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INTRAPRENEURSHIP

Darian M. Ibrahim
William & Mary Law School

73 WASH. & LEE L. REV. ____ (forthcoming 2016)
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ABSTRACT

This Article on “intrapreneurship” has several goals. First, it points out that while much of the legal literature on innovation is concerned with startups (entrepreneurship), the innovation that takes place inside our largest corporations (intrapreneurship) is substantial, important, and understudied. Second, the piece observes that while large technology corporations that used to be startups may remain intrapreneurial in culture, intrapreneurship is less common in the aggregate than we might expect. Reasons include organizational bureaucracy, intellectual property laws favoring entrepreneurship, and what Clayton Christensen (Harvard Business School) calls “the innovator’s dilemma.” The innovator’s dilemma is, put simply, that good management causes large corporations to please existing customers with new and improved products at the expense of cultivating disruptive innovations that could replace those products altogether. Third, the Article detours to corporate law, which might, as a descriptive matter, play at the margins of the innovator’s dilemma and the entrepreneurial/intrapreneurial balance. Finally, the Article explores a hybrid approach—corporate venture capital—that combines entrepreneurial and intrapreneurial advantages. In corporate venture capital, a large corporation’s venture arm can invest in promising startups, and thus share in disruptive gains, without having to overcome obstacles to developing those projects internally.

[†] Professor of Law, William & Mary Law School. My thanks to Bill Bratton, participants in a Cardozo Faculty Workshop [add others]. Special thanks to research assistants Kristin Adams, Lauren Bridenbaugh, Brian Reagan, Hayley Steffen, and law librarian Fred Dingley for their excellent research support.

INTRODUCTION

Entrepreneurship is sexy and the way innovation is often carried out. Our business lore includes Steve Jobs creating Apple Computer in his garage and Mark Zuckerberg creating Facebook in his Harvard dorm room. Entrepreneurship takes flight when these entrepreneurs bravely forego the safety of a traditional job and create a new firm (a “startup”) to pursue an idea. Everyone likes entrepreneurship, including politicians¹ and law professors (especially this one²).

What receives less attention is innovation that takes place inside our largest corporations, or *intrapreneurship*. This Article is the first to study how the law, and in particular corporate law, might affect the intrapreneurial/entrepreneurial balance we observe.³ I note at the outset that many of these effects, to the extent they are having an influence, are likely at the margins. They are also probably unintended affects, as Delaware judges are not deciding fiduciary duty cases brought against corporate management with the effect on intrapreneurial activity in mind. Still, much like a neat essay explores how tort law’s deference to custom might unintentionally hinder innovation,⁴ this Article explores how corporate law might be playing an unanticipated role in the optimal intrapreneurial/entrepreneurial balance. This Article also explores a hybrid

¹ On legal preferences granted to startups and other small businesses, see Mirit Eyal-Cohen, *Legal Mirrors of Entrepreneurship*, 55 B.C. L. REV. 719 (2014) [hereinafter Eyal-Cohen, *Legal Mirrors*], and Mirit Eyal-Cohen, *Down-Sizing the Little Guy Myth in Legal Definitions*, 98 IOWA L. REV. 1041 (2013) [hereinafter Eyal-Cohen, *Down-Sizing*].

² See, e.g., Darian M. Ibrahim, *The New Exit in Venture Capital*, 65 VAND. L. REV. 1, 2 (2012) (favorably citing statistics that “[i]n 2008 public companies that were once venture-backed accounted for more than 12 million U.S. jobs and \$2.9 trillion in revenues, which equates to 21 percent of U.S. GDP.”) (quoting Press Release, Nat’l Venture Capital Ass’n, National Venture Capital Association Releases Recommendations to Restore Liquidity in the U.S. Venture Capital Industry (Apr. 29, 2009)).

³ Although it is by no means the first law review article to discuss the concept of intrapreneurship. See, e.g., Joseph Bankman & Ronald J. Gilson, *Why Start-ups?*, 51 STAN. L. REV. 289 (1999) (examining why large corporations fail to keep all promising innovative concepts in-house rather than losing employees to startups); Eyal-Cohen, *supra* note 1.

⁴ Gideon Parchomovsky & Alex Stein, *Torts and Innovation*, 107 MICH. L. REV. 285 (2008). As the authors note, “[a]cademic discussions are typically confined to the domains of patent and trade secret law. This Article highlights a previously underappreciated connection between innovation and tort law.” *Id.* at 286.

approach—corporate venture capital—that may be the best of both worlds. Corporate venture capital programs allow large corporations to keep abreast of new technologies without having to spend internal R&D dollars.

Before discussing these original contributions, this Article explores intrapreneurship as a phenomenon. Intrapreneurial corporations have long existed, from 3M (whose employees developed the Post-It Note) to Lockheed Martin (whose “skunkworks” group developed the U-2 Spy Plane).⁵ Now much intrapreneurship occurs in the technology stalwarts (e.g., Google, Amazon) that began as startups. However, given that large corporations have advantages over startups in terms of resources, employee talent, and production economies of scale, it is surprising to not find even more intrapreneurship relative to entrepreneurship.

Entrepreneurship is going to be more attractive to some individuals. There are psychic rewards for being one’s own boss and financial payoffs upon success that a large corporation has difficulty matching. Corporate law’s limited liability, meaning the founder’s personal wealth is not at stake should the venture fail, also drives entrepreneurship.⁶ But on balance, why don’t the corporation’s competitive advantages in terms of attracting and retaining innovators result in less startups and more intrapreneurship?

The existing legal literature identifies one possible reason—ownership rights to intellectual property developed while working for a large corporation. I will discuss that briefly, recognizing that it is not my domain and leaving it to the IP scholars. I also briefly discuss other explanations. The Article then turns to a business school theory of much buzz – Clayton Christensen’s *The Innovator’s Dilemma*.⁷ Christensen

⁵ See *infra* notes 34-41 and accompanying text.

⁶ D. Gordon Smith & Darian M. Ibrahim, *Law and Entrepreneurial Opportunities*, 98 CORNELL L. REV. 1533, 1566-67 (2013) (limited liability encourages entrepreneurship).

⁷ See generally CLAYTON M. CHRISTENSEN, *THE INNOVATOR’S DILEMMA: THE REVOLUTIONARY BOOK THAT WILL CHANGE THE WAY YOU DO BUSINESS* (1997) [hereinafter CHRISTENSEN, *THE INNOVATOR’S DILEMMA*]. Christensen’s novel has garnered top business industry accolades since its publication in 1997. Dan Ackman, *The 20 Most Influential Business Books*, FORBES (Sept. 30, 2002), <http://www.forbes.com/2002/09/30/0930booksintro.html>; *Aiming High: We Launch a Quarterly Review of Business Books by Naming Six of the Best*, THE ECONOMIST (June 30, 2011), <http://www.economist.com/node/18894875> (examining six books from the past fifty years which “shape[d] the business world”); *Global Business Book Awards*, J. M. MCELLIGOTT

shows that well-managed large corporations cater to existing customers and improve upon existing products (i.e., sustaining innovations) rather than pursue disruptive innovations that create new products and new demand. Eventually, however, experience has shown that entrepreneurial disruptive innovations reduce or invade the large corporation's space. This is the innovator's dilemma: stick with a successful strategy and eventually be disrupted by a startup.

Christensen says that to solve the innovator's dilemma and have a large corporation pursue a concurrent sustaining/disruptive innovation approach answer, we must reduce the *asymmetries* that exist within large corporations. This includes both *asymmetric motivation* (only caring about upstream movements to higher-end products and customers) and *asymmetric information* (organizational hurdles that prevent disruptive threats and potential responses to them from filtering up from employees to senior management).

Much like corporate law could tip the scales toward forming a startup by offering the founders limited liability, corporate law can also speak to the innovator's dilemma inside large firms. First, the business judgment rule – as central a principle to corporate law as limited liability⁸ – prompts senior management (the CEO and board of directors) to pursue a disruptive innovation even if it might fail. Locating intrapreneurial ventures in new organizational units within the corporation, or even corporate subsidiaries, is a way to pursue disruptive innovation while still catering to the corporation's core business.⁹ Thus, corporate law reduces the asymmetric motivation problem, albeit on the margins, as market pressures will ultimately drive business strategy.

(last visited Dec. 22, 2015), http://www.bookawards.bizland.com/financial_times.htm (naming Christensen's book the 'Best Business Book' of 1998, as determined by the *Financial Times* and Booz-Allen & Hamilton)

⁸ Stephen M. Bainbridge, *The Business Judgement Rule as Abstention Doctrine*, 57 VAND. L. REV. 81, 81 (2004) (describing the business judgement rule as "corporate law's central doctrine, pervasively affecting the roles of directors, officers, and controlling shareholders").

⁹ See, e.g., Nathan Furr & Daniel Snow, *The Prius Approach*, HARV. BUS. REV., (Nov. 2015) <https://hbr.org/2015/11/the-prius-approach> (discussing how large corporations should react to the threat of disruption based on whether such disruption is already underway, has just begun, or is in the distant future).

Second—and less intuitive/more controversial—corporate law might also reduce the asymmetric information problem. Christensen says that skilled employees do sometimes see disruption coming, and develop a response to it, but those ideas do not reach the senior management level.¹⁰ Delaware law recognizes a duty to monitor, part of the duty of loyalty, which mandates that the board of directors install a compliance system to monitor for employee illegal activity. The duty to monitor does not reach business risks, whether from overexposure to subprime mortgages¹¹ or threats from disruptive innovation. However, it can work in that way indirectly, when coupled with market pressures, in ways this Article will explore.¹² Consequently, the duty to monitor, albeit indirectly and unintentionally, may help information reach senior management who can then act on it.

Finally, the Article pivots to perhaps the best of both worlds: corporate venture capital. Large corporations can and do form venture arms to fund startups, which allow the corporations to continue pursuing sustaining innovations while also sharing in disruptive activity through startup ownership. I will argue that corporate venture capital is theoretically equipped to outperform private venture capital in funding startups, although corporate venture capital's actual success is varied.

Before proceeding further, let me be clear that this is largely a descriptive piece rather than normative. For example, I do not argue for a change in corporate law to make corporations even more intrapreneurial. Indeed, I do not even know if that is desirable from an aggregate social welfare perspective. On the whole, it should not matter who is innovating – startups or large corporations. Nor should it matter who funds innovation, private or corporate venture capitalists. This Article is simply an inquiry into the distributive, or the relative balance between where innovation happens, who funds it, and why.

¹⁰ CHRISTENSEN, THE INNOVATOR'S DILEMMA, *supra* note 7, at 33–34, 94–97.

¹¹ *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106 (2009) (discussed in *infra* notes 134-141).

¹² See *infra* notes 149-153 and accompanying text.

I. Intrapreneurship and the Innovator's Dilemma

This Part asks a series of preliminary questions. First, what is “intrapreneurship” and how does it differ from entrepreneurship? Second, what do we know about intrapreneurial companies? And third, what reasons can we find for why even more innovation doesn't take place inside large corporations given the many advantages they appear to enjoy over startups?

A. *Intrapreneurship and Entrepreneurship Differentiated*

The basic difference between intrapreneurship and entrepreneurship is that intrapreneurship is innovative activity that happens within a large, established firm,¹³ whereas entrepreneurship is innovative activity that is pursued through a new firm (a startup) established primarily for that purpose.¹⁴ An “entrepreneur assumes the risk of the venture, generally by investing his or her own capital and reputation and by forsaking a guaranteed income,”¹⁵ whereas an intrapreneur is commonly thought of as an employee within a large corporation who stays in-house to pursue her idea rather than leaving to form a startup (although I conceive as the employee and management team together as the intrapreneur).

Entrepreneurship is glorified in our collective mindset. Joseph Bankman and Ronald Gilson write that “in Silicon Valley, the defining myth takes as its stage David Packard's or Steve Jobs' garage In this

¹³ Gifford Pinchot is credited with coining the term “intrapreneur” to “describe a person who creates innovation of any kind *within* an organization.” Timothy D. Schellhardt, *DAVID in GOLIATH: Some giant companies are particularly good at fostering an entrepreneurial spirit. Here's how they do it*, WALL STREET J., May 23, 1996, R14; see also Art Fry, *The Post-It Note: An Intrapreneurial Success*, 52 SAM ADVANCED MGMT. J. 3, 4 (1987) (“‘Intrapreneuring’ is a word coined by Gifford Pinchot in his book, *Intrapreneuring*. We had intrapreneurs for years at 3M, but didn't know what to call them.”).

¹⁴ D. Gordon Smith & Masako Ueda, *Law & Entrepreneurship: Do Courts Matter?*, 1 ENTREPRENEURIAL BUS. L.J. 353, 356 (2006) (defining entrepreneurship as “‘getting novel things done’ by new for-profit enterprises,” yet not discussing “entrepreneurial activities by established firms . . .”).

¹⁵ David E. Pozen, *We Are All Entrepreneurs Now*, 43 WAKE FOREST L. REV. 283, 285 (2008).

community, the myth is taken seriously. Over and over again, people set out on the path of heroes: They leave their comfortable, secure jobs, and start from scratch.”¹⁶ Similarly, John Coyle and Gregg Polsky observe that Silicon Valley engineers are “willing to accept lower salaries and fewer perks in exchange for . . . the intangible benefits of participating in a startup in Silicon Valley, where entrepreneurship is cherished.”¹⁷

Not only does entrepreneurship dominate in cultural and popular significance, these social norms are also embedded in our legal system. Mirit Eyal-Cohen has detailed the benefits that the legal system grants small businesses (which include startups) simply due to their size.¹⁸ As a descriptive matter, she notes that these benefits, which include the ease of complying with securities laws¹⁹ and reduced patent application fees,²⁰ are available to startups but not to large corporations.²¹ As a normative matter, she argues that this “legal favoritism of small entities results in the waste of revenues and the misallocation of government resources. This occurs because the rules governing the allocation of benefits focus on firm size,” even if size is not the best proxy for innovation.²²

¹⁶ Bankman & Gilson, *supra* note 3, at 289–90.

¹⁷ John F. Coyle & Gregg D. Polsky, *Acqui-hiring*, 63 DUKE L.J. 281, 291 (2013); *see also* Pozen, *supra* note 15, at 286 (“[e]ntrepreneurs, in the American imagination, are leaders, innovators, pioneers, problem solvers, and risk takers; they are diligent, persistent, charismatic, dynamic, imaginative, and resourceful, the *bricoleurs* of the capitalist marketplace.”).

¹⁸ Eyal-Cohen, *Legal Mirrors*, *supra* note 1, at 742–46; *see* Eyal-Cohen, *Down-Sizing*, *supra* note 1, Part III.

¹⁹ Eyal-Cohen, *Down-Sizing*, *supra* note 1, at 1065–68.

²⁰ *Id.* at 1076–78.

²¹ *Id.* at 1051 (“[e]ntrepreneurship has been commonly equated with small-business ownership, and it has been used to justify regulatory concessions”).

²² Eyal-Cohen, *Legal Mirrors*, *supra* note 1, at 721 (footnote omitted). Notably for purposes of my argument, Eyal-Cohen thinks preferential treatment should be granted to businesses that are truly innovative, whether startups or large, intrapreneurial corporations. *Id.* at 763–65 (proposing a conceptual model which aims to determine a firm’s entrepreneurial character by weighting the firm’s age, knowledge procurement ability, innovation yield, labor expansion, and entrepreneurial success).

Perhaps it is not surprising, then, that legal academics focus on startups, including their legal organization,²³ financing,²⁴ governance,²⁵ and exit mechanisms.²⁶ Conversely, Gordon Smith and Masako Ueda observe that “[s]cholarly interests in intrapreneurship are clustered around the issue of how to circumvent inertia in established firms and to get novel things done”²⁷ Thus, intrapreneurship is viewed as the study of overcoming organizational bureaucracy rather than a topic for legal scholars.²⁸ But it is richer than that.

²³ See Joseph Bankman, *The Structure of Silicon Valley Start-ups*, 41 UCLA L. REV. 1737, 1738–41, 1764–65 (1994) (contending that startups are organized as C corporations due to a “gambler’s mentality” on the part of the founders); Victor Fleischer, *The Rational Exuberance of Structuring Venture Capital Start-ups*, 57 TAX L. REV. 137 (2003) (arguing that there are rational reasons why start-ups are organized as C corporations); LARRY E. RIBSTEIN, *THE RISE OF THE UNINCORPORATION* 227–28 (2010) (arguing that but for venture capital investments, startups would rationally organize as “unincorporations” such as LLCs instead of as C corporations).

²⁴ See, e.g., Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067 (2003) (discussing venture capital financing); Darian M. Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 Vand. L. Rev. 1405 (2008) (discussing angel investor financing); Darian M. Ibrahim, *Debt as Venture Capital*, 2010 U. ILL. L. REV. 1169 (discussing venture debt financing).

²⁵ See, e.g., Jesse M. Fried & Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 N.Y.U. L. REV. 967 (2006) (observing the unusual governance scheme in startups, where preferred stockholders (venture capitalists) control a startup while common shareholders control other corporations).

²⁶ See, e.g., D. Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315 (2005) (describing venture capitalist strategies for exiting their portfolio startups).

²⁷ Smith & Ueda, *supra* note 14, at 356. Clayton Christensen rightfully observes that many analyses of “organizational impediments” to intrapreneurship “stop with such simple rationales as bureaucracy, complacency, or ‘risk-averse’ culture,” although there are exceptions that go deeper. CHRISTENSEN, *THE INNOVATOR’S DILEMMA*, *supra* note 7, at 33–34; see also Schellhardt, *supra* note 13 (“Intrapreneurs often face giant stumbling blocks within hierarchical organizations, whose corporate cultures can serve to repel – not embrace – the entrepreneurial spirit.”).

²⁸ Darian M. Ibrahim & D. Gordon Smith, *Entrepreneurs on Horseback: Reflections on the Organization of Law*, 50 ARIZ. L. REV. 71, 82 n. 62–65 (2008) (citing the emerging “law and entrepreneurship” literature primarily focused on startups). There are exceptions that venture into intrapreneurship, some already cited, another is: Ronald J. Gilson, *Locating Innovation: The Endogeneity of Technology, Organizational Structure, and Financial Contracting*, 110 COLUM. L. REV. 885 (2010).

B. Intrapreneurship's Practical Importance

The entrepreneurial startup backed by venture capital deserves its due attention. Startups are now household names that employ thousands of people and have brought us many of the technological innovations we hold dear. But the research labs inside large corporations have brought us many notable successes too, also employing thousands of people.²⁹ While it may be difficult to quantify the amount of innovation that comes from R&D laboratories inside large corporations as opposed to startups, proxies can enlighten the comparison.

Patents are sometimes used as a measure of innovative activity.³⁰ Gideon Parchomovsky and R. Polk Wagner note that the “major drivers of the recent increases in patenting activity are medium-to-large corporations” and that large corporations including “IBM, Intel, and Hewlett-Packard . . . have consistently ranked among the top patent recipients in recent years.”³¹ As one striking example, the authors note that “[s]ince 1994, IBM has amassed over 25,000 U.S. patents, far more than any other company”.³² In a study examining the relationship between patenting and firm size, John Allison and Mark Lemley empirically found that large corporations filed about 70% of issued patents in their sample, while small businesses filed only 11%.³³

²⁹ WILLIAM J. BAUMOL, *THE FREE-MARKET INNOVATION MACHINE: ANALYZING THE GROWTH MIRACLE OF CAPITALISM* (2002) 56 (“[r]outinized innovation is . . . of great and probably growing significance, as [evidenced] by the fact that the bulk of U.S. R&D is now channeled through [established] firms.”).

³⁰ See, e.g., Zvi Griliches, Ariel Pakes & Bronyn H. Hall, *The Value of Patents as Indicators of Inventive Activity*, in *ECON. POL’Y & TECH. PERFORMANCE* 97, 121 (Partha Dasgupta & Paul Stoneman eds., 1987) (“[P]atent data represents a valuable resource for the process of technological change”); Thomas J. Chemmanur, Elena Loutskina, Xuan Tin, *Corporate Venture Capital, Value Creation and Innovation* 27 *REV. FIN. STUD.* 2434 (2014) (using patents as a proxy for a firm’s innovativeness).

³¹ Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 *U. PA. L. REV.* 1, 7 n. 12 (2005).

³² *Id.* at 46.

³³ John R. Allison & Mark A. Lemley, *Who’s Patenting What? An Empirical Exploration of Patent Prosecution*, 53 *VAND. L. REV.* 2099, 2128 (2000). The remaining balance was: almost 18% filed by individuals and 1% filed by nonprofits. *Id.*

Silicon Valley tech giants are leaders in intrapreneurship. Amazon's Amazon Web Services (AWS), an intrapreneurial project, has itself become a highly lucrative business.³⁴ Google has an "innovation time off" program which allows employees to spend part of their workday on their own intrapreneurial ideas.³⁵ Notably, half of the programs Google launched in the latter half of 2005 were developed through this program, including Gmail and Google News.³⁶ Facebook and LinkedIn have their own permeations of the innovation time off rule.³⁷

Intrapreneurship is not only the province of the Silicon Valley tech companies, however. Post-It Notes were created through internal employee collaboration at 3M³⁸ and Lockheed Martin's "Skunk Works" innovation team developed the U-2 spy plane.³⁹ A junior employee at Sony developed the Playstation gaming console by tinkering with his daughter's Nintendo. Though his immediate supervisors were not particularly amused, senior

³⁴ Randy Bias, *What is Amazon's Secret for Success and Why is EC2 a Runaway Train?*, available at <http://www.cloudscaling.com/blog/cloud-computing/what-is-amazons-secret-for-success-and-why-is-ec2-a-runaway-train/> (Oct. 13, 2011) ("AWS is staying on-track for 100% year-over-year growth, revenues in the 1B range for 2011, and no end in sight to the high flying act"). [also include more recent statistic]

³⁵ While reports suggest Google is no longer officially offering '20 Percent Time,' the company culture is such that employees continue to work on what they call '20 Percent Projects' even though they receive little to no institutional support. Ryan Tate, *Google Couldn't Kill 20 Percent Time Even if It Wanted To*, WIRED: BUSINESS (Aug. 21, 2013), <http://www.wired.com/2013/08/20-percent-time-will-never-die/>. See generally, RYAN TATE, *THE 20% DOCTRINE: HOW TINKERING, GOOFING OFF, AND BREAKING THE RULES AT WORK DRIVE SUCCESS IN BUSINESS*, 2012 [hereinafter TATE, *THE 20% DOCTRINE*].

³⁶ *Id.*

³⁷ See *id.*; Anis Bedda, *Don't Think Intrapreneurs Are Just Like Entrepreneurs – It's Not True*, INNOVATION, INTRAPRENEURSHIP CONFERENCE: BLOG (last visited Dec. 23, 2015), <http://www.intrapreneurshipconference.com/dont-think-intrapreneurs-are-just-like-entrepreneurs-its-not-true/>.

³⁸ Dan Schawbel, *Why Companies Want You to Become an Intrapreneur*, FORBES ENTREPRENEURS (Sept. 9, 2013, 12:29 PM), <http://www.forbes.com/sites/danschawbel/2013/09/09/why-companies-want-you-to-become-an-intrapreneur/>; Fry, *supra* note 13, at 5 (describing 3M's founders as innovative and noting that "3M is like a bunch of small companies pasted together").

³⁹ *The U-2 Dragon Lady*, LOCKHEED MARTIN: STORIES OF INNOVATION (last visited Dec. 23, 2015), <http://www.lockheedmartin.com/us/100years/stories/u2.html>. See also THE LEAN STARTUP: HOW TODAY'S ENTREPRENEURS USE CONTINUOUS INNOVATION TO CREATE RADICALLY SUCCESSFUL BUSINESSES 31 (2011) (Intuit's five-member intrapreneurial team created SnapTax).

leaders saw the promise of the new creation and were open to innovation at a time before ‘intrapreneurship’ was a developed principle.⁴⁰ Whirlpool—not exactly the first company one thinks of when it comes to innovation—enrolled every salaried employee in a business innovation course and trained specific employees to facilitate intrapreneurial projects.⁴¹

C. Why Intrapreneurship Isn’t Even More Successful

This Article is agnostic on the normative question of whether it is more desirable to see innovation pursued inside large corporations or through startups.⁴² But it is puzzling that intrapreneurship doesn’t completely dominate here. Bankman and Gilson argue that theoretically we should *never* see startups.⁴³ Instead, large corporations should be able to dominate in innovation given their tax, information, and scope advantages.⁴⁴ Further, the market should incentivize large corporations to innovate to stay relevant.⁴⁵

⁴⁰ *Inspiring Examples of Successful Intrapreneurship*, VOCOLI: BLOG, (May 27, 2014) [hereinafter VOCOLI], <https://www.vocoli.com/blog/may-2014/10-inspiring-examples-of-successful-intrapreneurship/>.

⁴¹ Jay Rao & Joseph Weintraub, *How Innovative is Your Company’s Culture*, MIT SLOAN MGMT. REV.: RESEARCH FEATURE (Mar. 19, 2013), <http://sloanreview.mit.edu/article/how-innovative-is-your-companys-culture/>. By 2008, 1,100 of Whirlpool’s approximately 61,000 worldwide employees were I-mentors, who received specialized training in order to facilitate innovation projects among the employee base. *Id.*

⁴² From an aggregate social welfare perspective, we may not care if large corporations or startups are innovating – but the directors and shareholders of the large corporations do. Also, given that retail investors are more likely to find themselves as shareholders of large corporations through retirement funds and the like (as opposed to the exclusive club of wealthy angel investors and venture capitalists that fund startups), there may be egalitarian issues here too.

⁴³ Bankman & Gilson, *supra* note 3, at 299 (“[W]e should not observe auctions [between large corporations and startups for an employee’s innovative idea], and we should not observe start-ups.”).

⁴⁴ *Id.* at 293 (“When all else is equal, the employer has advantages—tax, information, and scope—that should result in it consistently winning the auction” to keep employees and their ideas in-house.); *see also* Eyal-Cohen, *Legal Mirrors*, *supra* note 1, at 730 (despite popular opinion, large corporations may be “more entrepreneurial and innovative than small firms” because they “have more resources to invest in innovation and to attract and incentivize entrepreneur-employees”) (footnotes omitted).

⁴⁵ GIFFORT PINCHOT III, INTRAPRENEURING: WHY YOU DON’T HAVE TO LEAVE THE CORPORATION TO BECOME AN ENTREPRENEUR 7 (1985) (“[t]he more rapidly American

Still, intrapreneurship does not, on the whole, seem to be all roses. A recent article in the *Harvard Business Review* claims that intrapreneurial projects “fail between 70% and 90% of the time.”⁴⁶ Christensen likewise notes that “most attempts to create successful new projects [inside a large corporation] fail.”⁴⁷

There are several explanations for why the entrepreneurship/intrapreneurship balance is often struck for the former. First, should a corporate employee come up with a disruptive innovation at work, it may be unclear whether she owns it or whether her employment agreement entails assigning such property rights over to the corporation. The employee is then faced with a dilemma of her own. She could pursue intrapreneurship, in which case she must disclose the innovation to her superiors, putting the ownership question front and center.⁴⁸ As an alternative, the employee can leave the corporation, form a startup, and

business learns to use the entrepreneurial talent inside large organizations, the better. The alternative in a time of rapid change is stagnation and decline.”); *see also* Henry Chesbrough, *Graceful Exits and Missed Opportunities: Xerox's Management of its Technology Spin-off Organizations*, *BUS. HIST. REV.* 803, 807 (2002) (as early as 1969, Xerox's head of research warned his company of falling the way of RCA, which “continued to invest in perfecting the vacuum tube and failed to invest in the transistor, which quickly rendered the vacuum tube obsolete.”).

⁴⁶ Beth Altringer, *A New Model for Innovation in Big Companies*, *HARV. BUS. REV.* (Nov. 19, 2013) <https://hbr.org/2013/11/a-new-model-for-innovation-in-big-companies/>; *see also* Susan Foley, *5 Reasons Why Intrapreneurship is Important*, *CORP. ENTREPRENEURS* (Nov. 8, 2013), <http://corporate-entrepreneurs.com/blog1/2013/11/08/5-reasons-why-intrapreneurship-is-important/> (“Most studies report a 60% - 70% failure rate when it comes to change initiatives. Risk adverse cultures and resistance to change impede an organizations [sic] ability to grow.”). This is not to say that the percentages are better for startups. *See, e.g.*, Ibrahim, *supra* note 26, at 1176 (noting “the well-known fact that most start-ups fail”).

⁴⁷ CLAYTON M. CHRISTENSEN & MICHAEL E. RAYNOR, *THE INNOVATOR'S SOLUTION: CREATING AND SUSTAINING SUCCESSFUL GROWTH* 73 (2003) [hereinafter CHRISTENSEN & RAYNOR, *THE INNOVATOR'S SOLUTION*] (“Over 60 percent of all new-product development efforts are scuttled before they ever reach the market. Of the 40 percent that do see the light of day, 40 percent fail to become profitable and are withdrawn from the market.”); *see also* Altringer, *supra* note 48.

⁴⁸ Gilson, *supra* note 28, at 896 (“A number of scholars have focused on the risk to the employee of merely disclosing the innovation; by doing so, the employee will compromise her intellectual property.”).

probably have an easier claim to the innovation.⁴⁹ Therefore it takes an innovative employer—one with an intrapreneurial mindset—to assure employees that they will reap the rewards of disclosing their disruptive ideas and staying in-house.⁵⁰

Second, an employer must commit to intrapreneurship in another way: compensation. Bankman and Gilson note that in large corporations, you risk “the perception of unfairness resulting from wide pay disparities”.⁵¹ Gilson nuances the issue further in another essay, noting that intrapreneurial companies who financially reward innovative ideas get more employees to stay, but among themselves, employees will “hoard research to protect their property rights”⁵² This conundrum leads to the following: “Established technology companies both perform substantial amounts of innovation and lose employees to startups.”⁵³

Third, an employee gets a psychic reward from “going it alone” and becoming a successful entrepreneur which a large corporation may not be able to match.⁵⁴ Recall the earlier discussion of the entrepreneur as the modern American hero. It is unclear whether a significant disruptive idea carried out within a corporation would confer on employees the same sense of personal accomplishment.⁵⁵ On the other hand, for risk-averse employees who know that most startups fail, the compromise of being able

⁴⁹ Robert P. Merges, *Property Rights Theory and Employee Inventions* (Berkeley Ctr. for L. & Tech., Working Paper No. 97-03, 1997) (arguing that employees have a better ownership claim on their innovations free of an employer’s ownership claim the earlier the innovation is in its development when she leaves the employer).

⁵⁰ See *infra* notes 87-88 and accompanying text (discussing Thermo Electron, a large corporation that created a new subsidiary for each intrapreneurial idea and gave the employee with the idea an entrepreneur-like ownership stake in the subsidiary).

⁵¹ Merges, *supra* note 49.

⁵² Gilson, *supra* note 28, at 899. see also Bankman & Gilson, *supra* note 3, at 302 (citing Edward P. Lazear, *Pay Equality and Industrial Politics*, 97 J. POL. ECON. 561, 562 (1989) (Employees may sabotage each other’s efforts if the “prize” from having an intrapreneurial idea pursued is large enough.)).

⁵³ Gilson, *supra* note 28, at 899.

⁵⁴ Gilson & Bankman, *supra* note 3, at 305–06 (“Employees do not regard venture capital entrepreneurship as an identical substitute for continued employment. Employees have different utility functions”).

⁵⁵ *Id.* at 306 (“[A]n employee may positively value the opportunity to be her own boss, as well as the favorable cultural image of an entrepreneur.”).

to pursue an innovative idea while keeping a steady paycheck may favor intrapreneurship.⁵⁶

Finally, I turn to the best-known and most influential theory on why intrapreneurship fails: Clayton Christensen's *The Innovator's Dilemma*.⁵⁷ Christensen counterintuitively argues that it is not stodgy old corporations resistant to change that get disrupted. Instead, he observes that "[c]orporate executives often bet the future of billion dollar enterprises on an innovation," and cites IBM, DuPont, and Corning as examples.⁵⁸ Indeed, even though New Coke was a spectacular failure, the corporate employees who developed it were given raises and promotions.⁵⁹ Christensen contends that it is actually *well-run* organizations that fail at intrapreneurship.⁶⁰ For starters, Christensen distinguishes between two types of possible innovations: *sustaining* and *disruptive*. Sustaining innovations are improvements on a corporation's existing products that are already popular with its customers,⁶¹ while disruptive innovations are truly revolutionary and create new markets and new customers.⁶² For example, a "new and improved" Crest toothpaste is a sustaining innovation, whereas Crest white strips are a disruptive innovation.⁶³

⁵⁶ *Id.* (discussing an employee's risk calculus and considerations).

⁵⁷ While Christensen made the problems with large corporations innovating famous, other commentators had made similar observations. *See, e.g.*, Rebecca Henderson, *Underinvestment and Incompetence as Responses to Radical Innovation: Evidence from the Photolithographic Alignment Equipment Industry*, 24 RAND J. ECON. 248, 251, 267–68 (1993) (Large corporations focus on incremental improvements while startups are more likely to engage in radical innovation.).

⁵⁸ CHRISTENSEN & RAYNOR, *THE INNOVATOR'S SOLUTION*, *supra* note 7, at 7.

⁵⁹ Bedda, *supra* note 37. Other companies notably vary their intrapreneurial incentive structures over time.

⁶⁰ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at xv (This book shows that "in the cases of well-managed firms such as those cited above, *good* management was the most powerful reason they failed to stay atop their industries.") (emphasis in original).

⁶¹ *Id.* at xviii ("What all sustaining technologies have in common is that they improve the performance of established products . . ."); *Id.* ("Most technological advances in a given industry are sustaining in character.").

⁶² *Id.* (Disruptive innovations "result in *worse* product performance, at least in the near-term.") (emphasis in original).

⁶³ Robert D. Hof, *Innovate or Die*, BLOOMBERG BUS. (Oct. 5, 2003), <http://www.bloomberg.com/bw/stories/2003-10-05/innovate-or-die> ("Procter & Gamble Co. . . . does more than simply offer 'new and improved' toothpaste. In 2001, it launched Crest Whitestrips, a home tooth-whitening product that created a new market . . .").

Unlike Proctor & Gamble's success with Crest, Christensen argues that most large corporations only offer the "new and improved" sustaining innovation. Why? As Christensen explains: "*good management itself* was the root cause [of failing to consider disruptive innovations]. Managers played the game the way it was supposed to be played . . . listening carefully to customers . . . and investing resources to design and build higher-performance [and] higher-quality products."⁶⁴ Conversely, because disruptive innovations often start downstream, chasing new customers in less-desirable, less-profitable markets, they are less attractive to well-managed corporations.⁶⁵

Asymmetries that exist within large corporations are integral to the innovator's dilemma. First, well-run corporations suffer from *asymmetric motivation*, meaning they have "value networks" that prioritize the needs of their largest customers.⁶⁶ Therefore, large corporations do not have the motivation to invest in technologies that will move them downstream into less desirable markets.⁶⁷ As Christensen observes: "Disruptive innovations are complex because their value and application are uncertain, according to

Similarly, Wal-Mart and Kmart were disruptive innovations to high-end department stores in the 1960s. CHRISTENSEN & RAYNOR, *THE INNOVATOR'S SOLUTION*, *supra* note 47, at 46. There are also "hybrid" disruptors such as Charles Schwab, which "stole some customers from full-service brokers with its discounted trading fees, but it also created new markets by enabling people who historically were not equity investors—such as students—to begin owning and trading stocks." *Id.* at 47.

⁶⁴ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at 112; *see also* Gilson, *supra* note 28, at 905 ("[T]he problem arises precisely because the industry leaders are so good at what they do."); Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534, 588 (2003) ("[C]ompanies get locked in to a particular value network, so that they are not able to innovate radically after establishing a platform standard.").

⁶⁵ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at xx ("By and large, a disruptive technology is initially embraced by the least profitable customers in a market. Hence most [large corporations] . . . are rarely able to build a case for investing in disruptive technologies until it is too late.").

⁶⁶ *Id.* at 36 ("The concept of the *value network*—the context within which a firm identifies and responds to customers' needs, solves problems, procures input, reacts to competitors, and strives for profit—is central to this synthesis.") (emphasis in original).

⁶⁷ *Id.* at 89 (discussing how "leading companies migrate so readily toward high-end markets" but "moving downmarket" did not easily happen); *id.* at 61 ("[I]ncumbent firms are likely to lag in the development of technologies—even those in which the technology involved is intrinsically simple—that only address customers' needs in emerging value networks.").

the criteria used by incumbent firms.”⁶⁸ Therefore, managers—especially the important middle managers—will play it safe and pursue non-risky projects with more certain (and profitable) payment streams.

Second, large corporations also suffer from the problem of *asymmetric information*—i.e., disparities in who knows what inside the corporation. Skilled employees such as engineers may well see disruption coming, and have their own ideas for responding to it, but those ideas do not make their way up the food chain.⁶⁹ Christensen argues that “while senior managers may *think* they’re making the resource allocation decisions, many of the really critical resource allocation decisions have actually been made long before senior management gets involved”⁷⁰ Middle managers, the ones aware of the disruptive innovations percolating below, are incentivized to select which ideas *they* promote upwards to appeal to existing customers.

As Christensen notes: “Middle managers aren’t penalized for *all* failures . . . [b]ut projects that fail because the *market* wasn’t there have far more serious implications for managers’ careers.”⁷¹ Therefore, middle managers are likely to weed out an employees’ disruptive innovations, which by definition have uncertain markets, and instead send along sustaining innovations whose markets are the corporations’ current customers.⁷² Thus, while Bankman and Gilson argue that large corporations

⁶⁸ *Id.* at 61.

⁶⁹ This may not always be true, as R&D departments may not anticipate competitive threats. Josh Lerner, *Corporate Venturing*, HARV. BUS. REV. (2013) (“Traditional R&D doesn’t do a good job of sniffing out competitive threats. More and more, corporate R&D units tend to focus on a narrow range of projects, thus potentially neglecting disruptive advances that occur outside the company.”) An aside: although I generally link them throughout this Article, *risks* from disruptive threats outside the corporation and employee *opportunities* for responding to those risks are distinct and may require more nuanced thought on how the difference affects my analysis.

⁷⁰ CHRISTENSEN, THE INNOVATOR’S DILEMMA, *supra* note 7, at 95 (emphasis in original).

⁷¹ *Id.* (emphasis in original).

⁷² *Id.* at 119 (observing that managers who choose to pitch disruptive innovations “essentially are picking a fight with a powerful tendency of organizational nature—that customers, not managers, essentially control the investment patterns of a company”); CHRISTENSEN & RAYNOR, THE INNOVATOR’S SOLUTION, *supra* note 7, at 10 (“Middle managers typically hesitate to throw their weight behind new product concepts whose

know more about a current employees' disruptive idea than a startup financier will (the "informational" advantage), the senior management at the corporation might not.⁷³

Christensen's work, and the buzz around "disruption," was immediately bought into without challenge. That is, until Jill Lepore, a Harvard history professor, penned *The Disruption Machine* in a 2014 issue of the *New Yorker*.⁷⁴ As Lepore observed: "Most big ideas have loud critics. Not disruption."⁷⁵ Lepore changed that, and others have followed.

The critiques generally fall into two categories. First, critics claim that Christensen's case studies in *The Innovator's Dilemma* do not actually support his theories.⁷⁶ Others have made similar claims, perhaps most significantly, Dartmouth business school professor Andrew King and graduate student Baljir Baatartogtokh.⁷⁷ Christensen has hit back at his

market is not assured. If a market fails to materialize, the company will have wasted millions of dollars.")

⁷³ Bankman & Gilson, *supra* note 3, at 295–97 (discussing how large companies have better information than VCs both as to the employee generally and to her innovation).

⁷⁴ Jill Lepore, *The Disruption Machine: What the Gospel of Innovation Gets Wrong*, THE NEW YORKER (June 23, 2014), <http://www.newyorker.com/magazine/2014/06/23/the-disruption-machine>.

⁷⁵ *Id.*

⁷⁶ For example, on the disk-drive industry case studies, Lepore argues: "Most of the entrant firms celebrated by Christensen as triumphant disrupters . . . no longer exist, their success having been in some cases brief and in others illusory." *Id.* She then goes further by stating that, in the long term, "victory in the disk-drive industry appears to have gone to the manufacturers that were good at incremental improvements, whether or not they were the first to market the disruptive new format. Companies that were quick to release a new product but not skilled at tinkering have tended to flame out." *Id.* On the mechanical excavation case studies, Lepore states that Christensen counted 30 established companies in the 1950's but stated that only 4 survived the entrance of 13 so-called "disruptive newcomers" by the 1970's. *Id.* However, Lepore points out that many of these newcomers had been in the industry for years. In particular, O. & K. had been founded in 1876 and making cable-operated shovels since 1908; Demag had been building excavators since 1925; and Hitachi, founded in 1910, sold cable-operated shovels before World War II. Lepore reports that Christensen also focused heavily on Bucyrus and stated that its profits began to decline due to the disruptive hydraulics technology in the industry. However, Lepore points out that Bucyrus's profits grew twenty-five fold between 1962 and 1979 and was purchased by Caterpillar in 2011 for \$9 billion. *Id.*

⁷⁷ Andrew A. King & Baljir Baatartogtokh, *How Useful is the Theory of Disruptive Innovation?*, 57 MIT SLOAN MGMT. REV. 77, 78 (2015), <http://sloanreview.mit.edu/article/how-useful-is-the-theory-of-disruptive-innovation/> (summarizing their view of Christensen's theories, then attempting to determine whether 77 of Christensen's own

critics, noting that matters of disruption happen differently in different industries, and that his theories continue to evolve (as addressed in subsequent work) but are still fundamentally correct as originally set forth.⁷⁸

A second critique, noted by Lepore and echoed by others,⁷⁹ is how broadly Christensen's theory has been applied. Some examples of areas ripe for disruption: museums, hospitals, schools, universities, journalism, and politics. But these areas are more complicated or involve different constituencies than business.⁸⁰ Christensen himself is to blame for some of this overuse, as he has penned books applying disruption to other areas;⁸¹ on the other hand, he has also expressed hesitation with how broadly his theory is being applied.⁸²

examples conformed to his theories (as they understood them), and finding that only 7 of the examples (or 9%) fit the four criteria they attribute to Christensen).

⁷⁸ Drake Bennett, *Clayton Christensen Responds to New Yorker Takedown of 'Disruptive Innovation,'* BLOOMBERGBUSINESS (June. 20, 2014), <http://www.bloomberg.com/bw/articles/2014-06-20/clayton-christensen-responds-to-new-yorker-takedown-of-disruptive-innovation>. In response to King and Baartartogtokh, Christensen argues that “the rigor of their research was greatly lacking,” and “doesn't demonstrate a thorough understanding of how disruption plays out in different industries.” Jay Fitzgerald, *'Disruptive Innovation' Theory Comes Under Scrutiny,* BOS. GLOBE (Oct. 24, 2015) <https://www.bostonglobe.com/business/2015/10/23/disruption-economic-theory-faces-detractors/ZruX6qvCjNb7Eh5XdujPLI/story.html>.

⁷⁹ Haydn Shaughnessy, *What Did the Innovator's Dilemma Get Wrong?,* FORBES: TECH (June 27, 2014), <http://www.forbes.com/sites/haydnshaughnessy/2014/06/27/what-did-innovators-dilemma-get-wrong/> (supporting Lepore's article because it challenges the business elite as having too much power in shaping intellectual discussions).

⁸⁰ Dave Beal, *Disrupting 'Disruption': Skepticism Grows about One of Business's Biggest Ideas,* MINNPOST (Nov. 19, 2015) <https://www.minnpost.com/business/2015/11/disrupting-disruption-skepticism-grows-about-one-businesss-biggest-ideas> (Employing disruption beyond business is “typically more complicated because they have direct stakeholders beyond primary shareholders. For example, public schools have to deal with administrators, teachers, students and parents.”).

⁸¹ See, e.g., CLAYTON M. CHRISTENSEN, *THE INNOVATOR'S PRESCRIPTION: A DISRUPTIVE SOLUTION FOR HEALTH CARE* (2009) (relating to the health care industry); CLAYTON M. CHRISTENSEN & HENRY J. EYRING, *THE INNOVATIVE UNIVERSITY: CHANGING THE DNA OF HIGHER EDUCATION FROM THE INSIDE OUT* (2011) (relating to higher education).

⁸² King & Baartartogtokh, *supra* note 77, at 78 (Christensen's “theory, or variations thereof, has been used in so many settings that Christensen himself has expressed unease with some of the ways the theory is being applied.”); Globe Staff, *Clay Christensen explains, defends 'disruptive innovation,'* BOS. GLOBE (Oct 25, 2015) (“The word disruption has many connotations in the English language. I just didn't realize how that

For my purposes, I cannot say whether Christensen or his critics are correct on the empirics of disruption. However, I am more concerned with certain parts of his work, namely the asymmetries he identifies within large corporations. These arguments appear to be unchallenged by his critics. In short, I am more interested in Christensen's theories than his case studies, although certainly the two are interconnected. Also, intrapreneurship sits squarely in the business world, Christensen's original battle sphere, so whether it applies elsewhere is irrelevant to my project. The triumphs of the innovator's dilemma still trump the critiques.

II. Solving the Innovator's Dilemma

So that, in a nutshell, is the innovator's dilemma. Well-managed corporations do not pursue significant, disruptive innovations—instead leaving them to startups—because their entire value networks are built around serving existing customers through less-radical sustaining innovations. Yet ultimately in the examples Christensen identifies in his book, “it was disruptive technology that precipitated the leading firms' failure.”⁸³ Thus, if large corporations are to survive, they must engage in disruptive innovation in some form or another. The remainder of the Article is devoted to two possible approaches: 1) how large corporations might get better about pursuing disruptive innovations themselves (traditional intrapreneurship); and 2) have the venture arms of large corporations fund startups rather than compete with them (the hybrid approach).

This Part II and the next Part III focus on traditional entrepreneurship, both from an organizational/business perspective and by detouring into corporate law. Part IV examines corporate venture capital as a hybrid approach between entrepreneurship and intrapreneurship.

would create such a wide misapplication of the word 'disruption' into things that I never meant it to be applied to.”)

⁸³ CHRISTENSEN, THE INNOVATOR'S DILEMMA, *supra* note 7, at xviii.

A. Christensen's Answer

In *The Innovator's Solution*, Christensen revisits the two asymmetry problems identified above and offers some solutions. First, to overcome the corporate focus on only pleasing existing high-end customers (the asymmetric motivation problem), Christensen proposes that corporations “set up an autonomous organization charged with building a new and independent business around the disruptive technology.”⁸⁴ He notes successful intrapreneurial corporations have “placed projects to develop disruptive technologies in organizations small enough to get excited about small opportunities and small wins.”⁸⁵ Numerous examples in his book reveal how a new organizational unit was not hamstrung by the existing value networks of the corporation whose sole focus was existing customers.⁸⁶ Bankman and Gilson likewise point to the intrapreneurial corporation Thermo Electron, which “appears to exemplify the employer who never loses an auction of an employee's innovation to a venture capitalist.”⁸⁷ Thermo Electron creates new subsidiaries each time an employee comes up with a viable idea for a business, and the employee gets “an entrepreneur's equity stake in the venture.”⁸⁸

⁸⁴ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at xxiv; Roland Bel, *Innovation: Misconceptions, Trends, and Directions*, GLOBAL BUS. & ORGANIZATIONAL EXCELLENCE 71, 79 (2013) (describing 3M's intrapreneurial incentives and noting that “if the new product achieves a certain level of success, a business unit is created and the product champion is given the opportunity to head it, a very prestigious position”).

⁸⁵ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at 114; Gilson, *supra* note 28, at 906–07 (“Christensen recommends that the established company hedge the potential that a technology is disruptive by creating a separate unit If the technology ultimately proves disruptive, the established company has the resources to grow the small separate unit quickly.”).

⁸⁶ CHRISTENSEN, *THE INNOVATOR'S DILEMMA*, *supra* note 7, at 121 (Quantum financed and held 80% ownership in a spin-off to develop a new disk drive that was housed in a separate location and “was a completely self-sufficient organization.”); *Id.* at 127 (IBM succeeded at the beginning of the personal computing industry because it “created an autonomous organization in Florida, far away from its New York state headquarters” that had complete freedom of operation.); *Id.* at 134 (“HP created a completely autonomous organizational unit, located in Vancouver, Washington, with responsibility for making the ink-jet printer a success.”).

⁸⁷ Bankman & Gilson, *supra* note 3, at 299.

⁸⁸ *Id.*

Regarding the asymmetric information problem, Christensen argues that disruptive ideas must be allowed to percolate up the food chain instead of being killed at the middle-manager level.⁸⁹ His thoughts on how to do this mostly consist of vague statements such as: “senior executives need to stand astride the interface between sustaining innovations and disruption,”⁹⁰ and “managers of the mainstream business units need to be fully informed of the technological and business model innovations that are developed” elsewhere in the corporation.⁹¹ In the discussion that follows, I offer some thoughts on how corporate law can help disruptive ideas better flow up the organizational ladder.

Christensen’s work is richer than I have summarized, but this one-two goal of: 1) identifying disruptive innovations; and 2) pursuing them in independent units is at the core of solving the innovator’s dilemma. Note that it this is not a full-on shift to pursuing disruptive over sustaining innovations, but a nimble balance between the two—like Crest struck with improved toothpaste and white strips. On the one hand, the corporation continues on with its core business and sustaining innovations, while small units within the corporation pursue riskier, disruptive innovations. This nimbleness is what Ronald Gilson has termed “organizational ambidexterity.”⁹²

B. Borrowing from Entrepreneurship: What Makes a Good Entrepreneur?

Interestingly, an examination of the entrepreneurship literature reveals similar themes as Christensen’s work when it comes to what makes entrepreneurs in startups successful.

⁸⁹ See CHRISTENSEN & RAYNOR, THE INNOVATOR’S SOLUTION, *supra* note 47.

⁹⁰ *Id.* at 271.

⁹¹ *Id.*

⁹² Gilson, *supra* note 28, at 891 (“Can the same organization and financing arrangements successfully support development of the dominant technology while simultaneously supporting development of the technology that will supplant [it] . . . ?”).

For many years, scholars operated on the assumption that entrepreneurs take more risks than non-entrepreneurs.⁹³ This long-accepted approach aligns with the general human intuition of why entrepreneurs are successful—colloquially, they are more likely to “stick their neck out.”⁹⁴ This personality trait of entrepreneurs is academically-termed ‘risk tolerance.’⁹⁵

More recent entrepreneurial scholarship, however, has deemphasized risk tolerance. Several studies have found that entrepreneurs and non-entrepreneurs do not vary significantly in terms of their willingness to take risks. In an early study making this claim, Robert Brockhaus compared entrepreneurs and corporate managers and found no significant differences in terms of their risk tolerance.⁹⁶ His research showed that “the level of risk taking propensity does not distinguish new entrepreneurs either

⁹³ William I. Norton, Jr. & William T. Moore, *The Influence of Entrepreneurial Risk Assessment on Venture Launch or Growth Decisions*, 26 SMALL BUS. ECON. 215, 215 (2006) (“There is a broadly held perception that entrepreneurs engage in risky behavior . . . [and that this] suggests differential predispositions and actions across entrepreneurs and nonentrepreneurs.”); Lowell W. Busenitz & Jay B. Barney, *Differences Between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision-Making*, 12 J. BUS. VENTURING 9, 10 (1997) (citing prior academic work describing academics as “risk-takers and rugged individualists” and “as being a ‘breed apart’”) (citations omitted); see also Yakov Amihud & Baruch Lev, *Risk Reduction as a Managerial Motive for Conglomerate Mergers*, 12 BELL J. OF ECON. 605 (1981) (positing that managers in large corporations are risk averse).

⁹⁴ See Ruth Simon, *Endangered Species: Young U.S. Entrepreneurs: New Data Underscore Financial Challenges and Low Tolerance for Risk Among Young Americans*, WALL STREET J. (Jan. 2, 2015), <http://www.wsj.com/articles/endangered-species-young-u-s-entrepreneurs-1420246116> (“The share of people under age 30 who own private businesses has reached a 24-year-low, according to new data, underscoring financial challenges and a *low tolerance for risk* among young Americans.”) (emphasis added); Steve Strauss, *Can Entrepreneurs Avoid Risk? A: No Way*, USA TODAY (Oct. 27, 2015), <http://www.usatoday.com/story/money/columnist/strauss/2015/10/27/strauss-small-business-risk/74683398/> (Risk is part of the game and if you want to start a business, you simply have to be risk-tolerant.); Neil Patel, *The Entrepreneur’s 8-Step Checklist For Taking A Business Risk*, FORBES: ENTREPRENEURS (Aug. 14, 2015), <http://www.forbes.com/sites/neilpatel/2015/08/14/the-entrepreneurs-8-step-checklist-for-taking-a-business-risk/> (Entrepreneurial success is the result of “pure chance, hard work, and taking risks.”).

⁹⁵ William I. Norton, Jr. & William T. Moore, *Entrepreneurial Risk: Have We Been Asking the Wrong Question?*, 18 SMALL BUS. ECON. 281, 281 (2002) (discussing long-held notions about an entrepreneur’s superior risk tolerance).

⁹⁶ Robert H. Brockhaus, Sr., *Risk Taking Propensity of Entrepreneurs*, 23 ACAD. OF MGMT. J. 509 (1980).

from managers or from the general population[,]” as all were deemed ‘moderate’ risk takers.⁹⁷ Follow-up work has galvanized around this theme and can be summed up as follows: “[I]t is now often concluded that most of the psychological differences between entrepreneurs and managers in large organizations are small or nonexistent.”⁹⁸

If risk tolerance is not what distinguishes entrepreneurs and corporate managers, what does? The new thinking is that entrepreneurs are not superior risk takers, but superior risk *identifiers*. In the mid-1970s, Patrick Liles’ began discussing differences between entrepreneurs and non-entrepreneurs based on the “potential entrepreneur’s *perception* of the risk involved.”⁹⁹ The fundamental shift in thought was away from *how much* risk an entrepreneur took and toward entrepreneurs’ versus others’ assessment of new projects. Norton and Moore have published a number of articles which hypothesize, and to a certain degree aim to empirically test, that while “[e]ntrepreneurs will not differ significantly in risk taking propensity from nonentrepreneurs[,]” that “[e]ntrepreneurs will assess venture opportunities more favorably than nonentrepreneurs.”¹⁰⁰ More specifically, they argue that “entrepreneurs do not necessarily possess character traits which predispose them to engage in behavior with widely variable outcomes, but rather that entrepreneurs *assess* opportunities differently than non-entrepreneurs.”¹⁰¹

This is primarily because of their prior experiences.¹⁰² Busenitz and Barney give more context to this argument, finding that entrepreneurs are more willing to generalize from past experiences than corporate managers.¹⁰³ These traits leads to different ways in which entrepreneurs and corporate managers “perceive and think about risk.”¹⁰⁴ Even Malcolm

⁹⁷ *Id.* at 518–19 (1980).

⁹⁸ Busenitz & Barney, *supra* note 93, at 11.

⁹⁹ See PATRICK R. LILES, NEW BUSINESS VENTURES AND THE ENTREPRENEUR (1974) (emphasis added) (By 1974, Liles was publishing work regarding an entrepreneur’s “risk perception” ability, subtly different than the straightforward notion that entrepreneurs merely take more or larger risks.).

¹⁰⁰ Norton & Moore, *supra* note 95, at 218.

¹⁰¹ *Id.* at 281 (emphasis in original).

¹⁰² *Id.* at 281, 285 (They call this the entrepreneur’s “personal prior information.”).

¹⁰³ Busenitz & Barney, *supra* note 93, at 25.

¹⁰⁴ *Id.*

Gladwell has picked up on these ideas, writing: “The risk-taking model suggests that the entrepreneur’s chief advantage is one of temperament—he’s braver than the rest of us are. In the [new] model, the entrepreneur’s advantage is analytical—he’s better at figuring out a sure thing than the rest of us.”¹⁰⁵

Thus, we see in the entrepreneurship literature a focus on risk identification overtaking a focus on risk-taking. Both are important, though, and both map on to the asymmetry problems with intrapreneurship that Christensen identifies. First (as a chronological matter), the relevant actors inside large corporations must be able to identify disruptive risks (the asymmetric information problem). Second, these actors must be willing to take risks on disruptive innovations (the asymmetric motivation problem).

III. Intrapreneurship and Corporate Law

Having laid out the asymmetry problems inside large corporations that hinder intrapreneurship, my attention turns to what limited role corporate law might play here.¹⁰⁶ Limited liability and bankruptcy laws play a well-known role in encouraging entrepreneurship. What about intrapreneurship? For the risk taking part of intrapreneurship, the applicable corporate law doctrine is the business judgment rule. For the risk identification part of intrapreneurship, the closest corporate law doctrine is the duty to monitor.

A. Risk Taking and the Business Judgment Rule

The corporate law doctrine that encourages management to take

¹⁰⁵ Malcolm Gladwell, *The Sure Thing*, THE NEW YORKER: ANNALS OF BUS. (Jan. 18, 2010) <http://gladwell.com/the-sure-thing>; see also Viktor Mayer-Schonberger, *The Law as Stimulus: The Role of Law in Fostering Innovative Entrepreneurship*, 6 ISJLP 153, 172–74 (Entrepreneurs succeed either because they have better information than others or assess the same information in a superior manner.).

¹⁰⁶ Smith & Ibrahim, *supra* note 6, at 1539 (“a legal system can facilitate the creation of entrepreneurial opportunities by emboldening entrepreneurs to act”); see also Amir N. Licht, *The Entrepreneurial Spirit and What the Law Can Do About It*, 28 COMP. LAB. L. & POL’Y J. 817 (2007) (discussing how the law is a powerful tool for impacting entrepreneurial activity).

risks in the face of uncertainty, such as on disruptive innovations, is the business judgment rule. The business judgment rule, corporate law's defining feature,¹⁰⁷ insulates management (most notably boards of directors) from personal liability for honest business decisions that turn out in hindsight to be poor ones.¹⁰⁸ There are many proffered rationales for the business judgment rule,¹⁰⁹ one of which is to encourage directorial risk-taking where a rational economic calculus by directors would not.¹¹⁰

The basic economics are outlined by Stephen Bainbridge. First, the shareholders of large corporations “will have a high tolerance for risky corporate projects” for two reasons.¹¹¹ One, under corporate law, shareholders enjoy limited liability, meaning that if a risky project fails, the shareholders only suffer that loss to the extent of their capital investment—

¹⁰⁷ Bainbridge, *supra* note 8, at 83 (“The business judgment rule pervades every aspect of state corporate law, from the review of allegedly negligent decisions by directors, to self-dealing transactions, to board decisions to seek dismissal of shareholder litigation, and so on.”).

¹⁰⁸ *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984) (The business judgment rule is a presumption that the directors “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.”); [add cite applying this to officers]

¹⁰⁹ The other main rationales beyond encouraging directors to take risks are that judges are not business experts and encouraging outside directors to serve on boards. On the former, see *Dodge v. Ford Motor Co.*, 170 N.W. 668, 684 (Mich. 1919) (“The judges are not business experts.”); *Kamin v. American Express Co.*, 383 N.Y.S.2d 807, 810–11 (Sup. Ct. 1976), *aff'd*, 387 N.Y.S.2d 993 (App. Div. 1976) (“The directors’ room rather than the courtroom is the appropriate place forum for thrashing out purely business questions.”). On the latter, see William T. Allen, Jack B. Jacobs, & Leo E. Strine, Jr., *Realigning the Standard of Review of Director Due Care with Delaware Public Policy: A Critique of Van Gorkom and its Progeny as a Standard of Review Problem*, 96 NW. U. L. REV. 449, 449 (2002) (“Highly qualified directors may also avoid service if they face liability risks that are disproportionate to the benefits of service.”).

¹¹⁰ Michael C. Pollack, *Judicial Deference and Institutional Character: Homeowners Associations and the Puzzle of Private Governance*, 81 U. CIN. L. REV. 839, 875 (2013) (“The business judgment rule is a means of incentivizing innovation and risk-taking in the development of new products and business methods.”); Sandra K. Miller, *What Standards of Conduct Should Apply to Members and Managers of Limited Liability Companies?*, 68 ST. JOHN'S L. REV. 21, 41 (“The policy underlying the [business judgment] rule encourages risk taking, innovation, and creative entrepreneurial activities.”).

¹¹¹ Bainbridge, *supra* note 8, at 111.

their personal fortune is not at risk.¹¹² Two, shareholders in large corporations tend to also be shareholders in other large corporations; i.e., they hold a diversified portfolio of investments.¹¹³ Thus, risky projects that fail for one corporation can be offset by risky projects that succeed in another.

The directors' calculus is much different. Directors cannot diversify their human capital to the extent that shareholders can diversify their financial capital. There are only so many boards on which a director can sit and adequately do her job; thus, directors make firm-specific human capital investments.¹¹⁴ Also, while directors earn compensation from the firms they represent (both through salary and stock options), it is a relatively small ownership percentage in the corporation. Without the business judgment rule, then, if the directors took on a risky project, they would enjoy only a limited upside if it succeeds, but would face a significant downside if it fails.¹¹⁵

By encouraging directors to take risks that shareholders would want, the business judgment rule aligns director-shareholder interests.¹¹⁶ As Chancellor Allen colorfully put it, to allow directors to be liable for risky projects gone bad where “the investment was too risky (foolishly risky! stupidly risky! egregiously risky!)—you supply the adverb”¹¹⁷ would “be very destructive of shareholder welfare in the long-term.”¹¹⁸

¹¹² *Id.* (“Because shareholders thus do not put their personal assets at jeopardy, other than the amount initially invested, they effectively externalize some portion of the business’ total risk exposure to creditors.”).

¹¹³ *Id.* at 112 (“[S]hareholders can largely eliminate firm-specific risk by holding a diversified portfolio . . .”).

¹¹⁴ *Id.* at 113.

¹¹⁵ *Gagliardi v. TriFoods Int’l, Inc.*, 683 A.2d 1049, 1052 (Del. Ch. 1996) (Without the business judgment rule, there would be “this stupefying disjunction between risk and reward for corporate directors . . .”).

¹¹⁶ *Id.* at 1052 (“The [business judgment] rule could rationally be no different Shareholders don’t want (or shouldn’t rationally want) directors to be risk averse. Shareholders’ investment interests, across the full range of their diversifiable equity investments, will be maximized if corporate directors and managers honestly assess risk and reward and accept for the corporation the highest risk adjusted returns available that are above the firm’s cost of capital.”).

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 1053. This position is not without its critics. Writing after the Financial Crisis of 2008, David Rosenberg argues that the “widely accepted notion that the business

Thus, perhaps an important reason why previous entrepreneurial studies have found little difference in risk-taking appetites among managers in large corporations and entrepreneurs in startups is because *corporate law evens the playing field*. It permits management who might otherwise be disinclined to pursue risky projects to do so without the fear of personal liability.¹¹⁹ In sum, the risk-taking encouraged by the business judgment rule can help reduce the asymmetric motivation problem inside large corporations. To pursue both sustaining and disruptive innovations simultaneously, management can establish a new organizational unit within the corporation, or form a new corporate subsidiary, to house the intrapreneurial project.¹²⁰

B. Risk Identification and the Duty to Monitor

1. The Modern Duty to Monitor

The corporate law doctrine that most aptly speaks to risk identification is the duty to monitor.¹²¹ The modern formulation of the duty

judgment rule should protect virtually all risk-taking by corporate directors goes too far.” David Rosenberg, *Supplying the Adverb: The Future of Corporate Risk-Taking and the Business Judgment Rule*, 6 BERKELEY BUS. L.J. 216, 220 (2009). See also Karl S. Okamoto & Douglas O. Edwards, *Risk Taking*, 32 CARDOZO L. REV. 159 (2010) (taking a nuanced approach on the idea of financial risk-taking).

¹¹⁹ According to Charles O’Kelley, Frank Knight’s seminal work *Risk, Uncertainty, and Profit* anticipated this connection to some extent. Charles R. T. O’Kelley, *Berle and the Entrepreneur*, 33 SEATTLE U. L. REV. 1141, 1148 (2010) (discussing FRANK H. KNIGHT, *RISK, UNCERTAINTY, AND PROFIT* (2009)) (“Knight believed that a proper understanding of the nature of business judgment would lead to a discovery that the modern corporation was actually managed and controlled by an approximation of the classic entrepreneur.”); *Id.* at 1149 (noting the “apparent separation of the functions of making decisions and taking the ‘risk’ of error in decisions” inside the corporation).

¹²⁰ Victor Fleischer, *Options Backdating, Tax Shelters, and Corporate Culture*, 26 VA. TAX REV. 1031, 1048 (2007) (“[L]arge, bureaucratic organizations sometimes develop ‘skunkworks’: small, subversive units within a larger organization charged with developing technological innovation.”).

¹²¹ A preliminary note: the entrepreneurship literature often conflates or uses interchangeably *risk identification* and *risk assessment*, which are actually two different notions. The duty to monitor might help directors identify risks, but legal doctrine does not speak to how directors bring to bear their experiences and judgments in assessing those risks.

to monitor was first set forth in 1996 by the Delaware Chancery Court in *In Re Caremark*.¹²² *Caremark* rejected the old formulation of the monitoring duty—that directors were required to monitor employees only if “red flags” existed¹²³—and instead made instituting a monitoring system a mandatory requirement. Through this pronouncement, Chancellor Allen recognized that most activity within a large corporation happens below the board level and sought to increase the board’s awareness of the actions of subordinates.¹²⁴

The *Caremark* decision led commentators to speculate that the new duty to monitor would be a significant change in directors’ duties under Delaware law. Hillary Sale opined that “[w]ithout a doubt, former Chancellor Allen’s opinion *In Re Caremark International Derivative Litigation* is destined to be one of the most prominent Delaware opinions of all time.”¹²⁵ Yet *Caremark* actually had limited reach for several reasons. First, it was a settlement opinion, and thus largely dicta.¹²⁶ Second, although the Delaware Supreme Court later disputed this, at the time it was fairly obvious that the duty to monitor was treated as a subset of the duty of care, and thus subject to exculpation under DGCL Section 102(b)(7).¹²⁷ Further, even without exculpation, the duty did not seem difficult to satisfy, as a good faith attempt at a monitoring system was sufficient with the details of the system left to the directors’ business judgment.¹²⁸

A decade later, in 2006, the case of *Stone v. Ritter* presented the Delaware Supreme Court with the opportunity to examine “a classic

¹²² *In re Caremark Int’l Inc.*, 698 A.2d 959 (Del. Ch. 1996).

¹²³ *Graham vs. Allis-Chalmers*, 188 A.2d 125, 130 (Del. 1963) (“[A]bsent cause for suspicion there is no duty upon the directors to install and operate a corporate system of espionage to ferret out wrongdoing.”).

¹²⁴ Bernard S. Sharfman, *Enhancing the Efficiency of Board Decision Making: Lessons Learned from the Financial Crisis of 2008*, 34 DEL. J. CORP. L. 813, 847 (2009) (“In *Caremark*, Chancellor Allen explained that he wanted a board to be more actively involved in company oversight and monitoring.”).

¹²⁵ Hillary A. Sale, *Monitoring Caremark’s Good Faith*, 32 DEL. J. CORP. L. 719, 719–20 (2007).

¹²⁶ *In re Caremark*, 698 A.2d at 960.

¹²⁷ Stephen M. Bainbridge, Star Lopez, and Benjamin Oklan, *The Convergence of Good Faith and Oversight*, UCLA L. REV. 559, 582 (2008) (“[T]he [*Stone*] court subsumed good faith into the duty of loyalty, a marriage we believe will prove most unwise.”).

¹²⁸ *In re Caremark*, 698 A.2d at 970.

Caremark case” on the facts. In *Stone*, as in *Caremark*, illegal conduct by corporate employees led to the U.S. government imposing a fine on the corporation. The shareholders sued to have the directors repay the fine to the corporate treasury. The Court affirmed the *Caremark* monitoring standard but with two changes. First, the Court proclaimed that the fiduciary duty being breached by not monitoring was good faith, a subset of loyalty, to which neither the business judgment rule nor 102(b)(7) apply.¹²⁹ Second, the Court clarified that the directors must not only install a monitoring system, they must use it.¹³⁰ For instance, the board presumably cannot employ a compliance officer and never hear from her claiming that is a matter of business judgment.¹³¹

Still, only an “utter failure” to monitor will result in liability,¹³² and there is only even that duty with respect to some things—namely, illegal activity specific to the corporation’s business. In *Caremark* the allegation was failing to monitor employees who violated the federal Anti-Referral Payments Law by providing kickbacks to doctors; in *Stone* the allegation was failing to monitor employees who violated the federal Bank Secrecy Act through money laundering.¹³³

Failing to appreciate business risks, such as those from disruptive innovation, are outside the specter of illegal conduct. Indeed, in the important 2009 case of *In re Citigroup Inc. Shareholder Derivative Litigation*, plaintiff-shareholders suing in the wake of the Great Recession tried to expand the monitoring duty to reach employee activity related to business risks.¹³⁴ The claim in *Citigroup* was “based on defendants’ [directors’] alleged failure to properly monitor Citigroup’s *business risk*, specifically its exposure to the subprime mortgage market.”¹³⁵ Then-

¹²⁹ *Stone ex rel. AmSouth Bancorporation v. Ritter*, 911 A.2d 362, 370 (Del. 2006) (“Where directors fail to act in the face of a known duty to act, thereby demonstrating a conscious disregard for their responsibilities, they breach their duty of loyalty by failing to discharge that fiduciary obligation in good faith.”).

¹³⁰ *Id.* at 370.

¹³¹ *Id.* at 368.

¹³² *Id.* at ____.

¹³³ *In re Caremark*, 698 A.2d at 961–62; *Stone*, 911 A.2d at 370–71.

¹³⁴ *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106 (2009).

¹³⁵ *Id.* at 123 (emphasis in original); see also *id.* at 130 (contrasting another recent monitoring case, *AIG*, and noting that “[u]nlike the allegations in this case, the defendants

Chancellor Chandler rejected characterizing these as monitoring claims, instead describing them as classic duty-of-care claims “attempting to hold the director defendants personally liable for making (or allowing to be made) business decisions that, in hindsight, turned out poorly for the Company.”¹³⁶ The former Chancellor wrote that “[w]hile it may be tempting to say that directors have the same duties to monitor and oversee business risk, imposing *Caremark*-type duties on directors to monitor business risk is fundamentally different.”¹³⁷ This decision has been both criticized¹³⁸ and supported.¹³⁹

2. *The Duty to Monitor and Risks from Disruptive Innovation*

The duty of monitor in its current formulation does not mandate that directors monitor for business risks, including the risk their business will be disrupted by a startup. So how does the duty to monitor help reduce intrapreneurship’s asymmetric information problem, if it does so at all?

in *AIG* allegedly failed to exercise reasonable oversight over pervasive *fraudulent* and *criminal* conduct) (emphasis in original).

¹³⁶ *Id.* at 124.

¹³⁷ *Id.* at 131.

¹³⁸ See Eric J. Pan, *Rethinking the Board’s Duty to Monitor: A Critical Assessment of the Delaware Doctrine*, 38 FLA. ST. U. L. REV. 209, 245 (2011) (“What is the point of making the duty to monitor more robust if directors never face out-of-pocket liability?”). Hillary Sale, writing about the duty to monitor before *Citigroup*, cites the case of a General Motors’ board member who resigned because management was not adequately informing the board, including not sending out materials in a timely manner before board meetings. Sale, *supra* note 125, at 743–44. Sale notes that while the GM situation “does not arise in the context of criminal liability for individuals or the corporation, the lack of ongoing information and preparation by the GM board is, if true, arguably a breach of its good-faith *Caremark/Stone* obligations.” *Id.* at 744. I do not believe that more recent decisions have borne this out.

¹³⁹ See Christine Hurt, *The Duty to Manage Risk*, 39 IOWA J. CORP. L. 253, 259 (2014) (arguing that “not only does a duty to manage financial risk not exist within the prevailing corporate law framework of duties, but also that recognizing a separate duty to manage financial risk would be imprudent”) (citation omitted); Robert T. Miller, *Oversight Liability for Risk-Management Failures at Financial Firms*, 84 S. CAL. L. REV. 47, 103–05 (expanding duty to monitor to risk-management failures would eviscerate business judgment rule) (2010); Martin Petrin, *Assessing Delaware’s Oversight Jurisprudence: A Policy and Theory Perspective*, 5 VA. L. & BUS. REV. 433, 479 (2011) (The duty to monitor as currently applied “works, and, contrary to what many critics say, strikes the correct balances between directors’ accountability and authority.”).

First, I believe the duty to monitor is appropriate in its limited scope. This is not a normative piece where I will argue that the duty should be expanded to favor more intrapreneurship. For starters, I do not believe the duty should be expanded as a matter of broader corporate law, as there could be slippery slope effects from expanding what constitutes director disloyalty to tackle the one situation that is my focus. Second, I am agnostic as to intrapreneurship vs. entrepreneurship as the locus of innovation, so anything to increase one versus the other is not on my agenda.

It is also possible to distinguish *Citigroup's* facts from disruptive innovation concerns. In *Citigroup*, Chancellor Chandler discusses how a monitoring claim on these facts would essentially be punishing directors for *taking* a risk.¹⁴⁰ Recall that Citigroup lost money by betting on subprime mortgages. *Taking* risks is exactly the sort of thing the business judgment rule is supposed to protect, and thus Chancellor Chandler properly characterized the facts of *Citigroup* as a care claim. But *identifying* risks posed by disruptive innovation is different. I am concerned with a board not being aware of disruptive risks and employee innovations that respond to them—that the relevant information is not filtering to the top—which is properly in the realm of monitoring since no business judgment is being made.¹⁴¹ Still, should a case be brought against directors for failing to appreciate a disruptive risk, I would hope it comes out exactly as *Citigroup* did.

Finally, the way in which I think the duty to monitor actually speak to information asymmetry is this. There is a limited duty, as there should be, but it can work in conjunction with market pressures to influence management in ways other than holding them legally liable.¹⁴²

¹⁴⁰ *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106, 126 (2009).

¹⁴¹ *See Francis v. United Jersey Bank*, 87 N.J. 15 (1981). Although the Citigroup opinion could be read more broadly to close the door on even this possibility as a matter of law. *In re Citigroup*, 964 A.2d. at 131 (“Oversight duties under Delaware law are not designed to subject directors, even expert directors, to *personal liability* for failure to predict the future and to properly evaluate business risk.”) (emphasis in original).

¹⁴² Also, as it often does, federal securities law is working in tandem with Delaware corporate law on risk identification. The SEC has new rules requiring public corporations to give more disclosure about their risk monitoring practices. Proxy Disclosure Enhancements, Exchange Act Release Nos. 33-9089, 34-61175, IC-2902, 74 Fed. Reg. 68,344 (Dec. 29, 2009).

Market pressures may dominate here.¹⁴³ There is evidence that boards *do* monitor for business risks, just like they monitor for law compliance, even if the law does not require them to. Hewlett-Packard has a technology committee which is responsible for recommendations to the board on technology strategies, execution of technology strategies, and guidance on technology.¹⁴⁴ Other companies have committees very specific to their industry and relevant technologies. Boeing, for example, has a Special Programs Committee which reviews classified programs the company has undertaken on behalf of the U.S. Government.¹⁴⁵ While not explicitly stated, these programs are likely dealing with research and development and product innovation issues.¹⁴⁶ JPMorgan, in the face of huge losses, adopted new technologies to monitor for rogue traders.¹⁴⁷ The technology, which was originally developed for counter-terrorism efforts, uses an algorithm to electronically analyze patterns in human communications—identifying potential collusions and allowing JPMorgan to proactively intervene regarding both legal and business matters.¹⁴⁸

¹⁴³ Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. OF POL. ECON., 110, 112 (1965); Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 570 (2003) (“Directors are held accountable to shareholder interests through a variety of market forces, such as the capital and reputational markets.”).

¹⁴⁴ *Hewlett-Packard Company Board of Directors: Technology Committee Charter*, HEWLETT-PACKARD 1, 2–3 (Nov. 19, 2014), <http://h30261.www3.hp.com/~media/Files/H/HP-IR/documents/others/technology-committee-charter.pdf>. In particular, “Guidance on Technology” includes providing guidance on such things as investments, R&D investments, and market entry and exit, among other responsibilities. *Id.* at 3.

¹⁴⁵ *Special Programs Committee Charter*, BOEING 1, 1 (Feb. 21, 2011), http://www.boeing.com/resources/boeingdotcom/company/general_info/pdf/charter_special_programs.pdf.

¹⁴⁶ John E. Pepper, “*Best Practice*” *Boards and CEOs*, THE CORPORATE BOARD, (2008) (former Chairman and CEO at Procter & Gamble, pointing to other examples of directors focused on such topics as innovation, thinking of the customers in developing nations, and diversifying management).

¹⁴⁷ Hugh Son, *JPMorgan Algorithm Knows You’re a Rogue Employee Before You Do*, BLOOMBERGBUSINESS (Apr. 8, 2015, 12:00 AM), <http://www.bloomberg.com/news/articles/2015-04-08/jpmorgan-algorithm-knows-you-re-a-rogue-employee-before-you-do> (With large Wall Street investment banks losing billions of dollars in fines for illegal employee actions, the \$6.2 billion London Whale trading loss, and riggings of currency and energy markets, JPMorgan has taken the initiative to create an internal surveillance system.).

¹⁴⁸ *Id.*

Even recognizing the primacy of market forces here, legal scholars have theorized how Delaware law pronouncements—even absent corresponding liability—can also influence director behavior. In a well-known article, Ed Rock argues that Delaware courts pen “corporate law sermons,” or “parables – instructive tales – of good managers and bad managers . . .”¹⁴⁹ that are more standards than rules.¹⁵⁰ Because corporate managers of large Delaware corporations “form a surprisingly small and close-knit community,” these standards are consumed by corporate lawyers, communicated to managers, and thus influence managers’ behavior.¹⁵¹

Along the same lines, Delaware judges could pronounce a broader duty to monitor as a standard of conduct, yet keep monitoring for illegal activity specific to a corporation’s business as the standard of review. Per Melvin Eisenberg, standards of conduct are aspirational and directed to primary actors (directors), whereas standards of review are where liability actually lies for nonperformance and are directed at reviewing bodies (courts).¹⁵² The trick is to get directors to “hear” the conduct rules and act *better* than legally required, while judges hear the review rules—thus noting the aspirations but permitting greater leeway before imposing liability.

In the real world, such acoustic separation between conduct rules and review rules may be mere aspirational thinking. For example, in the case of the business judgment rule, well-counseled directors no doubt “hear” the liability rule that protects them from liability. However, directors may have bounded rationality and less familiarity with newer laws such as the duty to monitor, which may help the acoustic separation work better.¹⁵³ Thus, Delaware judges should aspire directors to monitor for all important risks to their businesses, but only hold them liable for failing to monitor illegal activity specific to their business. In these ways, then, the duty to

¹⁴⁹ See Ed Rock, *Saints and Sinners: How Does Delaware Corporation Law Work?*, 44 UCLA L. REV. 1009, 1016 (1997).

¹⁵⁰ *Id.* at 1015–16.

¹⁵¹ *Id.* at 1017. Cf. David A. Skeel, Jr., *Shaming in Corporate Law*, 149 U. PA. L. REV. 1811 (2001).

¹⁵² Melvin Aron Eisenberg, *The Divergence of Standards of Conduct and Standards of Review in Corporate Law*, FORDHAM L. REV. 437, 462 (1993). Eisenberg’s ideas for corporate law are based on Meir Dan-Cohen, *Decision Rules and Conduct Rules: On Acoustic Separation in Criminal Law*, 97 HARV. L. REV. 625 (1984).

¹⁵³ Eisenberg, *supra* note 152, at 466–67.

monitor can speak—albeit softly—to the asymmetric information problem.

IV. Corporate Venture Capital

Finally, this Part turns to what may be the best way for large corporations to pursue disruptive innovation going forward—corporate venture capital. This Part first describes corporate venture capital (CVC). Second, it details what appear to be competitive advantages of CVC over private venture capital (PVC) in funding startups. Successful CVC programs can help a large corporation be more intrapreneurial without overcoming the asymmetry problems that hamper traditional intrapreneurial efforts. Finally, this Part shows that the real evidence on CVC success is a mixed bag, and explores possible reasons for that.

A. Basics of CVC

What if large corporations can continue focusing on sustaining innovations but also avoid disruption? That may be the best of both worlds. This is what CVC funds should allow large corporations to do. CVC funds invest in promising startups, usually related to their parent corporation's business,¹⁵⁴ rather than pursuing the same technological innovations in-house. As Josh Lerner writes: “A corporate VC fund...can move faster, more flexibly, and more cheaply than traditional R&D to help a firm

¹⁵⁴ These are referred to as “strategic” investments because they complement the corporation's core business. For example, Verizon states that “the financial return can sometimes matter less than the innovation return for both the parent company and co-investors.” Christian Cuirnalda, *Corporate Venture Capital is Back...But We're in it for the Partnership*, <http://www.verizonventures.com/blog/2015/04/corporate-venture-capital> (April 2, 2015). Paul Gompers and Josh Lerner similarly note that “[c]orporations are likely to benefit from indirect gains (e.g., strategic alliances and greater understanding of industry trends) as well as direct financial returns.” Paul A. Gompers & Josh Lerner, *The Determinants of Corporate Venture Capital Success: Organizational Structure, Incentives, and Complementarities* 19, in RANDALL K. MORCK, *CONCENTRATED CORPORATE OWNERSHIP* (2000). Corporate venture capital funds sometimes invest in unrelated sectors purely for financial gains. This is less common, but is the strategy of Google Ventures, the largest corporate venture capital fund. Rachel King, *Corporate VC Investments Hold Steady Amid Broader Downturn in Market*, *Wall St. J.* (January 22, 2016) (noting that Google invests “for financial [not strategic] returns”).

respond to changes in technologies and business models.”¹⁵⁵ He also notes that a CVC “can serve as an intelligence-gathering initiative, helping a company to protect itself from emerging competitive threats.”¹⁵⁶

CVC funds have been around almost as long as PVC.¹⁵⁷ Although CVC appears cyclical, and mirrors the cyclical nature of PVC,¹⁵⁸ it is less stable than PVC. When times are good—as in the last several years—CVC accounts for anywhere from 11-13% of all venture capital dollars invested.¹⁵⁹ In 2015, a particularly good year, CVCs “invested over \$7.5 billion in 905 deal to high-growth startups.”¹⁶⁰ The ten most active CVCs are arms of well-known, mostly-tech corporations: Google Ventures, Intel Capital, Salesforce Ventures, Qualcomm Ventures, Comcast Ventures, Novartis Venture Funds, Samsung Ventures, Cisco Investments, Siemens Venture Capital, and SR One.¹⁶¹ CVCs appear to invest at all stages of startup development, although one study found they invested most often in the middle stages—i.e., not in very early rounds nor when a startup was close to going public.¹⁶²

¹⁵⁵ Lerner, *supra* note 69.

¹⁵⁶ *Id.*; see also Massimo G. Colombo, Evila Piva, & Cristina Rossi-Lamastra, *The Sensitivity of High-Tech Entrepreneurial Ventures' Employment to a Sales Contraction in a Negative Growth Scenario: The Moderating Role of Venture Capital Financing*, 35 MANAGE. DEC. ECON. 73, 76 (CVC gives parent corporations a view of “technological progress in leading-edge fields, which are surrounded by high uncertainty, without committing resources to internal research and development activities”) (citation omitted).

¹⁵⁷ Gompers & Lerner, *supra* note 154, at 21-22 (giving a brief history of CVC).

¹⁵⁸ *Id.* at 22 (writing in 2000 that “corporate involvement in venture capital has mirrored (perhaps even in an exaggerated manner) the cyclical nature of the entire venture capital industry over the past three decades”).

¹⁵⁹ King, *supra* note 154 (citing statistics that CVC accounted “for 13 percent of all venture capital dollars invested [in 2015], and 21 percent of all deals”); Lerner, *supra* note 69, at 2 (“In the first half of 2011...more than 11% of the VC dollars invested came from corporate venture funds, a level not seen since the dot-com bubble.”).

¹⁶⁰ King, *supra* note 154; see also David Benson & Rosemarie H. Ziedonis, *Corporate Venture Capital and the Returns to Acquiring Portfolio Companies*, 98 J. FIN. ECON. 478, 478 (2010) (“From 1980 through 2003, established firms invested over \$40 billion in entrepreneurial ventures”) (citing statistics from Venture Economics).

¹⁶¹ The 104 Most Active Corporate VC Firms, <https://www.cbinsights.com/blog/corporate-venture-capital-active-2014/> (Feb. 6, 2015); see also If You Can't Beat Them, Buy Them, THE ECONOMIST (January 14, 2016) (citing statistics that “[o]ver the past five years the number of corporate-venture units worldwide has doubled to 1,100; 25 of the 30 firms that comprise the Dow Jones Industrial Average have one”).

¹⁶² Gompers & Lerner, *supra* note 154, at 32.

B. Advantages of CVC over PVC

CVC appears to enjoy real advantages over PVC as a funding option for startups. First, in terms of selecting startups to fund, the CVC's managers should be able to bring to bear expertise from within the parent corporation.¹⁶³ If the CVC has a strategic focus, as most do, its people should have expertise in the startup technologies being funded. The corporation would also possess superior knowledge on the merits of the entrepreneur if she came from inside the corporation.¹⁶⁴ Both of these advantages reduce pre-investment uncertainty and information asymmetry in ways at least as effective as the PVC's staged financing tool.¹⁶⁵

Post-investment, CVCs appear to act as PVCs do, taking board seats and closely monitoring their investments.¹⁶⁶ Beyond what PVCs can offer, though, CVCs can also tap into the numerous resources of their parent corporations to add extra value to their portfolio startups.¹⁶⁷ As Lerner writes: "Companies bring a lot of value to the start-ups they fund, in the form of reputation, skills, and of course, resources—from research scientists to sophisticated laboratories to armies of salespeople."¹⁶⁸ As an example, the largest CVC, Google Ventures, appears to be very involved with its portfolio startups. Google Ventures provides support to startups in the areas

¹⁶³ Perhaps the CVC fund is comprised of former corporate executives. Even if not, the corporation's people should be available for the CVC to consult. See Gina Dokko & Vibha Gaba, *Venturing Into New Territory: Career Experiences of Corporate Venture Capital Managers and Practice Variation*, 55 ACAD. MGMT. J. 563 (2012) (exploring the prior work histories of CVC managers, including coming from PVC firms).

¹⁶⁴ Bankman & Gilson, *supra* note 3 (on auctions between corporations and PVCs for employee talent).

¹⁶⁵ See Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1076 (2003) (identifying uncertainty and information asymmetry as pre-investment problems in startup investing); *id.* at 1078-79 (discussing staged financing as PVC's primary solution to these problems); see also Steven N. Kaplan & Per Stromberg, *Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts*, 70 REV. ECON. STUD. 281, 304 (2003).

¹⁶⁶ Benson & Ziedonis, *supra* note 160, at 479 (citing prior studies that CVCs "assume roles on boards of directors").

¹⁶⁷ *Id.* ("Corporate investors commonly provide technical and commercial advice to portfolio companies").

¹⁶⁸ Lerner, *supra* note 69.

of security, PR, technology platforms, and others.¹⁶⁹ Google Venture’s “library” provides articles on design, product management, user research, hiring, engineering, marketing, entrepreneurship, and workshops.¹⁷⁰ Google Ventures also provides a “Design Sprint” and “Research Sprint” for its portfolio startups.¹⁷¹ The Design Sprint is a five-day process that focuses on product design and prototyping.¹⁷² The Research Sprint is a four-day process providing startups with information on user research and how to utilize it.¹⁷³

These pre- and post-investment advantages over PVCs have led to CVC successes. Studies have found that CVC-backed startups that go public “produce more patents and patents that are of higher quality,”¹⁷⁴ and that early CVC investment has a positive signaling effect on upon a startup’s later IPO.¹⁷⁵ Gompers and Lerner empirically found that CVC investments “appear to be at least as successful” as PVC investments, especially where the CVCs had a strategic (as opposed to financial) focus.¹⁷⁶

¹⁶⁹ Emily Chang, *How Google Ventures Chooses Its Investments*, BLOOMBERG, Oct. 17, 2015, <http://www.bloomberg.com/news/videos/b/808891df-a754-4a62-8e10-49c7ec712565>. See also Will Google disrupt venture capital?, FORTUNE, June 22, 2011, <http://fortune.com/2011/06/22/will-google-disrupt-venture-capital/>

¹⁷⁰ GV LIBRARY, <http://www.gv.com/library/> (last visited Feb. 9, 2016).

¹⁷¹ *Id.*

¹⁷² THE DESIGN SPRINT, <http://www.gv.com/sprint/> (last visited Feb. 9, 2016). See also John Koetsier, *How Google Ventures does rapid prototyping ‘design sprints’ with its 170 startups*, VENTURE BEAT, Aug. 14, 2013, <http://venturebeat.com/2013/08/14/how-google-venture-partners-does-rapid-prototyping-design-sprints-with-its-170-startups/>; Leena Rao, *Inside A Google Ventures Design Sprint*, TECHCRUNCH, Oct. 23, 2013, <http://techcrunch.com/2013/10/23/inside-a-google-ventures-design-sprint/>.

¹⁷³ Michael Margolis, *The GV research sprint: a 4-day process for answering important startup questions*, GV, Aug. 4, 2014, <https://library.gv.com/the-gv-research-sprint-a-4-day-process-for-answering-important-startup-questions-97279b532b25#.vhm0syds2>.

¹⁷⁴ Chemmanur, Loutskina, & Tian, *supra* note 30, at 2437.

¹⁷⁵ T. Stuart, H. Hoang, & R. Hybels, *Interorganizational Endorsements and the Performance of Entrepreneurial Ventures*, 44 ADMIN. SCI. QTLY. 315 (1999) (finding that startups with a prominent CVC launch IPOs more quickly and with higher valuations than startups without a prominent CVC investor).

¹⁷⁶ Gompers & Lerner, *supra* note 154, at 19.

C. Why CVC Doesn't Dominate PVC

The advantages and CVC successes cited above beg the question: why doesn't CVC dominate PVC instead of representing only about a tenth of it? Like traditional intrapreneurship, CVC does not appear to be all roses. There are several possible reasons. One is that CVC and PVC often co-invest and therefore it is not a competition or adversarial affair to begin with.¹⁷⁷ In short, CVC does not wish to compete with PVC, just supplement it.¹⁷⁸

But there are other problems with CVC that may result in it being a suboptimal player in this space—and consequently, not performing as well as it should for parent corporations looking to be more intrapreneurial through CVC programs. First, the knowledge gained from strategic startup investments must find its way back to the parent corporation. If not, this is really not a hybrid form of intrapreneurship at all, but merely the same as any other corporate financial investment. There are alternative ways to bring the knowledge from CVC portfolio startups back into the parent corporation. One is to acquire the startup once it develops. However, a recent empirical study found poor returns to corporations acquiring their CVC's startups.¹⁷⁹ Indeed, my own research into the top CVCs revealed that they do not often acquire their portfolio startups.¹⁸⁰ Of course, these

¹⁷⁷ Lerner, *supra* note 69 (noting that co-investors have the added value of forcing a CVC to more quickly to cut ties with a failing startup)

¹⁷⁸ In fact, PVC's limited partnership structure, with funds having a ten-year life span, can put pressure on CVCs, which are corporate subsidiaries and under no such life-span deadline. The PVC will push the CVC to make a quicker decision on exit than it otherwise might. *See* Gilson, *supra* note 24, at 1076 ("The fact that portfolio company investments are of limited duration rather than long term is critical to the operation of the venture capital market"); *but see* Chemmanur, Loutskina, & Tian, *supra* note 30, at 2435 (arguing that no ten-year lifespan is actually a positive of CVC over PVC).

¹⁷⁹ Benson & Ziedonis, *supra* note 160, at ___.

¹⁸⁰ For example, Google Ventures had 15 of its portfolio startups acquired in 2014, but only 3 of these were acquired by Google. GV YEAR IN REVIEW: 2014, <http://www.gv.com/2014/> (last visited Feb. 9, 2016). Salesforce Ventures has had 21 portfolio startups with an exit event since 2011; of the acquisitions, only 2 were undertaken by Salesforce. *Salesforce Ventures Exits*, CRUNCHBASE, <https://www.crunchbase.com/organization/salesforce-ventures/exits/all/global> (last visited Feb. 9, 2016). Likewise, Intel appears to rarely acquire companies Intel Capital has invested in. Eric Blattberg, *Intel Capital saw more exits than Sequoia, Greylock, or Google Ventures last year*, VENTURE

findings do not include strategic alliances or licensing agreements made between parent corporations and CVC portfolio startups, which may be another way the parent corporation becomes more intrapreneurial through CVC programs.

Another avenue is to obtain information from portfolio startups *while* they are developing. However, CVCs sometimes appear to have problems facilitating this type of knowledge spillover. As Lerner observes: “Knowledge doesn’t automatically flow from start-ups to the large organizations that have invested in them,” and that there is “a cultural gap between the young MBAs who dominate most venture teams and the firm’s senior executives.”¹⁸¹ He suggests, citing the CIA’s example of In-Q-Tel, that “linked units” can be the bridge that transfers relevant information to the parent. Another paper sounded a similar note, stating that “CVC managers needed to be deeply embedded in the social networks of both the start-up venture and the incumbent” and needed to function as “knowledge brokers.”¹⁸²

Another major problem with CVC is adequately compensating the managers running the funds. CVC managers make substantial returns on carried interest, or the profits made on a portfolio startup’s exit.¹⁸³ CVC managers, on the other hand, are compensated like comparable employees in parent corporation: through salaries and bonuses.¹⁸⁴ As a result, CVC managers make far less than their CVC counterparts, and often leave the

BEAT, May 8, 2014, <http://venturebeat.com/2014/05/08/intel-capital-saw-more-exits-than-sequoia-greylock-or-google-ventures-last-year/> (stating “Intel Capital has the mandate to get the best exit possible for Intel Corp., not to serve as a feeder for Intel Corp.”).

¹⁸¹ Lerner, *supra* note 69.

¹⁸² Thomas Keil, Erkko Autio, & Gerard George, *Corporate Venture Capital, Disembodied Experimentation and Capability Development*, 45 J. MGMT. STUD. 1475, 1491 (2008).

¹⁸³ Victor Fleischer, *Two and Twenty: Taxing Partnership Profits in Private Equity Funds*, 83 N.Y.U. L. REV. 1, 9 (2008) (“Because private equity funds are leanly staffed, a carried interest worth millions of dollars may be split among just a handful of individuals.”).

¹⁸⁴ Gompers & Lerner, *supra* note 154, at 23 (“Corporations have frequently been reluctant to compensate their venture managers through profit-sharing (‘carried-interest’) provisions”); Lerner, *supra* note 69 (“Corporate leaders are typically troubled by the disparity between what venture managers expect to earn and the compensation of executives with comparable seniority in other parts of the company.”).

CVCs for PVCs, resulting in a talent drain at CVCs.¹⁸⁵ Remediating the problem is not easy. Just as it is difficult to compensate intrapreneurial employees like entrepreneurs,¹⁸⁶ it is difficult to compensate CVC managers like their PVC counterparts without creating interorganizational issues. GE's investment arm lost many people to PVC firms in 1998 and 1999 for this reason.¹⁸⁷ The practical effect of the best CVC managers leaving (or not joining) the CVC could greatly reduce both the pre- and post-investment advantages CVCs appear to enjoy over PVCs. And this hinders using CVCs for intrapreneurship.

Finally, CVCs appear to be instable players in the financing market, especially when markets turn south. CVC investments dropped off precipitously after the stock market crash of 1987 and again after the dot-com crash of the late 1990s.¹⁸⁸ Lerner estimates that a CVC's life span may be as short as a year.¹⁸⁹ This short term focus may be due to CVC's strategic nature; once the technological need of the corporation is met, the startup investment is no longer necessary.¹⁹⁰ Or perhaps some CVC arms are CEO pet projects, and thus not part of long-term corporate strategy.¹⁹¹ But instability relative to PVC may make CVC less attractive as a financing option to entrepreneurs.

Studies have found that CVC's likelihood of success increases if the parent corporation establishes dedicated CVC units rather than housing the operation inside the parent. One study found that when parent corporations later acquired their CVC's portfolio startups, financial returns were significantly higher "when managers from dedicated CVC units [were]

¹⁸⁵ *Id.* at 45 ("field research suggests that corporate venture groups are often plagued by defections of their most successful investors, who become frustrated at their low level of compensation").

¹⁸⁶ *See supra* notes 51-53 and accompanying text.

¹⁸⁷ *Id.*

¹⁸⁸ Benson & Ziedonis, *supra* note 160, at 480.

¹⁸⁹ Lerner, *supra* note 69 ("Large companies have been wary of creating corporate VC funds; the median life span of these funds has been about one year.").

¹⁹⁰ Gompers & Lerner, *supra* note 154, at 19 ("it may be that corporations need to employ such programs only during periods of severe technological discontinuity. After such periods of rapid change pass, the programs are no longer needed.").

¹⁹¹ Benson & Ziedonis, *supra* note 160, at 489 (citing studies for the proposition that a "common criticism against corporate venturing programs is their use to fund CEO 'pet projects'").

responsible for the initial funding decision.”¹⁹² The authors of that study state: “Investors that house CVC programs in autonomous organizational units realize more favorable outcomes than do corporate investors with less systematized programs”.¹⁹³ Therefore, it appears that designing a good CVC unit is key to its success—both in terms of financial returns and in obtaining knowledge spillovers that promote intrapreneurship.

CONCLUSION

This Article examined how corporate law plays at the margins to influence the intrapreneurship/entrepreneurship balance we observe. It also explores the hybrid option of large corporations funding startups rather than competing with them. To close with a bit more on the entrepreneurial/intrapreneurial balance, a recent *Harvard Business Review* article offers three business reasons why large corporations will become increasingly important to innovation going forward.¹⁹⁴

First, large corporations have competitive advantages due to brand recognition and staying power, whereas startups increasingly encounter rivals due to shorter product development cycles and an abundance of financing.¹⁹⁵ In other words, due to their newness, startups do not enjoy the same entrenchment as large corporations and can more easily be disrupted themselves.¹⁹⁶ Second, large corporations are more openly embracing

¹⁹² *Id.* at 494.

¹⁹³ *Id.*

¹⁹⁴ Scotty D. Anthony, *The New Corporate Garage*, HARV. BUS. REV. 1, 4 (2012).

¹⁹⁵ *Id.* at 5 (Startups “are increasingly vulnerable to the same capital-market pressures that plague big companies—but before they’ve developed lasting corporate assets.”). Conversely, it could be argued that the abundance of capital and cheap cost of launching a startup would create more entrepreneurship relative to intrapreneurship, not less. Coyle & Polsky, *supra* note 17, at 292–93 (noting that the cost of launching certain types of startups, notably software startups, has decreased significantly since the rise of cloud computing and that the amount and variety of funding for new startups is more abundant than ever).

¹⁹⁶ See e.g., Mike Isaac & Katie Benner, *LivingSocial Offers a Cautionary Tale to Today’s Unicorns*, N.Y. TIMES: TECHNOLOGY (Nov. 20, 2015), http://www.nytimes.com/2015/11/22/technology/livingsocial-once-a-unicorn-is-losing-its-magic.html?_r=0.

innovation and nimbleness to stay competitive.¹⁹⁷ Finally, much innovation in recent years has involved innovative business models, which play to large corporations' strengths better than innovative product technologies.¹⁹⁸ Thus, on balance, the law may be a relatively minor factor in influencing where innovation occurs—and more intrapreneurship may naturally occur—but the law does have some role. The distribution of innovative activity going forward, and who funds that innovative activity, will be something to watch.

¹⁹⁷ Anthony, *supra* note 194, at 4 (“[L]arge companies, taking a page from start-up strategy, are embracing open innovation and less hierarchal management and are integrating entrepreneurial behaviors within their existing capabilities.”).

¹⁹⁸ *Id.* (“[A]lthough innovation has historically been product- and service-oriented, it increasingly involves creating business models that tap big companies’ unique strengths.”); *Id.* at 4–5 (“One analysis shows that from 1997 to 2007 more than half of the companies that made it onto the *Fortune 500* before their 25th birthdays—including Amazon, Starbucks, and AutoNation—were business model innovators.”).