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DO SECRETS STOP PROGRESS? OPTIMIZING THE
LAW OF NON-DISCLOSURE AGREEMENTS TO
PROMOTE INNOVATION

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INTRODUCTION

Written non-disclosure agreements are used in a wide variety of commercial transactions to restrict the dissemination and use of trade secrets and other “confidential business information,” i.e., that which is not quite a trade secret but is not

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publicly known either.¹ The use of a written non-disclosure agreement to protect a trade secret is uncontroversial, but the protection of confidential business information is worth exploring for at least two reasons. First, the phrase confidential business information is not defined in uniform laws or restatements, and is potentially as broad as the parties to the non-disclosure agreement may care to define it. Second, since this information, by definition, does not necessarily rise to the level of a trade secret, we question whether a court should enforce a broad non-disclosure agreement that may impede innovation, which is thought to be “critical to economic growth.”² In this article, the acronym “NDA” refers to a non-disclosure agreement that seeks to protect confidential business information (“CBI”).

The enforcement of an NDA can be justified by reference to several policies, such as enforcing expectations induced by a promise, preventing opportunistic conduct by a rival,³ and by the policies that favor the protection of intellectual property.⁴ The last is thought to encourage innovation and its dissemination (and to discourage unproductive hoarding of useful information) by establishing legal rights that allow inventors to capture the returns to innovative activity, typically by the earning of financial rewards. Absent intellectual property protection, innovators would not be able to appropriate the full rewards of their invention since the benefits from the innovation would go to “free riders” whose rapid imitation would reduce the

1. Robert Unikel, *Bridging the “Trade Secret” Gap: Protecting “Confidential Information” Not Rising to the Level of Trade Secrets*, 29 LOY. U. CHI. L.J. 841 (1998).

2. JOSH LERNER & SCOTT STERN, *RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 1* (Josh Lerner & Scott Stern eds., 2012), <https://www.nber.org/chapters/c12344>.

3. See *Island Air, Inc. v. LaBar*, 566 P.2d 972 (Wash. App. 1977) (misuse by a competitor of confidential price information disclosed pursuant to a non-disclosure agreement); see also *Custom Teleconnect, Inc. v. Int’l Tele-Servs., Inc.*, 254 F. Supp. 2d 1173 (D. Nev. 2003) (misuse of plaintiff’s CBI to cheat plaintiff out of a business opportunity).

4. See *Gatan, Inc. v. Nion Co.*, No. 15-cv-01862-PJH, 2017 WL 3478837 (N.D. Cal. Aug. 14, 2017) (protection of CBI concerning the design of a spectrometer); *Loftness Specialized Farm Equip., Inc. v. Twiestmeyer*, 818 F.3d 356, (8th Cir. 2016) (protection of an idea for a new agricultural machine); *Boulanger v. Dunkin’ Donuts, Inc.*, 442 Mass. 635 (2004) (protection of CBI involving new products).

commercial value of innovation and erode incentives to invest.⁵ To attract investment in research and development, an inventor must be able to “appropriate” information about the invention, or in other words, they must place a legal barrier around it to prevent unauthorized use by others.⁶

However, there is reason to question this accepted wisdom. Recent economic studies cast some doubt as to the incentive provided by patents. There is a social cost to such restrictions. For example, follow-on innovation and the development of still newer or further improved goods or processes using the protected information may be impaired. Recent macroeconomic theory on innovation and growth discuss “cumulative innovation” and the knowledge spillovers that accompany such developments.⁷ These issues are particularly acute in “complex technology” industries, where innovation is highly cumulative and requires the input of a large number of inventions held by diverse firms.⁸

Imagine a science lab at a doctoral university with a very high level of research activity. Pharmaceutical companies and research hospitals throughout the world contract with the lab to find solutions to their particular problems, often resulting in the creation of new drug delivery vehicles. Each business requires the lab staff to sign an NDA that protects the trade secrets and other confidential business information to be disclosed to the lab, which is at the hub of a complex of new and confidential knowledge. It is one example of an environment in which cumulative innovation might be expected to take place, in which a bit of confidential information learned in project A is useful in solving project B. A simpler but more common example is the “tweaker,” someone who has figured

5. See Baker & McKenzie, Study on Trade Secrets and Confidential Business Information in the Internal Market 86 (Apr. 2013); D.O.J. & F.T.C., ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 2 (Jan. 12, 2017); RESTATEMENT (THIRD) OF UNEFAIR COMPETITION § 39 cmt. a (AM. LAW INST. 1995).

6. Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 615 (Universities-National Bureau Committee for Economic Research & Committee on Economic Growth of the Social Science Research Council eds., 1962), <https://www.nber.org/chapters/c2144>.

7. Alberto Galasso & Mark Schankerman, *Patents and Cumulative Innovation: Causal Evidence from the Courts*, 130 Q.J. ECON. 317, 318 (2015).

8. *Id.*

out how to improve something learned of pursuant to an NDA, but is blocked by the counterparty from bringing the improvement to market. Enforcement of the NDA has the potential to harm the public by impeding innovation.

One solution to this problem is for the NDA to permit the recipient to disclose the information internally and to use the information to innovate on whatever commercial terms the parties may agree. If the NDA does not have such a clause, or if the disclosing party will not agree, then the disclosing party has the power to block a rival's innovation from coming to market.

Published cases do not address this issue, rather they involve simple uninspired copying and reuse of confidential information. This problem is worth exploring given that the widespread use of NDAs has the potential to impair cumulative innovation, and if such a case has not yet made its way through the court system, one can imagine it easily enough.

While the definition of a trade secret and its misappropriation are uniform on the state and federal levels,⁹ states have developed a variety of approaches to NDAs that protect confidential business information. Some states allow what appears to be complete freedom of contract and enforce broadly written NDAs.¹⁰ Other states regulate NDAs simply as covenants

9. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (definition of trade secret); § 40 (definition of misappropriation); UNIFORM TRADE SECRETS ACT § 1(4) (UNIF. LAW COMM'N 1985) (definition of trade secret); § 1(2) (definition of misappropriation); 18 U.S.C. § 1839(3) (2018) (definition of trade secret); § 1839(5) (definition of misappropriation).

Trade secret subject matter is quite broad, encompassing “[v]irtually any useful information.” However, the information must have “independent economic value, actual or potential,” and it cannot be “generally known” or “readily ascertainable” by those in the relevant industry. The latter exclusions prevent firms from restricting the use of published or well-known industry information - which any industry competitor should be able to use in its innovation process. The plaintiff must have subjected the information to reasonable secrecy precautions preventing its disclosure.

Deepa Varadarajan, *The Trade Secret-Contract Interface*, 103 IOWA L. REV. 1543, 1551 (2018) (discussing the three elements of a trade secret). *Electro-Craft Corp. v. Controlled Motion, Inc.*, 332 N.W.2d 890 (Minn. 1983), is a good illustration, clearly applying these elements.

10. See *Loftness Specialized Farm Equip., Inc. v. Twiestmeyer*, 818 F.3d 356 (8th Cir. 2016); *Orthofix, Inc. v. Hunter*, 630 F. App'x 566 (6th Cir. 2015); *Zep Mfg. Co. v. Harthcock*, 824 S.W.2d 654 (Tex. App. 1992).

not to compete and enforce the agreement only if it is reasonable in the circumstances, not greater than necessary to protect the legitimate interests of the promisee and not outweighed by likely harm to the promisor or to the public.¹¹ Some states further require that the NDA expressly limit its geographic and temporal effect.

Which approach best discourages free riders while posing minimal risk of retarding the development of new or improved goods or processes? In answering this question, we focus on cases in which the CBI involved innovative products or services, in contrast to the many others which concern the use of customer information belonging to a former employer.¹² We do not consider the use of an NDA to protect a privacy or reputational interest, nor as used in settlement agreements, nor whether an NDA may seek to bar someone from reporting a crime.¹³

11.

[S]ince [NDAs] can reduce or eliminate potential competition, they are subject to the traditional rules governing contracts in restraint of trade and are accordingly enforceable only when ancillary to a valid transaction and otherwise reasonable. . . . As a general matter, a restraint is unreasonable if it is greater than necessary to protect the legitimate interests of the promisee or if the promisee's interest in protection is outweighed by the likely harm to the promisor or to the public.

RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 41, cmt. d.

12. See, e.g., *1st Am. Sys., Inc. v. Rezatto*, 311 N.W.2d 51 (S.D. 1981); *State Med. Oxygen & Supply v. Am. Med. Oxygen Co.*, 782 P.2d 1272 (Mont. 1989); *Durham v. Standy-By Labor*, 198 S.E.2d 145 (Ga. 1973); *Trailer Leasing Co. v. Assocs. Commercial Corp.*, 1996 U.S. Dist LEXIS 9654 (N.D. Ill., July 10, 1996); *Orthofix, Inc.*, 630 F. App'x 566; *LCI Commc'ns, Inc. v. Wilson*, 700 F. Supp. 1390 (W.D. Pa. 1988).

13. “[I]t is obvious that agreements to conceal information relevant to commission of crime have very little to recommend them from the standpoint of public policy.” *Branzburg v. Hayes*, 408 U.S. 665, 696 (1972); see also *Cariveau v. Halferty*, 99 Cal. Rptr. 2d 417 (Ct. App. 2000) (refusing to enforce an NDA that prohibited a customer from discussing selling agent's misconduct with regulatory authorities). Similarly, an NDA may not interfere with protected whistleblowing (e.g., SEC Rule 21F, 17 C.F.R § 240.21F-17(A) (2015)) or other protected communications (*Banner Health Sys. v. NLRB*, 851 F.3d 35 (D.C. Cir. 2017) (NDA impinged on employee's right to share salary information, protected under section 7 of the National Labor Relations Act)). See generally Peter S. Menell, *Tailoring a Public Policy Exception to Trade Secret Protection*, 105 CALIF. L. REV. 1 (2017); Carol M. Bast, *At What Price Silence: Are Confidentiality Agreements Enforceable?*, 25 WM. MITCHELL L. REV.

This Article proceeds as follows. Part I reviews recent scholarship that questions whether legal fences (such as intellectual property rights (“IPR”), NDAs, and non-compete agreements) are necessary in order to motivate people to invent and innovate, and discusses follow-on, or cumulative, innovation. Part II explains why NDAs are so commonly used to protect CBI. Part III discusses the existing regulation of NDAs: What can and cannot be CBI? How does CBI compare to a trade secret? Part III also considers time and place restrictions of NDAs. Part IV applies the learning of Part I and suggests a public policy argument against enjoining breaches of an NDA by an innovative defendant and further recommends the appropriate measure for damages in such cases. This Article concludes that an NDA should be enforced only if the CBI is in fact confidential and not generally known. Since an NDA can protect information that does not amount to a trade secret, its definition of CBI should be precise in order to avoid impeding cumulative innovation. Even if the NDA satisfies these requirements, a court should not enjoin an innovative but unpermitted use.

I.

ARE LEGAL FENCES NECESSARY TO MOTIVATE PEOPLE TO INVENT AND INNOVATE?

A. *Invention and Innovation Defined*

In order to analyze the impact of legal fences on invention and innovation, first, we must define what we mean by the terms. What sort of knowledge do people seek to protect through legal means? Nobel prize winning economist Kenneth Arrow defines invention as “the production of knowledge,”¹⁴ but further distinguishes between discovery (the development of new knowledge, science) and invention (a new combination of existing knowledge to create something useful, technology).¹⁵ Moser also defines innovation as “a new product, or a better or cheaper practice that produces an existing prod-

627 (1999); Alan E. Garfield, *Promises of Silence: Contract Law and Freedom of Speech*, 83 CORNELL L. REV. 261 (1998).

14. Arrow, *supra* note 6, at 609.

15. Kenneth Arrow, *The Economics of Inventive Activity over Fifty Years*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED* 43, 44–45 (Josh Lerner & Scott Stern eds., 2012), <https://www.nber.org/chapters/c12347.pdf>.

uct.”¹⁶ Drucker distinguishes between a new invention and a new use for existing technology, and suggests that entrepreneurs do the latter.¹⁷ The business press considers innovation as a critical component of entrepreneurship.¹⁸ Scott Berkun declares that the best definition for innovation is much simpler: “significant positive change.”¹⁹ While each scholar defines invention and innovation in his own terms, there are at least three senses of the words invention and innovation that run through the research: a basic scientific discovery, a concrete technology, and a different use for that technology by an entrepreneur who recognizes a market niche. We mean to express all these meanings, since all seem to have positive social utility.

B. *Innovation and Invention Are Good*

Innovation is thought to be good, to increase human welfare and happiness. Innovation increases productivity and efficiency.²⁰ It allows us to purchase products and services of higher value or for lower prices.²¹ The affordability and accessibility of new technology has allowed for more leisure time. For example, the invention of microwaves, dishwashers, and clothes dryers has made it easier and less time consuming to complete household chores, freeing up time for leisure pursuits.²² More recent innovations in computing have allowed people unprecedented access to information and the ability to communicate cheaply with people across the world.²³ Medical

16. Eryn Brown, *Do Patents Invent Innovation?*, KNOWABLE MAG. (Mar. 13, 2018), <https://www.knowablemagazine.org/article/society/2018/do-patents-invent-innovation>.

17. PETER F. DRUCKER, *INNOVATION AND ENTREPRENEURSHIP* 26 (Routledge 2015) (1985).

18. See Anand Rajendran, *Why Innovation Is Increasingly Becoming Critical to Entrepreneurship*, ENTREPRENEUR (Jul. 7, 2017), <https://www.entrepreneur.com/article/296912>.

19. SCOTT BERKUN, *THE MYTHS OF INNOVATION* loc. 42 (Mary Tressler ed., 2010) (ebook).

20. MICHAEL GREENSTONE & ADAM LOONEY, *A DOZEN ECONOMIC FACTS ABOUT INNOVATION* 1–2 (Aug. 2011), https://www.brookings.edu/wp-content/uploads/2016/06/08_innovation_greenstone_looney.pdf.

21. *Id.* at 2, 5.

22. *Id.* at 8.

23. The power of computer technology has increased significantly while the price of the technology has decreased dramatically. In 1982, the comput-

and public health innovations have improved life expectancy.²⁴

While overall innovation has been a driving force for good that is not always the case. Some innovations have been very detrimental to humankind. No innovator can foresee every possible application or potential outcome from an innovation, and many innovations can have good and bad consequences over time.²⁵ For example, some economists have found that derivatives have an overall positive effect on economic growth,²⁶ but many other economists believe the creation of new financial derivatives lead to 2008 financial crash.²⁷ The development of opioids has allowed us to treat patients with severe and chronic pain more effectively but has led to the rise of the opioid crisis.²⁸ The invention of planes by the Wright brothers was a significant positive change for the world and led to incredible growth and opportunity in travel, commerce and communication.²⁹ However, the invention of the plane also allowed 9/11 to occur.³⁰

Still, there is a connection between innovation and economic growth which has been the focus of many economists. Lerner stated that innovation “is critical to economic growth.”³¹ Moser found that “[i]nnovation is commonly viewed as the primary driver of sustained improvements in

ing power of an iPad 2 would have cost the typical worker 360 years’ worth of wages. *Id.* at 5.

24. Innovations, such as vaccines and water filtration, helped contribute to an increase in average U.S. life expectancy from 58 years in 1920 to 79 years in 2016. *Id.* at 4.

25. See BERKUN, *supra* note 19, at loc. 2441–681.

26. Duc Hong Vo et. al., *The Importance of the Financial Derivatives Markets to Economic Development in the World’s Four Major Economies*, 12(1) J. OF RISK & FINANCIAL MGMT. 35 (2019).

27. LERNER & STERN, *supra* note 2, at 11–12.

28. According to the National Institute on Drug Abuse, drug overdose deaths from opioids in the United States rose from 8,048 in 1999 to 47,600 in 2017. NAT’L INST. ON DRUG ABUSE, OVERDOSE DEATH RATES (Jan. 2019), <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>; see also Kelly K. Dineen & James M. DuBois, *Between a Rock and a Hard Place: Can Physicians Prescribe Opioids to Treat Pain Adequately While Avoiding Legal Sanction?*, 42(1) AM. J. LAW & MED. 7 (2016).

29. BERKUN, *supra* note 19, at loc. 2454.

30. *Id.*

31. LERNER & STERN, *supra* note 2, at 1.

human welfare and economic growth.”³² Robert E. Rubin, Co-Chair of the Council on Foreign Relations and Former U.S. Treasury Secretary noted that “America has long had a culture and an economic system that has spurred innovation and scientific advance that in turn created vast new industries, enormous numbers of jobs, and a powerful competitive position in the global economy.”³³

Given the significant economic and social benefits of innovation, an ideal legal system would incentivize maximum innovation. While many areas of the law impact innovation (such as patents and regulations), we have chosen to focus our analysis on non-disclosure agreements that allow individual or companies to prevent the dissemination and use of information without their consent.

C. *What Is the Effect of Legal Fences upon Innovation and Invention?*

To attract investment in research and development, an inventor must be able to “appropriate” information about the invention, i.e., put a legal fence around it to prevent unauthorized use by others. Inventors and entrepreneurs utilize a variety of legal fences to protect their innovations, including patents, trade secrecy, non-compete agreements, and non-disclosure agreements. By protecting information using legal fences, an inventor turns this information into a commodity or private property that can be sold on the open market.³⁴

But, there is reason to question this theory. For example, there is some doubt as to the incentive provided by patent. Using 19th century World’s Fairs as an alternative source of data, Switzerland and Denmark invented a plethora of scientific instruments, but offered no patent protection.³⁵ Conversely, the U.S. Plant Patent Act of 1930 seems not to have encouraged innovation in rose breeding.³⁶ In informal conversations with business people and lawyers, Arrow found that

32. Petra Moser, *Patents and Innovation in Economic History*, 8 ANN. REV. ECON. 241, 242 (2016).

33. GREENSTONE & LOONEY, *supra* note 20, at 3.

34. Arrow, *supra* note 6, at 615.

35. See Moser, *supra* note 32, at 247.

36. See Petra Moser & Paul W. Rhode, *Did Plant Patents Create the American Rose?*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 413, 414 (Josh Lerner & Scott Stern eds., 2012).

patents were important only for a limited range of products.³⁷ In other situations, privately held information may allow an inventor to be rewarded sufficiently without a patent.³⁸ There is also some evidence that patents and other formal IPR are only important to early state ventures whereas more mature companies have other means to prevent the misappropriation of their ideas, such as reputation, bargaining power, or network effects.³⁹

In evaluating how legal fences impact innovation, it is necessary to consider the motivations of those seeking such protections. Economists have raised some doubt as to what really motivates inventors.⁴⁰ Some believe that technologists are motivated by money while scientists seek fame or to fulfill their curiosity. Others believe curiosity is a driving factor for both groups.⁴¹ If an information creator is driven by curiosity or fame, that creator may have no need to protect their information with a legal fence. This is because a legal fence is only

There are also reasons to doubt the methodology of studies that use patents as a measure of innovation. Patents are a widely used measure of innovation because patent filings are a huge database, but many innovations are kept secret. Sometimes, a patent may be for a marginal invention, sought for defensive purposes. “Among the many reasons high-tech companies get patents, one of the most important is to build a patent arsenal. To guard against the risk of patent litigation, companies acquire patents so they can retaliate against or neutralize threats of suits brought by their competitors.” Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297, 299 (2010). And there is lore about junk business method patents being granted by the USPTO in the years following *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). “The first problem is one that concerns many observers of the patent system. It is the frequency with which the Patent Office issues patents on shockingly mundane business inventions.” Rochelle C. Dreyfuss, *Are Business Method Patents Bad for Business?*, 16 SANTA CLARA COMPUTER & HIGH TECH. L.J. 263, 267–68 (2000); see also Brown, *supra* note 16 (discussing limitations of patents as a measure of innovation).

37. Arrow, *supra* note 15, at 46.

38. *Id.* at 46–47.

39. Gili Greenberg, *Small Firms, Big Patents? Estimating Patent Value Using Data on Israeli Start-ups’ Financing Rounds*, 10 EUR. MGMT. REV. 183 (2013).

40. Arrow, *supra* note 15, at 45–46; LERNER & STERN, *supra* note 2, at 10–11 (citing Petra Moser & Paul W. Rhode, *Did Plant Patents Create the American Rose?*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED* 413 (Josh Lerner & Scott Stern eds., 2012)).

41. Arrow, *supra* note 15, at 45.

necessary for monetization, not for acquiring notoriety for a discovery or satisfying their own curiosity. On a national level, the 1969 landing on the moon that ended the space race generated many innovations, but the project as a whole was driven by a desire for dominance, not profit.

While the creator of the information may be content with making a discovery and becoming known for it, it is also important to consider the role of funding in innovation. Who is funding a creator's research and development? Would the people, institutions or companies providing the resources continue to do so if legal fences were restricted or unavailable and monetization was not an option?⁴² An inability to protect innovation using legal fences might limit initial innovation. Restricting the dissemination of information, whether through using legal fence or other means, has an immediate social cost as it impairs follow-on innovation.⁴³

Many economists have looked at whether patent rights facilitate or impede follow-on innovation. Some have found that "stronger patents can discourage innovation if they reduce the payoffs to later innovators who rely on previous inventions as an input for their work."⁴⁴ However, others have further identified that the impact of legal fences varies by field.⁴⁵ Patent invalidation has been found to have a significant effect on cumulative innovation only in the fields of computers and communications, electronics, and medical instruments (including biotechnology), but there is no evident effect for drugs, chem-

42. "This study provides new evidence on the positive effect of patent applications and grants on start-up companies' valuations by investors. . . . [t]his finding is consistent with the view that the mitigation of uncertainty about the scope of IPR protection enhances information disclosure by entrepreneurs and reduces asymmetric information and adverse selection in the market for entrepreneurial finance (e.g., Arrow 1962; Amit et al., 1998)." Greenberg, *supra* note 39, at 193.

43. Arrow, *supra* note 6, at 616–18.

44. Moser, *supra* note 32, at 242 (first citing Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29 (1991); then citing James Bessen & Eric Maskin, *Sequential Innovation, Patents, and Imitation*, 40 RAND J. ECON. 611 (2009)); see also Joseph E. Stiglitz, *Economic Foundations of Intellectual Property Rights*, 57 DUKE L.J. 1693 (2008) (arguing that too strong of an IPR system can impede innovation).

45. See Bhaven Sampat & Heidi L. Williams, *How Do Patents Affect Follow-On Innovation? Evidence from the Human Genome*, 109 AM. ECON. REV. 203 (2019) (finding that gene patents have no significant effect on follow-on innovation).

icals, or mechanical technologies.⁴⁶ Galasso and Schankerman's research reinforces that "patent rights block cumulative innovation only in very specific environments."⁴⁷

On the other hand, there is anecdotal evidence that suggests that inventors are more willing to talk about ideas and innovation information because of the availability of intellectual property rights to protect those innovations.⁴⁸ Thus, it is possible that the "availability of intellectual property rights may encourage the diffusion of new ideas, and thereby enable follow-on invention."⁴⁹ A 2019 empirical study suggests that valid patents actively promote follow-on innovation during their terms of exclusivity.⁵⁰ The patent studies, then, are a mixed bag, and in any event are of limited relevance to our inquiry about NDAs. This is because a patent publicly discloses information about the invention, which may be a spur to further innovation, whereas an NDA keeps the information secret.

Much of the research on the impact of legal fences on innovation focuses on non-compete agreements. There has been significant debate about the effects the enforceability of employee non-compete agreements has on innovation and employee spinout creation.⁵¹ There is some evidence that bar-

46. See Galasso & Schankerman, *supra* note 7.

47. *Id.* at 322.

48. Moser, *supra* note 32, at 253.

49. *Id.*

50. Jonathan H. Ashtor, *Does Patented Information Promote the Progress of Technology?*, 113 NW. U. L. REV. 943, 945 (2019) ("Patents with a greater quantity of information content are more likely to secure valid exclusive rights to their owners. In turn, these patents contribute to the development of more future inventions by other inventors.").

51. See Sharon Belenzon & Mark Schankerman, *Spreading the Word: Geography, Policy, and Knowledge Spillovers*, 95 REV. ECON. & STAT. 884 (2013) (impact of non-competes on knowledge spillovers); Michael Ewens & Matt Marx, *Founder Replacement and Startup Performance*, 31 REV. FIN. STUD. 1532 (2018) (non-competes hinder a startup's ability to attract executives and scale); Matt Marx, Deborah Strumsky & Lee Fleming, *Mobility, Skills, and the Michigan Non-Compete Experiment*, 55 MGMT. SCI. 875 (2009) (arguing that non-competes limit employee mobility); Evan Starr, Natarajan Balasubramanian & Mariko Sakakibara, *Screening Spinouts? How Noncompete Enforceability Affects the Creation, Growth, and Survival of New Firms*, 64 MGMT. SCI. 552 (2018) (non-competes limit the ability of departing employees to start new ventures within the same industry); Toby E. Stuart & Olav Sorenson, *Liquidity Event and the Geographic Distribution of Entrepreneurial Activity*, 48 ADMIN. SCI.

riers to scientific mobility are socially detrimental because they prevent knowledge gains that could be achieved from the cross-pollination of ideas.⁵² Additionally, the spillover theory of entrepreneurship suggests that founders often utilize ideas they encountered at previous employers.⁵³ As a result, “many entrepreneurs start firms in similar fields to those of their ex-employer, whether or not their activity is officially sanctioned.”⁵⁴

The issue of non-competes has drawn significant attention from business and technology focused media outlets and lobbying groups.⁵⁵ Many believe that part of what has allowed Silicon Valley to become a leader in technology and innovation is the fact that non-compete agreements are not enforceable in California. Proponents of eliminating non-competes believe that high employee mobility allows for more cross-pollination of ideas, which leads to more innovation. Those in favor of non-competes believe that they are necessary to protect a company’s assets and investment in employee training and development. New evidence supports both arguments to some degree:

To a great extent, the research has borne out the basic prediction of both the traditional economic analysis and the new wisdom. . . . [N]on-compete enforcement encourages firms to spend on training, but discourages employees from investing in their own human capital. . . . [T]he empirical findings suggest a

Q. 175 (2003) (enforceability of post-employment non-competes may slow new venture creation in the biotech industry).

52. LERNER & STERN, *supra* note 2, at 5.

53. See Matt Marx & Lee Fleming, *Non-compete Agreements: Barriers to Entry . . . and Exit?*, in 12 INNOVATION POL’Y & ECON. 39, 60 (Josh Lerner & Scott Stern eds., 2012), <http://www.nber.org/chapters/c12452> (first citing Amar V. Bhide, *THE ORIGIN AND EVOLUTION OF NEW BUSINESS* (2000)); then citing James J. Anton & Dennis A. Yao, *Start-Ups, Spin-Offs, and Internal Projects*, 11 J.L. ECON. & ORG. 362 (1995); and then citing Steven Klepper & Peter Thompson, *Disagreements and Intra-Industry Spinoffs*, 28 INT’L J. INDUS. ORG. 526 (2010)); see also Zoltan J. Acs, Pontus Braunerhjelm, David B. Audretsch & Bo Carlsson, *The Knowledge Spillover Theory of Entrepreneurship*, 32 SMALL BUS. ECON. 15 (2009).

54. Marx & Fleming, *supra* note 53.

55. Chris DeVore, *Silicon Valley Keeps Winning Because Non-Competes Limit Innovation*, TECHCRUNCH (Feb. 18, 2016), <https://techcrunch.com/2016/02/18/silicon-valley-keeps-winning-because-non-competes-limit-innovation/>.

vicious cycle. Without some limitation on employee mobility, employers invest less in human capital and innovation. But once the initial investment is made, the same mobility limitation has a chilling effect on further development.⁵⁶

In other words, if not for a non-disclosure agreement or non-compete agreement with its employees, a firm may be less likely to share cutting-edge information with them.⁵⁷ Fewer innovations will be produced on a mass scale. In the beginning, these types of restrictions on labor mobility benefit the firm and the nation as whole. But at some point, in certain fields (computers, electronics, medical instruments, etc.)⁵⁸ what may be good for the firm is no longer good for the nation, by restricting follow-on innovation.

What all of this suggests is that a court asked to enforce an NDA should inquire whether the defendant has used the information to engage in cumulative or follow-on innovation, and if so, it should consider the public benefit in allowing the defendant to continue its activity. The rules should not however discourage initial innovation in the first place. Without investments of time and resources into creating new innovation and inventions, there is no innovation on which to build follow-on innovation. The approach developed below seeks to satisfy both policy goals.

II.

WHY NDAs ARE SO OFTEN USED

An NDA is used to protect CBI because, outside of an employment relationship, it is the only legally available method to protect CBI. CBI is legally protected in only two cases: between an employer who shared CBI with an employee, and between the parties to an agreement which restricts the disclosure and use of whatever information the agreement defines as being confidential.⁵⁹ Because a panoply of other tort causes of action

56. Yifat Aran, Note, *Beyond Covenants Not to Compete: Equilibrium in High-Tech Startup Labor Markets*, 70 STAN. L. REV. 1235, 1257–60 (2018).

57. *Id.* at 1250.

58. Galasso & Schankerman, *supra* note 7.

59. Of course, even between employer and employee, an express NDA is often used alongside other restrictive covenants such as non-compete and non-solicitation agreements.

for the misappropriation of CBI has probably been preempted by Section 7 of the Uniform Trade Secrets Act (“UTSA”),⁶⁰ which displaces conflicting tort, restitutionary, and other remedies for misappropriation of a trade secret,⁶¹ NDAs are widely used to extend trade secrets law by restricting the use and dissemination of CBI.⁶² As the comment to Section 7 makes clear,

60. See Unikel, *supra* note 1, at 857–65.

61. UNIF. TRADE SECRETS ACT § 7 (NAT’L CONF. OF COMMISSIONERS ON UNIF. STATE LAWS 1985).

“[W]hen the claims are based on the misuse of confidential information that does not meet the statutory definition of a trade secret, courts are divided on whether ‘the UTSA abrogates those claims.’” Julie Piper, *I Have a Secret? Applying the Uniform Trade Secrets Act to Confidential Information That Does Not Rise to the Level of Trade Secret Status*, 12 MARQ. INTELL. PROP. L. REV. 359, 368 (2008).

“The ‘majority view’ of section 7 displacement holds that non-trade secret information is not a protectable class of information and therefore common law claims that seek to protect it are preempted.” *Atl. Med. Specialists, LLC v. Gastroenterology Assocs., P.A.*, No. N15C-06-245 CEB, 2017 Del. Super. LEXIS 196, at *35 (Del. Super. Ct. Apr. 20, 2017).

See RESTATEMENT (THIRD) OF UNFAIR COMPETITION (AM. LAW. INST. 1995) § 41 cmt. c (tort claim for misappropriation only if the information is a trade secret).

62. See LAWGEEX, COMPARING THE PERFORMANCE OF ARTIFICIAL INTELLIGENCE TO HUMAN LAWYERS IN THE REVIEW OF STANDARD BUSINESS CONTRACTS (Feb. 2018), <https://images.law.com/contrib/content/uploads/documents/397/5408/lawgeex.pdf> (The lawyers and the machine spotted issues in five NDAs, described in the study as “a contractual basis for most business deals.” Each of the NDAs defined and protected confidential business information.)

“A common reason to seek a promise of silence is to protect some perceived economic interest. Typically, the party from whom one seeks the promise of silence either has acquired or will acquire information which, if disclosed, could cause economic harm to the party seeking the promise. To avoid this harm, the latter party offers the former something in exchange for a promise not to disclose. A common example is a contract to protect a trade secret Employees or licensees may need the information to do their work, and prospective buyers or joint venturers may need it to assess the secret’s value Ideas are not generally protected as property; therefore one who blurts out a valuable idea risks having the idea stolen. Someone marketing an idea may logically insist that prospective purchasers promise not to disclose the idea should they decide to reject it. Likewise, a company might be willing to share nonpublic information with a potential acquirer, but only on the condition that the acquirer promises to use the information solely to evaluate the acquisition.” Garfield, *supra* note 13, at 269–70.

“Firms share confidential information with various parties, including employees, joint venture collaborators, consultants, contractors, and customers firms routinely use confidentiality contracts to help protect trade

the UTSA does not displace duties a duty voluntarily assumed by contract or imposed by law upon an employee.⁶³

As will be seen *infra* Part III, the information at issue in the CBI cases could in principle also qualify as a trade secret, e.g., formulae, plans, lists, etc. Even financial statements, often disclosed pursuant to an NDA, can be trade secrets.⁶⁴

It is easier and less expensive to write an NDA, especially a simple one, than to put in place such additional continuing security measures as would be required for the information to achieve trade secret status. In addition to having NDAs with employees and third parties who receive information, other security measures that are commonly used include an intellectual property audit to identify a firm's trade secrets, installing physical limitations such as fences, locked doors, security guards, or restricted areas, using notices, such as "no trespassing" or "confidential" that let people know that information should be kept secret, having computer network security such as coded barriers or password protection, limiting the number and identity of people who can access trade secret information, shredding of waste paper and destruction of other discarded objects. Similarly, as a general matter, it is probably simpler and less expensive to litigate a suit for breach of a written contract that declares the information at issue to be protectable (especially in state that takes a relaxed approach to the enforcement of NDAs) than to prove trade secret status in a misappropriation case.

secrets in the context of: (1) licensing trade secrets to other businesses; (2) employment contracts; and (3) licensing mass-market software and database access to consumers." Deepa Varadarajan, *The Trade Secret-Contract Interface*, 103 IOWA L. REV. 1543, 1556 (2018).

63. "The Act . . . does not apply to a duty imposed by law . . . like an agent's duty of loyalty to his or her principal." UNIF. TRADE SECRETS ACT §7 cmt. (NAT'L CONF. OF COMMISSIONERS OF UNIF. STATE LAWS 1985). See *infra* note 65 for a discussion of CBI cases involving employees.

64. "[T]he factors relied upon in determining whether a trade secret exists . . . weigh in favor of plaintiffs' claim." Alpha Sch. Bus Co. v. Wagner, 910 N.E.2d 1134, 1154 (Ill. App. Ct. 2009).

"We think it likely that the detailed financial information Apple and Samsung seek to seal would meet the Restatement's relatively broad definition of 'trade secret'—'any . . . 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.'" Apple Inc. v. Samsung Elecs. Co., 727 F.3d 1214, 1225 n.3 (2013).

III. REGULATION OF NDAs

Some states take a laissez-faire approach to NDAs and enforce them as written. States that regulate NDAs do so in two ways. First, some courts will deny protection if the definition of CBI is too broad. Second, even if the information at issue is truly CBI, some courts will enforce the NDA only if its geographic or temporal scope is reasonable.

A. *Definition of CBI*

What exactly is CBI and how does it differ from a trade secret?⁶⁵

One difference between CBI and a trade secret is in their legal effect: a trade secret is property, good against the world in that any third party can be a misappropriator, while CBI is a matter of contract affecting only the parties to the NDA.⁶⁶ Another difference, as will be discussed in this section, is that not all the elements of a trade secret must be proved when one seeks to enforce an NDA for CBI. The NDA dispenses with the need to prove adequate security measures actually in place. Confidentiality is enough.⁶⁷ An NDA would also dispense with the need to prove the economic value of the information. However, an NDA does not dispense with the need to prove

65. See *supra* note 9 for the elements of a trade secret.

66. Note however that a fiduciary may not misuse CBI, even absent a written NDA. See *Lamorte Burns & Co. v. Walters*, 770 A.2d 1158 (2001); see also *Carpenter v. United States*, 484 U.S. 19 (1987). Winans was a reporter for the *Wall Street Journal* and one of the two authors of a daily column, “*Heard on the Street*.” The official policy and practice at the *Journal* was that prior to publication, the contents of the column were the *Journal*’s confidential information. Winans conspired with others to give them advance information on the timing and contents of the “*Heard*” column. This permitted them to buy or sell securities based on the column’s likely impact on the market. The court held that the arrangement used the *Journal*’s CBI in derogation of its right to the exclusive use of its property, regardless of its intangible nature. “Confidential business information has long been recognized as property.” *Id.* at 26. *But see* *AMP, Inc. v. Fleischhacker*, 823 F.2d 1199 (7th Cir. 1987) (absent an enforceable restrictive covenant, CBI revealed to an employee can be used by that employee in a new job).

67. *But see* *AssuredPartners, Inc. v. Schmitt*, 44 N.E.3d 463 (Ill. App. Ct. 2015). “There is a great deal of information that is not ‘generally’ known to the public; not all of it merits protection under a confidentiality provision.” *Id.* at 476.

the information is not generally known. General knowledge cannot be CBI.

There is a significant overlap as well. The same sort of information that could constitute a trade secret has also been protected as CBI: client and customer lists, pricing information, internal financial information, strategies regarding business, marketing, merchandising and promotion, information regarding vendors, suppliers, manufacturing or purchasing, and new product development information, including processes, plans, formulae, R&D methods and practices.⁶⁸ Like a trade secret, CBI can be protected by a covenant not to compete.⁶⁹ This is possibly why some commentators do not clearly distinguish between the two.⁷⁰ However, the two categories of information “do not equate, and may in fact refer to entirely different bodies of information. Certain information protected by agreement may be protected only by agreement, as it is considered by a business to be confidential, while not necessarily qualifying as ‘trade secrets.’”⁷¹

68. See, e.g., *Zambelli Fireworks Mfg. Co., v. Wood*, 592 F.3d 412 (3d Cir. 2010) (client list, pricing and business strategy); *Fleetwood Packaging v. Hein*, No. 14 C 09670, 2015 U.S. Dist. LEXIS 142078 (N.D. Ill. Oct. 20, 2015) (price lists, customer lists, vendor lists); *Trailer Leasing Co. v. Assocs. Commercial Corp.* No. 96 C 2305, 1996 U.S. Dist LEXIS 9654 (N.D. Ill. July 10, 1996) (list of customers or prospective customers or any methods and manners by which X leases, rents, sells, finances, or deals with its products and its customer); *Boulangier v. Dunkin’ Donuts, Inc.*, 815 N.E. 2d 572 (Mass. 2004) (operating manuals, new product recipes, financial information, marketing and promotion strategy, new product development, new store site locations); *Bernier v. Merrill Air Eng’rs*, 770 A.2d 97 (Me. 2001) (processes, plans, formulae, programs, devices or material relating to the business, services or activities of X); *N. Am. Paper Co. v. Unterberger*, 526 N.E.2d 621 (Ill. App. Ct. 1988) (information regarding manufacturing, purchasing, research and development methods and practices, accounting, suppliers, marketing, merchandising, or customers).

69. See *Boulangier*, 815 N.E. at 578.

70. “Worldwide, the law protecting confidential business information (or trade secrets) is very varied.” Vivien Irish, *Disclosing Confidential Information*, WORLD INTEL. PROP. ORG. (Sept. 2003), https://www.wipo.int/sme/en/documents/disclosing_inf_fulltext.html.

“The economics literature identified by our survey does not generally discuss confidential business information (‘CBI’) separately from trade secrets. CBI is typically analysed by economists as an element of trade secrets without posing further distinction.” Baker & McKenzie, *supra* note 5, at 84.

71. *Den-Tal-Ez, Inc. v. Siemens Capital Corp.*, 566 A.2d 1214, 1224 (Pa. Super. Ct. 1989).

While an NDA may “extend” the scope of protected material beyond trade secrets,⁷² how far it may extend is “somewhat less clear.”⁷³ CBI is often described as something that “falls short of a trade secret.”⁷⁴ It is however noted that “the rules governing trade secrets are [nonetheless] relevant in analyzing the reasonableness and enforceability of non-disclosure provisions because, in order to justify the contractual restraint, information subject to non-disclosure provisions must share at least some characteristics with information protected by trade secret statutes.”⁷⁵

If the term “confidential business information” is given its plain meaning, the information must in fact be “confidential.”⁷⁶ The reason for the requirement is:

If the firm claiming a protectable interest did not think enough of it to expend resources on trying to prevent lawful appropriation of it, this is evidence that it is not an especially valuable interest, one the firm had incurred substantial expense to acquire or create, and that the firm may be trying to dampen competition rather than to protect a legitimate in-

72. *Orthofix, Inc. v. Hunter*, No. 15-3216, 630 F. App'x 566, 567 (6th Cir. filed Nov. 17, 2015); *Empower Energies, Inc. v. Solarblue, LLC*, 2016 U.S. Dist. LEXIS 130583, at *28 (S.D.N.Y. Sept. 23, 2016).

73. *Jones v. United Propane Gas, Inc.*, No. E2009-00364-COA-R3-CV, 2009 Tenn. App. LEXIS 878, at *42 (Tenn. Ct. App. filed Dec. 28, 2009).

74. *Fleetwood Packaging*, 2015 U.S. Dist. LEXIS 142078, at *20. “[I]nformation need not rise to the level of a trade secret to be protected.” *Lamorte Burns & Co. v. Walters*, 770 A.2d 1158, 1166 (2001). A plaintiff “need not show its information rises to the level of a trade secret.” *Tax Track Sys. Corp. v. New Inv'r World, Inc.*, 478 F.3d 783, 787 (7th Cir. 2007). CBI is “information that does not rise to the level of a trade secret but is more than general skill or knowledge.” *See Bernier v. Merrill Air Eng'rs*, 770 A.2d at 104 (Me. 2001). “[C]onfidential information does not have to rise to the level of a trade secret in order to be the subject of a valid non-disclosure agreement between employer and employee.” *Eng'g Excellence, Inc. v. Meola*, No. 01AP-1342, 2002 Ohio App. LEXIS 5407, at *14 (Ohio Ct. App. Oct. 8, 2002).

75. *Orthofix, Inc.*, 630 F. App'x at 568.

76. *E.g.*, *N. Am. Paper Co. v. Unterberger*, 526 N.E.2d 621 at 624 (Ill. App. Ct. 1988). In the Seventh Circuit's opinion, Illinois also requires that the plaintiff have made a reasonable effort to keep the information confidential. *See Tax Track Sys. Corp.*, 478 F.3d at 787. Ohio and Louisiana also require that the information be confidential. *See Eng'g Excellence, Inc.*, 2002 Ohio App. LEXIS 5407; *S. Indus. Contractors, LLC v. W. Builders of Amarillo, Inc.*, 56 So. 3d 307, 311 (La. Ct. App. 2010).

vestment. And if the information in which rights are sought is not in fact secret, chances are that the defendant (or in this case the defendant's new employer) would soon have obtained it lawfully, so that the plaintiff hasn't really been much harmed by the employee's defection and again an inference of possible anticompetitive purposes arises.⁷⁷

What does "confidential" mean? As an initial matter, "[c]ourts may look to the contract between the parties to help determine what information is deemed confidential."⁷⁸ In the two states that seem to take a pure freedom of contract approach to CBI NDAs, Minnesota and Texas, it appears that the courts go no further.⁷⁹ More states seek to define the term, requiring that the information cannot be generally available to the public or readily ascertainable through public sources.⁸⁰

Similarly, Freedom of Information Act Exemption 4 shields from mandatory disclosure "commercial or financial

77. *Curtis 1000, Inc. v. Suess*, 24 F.3d 941, 947–48 (7th Cir. 1994) (citations omitted).

78. *Empower Energies, Inc. v. Solarblue, LLC*, No. 16cv3220 (DLC), 2016 U.S. Dist. LEXIS 130583, at *28–29 (S.D.N.Y. Sept. 23, 2016).

79. *See Orthofix, Inc.*, 630 F. App'x at 572 (suggesting that secrecy is not required under Texas law); *see also* *Loftness Specialized Farm Equip., Inc. v. Twiestmeyer*, 818 F.3d 356 (8th Cir. 2016) (applying Minnesota law, enforcing an unusually broad contractual definition of CBI).

80. Not information that is "generally published and available to the public"; "information that would not generally be known by the public." *Revere Transducers, Inc. v. Deere & Co.*, 595 N.W.2d 751, 762–63 (Iowa 1999). "Information that is not available to the public and is integral to the company's success can constitute 'confidential business information' under Section 542.335 of the Florida Statutes." *United Subcontractors, Inc. v. Godwin*, No. 11-81329-Civ-Hurley/Hopkins, 2012 U.S. Dist. LEXIS 67061, at *18 (S.D. Fla. Feb. 3, 2012). "The information surreptitiously gathered by defendants from plaintiff was not generally available to the public . . ." *Lamorte Burns & Co. v. Walters*, 770 A.2d 1158, 1167 (N.J. 2001). "[I]t is for a jury to decide whether the targeted information was confidential or ascertainable through public records." *Ashland Mgt. Inc. v. Altair Invs. NA, LLC*, 59 A.D.3d 97, 104 (N.Y. App. Div. 2008). "'Confidential' can mean 'known only to a limited few; not publicly disseminated.'" *Proctor & Gamble Co. v. Stoneham*, 747 N.E.2d 268, 277 (Ohio Ct. App. 2000). "The identities of the employer's customers did not amount to 'confidential business information' within the meaning of the employment agreement because such information was generally available in the trade." *Jones v. United Propane Gas, Inc.*, No. E2009-00364-COA-R3-CV, 2009 Tenn. App. LEXIS 878 at 42 (Tenn. Ct. App. filed Dec. 28, 2009).

information obtained from a person and privileged or confidential.”⁸¹ After consulting dictionaries, the Supreme Court found that “[t]he term ‘confidential’ [means] ‘private’ or ‘secret.’”⁸²

A similar requirement appears in different language in cases like *Orthofix* and *Bernier*, which exclude general knowledge and skills from the scope of CBI. “[I]nformation forming the ‘general skill, knowledge, training, and experience of an employee cannot be’ a trade secret or subject to a non-disclosure agreement.”⁸³ Illinois goes further, at least in cases against an ex-employee. “There is a great deal of information that is not ‘generally’ known to the public; not all of it merits protection under a confidentiality provision” if the effect of enforcing the NDA would be to preclude an ex-employee from holding another job in the industry.⁸⁴ Several courts have accordingly refused to enforce an NDA because its definition of CBI was vague or too broad.⁸⁵

Two cases illustrate the costs of enforcing an NDA when the information is not confidential. The first is *ChemiMetals Processing, Inc., v. McEneny*.⁸⁶ ChemiMetals manufactured the Product Line, chemical compounds used to accelerate metal

81. 5 U.S.C. § 552(b)(4) (2018).

82. “Contemporary dictionaries suggest two conditions that might be required for information communicated to another to be considered confidential. In one sense, information communicated to another remains confidential whenever it is customarily kept private, or at least closely held, by the person imparting it. . . . In another sense, information might be considered confidential only if the party receiving it provides some assurance that it will remain secret. . . . Must both of these conditions be met for information to be considered confidential under Exemption 4? At least the first condition has to be; it is hard to see how information could be deemed confidential if its owner shares it freely.” *Food Mktg. Inst. v. Argus Leader Media*, 139 S. Ct. 2356, 2363 (2019).

83. *Orthofix, Inc.*, 630 F. App’x at 568.

84. *AssuredPartners, Inc. v. Schmitt*, 44 N.E.3d 463 (Ill. App. Ct. 2015).

85. *E.g., id.* at 475 (not “patently overbroad”); *McGough v. Nalco Co.*, 496 F. Supp. 2d 729, 756 (N.D. W. Va. 2007) (not “[a]lmost all of the information . . . acquired during [employment].”); *Milprint, Inc. v. Flynn*, 2006 WI App 223, ¶ 3, 296 Wis. 2d 936, 724 N.W.2d 274 (finding a non-disclosure agreement unreasonable since it applied not only to specific and identifiable categories but to “all other concepts or ideas” reasonably related to the business).

86. *ChemiMetals Processing, Inc., v. McEneny*, 476 S.E.2d 374 (N.C. Ct. App. 1996).

removal in metal finishing processes. It entered into a distributorship agreement with Vibra-Chem. ChemiMetals would manufacture the Product Line, Vibra-Chem would purchase the Product Line from ChemiMetals and be the exclusive distributor of the Product Line. The agreement also provided that “the makeup or composition of the [Product Line] and the knowledge or technology of ChemiMetals regarding the [Product Line] and [its] Process are proprietary to ChemiMetals, highly valuable to ChemiMetals . . . and are confidential to ChemiMetals.”⁸⁷ Further, Vibra-Chem “shall not directly or indirectly manufacture or otherwise create or recreate (or attempt to) the Product Line, or any similar chemical agent or compound, or any chemical agent or compound in direct competition with the Product Line.”⁸⁸ Vibra-Chem then began to manufacture and distribute the Product Line.

The court enforced the agreement. “The Agreement simply prevents [Vibra-Chem] from using the ‘composition,’ ‘technology,’ and ‘[p]rocess’ utilized by ChemiMetals in the manufacture of the Product Line, which information [Vibra-Chem] acknowledged to be the property of and confidential to ChemiMetals. It follows that the prohibition against the manufacturing of the Product Line is reasonably related to the protection of the confidential information and thus serves a legitimate business interest of ChemiMetals.”⁸⁹

This is an odd ruling. There is no suggestion in the case that ChemiMetals even communicated its formulae to Vibra-Chem. Nor is there any suggestion that the formulae were not generally known in the industry. In such circumstances, the object of the NDA is simply to restrain trade. It has no pro-competitive purpose or effect.

The second case is *Loftness Specialized Farm Equip., Inc. v. Twiestmeyer*.⁹⁰ Twiestmeyer approached Loftness with an idea for a new line of grain bag loaders and unloaders for Loftness to manufacture and sell. They signed an NDA. “Loftness agreed that it would ‘keep in confidence all Confidential Information’ and would ‘not directly or indirectly disclose to any

87. *Id.* at 375–76.

88. *Id.*

89. *Id.* at 377.

90. *Loftness Specialized Farm Equip., Inc. v. Twiestmeyer*, 742 F.3d 845 (8th Cir. 2014).

third party or use for its own benefit, or use for any purpose other than the Project, any Confidential Information it receives from [Twiestmeyer].’⁹¹ Loftness also agreed not to use Twiestmeyer’s “confidential information in any way that could be construed as being competitive of [Twiestmeyer’s] business for a period of twenty (20) years after the effective date of this Agreement.”⁹² The agreement defined “Confidential Information” as “[s]uch information that Twiestmeyer considers to be proprietary and/or confidential” and included a non-exhaustive list of potential types of confidential information.⁹³

They later reached a substantive deal; Loftness would pay Twiestmeyer two percent of sales of the new equipment. They did business together for the two-year term of the agreement. Then, Loftness ceased making payments to Twiestmeyer but continued to make and sell the loaders.

Twiestmeyer sued alleging breach of the NDA. The trial court dismissed the claim because Twiestmeyer had made no effort to keep the ideas and information confidential. The appeals court, applying Minnesota law, reversed and remanded because the trial court applied the wrong test. Rather than interpreting and applying the terms of the NDA, the trial court had considered the elements of the tort of misappropriation of trade secrets and confidential information. The trial court was instructed analyze the relevant provisions of the NDA, especially Loftness’s agreement not to use Twiestmeyer’s “confidential information in any way that could be construed as being competitive of Twiestmeyer’s business”⁹⁴ and the NDA’s definition of “Confidential Information” as “[s]uch information that Twiestmeyer considers to be proprietary and/or confidential.”⁹⁵

The court made no comment on either the extraordinarily long 20-year term of the NDA or the nearly unbounded definition of confidential information—anything that Twiestmeyer says it is.

On remand, the trial court entered summary judgement in favor of Loftness because “[t]he language of the NDA . . .

91. *Id.* at 848.

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.* at 850–51.

protected the use or disclosure of ‘Confidential Information’ related to the ‘Project,’ but the NDA did not prohibit the use or disclosure of project-related information that was no longer confidential.”⁹⁶ In its second opinion in the case, the Eight Circuit held this to be error because the parties might have intended that the NDA apply nonetheless. “The fact that the parties made no effort to keep [Twistmeyer’s] confidential information confidential, however, does not convince us that the parties intended for the NDA’s protections to end. Even though the non-disclosure provision might no longer apply, the non-use provision still might have prevented Loftness from using this information for twenty years”⁹⁷

What are the virtues of a freedom of contract approach? It is a simple rule, easy to follow, and relatively inexpensive to enforce in the courts. The NDA created the conditions for a new product idea to be commercialized, and the court sought to enforce the agreement according to its plain language and the presumed intention of the parties. What are the costs of such an approach? There is a potential for the agreement to restrict competition unduly if it requires Loftness to pay a fee to Twistmeyer for information that has entered the public domain because Twistmeyer made no effort to keep the information confidential, and which other manufacturers may use without charge. There will be a similar drag on further innovation by Loftness, since it (unlike its competitors) cannot commercialize an improvement without paying a fee to Twistmeyer. The virtues can be realized and the costs avoided if the court required the confidential information at issue to be confidential in fact. Since CBI can be broader in scope than a trade secret, the definition in the NDA should be required to be precise, not overbroad, to avoid impeding cumulative innovation.

B. *Time and Place Restrictions*

Many states impose a reasonableness requirement, and will enforce the NDA only if it is reasonably related to the protection of genuine CBI, goes only as far as is reasonably necessary in the circumstances, does not impose an unreasonable

96. *Loftness Specialized Farm Equip., Inc. v. Twistmeyer*, 818 F.3d 356, 360 (8th Cir. 2016).

97. *Id.* at 363.

burden upon the counterpart (usually, an ex-employee), and is not contrary to public policy.⁹⁸ This means that the NDA will be subject to time and place restrictions. Some states strictly require both.⁹⁹ Some states require only one.¹⁰⁰

Some don't require either, but consider their presence or absence in assessing the reasonableness of the NDA.¹⁰¹ Finally, a couple of states do not require such limits at all.¹⁰²

Setting aside employee mobility concerns, which are not the focus of this article, there is no reason for such limits to be required in an NDA between two businesses. Geographic limits seem inappropriate. Once a secret is disclosed, knowledge of the information cannot normally be confined to a particu-

98. *See, e.g.*, *Disher v. Fulgoni*, 464 N.E.2d 639 (Ill. App. Ct. 1984) (restriction cannot be greater than is necessary); *N. Am. Paper Co. v. Unterberger*, 526 N.E.2d 621 (Ill. App. Ct. 1988) (reasonably necessary); *Bernier v. Merrill Air Eng'rs*, 770 A.2d 97 (Me. 2001) (no wider in scope than is reasonably necessary); *Durham v. Standy-By Labor*, 198 S.E.2d 145 (Ga. 1973) (reasonably related); *Milprint, Inc. v. Flynn*, 724 N.W.2d 274 (Wis. Ct. App. 2006) (reasonably necessary, not an undue burden, not against public policy); *Newinno, Inc. v. Peregrim Dev.*, 2003 Conn. Super. LEXIS 1750 (Conn. Super. Ct. 2003) (reasonableness standard); *1st Am. Sys., Inc. v. Rezatto*, 311 N.W.2d 51 (S.D. 1981) (enforced only to extent reasonably necessary); *Revere Transducers, Inc. v. Deere & Co.*, 595 N.W.2d 751 (Iowa 1999) (reasonably necessary, not unduly restrictive of employee, not prejudicial to public interest); *Ashland Mgmt. Inc. v. Altair Invs. NA, LLC*, 59 A.D.3d 97 (N.Y. App. Div. 2008) (as necessary to protect employer's legitimate interest, not harmful to general public, not unduly burdensome to employee); *Chemimetals Processing, Inc. v. McEneny*, 476 S.E.2d 374 (N.C. Ct. App. 1996) (reasonably related); *State Med. Oxygen Supply v. Am. Med. Oxygen*, 782 P.2d 1272 (Mont. 1989) (reasonable protection, not an unreasonable burden).

99. *See* *1st Am. Sys., Inc. v. Rezatto*, 311 N.W.2d 51 (S.D. 1981); *N. Am. Paper Co. v. Unterberger*, 526 N.E.2d 621 (Ill. App. Ct. 1988).

100. Time limits required, but not geographic limits: *See* *Thomas v. Best Mfg. Corp.*, 218 S.E.2d 68 (Ga. 1975); *Wright v. Power Indus. Consultants*, 508 S.E.2d 191 (Ga. Ct. App. 1998), *overruled in part on other grounds by* *Advance Tech. Consultants v. Roadtrac*, 551 S.E.2d 735 (Ga. Ct. App. 2001); *Custom Teleconnect, Inc. v. Int'l Tele-Servs., Inc.*, 254 F. Supp. 2d 1173 (D. Nev. 2003); *Nalco Chem. Co. v. Hydro Techs., Inc.*, 984 F.2d 801 (7th Cir. 1993) (applying Wisconsin law). Time or place limits: *See* *State Med. Oxygen Supply*, 782 P.2d 1272. Durational limit not necessary: *See Bernier*, 770 A.2d at 97.

101. *Newinno, Inc. v. Peregrim Dev.*, 2003 Conn. Super. LEXIS 1750, at *5-6; *Ashland Mgmt. Inc.*, 869 N.Y.S.2d at 471.

102. *Chemimetals Processing, Inc.*, 476 S.E.2d at 377; *Zep Mfg. Co. v. Harthcock*, 824 S.W.2d 654, 663 (Tex. App. 1992); *Bernier*, 770 A.2d at 104.

lar area.¹⁰³ Temporal limits likewise seem unnecessary in a B2B case, provided that an NDA is construed as protecting only confidential information and only for so long as the information remains confidential. There is no justification for imposing an obligation of confidentiality after the information has become generally known or readily ascertainable by proper means.

IV.

CUMULATIVE INNOVATION VS. PIRACY: A QUESTION OF REMEDY

Part I suggests the possibility of cumulative innovation as a policy-based defense in a suit for breach of an NDA. Imagine that someone who signed an NDA, and received CBI of a general nature, used the CBI in breach of the NDA to develop and reduce to practice a significant innovation. This person has added value, taken a fuzzy idea and made it concrete. His actions confer a public benefit. We place this case at one end of a spectrum. At the opposite end of the spectrum is a defendant who received specific detailed CBI and used the information as-is to compete against the plaintiff. The defendant has added nothing of value.

For example, consider *Bernier v. Merrill Air Engineers*.¹⁰⁴ An engineer who worked for an engineering firm quit and went to work for one of the firm's clients. The client then canceled a contract with the engineering firm to design and build an industrial dryer. Engineer had been in charge of the design and drafting of the firm's proposal to the client and used that design when he joined the client. The following NDA governed his relationship with the engineering firm:

[T]he Employee agrees that he or she shall not, during the term of employment by Engineering Firm or at any time thereafter, divulge, use, furnish, disclose or make accessible to anyone other than Engineering Firm or other than in Engineering Firm's usual course of business, any knowledge or information with respect to (i) confidential or secret processes, plans, formulae, programs, devices or material relating to the business, services or activities of Engineer-

103. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 41 cmt. d (AM LAW INST. 1995).

104. *Bernier*, 770 A.2d. at 97.

ing Firm, (ii) any confidential or secret development or other original work of Engineering Firm, (iii) any other confidential or secret aspect of the business, products, or activities of Engineering Firm All records, materials, and information obtained by the Employee in the course of his or her employment are confidential and shall remain the exclusive property of Engineering Firm.¹⁰⁵

The firm sued the engineer for damages, its lost profit on the design and construction of the dryer. The Maine Supreme Court affirmed judgment in favor of the firm. It held that “The nondisclosure clause . . . is reasonable. We uphold the court’s conclusion that paragraph 3 reasonably prohibits [Engineer] from using particularized, highly specialized proprietary protected original work that was custom designed for a particular prospect.”¹⁰⁶ “Paragraph 3 reasonably precluded [Engineer] from designing a dryer for [Customer] by using the “original work” he became privy to while developing [Engineering Firm’s] dryer proposal to [Customer].”¹⁰⁷ This is a straightforward case. Innovative detailed work was done at the engineering firm. It appears that engineer added nothing to it after he left. Enforcement of the NDA rewards the innovator, the engineering firm which employed the engineer.

*Concept, Inc., v. Thermotemp, Inc.*¹⁰⁸ is not as straightforward. Thermotemp developed a thermal therapy machine to control pain, swelling, and blood loss after surgery. The machine circulated water through a set of hoses to an insulated pad that can be applied directly to a patient. The temperature of the water could be adjusted, so the machine acted like a hot water bottle or an ice bag depending on the temperature of the water. Although Thermotemp did not invent the machine, its efforts to develop a marketable machine took approximately six years.

Concept sold various types of machinery to hospitals. Concept approached Thermotemp concerning an interest in establishing a business relationship. Before engaging in any seri-

105. *Id.* at 102.

106. *Id.* at 103.

107. *Id.* at 104.

108. *Concept, Inc. v. Thermotemp, Inc.*, 553 So. 2d 1325 (Fla. Dist. Ct. App. 1989).

ous discussions, the two companies entered into a written “confidential disclosure agreement.” The agreement stated that both Concept and Thermotemp would disclose to one another “certain trade secrets, know-how and confidential information in order to establish or further such business relationship.”¹⁰⁹ Each party agreed that, for a period of three years, it would “hold in confidence and not use for its own benefit any confidential information disclosed to it by the other party.”¹¹⁰ Although the agreement did not expressly define “confidential information,” its plain language suggests that the phrase includes information that is not a trade secret. The agreement further provided that some types of information were not confidential information, including information which is already in the public domain and information which is published by the disclosing party, or a third party, and becomes a part of the public domain.

Once the parties signed the NDA, they conducted business negotiations. In addition to describing its existing machine to Concept, Thermotemp disclosed that it intended to market a new machine which would have three additional features: (1) a flow meter which would shut off water circulation in the event of an obstruction in the machine; (2) electronic touch pads instead of traditional electric switches; and (3) an improved temperature probe to regulate the temperature of the circulating water.¹¹¹ After these disclosures were made, the negotiations failed.

Concept then developed a thermal therapy machine incorporating these improvements. It appears (although the facts are not entirely clear) that Concept’s improved device was ready for sale to the public at a time that Thermotemp had only a prototype.

In enforcing the NDA, the Florida appeals court observed that:

Parties are entitled to enter into contracts in which they agree not to use or disclose confidential information, even though the information may not qualify as a trade secret. If such a contract does not violate any established public policy, the parties should be

109. *Id.* at 1326.

110. *Id.*

111. *Id.* at 1326–27.

entitled to enforce the injunctive provisions of their contract in a Florida court as contemplated by their contract . . . Concept has not presented any public policy which would preclude the enforcement of this agreement. . . . Concept does not suggest that the agreement violates any statute promoting competition. Such voluntary agreements may frequently be necessary to encourage Florida businesses to expand and grow. The restrictions in the agreement were acceptable to the parties when they entered into the agreement, and those restrictions do not appear to overly restrict competition in this market.¹¹²

The appeals court affirmed the grant of a temporary injunction. The NDA was enforced according to its terms; the plaintiff's reasonable expectations induced by defendant's promise realized. The reasoning is straightforward and resolution in court relatively quick and inexpensive. But the holding has its costs. By granting the injunction, the court appears to have required the public to wait for an innovative product.

The Florida court was certainly correct in noting the possibility that public policy might preclude the issuance of an injunction.¹¹³ "In exercising their sound discretion, courts of equity should pay particular regard for the public consequences in employing the extraordinary remedy of injunction."¹¹⁴ There is a public policy argument against the enforcement of the Florida NDA by injunction. The public consequences of the injunction may have denied the public fast access to a better product. The defendant appears to have brought an improved product to market faster than plaintiff would or could. Plaintiff disclosed only its "future plans" to

112. *Id.* at 1327–28.

113. *See eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.).

114. *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982).

defendant.¹¹⁵ Assume (and this may have been the case) that plaintiff disclosed a concept, general ideas, and that defendant swiftly reduced these to practice. There is a positive social benefit from the defendant's actions. If the injunction were denied, consumers would have faster access to the improved product. The unavailability of an injunction against breach of the NDA is not unfair to the disclosing party, who could have chosen to install security measures in addition to the NDA and protect the information as a trade secret (assuming that the information has economic value). CBI that does not amount to a trade secret should not merit robust protection against innovative use, especially since the plaintiff itself is free to sell its own improved product in competition against the defendant, which should benefit the public by driving down the price of the new product.

A better remedy would be to allow the defendant to sell the improved product but to require the defendant to compensate the plaintiff for use of its CBI. The appropriate measure of damages, assuming that the NDA lacks an enforceable liquidated damages clause, would be a reasonable royalty for the use of the CBI. To see why this is so, consider the various damages that might flow from a breach of contract.

Consider first a disgorgement remedy, the recovery of the defendant's gains resulting from the breach. While this may be an attractive remedy for a profitable and opportunistic breach, there is small but increasing support in American law for using disgorgement as a remedy for breach of contract. The Restatement Second of Contracts Section 344 states the familiar principle that judicial remedies for breach of contract serve three interests of a promisee:

- (a) his expectation interest, which is his interest in having the benefit of his bargain by being put in as good a position as he would have been in had the contract been performed, such as lost profits,
- (b) his reliance interest, which is his interest in being reimbursed for loss caused by reliance on the contract by being put in as good a position as he would have been in had the contract not been made, such as out of pocket expenses, or

115. *Concept, Inc. v. Thermotemp, Inc.*, 553 So. 2d 1325, 1328 (Fla. Dist. Ct. App. 1989).

(c) his restitution interest, which is his interest in having restored to him any benefit that he has conferred on the other party, usually in connection with rescission of the contract.¹¹⁶

“There is a striking omission from this list: the disgorgement interest, which is the promisee’s interest in requiring the promisor to disgorge a gain,” wrote one scholar in 2006.¹¹⁷ “Although there is some judicial support in recent American cases for the proposition that such a remedy is disgorgement for breach of contract does not yet appear to be a well-established feature of American private law.”¹¹⁸

Such was the law, but major change was soon to come. Just two years later, “[a] bold disgorgement remedy for opportunistic breach of contract [was] pending in one of the American Law Institute’s [then] current undertakings, the Restatement (Third) of Restitution and Unjust Enrichment (‘Restatement’).”¹¹⁹ The draft Restatement propose[d] disgorgement for “Profit Derived from Opportunistic Breach.”¹²⁰ The Restatement was published in 2011.¹²¹ It provides that a court may award disgorgement in certain cases in which “a deliberate breach of contract results in profit to the defaulting promisor.”¹²² This section was cited with approval by the Supreme Court in *Kansas v. Nebraska*.¹²³ An opportunistic breach of contract has been described as “taking advantage” of one’s contract counterpart. It is not the “exploitation of superior knowledge” and it has “no social product.”¹²⁴

Let’s assume that disgorgement is an available remedy, for example in a suit against an ex-employee for breach of fiduci-

116. RESTATEMENT (SECOND) OF CONTRACTS § 344 (AM. LAW INST. 1981).

117. Melvin A. Eisenberg, *The Disgorgement Interest in Contract Law*, 105 MICH. L. REV. 559, 560 (2006).

118. John D. McCamus, *Disgorgement for Breach of Contract: A Comparative Perspective*, 36 LOY. L.A. L. REV. 943, 943 (2003).

119. Caprice L. Roberts, *Restitutionary Disgorgement for Opportunistic Breach of Contract and Mitigation of Damages*, 42 LOY. L.A. L. REV. 131, 132 (2008).

120. *Id.*

121. RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT (AM. LAW INST. 2011).

122. *Id.* § 39.1.

123. *Kansas v. Nebraska*, 574 U.S. 445 (2015).

124. *Mkt. St. Assocs. Ltd. P’ship v. Frey*, 941 F.2d 588, 594 (7th Cir. 1991).

ary duty.¹²⁵ The appropriate measure of damages in a suit against the innovator should still be something less than disgorgement of all gains earned by the defendant from the sale of the improved product. In *Mattel v. MGA Entertainment*, Mattel accused an employee of wrongfully disclosing to MGA an idea for a new line of dolls. MGA reduced the idea to practice and built the Bratz brand. If Mattel were awarded *all* profits, it would unjustly “[acquire] the fruit of MGA’s hard work.”¹²⁶ The court explained, “When the value of the property held in trust increases significantly because of a defendant’s efforts, a constructive trust that passes on the profit of the defendant’s labor to the plaintiff usually goes too far. For example, ‘[i]f an artist acquired paints by fraud and used them in producing a valuable portrait we would not suggest that the defrauded party would be entitled to the portrait, or to the proceeds of its sale.’”¹²⁷

Turning from disgorgement to the clearly available remedy of expectation damages, the UTSA and Defend Trade Secrets Act (“DTSA”) both provide that a plaintiff in a trade secrets case can recover its actual loss, such as lost profits, or if these cannot be shown, then a plaintiff might be awarded a reasonable royalty.¹²⁸ The governing statute in patent infringe-

125. See *Snepp v. United States*, 444 U.S. 507 (1980) (disloyal agent ordered to disgorge profits to former employer).

126. *Mattel, Inc. v. MGA Entm’t, Inc.*, 616 F.3d 904, 910 (9th Cir. 2010).

127. *Id.* at 911 (citing *Janigan v. Taylor*, 344 F.2d 781, 787 (1st Cir. 1965)).

128. Note that under the UTSA and the DTSA, a plaintiff can also recover a defendant’s gains resulting from the misappropriation of plaintiff’s trade secret under a theory of unjust enrichment. See UNIF. TRADE SECRETS ACT § 3; 18 U.S.C. § 1836(b)(3).

Except to the extent that a material and prejudicial change of position prior to acquiring knowledge or reason to know of misappropriation renders a monetary recovery inequitable, a complainant is entitled to recover damages for misappropriation. Damages can include both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss. In lieu of damages measured by any other methods, the damages caused by misappropriation may be measured by imposition of liability for a reasonable royalty for a misappropriator’s unauthorized disclosure or use of a trade secret.

UNIF. TRADE SECRETS ACT § 3.

The DTSA defines damages awards for unauthorized disclosure or use of trade secrets in a similar manner to the UTSA, stating that awards can be calculated either as actual loss plus any unjust enrichment that is not

ment cases similarly provides for “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.”¹²⁹ “[L]ost profits [are] available to patent owners who would have made sales in the absence of infringement, and reasonable royalties [is] a fallback remedy for everyone else.”¹³⁰ A lost profit measure of damages would not be appropriate by definition in this scenario since the plaintiff is neither ready nor able to sell the improved product and cannot show that it had the ability to meet the demand in the absence of breach.¹³¹ A reasonable royalty upon the CBI, then, should be the appropriate measure of compensatory damages for breach of an NDA.¹³²

addressed in computing damages for actual loss, or by imposition of a reasonable royalty. 18 U.S.C. § 1836 (b) (3) (B).

129. 35 U.S.C. § 284 (2018).

130. Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 655 (2009).

131. *Id.* at 656.

132. “[T]he jury should have determined damages according to the amount Mitsubishi would have paid on April 19, 2001, for a lump-sum, fully paid license to use the confidential information.” *Grail Semiconductor, Inc. v. Mitsubishi Elec. & Elec. USA, Inc.*, 170 Cal. Rptr. 3d 581, 588 (Cal. Ct. App. 2014); *see also Vercoe v. Rutland Fund Management Ltd.* [2010] EWHC 424 (Ch).

Plaintiff entrepreneurs identified a business opportunity to acquire a certain target company. They approached the defendant, a venture capital firm, for funding. All signed confidentiality agreements and agreed upon a business plan, which stated that the plaintiffs were to be officers of the new business. The defendant then excluded plaintiffs, completed the purchase, re-sold the business, and made a profit of nearly £30m. The measure of damages for the breach of contract claim was what defendant should have agreed to pay each of the plaintiffs in order to obtain their consent to using the confidential information without them being involved in the transaction. *Id.* ¶ 289. The court awarded 2.5% and 5% to the plaintiffs, about £860k and £1.72 million respectively. *Id.* ¶¶ 309, 310, 320, 321.

The plaintiffs wanted more. They characterized the defendant’s actions as a breach of confidence and sought an accounting of defendant’s profits from the transaction. The court rejected this claim, holding that “the test is whether the claimant’s interest in performance of the obligation in question . . . makes it just and equitable that the defendant should retain no benefit from his breach of that obligation” and that “[t]he remedy awarded should not be oppressive and should be properly proportionate to the wrong done to the claimant.” *Id.* ¶ 339. Noting the absence of a fiduciary relationship, the court limited the plaintiff to breach of contract damages. *Id.* ¶¶ 345, 351.

There is a cost to our suggested approach. If defendant were allowed to sell the new product but required to pay plaintiff a reasonable royalty upon the CBI, more time in court would be necessary to determine whether defendant's use is sufficiently innovative to merit judicial tolerance, and then to engage in the complex calculation of a reasonable royalty, which usually involves expert testimony.¹³³

Gatan, Inc. v. Nion Co. presents a similar fact pattern.¹³⁴ Gatan manufactured components used in electron microscopes, including spectrometers. Nion manufactured electron microscopes. Historically, Nion did not manufacture its own spectrometers, but instead bought them from Gatan. In October 2009, Nion approached Gatan to collaborate on an electron microscope for Arizona State University. The project required Gatan to provide Nion with a partially assembled spectrometer, which Nion would then modify with Gatan's help. Because the collaboration would require Gatan to disclose confidential information, their February 2, 2010 "Reseller Agreement" included a non-disclosure clause:

12. Confidential Information. In the course of performing services for Gatan, [Nion] . . . will acquire, obtain, or have access to confidential and/or proprietary information relating to Gatan . . . including, without limitation, (a) information, ideas, inventions, designs, plans, prototypes, concepts, processes, formulations, specifications, materials, samples, applications, records, and technical and statistical data related to or used in connection with the design, development, manufacture, advertising, marketing, distribution, and sale of Gatan's products and the op-

133. Recent Federal Circuit cases that discuss expert witness testimony in connection with the calculation of a reasonable royalty under 35 U.S.C. § 284 include *Exmark Mfg. Co. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332 (Fed. Cir. 2018); *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51 (Fed. Cir. 2012); and *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011).

134. The facts are drawn from two opinions. *Gatan, Inc. v. Nion Co.*, No. 15-cv-01862-PJH, 2017 U.S. Dist. LEXIS 49751, at *1, 2, 5, 6 (N.D. Cal. Mar. 31, 2017) (motion to dismiss third amended complaint denied) and *Gatan, Inc. v. Nion Co.*, No. 15-cv-01862-PJH, 2017 U.S. Dist. LEXIS 129127, at *1, 2 (N.D. Cal. Aug. 14, 2017) (motion to dismiss antitrust counterclaims denied).

eration of its businesses; (b) computer software, programs, applications, systems, and data . . . ; and (e) trade secrets (all such information hereinafter referred to as “Confidential Information”)¹³⁵

Paragraph 13 limits Nion’s use of “Confidential Information,” providing that Nion may not disclose or use Gatan’s confidential information except in furtherance of the Agreement:

13. Use of Confidential Information. [Nion] shall hold and maintain strictly confidential all Confidential Information, and shall not at any time . . . directly or indirectly disclose or use any such Confidential Information, howsoever obtained or acquired, or compile, duplicate, develop or adapt such Confidential Information for any purpose, other than strictly incidental to, and solely in furtherance and with the scope of, the Agreement.¹³⁶

Gatan accused Nion of misusing confidential information divulged under the terms of the Agreement to develop its own competing spectrometer. It appears that Gatan sought damages as its remedy. It is unclear from the reported opinions whether Nion merely knocked off the plaintiff’s product, or whether there was innovation or improvement by Nion. If the former, then there is no policy reason to deny an injunction if sought, and award the fullest measure of damages, to capture all defendant’s pirated gains. But if the latter, then no injunction should issue, and a reasonable royalty should be the measure of damages.

How significantly should the defendant have added value to the CBI in order to avoid being enjoined? We can immediately exclude from favored treatment all who simply use the CBI “as-is” to sell a competing product or service that is identical with or different in trivial ways from the plaintiff’s. One factor that should distinguish the innovator from the free-riding pirate is the amount of time, money and effort expended by the defendant in developing its innovation. We should also exclude from favored treatment the use of pricing information to undercut a rival in a bid.¹³⁷ At the other end of the spectrum, there is no need require that the innovation be novel or

135. *Gatan, Inc.*, 2017 U.S. Dist. LEXIS 49751, at *6.

136. *Id.* at *6–7.

137. *See supra* note 3.

non-obvious. For present purposes, it does not matter whether the defendant's innovative use of the CBI is itself protectable intellectual property. The sole consequence of our proposal is to give the innovative contract breacher a license to continue to use the CBI. This approach promotes innovation without rewarding piracy.

On the other hand, litigation to enforce the NDA may become more complicated and expensive. The virtues of a simple per se rule that a breach is a breach are that it enforces the expectations of the disclosing party, makes it easy to predict the outcome of a dispute, and is relatively inexpensive to enforce in court. The cost of such a rule is that the public is denied a better product. On balance, we suggest that the public interest is best served if the court declines to enjoin a defendant whose actions confer a meaningful benefit to the public.

One might be tempted to consider here the larger problems of efficiency in adjudication versus equity in the particular case, of inflexible law and the rise of chancery, of precise rules versus flexible but vague standards. However, the literature is enormous,¹³⁸ and we can neatly sidestep much of the discussion by noting that a court hearing a plaintiff's request for an injunction is already required to consider the

138. There are thousands of Google Scholar cites for Louis Kaplow, *Rules Versus Standards: Economic Analysis*, 42 DUKE L.J. 557 (1992). Some writers favor clear rules laid down in advance that courts and regulators can readily apply and that private parties can readily understand and use, including an ability to predict accurately the outcome of a case litigated in courts. John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 563, n.316 (2010) (citing RICHARD A. EPSTEIN, *SIMPLE RULES FOR A COMPLEX WORLD* 30–31 (1995)). Others favor "law-making at the point of application through case-by-case decisions, narrowly tailored to the particulars of individual circumstances." Cass R. Sunstein, *Problems with Rules*, 83 CAL. L. REV. 953, 956–57 (1995). Recall the debate between Professors Williston and Corbin regarding an aspect of the parole evidence rule, whether a written agreement is a total integration. Williston would allow a court to look only to the writing itself in making that determination. Corbin would allow a court to dig deeper and consider other evidence of the intentions of the parties. In favor of Williston's bright line rule is the feeling that "transactions will be more secure, litigation will be reduced, and the temptation to perjury will be removed." Corbin felt the public better served by giving effect to the parties' entire agreement written and oral. John D. Calamari & Joseph M. Perillo, *A Plea for a Uniform Parole Evidence Rule and Principles of Contract Interpretation*, 42 IND. L.J. 333, 341 (1967).

public policy ramifications of granting such relief. The law already provides a procedural mechanism for the prompt consideration of our proposed policy-based affirmative defense, in the form of the hearing that a court must hold prior to the issuance of a temporary restraining order or preliminary injunction. Our proposal, then, would work only a modest change to existing law.

CONCLUSION

We have reviewed the case law concerning NDAs that protect CBI, summarized recent scholarship concerning the economics of innovation, and have noted the phenomena known as cumulative innovation in order to determine which judicial approach best discourages free riders while posing minimal risk of retarding the development of new or improved goods or processes. We offer two suggestions to align the law with this policy goal. One concerns the rights of an aggrieved party to an NDA, the other the remedies available.

First, should an NDA for CBI be enforced at all, in order to avoid an unnecessary burden upon cumulative innovation? Only if the CBI is in fact confidential and not generally known. Posner gives two justifications: “If the firm claiming a protectable interest did not think enough of it to expend resources on trying to prevent lawful appropriation of it, this is evidence that it is not an especially valuable interest . . . And if the information in which rights are sought is not in fact secret, chances are that the defendant would soon have obtained it lawfully, so that the plaintiff hasn’t really been much harmed”¹³⁹ An NDA that protects non-confidential information has no purpose other than as a tool with which to wage abusive litigation against rivals.¹⁴⁰ Since CBI can protect information that does not amount to a trade secret, the definition in the NDA should be required to be precise, not overbroad, to avoid impeding cumulative innovation.

Time or place limits are unnecessary, provided that an NDA is construed as protecting only confidential information and only for so long as the information remains confidential. There is no justification for imposing an obligation of confi-

139. *Curtis 1000 v. Suess*, 24 F.3d 941, 947–48 (7th Cir. 1994).

140. For an example of sham litigation to enforce trade secrets, see *CVD, Inc. v. Raytheon Co.*, 769 F.2d 842, 850–51 (1st Cir. 1985).

dentiality after the information has become generally known or readily ascertainable by proper means.

Second, if the NDA should be enforced, what sort of remedy should be awarded for an innovative but unpermitted use? An injunction in a cumulative innovation case would be against the public interest. The appropriate measure of damages should be a reasonable royalty. This allows cumulative innovation to happen and allows the victim of the breach compensation for use of the information. If more stringent protection is sought, then the information can be maintained as a trade secret (assuming that it has economic value).