having bought, inform his vendee of the uncertain status of title."[100] The court was willing to establish an art dealer standard of care, an area that had not been largely regulated before, in an attempt to create good business and economical practices in a market that heavily favors merchants at the expense of buyers.

The *Porter* court reinforced and expanded the *Menzel* court's economic reasoning and justifications for establishing a new duty of care. Further, the court moved beyond this economic framework and proposed an important public policy argument. In *Porter*, the court relied on the U.C.C., the Code's specific economic justifications as well as other economic considerations, when establishing and developing art dealer standard of care when dealing with stolen works of art. When discussing the U.C.C., the court noted that the Code facilitates and eases commercial transactions by "alleviating purchasers' 'need to inquire into sellers' ability to transfer title."[101] The Code accomplishes this in part because society recognizes and accepts that a purchaser has a reasonable expectation that he

95. *See id.*
96. *See id.*
97. *See id.*
98. *Id.*
99. *See id.*
100. *Id.*
101. Hoover, *supra* note 44, at 445.

acquires good title from established merchants.[102] Moreover, the U.C.C. importantly shifts the risk from good faith purchasers to owners—in this case, art dealers—who are theoretically in a position to prevent wrongdoing.[103]

Additionally, the court noted that the Code requires that a merchant act in good faith in performing and enforcing every commercial contract[104] and that good faith entails observance of "reasonable commercial standards of fair dealing in the trade."[105] Although it is customary for art market participants to assume that a work had good title, the court explained that this was not a reasonable standard of fair dealing, given the good faith purchaser's vulnerable position within the art market.[106]

The Supreme Court of New York specifically alluded to the public's interest in reducing the illicit art market, and it discussed the reputational harm to art market stakeholders if liability were not established.[107] Specifically, the court stated that Feigen's failure to research the work's provenance, and its "failure to look into Wertz' authority to sell the painting," is inexcusable.[108] Even though Feigen was acting consistent with the practice of the art trade and assumed that the work had whole title regardless of numerous red flags suggesting otherwise (similar to the art dealer in *Menzel*), the court explained that this practice both "facilitates traffic in stolen works of art," which conflicts with public policy and diminishes the merchant's integrity.[109]

On appeal to the New York Court of Appeals, the court continued to expand its economic justifications and presented public policy arguments for establishing a new standard of care.[110] For example, the Attorney General argued, and the court agreed, that the dealer, rather than the purchaser, is in a better and more efficient position to determine whether further provenance investigation is necessary.[111] Further, the court

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102. *See id.*

103. *See id.*

104. Porter v. Wertz, 416 N.Y.S.2d 254, 257 (N.Y. App. Div. 1979); *see also* Hoover, *supra* note 44, at 444.

105. *Porter*, 416 N.Y.S.2d at 257.

106. *See id.*

107. *See id.* at 259.

108. *Id.*

109. *Id.*

110. *See* Hoover, *supra* note 44, at 447.

111. *Id.* at 447-48 n.39 (adding that the Art Dealers Association of America ("ADAA"), on the other hand, argued that it is not customary for art dealers, or art merchants in general, to investigate works' title, and that the art business would be crippled if this duty were imposed. In its amicus brief, the ADAA asserted that the lack of amount of published and accessible information about the provenance of many

suggested that art dealers hold a special seat of power in the art trade, and it specifically reasoned that "[b]y holding himself out to the public as having special expertise in art and art sales, a dealer invites liability if he fails to exercise that expertise."[112] The court recognized that because purchasers are significantly disadvantaged members of the art market, they appropriately rely on and trust art dealers—as well as other art market stakeholders—to make good decisions on their behalf.

In all, case law concerning art dealers when they sell stolen property reveals that courts are appropriating economic frameworks to establish new art market standards of care. From analyzing *Menzel* and *Porter*, it appears that courts focus on the art dealer's special role and power within the art market. Additionally, courts are also concerned with creating good public policy. This is especially apparent when considering that courts are willing to create new and potentially great liabilities for art dealers specifically because courts are concerned about the creation of safe haven jurisdictions for illicit art.

The law, in special instances, can and does serve the purpose of both promoting public interest and cultural and historical values, even where these values may diverge from market purposes.[113] Even though the art market may suffer as a result of this new obligation and may not be as profitable as it once was, courts have recognized that society's value in cultural property outweighs, to a certain extent, the financial harm to the market.[114]

B. Auction House Seat of Power

Art dealer case law, including *Menzel* and *Porter*, recognizes that art dealers are in a better position than prospective purchasers to navigate the art market in general. Furthermore, art dealers are in a better position to discern which works have been stolen and which works are legitimate. These notions are equally applicable to auction houses. Not only have auction houses assumed a preeminent role in today's art market, but also houses have so much power as a business that the "auction [house] both mirrors and influences the actual market."[115]

Additionally, auction houses have the specialized knowledge, experience, contacts, paid personnel (including art experts), and other

works of art make title verification effectively impractical. However, the court found the ADAA's arguments unpersuasive.).

112. *Id.* at 449.

113. *See* Gerstenblith, *supra* note 57, at 351.

114. *See id.*

115. McCord, *supra* note 9, at 987, 1002.

resources that individuals—even experienced buyers—do not have.[116] More specifically, auction houses are in a position to both investigate materials consigned for sale and receive information from cultural institutions, collectors, governments, and other art market participants about works that have been stolen.[117] Further, like art dealers, and as articulated in *Menzel*, auction houses are able to recoup a loss by spreading the cost across many transactions.[118] Moreover, auction houses can more thoroughly investigate provenance through insurance.[119]

Importantly, auction houses, as well as art dealers, are also in a position to develop new standards and policies to avoid art theft issues and help combat the illicit art trade. For example, as stakeholders that present themselves to prospective buyers and consigners as experts in the art market,[120] auction houses and dealers arguably know which methods and types of investigations are most effective in uncovering and discovering stolen works of art. Therefore, they are in a position to know what kind of due diligence standard should be legally required since there is currently no uniform legal standard. Moreover, auction houses are in a position to know and decide whether the art market should reevaluate its present dependence on provenance as a valid and effective method of tracing a work's chain of title.

C. Asymmetry of Information

Auction houses, like art dealers, are also in a better position than prospective purchasers to navigate the art market because there is a current and perpetuated asymmetry of information.[121] This asymmetry of

116. Drum, *supra* note 5, at 943.

117. Phelan, *supra* note 60, at 721; *see also* Stephen A. Bibas, *The Case Against Statutes of Limitations for Stolen Art*, 103 YALE L.J. 2437, 2463 (1994) ("One might argue that checking title in all circumstances would be unduly burdensome and costly. However, there is little reason to believe that this is true, given that The Art Loss Register automatically checks every item offered for sale at major galleries and auction houses.").

118. Gerstenblith, *supra* note 57, at 353.

119. Walton, *supra* note 8, at 608; *see also* Day, *supra* note 67, at 493 (commenting that acquiring title insurance is slowly gaining general acceptance in the art market. Insurance is beneficial within the stolen art context because underwriting decisions are based on provenance research. Therefore, insurance encourages art market participants, including auction houses, to perform due diligence investigations. In addition, insurance agencies "could share information about the works that they have determined to be forgeries or stolen." In theory, this system should help market stakeholders determine more easily which works are problematic and which works have good title.).

120. *See* THOMPSON, *supra* note 13, at 107 ("Auction houses also compete for consignors by emphasizing the role of their specialists.").

121. *See* Dempster, *supra* note 10; *see also* Day, *supra* note 67, at 460 ("[A]rt

information is necessarily a disadvantage to the vulnerable good faith buyer.[122] For example, auction houses naturally know more about both the work and the consignor than the buyer does.[123] To a prospective purchaser, the art market is largely opaque and littered with unverifiable information, specifically in terms of price and provenance.[124] Regarding price and quality, in other market contexts, consumers and prospective purchasers are able to gain the necessary knowledge to effectively evaluate goods and determine a '"good 'price" for a good such as a TV or car.[125] However, when evaluating a work of art's price, prospective purchasers are not in a position to effectively appraise the work and are therefore at the mercy of the auction house or dealer.[126]

The current nature of the art market perpetuates secrecy,[127] is a

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dealers and sellers often withhold most product and sales data in order to drive up prices artificially." This becomes extremely "troublesome when taking into account the legal pitfalls facing an uninformed buyer.").

122. *See* Day, *supra* note 67, at 463 ("'[M]arket failure' refers to a process by which information asymmetries cause buyers and sellers to misallocate resources, resulting in systematic inefficiencies. Consumers who continuously spend too much on a good, for instance, will have fewer resources to purchase other products and services, harming both themselves and alternative vendors.").

123. Dempster, *supra* note 10.

124. *Id.*; *see also* THOMPSON, *supra* note 13, at 107-108 ("The potential bidder's next step after seeing the catalogue is likely a meeting with the auction house specialist, who tries to play up the historical and cultural importance of a work, the distinction of its provenance, its iconic nature, how well this artist (or period) is doing in the resale market, other famous collectors known to own the artist's work, or the investment potential"); Day, *supra* note 67, at 467 ("A work's estimated value really is a black box, wherein the process used by experts to appraise a painting's value is largely unavailable to the common consumer.").

125. Day, *supra* note 67, at 467 (listing three factors that have no inherent value, but could help a prospective purchaser evaluate an artwork's worth, including the work's aesthetic value, its authorship, and its significance. However, unlike in other market contexts, buyers cannot determine a fair market price by simply adding up the value of a painting's component parts. Additionally, since "most works of art are unique, singular commodities, buyers cannot rely upon the aggregation of a thousand sales to inform the transaction." In all, the art business is unique because art purchasers have little reference guide as to what is a reasonable price to pay).

126. *Id.* (arguing that because buyers are not in a position to evaluate an artwork's price, purchasers "must depend upon an expert's subjective determination of a work's beauty, influenced by the reputation of the artist who created it, to determine its value." It is important to note that these experts work for auction houses); *see also* McCord, *supra* note 9, at 1003 (stating that new buyers, who see art as merely a speculative commodity, to their disadvantage, put their trust in auction houses to determine a work's fair market value).

127. *See* Day, *supra* note 67, at 469 ("[T]he art market has fostered a cultural of secrecy, conducting deals under the strictest confidentiality. These norms make it taboo for buyers to ask sellers questions about a work's purchase history, prior owners, and place of origin.").

roadblock for stakeholders to make informed decisions, and encourages participants to act irrationally.[128] There is no other business in the world in which its customers would spend large amounts of money, gambling on the fact that what they have bought has good title. In sum, basic legal regulation—as well as efficient economic and business principles—is generally lacking in the art market.[129]

D. Due Diligence

Regarding due diligence, and what is legally required of buyers and consignors to perform adequate investigations, current legal requirements often conflict with these art market participants' valid desire to remain secret.[130] For example, art theft victims often decide not to contact the police or pursue recovery actions out of an understandable concern that "publicizing the crime will signal to other criminals that they possess vulnerable art."[131]

Even sophisticated institutional purchasers, including museums, may be deterred from reporting theft and may even "prefer to operate quietly without insuring valuable paintings from theft."[132] In addition, owners do not typically raise or fight a claim if they discover that a work is fake or stolen out of personal embarrassment.[133] Based on the current legal system and the nature of the art market, buyers are often discouraged from challenging merchants and inefficient, harmful art market practices.[134] This is problematic because, as one author notes, "[i]n the [U.S.], most of the recent changes that have occurred in auction house practice are the result of

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128. *Id.* at 464 (noting that the "foundation of an efficient market lies in its ability to provide reliable information at a reasonable cost to that buyers and sellers can dedicate resources to their wisest, most efficient uses." Additionally, "[m]ost developed legal systems . . . encourage efficiency by either requiring those with reliable information to disseminate it or forbidding them from concealing it." Moreover, "[e]fficient legal systems . . . encourage the proper distribution of resources, usually by increasing the volume and quality of market information.").

129. *See id.* at 462 ("[M]arket failure persists in the art world even though sophisticated parties appear to have both the motivation and ability to demand efficiency.").

130. *Id.* at 470.

131. *Id.* (recognizing that reporting instances of art theft can have the effect of driving the work further underground, thus making it more difficult to retrieve the stolen work); *see also* Bibas, *supra* note 117, at 2459 ("[P]ublicizing a theft makes a stolen artwork dangerous to try to sell. This danger keeps the art in the thief's hands for a long time until the 'hot' art cools down, thus delaying the owner's recovery.").

132. Day, *supra* note 67, at 470.

133. *Id.* at 486; *see also* Bibas, *supra* note 117, at 2455 (arguing that not publicizing instances of art theft "has the ex ante effect of encouraging future thefts.").

134. *See* Day, *supra* note 67, at 486-87.

a scandal or lawsuit . . . " against Christie's and/or Sotheby's.[135]

It is important to note that, although victims of art theft and good faith purchasers occasionally pursue legal action, as previously mentioned, there is no unified due diligence standard. Because due diligence is decided on a case-by-case basis, owners and purchasers (without established legal teams and institutional resources) have only a limited and clouded idea of what is expected of them in performing such an investigation.[136]

E. Monitoring Risk

Buyers have been willing, so far, to work with this landscape, but why?[137] One author sheds light on the answer and notes, "the nature of the art market resembles few other industries," specifically because there is a probability and belief that the artwork will appreciate, rather than depreciate, in value.[138] Purchasers often treat art as an investment, and accordingly, they see themselves not as current prospective buyers but rather as future sellers.[139] Although the purchaser may not receive adequate protection now, he reasons that he will receive the benefits and protections afforded a seller in the future.[140] Believing that they will one-day benefit from being a seller, prospective purchasers are unable to appropriately monitor their current risk.[141] In sum, the nature of the art market makes it difficult for prospective purchasers to make good decisions and act in their best interest.[142]

F. Public Policy

Courts, especially New York courts, attempt to prevent the United States

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135. *See* PROWDA, *supra* note 2, at 183.

136. *See* Sheps, *supra* note 29 ("Unfortunately the lack of transparency in art transactions further complicates due diligence efforts, yet the expectation of thoroughness by the prospective purchaser remains high"); *see also* Bibas, *supra* note 117, at 2458 ("For deterrence to work, sanctions must be predictable and certain.").

137. *See* Day, *supra* note 67, at 459 ("[M]ost markets participants should prefer remedial laws and economic regulations over a suboptimal status quo.").

138. *Id.* at 484, 487.

139. *See id.* at 487.

140. *See id.*; *see generally* Dempster, *supra* note 10 ("[T]he private nature of transactions and a focus on client confidentiality and discretion are at the heart of a highly personalised [*sic*] service.").

141. Dempster, *supra* note 10; *see also* Bibas, *supra* note 117, at 2451-52 ("Buyers often rely on a gallery's reputation without requesting any other evidence of title"); Day, *supra* note 67, at 488 (explaining that when buyers see themselves as future sellers, rather than as adversaries, they have no incentive to demand increased efficiency).

142. Dempster, *supra* note 10.

art market from becoming a safe haven for stolen art traffickers,[143] while also attempting to protect the commercial integrity of the art market.[144] In attempting to resolve art theft issues, specifically stressing the need to combat stolen art traffic,[145] courts have made equity-based determinations, which necessarily consider public interest and public policy.[146] These determinations often do go beyond merely making the individual whole, specifically, in furtherance of the public interest involved.[147]

The idea of public policy becomes important in art theft decisions, including *Porter*.[148] As such, a state policy seeking to limit and reduce the illicit art trade should influence determinations of whether auction houses should, too, be held liable for facilitating the sale of stolen art and what remedy is effective to make the good faith purchaser whole, further public interest, and sufficiently deter state-condoned behavior.[149] By establishing a standard of care and appropriate remedy, auction houses will be deterred from certain bad art market practices, and they will be encouraged to perform thorough title investigations before agreeing to consign a work of art.[150]

More generally, as articulated in *Porter*, society values the ability to trust that when individuals buy goods from established merchants, who present themselves as knowledgeable in their trade, there is in fact an honest exchange.[151] Specifically, both the U.C.C. and state laws "seek to encourage buyers to purchase commodities that are free of titling issues," and, as stated in *Porter*, the laws seek to protect good faith purchasers from liability when they buy goods from reputable dealers.[152] Society values the ability to purchase goods with good title from established merchants, and the law recognizes and reflects this societal value. Within the stolen art context, public policy, as articulated by the *Porter* court, can be an important factor when deciding which standard of care and remedy is most effective to discourage bad art market practices.

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143. Phelan, *supra* note 60, at 665.

144. *Id.* at 666.

145. *Id.* at 665-66

146. *Id.* at 665.

147. *Id.* at 666 (suggesting that the remedy may be molded depending upon the public interest at stake).

148. *Id.* (reiterating the court's declaration that "commercial indifference to ownership or the right to sell facilitates in the traffic in stolen works of art").

149. *See* McCord, *supra* note 9, at 1007.

150. *Id.*

151. *See generally* Dempster, *supra* note 10 ("There is widespread belief that trust, in all its forms, is at the heart of the art world. Individuals rely on trust-based relationships for transactions where handshake deals are the norm.").

152. Day, *supra* note 67, at 485.

IV. AUCTION HOUSES AND ART DEALERS: DEVELOPING A UNIFIED STANDARD OF CARE IN THE CASE OF STOLEN ART

Although auction houses often settle stolen art claims when they have no current legal obligation to do so, especially after these events have become publicized and there is a heightened risk of reputational harm,[153] voluntary settlements have proved to be insufficient in combating the illicit art trade. Bad faith and instances of less than due diligence suggest that new market liabilities and general art trade regulation must be established. Auction houses should be held strictly liable when they are merely or blatantly indifferent to a stolen work of art's provenance and that work is sold through auction. Furthermore, as proposed in *Menzel* and *Porter*, the good faith purchaser should be made whole with compensatory damages allowing him to recover the benefit of his bargain. It is important to note that this solution is not in place of the already established court and legislative rules, although this analysis certainly suggests that current legal liabilities—which tilt strongly in favor of art theft victims over good faith purchasers—should change to accommodate art market realities.

This recommendation not only takes in to account the realities and limitations of the current and complex art market, but it also logically extends the economic reasoning and framework appropriated in the *Menzel* and *Porter* decisions to auction houses. A good faith purchaser's reasonable and socially accepted reliance on established merchants—as well as powerful art market institutions including auction houses—jointly with the purchaser's valid belief that he acquires good title from one who regularly deals in the art trade should be preserved and continued to be justified.[154]

The proposed solution would hold auction houses accountable only in instances where their actions perpetuate and encourage the illegitimate art market. Therefore, this recommendation will not heavily burden or cripple the legitimate art business because it creates liability only in instances of auction house bad faith. Examples of bad faith include, but are in no means limited to, when auction houses sell works with suspiciously weak provenances, like the Khmer antiquities; instances where a house sells a work by blatantly misrepresenting aspects of the work's provenance, such as the Hebrew manuscripts in *Abrams*; and instances where houses had reason to know that the work was in fact stolen, including the Schloss family's Hals painting.

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153. *See generally* Dempster, *supra* note 10 ("International institutions such as Sotheby's and Christie's build their brands on the strength of the reputations of their experts and the personal relationships they forge with long-standing clients.").

154. Hoover, *supra* note 44, at 445.

Although the proposed solution would not eradicate the illicit art trade altogether, it would make the art market a bit more transparent and would prevent auction houses from maintaining their traditional air of secrecy. Purchasers and art theft victims have legitimate reservations about pursuing claims. More specifically, good faith purchasers are not effectively incentivized to protest bad auction house practices. Instead, buyers often prefer to settle quietly for a much smaller sum than they deserve. By devising a strict liability standard, a good faith purchaser is adequately incentivized to raise a claim. The buyer knows for certain that he will be able to recover the benefit of his bargain—rather than the mere purchase price of the artwork in question—and will importantly be able to more quickly recover without heavy litigation costs.

Because auction houses would know that they face decisive liability when they fail to adequately perform title investigations, houses would be incentivized to devise new and more efficient provenance and due diligence standards. This may include auction houses working more closely with other art market stakeholders as well as stolen art recovery organizations such as the Art Loss Register, the International Foundation for Art Recovery, and United Nations Educational, Scientific and Cultural Organization ("UNESCO). These organizations have the resources and capacity to play an integral role in designing and implementing a uniform and digitized stolen art database. Such a registry would make it easier for auction houses to cross-reference their works offered for sale with listed stolen works of art. Furthermore, a registry would allow art theft victims to more easily and efficiently put art market stakeholders on notice of their stolen property, heightening a chance of eventual recovery. Lastly, a uniform and accessible database would place prospective purchasers in a new position of power; buyers, too, could perform their own title investigations, therefore lessening their immediate dependency on cultural institutions (including auction houses) for invaluable information.

CONCLUSION

Ultimately, it is in the best interest of art market stakeholders including art theft victims, auction houses, art collectors and purchasers, art recovery organizations, and concerned cultural institutions (namely UNESCO) to change the art market landscape to diminish the profitability of the stolen art trade. Furthermore, it is in their best interest to aim for a more uniform standard in general, from conducting provenance research to performing due diligence investigations. A small but meaningful solution to combat the illicit art trade is to establish auction house standard of care and liability when selling stolen works of art. As long as the art market remains largely unregulated, the sale of stolen artworks will continue without substantial repercussions.

There is a great tension between treating art as cultural and personal patrimony and treating art as a business and investment opportunity, especially when that art flows through the market as a result of looting and war. Although this tension will never fully resolve, simply because there will always be a market for art, there are steps that can be taken to alleviate several of the issues. Establishing auction house liability and standard of care when facilitating the sale of stolen art is just one step towards sensitizing auctions houses and lessening this tension.

NOTE

A THREAT TO OR PROTECTION OF AGENCY RELATIONSHIPS? THE IMPACT OF THE COMPUTER FRAUD AND ABUSE ACT ON BUSINESSES

JESSICA MILANOWSKI*

The Computer Fraud and Abuse Act of 1986 ("CFAA") criminalizes unauthorized access to information stored on computers and allows for those who are damaged by such unauthorized access to bring a civil suit against the abuser. Currently, the Seventh and Ninth Circuits have split regarding the proper interpretations of the terms "authorization" and "exceeds authorized access" on employer-provided computer use. The Seventh Circuit adopted a broad reading of the statute in International Airport Centers, LLC v. Citrin, *holding that when the employee decided to quit his job in violation of his employment contract, he violated his duty of loyalty and therefore no longer had authorization to use his work laptop. In contrast, the Ninth Circuit developed a narrow reading of the statute in* United States v. Nosal, *finding that the employee misused confidential information when he took, downloaded, and copied a confidential source list of information and data from the search firm's computer system. However, since the employee did not access the information himself, he could not be held liable under the CFAA. This Comment first analyzes the background and history of the CFAA and cases that have contributed to the circuit-split. Next, this Comment addresses a hypothetical scenario of an employee who searches through his employer's confidential files and*

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trade secrets to build a competing business. Finally, it recommends the Ninth Circuit interpretation be adopted either by Congress or the United States Supreme Court.

INTRODUCTION

The Computer Fraud and Abuse Act of 1986 ("CFAA") criminalizes unauthorized access to confidential information stored on computers,[1] and it is often applied to employer-employee trade secret disputes.[2] However,

1. *See* 18 U.S.C. § 1030 (2010) (prohibiting certain computer use "without authorization" or that "exceeds authorized access" as defined in the statute).

2. *See* Cynthia Augello, *Circuit Split: How Does the CFAA Apply to Employment Cases?*, JDSUPRA (Oct. 15, 2012), http://www.jdsupra.com/legalnews/circuit-split-how-does-the-cfaa-apply-t-93612/ (explaining that the CFAA provides a potential avenue for employers to seek redress in conflicts with employees); Katherine Mesenbring Field, Note, *Agency, Code, or Contract: Determining Employees' Authorization Under the Computer Fraud and Abuse Act*, 107 MICH. L. REV. 819, 820

today, the Seventh and Ninth Circuits are split concerning the proper interpretation for the terms "authorization" and "exceeds authorized access" as it pertains to employee use of an employer-provided computer within the context of the CFAA.[3] The Seventh Circuit adopted a broad interpretation of the statute in *International Airport Centers, LLC v. Citrin*. The Court held that when the employee decided to quit in violation of his employment contract, he violated his fiduciary duty of loyalty, and therefore he no longer had authorization to use his work laptop.[4]

The Ninth Circuit and the Fourth Circuit have developed a correspondingly narrow reading in determining whether the CFAA applies only when an employee improperly accesses business information or also when an employee uses that information in pursuit of his own business and to the detriment of his employer.[5] In *United States v. Nosal*, the Ninth Circuit upheld the employee's misuse of confidential information from the search firm's computer system as lawful.[6] Similarly, the Fourth Circuit, in *WEC Carolina Energy Solutions, LLC v. Miller*, held that an employee does not violate the CFAA when he downloads information to a personal computer, violates company policy, and subsequently uses that information to develop a competing business.[7]

(2009) (noting that even though computers increase employee productivity, they also make confidential information more easily accessible to employees).

3. *See* Stuyvie Pine, *The Computer Fraud and Abuse Act: Circuit Split and Efforts to Amend*, BERKELEY TECH. L.J. BOLT (Mar. 31, 2014), http://btlj.org/?p=3260 (comparing the Ninth Circuit's "access-only" interpretation with the "use-and-access" interpretation).

4. *See* Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d 418, 420-21 (7th Cir. 2006) (explaining that the employee's breach of his duty of loyalty terminated his agency relationship and, with it, his authority to access the employer-provided computer because the only basis for his continued use of the computer had been that established agency relationship); *see also* Anderson, *infra* note 9, at 431 (noting that an agency relationship ends when an employee violates his duty of loyalty).

5. *See* Audra A. Dial & John M. Moye, *Fourth Circuit Widens Split Over CFAA and Employees Violating Computer Use Restrictions*, KILPATRICK TOWNSEND LEGAL ALERT (Sept. 10, 2012), http://www.martindale.com/matter/asr-1585570.CFAA.pdf (discussing the importance of employers implementing strict guidelines governing which employees may access certain information).

6. *See* United States v. Nosal, 676 F.3d 854, 862 (9th Cir. 2012) (refusing to interpret the CFAA broadly to cover violations of corporate computer use restrictions or violations of a duty of loyalty).

7. *See* WEC Carolina Energy Solutions, LLC v. Miller, 687 F.3d 199, 207 (4th Cir. 2012) (rejecting an interpretation of the CFAA that imposes liability on employees who violate a use policy, choosing instead to limit such liability to "individuals who access computers without authorization or who obtain or alter information beyond the bounds of their authorized access"); *id.* (explaining the court's holding that the CFAA *cannot* be used to impose liability on an employee who is given lawful access to company information but later misuses that information).

This Comment will conduct a thorough exploration of the history of the CFAA, detailing the rationales of the opposing circuits, and addressing the theory of agency law and its application to the CFAA and cases concerning the statute.[8] This Comment will then delve into a hypothetical scenario of an employee who searches through his employer's confidential files and trade secrets to build a competing business. It will subsequently apply each circuit's different rationales and approaches to the issue, which will result in different outcomes in what actions the employer can bring over her stolen information.[9] The first result will be more employee-friendly, while the second result will be more employer-friendly. Finally, this Comment will recommend that the United States Supreme Court adopt the Ninth Circuit's broader interpretation of the CFAA. In the alternative, Congress could revamp the statute for clarification in the modern world or instead create a whole new piece of legislation that specifically addresses this technological issue, particularly in the employment context.

I. A THOROUGH EXPLORATION OF THE HISTORY OF THE CFAA AND THE OPPOSING CIRCUIT RATIONALES

A. The Computer Fraud and Abuse Act

The CFAA criminalizes unauthorized access to information stored on computers, and it allows for those damaged by such unauthorized access to bring a civil suit against the abuser.[10] The CFAA prohibits a person from "intentionally access[ing] a computer without authorization" or "exceed[ing] authorized access," thereby obtaining "information" from a computer that is "used in or affecting interstate or foreign commerce."[11] The CFAA's definition of "exceeds authorized access" is "to access a computer with authorization and to use such access to obtain or alter information in the computer that the accesser [*sic*] is not entitled so to obtain or alter,"[12] which is distinguished from the term, "without authorization."[13] The CFAA provides that whoever knowingly causes the transmission of a program, information, code, or command, and as a result

8. *See generally* WILLIAM T. ALLEN ET AL., COMMENTARIES AND CASES ON THE LAW OF BUSINESS ORGANIZATIONS (4th ed. 2009) (discussing the convalescence of business, corporate, and agency law).

9. *See* Alden Anderson, *The Computer Fraud and Abuse Act: Hacking Into the Authorization Debate*, 53 JURIMETRICS J. 447 (2013) (explaining that competing interpretations of the CFAA can lead to vastly different results).

10. *See generally* 18 U.S.C. § 1030 (2010).

11. *Id.*

12. *Id.* § 1030(e)(1), (6).

13. *Id.* § 1030(a)(1), (2), (4).

of such conduct, intentionally causes damage without authorization to a protected computer violates the Act.[14] If one is found to have "exceeded authorized access" and violated the Act, the CFAA allows for the enforcement of criminal sanctions when additional aggravating factors are met,[15] and it permits private parties who suffer "damage or loss by reason of a violation" to bring a claim for damages.[16]

Congress originally enacted the CFAA to combat computer hacking, which targeted third parties accessing private computer systems without permission and/or authorization.[17] However, employers have recently attempted to use the CFAA's broad language to cover a range of issues well beyond hacking, such as individuals stealing trade secrets from employers or employees misusing employer information gathered from employer-provided computers. Thus, the circuits have split concerning the statute's reach and how it ought to be currently applied to employees as third parties who exceed the scope of their authorized use of work computers.[18]

B. The Theory of Agency Law

Agency law has a substantial influence on the CFAA.[19] The theory of

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14. *Id.* § 1030(a)(5)(A)(i).

15. *See id.* § 1030(a)(2)(C) (making it a crime to attempt or to commit any of the enumerated offenses); *see also id.* § 1030(c)(2)(B) (explaining that a violation or attempted violation of § 1030(a)(2)(C) is a felony if one of these aggravating factors is present: "(a) committed for commercial advantage or private financial gain, (2) committed in furtherance of any criminal or tortious act in violation of the Constitution or laws of the United States or of any State, or (3) the value of the information obtained exceeds, $5,000"); H. Marshall Jarrett et al., *Prosecuting Computer Crimes*, DEPARTMENT OF JUSTICE COMPUTER CRIMES AND INTELLECTUAL PROPERTY SECTION CRIMINAL DIVISION, 20 http://www.justice.gov/sites/default/files/criminal-ccips/legacy/2015/01/14/ccmanual.pdf (stating that if the aggravating factors apply, a violation is punishable by a fine, up to five years' imprisonment, or both).

16. See 18 U.S.C. § 1030(g); *see also* Dial, *supra* note 5 (providing background on the various CFAA interpretations).

17. *See* United States v. Nosal, 676 F.3d 854, 858 (9th Cir. 2012) (explaining that Congress enacted the CFAA primarily to address the growing problem of computer hacking); Orzechowski, *infra* note 18. *See generally* CHARLES DOYLE, CONG. RESEARCH SERV., RL97-1025, CYBERCRIME: AN OVERVIEW OF THE FEDERAL COMPUTER FRAUD AND ABUSE STATUTE AND RELATED FEDERAL CRIMINAL LAWS (2014) (showcasing Congress' intent when it created the CFAA).

18. *See* Daren M. Orzechowski et al., *A Widening Circuit Split in the Interpretation of the Computer Fraud and Abuse Act*, WHITE & CASE LLP (Sept. 13, 2012), http://www.whitecase.com/articles-09132012/#.VHp5P75UFVs (noting that the Circuit Courts of Appeals have not provided clear guidance on the proper CFAA interpretation).

19. *See* Restatement (Third) of Agency § 1.01 (defining "agency"); *see also* Thomas E. Geu, *A Selective Overview of Agency, Good Faith, and Delaware Entity*

the duty of loyalty, which is a subset of the fiduciary duty theory, requires all corporate fiduciaries to exercise their authority in a good faith attempt to advance corporate purposes.[20] Agency law can be used as an aid to give meaning to statutes that either establish agency relationships or govern behavior that falls within the law of agency.[21] This type of relationship is especially apparent in the employer-employee setting where the duties of good faith, loyalty, and due care are ever present.[22]

Some jurisdictions find that partnership duties exceed written agreements. For example, in *Meinhard v. Salmon*, the Court of Appeals of New York held that the partnership contract did not entirely encompass the obligations between the parties, pushing partnership duties beyond the scope of the agreed terms.[23] For example, a co-adventurer has the duty to concede and reveal any chance to compete and any chance to enjoy the opportunity for benefit that had come to him alone by virtue of his agency.[24] The Court determined that in such a relationship, loyalty must be undivided and unselfish, and that a breach of fiduciary duty can occur by something less than fraud or intentional bad faith.[25]

C. Seventh Circuit Analysis

Some circuit courts have adopted a broad reading of the CFAA.[26] Initially, the First Circuit in *EF Cultural Travel v. Explorica*, held that an employee "exceeded authorized access" by violating restrictions on both use and access of employers' computers.[27] The Seventh Circuit later joined

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Law, 10 DEL. L. REV. 17, 18 (2008) (discussing the concept that agency law influences and interacts with more specific laws where agency relationships inherently develop).

20. *See* ALLEN, *supra* note 8 (explaining the academic theories behind agency law).

21. *See* Geu, *supra* note 19 (noting that CFAA interpretation demands analysis of traditional agency fiduciary duties).

22. *See* Field, *supra* note 2, at 823 (explaining that the employer-employee agency relationship imposes "special duties on the part of both the employer and the employee which are not present in the performance of other types of contracts.").

23. *See* Meinhard v. Salmon, 249 N.Y. 458, 464 (1928) (noting "a trustee is held to stricter morals than that of a marketplace").

24. *See id.* (stating that those who engage in joint ventures owe to one another the finest duty of loyalty).

25. *See id.* (holding that one partner may not appropriate a renewal of a lease for himself, even when its term begins at the end of the partnership agreement).

26. *See* Augello, *supra* note 2 (detailing that the Fifth, Seventh, and Eleventh Circuits have adopted a broad statutory interpretation of the CFAA finding that an employee acts "without authorization or in excess of his authority when the employee acquires an interest adverse to his employer or breaches a duty of loyalty owed to the employer.")

27. *See* EF Cultural Travel v. Explorica, 274 F.3d 577, 583-84 (1st Cir. 2001)

in *International Airport Centers, LLC v. Citrin*, stating that once the duty of loyalty has been violated, accessing computer files that had previously been authorized transforms into unauthorized access under the CFAA.[28] This means that an employee can "exceed authorized access" by violating a company's terms of service policy and by breaching the duty of loyalty under agency law.[29] In *International Airport Centers, LLC*, the employee quit his job and started a competing business, which was in violation of his employment contract.[30] The employee deleted files from his work laptop before he left, including information that he wanted to resign and develop a competing business, because the company's employee policy allowed for data deletion.[31] However, the Seventh Circuit held that, since he violated his contract when he decided to quit, he breached his duty of loyalty and lost his authorized access to the work laptop.[32]

The Fifth,[33] Eleventh,[34] and Eighth[35] Circuits have since joined the Seventh Circuit's interpretation.[36] In *United States v. John*, the Fifth Circuit Court held that an employee exceeded her authorized access by

(explaining that while the employee's use of a company website was public, so he was authorized, he exceeded his authorization by providing proprietary information about the structure of the website to a competing entity).

28. *See* Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d at 420-21 (7th Cir. 2006) (finding that the employee's breach of his duty of loyalty terminated his agency relationship with the employer).

29. Orzechowski, *supra* note 18; *see e.g.*, Lawrence Lessig, *Aaron's Law: Violating a Site's Terms of Service Should Not Land You in Jail*, THE ATLANTIC (Jan. 16, 2013), http://www.theatlantic.com/technology/archive/2013/01/aarons-law-violatin g-a-sites-terms-of-service-should-not-land-you-in-jail/267247/ (explaining that terms of services have been interpreted as rules of contract. When one young man exceeded those limits, the government charged that he had breached an implied contract and therefore was a felon under the CFAA).

30. *See Int'l Airport Ctrs.*, 440 F.3d at 421 (rejecting the employee's argument that he did not violate the CFAA when he destroyed data because the employee policy allowed data deletion, and ultimately finding it unlikely that the provision was intended to authorize employees to destroy data that they knew the company had no duplicates of and would have wanted to have).

31. *See id.* at 420-21 (listing actions adverse to the employer as reasons for CFAA violation).

32. *See id.* at 421; *see also* Orzechowski, *supra* note 18 (concluding that courts who follow the *Citrin* approach provide the broadest protection to employers).

33. *See* United States v. John, 597 F.3d 263 (5th Cir. 2010).

34. *See* United States v. Rodriguez, 628 F.3d 1258 (11th Cir. 2010).

35. *See* United States v. Teague, 646 F.3d 1119, 1124 (8th Cir. 2011).

36. *See* Elkhan Abramowitz & Barry Bohrer, *Different Strokes: Interpreting Computer Fraud and Abuse Act*, 24 N.Y. L.J. 45 (2012) (suggesting that the CFAA circuit split in employment cases brought against employees, alleged to have misappropriated information from an employer's computer, is presently widely publicized).

using a customer's personal information to make fraudulent credit card charges.[37] In *United States v. Rodriguez*, the Eleventh Circuit held that an employee's use of the Social Security Administration's database exceeded authorized access when the employee used it to retrieve personal information about potential romantic partners.[38] In *United States v. Teague*, the Eighth Circuit rejected the notion that an employee did not exceed authorized access to obtain President Obama's student loan records.[39] These cases further explain the broad reading rationale of the CFAA.

D. Ninth Circuit Analysis

Conversely, some circuits have developed a narrow reading of the CFAA.[40] The Ninth Circuit in *United States v. Nosal* held that an individual "exceeds authorized access" by violating a restriction on access but not by violating a restriction on use of a work computer and its contents.[41] In this case, an individual employee convinced some of his former colleagues to download confidential information from the search firm they worked for and have them send the information to him.[42] Even though his colleagues had authorized access to the confidential information, they violated company policy, which prohibited "(1) using confidential information for nonbusiness purposes and (2) transferring the information to third parties."[43] This means that an individual "exceeds authorized access" by violating a restriction on access but not by violating

37. *See John*, 597 F.3d at 267 (concluding that "when the user knows or reasonably should know that he or she is not authorized to access a computer and information obtainable from that access in furtherance of or to perpetrate a crime," he has exceeded authorized access, even though he may have been permitted authorization).

38. *See Rodriguez*, 628 F.3d at 1263-64 (finding that an employee exceeds authorized access when his interest in acquiring the confidential information is to the detriment of his employer).

39. *See Teague*, 646 F.3d at 1127 (determining that to convict a person under the CFAA, it must be proven that he or she intentionally exceeded authorized access).

40. *See* United States v. Nosal, 676 F.3d 854, 864 (9th Cir. 2012) (rejecting the argument that the CFAA should be read to incorporate corporate policies addressing information use); *see also* Orzechowski, *supra* note 18 (explaining that along with the Ninth and the Fourth Circuits, district courts in the Second, Fourth, Sixth, Eighth, and Tenth Circuits have also adopted similarly narrow interpretations of the CFAA).

41. *See Nosal*, 676 F.3d at 862 (holding that the employees did not "exceed their authorized access" by violating company policy against using the database for non-company business).

42. *See id.* at 856.

43. *Id.* at 862.

a restriction on use of a work computer and its contents.[44] The Ninth Circuit has decided to interpret the statute narrowly and only apply it to those who access an unauthorized computer. However, the CFAA does not apply to those who have the authorized access and later use that information to the detriment of their employer.[45] This sentiment holds whether or not the action violates the employer's computer use policies.[46]

The Fourth Circuit has since sided with the Ninth Circuit.[47] In *WEC Carolina Energy Solutions, LLC v. Miller*, the Court held that an employee, who downloaded information to a personal computer, violated company policy, and used that information to develop a competing business, did not violate the CFAA because he did not access the files without authorization or illegally.[48] This case further explains the broad reading rationale of the CFAA.

E. Comparing and Contrasting the Broad and Narrow Interpretations of the CFAA and How It Applies to Agency Law

There are vast differences between these two interpretations of the CFAA.[49] Under a Seventh Circuit regime, any employee that accesses information on a computer to use that information to the detriment of his employer has violated a duty of loyalty under agency law, which terminates the agency relationship and no longer gives that employee proper

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44. *See id.*

45. *See id.* 856-57 (reasoning that the government's interpretation would change the CFAA from "an anti-hacking statute to an expansive misappropriation statute").

46. *See id.* at 860-61 ("Basing criminal liability on violations of private computer use polices can transform whole categories of otherwise innocuous behavior into federal crimes simply because a computer is involved. Employees who call family members from their work phones will become criminals if they send an email instead. Employees can sneak in the sports section of the *New York Times* to read at work, but they'd better not visit ESPN.com. And Sudoku enthusiasts should stick to the printed puzzles, because visiting www.dailysudoku.com from their work computers might give them more than enough time to hone their Sudoku skills behind bars. The effect this broad construction of the CFAA has on workplace conduct pales by comparison with its effect on everyone else who uses a computer, smart-phone, iPad, Kindle, Nook, X-box, Blu-Ray player, or any other Internet-enabled device.").

47. *See* WEC Carolina Energy Solutions, LLC v. Miller, 687 F.3d 199, 199 (4th Cir. 2012).

48. *See id.* at 204 (ruling that an employee only exceeds authorized access by hacking); *see also* Dial, *supra* note 5 (interpreting the Fourth Circuit's position to mean that CFAA liability may be imposed when an employee goes "beyond the bounds" of his authorized access").

49. *See* Orzechowski, *supra* note 18 (arguing that further CFAA interpretation is an issue that should be closely monitored); Abramowitz, *supra* note 36 (comparing the potentially detrimental effects of a Ninth Circuit CFAA interpretation with a Fourth Circuit CFAA interpretation).

authorization.[50] Any rights of authorization that the employee had were governed by the agency relationship, so once the relationship has been destroyed, authorized access is also destroyed.[51]

In addition, the Fifth and Eleventh Circuits focused on what the employer's terms-of-use policy consisted of as well as the employee's knowledge about the policy.[52] Based on the holdings in *John* and *Rodriguez,* liability under the CFAA may attach if a court finds that an employee accessed a protected computer in a way that was prohibited[53] or in excess of limitations set by a contract or a clearly communicated employer policy.[54] Conversely, the Ninth Circuit limits application of the term "exceeds authorized access" to situations relating to improper access of a computer and any information stored thereon, but it does not include the use of information that has been derived.[55] The Ninth Circuit explained that, based on legislative intent and legislative history, the CFAA was not meant to remedy misappropriated trade secrets where an employee is still authorized to access confidential information.[56] Under such a reading, nor

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50. *Contra WEC Carolina Energy Solutions, LLC*, 687 F.3d at 206 (rejecting the idea that an employee who uses his computer access for a purpose that is not in sync with the employer's interest could be held liable under the CFAA).

51. *See* Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d at 418 (7th Cir. 2006) (holding that an employee's authorization ends when he or she violates the duty of loyalty owed to the employer).

52. *See* United States v. John, 597 F.3d 263, 271 (5th Cir. 2010) (condemning the employee's violation of the employee policy); United States v. Rodriguez, 628 F.3d 1258, 1260, 1265 (11th Cir. 2010) (holding that accessing confidential information for nonbusiness purposes exceeded the employee's authorized access).

53. *See Rodriguez*, 628 F.3d at 1260 (explaining that although Rodriguez, the employee, never signed a written acknowledgement of the policy warning employees that they faced criminal penalties if they violated policies on authorized use of databases, the court ultimately concluded that even though there was no formal written agreement in place, accessing information in violation of a corporate computer-use policy equated to "exceeding authorized access" under the CFAA).

54. *See John*, 597 F.3d at 273 (holding that John, the employee, exceeded her authorized access by violating her employer's clearly communicated and well-established policies that prohibited accessing customer data in furtherance of a criminally fraudulent scheme).

55. *See e.g.*, United States v. Nosal, 676 F.3d 854, 856-57 (9th Cir. 2012) (explaining the two schools of CFAA interpretation: the narrower interpretation believes "exceeds authorized access" refers to someone who is authorized to access only certain data or files but accesses unauthorized data or files; and those circuits that interpret the CFAA more broadly find "exceeds authorized access" refers to someone who has unrestricted physical access to a computer, but is limited in the use to which he can put the information).

56. *See id.* at 857 (rejecting the government's broad interpretation of the CFAA that would "transform the CFAA from an anti-hacking statute into an expansive misappropriation statute.").

does the CFAA apply to situations where an employee uses that confidential information, but did not access the computer and/or the information in excess of his or her access.[57]

Currently, employers have to be aware of which circuit court controls the jurisdiction in which their business is located so that they can properly protect trade secrets and confidential information.[58] However, most employers are unaware of the potentially devastating issues they may face in light of the CFAA.[59] In *Nosal*, the Ninth Circuit recognized that there is an extreme discrepancy in the application of CFAA law throughout the country because certain jurisdictions find CFAA-related behavior criminal, while others find it completely innocent.[60] Moreover, employee contracts and company policies are significantly affected by different interpretations of the CFAA throughout the country.[61] The Seventh Circuit provides employers with the broadest protections,[62] whereas the Ninth Circuit focuses more on the potential damage caused to average citizens by the broad interpretation, instead requiring employers to enforce meaningful restrictions on authorization and access for the CFAA to apply.[63]

There are several tools that can be used to properly interpret the CFAA, one of which is the rule of lenity.[64] The rule of lenity is a canon of statutory construction requiring all penal laws to be construed strictly in the

57. *See id.* (emphasizing that to adopt a narrower reading would result in millions of unsuspecting individuals finding that they are engaging in criminal conduct).

58. *See* Orzechowski, *supra* note 18.

59. *See id.* (suggesting that technical and physical security measures are more important in jurisdictions that interpret the CFAA under a Ninth Circuit analysis).

60. *See Nosal*, 676 F.3d at 862-63 (rejecting the broader interpretation of the CFAA promulgated by its sister circuits because these courts looked only at the culpable behavior of the defendants before them, and failed to consider the effect on millions of ordinary citizens).

61. *See id.* at 862 ("Not only are the terms of service vague and generally unknown—unless you look real hard at the small print at the bottom of a webpage—but website owners retain the right to change the terms at any time and without notice."); Stephanie Greene & Christine N. O'Brien, *Exceeding Authorized Access in the Workplace: Prosecuting Disloyal Conduct Under the Computer Fraud and Abuse Act*, 50 AM. BUS. L. J. 281 (2013) (arguing that restrictions on computer use policies have become blurry ever since more people have started to work from home).

62. *See generally* Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d 418, 418 (7th Cir. 2006).

63. *See generally Nosal*, 676 F.3d at 862.

64. *See* Samantha Jensen, *Abusing the Computer Fraud and Abuse Act: Why Broad Interpretations of the CFAA Fail*, 36 HAMLINE L. REV. 81, 95-102 (2013) (discussing the relevant doctrines and canons of statutory construction that can be used to interpret the CFAA, including: the void for vagueness doctrine, the overbreadth doctrine, the rule of lenity, the plain language rule, and others).

name of fairness and notice because of the gravity of what is at stake.[65] The CFAA makes some actions criminally punishable by law, and therefore, where there is ambiguity in the language of this statute, the rule of lenity should apply.[66] The Ninth Circuit has adopted this narrow interpretation to prevent, "[making] criminals of large groups of people who would have little reason to suspect they [were] committing a crime."[67]

According to the Act's legislative history, the CFAA defined "exceeds authorized access" as an event where an individual accessed a "computer with authorization but used this access for purposes for which this authorization does not extend."[68] Legislative history suggests that this broad language was later replaced to "remove[] from the sweep of the statute one of the murkier grounds of liability, under which a[n] . . . employee's access to computerized data might be legitimate in some circumstances, but criminal in other (not clearly distinguishable) circumstances."[69] This statement exemplifies Congress's intent for the statute to be read narrowly and supports the Ninth Circuit's interpretations.[70]

III. A HYPOTHETICAL SITUATION THAT ILLUSTRATES THE POSITIVE AND NEGATIVE OUTCOMES OF THE DIFFERENT SCHOOLS OF THOUGHT CONCERNING THE CFAA

The following hypothetical exemplifies the confusion and ambiguity found within the circuit courts' respective interpretations.[71]

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65. *See id.* at 98-99 (explaining that the rule of lenity embodies two important policies: (1) "citizens should be given fair warning in easily understood language of behavior that can result in criminal sanctions;" and (2) "laws with criminal penalties are a reflection of society's condemnation and should be defined by legislatures, not courts"); *see also* Greene, *supra* note 61 ("The rule of lenity, a rule of statutory construction for criminal statutes, requires a restrained, narrow interpretation.").

66. *See* Greene, *supra* note 61 (iterating that before applying the rule of lenity, a court must conclude that there is serious ambiguity or uncertainty in the statute that normal methods of statutory construction cannot resolve).

67. *See Nosal*, 676 F.3d at 862 (considering the dangers of turning the CFAA into a catch-all statute).

68. *See generally* S. Rep. No. 99-432 (1986), *reprinted in* 1986 U.S.C.C.A.N. 2479 (adopting the narrower interpretation of the CFAA followed by the Ninth Circuit).

69. *See id.* at 21.

70. *See* Abramowitz, *supra* note 36 (addressing the Senate Judiciary Committee's approval of the amendment in 2011).

71. *See* Augello, *supra* note 2 (suggesting that CFAA resolution will not come soon); Orzechowski, *supra* note 18 (explaining that U.S. circuit courts have not provided clear guidance on the proper interpretation of the CFAA); *see also* Greene,

GWEN, Inc., a high-end fashion clothing and accessories company, serves clients primarily in the music and movie industries with its one-of-a-kind couture creations. Karen has been a well-respected employee of GWEN, Inc. for the past ten years, and now she wants to quit her job as the company's Senior Global Ambassador. Karen's duties included meeting with high-end clients, styling them for major red carpet and Hollywood events, traveling all over the world marketing the GWEN, Inc. brand, and looking for new and innovative styles that GWEN, Inc. could use in future clothing collections. Karen supervises many people, and most of her managerial work consists of training young and future global ambassadors for GWEN, Inc.

Since joining GWEN, Inc., Karen has developed priceless relationships with Hollywood clients, designers, stylists, photographers, and magazine editors for the high-end clothing company. She is deeply familiar with the intricacies of the fashion industry, and she has decided to quit her job at GWEN, Inc. and pursue her life-long dream of becoming a fashion designer.

Karen hopes to start her own fashion line and develop it into a brand. While she can handle the artistic side of creating a new company, she does not know anything about the financial planning that comes with it. She remembers that one of her friends, Emily, who also works at GWEN, Inc., works in the finance department of the company. Karen tells Emily about her plans, and Karen offers Emily a position at her new company as its Chief Financial Officer, a position much higher, both in salary and in prestige, than the job Emily currently possesses at GWEN, Inc. Emily jumps at the opportunity to receive a raise and gain more power in her career.

However, to turn this dream into reality, Karen needs GWEN, Inc.'s financial records to see the company's contractual obligations, the monetary value of those contracts, and the company's tax planning information. Karen wants to use this confidential information to help kick-start her new company, but since she left GWEN, Inc., she no longer has access to this type of confidential information and needs Emily's help before she resigns. Emily agrees and sends Karen the sensitive tax information and trade secrets.[72]

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supra note 61 (arguing that restrictions on computer use policies have become confusing due to society's technological advancement and shifting work style).

72. *See* Ramon A. Klitzke, *The Uniform Trade Secrets Act*, 64 MARQ. L. REV. 277, 278 (1980-1981) (explaining that the Uniform Trade Secrets Act defines a trade secret as "information, including a formula, pattern, compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.").

Now that Karen has GWEN, Inc.'s financial records, she decides to start contacting all of the people that she cultivated professional relationships with over the years while working at GWEN, Inc. However, she created these relationships as a representative of, and on behalf of GWEN, Inc., but now wants these clients to work exclusively with her new company. Even though the clients worked with Karen directly while she was at GWEN, Inc., more senior officials would make the arrangements. The client contracts would be signed with GWEN, Inc. and not Karen, since celebrities and other famous stars do not want many people to know their personal information. Apart from safety issues, celebrities love to shock the public, so before they go on stage or the red carpet, they keep private "who" they will be wearing. Therefore, only a handful of people actually know before the big debut with Karen being one of them.

According to GWEN, Inc.'s employee manual and terms-of-use policy, any and all confidential information is to remain within the confines of the company, GWEN, Inc., and distribution of any of this information is strictly prohibited. Once a person is no longer an employee of GWEN, Inc., whether voluntarily or involuntarily, the agency relationship with GWEN, Inc. and all powers, access, and confidential information about the company cease to exist. When applied to these set of facts, the Seventh Circuit analysis and the Ninth Circuit Analysis can cause vastly distinct results.[73]

A. Under a Seventh Circuit Analysis, Karen Will Most Likely Be Found Guilty of Violating the Computer Fraud and Abuse Act Because the Seventh Circuit Provides Broad Employer Protections in These Situations

If the reviewing court applies the broad Seventh Circuit standard of the CFAA, both Karen and Emily will be held liable because of the Seventh Circuit's employer-friendly reading of the CFAA.[74] In the Seventh Circuit,

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73. *See supra* note 9.

74. *See* United States v. Teague, 646 F.3d 1119, 1125 (8th Cir. 2011) (convicting an employee for improperly accessing President Obama's student loan records); United States v. Rodriguez, 628 F.3d 1258, 1261, 1264 (11th Cir. 2010) (ruling that an employee exceeded authorized access by reviewing personal records of numerous different individuals for nonbusiness reasons—that he did not use the information to defraud anyone or gain financially is irrelevant); United States v. John, 597 F.3d 263, 270 (5th Cir. 2010) (holding that an employee only had authorized access to certain information for specific reasons, so when she accessed it under other pretenses, she violated the CFAA); Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d 418, 431 (7th Cir. 2006) (finding a violation of the CFAA when the agency relationship terminated due to the employee's violation of his employment contract); *see also* Augello, *supra* note 2 (analyzing the various competing discrepancies in CFAA interpretations).

any employee that accesses information on a computer to the detriment of his employer has violated a duty of loyalty under agency law, which in effect terminates the agency relationship and gives him no proper authorization.[75] Any rights that the employee had were governed by the agency relationship with the employer, so any employee-authorized access expires once the agency relationship has been violated.[76]

The First Circuit also contributed to this school of thought by holding that an employee exceeds authorized access by violating both use and access restrictions.[77] This suggests that whenever an employee violates his or her employer's company employee manual or terms of use agreement,[78] he or she loses the permitted access once received as an employee, and therefore, any sensitive information used or obtained after this gross violation is a serious breach of the CFAA.[79]

In the proposed hypothetical, and under a Seventh Circuit analysis, any

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75. *See Int'l Airport Ctrs., LLC*, 440 F.3d at 419 (finding that an employee is without authorization once he violates his fiduciary duty of loyalty to his employer); *see also Teague*, 646 F.3d at 1121(stating that employees violate the CFAA when they abuse their privileged access to confidential information); *Rodriguez*, 628 F.3d at 1261 (clarifying that the CFAA states that merely accessing information by exceeding authorized access constitutes criminal conduct under the CFAA); *John*, 597 F.3d at 268 (rejecting the argument that the CFAA prohibits using authorized access to obtain or alter prohibited information but allows unlawful use of material that was gained through authorized access); Field, *supra* note 2 (explaining that an employee's adverse interests are enough to terminate an agency relationship in employment cases).

76. *See Int'l Airport Ctrs., LLC*, 440 F.3d at 419 (analyzing the role of agency relationships in CFAA interpretation); *see also Teague*, 646 F.3d at 1121 (stating that an employee prohibited from accessing information without proper authorization will be held liable under the CFAA); *Rodriguez*, 628 F.3d at 1261 (holding that accessing confidential information without permission is a violation of the CFAA); *John*, 597 F.3d at 268 (claiming that the employee violated the CFAA once she committed the acts adverse to her employer's interest).

77. *See generally* EF Cultural Travel v. Explorica, 274 F.3d 577, 577 (1st Cir. 2001); Field, *supra* note 2 (arguing that clear contracts are the best mechanisms for employers to protect themselves from employees who want to steal their confidential business information).

78. *See* Field, *supra* note 2, at 828 ("Language within employment contracts and documents can vary greatly, with some having only vague reference to employees maintaining confidentiality and not exposing trade secrets, and others explicitly stating that employees are not authorized to access or distribute certain confidential company information.").

79. *See EF Cultural Travel*, 274 F.3d at 583 (arguing that employee manuals and policies are good tools for employers to protect themselves, but they are not enough in certain jurisdictions); *see also id.* (explaining that most courts require the contracts or terms to explicitly state the limits of employees' authorization); Orzechowski, *supra* note 18 (explaining that the Fifth Circuit considers "exceeding authorized access" to include accessing information for purposes other than those permitted by one's employer).

access Karen had to confidential information was terminated the moment that she quit her job at GWEN, Inc. Whether or not Karen herself logged onto a GWEN, Inc. computer is unimportant for the purposes of this analysis, as she still used and obtained the information once her agency relationship with GWEN, Inc. ceased.

Another critical point is that Karen plans to use this confidential information to the detriment of GWEN, Inc. She intends to steal GWEN, Inc.'s celebrity clients as well as any potential future contracts it may have with others in the industry, such as magazine editors, photographers, and other high-end fashion designers to further the future success of her own business. Much like the employee in *International Airport Centers, LLC*, Karen had decided to quit her job in violation of her employment agreement to start a competing business.[80] Karen also resembles the employee who exceeded authorized access when he obtained President Obama's student loan records in *Teague*. The personal information concerning magazine editors, photographers, clients, and other powerful figures in the fashion industry was just as confidential to GWEN, Inc. as President Obama's student loan records are to the President himself.[81]

Karen also wants to know how GWEN, Inc. pays its taxes and any of its other financial planning information. This information could provide Karen with the opportunity to copy the company's contractual plans and trade schemes, and it would also allow her to expose and blackmail GWEN, Inc. if she were to become aware of tax evasion, unfair employee-pay practices, or other unjust and deceptive behavior. If Karen were to take advantage of any of these opportunities, such action would certainly be to the detriment of GWEN, Inc. as a leading retailer in the fashion world.

Emily would also be held liable under the Seventh Circuit's interpretation of the CFAA.[82] Even though she is still an employee of GWEN, Inc. and she has the authority to access the company's financial records, it is well outside the scope of her authority to share this confidential and sensitive information with Karen given that she is no longer an employee of GWEN, Inc.[83] Under a similar First Circuit

80. *See Int'l Airport Ctrs., LLC*, 440 F.3d at 428 (finding a violation of the CFAA when, after the employee had quit his job—thereby losing access authorization as he breached his fiduciary duty—he continued to access confidential information).

81. *See Teague*, 646 F.3d at 1123 (focusing on the employee's detrimental decision to take advantage of her privileged position of power).

82. *See Int'l Airport Ctrs., LLC*, 440 F.3d at 425 (noting that accessing and disclosing trade secrets can be a violation of unauthorized access); *see also* Field, *supra* note 2 (arguing that Congress may have kept the statute broad so that it could cover all situations of computer misuse and not just computer hacking).

83. *See EF Cultural Travel*, 274 F.3d at 583-84 (holding that, despite the fact that

analysis, Emily would be exceeding the bounds of her confidentiality agreement with her employer.[84]

Moreover, Emily has clearly violated her duty of loyalty to GWEN, Inc. under the theory of agency law.[85] Emily has breached GWEN, Inc.'s terms of use policy as well as the requirements set forth in GWEN, Inc.'s employee manual. However, if Emily is somehow able to show that the language in either or both of the agreements was ambiguous, that she had no knowledge of the restrictions, or that she did not have proper understanding of the terms of both policies, then she may have a reasonable defense.[86] Emily is like the employee in *Rodriguez* who exceeded his authorized access when he used the Social Security Administration's database to gather information on potential romantic partners because Emily is accessing GWEN, Inc.'s information for her own personal advancement with the goal of landing a better job at Karen's new company in mind.[87] Emily undoubtedly intended to cause harm to her employer by accessing the confidential information, which was only furthered by her subsequent detrimental action of sending the information to Karen. The actions of accessing and sending the proprietary information to Karen terminated the agency relationship that Emily had with GWEN, Inc., and she no longer has proper authorization to proceed with authorized access into the company's computer, its secret files, or its data.[88]

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he was authorized to use the company's website as it was open to the public, the employee exceeded his authorization by using confidential information to obtain better access than other members of the public).

84. *See id.* at 583 (explaining that not only authority, but also the scope of an employee's authority, is an important factor to consider when determining CFAA liability).

85. *See* Orzechowski, *supra* note 18 (discussing the Seventh Circuit's broadest interpretation of the CFAA); *see also* ALLEN, *supra* note 8 (explaining the theories of agency law in terms of fiduciary duties).

86. *Contra* United States v. John, 597 F.3d 263, 272 (5th Cir. 2010) (finding that the employer's official policy, which was reiterated in training programs that the employee attended, prohibited misuse of the company's internal computer systems and confidential customer information. Despite being aware of these policies, "the employee accessed account information for individuals whose accounts she did not manage, removed this highly sensitive and confidential information from [the employer's] premises, and ultimately used this information to perpetrate fraud").

87. *See* United States v. Rodriguez, 628 F.3d 1258, 1260-61 (11th Cir. 2010) (explaining that accessing information for an employee's personal reasons exceeds the scope of authorization); *see also* United States v. Teague, 646 F.3d 1119, 1122 (8th Cir. 2011) (clarifying that the employee exceeded authorized access when she did so to further personal interests).

88. *See Teague*, 646 F.3d at 1119, 1126 (8th Cir. 2011) (ruling that the employee's use of the information is irrelevant, if it is obtained without authorization); *Rodriguez*, 628 F.3d at 1263 (holding that an employee exceeds authorized access when his

There are important similarities between Emily in the proposed hypothetical and the employee in *John*.[89] Emily, who legally accessed GWEN Inc.'s confidential financial files and gave them to Karen, is like the employee in *John*, who in similar circumstances legally accessed customer account information and provided her half-brother with this sensitive information, so that they could incur fraudulent charges.[90] Emily, like the employee in *John*, should have known, or reasonably should have known, that she was not authorized to access a computer in furtherance of an action that violates the terms of use, company policy, or, in the case of *John*, the law.[91] Emily exceeded the purpose for which her access was given. She most likely knew that she was violating GWEN, Inc.'s company policy, and she should have known that she was outside the scope of her access when she wanted to share GWEN, Inc.'s confidential trade secrets.[92]

B. Under a Ninth Circuit Analysis, Karen Will Most Likely Be Found Not Guilty of Violating the Computer Fraud and Abuse Act Because the Ninth Circuit Provides Narrow Employee Protections in These Situations

If the reviewing court applies a Ninth Circuit analysis of the CFAA, both Karen and Emily will most likely be found innocent because the Ninth Circuit affords employees more protection.[93] In *Nosal*, the Ninth Circuit

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interest in acquiring the confidential information is in conflict with his employer's interest); *John*, 597 F.3d at 271 (emphasizing that going beyond the limits of authorization may constitute a CFAA violation); Int'l Airport Ctrs., LLC v. Citrin, 440 F.3d at 421 (7th Cir. 2006) (explaining that adverse employer-employee interests in terms of agency law may produce a violation of the CFAA).

89. *See John*, 597 F.3d at 269 (noting that the employee exceeded her authorized access when she intended on using her employer's confidential information for purposes other than those for which she was given permission by her employer).

90. *See id.*

91. *Id.* at 271 (explaining that an employee would exceed authorized access if he or she used that access to obtain or steal information to the detriment of his or her employer as part of a criminal scheme).

92. *See id.*

93. *See* United States v. Nosal, 676 F.3d 854, 860 (9th Cir. 2012) (cautioning that a broad interpretation would create precedent for employers to threaten to report minor violations); *see also LVRC Holdings, LLC v. Brekka*, 581 F.3d 1127, 1134 (9th Cir. 2009) ("[F]or purposes of the CFAA, when an employer authorizes an employee to use a company computer subject to certain limitations, the employee remains authorized to use the computer even if the employee violates those limitations."); *see also* Dial, *supra* note 5 (discussing the importance of the Ninth Circuit's reasoning in *Nosal* as it pertains to practical societal implications); *see also* Orzechowski, *supra* note 18

limited application of the term "exceeds authorized access" to situations relating to improper access of a computer and its information, but it does not include the use of information that has been derived.[94] Therefore, an individual "exceeds authorized access" by violating a restriction on access to a work computer but not a restriction on use of a work computer and its contents.[95]

In the proposed hypothetical, Karen never improperly accessed a computer or its information; she only used information that was derived by Emily. Much like the employee in *WEC Carolina Energy Solutions, LLC*, who used his former employer's confidential business information to develop a competing business, Karen is unlikely to be held liable under the CFAA because she did not access the files illegally.[96] Additionally, like the employee in *Nosal* who convinced his former colleagues to download and send him confidential information from their firm to him, Karen convinced Emily, a former GWEN, Inc. colleague of hers, to download GWEN, Inc.'s confidential financial information and send it to her.[97] Therefore, Karen never exceeded authorized access by violating any access restrictions because she never utilized GWEN, Inc.'s computers improperly; she did not even touch the computer.[98]

(advising employers to be careful in managing employee access to proprietary information and emphasizing the importance of technical and security measures to protect employers because in jurisdictions with a narrower interpretation, the CFAA does not easily apply).

94. *See Nosal*, 676 F.3d at 863 (noting that the CFAA was intended to combat hacking, not unauthorized use of information); *see also* Abramowitz, *supra* note 36 (noting that the opinions in the Fourth and Ninth Circuits find that the CFAA only addresses an employee's improper access, not improper use of confidential information).

95. *See Nosal*, 676 F.3d at 863 (finding that "exceeds authorized access," refers to data or files on a computer that one was not authorized to access by one's employer); *see also LVRC Holdings, LLC*, 581 F.3d at 1134 (ruling that it is the employer's actions rather than the employee's state of mind that determines an employee's authorized access).

96. *See* WEC Carolina Energy Solutions, LLC v. Miller, 687 F.3d 199, 207 (4th Cir. 2012).

97. *See Nosal*, 676 F.3d at 856; *see also LVRC Holdings, LLC*, 581 F.3d at 1134 (holding that the employee did not exceed his authorized access when he e-mailed documents from his work computer to his personal computer because he had permission to use his employer's computer).

98. *See Nosal*, 676 F.3d at 862 (adopting a broad CFAA interpretation); *see also Abramowitz*, *supra* note 36 (noting that the Fourth and Ninth Circuits find that the CFAA only addresses an employee's improper access, as opposed to improper use which is not taken into account); Orzechowski, *supra* note 18 (explaining that employee access to information should be expanded only if and when necessary under a Ninth Circuit analysis).

Emily would also not be held liable under a Ninth Circuit analysis because even though she accessed a work computer to gain the confidential information, her access was legal.[99] She may have handed it over to Karen, who breached a duty of loyalty, but under the Ninth Circuit's reading of the CFAA, the statute does not apply to individuals that have authority to access a computer but later misuse the information.[100] Therefore, Emily's actions would be found to be lawful.

IV. THE NINTH CIRCUIT'S INTERPRETATION IS THE PROPER ANALYSIS OF THE CFAA

Today, the employment landscape is fraught with different jurisdictional interpretations of the CFAA. Thus, employers must be mindful of the split in authority to properly protect their computer systems, trade secrets, and confidential information. For example, in those jurisdictions where the CFAA is interpreted broadly, employers ought to clearly define all terms in their employee manuals and specify what it means to misuse confidential information.[101] Having these detailed documents, in addition to a training program, may be sufficient to prove that an employee was aware of and understood the rules by which he or she was governed.[102] Conversely, in jurisdictions where the Ninth Circuit's narrow approach is taken, employers ought to put in safeguards to limit any access of confidential information by its employees in an effort to expose them only to the information that they need to know.[103] This continued split requires either a legislative or judicial fix.

Given that courts are split as to how to apply the CFAA,[104] especially as it pertains to the interpretation and understanding of the term and phrase

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99. *See Nosal*, 676 F.3d at 859 (discussing that those courts who have adopted a broad reading of the CFAA have "failed to consider the effect on millions of ordinary citizens" caused by the statute's ambiguous language); *see also LVRC Holdings, LLC*, 581 F.3d at 1131 (noting that the CFAA prohibits a number of different computer crimes).

100. *See Nosal*, 676 F.3d at 856 (applying the plain language of the CFAA to an analogous situation).

101. *See* Orzechowski, *supra* note 18 (discussing the importance and responsibility that employers have in setting the stage of a possible CFAA claim through their contracts and employee manuals).

102. *Id.*

103. *See id.* (emphasizing that employers can be left extremely vulnerable in jurisdictions that adopt Ninth Circuit interpretations if they don't take proper precautions).

104. *See* 18 U.S.C. § 1030 (2010); *see also* Orzechowski, *supra* note 18 (indicating that Court confusion in regards to CFAA interpretation will continue until Congress or the Supreme Court steps in).

"authorization" and "exceeds authorized access,"[105] Congress should adopt the Ninth Circuit's narrow reading[106] as the appropriate interpretation. Originally enacted as an anti-hacking statute, Congress was unable to predict how the CFAA would apply to modern cases due to vast technological advancement.[107] However, as the Ninth Circuit acknowledged, the rule of lenity[108] provides some guidance in its requirement that penal laws be construed strictly to give fair notice.[109] Absent fair notice, there exists the ability to "make criminals of large groups of people who would have little reason to suspect they are committing a federal crime," an outcome unlikely intended by Congress.[110]

As mentioned, interpretation under a broader regime could result in several unintended outcomes impacting corporate culture. First, if a broad interpretation of the CFAA is adopted, then there is a grave risk that people will be held criminally liable for actions that they believed to be legal.[111] This is particularly true as it pertains to terms of use and terms of service. In an age where policies and their legally binding terms can change with the click of a mouse and with no requirement to notify the public at large, everyday computer users run the risk of violating provisions of the CFAA.[112]

Second, a broad reading of the CFAA would result in extreme

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105. *See* Augello, *supra* note 2 (noting that definitions of key terms in the CFAA still remain unsettled).

106. *See* United States v. Nosal, 676 F.3d 854, 856 (9th Cir. 2012) (interpreting the CFAA as targeting "the unauthorized procurement or alteration of information, not its misuse or misappropriation").

107. *See* Justin Precht, Comment, *The Computer Fraud and Abuse Act or the Modern Criminal at Work: The Dangers of Facebook from Your Cubicle*, 82 U. CIN. L. REV. 359, 365 (2013) (explaining that the CFAA was originally enacted as legislation to deal with technological advancement at the time that it was passed); *see also* Orzechowski, *supra* note 18 (stating that district courts in the Second, Fourth, Sixth, Eighth, and Tenth Circuits have also adopted narrow interpretations of the CFAA).

108. *See supra* notes 64-66 and accompanying text.

109. *See* Orzechowski, *supra* note 18 (stating that the Ninth Circuit focused on the rule of lenity when deciding *Nosal*).

110. *Nosal*, 676 F.3d at 859 ("While ignorance of the law is no excuse, [the Ninth Circuit] can properly be skeptical as to whether Congress, in 1984, meant to criminalize conduct beyond that which is inherently wrongful, such as breaking into a computer.").

111. *See* Orzechowski, *supra* note 18 (listing the Fifth, Seventh, and Eleventh Circuits as also adopting broader interpretations of the words, "authorization" and "exceeds authorized access" so that they include violating terms of use policies and breaches of the duty of loyalty under the theory of agency law).

112. *Nosal*, 676 F.3d at 862 (explaining that given the ease with which these terms can change, "behavior that wasn't criminal yesterday can become criminal today without an act of Congress, and without any notice whatsoever.").

punishments for very minimal acts both in and out of the workplace. For example, as the Ninth Circuit explained in *Nosal*, "minor dalliances," like checking Facebook or Instagram on a work computer, would become criminally punishable by federal law.[113] Even outside of the employment context, many websites accessed by everyday users prohibit the posting of misleading information or access to minors.[114] While there may be menial punishments for such errors in judgment, they ought not amount to a prison sentence.

Recent congressional action on the part of Senator Patrick Leahy (D-VT) proposes that the CFAA should be amended to adopt the narrow view of the Ninth Circuit.[115] Senator Leahy has introduced the amendment to say that a "Computer Fraud and Abuse Act action may not be brought where the sole basis for determining unauthorized access to a computer is an alleged violation of an acceptable use policy or terms of service agreement with an Internet service provider, Internet website, or non-government employer."[116] Congress should adopt this new language, so that employers, employees, and courts can have a better understanding of when the CFAA does and does not apply.

The United States Supreme Court should also seek certiorari on this circuit split to ameliorate the confusion associated with the Act's interpretation. If the Supreme Court were to decide the scope of the CFAA's interpretation, the lower courts would be able to apply it in a uniform fashion. However, in 2012 the United States government declared that it would not seek Supreme Court review of the Ninth Circuit's decision in *Nosal*.[117] Therefore, the Circuit split will continue to reign over CFAA case law for the near future unless a legislative fix is successfully adopted.

113. *See supra* note 46; *see e.g., Nosal*, 676 F.3d at 861 ("Adopting the government's interpretation would turn vast numbers of teens and pre-teens into juvenile delinquents—and their parents and teachers into delinquency contributors.").

114. *Nosal*, 676 F.3d at 861-62 (providing examples from eHarmony to eBay of the multitude of ways that the average computer users could violate the CFAA under a broad interpretation).

115. *See* Abramowitz, *supra* note 36 (assessing the past and present Congressional action in regards to CFAA amendments).

116. *See id.* (addressing the present and possibly future political and judicial action in regards to the CFAA).

117. *See* Grant McCool, *U.S. Will Not Challenge Computer Fraud Case to High Court*, REUTERS (Aug. 9, 2012), http://www.reuters.com/article/2012/08/08/net-us-computerfraud-law-idUSBRE8771BK20120808 (interpreting the repercussions of not seeking certiorari of the *Nosal* case); *see also* Dial, *supra* note 5 (arguing that the CFAA issue will be prolonged since the *Nosal* case will not be up before the Supreme Court).

CONCLUSION

The circuit split has a significant impact not only on employer-employee relationships in a business setting, but also on the judges throughout the country who struggle with how to interpret and apply the CFAA. Congress intended for the CFAA to combat hacking, but as society continues to develop and utilize advanced technologies, employers have to grapple with new issues concerning computers and confidential information. With two different standards of application, courts are lacking adequate guidance on where they should fall on the spectrum.

There are only two available and complicated redresses to solve this conflict. One is for Congress to amend the current CFAA and to reflect one of the two schools of thought. Another possibility is for the Supreme Court to directly address the ambiguities created by the Seventh and Ninth Circuits.

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