

# **A ROSE BY ANY OTHER NAME: HOW LABELS GET IN THE WAY OF U.S. INNOVATION POLICY**

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**Presented at the  
Berkeley Business Law Journal  
and  
Berkeley Center for Law, Business and the Economy Conference  
“Financial Regulatory Reform: Dodd-Frank and Beyond”  
March 11, 2011**

*If one listens to the rhetoric coming out of Washington, 2011 is shaping up to be the Year of Innovation Policy. Policymakers recognize that a real economic recovery will require real growth, and correctly see the innovation sector as the most likely source for that growth.*

*Yet while policymakers have identified the right goal – and while our innovation sector needs Washington to change its approach – it is far from clear that the policymaking process is set up to tackle this challenge in a way that will yield meaningful results.*

*Some of this is substantive. But some of it is a by-product of the words we use and the many, less-than-obvious ways that innovation policies bubble up through our policymaking apparatus.*

*For a variety of reasons, Washington D.C.’s institutions are ill equipped to think about innovation policy in a comprehensive way. Instead, the innovation agenda gets fractured into a series of unconnected elements, impeding our ability to consider and act upon a set of policies that truly will allow our innovation sector to be as robust as possible in the century to come.*

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The views in this paper are my personal views, and do not necessarily reflect the views of SVB Financial Group.

*This paper discusses the ways in which labels get in the way of sound innovation policymaking and the flow of capital to high growth startups, using the Dodd-Frank Act as a principle lens through which to examine the issue.*

*I begin by exploring why the innovation sector is so critical to the broader U.S. economy. I then provide an overview of the how much – and how effectively – capital has been flowing to the startup sector over the past decade, as well as the legal, regulatory and market dynamics that have affected those capital flows.*

*I then examine how the Dodd-Frank Act missed several opportunities to promote a high-growth, innovation agenda. I close with three concrete recommendations for aligning our vision of a sound, comprehensive and effective national innovation policy with our decision-making structures.*

## THE INNOVATION MANTRA

If one listens to the rhetoric coming out of Washington, 2011 is shaping up to be the Year of Innovation Policy.

Policymakers recognize that a real economic recovery will require real growth: growth in employment, growth in wages, and growth in GDP. As President Obama said in his 2011 State of the Union Address:

At stake right now is not who wins the next election – after all, we just had an election. At stake is whether new jobs and industries take root in this country, or somewhere else...

In a single generation, revolutions in technology have transformed the way we live, work and do business.... Today, just about any company can set up shop, hire workers, and sell their products wherever there's an internet connection.... Meanwhile, nations like China and India realized that with some changes of their own, they could compete in this new world. And so they started educating their children earlier and longer, with greater emphasis on math and science. They're investing in research and new technologies. Just recently, China became home to the world's largest private solar research facility, and the world's fastest computer. So yes, the world has changed. The competition for jobs is real. But this shouldn't discourage us. It should challenge us....

The future is ours to win. But to get there, we can't just stand still. As Robert Kennedy told us, "The future is not a gift. It is an achievement." .... We know what it takes to compete for the jobs and industries of our time. We need to out-innovate, out-educate, and out-build the rest of the world. We have to make America the best place on Earth to do business. We need to take responsibility for

our deficit, and reform our government. That's how our people will prosper. That's how we'll win the future.<sup>2</sup>

Republican Congressional leaders echo the view that promoting small, growing businesses in order to restore a robust economy must be our most urgent domestic priority – though their specific proposals differ, often dramatically, from the President's. As the Republican Party stated in its *Pledge to America*, “[a] plan to create jobs, end economic uncertainty, and make America more competitive must be the first and most urgent domestic priority of our government.”<sup>3</sup>

## I. THE CHALLENGE

Policymakers have identified the right goal. As discussed in the following section, the innovation sector provides the best opportunity to create real economic growth, generate net new jobs, make our economy more productive, ensure U.S. companies remain competitive in an increasingly global marketplace, provide growth to the larger corporations that account for the majority of U.S. employment, and improve the quality of life and health for all Americans.

In addition, they are correct that we have a problem that needs solving. As discussed in Section III(B), recent trends indicate that the U.S. is at risk of losing its preeminence in the global innovation sector. Some shifts are inevitable and even healthy, as countries such as Israel, India, and China and regions such as Europe work to stimulate their innovation sectors. But we could face a more significant decline. It is one thing for the United States to cede a share of the global innovation economy as other economies grow stronger. It is quite another thing for the United States to become weaker and, hence, decline in more fundamental terms.

Yet while policymakers have defined the right goal, and while there is a problem that requires solving, it is far from clear that we are well positioned to make the necessary changes.

Some of this is due to real constraints. In the end, innovation will come from the private sector, not from the government. Well-designed policies can stimulate private sector behavior and avoid setting up roadblocks that make it more difficult for entrepreneurs to succeed – but they cannot, in and of themselves, create a robust innovation sector. In addition, the stark, unavoidable reality of the budget deficit will seriously constrain what the federal government realistically can do, at least in those areas that require funding, for the foreseeable future.

Yet the problem is also a result of the fact that we generally do not approach innovation policy in a way that positions us to develop and implement an optimal, overarching pro-innovation framework.<sup>4</sup>

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<sup>2</sup> President Obama's 2011 State of the Union Address, [cite].

<sup>3</sup> *A Pledge to America* at page 5 (available at [pledge.gop.gov](http://pledge.gop.gov)).

<sup>4</sup> From time to time, policymakers try to develop and act upon comprehensive innovation agendas. [CITE to Pelosi/Eshoo innovation agenda, New Dems innovation agenda, Klobuchar bill, White House initiative, Senate Democratic Innovation Agenda; work of Senate Republican High Tech Taskforce and the House Bi-partisan

Before turning to why I believe we generally fail to approach innovation policy holistically, I'd like to make clear that my observations are by necessity broad-brushed and reflect my views about the legislative and executive branches as institutions – not about individual policymakers or the more nuanced debates that take place within subsets of those institutions. There are members of the House, Senate, White House and individual agencies that have a deep understanding and broad view of the innovation economy, and work vigorously to promote meaningful positive action. We work closely with these individuals and have deep respect for their leadership.

That said, there are at least three ways in which the ways we think about innovation policy cause the innovation agenda to become fractured into a series of unconnected elements.

First, despite the current rhetorical commitment to an innovation agenda, on an institutional level we lack a deep, broad national understanding of why promoting innovation needs to be a national priority. As a result, we fail to address innovation policies in an explicit way and, too often, policies that affect the innovation sector are framed in terms that have nothing to do with innovation. Dodd-Frank's so-called "Volcker Rule" purported to be about eliminating high risk, short term trading activities by federally insured banks – not about innovation. But because it used broad language to achieve its stated purpose, it threatens to eliminate roughly ten percent of the capital flowing to high growth startups. Congress has adopted a host of policies that purport to be about protecting ordinary investors from wrongs committed by the likes of Bernard Madoff, Enron and other bad actors – from Dodd-Frank's revised rules for "accredited investors" to the Act's corporate governance rules to Sarbanes-Oxley. None of these were explicitly discussed as part of an "anti-innovation" agenda ... but all dampen the flow of capital to startups. And debates over tax policies often get tied up in unproductive labels. The debate over how to tax carried interest earned by various types investment funds, for example, tends to be based on a GrrAnimals-type matching game (does carried interest look more like things we treat as ordinary income, or more like things we treat as capital gains) or issues of "fairness" (is it "fair" to expect successful investors to contribute a greater share of their wealth)? The better questions to ask would be: What types of carried interest result from socially beneficial activities? Can we effectively use the tax code to stimulate those activities? And is tax-advantaged treatment for these activities the best use of the limited tax expenditures we can afford to make?

Second, the labels we use link one issue to others and, hence, define the set of related issues that will be considered as part of any single whole. The Volcker Rule was adopted as part of a debate over proprietary trading and other high-risk activities engaged in by Wall Street banks ... not as part of a debate over the appropriate role banks can play in funding high-growth startups. In fact, the [House] debated the Volcker Rule the same [week] it acted on a bill to create a government-sponsored venture fund to help ensure adequate capital was flowing to startups. Yet the House did not link the two issues as part of a debate over capital formation for startups, and with very few exceptions its members did not see financial services reform as part

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High Tech Caucus.] But these are the exception rather than the rule, and often even these efforts must be enacted and implemented in discrete pieces.

of an “innovation agenda.”<sup>5</sup> Similarly, since 9-11 we have adopted immigration policies that are having a dramatic, counter-productive effect on the innovation sector. For [xx] years, people who were born abroad came to this country to get an education, and many stayed to form new companies.<sup>6</sup> For the past decade, however, we have been sending those entrepreneurs home – depriving the United States of their talent, depriving our economy of the employment their startups would have generated, and stimulating the creation of robust innovation communities in countries such as China, India, and Israel. Yet Congress remains trapped in a stalemate, unwilling to confront this as an “innovation agenda” issue and instead insisting it is an “immigration” issue that can be addressed only as part of comprehensive immigration reform.

Finally, the labels we use define jurisdiction, whether among Congressional committees or within the Administration. For example, in Dodd-Frank, Congress adopted new rules that may dramatically affect how effectively startups will be able to protect themselves against the risks they take when they sell products overseas. Were these considered and adopted by a committee with responsibility for innovation? No. Because they fell under the general rubric of swaps, they were written by the Agriculture Committee.

In these three ways, labels get in the way, distorting how we think about issues and how effectively we solve problems. Unless we can get past them, it will be difficult or impossible to enact a sound, truly comprehensive “innovation agenda”.

## II. WHY IT MATTERS

### A. The Innovation Sector’s Impact on the U.S. Economy

For years, policymakers have emphasized the role small businesses play in job creation and economic activity. Recent research, however, has highlighted that there are two quite different parts of the small business economy. Both are important, but only one is the source of net new job creation and economic growth.

First, there are “Main Street” small businesses – small businesses that, even if successful, intend to stay small. These are the dry cleaners, sandwich shops, hairdressers, and other businesses that make up what we colloquially refer to as Main Street America. These businesses are important to the health of our communities and are an important part of our overall economy. But they are not the primary driver of job creation.

High-growth small businesses – businesses that aspire to grow large and become the future Ciscos, Intels, Googles, Facebooks, and Apples – are the principal force behind both gross

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<sup>5</sup> Some House members, such as Representative Eshoo (D-CA) recognized this link and worked to promote sound innovation policies within the broader Dodd-Frank bill. *See* Statement of Representative Eshoo, 156 Cong. Rec. E1295 (July 13, 2010) (quoted at note 42).

<sup>6</sup> [Insert statistic about historical share of high-growth startups founded by a person who was born outside the United States.]

and net new job creation.<sup>7</sup> These companies tend to be in high tech sectors such as computer hardware, computer software/internet, cloud computing, life sciences, medical technology, and clean technology, and typically focus on developing disruptive technologies, service models, or business models.

While both groups are important in their own way, and each merits consideration by policymakers, the latter group is the one to focus on for policymakers who wish to promote a high-growth innovation agenda.

The best proxy for the high growth small business sector in the United States is the relatively small group of startup companies that receive backing from venture capital funds. Venture capital investors devote enormous resources to selecting the most promising ideas to back, often reviewing hundreds of business cases in order to select a small handful of companies in which to invest. The investors often have had successful careers as entrepreneurs, scientists, engineers or doctors, and thus bring a deep set of skills to help the entrepreneurs they back. They not only provide the financial capital that high-growth technology companies require, they also play an active, hands-on role in those companies, typically sitting on the companies' boards and working actively with management to develop the business strategy, build the management team, guide the company through subsequent financing rounds and help transform the business from concept to commercialization.

There is ample data demonstrating that venture investing and venture-backed companies have a dramatic positive direct impact on the U.S. economy.

*First, venture capital investments yield outsized returns to the U.S. economy.*

Historically, venture capital investments have equaled roughly 0.2% of U.S. GDP. Yet as of 2008 (the last year for which data has been made available), companies that were or had been venture-backed employed more than 12 million people and generated nearly \$3 trillion in revenues. In other words, investments on the order of 0.2% of U.S. GDP yielded 11% of all U.S. private sector employment and the equivalent of 21% of U.S. GDP – or roughly a hundred-fold return on investment.<sup>8</sup>

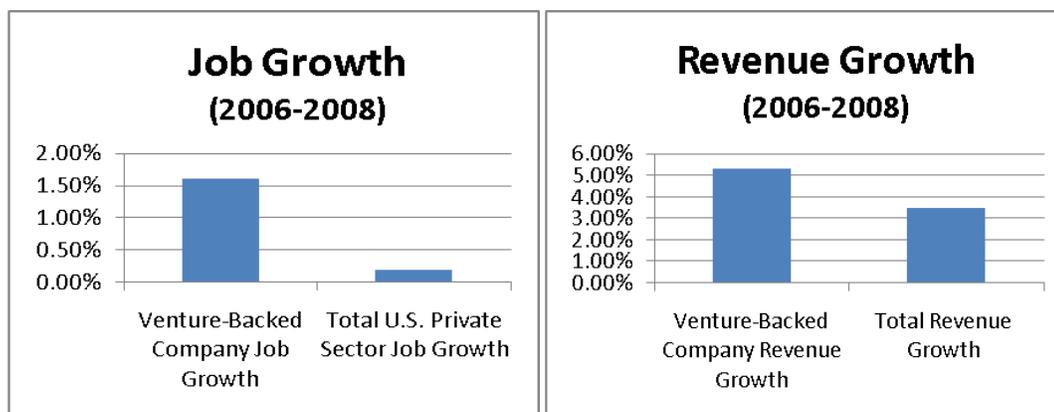
*Second, venture-backed firms create jobs.* Even in the current economy, with unemployment running at [9%], venture firms are creating thousands of new jobs. The website [startuphire.com](http://startuphire.com) tracks jobs in venture-backed companies. As of [date], there were postings by more than [475] venture funds listing more than [18,000] job openings in venture-backed companies.

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<sup>7</sup> See J. Haltiwanger, R. Jarmin and J. Miranda, *Who Creates Jobs? Small vs. Large vs. Young*, NBER Working Paper No. 16300 (Aug. 2010); L. Klapper & I. Love, *The Impact of the Financial Crisis on New Firm Registration*, Policy Research Working Paper 5444, The World Bank Development Research Group, Finance and Private Sector Development Team at 1 (Oct. 2010) at 3.

<sup>8</sup> 2010 NVCA Yearbook at 7.

*Third, venture-backed companies outperform the broader economy.* Whether measured in terms of job creation or revenue growth, venture-backed companies outperformed the overall economy, as illustrated in the following charts.<sup>9</sup>



Venture capital-backed businesses, moreover, have an impact far beyond the four corners of the sector.

*First, venture investments create new, long-lasting companies and industries.*

The venture-backed innovation sector has created entire new industries – from information technology, biotechnology, semiconductors and online retailing to emerging industries such as clean technology, social media and cloud computing. To give a sense for the long-lasting impact of the venture ecosystem on the U.S. economy, as of 2008, eight out of ten people employed in the software development industry worked for a company with venture capital roots; seven out of ten people employed in the telecommunications and semiconductor industries worked for a company with venture capital roots; and more than half of the people employed in the network and equipment and electronics/instrumentation industries worked for a company with venture capital roots. Venture-backed companies include a long list of household names – from Apple, Google, Amazon, Cisco, Oracle, Home Depot and Staples to Starbucks, eBay, Whole Foods Market, Genentech, Amgen, Intel, Microsoft, JetBlue and FedEx – that have transformed the way Americans live and work.

One can see the far-reaching effects venture-backed companies have on the American landscape by examining the health care sector. Experts agree that virtually the entire biotechnology industry and most of the significant breakthroughs in the medical devices industry would not exist without the support of the venture capital industry.<sup>10</sup> Over the past 20 years,

<sup>9</sup> IHS Global Insight, *Venture Impact: The Economic Importance of Venture-Capital Backed Companies to the U.S. Economy* (5th Ed.) (2009) [*hereinafter*, *Venture Impact*] at 8. In addition, according to a recent analysis of nearly 800 Silicon Valley Bank portfolio companies in the hardware and software sectors, the technology sector showed a pronounced uptick in second quarter sales growth, bucking macro-economic trends. While overall GDP declined during the quarter and showed flat growth year-over-year, the technology sector saw positive sales growth year-over-year and in Q2 2010.

<sup>10</sup> National Venture Capital Association, *Patient Capital: How Venture Capital Investment Drives Revolutionary Medical Innovation* (2007) at 3 [*hereinafter* “Patient Capital”].

venture funds have invested tens of billions of dollars in thousands of companies with new ideas.<sup>11</sup> As of 2006, nine formerly venture-backed companies alone employed more than 75,000 people and accounted for over \$40 billion in revenues.<sup>12</sup> In total, in that year, venture financed life science companies supported 493,800 jobs and generated \$132 billion in revenues.<sup>13</sup> Equally importantly, these companies serve as the R&D pipeline for larger life sciences companies looking for innovation. Over the five year period preceding the study, close to 200 venture-backed life sciences companies were acquired by more mature health care companies for their innovations.<sup>14</sup> Furthermore, venture-backed innovations have changed health care for all Americans: more than one in three Americans (or 100 million individuals) have been positively affected by innovations that were developed and launched by a venture-backed life sciences company during the past 20 years.<sup>15</sup>

*Second, the venture-backed innovation sector is playing an increasingly important role in driving growth for more mature U.S. businesses, across the broader U.S. economy.*

During the 2008-2010 financial downturn, as developed economies slowed and corporate growth came to a near standstill, many larger companies focused primarily on maintaining their near-term bottom line performance, through cost reductions and increased productivity. More recently, as capital markets and the broader economy have begun to stabilize, companies and their investors have re-emphasized long term revenue growth. As a result, innovation has returned to the CEO's agenda as a long term growth driver.

In a closely linked development, SVB has seen a dramatic resurgence in corporate venture investing, combined with a more expansive and more sophisticated underlying strategy for this investing. We estimate that just in the first two months of 2011, corporations have committed more than \$1 billion in new capital to venture investing.

Historically, corporate venture investing was predominately carried out by firms with close ties to the technology sector – firms such as Intel, Siemens, [other]. For the remainder of corporate America, “innovation” was not linked to venture investing. Rather, it tended to be internally focused and driven by R&D, tended to yield evolutionary product improvements (not revolutionary transformations), and tended to focus more on cost (or outcome metrics such as patents obtained) rather than “true” outcome (such net new revenue generated).

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<sup>11</sup> *Id.* at 5.

<sup>12</sup> *Id.* at 2.

<sup>13</sup> *Id.* at 3.

<sup>14</sup> *Id.* at 4.

<sup>15</sup> For example, Magnetic Resonance Imaging (MRI) and ultrasound diagnostic imaging have virtually eliminated exploratory surgery for countless conditions. *Id.* at 4. Other venture-backed breakthroughs include implantable defibrillators, spinal implants, glucose self-monitoring devices for diabetes, and pulse oximetry. *Id.* at 4. *See also Id.* at 10 (listing innovative treatment examples from venture backed medical start-ups in the areas of heart disease, cancer, stroke, respiratory disease, diabetes and spinal injuries).

More recently, corporations from across the economic spectrum have set up corporate venturing arms or innovation centers – including (not exclusively, and in no particular order) firms such as BMW, Adidas, Coke, General Mills, Best Buy, Proctor & Gamble, Unilever, de Beers (the diamond monopoly), Citi, Visa, AMD, VW, EMC and X.01strata (the mineral and mining conglomerate). Others are joining forces to leverage complementary expertise: for example, earlier this year General Electric, a long time active corporate investor in energy, joined with ConocoPhillips and power plant operator NRG Energy, neither of which historically had done any corporate venture investing, to form Energy Technology Ventures, a joint venture that will deploy \$300 million in venture investments in clean energy and fossil fuel technologies over the next four years.<sup>16</sup>

These corporations not only are investing at higher levels, they are also embracing a new model that employs a much greater focus on external innovation and a wider diversity of innovation models (including not just M&A but also joint ventures, licensing, supply chain relationships, and partnering). This new innovation agenda tends to be led by a high level business executive (such as the CEO or a Chief Innovation Officer), is open to cannibalization and disruptions to the existing business, and is outcome driven.

There are five forces that are driving corporations to establish venture groups or externally focused innovation centers. First and foremost, corporations see venture investing as a one of the most important tools available to help drive their growth – with startups serving, in essence, as a robust, varied and effective form of R&D to augment (or replace) internal R&D.<sup>17</sup> Second, corporations recognize the need to fill the funding gap in sectors that are relevant to their core business but in which traditional, financial venture firms have either stopped investing or significantly scaled back their investments, in order to drive continued innovation in these areas – for example, AMD in semiconductors, or Merck in life sciences. Third, corporations see venture investing as a way to identify potential M&A targets earlier in their development, with the ultimate aim of spending less on M&A acquisitions. Fourth, corporations recognize that the pace of new innovation and the rate of disruptive technology shifts is increasing (including in the areas of energy, transportation, social media, cloud computing, mobile communications and gaming, to name just a few), and see venture investing as a way to stay abreast of the rapidly changing environment. And finally, large consumer-focused companies like VW, Coke and Adidas see an enormous shift in how consumers are interacting with brands and consuming media, and believe they need to move beyond traditional advertising media to stay abreast of these changes and relevant to their customers.

*Even beyond the segment of corporate America that is directly engaged in the venture sector, innovations driven by the venture-backed companies are contributing to productivity growth, U.S. economic competitiveness, and Americans' quality of life.*

As discussed in a recent report issued by the Information Technology & Innovation Foundation, disruptive technological innovation has a second order effect, driving broader job

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<sup>16</sup> See GE, Conoco and NRG Team in Tech Venture , CITE, Jan. 2011 (reporting that).

<sup>17</sup> [Cite to Chesbrough books]

growth in three ways. It gives U.S. firms a “first mover” advantage and, thus, helps expand U.S. exports and employment. Second, it creates a “virtuous cycle” of expanding employment. And finally, it increases productivity and, thereby, leads to increased wages and lower prices (which in turn further expand economic activity and create jobs).<sup>18</sup>

Innovation, moreover, helps move our economy continue to evolve into one characterized by the types of highly productive and innovative industries that are most likely to drive real, broad based, sustainable economic growth.<sup>19</sup> As the ITIF report stated:

Highly innovative economies are characterized by a diverse mix of high-paying, capital-intensive, productive industries, while less dynamic economies tend to focus on a handful of commodity-driven industries that are low-wage and concentrated in lower portions of the value chain.<sup>20</sup>

Finally, innovation plays a central role in improving citizens’ quality of life by expanding access to information, providing higher quality goods and services, improving health care quality and access, and fostering a more sustainable environment.<sup>21</sup>

A handful of policymakers understand the broad, deep and critical nature of the innovation sector. Too many, however, tend to see it as a regional phenomenon (centered in Silicon Valley and a handful of other locations), or believe that venture capital investors are the primary or exclusive beneficiaries of the venture capital sector. This is, in part, a by-product of our society’s interest in tech “superstar personalities” (Steve Jobs, Mark Zuckerberg, Sergey Brin, Larry Page, and Bill Gates, to name a few) and a tendency to fixate on a handful of massive financial success stories (Google, Facebook, and the like). Properly understood, however, every American is touched – probably daily – by the innovation sector.

## **B. Disturbing Trends in the Vibrancy of the U.S. Innovation Sector**

The United States remains a center of innovation, and the innovation sector remains a vital national resource. The tech sector has begun to put the financial downturn behind it. For example, [include data on 2010 venture capital raised, venture capital invested, and lending by SVB]. “Deeper” statistics also provide some positive signs: for example, the number of patent registrations increased six percent nationally and nine percent in Silicon Valley during 2009, and the total number of science and engineering degrees conferred (both in the United States and in Silicon Valley) increased slightly in that year.<sup>22</sup>

<sup>18</sup> R. Atkinson et al., The Information Technology & Innovation Foundation, *Innovation Policy on a Budget: Driving Innovation in a Time of Fiscal Constraint* (Sept. 24, 2010) at 2. [*hereinafter* “ITIF Innovation Policy”].

<sup>19</sup> *Id.*

<sup>20</sup> CITE.

<sup>21</sup> *Id.* at 3.

<sup>22</sup> Joint Venture-Silicon Valley Network/Silicon Valley Community Foundation, *2011 Index of Silicon Valley* at pages 4, 14.

Yet it is also clear that there are some deeply troubling signs on the horizon.

The United States has long had the luxury of thinking of itself as a leader in innovation and economic competitiveness. Yet in a striking recent finding, the European-American Business Council and the Information Technology & Innovation Foundation found that the United States ranks sixth overall among the 40 nations and regions studied in terms of innovation and competitiveness – in brief, we are not the runaway leader in global competitiveness that some believe.<sup>23</sup> In an even more troubling finding, the study found that *every single one* of the 39 other countries and regions studied made more, faster progress in improving their innovation capacity and international competitiveness over the past decade than the United States.<sup>24</sup>

One indicator of the health of the U.S. innovation sector is the level of initial public offerings (or IPOs) by U.S. companies on U.S. stock exchanges.

The first six months of 2009 represented the worst IPO market in 40 years.<sup>25</sup> Given that the size of the U.S. economy, in real GDP terms, is over three times what it was 40 years ago, this is a remarkable and frightening state of affairs. In significant part, this is a by-product of a number of legal, policy and market changes that have made it more difficult for companies to go public and increased meaningfully the size at which they can realistically contemplate a public offering.<sup>26</sup>

IPO activity increased in 2010, during which a total of [xxx] companies listed on U.S. stock exchanges. While 2010 was better, it was far cry from robust. IPO activity remained below the level that many would argue is needed to provide a meaningful source of growth capital to technology startups, particularly capital-intensive startups in sectors such as clean energy.<sup>27</sup> In addition, roughly one-third of the total U.S. IPOs were listing by [Chinese/foreign]

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<sup>23</sup> European-American Business Council/The Information Technology & Innovation Foundation (ITIF), *The Atlantic Century: Benchmarking EU & U.S. Innovation and Competitiveness* (Feb. 2009) at 1

<sup>24</sup> *Id.*

<sup>25</sup> Only 12 companies went public in the United States in the first half of 2009, and only eight of them were U.S. companies.

<sup>26</sup> The median IPO in the first half of 2009 was \$135 million in size. This contrasts to 20 years ago, when it was common for Wall Street to do \$10 million IPOs and have them succeed. Although the IPO market has improved in 2010, IPOs and, therefore, jobs and GDP growth continue to suffer from changes in the brokerage markets and regulatory landscape. The establishment of online brokerages, decimalization, the Manning Rule, the Order Handling Rules and the Gramm-Leach-Bliley Act all contributed to lower numbers of IPOs of venture-backed companies. *See, e.g.*, D. Weild and E. Kim, Grant Thornton, *Market Structure is Causing the IPO Crisis* (June 2010).

<sup>27</sup> *See, e.g.*, “*Green Startups: Trapped In the 'Valley of Death'*,” Bloomberg Businessweek (Oct. 7, 2010) (citing Brian Bolster, head of alternative energy investment banking at Goldman Sachs (GS) in New York: “There are 108 IPOs that are stale—or at least 100 days old,” he says, referring to the number of days since companies filed paperwork to go public. “We’re seeing companies come out, but it’s about a tenth of those that want to come out.”)

companies, not domestic issuers – a striking change from earlier years and an indicator of the shift in the geographic centers within which successful innovation is occurring.<sup>28</sup> And, finally, the time to reach an IPO has lengthened meaningfully. This not only makes it more daunting for entrepreneurs and venture investors to start companies and provide early stage funding, it arguably is leading at least some companies to over-invest in developing parts of their business that ultimately will be jettisoned.<sup>29</sup>

Another indicator of the health of the U.S. innovation sector is the amount of capital flowing into very early stage startups. On this front, the data is somewhat mixed. [Insert recent data on venture funds raised, venture capital deployed, and early stage investments.] In addition to the financial metrics, a number of venture funds have increased their focus on early stage investing, while the level of activity among “angel” and “super angel” investors has grown. At the same time, entrepreneurs continue to bemoan a lack of adequate capital, particularly in capital intensive sectors, and some commentators have argued that U.S. venture investing has become more conservative in recent years, depriving higher risk sectors the capital they need.

A third metric worth watching is the total amount of capital raised and invested by U.S. venture firms. [Insert statistics]

Trends in the global pattern of venture investing also paint a negative trend line. Venture investing historically has been a uniquely U.S. phenomenon, and today, roughly half of all venture firms are located in North America.<sup>30</sup> But over the past decade, both entrepreneurs and investors have shifted their focus and begun to build robust innovation sectors in markets around the globe.

In 2000, North American-focused funds raised 75% of the total capital raised by venture firms. By 2008, funds focused on Asia and the rest of the world were raising 37% of the total.<sup>31</sup> And this is probably just the beginning. According to a [2010] survey of investing professionals conducted by Deloitte:

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<sup>28</sup> CITE.

<sup>29</sup> In order to maximize their value, many entrepreneurs and venture investors pursue a growth path that will allow them to “exit” through either an IPO or an M&A transaction. However, as time and scale need to go public have increased, the “optimal” path for a company seeing an M&A exit and one seeking an IPO exit have diverged. To successfully go public, companies much reach a scale – in terms of revenue as well as organizational depth – that provides an attractive deal size to underwriters and potential investors. In an optimal M&A transaction, in contrast, companies ideally would sell at a point when they have developed their technology and business model to the point it is attractive to an acquirer, but before they have developed the sales and operational infrastructure required for a public company – since the acquirer likely will have these resources. In a sense, this means that companies must “outgrow” their optimal M&A scale to preserve the option of going public and, if they end up exiting through an M&A, will have “wasted” investments in operational infrastructure that are not desired or needed by the acquiring company.

<sup>30</sup> Venture Capital Industry, *supra* note \_\_ at 3

<sup>31</sup> *Id.*

- Investing professionals expect the venture industry to contract in the United States and Europe and to grow in emerging markets, including China, India and Brazil – whether measured in the number of firms investing or the number of dollars invested.<sup>32</sup>
- The institutions that invest in venture funds (typically, endowments, pension funds, and foundations) expect to shift larger allocations to emerging markets over the coming five years.<sup>33</sup>
- The respondents see a direct correlation between current trends in venture investing and the long-term dominance of the United States in the technology sector.<sup>34</sup>
- Respondents also see an important and growing link between government policies and the strength of the venture and entrepreneurial sectors – for good, and for bad.<sup>35</sup>

Finally, academic data indicates that, during the financial crisis, new business creation slowed and countries with more developed financial markets experienced larger contractions in new firm creation, most likely due to problems accessing capital.<sup>36</sup> On a more positive note, they also suggest that government policies can effectively promote innovation – specifically, that dynamic business creation occurs in countries that provide entrepreneurs with reduced red tape and a stable investment climate, and that regulatory policies and access to capital are among the handful of factors that most strongly influence the level of new business formation.<sup>37</sup>

The above data illustrates two critically important points. First, an economy that can promote a thriving innovation sector can achieve very significant benefits in terms of economic vibrancy, job and GDP growth, international competitiveness and technological leadership. Two, innovation will occur – the only question is where.

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<sup>32</sup> A startling 92% expect the number of venture *firms* in the United States will decrease and 72% expect venture *investments* in the United States will decrease. Deloitte Survey, *supra* note \_\_. 99% expect the number of venture firms in China will *increase* significantly or moderately, while 98% make this prediction for Brazil and 86% make this prediction for India. 70% of all respondents expect dollars invested in China will *increase* significantly, 51% make this prediction for Brazil and 41% make this prediction for India. Equally startlingly, every respondent predicted that, at worst, investments in China and Brazil will increase at least moderately, and virtually all (91%) made this prediction for India. *Id.*

<sup>33</sup> Only 15% of investors in the survey said they were more inclined to invest in the United States, while 56% said they were less inclined to do so. *Id.*

<sup>34</sup> While 36% thought the United States would remain a dominant force, 42% saw this as only “somewhat likely” and 10% saw it as unlikely. *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> Klapper & Love, *supra* note \_\_\_ at 2-3, 20-21, 22. While the study focuses specifically on debt (rather than equity), its conclusions about the impact on new business formation of sharp declines in available funding would appear to apply to both forms of capital. *Id.* at 20-21.

<sup>37</sup> *Id.* Specific regulatory factors included starting costs (official fees and other costs of incorporating a business), number of procedures necessary to incorporate a business, time required to incorporate and start a business, political stability, government effectiveness, regulatory quality, rule of law, control of corruption, and corporate governance. *Id.* at 10-11.

### III. A THUMBNAIL SKETCH OF INNOVATION POLICY

There are five ingredients that, together, create a robust innovation sector – and, hence, five basic areas for Congress and the Administration to focus on if they want to create a policy environment that promotes innovation.

The first ingredient is a *culture of entrepreneurship*. Historically, this has been one of the United States’ core strengths – Americans have the talent, energy and spirit to think differently, to take risks, and to try even when the odds are daunting. In addition, the United States historically has been characterized by a stable rule of law and a reasonable balance between free market forces and regulation, two underpinnings to a culture of entrepreneurship.

In this area, policymakers (like doctors) should abide by the rule, “First, do no harm.” We cannot let a new, risk averse national mood sap the entrepreneurial, risk-taking culture at the heart of U.S. innovation. We cannot become hostile to true wealth creation – wealth created through “true” innovation, as opposed to wealth created through trading, by exploiting market failures, or through financial engineering. We cannot mire startups in a morass of rules and regulations. We cannot introduce so much uncertainty into our regulatory processes that entrepreneurs give up (or move abroad) before they start. And while we should develop policies that help people cope with a changing world, we should not prevent disruptive innovation from occurring.

The second ingredient for a robust innovation sector is *talent*. We need bright, educated people, who are able to create and develop new ideas. For this, we need to re-build our education system, focus greater attention on STEM education, and make sure that all Americans have a fair opportunity to become educated and to compete in the workplace. We also need to return to smart immigration policies that will re-establish the United States as *the* place to come for those who want to innovate and create new technologies, new companies and new jobs.

The third ingredient for a robust innovation sector is an equally robust *idea pipeline*. We need to make sure we are investing in research and development, by enacting long-term, predictable tax policies and by funding government-sponsored R&D. We need to stand by proven models, like DARPA (the Defense Advanced Research Projects Agency), and embrace new models, like ARPA-E (the Advanced Research Projects Agency – Energy). We need to make sure that ideas generated in the lab do not get caught in a “valley of death” by re-thinking the way we transform scientific/research successes into commercially relevant opportunities. And we need to strengthen our legal system for protecting intellectual property so that it is reliable, predictable, able to keep pace with innovation, and appropriately protects property interests without stifling innovation.

The fourth ingredient for a robust innovation sector is *adequate, appropriate risk capital*. Here, as discussed, above, there are real challenges. There is plenty of capital. But there is a real risk that not enough capital will flow into U.S. startups. If this occurs, it will change the geography of innovation (as investments shift overseas), as well as the nature of U.S. innovation and technological leadership (as U.S. innovation shifts to more capital efficient sectors, such as software-as-a-service, and away from more capital intensive sectors, such as renewable energy

generation, medical devices and bio-technology). To promote the flow of capital, we need sound tax policies that give investors and entrepreneurs an incentive to dedicate the better part of a decade to building a company. (In certain areas, we need these incentives to be structured in a way that also works for companies before they are profitable.) We need to preserve banks' role in providing capital to startup companies, by ensuring the so-called Volcker Rule is interpreted in a way that appropriately distinguishes venture capital from buyout and hedge funds. We need to adopt policies that promote strong, active U.S. capital markets – such as adopting a streamlined regulatory framework for small, newly-public companies and avoiding new “one size fits all” rules for listed companies – a particularly important policy objective, since the vast majority of job creation within high growth startups occurs after companies go public.<sup>38</sup> We need to reexamine alternatives to true public markets in order provide a realistic, scalable path for growing companies to access capital. We need to identify and address the limited but important areas in which private markets are unwilling or unable to provide adequate capital – such as for the construction of first commercial facilities for clean energy companies and for exporters – and address those through public-private structures, such as the Clean Energy Development Agency or the Export-Import Bank. We need to ensure these government programs reach small, innovative companies at the cutting edge of innovation ... not just mature, stable, “safe” bets. And we need to make sure that the overall innovation sector is attractive by focusing on the other areas discussed in this section.

Finally, we need *sound, predictable, competitive markets*. In some sectors, this is more or less present. But in others – most notably, energy – there is a profound need to remove existing subsidies, regulations and other market-distorting forces that tilt the playing field toward incumbents and away from innovative technologies and business models.

#### IV. INNOVATION POLICY THROUGH THE LENS OF DODD-FRANK

Dodd-Frank was not about innovation policy. That's both a blessing and a curse.

On its face, as its name makes clear, Dodd-Frank was all about Wall Street – specifically, about protecting consumers from the actual and perceived excesses and abuses on Wall Street, in the mortgage markets, and elsewhere that led to the collapse of the financial system in 2008. In the following sections, I do not look at the law in this broader sense, and my comments should not be interpreted as a broad-based criticism of the bill. Rather, my focus is on the largely unintended intersection between Dodd-Frank's reforms and the innovation ecosystem.

##### A. Dodd-Frank: The “Good Parts”

In a few instances, as the bill made its way through Congress, members recognized that its content would have a direct, negative impact on the innovation sector and responded to prevent unintended consequences.

Most notably, Dodd-Frank amended the Investment Advisers Act of 1940 to eliminate the current exemption from registration for most investment advisers with fewer than 15 clients.

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<sup>38</sup> CITE.

At the same time, it added a new exemption from registration for investment advisers solely to venture capital funds.<sup>39</sup> This was an important clarification. The new registration requirement was designed to provide greater transparency into financial systemic risk and eliminate regulatory gaps in wake of the financial crisis. Yet imposing this obligation on venture funds would have been both unnecessary as a policy matter (given the nature and risk profile of venture investments, as well as existing regulations that apply to venture funds) and counter-productive (since imposing a registration requirement on venture funds would have been extremely burdensome, requiring even small funds to hire a compliance professional and devote considerable resources to regulatory filings). Congress wisely recognized this fact and treated venture fund advisors differently under the statute.

In a somewhat similar vein, Congress used Dodd-Frank to make permanent a policy that, to date, had reduced somewhat the impact of Sarbanes-Oxley on smaller public companies. Specifically, Dodd-Frank amended Section 404(b) of the Sarbanes-Oxley Act of 2002 to exempt non-accelerated filers (generally, public companies with a non-affiliated market capitalization of under \$75 million) from having their independent registered public accounting firm audit their internal control over financial reporting. Dodd-Frank also required the SEC to study how it could reduce the burden of this requirement for somewhat larger issuers (those with a market capitalization between \$75 million and \$250 million) and to submit the study to Congress within nine months of the bill's enactment.

In a third case, Congress modified the bill to reduce (but not eliminate) the impact on startups.

An earlier version of Dodd-Frank included a provision that would have required the SEC to review Regulation D filings. Regulation D exempts from the registration requirements of the Securities Act of 1933 certain issuances of unregistered securities from companies to accredited investors, including angel investors, venture capitalists, and private equity funds. Had this provision stayed in the bill, it would have made it more difficult for companies to raise capital through Regulation D offerings by subjecting these filings to SEC review.

However, the final version of Dodd-Frank Act did retain some changes to Regulation D, including an amendment to the definition of an "accredited investor" to exclude the value of an investor's primary residence and new rules that, over time, will likely raise the dollar threshold for determining whether an investor is accredited under Regulation D. In these ways, Dodd-Frank effectively shrunk – to an as yet undetermined extent – the pool of capital that startups can access through Regulation D offerings.<sup>40</sup>

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<sup>39</sup> CITE.

<sup>40</sup> In addition to these specific provisions, in a handful of cases Dodd-Frank directed the implementing agencies to consider the impact on small businesses as part of the implementation process. CITE to SBIC provision in Section 619, subtitle C, section 2013 (which allows small business income to be considered in loan underwriting), and sections 1099, 1424 and 1474 (requiring studies to ensure that credit costs are not increased for small businesses).

## B. Dodd Frank: The “Not-So-Good Parts”

While in the instances noted above Congress considered and responded to the intersection between the financial services sector and the startup sector, in most cases this did not occur. As a result, the bill fell somewhere between a missed opportunity and an affirmative negative blow.

Before turning to some specific examples that illustrate this point, I want to note that I do *not* believe Congress meant Dodd-Frank to be an “anti-innovation” piece of legislation. To the contrary, I believe Dodd-Frank’s impact on the innovation sector is a direct product of a fast moving bill, more than [2,300 pages of new law], a politically charged environment, and the dynamics I describe in this paper. Had these issues been teed up as “innovation” issues, I believe Congress likely would have responded differently. But when they were combined into a far reaching bill that was – both optically and, in the vast majority of its content, substantively – about Wall Street and the country’s major financial institutions, the impact on innovation became obscured and anti-innovation policies became law.

In addition, I want to note that I don’t see Dodd-Frank as something that will have significant, far reaching effects on innovation policy (other than the Volcker Rule, if it is not implemented as discussed below). It is, however, an excellent example of my basic point: that “innovation policies” are significantly more likely to be adopted within – or trapped by – other, policy agendas than they are to be considered in a comprehensive way that is focused on innovation as a critical policy priority.

### i. The Volcker Rule

Section 619 of Dodd-Frank, generally referred to as the “Volcker Rule,” was designed to get banking entities out of activities that were seen as highly risky. Specifically, it prohibited banks from engaging in proprietary trading and from investing in or sponsoring hedge funds and private equity funds, other than as specifically set forth in the statute.<sup>41</sup>

When one reads the legislative history, it is clear Congress did not intend for the Volcker Rule to artificially restrict the flow of capital to venture capital funds and, through these funds, to startup companies. As Chairman Dodd stated:

The purpose of the Volcker Rule is to eliminate excessive risk taking activities by banks and their affiliates while at the same time preserving safe, sound investment activities that serve the public interest. It prohibits proprietary trading and limits bank investment in hedge funds and private equity funds for that reason. But properly conducted venture capital investment will not cause the harms at which the Volcker Rule is directed.<sup>42</sup>

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<sup>41</sup> Sections 619(a)(1)(B) and 619(d).

<sup>42</sup> 156 Cong. Rec. S5904 – S5905 (July 15, 2010). *See also* Statement of Representative Eshoo, 156 Cong. Rec. E1295 (July 13, 2010) (The purpose of the Volcker Rule is to eliminate risk-taking activities by banks and their affiliates while at the same time preserving safe, sound investment activities that serve the public interest.... Venture capital funds do not pose the same risk to the health

However, Congress failed to explicitly distinguish venture funds from private equity/buyout and hedge funds in the statute. It included a general definition of hedge funds and private equity funds, which focused on the legal structure of these funds,<sup>43</sup> and gave the regulatory agencies discretion to refine this definition and to differentiate PE/hedge funds from other types of funds. In addition, it allowed the regulatory agencies to permit banking entities to sponsor and invest in funds where those activities would promote and protect the safety and soundness of banking entities and the financial stability of the United States.<sup>44</sup> Through these provisions, Congress allowed and even encouraged – but did not require – the regulatory agencies to treat venture capital funds differently from hedge funds and private equity/buyout funds under Dodd-Frank’s Volcker Rule.<sup>45</sup>

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of the financial system. They promote the public interest by funding growing companies critical to spurring innovation, job creation, and economic competitiveness. The funds typically invest primarily or exclusively in private companies and are significantly smaller. I expect the regulators to use the broad authority in the Volcker Rule wisely and clarify that funds that invest in technology startup companies, such as venture capital funds, are not captured under the Volcker Rule and fall outside the definition of “private equity funds. This clarification will ensure the Dodd-Frank ... Act does not stop venture capital from providing a critical source of capital for startup technology companies.”); Letter from Rep. Spencer Bachus to Members of the Financial Services Oversight Council (Nov. 3, 2010) at 8 (urging the FSOC and implementing Regulatory Agencies to avoid interpreting the Volcker Rule in an expansive, rigid way that would damage U.S. competitiveness and job creation).

<sup>43</sup> Section 619(h)(2).

<sup>44</sup> CITE.

<sup>45</sup> See Colloquy between Senators Dodd and Boxer, 156 Cong. Rec. S5904 – S5905 (July 15, 2010) (emphasis added):

Mrs. BOXER. Mr. President, I wish to ask my good friend, the Senator from Connecticut and the chairman of the Banking Committee, to engage in a brief discussion relating to the final Volcker rule and the role of venture capital in creating jobs and growing companies.

I strongly support the Dodd-Frank Wall Street Reform and Consumer Protection Act, including a strong and effective Volcker rule, which is found in Section 619 of the legislation.

I know the chairman recognizes, as we all do, the crucial and unique role that venture capital plays in spurring innovation, creating jobs and growing companies. I also know the authors of this bill do not intend the Volcker rule to cut off sources of capital for America’s technology startups, particularly in this difficult economy. Section 619 explicitly exempts small business investment companies from the rule, and because these companies often provide venture capital investment, I believe the intent of the rule is not to harm venture capital investment.

Is my understanding correct?

Mr. DODD. Mr. President, I thank my friend, the Senator from California, for her support and for all the work we have done together on this important issue. Her understanding is correct. ... I expect the regulators to use the broad authority in the Volcker Rule wisely and clarify that funds that invest in technology startup companies, such as venture capital funds, are not captured under the Volcker Rule and fall outside the definition of “private equity funds”. This clarification will

In comments before the Financial Stability Oversight Council, SVB and approximately [ ] other parties discussed the important differences between venture capital and private equity and hedge funds, and urged the Council to conclude that they should not be swept under the Volcker Rule’s scope.

In January of this year, the Financial Stability Oversight Council issued its Report and Recommendations on the Volcker Rule. The Council noted that “a number of commenters suggested that venture capital funds should be excluded from the Volcker Rule’s definition of hedge funds and private equity funds because the nature of venture capital funds is fundamentally different from such other funds and because they promote innovation.” It stated its belief “that the issue raised by commenters in this respect is significant” and recommended that the regulatory agencies charged with implementing the Volcker Rule carefully evaluate the range of funds and other legal vehicles that fall within Volcker’s definition of private equity and hedge funds, and consider whether it is appropriate to narrow the statutory definition by rule in some cases.<sup>46</sup>

We remain hopeful that the regulatory agencies will take up the Council’s recommendation and adopt a workable set of final rules. In the meantime, however, this issue still hangs over the innovation sector. In the almost one year since Dodd-Frank has been enacted, banks have had to adjust their activity in light of the continued uncertainty. And we are still at least several months away from resolving this uncertainty.

Banks are an important source of capital for startups. Banks account for at least 7% of the total capital invested in venture capital funds, and represent the sixth largest investor class in the sector.<sup>47</sup> To extrapolate from the data cited above on the 1:100 relationship between venture

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ensure the Dodd-Frank Wall Street Reform and Consumer Protection Act does not stop venture capital from providing a critical source of capital for startup technology companies. In the event that properly conducted venture capital investment is excessively restricted by the provisions of section 619, I would expect the appropriate Federal regulators to exempt it using their authority under section 619(d)(1)(J).

*See also* Statement of Senator Brown, 156 Cong. Rec. S6242 (July 26, 2010) (One other area of remaining uncertainty that has been left to the regulators is the treatment of bank investments in venture capital funds. Regulators should carefully consider whether banks that focus overwhelmingly on lending to and investing in startup technology companies should be captured by one-size-fits-all restrictions under the Volcker rule. I believe they should not be. Venture capital investments help entrepreneurs get the financing they need to create new jobs. Unfairly restricting this type of capital formation is the last thing we should be doing in this economy).

<sup>46</sup> *Study and Recommendations on Prohibitions on Proprietary Trading and Certain Relationships with Hedge Funds and Private Equity Funds*, Financial Stability Oversight Council, January 2011 at page 63.

<sup>47</sup> Preqin Ltd., *The Venture Capital Industry: A Preqin Special Report* (Oct. 2010) [*hereinafter* *Venture Capital Industry*] at 9. We note that these figures almost surely underestimate the impact of banking entities (as defined in the Volcker Rule) exiting this industry, since these figures are taken from a study that distinguishes banks from other investors, such as insurers and asset managers, that also may be subject to the Volcker Rule. In fact,

investing and U.S. GDP from venture-backed companies, assuming banks account for approximately \$2 billion in annual venture investing (7% of roughly \$30 billion), removing bank capital from the investment cycle could have a long-term negative effect on U.S. GDP of roughly \$200 billion annually.

Removing bank capital from the venture sector would exacerbate other trends in the venture sector and amplify existing challenges in ensuring adequate capital flows to start-ups. As discussed above, over the last several years, the total amount raised by venture capital funds has declined significantly.

And the Volcker Rule's overhang comes at a time that start-ups are moving into capital intensive sectors, particularly clean energy and other clean technologies. Energy innovation takes enormous amounts of capital—to develop entirely new ways of creating energy, in the case of bio-fuels; to build new manufacturing facilities, in the case of solar energy and electric vehicles; to build new infrastructure, in the case of smart grid and electric transportation systems; or to deploy alternative energy systems, in the case of wind, solar and storage—to name just a few examples. For the United States, it is critical entrepreneurs get the capital they need—whether one looks at national security, global competitiveness, economic growth or addressing climate change, alternative energy development and deployment is a national priority. By temporarily (or, potentially, permanently) eliminating or restricting the source of nearly one-tenth of the capital needed to sustain and nurture these companies flies in the face of sound innovation policy.

## ii. Corporate Governance “Reform”

Dodd-Frank's second most notable impact on high growth startups is in the area of corporate governance. In the name of reform, Dodd-Frank adopted a host of provisions that will make it more complex to *be* a public company, and that will make it more difficult to *become* a public company. As a result, it likely will exacerbate the trends I discussed above – making it harder for companies to access public markets to obtain growth capital, increasing the probability that startups will “exit” through an M&A transaction rather than through an IPO, and increasing the size companies need to reach to go public. In addition, some of its provisions may actually increase risk to newly-public companies and their shareholders, as discussed below.<sup>48</sup>

Without going into details, Dodd Frank changed existing requirements for public companies of all sizes in at least nine different areas:

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many insurers and asset managers are likely to be treated as banking entities for purposes of the Volcker Rule, since they are often affiliated with insured depository institutions.

<sup>48</sup> In some cases Dodd-Frank left open the possibility for somewhat different rules for smaller issuers. If the SEC and other regulators act on this authority, they may mitigate the negative effects of the new law.

- **Proxy access** – Dodd-Frank gave the SEC authority to prescribe regulations that will require public companies to include shareholder director nominees in their proxy statements. (The Act allows the SEC to exempt small issuers from the proxy access rules.)
- **Independent Chairman** – Dodd-Frank required the SEC to adopt rules requiring public issuers to explain in their proxy statements why they have (or have not) separated the roles of chairman and chief executive officer.
- **Say on Pay** – Dodd-Frank required that, at least once every three years, shareholders must have the opportunity to vote on a non-binding basis to approve the compensation provided to the top executive officers. In addition, shareholders must have the chance to vote at least once every six years on how often the company must hold the “say on pay” vote.
- **Golden Parachutes** – Dodd-Frank required companies seeking shareholder approval for an acquisition, merger, or certain other similar transactions to disclose so-called “golden parachute” payments and give shareholders the right to vote (on a non-binding basis) on payments to be made to top executive officers. Companies must also disclose other agreements and understandings with top executive officers for transaction-related compensation. (The Act lets the SEC exempt smaller issuers from the voting and disclosure rules.)
- **Compensation Committee Independence** – Dodd-Frank required the SEC to issue rules that will require listed companies to have only independent directors serve on their compensation committees. In addition, Dodd-Frank added a number of independence-related factors compensation committees will have to consider before they select any consultant, legal counsel, or other advisor, and required companies to include disclosures in their proxies about consultants and their independence.
- **New Executive Compensation Disclosures** – Dodd-Frank adopted several new executive compensation disclosure requirements. Companies will now need to disclose in their proxies the relationship between the executive compensation actually paid and the company's financial performance, as well as the ratio of the annual total compensation paid to the chief executive officer and the median of the annual total compensation paid to all other employees. Unless Congress or the SEC adjusts the requirements, in order to calculate the second disclosure companies will have to do a full SEC compensation calculation, for all forms of compensation, for all employees.
- **Clawbacks** – Dodd-Frank required the SEC to issue rules that will require listed companies to adopt and disclose so-called “clawback” policies. Companies will have to disclose their policy on incentive-based compensation and on how/when, in the event of an accounting restatement, they will recover from current and former executives incentive-based compensation (including stock options) awarded during the prior three-year period. (Dodd-Frank broadened the earlier Sarbanes-Oxley clawback rules, which only applied to the CEO and CFO and only required recovery if the restatement was the result of misconduct.)
- **Hedging Disclosures** – Dodd-Frank directed the SEC to require companies to disclose in their proxies whether any employee or any Board member may purchase financial

instruments to hedge against or offset the risk of a decline in the value of company stock owned by the individual.

- **Broker Discretionary Voting** – Dodd-Frank banned broker discretionary voting on director elections, executive compensation proposals, and other significant matters (as determined by the SEC).

How will these changes affect smaller, newly public companies, and companies looking to go public?

First, these new requirements will increase (yet again) the cost and complexity of being a public company. Companies with a larger employee base, who rely more heavily on part time, seasonal or temporary workers, or who have more complicated pay vehicles, for example, may have to spend a not inconsequential amount of time and energy calculating the ratio of CEO pay to the pay of all other employees. Companies will have to spend more on legal fees, more internal management time, and more Board time, to draft and review the many new disclosures and to develop clawback, hedging, and other policies. Individually, these requirements (and existing requirements) may have a certain logic. But the cumulative effect of these regulations is affecting when and whether companies can turn to public markets to access growth capital. As one commentator said in a somewhat different context, we face a “crisis of creeping complexity,” as regulatory requirements steadily accumulate over the years, eventually adding up until they break the proverbial camel’s back.<sup>49</sup>

Perhaps more importantly, these requirements will require time and focus from management and boards, at a time in their evolution when execution is vitally important to both the company and its new shareholders. Companies will need to devote time and energy to staying abreast of the many rulemakings that the SEC and other agencies are conducting, educating their boards on the new requirements and disclosures, and understanding the role of proxy advisory firms and their fairly complicated methods for assessing corporate governance and recommending how shareholders should vote on compensation and other matters.

Finally, and most importantly, the independence provisions could force smaller, newly public companies to move more quickly than they otherwise would – and should – to add new board members. This could slow down the company’s ability to navigate and respond to its environment, interfere with internal Board dynamics, and deflect management and the company from the core business of running a company at a critical point in its evolution. In addition, it will dictate the roles that pre-public Board members who are not independent (including, for example, Board members affiliated with venture investors) can play in the company’s governance.

### **iii. Foreign Exchange Swaps and Forwards**

Dodd-Frank adopted new restrictions governing derivatives, including a requirement that most derivatives be traded on exchanges subject to regulation by the Commodities Futures

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<sup>49</sup> See Testimony of O. William Cheney, President and CEO, Credit Union National Association, Before the Subcommittee on Financial Institutions and Consumer Credit, Committee on Financial Services, United States House of Representatives, March 2, 2011 at page 3.

Trading Commission (“CFTC”). These new requirements reflected Congress’ belief that derivatives trading had increased systemic risk and contributed to the financial crisis.

But some types of derivatives – including, notably, foreign exchange swaps and forwards – are important tools for growing technology companies. Technology companies tend to expand overseas relatively early in their growth, and international activities are often an important part of their business. These companies earn revenues, incur costs, and make and receive investments in a variety of currencies, against contracts of varying durations. As a result, foreign exchange swaps and forwards are an important tool for them to manage these exposures and their overall risk profile.

It remains to be seen whether Dodd-Frank will interfere with technology companies’ ability to use foreign exchange swaps and forwards to manage their businesses and mitigate their risks. The Secretary of the Treasury has discretion to exempt foreign exchange swaps and forwards from the definition of “swaps” under the Commodity Exchange Act, but has not yet issued a decision on this matter. If foreign exchange swaps and forwards are not exempted, companies will no longer be able to customize the terms of the instruments effectively, to match hedged payments or expected future receipts. Instead, they will have to turn to centralized exchanges that, we believe, will force participants to use standardized instruments and contracts. For some companies, this may leave them imperfectly hedged risks; others may elect to “go bare.” In both cases, companies will face a higher risk profile and may experience greater volatility in net income. Moreover, those who do trade will face higher costs, both in terms of transaction costs and posted collateral.

#### **iv. The Durbin Amendment**

One of Dodd-Frank’s most contentious provisions was the so-called “Durbin Amendment,” which requires the Federal Reserve to begin regulating the rates for debit cards. [Summarize]

If this provision goes forward without modification and is applied to both consumer and business debit card programs,<sup>50</sup> it may dramatically change the payments system in the United States in a way that is not helpful to startups.

Debit cards provide users with a more efficient and convenient way to make payments. Among many benefits, debit card transactions are fast, paperless, do not require a cumbersome back-end clearing process, and generally guarantee payment upon authorization. As a result, they are very attractive to businesses, especially smaller businesses that lack sophisticated payments departments.

Yet the Durbin amendment throws into question the future of debit cards. At a minimum, most predict that (absent a regulatory or statutory change), banks will increase fees and/or

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<sup>50</sup> The Durbin Amendment amended the Electronic Fund Transfer Act (“EFTA”). Because EFTA is a consumer protection law, and because the Durbin Amendment was in the consumer title of Dodd-Frank, it appears that it should apply solely to consumer debit transactions.

eliminate rewards programs for debit card customers. Some predict that it could have broader effects, causing banks to reduce the scale, flexibility, or availability of their debit card offerings. And most believe that the Durbin amendment will stifle product innovation in the banking sector by introducing a significant, new regulatory risk on bank products.

More broadly, rate regulation for debit cards could shift the competitive landscape across banks, giving larger banks (with larger programs across which to spread fixed costs) a competitive advantage against smaller banks (for whom fixed costs constitute a larger share of per-transaction costs, given their smaller scale).

#### **v. The Consumer Bureau**

If the Durbin amendment is Dodd-Frank's most contentious provision, the Consumer Bureau is its most significant and uncertain long term change to the U.S. regulatory landscape.

One can make a very strong case that inadequate regulation – in particular, conduct that occurred within the essentially unregulated mortgage origination industry – was one of the primary causes of the financial downturn. In that sense, some types of increased regulation and increased consumer protections are sound policy developments.

But it is very difficult to tell whether the Consumer Bureau will be an effective vehicle for making those changes. It has a broad mandate, and an organizational and funding structure that will make it highly independent from Congressional oversight.<sup>51</sup> If in the name of protecting consumers it migrates into commercial banking issues affecting small businesses; if it adopts duplicative or contradictory regulatory requirements; or if it employs rigid requirements, it could have a counter-productive effect on the cost and availability of financial services for high growth businesses.

#### **vi. Broader Financial Services Reform**

While we are still in the relatively early days of Dodd-Frank's implementation, it is virtually certain that the legislation (and other regulatory trends) will increase banks' regulatory and compliance costs, decrease their revenues, increase the amount of regulatory capital they must hold, and at least for the foreseeable future significantly increase regulatory risk and uncertainty. In all four ways, it will tend to reduce the sector's profitability and attractiveness to investors.

In addition, it is unclear what effect the repeal of Regulation Q will have on bank deposit gathering, their cost of funds, and the resulting availability and cost of credit.

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<sup>51</sup> Under Dodd-Frank, the Consumer Bureau has broad authority to regulate consumer financial products provided by banks and nonbank financial institutions, including credit cards, mortgages, student loans, and payday loans, as well as a number of activities beyond pure financial services (such as over the counter financing of goods). In addition, it has the authority to prevent "unfair, deceptive or abusive acts or practices in the consumer financial products market. [Summarize Consumer Bureau's funding structure and institutional structure and how these will limit Congress' ability to affect its behavior through oversight and the appropriations process.]

These factors will play out only over time, but could have the long term effect of reducing the amount of credit available to startups, increasing the cost of credit, or reducing the number of institutions willing and able to lend to this sector. As the Chairman and CEO of SpiritBank said in recent testimony before the House Subcommittee on Financial Institutions and Consumer Credit, “regulatory costs and second-guessing by bank examiners ... [c]ombined with hundreds of new regulations expected from the Dodd-Frank Act ... are slowly but surely strangling traditional banks, handicapping their ability to meet the credit needs of their communities.”<sup>52</sup>

#### **vii. Dodd Frank: The Destructive Power of a Risk Averse Policy Agenda**

*[This section will discuss the ways in which Dodd-Frank exemplified a broader anti-risk undercurrent in our society and our political mindset, and the risks of that mindset.]*

#### **viii. Broader Policy Trends Affecting Startup Capital Formation**

*[This section will place Dodd-Frank in its broader context, looking briefly at other legal and regulatory developments over the past decade that have impeded the flow of capital to startup companies and affected the robustness of the U.S. innovation sector. Its objective will be to illustrate the danger of letting innovation policy be created through a series of unconnected individual actions – with a negative overall effect – and the importance of developing and acting upon a comprehensive, thoughtful innovation agenda.]*

### **V. THE OPPORTUNITY**

*[This section will describe three concrete recommendations for aligning our vision of a sound, comprehensive and effective national innovation policy with our decision-making structures. These recommendations address the changes that need to occur in order to have a framework within which we can define and implement a comprehensive, thoughtful innovation agenda rather than the specific contents of that agenda.]*

#### **A. Making the Case for Entrepreneurship and Innovation**

*[This section will discuss the importance of helping policymakers understand why the innovation sector is important to all Americans, in order to strengthen the foundation needed to address innovation policies with the necessary focus and sense of urgency. It will also discuss the importance of ensuring that a pro-innovation agenda will, in fact, benefit the country as a whole in order to maintain that foundation for the long term.]*

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<sup>52</sup> Testimony of Albert C. Kelly, Jr., on behalf of the American Bankers Association, before the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services, United States House of Representatives, March 2, 2011 at page 3.

## **B. Embracing Risk**

*[This section will discuss the importance of moving beyond a risk averse culture and differentiating, within the policy process, acceptable and unacceptable risks. It will draw upon the key findings of SVB's soon-to-be-released 2011 Startup Outlook Survey – specifically, that while technology companies are leading the way out of the current recession and are optimistic about their future growth, their executives believe that regulatory/political challenges and the negative impact of regulations on risk-taking are among the most significant challenges they face. This finding and its implications are critical, in that these same executives believe the primary appeal of doing business in the United States is its focus on innovation, while the primary draw for moving overseas is the lower cost of doing business outside the United States]*

## **C. Overcoming Structural Challenges to Innovation Policy**

*[This section will address the importance of finding ways for Congress and the Administration to break through traditional bureaucratic structures of Committees, agencies, and turf in order to consider innovation policy in a holistic way, and with a sense of urgency].*