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ACCOUNTABILITY IN THE PATENT MARKET: A DUTY TO MONITOR PATENT RISK FROM THE BOARDROOM

Ian David McClure[†]

Patent risk is on the rise; and not just because there is more patent litigation now than ever before. The value of strategic patent management is no longer an unknown or ignored ingredient to corporate success. Nor is proactive and pragmatic patent risk assessment. Shareholders and investors have now caught on that patent management and patent risk affect the value of their equity. This realization has initiated a circuitous life cycle in which more patents are being transacted, divested and strategically managed, resulting in more patent risk for operating companies to monitor. Yet, this last piece—the proactive monitoring of patent risk—may have serious consequences to many companies if wrong decisions are made. For example, because over 96% of companies in the United States make less than \$10 million in annual revenues, a patent litigation costing the average \$2.5 million could be a “bet the company” event. Therefore, when so much shareholder value is at stake, there is a very reasonable policy argument that the level of accountability should meet the level of the risk. After all, corporate boards of directors are accountable for guarding shareholder value. As this article will demonstrate, they may—and perhaps should—have a fiduciary duty to those shareholders to monitor excessive patent risk taking by the company. The health of innovation and our knowledge economy may depend on it.

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TABLE OF CONTENTS

INTRODUCTION	218
I. INCREASED STRATEGY AND RISK IN THE PATENT MARKET.....	222
A. Evidence of Increased Patent Strategy	222
B. Evidence of Increased Patent Risk	225
II. A DUTY TO MONITOR EXCESSIVE PATENT RISK-TAKING	228
A. Fiduciary Duties and Corporate Risk	228
1. Review of Fiduciary Duties.....	228
2. <i>In re Caremark</i>	232
3. <i>Stone v. Ritter</i>	234
4. A Duty to Monitor Today and Tomorrow	235
B. Fiduciary Duties and Patent Risk	238
1. Patent Risk Management in Practice	238
2. Defining the Duty	240
3. Recognizing the Duty	242
4. Satisfying the Duty	249
CONCLUSION	250

INTRODUCTION

The value of intangible assets, of which intellectual property is a component, relative to other corporate assets has ballooned from 20% to 80% of corporate value since 1975.¹ Supporting the proximate accuracy of this measurement is the incredible increase in patent filings over the same period.² Specifically, four times the number of patent

1. *Ocean Tomo Announces Results of Annual Study of Intangible Asset Market Value*, OCEAN TOMO MEDIA ROOM (June 15, 2010), <http://www.oceantomo.com/media/newsreleases/Intangible-Asset-Market-Value-Study-Release>. As Ocean Tomo's Chairman James E. Malackowski explained:

Within the last quarter century, the market value of the S&P 500 companies has deviated greatly from their book value. This "value gap" indicates that physical and financial accountable assets reflected on a company's balance sheet comprises less than 20% of the true value of the average firm. . . . Our further research shows that a significant portion of this intangible value is represented by patented technology.

Id.

2. See Patent Tech. Monitoring Team, *U.S. Patent Statistics Chart 1963–2013*, USPTO, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last updated Feb. 5, 2015, 12:21 AM). Utility patent applications actually decreased year-on-year in 1977, 1978, 1979, 1983, 1991, 1996, 2008, and 2009, but continued their upward trajectory nonetheless. *Id.*; see also Robert

applications were filed in 2012 than in 1975.³ This has resulted in an increased focus on IP protection and enforcement, as is evidenced by the steady rise in patent litigation since 1990,⁴ capped by an unprecedented 30% increase in patent litigation filings in 2012 to reach 5,000 patent suits filed in a year for the first time in history.⁵

As the number of patent assertions rises, an operating company's ignorance or excessive risk-taking relative to problematic patents owned by other entities—regardless of those entities' operational endeavors—increases the probability of suit.⁶ An emphasis on strategic patent management as an independent business operation has created a sophisticated-patent intermediary and services market over the past 10 years, spurring an influx of patent service firms and software tools which make patent search and freedom to operate analysis quite manageable in many markets.⁷ Nevertheless, the practice of ignoring patents is driven in part by traditional course of dealing relative to the current willful infringement legal doctrine, or at least by parties' general adherence to courts' application of a low standard for actual notice. Reasoning that they are mitigating risk, companies often fail to search or engage in ex-ante license negotiations before it is too late. Moreover, companies often take on risk by making decisions relative to known problematic patents in view of who owns the patent and their propensity to enforce it. That risk is growing as patents are increasingly being asserted or transferred to entities with a greater propensity to enforce.⁸

Sterne & Trevor Chaplick, *Why Directors Must Take Responsibility For Intellectual Property*, IAM MAG., Feb–Mar. 2005, at 16, 20 (“The role of IP in certain industry sectors was much less prominent a decade ago. . . . Today all industry sectors embrace IP.”).

3. *U.S. Patent Statistics Chart*, *supra* note 2.

4. Sterne & Chaplick, *supra* note 2, at 20.

5. PRICEWATERHOUSECOOPERS, 2013 PATENT LITIGATION STUDY 6 (2013), http://www.pwc.com/en_US/us/forensic-services/publications/assets/2013-patent-litigation-study.pdf [hereinafter PWC PATENT LITIG. STUDY].

6. See Mark Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 19–22 (2008).

7. Ian McClure & James Malackowski, *The Next Big Thing in IP Monetization: A Natural Progression to Exchange-Traded Units*, LANDSLIDE, May–June 2011, at 32, 32–36 (summary of IP intermediary market development); see also Steve Lohr, *Patent Auctions Offer Protections to Inventors*, N.Y. TIMES (Sept. 20, 2009), http://www.nytimes.com/2009/09/21/technology/21patent.html?_r=1&scp=1&sq=patent%20auctions&st=cse (the IP market has experienced “a flurry of new companies and investment groups . . . to buy, sell, broker, license and auction patents.”).

8. Patents are being asserted in record-setting number of lawsuits as mentioned in the PWC PATENT LITIG. STUDY, *supra* note 5. For examples of companies transferring their patents

With regard to patent ignorance, despite an assumed heightened standard under *In re Seagate Technology*,⁹ willful infringement findings have not significantly waned,¹⁰ and the risk of treble damages¹¹ causes companies to turn a blind eye to troublesome patents.¹² As a result, notwithstanding the merits of any particular case, licensing efforts frequently fail to reach a negotiation or even an introduction. This circumstance becomes anticipated by patent holders, often resorting to litigation first to avoid wasted time or ensure choice of venue. An increasingly common practice is to file a complaint first and send a copy of the complaint without notice of service to the alleged infringer, forcing a time sensitive decision.¹³ Because the allotted time is often not enough time to complete proper diligence and financial risk analysis, and because the patentee cannot back off of their initial position and let the complaint lapse, litigation is commenced.

for enforcement purposes, see John Lemus & Emil Temnyalov, *Outsourcing Patent Enforcement: The Effect of “Patent Privateers” on Litigation and R&D Investments 2–3* (2014), available at <http://bit.ly/1Dike2g> (discussing examples that include Nokia and Sony selling parts of their portfolios to MobieMedia, a Patent Assertion Entity (PAE) that then sued Apple, HTC and Research in Motion (citing Susan Decker, *Patent Privateers Sail the Legal Waters Against Apple, Google, Bloomberg* (Jan. 10, 2013)); Micron sold at least 20% of its patent portfolio between 2009 and 2013 to Round Rock, a PAE who asserted these patents against SanDisk (citing Ashby Jones, *Patent ‘Troll’ Tactics Spread*, WALL ST. J., July 8, 2012)); suits not limited to the high-tech industry, as Nike in 2006 sold part of its patent portfolio to Cushion Technologies, LLC who later sued several of Nike’s rivals in the athletic shoe business).

9. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007).

10. Christopher Seaman, *Willful Patent Infringement and Enhanced Damages After In Re Seagate: An Empirical Study*, 97 IOWA L. REV. 417, 464–70 (2012) (Seaman’s empirical study found that willful infringement has been found in only about 10% fewer cases after *Seagate*).

11. See 35 U.S.C. § 284 (2013) (“[T]he court may increase the damages up to three times the amount found or assessed.”).

12. Colleen V. Chien, *Predicting Patent Litigation*, 90 TEX. L. REV. 283, 286 (2012) (“Successful searching carries a penalty—the risk of treble damages. As a result, many companies do not even try to identify the patents that their products may tread upon, remaining ignorant of the risks they run until it is too late.”).

13. See Michael Curley, *Radical Reform for Patent Demand Letters*, INTELLECTUAL PROPERTY MAG., May 2014, 15, 15–16, available at <http://bit.ly/1vFh4i0> (“The incentive here would be for the enforcing party to file suit and then conduct licensing negotiations on the phone . . . a safer path than writing a demand letter, which both gives the accused infringer advanced notice . . . and risks drawing the ire of the FTC”); see also Gene Quinn, *Motorola Sues Apple for Patent Infringement Using Sparse Complaint*, IP WATCHDOG (Oct. 8, 2010), <http://www.ipwatchdog.com/2010/10/08/motorola-sues-apple-for-patent-infringement-with-sparse-complaint/id=12763/> (detailing the prevalent use of sparse complaints used to simply file a case, perhaps without merit, in order to force settlement).

Although patent infringement is already a strict liability offense,¹⁴ raising up a duty to identify and manage patent risk may be in the interest of the corporations performing competitive analysis by helping to avoid suit and accelerate innovation. This benefits diversified shareholders and society. Moreover, the commercial practice of some companies related to patent “knowledge,” in anticipation of their use and import in future patent litigation, is counterintuitive to the mission of the patent system to disseminate patent information. Patent search and assessing patent risk is increasingly practicable, and intentional ignorance of—or excessive risk-taking relative to—problematic patents should be subject to stricter scrutiny and oversight.

Accountability for the knowledge and litigation risk identified above should match the level of that risk. Patent infringement damages awards continue to break records, and 2012 was again a benchmark year with multiple billion-dollar awards.¹⁵ Moreover, the risk does not reside only in losing. As the demand for competent patent attorneys to pursue or defend these actions has ascended, the fixed costs of patent litigation remains high.¹⁶ These typically unplanned expenses and potential liabilities do in fact move the needle for shareholders¹⁷ and can result in company downfall or, more frequently, restricted patent filings to account for the cost.¹⁸ All of these effects reduce shareholder value. As a result, there is a reasonable argument that the responsibility

14. *Seagate*, 497 F.3d at 1368 (stating that patent infringement is a strict liability offense).

15. PWC PATENT LITIG. STUDY, *supra* note 5.

16. AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, 2013 REPORT OF THE ECONOMIC SURVEY (2013).

17. See SANGJUN NAM & CHANGI NAM, THE IMPACT OF PATENT LITIGATION ON SHAREHOLDER VALUE IN THE IT INDUSTRY 3 (2012), available at <http://EconPapers.repec.org/RePEc:zbw:itsb12:72514> (summarizing findings from multiple studies that: (a) the wealth effect of patent litigation is negative for defendant firms and insignificant for plaintiff firms; (b) the wealth effect of patent litigation on biotechnology firms has a negative effect on stock prices; and (c) the wealth effect of patent litigation for US public firms was also negative on defendant firms from 1984 to 1999, after controlling certain factors pertaining to characteristics).

18. See *Abusive Patent Litigation: The Impact On American Innovation and Jobs, and Potential Solutions: Hearing Before the Subcomm. on Courts, Intellectual Property, & the Internet of the H. Comm. on the Judiciary*, 113th Cong. 11 (2013); see also *Diomed Patent Defendant Files for Chapter 11*, Posted in *Mass High Tech Blog*, BOS. BUS. J. (Jan. 22, 2008, 2:40 PM), <http://www.bizjournals.com/boston/blog/mass-high-tech/2008/01/diomed-patent-defendant-files-for-chapter-11.html>; see also Ameet Sachdev, *Football Gear Maker Files for Bankruptcy After Losing Patent-Infringement Suit*, CHI. TRIB. (Sept. 14, 2010), http://articles.chicagotribune.com/2010-09-14/business/ct-biz-0914-chicago-law-20100914_1_schutt-sports-riddell-patent.

for monitoring this risk should go to the level responsible for guarding shareholder value: the board of directors.

The current literature comments on a fiduciary duty to monitor and to manage risk in many contexts, including illegal employee action and excessive risk taking in financial services.¹⁹ This literature does not explore a duty to manage patent risk. This article will discuss such a duty and ultimately conclude that a director fiduciary duty to monitor patent risk likely exists—and should.

First, this article sets the stage by explaining that developments in the patent transaction market over the past decade have increased the value, and the risk, that patents present to operating companies. Next, the article visits the development and prospect for enforcement of a duty to monitor under a line of Delaware cases and other academic comment on a duty to manage risk. The discussion focuses on the highest level of corporate accountability to demonstrate that the door is appropriately ajar for this duty to be recognized. In identifying support for such a duty, this article distinguishes risk in the patent context from strictly financial risk. After defining the duty, the article demonstrates that it is unlikely that the boards of most corporations in the U.S. satisfy their duty. Next, this article shows that the accountability at this highest level must necessarily start with—and should be satisfied by—the provision for adequate information reporting lines leading to decisions which are subject to adequate oversight. Finally, this article will identify policy reasons why this accountability should benefit shareholders, members of society, and participants in a troubled patent market.

I. INCREASED STRATEGY AND RISK IN THE PATENT MARKET

A. *Evidence of Increased Patent Strategy*

For many companies worldwide, IP strategy has become paramount. Receiving new mandates to generate revenue from IP, companies are increasingly selling patents²⁰ or structuring privateering

19. See Hill & McDonnell, *Reconsidering Board Oversight Duties After the Financial Crisis*, 3 ILL. L. REV. 859 (2013).

20. In January 2012, wireless firm Adaptix sold more than 200 patents to patent licensing firm Acacia. See Ben Dummert, *Acacia to Acquire Adaptix for \$160 Million*, WALL ST. J., Jan. 12, 2012, available at <http://on.wsj.com/1FzUtnr>. In July 2012, Fujifilm sold 1,200 patents to patent licensing and technology firm, Universal Display. See *FUJIFILM Corporation Sells Its Worldwide OLED Patent Portfolio to Universal Display Corporation for US \$105 Million*,

deals to generate revenues from these assets.²¹ Deals that transfer patents to independent third parties in return for participation in licensing and litigation proceeds continue to remain popular through 2013, transforming patents into a lucrative article of trade.²²

A well-publicized example, of both the increased recognition of the strategic value intellectual property and the increased dependency on patents to compete, is the recent sale of the bankrupt Nortel Networks Corporation's patent portfolio. After most of Nortel's other assets were sold to various companies for an approximate aggregate value of \$3 billion, Nortel's patent portfolio presumably protecting these assets and businesses was sold through auction for \$4.5 billion to a non-practicing entity called Rockstar Consortium, owned by a group of operating entities.²³ This auction demonstrates the old guard and the new guard with respect to patent strategy. Representing the old guard through Nortel's role, the event highlights what companies have traditionally neglected to recognize, namely, the value of patent assets attributable to shareholder value. Representing the new guard, it demonstrates through the role of the winning bidders and the Rockstar executives that helped engineer the transaction, the increased emphasis on the value of patent assets, namely, the significance of high-stakes patent weaponry to competition. Specifically, the winning bid came from a consortium of companies, all aligned by the same competitive

FUJIFILM (July 24, 2012), <http://www.fujifilm.com/news/n120724.html>. On December 16, 2013, Panasonic sold 900 patents to patent licensing firm Wi-Lan, and on January 6th it sold 500 additional patents to patent licensing firm Inventergy. See Joff Wild, *Panasonic Makes A Major Privateering Play As Japanese Companies Seek To Sweat Their Patents*, IAM BLOG (Jan. 10, 2014), <http://www.iam-magazine.com/Blog/Detail.aspx?g=9375cbd5-7354-41fe-bd18-32a5d392bfde>. AT&T has a public website for patent sales. See *Patent Sales*, AT&T, <http://www.att.com/gen/sites/ipsales?pid=17701> (last visited June 7, 2014). These represent a fraction of the number of such deals consummated over the past 5 years.

21. Ashby Jones, *The Amazing Adventures of Mr. Desmarais and Mr. Powers*, WALL ST. J. L. BLOG (Jan. 23, 2012), <http://blogs.wsj.com/law/2012/01/23/the-amazing-adventures-of-mr-desmarais-and-mr-powers/>; see also Susan Decker, *Patent Privateers Sail the Legal Waters Against Apple and Google*, BLOOMBERG (Jan. 10, 2013), <http://www.bloomberg.com/news/2013-01-11/patent-privateers-sail-the-legal-waters-against-apple-google.html> (noting Nokia has transferred its patents to privateers for licensing income more than 20-times since 2008); see also Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors*, 4 HASTINGS SCI. & TECH. L.J. 2 (2011) (“... operating companies have increasingly explored indirect uses of IPRs, from buying patents and then asserting them against competitors to buying patents solely for the purpose of filing a countersuit in an infringement litigation initiated by a competitor.”).

22. *Id.*

23. See *Nortel*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Nortel> (last visited Dec. 5, 2013).

interest—to keep the patents out of the hands of Google.²⁴ Therefore, the patents had significant defensive value. Some of the patents have since been asserted, highlighting their offensive value as well.²⁵ In November 2013, Rockstar sued Google, Asustek, HTC, Huawei, LG Electronics, Pantech, Samsung, and ZTE for infringement of seven of the Nortel patents purchased.²⁶

Another example of a strategic privateering transaction is Nokia's sale of patents to a small public company, Vringo, Inc., which has attempted to commercialize its own technology but can attribute nearly all of its value to patent monetization. In August 2012, Nokia sold 124 patent families to Vringo for \$22 million.²⁷ The 124 patent families comprise over 500 patents and applications including 110 issued patents in the US, and over 45 patents families have at least one patent in force in various European jurisdictions.²⁸ At the time, Vringo was suing Google for infringement of Vringo's other patents. Its litigation team included Donald Stout, the co-founder of NTP, which in 2006 received a \$612.5 million patent infringement settlement from Research In Motion Ltd., the maker of the BlackBerry, and David Cohen, the former senior litigation counsel at Nokia.²⁹ The deal with Nokia provided Vringo with additional leverage, as well as a channel for Nokia to outsource and participate in the proceeds of Vringo's future enforcement of Nokia's patents. Vringo's enforcement of Nokia's patents has already begun, as Vringo has filed numerous lawsuits against ZTE with the Nokia patents.³⁰ The deal gives Nokia a 35% share in all licensing income received once Vringo has recouped

24. Joff Wild, *Google Bid \$4 Billion for the Nortel Patents and Still Lost*, IAM BLOG (July 2, 2011), <http://www.iam-magazine.com/blog/Detail.aspx?g=1d7387a7-70fc-4e12-807b-e568c19f63e1>.

25. See *Rockstar Files Lawsuit Against Google and Smartphone Makers*, WORLD INTELLECTUAL PROPERTY REVIEW (Apr. 11, 2013), <http://www.worldipreview.com/news/rockstar-files-lawsuit-against-google-and-smartphone-makers>.

26. *Id.*

27. See *Nokia to Sell 500 Patents to Licensing Firm Vringo*, YAHOO! FINANCE (Aug. 9, 2012), <http://finance.yahoo.com/news/nokia-sell-500-patents-licensing-193248944.html>.

28. See Vringo, WIKIPEDIA, <http://en.wikipedia.org/wiki/Vringo> (last visited June 7, 2014).

29. *Rockstar Files Lawsuit Against Google and Smartphone Makers*, *supra* note 25.

30. Vringo has filed lawsuits against ZTE in the UK and France. See *Vringo Files Lawsuit Against ZTE*, BUSINESS WIRE (Oct. 8, 2012), <http://www.businesswire.com/news/home/20121008005706/en/Vringo-Files-Lawsuit-ZTE#U5OCNU1OW00>; see also *Vringo Expands Patent Suits Against ZTE*, MARKETWATCH (Apr. 1, 2013), <http://www.marketwatch.com/story/vringo-expands-patent-suits-against-zte-2013-04-01>.

the initial purchase price.³¹ Patent office assignment records also show that Alcatel-Lucent has since transferred assets to Vringo, presumably to take advantage of the same strategic “hands-off” monetization approach that Nokia is benefiting from.³²

B. Evidence of Increased Patent Risk

Patent market transactions that transfer assets to non-practicing entities, such as the ones highlighted above, have played a large part in the continuous rise in patent litigation since 1990.³³ Quite simply, an increased focus by operating entities on the strategic value and revenue generation of patents, coupled with a market influx of patent assertion entities (PAE)³⁴ playing the role of speculators, has led to increased proactive management and assertion of patents.³⁵ As was already

31. Mark Summerfield, *Courts Play Host to NPE Global Licensing Strategies*, IAM BLOG (Nov. 13, 2013), <http://www.iam-magazine.com/reports/detail.aspx?g=52eeb6d7-78e9-4f8e-9e2a-e077e1ae42f4>.

32. Joff Wild, *Alcatel Agrees Privateering Hook-Up With Vringo; Expect More Such Deals to Follow*, IAM BLOG (Dec. 2, 2013), <http://www.iam-magazine.com/blog/Detail.aspx?g=ad a129d1-6957-46ed-8bf4-3c068cb5690d>.

33. Sterne and Chaplick, *supra* note 2, at 20; *see also* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-465, *INTELLECTUAL PROPERTY: ASSESSING THE FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY* 26 (2013), *available at* <http://www.gao.gov/assets/660/657103.pdf> (“About 12 percent of PME sued 10 defendants or more in a single lawsuit, compared to about 3 percent of operating companies, a statistically significant difference. Thus, even with bringing about a fifth of all patent infringement lawsuits from 2007 to 2011, PMEs sued close to one-third of the overall defendants, accounting for about half of the overall increase in defendants. Additionally, the estimated total number of defendants sued by PMEs more than tripled from 834 in 2007 to 3,401 in 2011.”). Rockstar, the entity that purchased the Nortel patent assets, has since filed multiple litigations asserting infringement of these patents. *See Rockstar Files Lawsuit Against Google and Smartphone Makers*, *supra* note 25. Vringo has filed patent litigation involving the assets it purchased from Nokia. *See Vringo Files Lawsuit Against ZTE*, *supra* note 30.

34. An attempt to define an NPE is an entirely different matter outside the bounds and purpose of this article. It has been the subject of much academic, industry and legislative comment over previous years, highlighted by the recent introduction of the Saving High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act bill. *See* H.R. 845, 113th Congress (2013–2014), *available at* <https://www.congress.gov/bill/113th-congress/house-bill/845> For a taste of the many perspectives and problematic policy issues in defining an patent assertion entity, non-practicing entity, or “patent troll” (this author does not condone use of the “patent troll” term, for reasons that should be obvious by reviewing these perspectives), *see Is RPX an NPE?*, RPX BLOG (Nov. 2, 2010), <http://www.rpxcorp.com/2010/11/02/is-rpx-an-npe/>; *see also What is an NPE?*, PATENTFREEDOM.COM, <https://www.patentfreedom.com/about-npes/background/> (last visited Mar. 18, 2015); *see also* Brian Hannon & Margaret Welsh, *Challenges of Defining a Patent Troll*, BLOOMBERG BNA (July 29, 2014), <http://about.bloomberglaw.com/practitioner-contributions/challenges-of-defining-a-patent-troll/>.

35. *Rockstar Files Lawsuit Against Google and Smartphone Makers*, *supra* note 25.

highlighted herein, patent litigation filings increased by a record breaking 30% in 2012 to reach over 5,000 patent suits filed in a year for the first time in history.³⁶ While it is important to point out that the 2012 surge was partly a direct result of companies' attempt to beat the implementation of the America Invents Act in that same year, patent litigation filings increased by 11.2% from 5,778 in 2012 to 6,427 filings in 2013, demonstrating that patent infringement lawsuits are indeed on the rise.³⁷ Contrary to the belief of many, PAE's are not the sole cause of the increase in patent litigation. Operating entities have also accounted for increased filings, undoubtedly driven by the focus on patent strategy and the opportunity to win big or collapse a competitor.³⁸ Additionally, PAE's generally would not be able to litigate patents but for the sale of those patents to them by operating entities. More than 80% of patents litigated by PAE's are from operating entities, and more than 1,000 companies have transferred patents to PAE's.³⁹

Without regard to the risky outcome of patent litigation, the average fixed costs are extraordinarily high for any company. On average, when between \$1 million and \$25 million is at risk, patent litigation costs reach \$2.5 million, and when more than \$25 million is at risk these costs reach \$5 million.⁴⁰ Yet, the increased possibility of patent litigation being filed and the standard cost required to play is not the totality of the risk. Patent infringement damages awards continue to break records. According to a PricewaterhouseCoopers 2013 Patent Litigation Study,⁴¹ "[p]rior to 2012, only three patent infringement

36. PWC PATENT LITIG. STUDY, *supra* note 5.

37. *PatStats*, UNIVERSITY OF HOUSTON LAW CENTER, <http://www.patstats.org/Patstats3.html> (last updated Apr. 25, 2014) ("For 2013 Eastern Texas was highest, with 1513 filings in 2013 (versus 1266 cases in 2012), now 23.5% of the national total. Second was Delaware, with 1336 filings (up from 997 in 2012), now 20.8% of the national total. Central California was again a distant third, dropping from 517 cases in 2012 to 486 in 2013.").

38. PWC PATENT LITIG. STUDY, *supra* note 5.

39. *The Patent Assertion Problem*, THE LICENSE ON TRANSFER (LOT) NETWORK, <http://www.lotnet.com/patent-assertion-problem/index.cfm> (last visited July 19, 2014).

40. 2013 REPORT OF ECONOMIC SURVEY, *supra* note 16; *see also* Linda Chiem, *High-Stakes IP Work Continues Its Steady Climb, GCs Say*, LAW360, <http://www.law360.com/articles/470061/high-stakes-ip-work-continues-its-steady-climb-gcs-say> (last updated Sept. 9, 2013 1:52 PM ET) ("In 2010 IP litigation was a \$2.4 billion legal market. It climbed to \$2.8 billion in 2012, to \$2.9 billion in 2013 and is projected to reach \$3 billion in 2014").

41. PWC PATENT LITIG. STUDY, *supra* note 5, at 2 (noting also that "[t]he outcomes of these matters have varied so far. *Monsanto v. DuPont* settled for a ten-year \$1.75 billion license; the \$1.05 billion award in *Apple v. Samsung* was reduced by \$450 million and likely will be

damages awards eclipsed the \$1 billion mark. But last year alone, three cases, tried before juries in separate districts, resulted in awards of \$1 billion or greater: *Monsanto v. DuPont*,⁴² *Apple v. Samsung*,⁴³ and *Carnegie Mellon University v. Marvell*.⁴⁴ In two of these cases, *DuPont* and *Marvell*, shareholders have filed ongoing derivative lawsuits against the company, board and its executives for, among other claims, breaches of fiduciary duties related to mishandling patent infringement, the patent infringement lawsuit and, put simply, patent risk.⁴⁵

The median damages award was approximately \$4.9 million between 2007 and 2012. While the median jury award was many times greater than the median bench award, one empirical study has found that during this same period courts awarded enhanced damages more often than juries when finding willful infringement. The enhanced damages awarded by courts during this time have been, on average, greater than juries.⁴⁶

In sum, patent owners are increasingly managing and divesting assets that, at one time, may not have been utilized in the same way. As a result, the value of such assets has increased to their holders, and the risk that such assets present to operating entities has increased. The growing focus on patent monetization and resulting litigation raises a new bar for accountability with respect to risk taking relative to patents—or put more simply, infringement.

modified further; and *Carnegie Mellon v. Marvell* remains in the post-trial phase and continues in this phase as of June 7, 2014.”)

42. *Monsanto Co. v. E.I. du Pont de Nemours & Co.*, No. 09-cv-686, U.S. District Court, Eastern District of Missouri (St. Louis Aug. 1, 2012)

43. *Apple, Inc. v. Samsung Electronics Co.*, 678 F.3d 1314, 1325 (Fed. Cir. 2012).

44. *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 888 F. Supp. 2d 637 (W.D. Pa. 2012).

45. See *Voss v. Sutardja*, case No. 5:14-cv-01581 (N.D. Cal. filed Aug. 6, 2014); see also *Zomolosky v. Kullman*, case No. 1:13-cv-00094 (D. Del. filed Jan. 16, 2013). These cases are ongoing and, while the purpose of this article is not to address these cases individually, their claims are very relevant to the concepts explored here and their outcomes could invoke a follow-up comment to this article.

46. Christopher Seaman, *Willful Patent Infringement and Enhanced Damages After In Re Seagate: An Empirical Study*, 97 IOWA L. REV. 417, 464–70 (2012). But the study also found that courts have found willful infringement in a meaningfully less percentage of cases than juries have since *Seagate*, whereas this comparison was close to equal before. See *id.* at 444–49.

II. A DUTY TO MONITOR EXCESSIVE PATENT RISK-TAKING

A. *Fiduciary Duties and Corporate Risk*

Following the 2008 financial crisis, many people, including investors, academics, and politicians called for greater oversight of corporate risk-taking.⁴⁷ Two well known corporate governance authors, Claire Hill and Brett McDonnell, pinned this oversight at the top: “Boards should be charged with monitoring for risks arising from corporations’ operations and procedures . . . that might significantly harm both shareholders and society at large.”⁴⁸ Yet, properly identifying, defining and successfully alleging breach of this duty “has famously been characterized as one of the hardest for shareholders to win.”⁴⁹ Indeed, shareholder suits following the financial crisis—an event demonstrating a seemingly obvious failure of accountability for risk—failed. Yet, there is good reason—and court precedent—supporting existence of a duty to monitor risk, or the “oversight duty,” and existence of a duty presumes some circumstance for breach.⁵⁰ The lineage of court opinions that create, categorize, and limit this duty tell us a lot about its potential application and enforcement related to patent risk. Specifically, a director fiduciary duty to monitor a corporation’s patent risk likely exists, and for good reason.

1. Review of Fiduciary Duties

As corporate fiduciaries, the members of the board of directors have obligations to the corporation that are guided by a duty of care and a duty of loyalty.⁵¹ Under the duty of care, the board owes a duty

47. ERIC J. PAN, DUTY TO MONITOR UNDER DELAWARE LAW: FROM *CAREMARK* TO *CITIGROUP*, THE CONFERENCE BOARD 1–2 (2010) (“The absence of adequate board oversight is partially to blame for the catastrophic losses suffered by Bear Stearns, Lehman Brothers, AIG, and Citigroup . . . if they had [provided oversight], perhaps the catastrophic losses suffered by these firms could have been prevented.”); see also CHRISTINE HURT, THE DUTY TO MANAGE RISK, ILLINOIS PROGRAM IN LAW, BEHAVIOR, AND SOCIAL SCIENCE 2–4 (2013).

48. See Hill & McDonnell, *Reconsidering Board Oversight Duties After the Financial Crisis*, *supra* note 19.

49. *Id.*

50. PAN, *supra* note 47, at 3 (“The duty to monitor is an obligation to prevent harm to the corporation. The board may breach its duty when harm occurs due to its inattention or inaction.”); see also *Stone v. Ritter*, 911 A.2d 362 (Del. 2006).

51. See *Stone*, 911 A.2d at 370 (“[a]lthough good faith may be described colloquially as part of a “triad” of fiduciary duties that includes the duties of care and loyalty, the obligation to act in good faith does not establish an independent fiduciary duty that stands on the same footing . . . Only the latter two duties, where violated, may directly result in liability.”).

to exercise good business judgment and to use ordinary care and prudence in the operation of the business.⁵² Although there is no statutory codification of the duty of care in the Delaware General Corporation Law, Delaware courts have shaped the duty through a web of opinions. It is included in the Model Business Corporation Act sections 8.30 and 8.31, which was largely adopted by many states.⁵³

Importantly for the purposes of this article, one tenet of the duty of care was shaped by the *Smith v. Van Gorkom* decision in 1985, namely, that board decisions must be adequately informed.⁵⁴ *Van Gorkom* is also famously recognized as one of the only successful shareholder claims of director liability for breach of the duty of care, as legislators and courts have sought to limit this director liability as a result of the outcome.⁵⁵ *Van Gorkom* involved a proposed leveraged buy-out merger of TransUnion by Marmon Group.⁵⁶ TransUnion's chairman and CEO chose a proposed price for the deal without consultation with outside financial experts.⁵⁷ The proposed merger was subject to board approval, and at the board meeting numerous important pieces of information were never raised or considered.⁵⁸ The court stated that the rule "is a presumption that in making a business decision, the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company."⁵⁹ Thus, the decision was not protected by the rule because it was not well informed, and the court found that the directors breached their duty of care to the corporation.

In addition to being the seminal case for requiring informed decisions by the board, the *Van Gorkom* decision is also important for prompting the codification of Delaware General Corporation Law § 102(b)(7), which permits Delaware companies (with shareholder

52. *Smith v. Van Gorkom*, 488 A.2d 858 (Del. 1985).

53. See *State Corporation Laws*, U.S. LEGAL, <http://corporations.uslegal.com/basics-of-corporations/state-corporation-laws/> (last visited Mar. 15, 2015) (The majority of states have adopted the Model Business Corporation Act (MBCA) as the basis of their own state laws, though each of these states has modified the provisions of the MBCA.).

54. *Van Gorkom*, 488 A.2d at 872.

55. Gordon Moodie, *Forty Years of Charter Competition: A Race to Protect Directors from Liability?*, Harv. L. School., 37–40, (Sept. 2004), http://www.law.harvard.edu/programs/olin_center/fellows_papers/pdf/Moodie_1.pdf

56. *Van Gorkom*, 488 A.2d at 863.

57. *Id.* at 866–68, 878.

58. *Id.* at 865, 877.

59. *Id.* at 872.

approval) to adopt charter amendments that exculpate directors from personal liability for breaches of the duty of care.⁶⁰ Such a charter amendment was adopted by a large majority of Delaware corporations.⁶¹ Successfully proving a breach of the duty of care already means overcoming the business judgment rule, which leads to directors a presumption that they have exercised due care.⁶² Therefore, without the § 102(b)(7) exculpation provision, the duty of care is already the most difficult path for a shareholder plaintiff to prove director liability.⁶³ With it, at least for shareholders of Delaware corporations, a claim for breach of the duty of care typically gets tossed on a motion to dismiss and, therefore, is generally avoided altogether.⁶⁴ However, § 102(b)(7) only exculpates directors from the duty of care, and the business judgment rule is invoked only when the board has made a decision.⁶⁵ As a result, without expressly alleging a breach of a duty of care or loyalty, if a claim involves activities of the corporation that were not subject to a director decision, then the court will generally review it as an oversight claim under the duty of loyalty.⁶⁶ This is important for the purposes of this article because the combination of

60. See 8 Del. Code Ann. § 102(b)(7) (2014).

61. Moodie, *supra* note 55, at 39–40; see also Curtis Alva, *Delaware and the Market for Corporate Charters: History and Agency*, 15 DEL. J. CORP. L. 885, 914 (1990).

62. In Delaware, “courts routinely dismiss complains pursuant to Rule 12(b)(6) based on the business judgment rule.” *NCS Healthcare, Inc. v. Candlewood Partners, LLC*, 827 N.E.2d 797, 803 n.3 (Ohio Ct. App. 2005), *appeal denied*, 835 N.E.2d 383 (Ohio 2005). The presumption of the business judgment rule attaches *ab initio*. See Shant Chalian & Kristen Bandura, *The Business Judgment Rule and the Entire Fairness Doctrine*, ROBSINON & COLE, LLP, <http://www.rc.com/documents/Primer%20on%20Business%20Judgment%20Rule.pdf> (last visited Mar. 15, 2015).

63. See HURT, *supra* note 47, at 19 (“[t]he legal avenue with the least probability of success for imposing liability on directors and officers at such firms is a lawsuit alleging a breach of the duty of care.”).

64. In most cases brought since *In re Caremark* alleging a breach of duty to monitor risk, the complaints generally avoid choosing breach of a duty of care or loyalty, at least expressly. See *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106 (Del. Ch. 2009) (“The theory of relief on which the claim rests is not immediately apparent.”).

65. See Stephen M. Bainbridge, *The Business Judgment Rule as Abstention Doctrine*, 57 VAND. L. REV. 83, 87 (2004) (“The business judgment rule commonly is understood today as a standard of liability by which courts review the decision of the board of directors.”).

66. See HURT, *supra* note 47, at n.92 (“If the claim points to activities of the firm that were not subject to a director decision, then the court will interpret this as an oversight claim under the duty of loyalty.”).

the business-judgment rule and the exculpation provisions makes the duty of care a losing bet for shareholders.⁶⁷

The very limited enforcement of the duty of care is of course a nod to the overarching preference that boards be risk-tolerant instead of risk-averse. The nearly complete absolving of liability for all director decisions that results from the combination of the business judgment rule and exculpation provisions, however, may render the need for accountability futile. After all, the result demonstrates a deferment to the need for risk-taking and may create conditions for excessive risk taking.⁶⁸ The resulting lopsided balance of interests may ignore the idea that “accountability can have the healthy effect of deterring the almost-egregious mistakes and of incentivizing thoughtful decision-making processes,”⁶⁹ and the prospect that this *could* maximize shareholder wealth.⁷⁰ Nevertheless, Delaware courts have for years accepted that shareholders are generally okay with the possibility that directors make mistakes.⁷¹

Under the duty of loyalty, board members must execute their actions in good faith and in the best interest of the corporation, exercising the care an ordinary person would use under similar circumstances.⁷² The duty of loyalty generally arises through a conflict of interest created by a director that diverts corporate assets or usurps opportunities or information from the corporation for personal gain. For the purpose of this article, a categorization of a claim under the duty of loyalty is important in light of the above described exculpation

67. See Jill A. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 J. CORP. L. 637, 652 (2006) (“The combined effect of the business judgment rule and director exculpation provisions is to limit most fiduciary duty claims to breaches of the duty of loyalty . . .”).

68. See HURT, *supra* note 47, at n.101 (noting that enforcement of the duty of care reflects a balance between honoring the authority of directors while also holding them to some standard of accountability, but that “[t]he balance in that equation definitely seems to tip toward ‘authority’”).

69. *Id.*

70. If comparing two assumed diversified shareholder investment portfolios between (1) a broad sample set of less risky yet more careful decisions under greater judicial scrutiny and (2) a broad sample set of more risky decisions with complete autonomy and deference, there is no empirical evidence demonstrating that (2) maximizes shareholder wealth. See Andrew S. Gold, *A Decision Theory Approach to the Business Judgment Rule: Reflections on Disney, Good Faith, and Judicial Uncertainty*, 66 MD. L. REV. 398, 404 (2007).

71. This is not unlike the generally passive acceptance that the USPTO makes mistakes issuing patents.

72. See *Van Gorkom*, 488 A.2d 858.

clauses and the application of the business judgment rule to director decisions. To be clear, without availability of an exculpation clause or the business judgment rule, claims for a breach of the duty of loyalty in general could have an increased survivability relative to claims for breach of the duty of care. This is especially critical because the duty of oversight⁷³ established by *In re Caremark* in 1996 was confirmed to categorically fall under the duty of loyalty, and not the duty of care, by *Stone v. Ritter* ten years later.⁷⁴ As a result, despite the generally unsuccessful track record of *Caremark* claims in practice, it is assumed that, because of the nonexistence of an exculpation clause or the business judgment rule, these claims should at least have a better chance of surviving a motion to dismiss and being heard on their merits. This is the effect that the decision in *Stone* intended: save the duty of oversight from extinction and allow its enforcement. This is a special recognition of its importance and a potential clue regarding its enforcement—a point of emphasis for this article. The categorization under a duty of loyalty also has limiting effects on enforcement, specifically, liability is conditioned upon proof of scienter or bad faith. The balance of these effects is key to a claim's survivability, and will be discussed in the following sections.

2. *In re Caremark*

In 1963, *Graham v. Allis-Chalmers Manufacturing Co.* became the first Delaware decision to recognize the board of directors' responsibility to prevent corporate misconduct.⁷⁵ Shareholders of the corporation sued the board for failing to prevent employees from violating federal antitrust law.⁷⁶ Although the court rejected the claim, it acknowledged a fiduciary duty to monitor wrongdoing.⁷⁷ The duty was qualified under three characteristics. First, the duty fell under the duty of care as a part of the board's responsibility to oversee

73. The duty of oversight created by the *In re Caremark* case is also commonly referred to as the duty to monitor. See PAN, *supra* note 47.

74. See *In re Caremark Int'l, Inc. Derivative Litig.*, 698 A.2d 959 (Del. Ch. 1996); see *Stone v. Ritter*, 911 A.2d 362 (Del. 2006); see HURT, *supra* note 47, at 31 ("Though this evolving interpretation may seem unexpected, this judicial turn saves the oversight cause of action from extinction . . . these cases will continue to be brought and have a chance of surviving a demand hearing in the derivative context.")

75. See *Graham v. Allis-Chalmers Mfg. Co.*, 188 A.2d 125 (Del. 1963).

76. *Id.* at 127, 129.

77. *Id.* at 129–30.

management action.⁷⁸ Second, the duty only extended to corporate actions that are illegal.⁷⁹ Third, the duty would only arise if “something occurs to put [members of the board] on suspicion that something is wrong.”⁸⁰ In other words, the court felt that directors did not need to “install and operate a corporate system of espionage to ferret out wrongdoing.”⁸¹

Thirty years later, the Delaware Court of Chancery reconsidered the duty to monitor in *In re Caremark International Inc. Derivative Litigation* (hereinafter referred to as “*Caremark*”). Today, despite its qualification by later decisions such as *Stone v. Ritter*, the *Caremark* decision is the most comprehensive exploration of the duty to monitor—the oversight duty—and claims for breach of this duty are frequently referred to as “*Caremark*-claims.”

Caremark International had been the target of a federal investigation of payments made by *Caremark International* employees to physicians in exchange for patient referrals. Such payments were illegal—a violation of federal healthcare regulations, specifically the Anti-Referral Payments Law.⁸² The board was not aware of the violations nor did they directly authorize them.⁸³ Under Delaware precedent at the time, *Graham v. Allis-Chalmers Mfg. Co.*, the board would not be responsible for these actions unless there were red flags.⁸⁴ However, the presiding Chancellor Allen was compelled to create a stronger duty in the absence of red flags “to assure that a corporate information and reporting system . . . exists.”⁸⁵ A limit was also placed on this duty, in particular, “only a sustained or systematic failure of the board to exercise oversight—such as an utter failure to attempt to assure a reasonable information and reporting system [exists]—will establish the lack of good faith that is a necessary condition to liability.”⁸⁶ Nevertheless, a much debated oversight duty, and the road that will develop it, had been initiated.

78. *Id.* at 130.

79. *Id.*

80. *Id.*

81. *Id.*

82. *In re Caremark*, 698 A.2d at 961–62.

83. *Id.* at 971.

84. *Graham v. Allis-Chalmers Mfg. Co.*, 188 A.2d 125, 130 (Del. Ch. 1963).

85. *In re Caremark*, 698 A.2d at 970.

86. *Id.* at 971.

3. *Stone v. Ritter*

In its 2006 *Stone v. Ritter* decision, the Delaware Supreme Court affirmed *Caremark*.⁸⁷ Facing “a classic *Caremark* claim”, the court was met with a derivative suit filed by shareholders against the board of AmSouth Bancorporation for failure to institute an adequate system for monitoring legal compliance with banking law.⁸⁸ The failures led to fines and penalties sanctioned against the bank.⁸⁹ Nevertheless, the court ultimately dismissed the claim because the company had in place a comprehensive information reporting system that the board designed itself.⁹⁰ The system failed, but the board had satisfied its monitoring duties in good faith. For most commentators, the dismissal was apparently not a surprise, nor was the court’s upholding of the *Caremark* standard.⁹¹ The court did, however, maneuver the *Caremark* standard into a two-option test for director liability. The court stated:

We hold that *Caremark* articulates the necessary conditions predicate for director oversight liability: (a) the directors utterly failed to implement any reporting or information system or controls, or (b) having implemented such a system or controls, consciously failed to monitor or oversee its operations thus disabling themselves from being informed of risks or problems requiring their attention.⁹²

Two elements of the *Stone v. Ritter* decision, however, were to the surprise of many people and, as will be described in the next section, create survivability and a trail for the duty to monitor that has not yet been blazed. First, the court held that *Caremark* was really about the directors’ duty to act in good faith, and second, the duty to act in good faith is subsumed by the duty of loyalty, not the duty of care as Chancellor Allen had believed in *Caremark*.⁹³ The court explained itself:

87. *Stone v. Ritter*, 911 A.2d 362, 373 (Del. 2006).

88. *Id.* at 364–365.

89. *Id.* at 365–366.

90. *Id.* at 369.

91. Claire A. Hill & Brett H. McDonnell, *Stone v. Ritter and the Expanding Duty of Loyalty*, 76 *FORDHAM L. REV.* 1769, 1777 (2007) (“The outcome in the case was not surprising . . . [and the upholding of the *Caremark* standard] confirms what most observers expected.”).

92. *Stone*, 911 A.2d at 370; see also Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1777.

93. Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1769.

The failure to act in good faith may result in liability because the requirement to act in good faith ‘is a subsidiary element[,]’ i.e., a condition, “of the fundamental duty of loyalty.” It follows that because a showing of bad faith conduct, in the sense described in *Disney* and *Caremark*, is essential to establish director oversight liability, the fiduciary duty violated by that conduct is the duty of loyalty.⁹⁴

This is significant as the exculpation clause is not applicable (AmSouth had one), and the court must not dismiss the claim if it adequately pleads facts that support a *Caremark* claim. Furthermore, the duty of loyalty is no longer just about conflict of interest, but now it includes good faith, or rather, bad faith.⁹⁵

4. A Duty to Monitor Today and Tomorrow

According to Hill and McDonnell, *Stone v. Ritter* and its progeny of cases creates three new categories under the duty of loyalty: (1) “structural bias”, or excessive deference to other directors; (2) cases involving self-interest but also core corporate concerns, therefore not falling squarely within the traditional duty of loyalty, and (3) conduct involving illegality—“a ‘culpable’ lack of diligence to prevent illegal acts, such as was alleged in *Stone* itself and in *Caremark*, or actual commission of illegal acts.”⁹⁶ It is the third category with which this article concerns itself.

A reasonable argument against inclusion of a duty to monitor illegal acts under the duty of loyalty is set forth by Stephen Bainbridge. In many cases an illegal act by an executive is simply a miscalculation of risk or the associated cost-benefit analysis, and therefore is a business decision that should receive deference under the business judgment rule.⁹⁷ However, Hill and McDonnell articulate “several reasons why we might want to treat illegal behavior differently, with less legal deference.”⁹⁸ Their reasoning deserves full discovery here:

94. *Stone*, 911 A.2d at 369–370.

95. Some commentators believe that the *Stone v. Ritter* decision may leave only one single overarching duty—the duty of loyalty. Commenting on the *Stone v. Ritter* decision, Hill and McDonnell applaud the decision and add that “we think the duty of care in total, including both *Caremark*-type care and the more generic inattention-type care, is properly understood as largely subsumed by the duty of loyalty.” See Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1770.

96. *Id.* at 1780–1784.

97. *Id.* at 1784; See Stephen M. Bainbridge et al., *The Convergence of Good Faith and Oversight*, 55 UCLA L. REV. 559 (2008), available at <http://dx.doi.org/10.2139/ssrn.1006097>.

98. Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1784.

For one, the directors' willingness to tolerate or engage in illegal conduct may be a proxy for their willingness to engage in conduct that more directly diverges with the shareholders' interests. Someone who sets out to break the law often displays stealth and a willingness to pursue a more parochial interest over a competing more general interest: their own personal interest over the interests of others . . . or their corporations' interest over more general social welfare . . . Shareholders are also citizens, and insofar as laws advance the general social welfare, citizens care about that. A diversified shareholder with small stakes in any one corporation may well find that the public interest predominates over the corporate interest."⁹⁹

Hill and McDonnell confirm separately that “the most intelligible construction [of the rationale supporting the board’s duties regarding illegal conduct] includes harm to shareholders and harm to society.”¹⁰⁰ After all, some illegal conduct—including patent infringement—might certainly benefit shareholders monetarily. In any case, it is certain that where a board actively engages in “conduct involving illegality,” to be distinguished from neglecting to monitor illegal activity, liability results.¹⁰¹ To satisfy its duty, a board must abide by its *Caremark* duties, or rather ensure that it has in good faith put in place an information reporting system to monitor any such wrongdoing.

Many commentators have debated applicability of the duty to monitor to find director liability in the wake of the most recent financial crisis. The exercise requires the matching of the duty to monitor legal compliance with the duty to monitor business or financial risk generally.¹⁰² The rationale for maintaining the duty in this context—harm to society—is painfully present as evidenced in the aftermath of the crisis. The commentators have taken different sides, however, in concluding whether the duty does or should exist in this context. Hill and McDonnell find that “the financial crisis helps make the case that board monitoring should extend to conduct potentially imposing significant harm on shareholders,” despite the admission that “illegality was . . . ultimately not that important” a part of the crisis.¹⁰³ Going further, they add that “we would explicitly state that the *Caremark*

99. *Id.* at 1784–85 (emphasis added).

100. *Id.*

101. See Hill & McDonnell, *Reconsidering Board Oversight Duties*, *supra* note 19, at 866.

102. See *id.*; see also HURT, *supra* note 47.

103. Hill & McDonnell, *Reconsidering Board Oversight Duties*, *supra* note 19.

oversight duty includes a duty to monitor business risk generally, not just the risk of breaking the law.”¹⁰⁴ Indeed, the court in *In re Citigroup, Inc. Shareholder Derivative Litigation* seemed to suggest the same, without so explicitly stating or holding.¹⁰⁵

Christine Hurt, Professor of Law and Director, Program in Business Law & Policy at the University of Illinois College of Law, concludes that the failure to extend the duty to monitor to business or financial risk, and the completely unsuccessful duty to monitor claims that arose from the financial crisis, is “a logical and reasoned” outcome.¹⁰⁶ First, like Hill and McDonnell, Hurt expressly distinguishes the duty to monitor financial risk from the duty to monitor violations of law or regulations.¹⁰⁷ Hurt does categorize the actions causing the financial crisis as “excessive risk-taking,” but that which was “otherwise legal.”¹⁰⁸ Second, Hurt argues that recognizing a duty to monitor financial risk would be imprudent because a breach of the duty would be identifiable only in hindsight.¹⁰⁹ Third, Hurt suggests that the duty to manage financial risk would also encompass failures to take risks, making risk-averse firms also susceptible to breach of duty claims.¹¹⁰ Next, Hurt argues that a *Caremark* claim may only be successful if a board does not have a reporting or risk-management system in place. Hurt writes, “[a] modern U.S. publicly-held corporation that faces any type of financial risk will almost certainly have a system in place.” Further, Hurt proposes that decisions by their risk committees regarding the levels of risk that are present should be protected because, presumably, only hindsight can determine if the levels were excessive.¹¹¹ Finally, Hurt notes that a duty to manage financial risk implies that a court is able to determine the optimal amount of risk, or at least what is too much or too little risk, and this

104. *Id.* at 873.

105. *In re Citigroup, Inc. S'holder Derivative Litig.*, 964 A.2d 106, 125 (Del. Ch. 2009).

106. See HURT, *supra* note 47, at 7, 45 (“[N]ot only does a duty to manage financial risk not exist within the prevailing corporate law framework of fiduciary duties, but [] . . . recognizing a separate duty to manage financial risk would be imprudent.”).

107. *Id.* at 4 (“Most of the behavior at the heart of the financial crisis was not obviously intentional violations of criminal laws or other regulations, but risky trading practices involving mortgage-related derivatives.”).

108. *Id.*

109. *Id.* at 7–8.

110. *Id.*

111. *Id.* at 39–40.

would be impossible for financial risks. The next section will attempt to show that these arguments do not translate to the patent risk context.

B. Fiduciary Duties and Patent Risk

Board fiduciary duties related to intellectual property have surprisingly been the subject of very little academic comment. To the author's knowledge, there has been no academic comment on board fiduciary duties related to the management of patent infringement risk. Robert Sterne and Trevor Chaplick likewise acknowledged that it is "a topic that has received surprisingly little attention."¹¹² Nevertheless, as the recognition of patent asset value increases, and as patent infringement filings rise in tandem with the fixed costs of patent litigation and the variable costs of losing, a duty to monitor excessive risk-taking relative to patent infringement becomes ever more important. This section will demonstrate that this duty not only likely exists, but there is good reason to lobby for its greater acknowledgment and effectiveness.

1. Patent Risk Management in Practice

Risk management related to patent infringement is complex. Patent rights are probabilistic in nature, and every measurement of the risk associated with the proximity of a company's footprint—its products or services—to problematic patents is comprised of estimating and weighting multiple probabilities. Colleen Chien has provided a summary of the intrinsic and extrinsic characteristics that should be examined, as well as the correlation of some of those characteristics with patents that are actually litigated.¹¹³ She notes that "it leaves for future exploration the development of higher-resolution predictive models."¹¹⁴ These models would presumably help patent risk-takers determine probabilities associated with these characteristics needed to make an informed risk management decision including, without exhaustion, (1) the probability that all problematic patents have been found; (2) the probability that the company's footprint infringes an identified problematic patent, (3) the probability that the

112. Robert Sterne & Trevor Chaplick, *Why Directors Must Take Responsibility for Intellectual Property*, IAM MAG., Feb.–Mar. 2005, at 16.

113. See Chien, *supra* note 12, at 328–29 (noting that "it leaves for future exploration the development of higher-resolution predictive models.").

114. *Id.*

problematic patent is valid, (4) the probability that the owner of the problematic patent would or is able to enforce the patent, (5) the probability that a license would be offered at a reasonable price relative to expected fixed plus variable litigation costs, and (6) the probability that designing around the problematic patent would cost more than a license or expected fixed plus variable litigation costs.¹¹⁵ The equation is not scientific, yet the resources and information now available to patentees allow each of these probabilities to be reasonably approximated, at least to the extent that an action can be determined, ex-ante, to be “excessive risk taking” vs. “reasonable risk taking.”¹¹⁶ As Colleen Chien has expressed, “the uncertainty about which patents are going to be asserted can be reduced through identification of the riskiest patents ahead of time,” and litigation risk may be assessed by examining intrinsic *and* acquired characteristics which help a risk-taker understand “the economic value of the patent, the characteristics of the owner of the patent, and her propensity to litigate.”¹¹⁷

Many companies exercise diligent and sophisticated patent risk procedures.¹¹⁸ Yet, there is little published evidence that patent risk management decisions made by the company, based on the probabilities identified above, are routinely made ex-ante a problem arising or, if they are, that the decisions are part of a systematic oversight procedure put in place or monitored by the board of directors.¹¹⁹ Deference should undoubtedly be given to the experts on legal matters in the legal division of a corporation with respect to assessing problematic patents identified in a freedom to operate search.

115. *Id.* Chien’s article demonstrates that patent risk management may be reasonably manageable, and that more than just intrinsic qualities of a patent must be examined, including acquired characteristics such as recorded transfers, collateralizations, re-examinations, and change in size of patentee. However, she points out that, notwithstanding the ability to assess the risk presented by any one patent, the ability to actually find all relevant patents or “the real party in interest” is frustrated by patent office inefficiencies. *See, e.g., id.* at 327–28.

116. *Id.*

117. *Id.*

118. *See Hearing on Abusive Patent Litigation: H.R. 845, supra* note 18 (evidencing the procedures that companies like Cisco, Johnson & Johnson, Adobe, and JC Penny take to evaluate patent risk).

119. *Id.* (There are 264 pages of testimony from senior counsel at numerous companies explaining the risk that patent assertion presents to their companies, detailing how that risk is presented to the company, the actions the companies must take and the impact those actions have, but there is no mention that those actions, or the ex-ante decisions the companies made which may have given rise to the risk, or the systems in place to address those risks, were ever brought to or reviewed by the board of the companies.).

However, to the extent the assessment of such a patent results in a set of probabilities, the decision to take on risk in light of the probabilities should be subject to systematic oversight. To the extent that the decision could result in “bet-the-company” litigation or involve potential damages liabilities that would affect shareholder value, it seems reasonable that the systematic oversight required would involve information reporting lines reaching a very high level, or even the board.

Many other companies, as expert commentators have pointed out, may be motivated to ignore problematic patents, and in fact do in order to avoid having knowledge of infringed patents.¹²⁰ Despite the merits of avoiding knowledge in light of willful infringement risk, this decision in and of itself increases the likelihood of lawsuit, and to the extent the risk in any given case would be large enough to affect shareholder value, it seems reasonable that there should be additional oversight of these practices.

2. Defining the Duty

Caremark and *Stone* are clear: monitoring and oversight are key to the good-faith obligation of boards of directors as corporate fiduciaries. Also clear is the fact that not all activities of corporate employees can or should be monitored. Thus, in the oversight context, it is important to discern the board’s obligation “with respect to the organization and monitoring of the enterprise to assure that the corporation functions within the law to achieve its purposes.”¹²¹ After *Stone*, as it relates to illegal conduct, we know the obligation requires directors to (1) establish monitoring systems and (2) pay appropriate attention to relevant information, whether internal or external, to ensure that they are able to spot “red flags.”¹²² A single dramatic incident pointing to a flaw in a monitoring system may give rise to a red flag, as

120. See Chien, *supra* note 12, at 286 (“Successful searching carries a penalty—the risk of treble damages. As a result, many companies do not even try to identify the patents that their products may tread upon, remaining ignorant of the risks they run until it is too late.”); see also ROBERT STERNE & DAVID CORNWELL, WILLFUL PATENT INFRINGEMENT AS A BARRIER TO DISSEMINATION OF PATENT INFORMATION, SEDONA CONF. ON PATENT LITIGATION 3 (2002) (“Many products or services could be covered by claims of a multitude of unexpired patents. Thus, many normal competitors do not perform a freedom to operate investigation to try to determine if there are patent infringement problems; their cost/benefit analysis militates against such an investigation.”).

121. *Stone*, 911 A.2d at 372–73.

122. *Id.* at 368.

can a series of events over a period of time sufficient to raise them to the board's attention.¹²³ It follows that liability stems from either (i) “*utterly fail[ing]* to implement any reporting or information system or controls” or (ii) “having implemented such system or controls, *consciously fail[ing]* to monitor or oversee its operations.”¹²⁴ In addition, a scienter element is required, such that a plaintiff must plead “particularized facts . . . that [the directors] had ‘actual or constructive knowledge’ that their conduct was legally improper.”¹²⁵

Therefore, if a duty to monitor patent risk exists, a set of facts fitting within the following hypothetical would presumably give rise to a *Caremark* claim: a corporation (a)(i) systematically neglects to conduct any or adequate search for problematic patents before creating a footprint,¹²⁶ or (a)(ii) conducts such freedom-to-operate searches but does not have a system in place for monitoring or ensuring proper oversight of the risk-taking decisions made relative to the risk probabilities discovered through the search or any notices of infringement received,¹²⁷ and (b) its board knows or should have known that (i) the corporation operates in a litigious patent space, (ii) the corporation does not own every patent that would be needed to cover its footprint, (iii) the corporation or the corporation’s competitors have been the target of demand letters, (iv) the corporation’s competitors have purchased or sold patents that are identified to be problematic patents, and/or (v) the validity of the corporation’s patents covering its footprint have been challenged by a competitor.¹²⁸ Additional hypothetical scenarios could also give rise to a claim, for example, replacing (a)(i) or (a)(ii) with “whose board decides to knowingly infringe” or “whose board, having knowledge of an employee decision to knowingly infringe, neglects to become properly informed of the risks.”¹²⁹

123. See Hillary A. Sale, *Monitoring Caremark’s Good Faith*, 32 DEL. J. CORP. L. 719, 733 (2007).

124. See *Stone*, 911 A.2d at 370 (emphasis added).

125. See *Lyondell Chemical Co. v. Ryan*, 970 A.2d 235, 240 (Del. 2009); see also *Stone*, 911 A.2d at 370 (“[I]mposition of liability requires a showing that the directors knew that they were not discharging their fiduciary obligations.”).

126. See *In re Caremark*, 698 A.2d at 970.

127. See *Stone*, 911 A.2d at 370.

128. See *Lyondell Chemical Co.*, 970 A.2d at 240; see also *In re Caremark*, 698 A.2d at 971.

129. See *In re Caremark*, 698 A.2d at 967–72.

3. Recognizing the Duty

Support for recognizing a duty to monitor patent risk can be found in case law, policy, and logic.

Case Law. *Caremark* tells us that the oversight duty covers employee or corporate conduct in violation of law or regulations. Patent infringement is conduct prohibited by federal statute, namely, 35 U.S.C. §271. Patent infringement is not criminal conduct, and a claim for patent infringement is brought in a civil suit.¹³⁰ It does not carry criminal penalties. Instead, it is a prohibited act in violation of the exclusive rights of a patentee, granting right of the patentee to bring action for damages or injunction.¹³¹ Copyright infringement, on the other hand, may be a criminal act with imposable statutory fines.¹³² Notably, copyright infringement requires actual copying—or a volitional act demonstrating culpability¹³³—while patent infringement is a strict liability offense requiring no intent, knowledge or even access. Nevertheless, there is no language in *Caremark* and its line of cases that expressly restricts the duty to monitor to criminal conduct. Moreover, all of the rhetoric, in these cases and from commentators since, has been “wrongdoing”, “illegal” conduct, or “compliance with the law.”¹³⁴ “Illegal” conduct covers all acts forbidden by law, especially but not exclusively criminal acts.¹³⁵ Chancellor Allen provided in *Caremark* that the purpose of the system and information reporting that a board is required to put in place is so that the board may

130. *But see* *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060 (2011) (the Supreme Court imported a criminal concept of intent—willful blindness—into the statute for patent infringement).

131. 35 U.S.C. § 271 (2013).

132. *See* 17 U.S.C. § 506(a) (2013); *see also* MELVILLE NIMMER, NIMMER ON COPYRIGHT, §15.01[A][2]; *see also* *United States v. Moran*, 757 F. Supp. 1046, 1049 (D. Neb. 1991) (holding that willful infringement means a “voluntary, intentional violation of a known legal duty”) (quoting *Cheek v. United States*, 298 U.S. 192, 200 (1991)).

133. *See* *Religious Tech. Ctr. v. Netcom On-Line Commc’n Servs., Inc.*, 907 F. Supp. 1361, 1369–70 (N.D. Cal. 1995); Culpability may simply be proven by “access.” *See* PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 9.1.1 (3d ed. 2011); NIMMER, *supra* note 132, at § 13.01[B].

134. *See* Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1784 (“Our third category within the overall umbrella of good faith is ‘conduct involving illegality,’ a ‘culpable’ lack of diligence to prevent illegal acts, such as was alleged in *Stone* itself and in *Caremark*, or actual commission of illegal acts, the most notable example of which is perhaps *Miller v. AT&T*.”); *see Allis-Chalmers*, 188 A.2d at 130 (using “employee wrongdoing”).

135. *See* OXFORD DICTIONARY, available at http://www.oxforddictionaries.com/us/definition/american_english/illegal (“Contrary to or forbidden by law, especially criminal law.”).

“reach informed judgments concerning [] the corporation's compliance with law.”¹³⁶

There is a stark difference between illegal conduct and excessive risk-taking. Christine Hurt's argument that the duty to monitor should not extend to financial risk taking because, after all, “[m]ost of the behavior at the heart of the financial crisis was not obviously intentional violations of criminal laws or other regulations,” does not impact the duty's application to patent infringement. It seems clear that patent infringement falls squarely within the conduct that gives rise to a duty to monitor. There is risk in patents, however, that are not actually litigated and found to be infringing. In many cases, the costs or losses associated with patent infringement do not actually result from a finding of patent infringement, but from settlement as a result of alleged patent infringement.¹³⁷ For the purposes of this article, the two will be treated the same, acknowledging that patent risk arises because of the potential illegality of action, and the duty to manage the risk includes preventing conduct that *could be* illegal just the same as conduct that *is* illegal.

Policy. As has already been discussed, Hill and McDonnell (2007) proffer that “the most intelligible construction of [the rationale supporting the board's duties regarding illegal conduct] includes harm to shareholders and harm to society.”¹³⁸ Specifically, “[s]hareholders are also citizens, and insofar as laws advance the general social welfare, citizens care about that. A diversified shareholder with small stakes in any one corporation may well find that the public interest predominates over the corporate interest.”¹³⁹ In the patent context, unknown infringement by competitors could be assumed to directly harm the financial profile of the corporation that owns the infringed patent, as any market share or other exclusive benefit that could be held by the

136. *Caremark*, 698 A.2d at 170.

137. See Chien, *supra* note 12, at 324 (Chien used data from litigated patents to support her model demonstrating that acquired characteristics are obtainable and correlate positively with patent risk, however, she notes that the entire picture of patent risk is not painted solely by what is actually litigated. “[L]itigated patents represent a subset of two other groupings of patents with relevance to patent risk: potentially infringed patents and potentially asserted patents. Of these two groups, potentially infringed patents are of less concern from a defensive perspective because of the pervasive non-enforcement that others have described. However, potentially-asserted, yet unlitigated, patents represent potentially costly threats to companies, albeit ones that avoid the expense and disruption associated with litigation.”).

138. Hill & McDonnell, *Expanding Duty of Loyalty*, *supra* note 91, at 1784–85.

139. *Id.*

patent owner is diluted or eliminated.¹⁴⁰ The infringer, however, assumes the risk of patent infringement that could negatively affect its financial profile.¹⁴¹ As evidence, Bessen and Meurer have demonstrated that a patent litigation-filing announcement has a negative effect on defendant firms, after controlling certain factors pertaining to firm characteristics.¹⁴² Bhagat, Bizjak, and Coles showed that, while a successful patent litigation can have a positive wealth effect for a plaintiff, it is generally not as significant as the negative wealth effect for the loser.¹⁴³ Exemplifying this net negative wealth effect, the announcement that Samsung lost its patent litigation against Apple and was ordered to pay \$2 billion in damages resulted in a decrease of its stock price by 5%, while Apple's stock price increased by 2%.¹⁴⁴ Therefore, assuming diversified shareholders, a culture of rampant infringement and patent litigation could mean a detriment to investments that exceeds any benefit to investments.¹⁴⁵ Factoring in the dead weight fixed costs spent by both sides in patent litigation, the net position of a diversified shareholder could be negatively affected in a culture where excessive patent risk is not monitored and prevented.

140. One alternative view, however, is that a market for a technology is made larger by additional market participants, and despite widespread infringement of a patent holder's patent on the technology the patent holder benefits from participating in a larger market with increased adoption of the invention. This is the theory proffered by Tesla's CEO, Elon Musk, when offering Tesla's patents to competitors via "open source" licensing. See Elon Musk, *All Our Patent Are Belong To You*, TESLA BLOG (June 12, 2014), <http://www.teslamotors.com/blog/all-our-patent-are-belong-you>.

141. After a federal jury in Pittsburgh ordered Marvell Technology Group to pay a \$1.17 billion award for infringing Carnegie Mellon patents covering integrated circuits, Marvell's stock price fell to a low of \$6.98 per share at its lowest point resulting in an approximate market capitalization of around \$3.4 billion dollars—half of what it is today. See *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, No. 09-290, 2014 WL 1320154, at *15–16 (W.D. Pa. Mar. 31, 2014), available at <http://www.cmu.edu/patent-lawsuit/images/timeline/march-2014-court-opinion.pdf>.

142. James E. Bessen & Michael Meurer, *The Private Costs of Patent Litigation*, 9 J. OF L. ECON. & POL'Y 59 (2013).

143. Sanjai Bhagat, John Bizjak & Jeffrey L. Coles, *The Shareholder Wealth Implications of Corporate Lawsuits*, 27 FIN. MGMT. 5 (1998).

144. Sanjun & Changi, *supra* note 17, at 4.

145. Michael Orey & Moira Herbst, *Inside Nathan Myhrvold's Mysterious New Idea Machine*, BLOOMBERG BUSINESSWEEK (June 2, 2006), <http://www.businessweek.com/stories/2006-07-02/inside-nathan-myhrvolds-mysterious-new-idea-machine> (Nathan Myhrvold, former executive at Microsoft, stating that "there has long been a culture of intentionally infringing patents or turning a blind eye to potential infringement," and accounting that when he was at Microsoft this was part of the accepted business culture in the software industry.).

Likewise, shareholders and society have an interest in furthering innovation to create new products and services. For shareholders, innovation provides new value to current investments and new investment opportunities. For society, innovation provides new utility and efficiencies that increase a standard of living. One of many objectives of the patent system is to ensure more useful inventions, and indeed the U.S. Constitution provides for the creation of intellectual property rights “to promote the *Progress* of Science and the useful Arts.”¹⁴⁶ Because a patent discloses the invention publicly, it enables others to learn from and build upon the invention and, at the same time, directs them away from research that might wastefully duplicate the work of the patent holder.¹⁴⁷ Patent infringement, then, thwarts this objective and therefore the benefit of the patent system to shareholders and society in general. Moreover, as Bressen and Meurer (2013) have offered, the private costs of patent litigation result in a disincentive to investing in innovation, and as a result, the risk of infringement acts like a “tax” on innovation.¹⁴⁸

In the same vein, the practice of ignoring patents in light of risking willful infringement also works against the patent system objective of disseminating information about inventions to promote innovation. Robert Sterne and David Cornwell (2002) identified this dichotomy in the willful infringement doctrine, writing the below, albeit prior to the doctrine changing a bit in *In re Seagate*¹⁴⁹ in 2007:

146. U.S. CONST. art. I, § 8 (emphasis added); see also Roberto Mazzoleni & Richard R. Nelson, *Economic Theories About the Benefits and Costs of Patents*, 32 J. OF ECON. ISSUES 1031 (1998).

147. Robert Merges & Richard Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J. OF L. AND ECON. 265 (1977).

148. See Bessen & Meurer, *supra* note 142.

149. *In re Seagate*, 497 F.3d at 1371 (the Federal Circuit overruled the prior “due care” standard for willful infringement, replacing it with a recklessness standard. To prove willfulness under this new standard, a patentee must first show by clear and convincing evidence that an accused infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. A “totality of the circumstances” analysis applies, and the accused infringer’s “state of mind” is not relevant to the inquiry. In applying *In re Seagate*, some courts have treated actual notice as a prerequisite to an assertion of willful infringement. Some courts have even required notice of an infringement claim—not just notice of another’s patent rights—as a prerequisite to willful infringement. Even if actual notice is considered a prerequisite to a finding of willful infringement, however, *Seagate* does not appear to have affected the fairly low bar for what constitutes actual notice); see Jason Finch, *Willfulness Allegations Post-Seagate—The Role of Actual Notice*, BAKER BOTTS INTELLECTUAL PROPERTY REPORT, available at http://www.bakerbotts.com/file_upload/2010NovemberIPReportWillfulnessAllegationsPostSea

The quid pro quo of granting the inventor a time-limited exclusive right is the adequate disclosure in the patent of information about the protected invention to enable a person of ordinary skill in the art to make and use the invention. By examining the patent literature, the public can benefit from the information transferred by the inventor, and build on this body of knowledge. By hoisting itself on the advances of others, a new inventor can emerge to make further advances . . . Unfortunately, willful patent infringement effectively prevents this centralized body of information from being examined by the people most interested in it, competitors of the patent owner . . . The laudable goal of protecting the patent owner from infringement by an unscrupulous competitor is turned on its head in these contexts because the normal competitor cannot risk obtaining knowledge of the unasserted patents of the patent owner.¹⁵⁰

It follows that there is a public interest in a duty to monitor patent risk, including implementing and paying due attention to a system that adequately searches for, assesses, and makes informed decisions regarding risk-taking relative to problematic patents. Such a system will not only help avoid patent risk, but should help guarantee the intended use of published patent information to prevent infringement and further innovation.

Logic. The frequency with which patent litigation is being filed and the risk that patent litigation may present to shareholder-value should be sufficient to pay careful attention. Because the fixed costs of patent litigation remain constant without regard to the size of the company paying them, it is an event that could be devastating to cash flow for small companies. To gain a sense for who that covers, 96.7% of all employer companies in the U.S. have less than \$10 million in annual revenues. In view of the fact that average fixed costs of patent litigation, when at least \$1 million is at risk, is \$2.5 million, defending

gate.htm (last visited March 16, 2014); *see also* *Anascape, Ltd. v. Microsoft Corp.*, No. 9:06-CV-158, 2008 WL 7182476, at *3 (E.D. Tex. Apr. 25, 2008) (“‘To willfully infringe a patent, the patent must exist and one must have knowledge of it.’”) (citing *State Industries Inc. v. A.O. Smith Corp.*, 751 F.2d 1126, 1236 (Fed. Cir. 1985)); *see also* *Jardin v. Datallegro, Inc.*, No. 08cv1462-IEG-RBB, 2009 WL 186194, at *7 (S.D. Cal. Jan. 20, 2009) (holding that *Seagate* did not change the pleading requirements for willful infringement and that the plaintiff need only plead the equivalent of ‘[the accused infringer acted] with knowledge of the patent and his infringement’ to meet the requirements of Rule 8) (quoting *Sentry Prot. Prods. Inc. v. Eagle Mfg. Co.*, 400 F.3d 910, 918 (Fed. Cir. 2005)); *see also* *Creative Internet Advertising Corp. v. Yahoo! Inc.*, No. 6:07cv354, 2009 WL 2382132, at *5 (E.D. Tex. July 30, 2009) (stating that an accused infringer must be on notice of an infringement claim to have willfully infringed).

150. *See* STERNE & CORNWELL, *supra* note 120, at 3–4.

patent litigation could require at least 25% of the annual revenues of more than 96% of the companies in this country.¹⁵¹ Exacerbating the risk, empirical data shows that patent trolls target companies in this category quite often.¹⁵² It is unlikely that many of these companies implement a patent risk management system necessary to minimize this risk, much less satisfy a duty to monitor illegal patent infringement.¹⁵³

Empirical data shows that patent infringement is an event that negatively impacts shareholder value, as markets do react to the outcome of patent litigation events.¹⁵⁴ Notwithstanding the potential outcomes of unsuccessful patent litigation, including damages and injunction, a firm could lose additional value in market reaction. With three decisions in 2013 that exceeded a billion dollars, and a median damages award between 2007 and 2012 of \$4.9 million,¹⁵⁵ the risk is such that a system for monitoring actions that could give rise to that risk seems logical.

As has been mentioned, some commentators have made a case against extending the duty to monitor financial risk. One argument was that that recognizing a duty to monitor financial risk would be imprudent because a breach of the duty would be identifiable only in

151. See *Statistics about Business Size*, UNITED STATES CENSUS BUREAU, available at <https://www.census.gov/econ/smallbus.html#RcptSize> (last visited March 11, 2014) (96.7% of employer firms make \$10 million or less in annual receipts).

152. See Colleen Chien, *Startups and Patent Trolls*, Santa Clara Law Digital Commons (Sept. 13, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2146251 (finding that small and midsize companies with less than \$1 billion in revenues now constitute 90% of the unique defendants in patent troll suits; Firms with less than \$100 million in revenue represent 66% of the defendants; Firms with less than \$10 million make up 55% of the defendants).

153. While patent risk management may be manageable, it is expensive and resource consuming. Depending on the technical complexity of the product and the saturation of the relevant patent landscape, a complete review of the patent landscape can require hundreds of hours of review. If done using outside counsel, this can be multiplied by a conservative estimate of \$250/hour, potentially totaling hundreds of thousands of dollars.

154. See Alan Marco & Saurabh Vishnubhakat, *Certain Patents*, 16 YALE J.L. & TECH. 103 (2013) (finding that the correlation of the outcome of patent litigation events with stock market reaction is “statistically meaningful”); see also Paula Schliessler, *The Effect of Patent Litigation on Firm Performance—Evidence for Germany*, Centre for European Economic Research (Jan. 2013), available at <http://ftp.zew.de/pub/zew-docs/dp/dp13015.pdf> (finding evidence that “defendants are negatively affected by a loss in trial or a settlement deal, while a victory leaves their rating unchanged. I further show that small and inexperienced defendants are at a disadvantage compared to larger and more experienced firms, indicating that they are affected more severely by business disruption and financial distress.”).

155. PWC PATENT LITIG. STUDY, *supra* note 5; see also Seaman, *supra* note 10.

hindsight.¹⁵⁶ Unlike financial risk, patent risk is measureable against a bright line rule: patent infringement is statutorily illicit. In financial risk, only a bad outcome is measurable, and without a defined act that is measurable against a law or regulation, a bad outcome requires discovering breach only after the excessive risk-taking is complete. This should not follow to the patent risk context because, as has been highlighted herein, patent risk management is reasonably manageable, and resources now available make problematic patents increasingly identifiable and assessable allowing a company to determine an appropriate action.

A next argument is that the duty to manage financial risk would also encompass failures to take risks, making risk-averse firms also susceptible to breach of duty claims.¹⁵⁷ As has been described in this section, this logic would not follow to patent risk because a failure to take a risk relative to patent infringement means avoiding illegal conduct and furthering innovation by intentionally designing around and creating something new. A firm that does not infringe patents would not be susceptible to breach of a fiduciary duty for intentionally avoiding illegal conduct.

Another argument for not extending the duty to financial risk is that a *Caremark* claim may only be successful if a board does not have a reporting or risk-management system in place, and “[a] modern U.S. publicly-held corporation that faces any type of financial risk will almost certainly have a system in place.”¹⁵⁸ As was demonstrated herein, this author believes that the systems required to satisfy a duty to monitor patent risk likely to not exist in many companies, and particularly not in 96.7% of the smaller U.S. firms that may be most vulnerable to the severity of patent risk consequences. Moreover, current willful-infringement doctrine may motivate some firms to ignore patents, and this activity, if intentionally occurring without appropriate oversight, demonstrates non-existence of an adequate system in light of the duty.

Finally, it has been argued that a duty to manage financial risk implies that a court is able to determine the optimal amount of risk, or at least what is too much or too little risk, and that this would be impossible for financial risks. Because of the bright line rule of illegal conduct vs. legal conduct in the patent context, the optimal amount of risk should be easily ascertainable—an amount which does not infringe

156. See HURT, *supra* note 47, at 7–8.

157. *Id.*

158. *Id.* at 39–40.

a valid patent. Given that this determination must be made using probabilities, and not absolutes, the “too much risk” standard should be one of reasonableness in light of the information known or available.

In summary, the costs and consequences of “too much patent risk,” or patent infringement, show that a duty to monitor patent risk is logical. Moreover, the logic behind not extending a duty to monitor financial risk is not workable in the patent risk management context.

4. Satisfying the Duty

To satisfy its duty to monitor patent risk, a board should (1) establish a monitoring system which identifies, appropriately assesses and reports information about patent risk to the level of accountability corresponding to that risk; and (2) pay appropriate attention to relevant information, whether internal or external, to ensure that it is able to spot “red flags” demonstrating patent risk or excessive risk-taking related to that risk.¹⁵⁹ *Caremark* and its progeny of cases tell us that “red flags” are important to finding a breach of the duty to monitor. In the patent context, red flags are difficult to avoid, or ever present, in certain industries. The consistent “red flag” in industries like telecommunications where products are covered by hundreds or even thousands of patents is, quite frankly, that infringement is known, rampant, and potentially unavoidable.¹⁶⁰ Under one view, this circumstance is so obvious and critical that ignorance of it and failure to implement a monitoring system *could* reasonably be deemed to satisfy the scienter element required by courts. External “red flags” like this knowledge should at least be imputed to the board in such industries, requiring additional focus on the monitoring system in place. The most apparent internal “red flag” is the receipt of demand letters, demonstrating that competitors or other patent holders believe its patents are being infringed by the company.

159. See *Stone*, 911 A.2d at 368.

160. See Orey & Herbst, *supra* note 145; see also David Streitfeld, *E-Commerce Battles 'Me'-CommerceLP has VROS*, L.A. TIMES, Feb. 8, 2003 (“If you’re selling online, at the most recent count there are 4,319 patents you could be violating,” said David E. Martin, chief executive of M-Cam Inc., an Arlington, Va.-based risk-management firm specializing in patents. “If you also planned to advertise, receive payments for or plan shipments of your goods, you would need to be concerned about approximately 11,000.”); see also Charles Arthur, *Apple Using “Bogus” Patents To Make Android More Expensive, Says Google*, THE GUARDIAN (Aug. 4, 2011), <http://www.theguardian.com/technology/2011/aug/04/apple-patents-android-expensive-google> (Google CEO, David Drummond, stating that a smartphone might involve more than 250,000 patent claims).

As was the case in *Caremark* and *Stone*, a finding of breach of the duty to monitor patent risk will be very difficult as long as a board ensures a monitoring system is in place and is paid due attention. In addition, an element of scienter will be required, meaning the board knew or should have known its conduct was not in compliance with the law, or it acted in conscious disregard of its duty to act.¹⁶¹ Knowledge that a company's products infringe a third party patent, then, followed by inaction would likely satisfy the bad faith requirement. As a result, such knowledge should be followed by stopping any infringing activity or seeking a license from the patent owner.

CONCLUSION

Added accountability for patent infringement helps to avoid the damaging position that many companies take—ignorance of the issue until a problem arises.¹⁶² It also helps to support the clear intent of the patent system—to disseminate knowledge and help innovators build upon the ideas before them. The less companies infringe third party patents, the less time and resources are spent on litigation and the more is spent on building more, new useful products. There is support in case law, policy, and logic for acknowledging a board of director duty to monitor patent risk. This level of accountability is appropriate, as it is commensurate with the level of the risk that poses harm to shareholders and, in aggregate, to society. The duty should be satisfied by implementing a system that effectively minimizes patent risk by identifying, assessing, communicating and taking on appropriate risk relative to problematic patents.

161. See *Lyondell*, 970 A.2d at 240.

162. See *STERNE & CORNWELL*, *supra* note 120, at 3 (“The thinking of many normal competitors is that it is much more cost effective to deal with a patent infringement problem once it surfaces than to unilaterally try to figure out possible problems ahead of time that may never materialize.”).