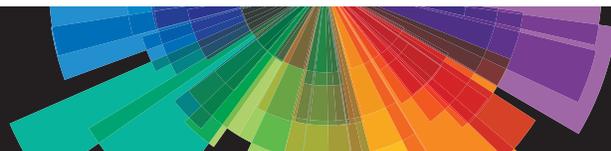


FINANCING INNOVATION: WHY EMERGING SECONDARY MARKETS ARE GOOD FOR THE VENTURE CAPITAL ECONOMY

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Silicon Valley is admired around the world as an engine of economic value creation. Many aspire to emulate it. Exemplified by product, service and business model innovation, and driven by a superb pool of entrepreneurial talent, it is the world's greatest concentration of venture capital. But for close observers, there is trouble in River City. Venture capital [VC] returns for the past decade are uneven at best and insufficient for the risk involved.

Startups find ample seed capital but severe shortages of funds to complete their market entry cycles. Masking these core problems are the outsized returns earned by a few entrepreneurs and venture capitalists that receive extraordinary publicity highlighted by record-breaking Initial Public Offerings [IPOs].

Access to the public markets has always fueled the venture economy, and this access is broken. Many factors are at play: regulation, market structure, and even globalization. A gap has arisen between the VC funding process and the public markets. Bridging this gap, a new set of innovative firms, offering new vehicles for investing in private company shares, has emerged. Recent regulation is allowing and even encouraging this process. This is an important development and one that will add value and help sustain our productive venture capital economy.

The VC marketplace has always been "inefficient". Indeed, it has been the ability to navigate its opaqueness and technical inefficiency that is the stock and trade of its leading practitioners. But the last decade has seen a disruption of its fundamental structure, giving voice to the question, "Is the VC model broken?" In this paper I suggest not broken, but impaired. I reflect on the history and significance of its market-making institutions and their value-added interdependencies, the recent events that have disrupted their functioning, and identify some emerging, market-driven responses such as secondary investment exchanges, that, if allowed to flourish, will help sustain the world's leading innovation economy.

THE CURRENT SITUATION: THE BARBELL

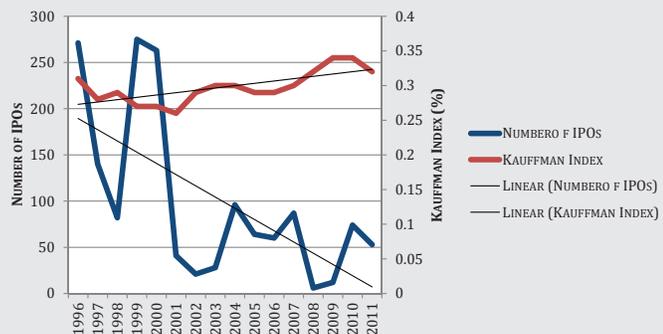
The VC marketplace can be characterized as a barbell. On one end of the barbell are ample startup funds, both from institutional and angel investors, to support the creation of new ventures. On the other end of the barbell are liquidity events and growth financings driven by a volatile IPO market where relatively vast sums of capital are being raised by a very few relatively young companies at extraordinarily high valuations. In the narrow middle of the barbell, expansion stage capital is constrained, valuations suffer and the VC innovation engine is stalled.

Startup Funding

VC-backed seed investment has increased each year from roughly \$300 million in 2002 – a particularly bad year for startup funding due to the fallout from the Internet bubble – to more than \$1.7 billion in 2010, falling slightly in 2011.¹ Startup funds for new ventures have been invigorated by a number of factors. A fundamental phenomenon is the proliferation of innovative, relatively low-cost business models made possible by Web 2.0 and mobile ‘apps’. The ability of entrepreneurs to test new business models for relatively small amounts of capital and explore new Internet and mobile-based service applications has led to the emergence of a new class of investors – the Super Angels – who specialize in making numerous small, high-risk investments with potentially astronomical returns. Facebook’s recent \$1 billion acquisition of Instagram less than two years after the photo-sharing company was founded is one striking example, but others abound. This entrepreneurial fever, fueled by the possibility of these highly capital-efficient start-ups, is far-reaching – stretching well beyond the traditional confines of Silicon Valley. New York’s ‘Silicon Alley’ is reinvigorated. More broadly, startup activity is up across the country. As a testament to this broad-based heightened activity, the Kauffman Index of Entrepreneurial Activity, which measures the percent of the total adult US population that is entrepreneurially active, increased by nearly 10% between 2005 and 2011, from 0.29 to 0.32.² IPO financings have done little to directly stimulate this important entrepreneurial activity.

The intensification of early stage investment we have observed was bolstered when President Obama signed the Jumpstart Our Business Startups (JOBS) Act, which overturned SEC regulations restricting individuals from investing in private companies over the Internet.³ Tanya Prive, founder of Rock the Post, a social networking firm for entrepreneurs, told Forbes the Act will “make funding more accessible for startups by allowing non-accredited investors to participate in the funding rounds.”⁴ The Act opens the door for online funding sites that first developed the crowdsourcing model, such as the already popular Kickstarter.com and Indiegogo.com, to rapidly expand into full-fledged start-up investment marketplaces. Doubtless we will see new, well-capitalized entrants accelerate this trend. So traditional institutional venture capital, individual angel investors, Super Angel funds and now crowdsourcing are all combining to fuel the creation of new ventures.

FIGURE 1: NUMBER OF IPOs PER YEAR VS. KAUFFMANN INDEX OF ENTREPRENEURIAL ACTIVITY, 1996-2011



Source: Thompson Reuters Financial; Kauffman Index of Entrepreneurial Activity, 1996-2011

¹ Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data provided by Thomson Reuters

² Kauffman Index of Entrepreneurial Activity, 1996-2011

³ Full text of H.R. 3606: Jumpstart Our Business Startups Act, as of March 28, 2012

⁴ Huhman, “JOBS Act to Jumpstart the Job Market,” *Forbes*, April 5, 2012

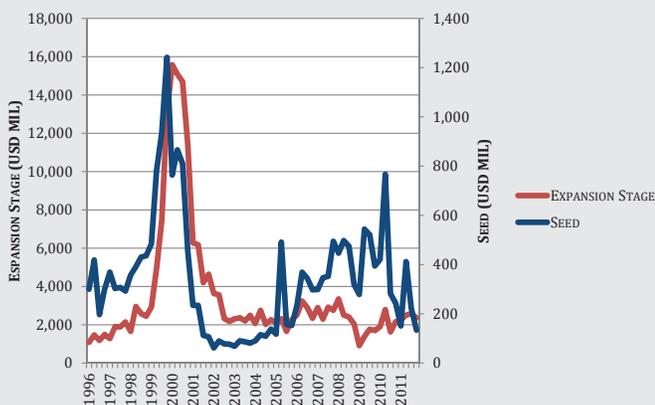
Expansion Stage

In the barbell's narrow center, expansion stage or "Series B" funding has dried up, as Figure 2 demonstrates. In contrast to the growth seen in seed investments, expansion stage VC-backed investments fell from a total of \$11.7 billion in 2002 to less than \$10 billion in 2011.⁵ The result is that companies that have enjoyed relatively easy access to seed funding have found financing their expansion stage to be very difficult. Valuations are often relatively modest, and the relative scarcity of this mid-tier financing has made it difficult for many to survive.

Exacerbating this drought in expansion stage funding was the disappearance of the IPO market for much of the past decade. In 2009, Weild and Kim estimated that the IPO window was closed to as many as 80% of the companies that needed it, creating a backlog to the public markets that persists today.⁶ Figure 1 supports their claim, showing a marked negative trend in the number of IPOs filed between 1996 and 2011, bottoming out in 2009.

This absence of an IPO alternative caused the time-to-liquidity for many VC portfolio companies to stretch, impairing VC returns, disrupting the effectiveness of employee stock option compensation plans, demotivating founders and employees, and encouraging many to merge their firms, perhaps prematurely.

FIGURE 2: SEED VS. EXPANSION STAGE INVESTMENT (USD MIL), 1996-2011



Source: PricewaterhouseCoopers/NVCA MoneyTree Report

IPO, Liquidity Events and M&A

As Figure 1 shows, the IPO market has opened up since 2009, but it has been dominated by a small number of very large deals; for most companies looking to raise funds through public markets, the window is still closed. So at the far end of the barbell, a few deals are able to attract large investments at record-breaking valuations, while most starve. Since this concentration of later stage investment has coincided with fewer companies surviving their growth stage, however, the bulge at the barbell's far end is not readily apparent from aggregate later stage investment data.⁷

⁵ The PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report defines four stages of company development: seed, early stage, expansion stage, and later stage, and aggregates investment data for each. The seed stage is defined as the initial, startup phase of the company, with a product under development but not fully operational. In the early stage, the company should have a product in testing or a pilot project. During the expansion stage, the company should have a product that is in production or commercially available, but will probably not be yielding profit. Most companies in the expansion stage have been in business for at least three years. Finally, in the later stage, the company is generating on-going revenue and may be generating a profit.

⁶ Weild and Kim, "Market Structure is Causing the IPO Crisis," Grant Thornton, September 2009

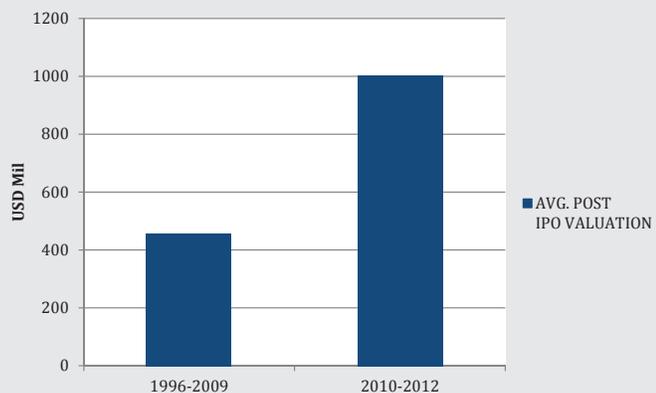
⁷ Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data provided by Thomson Reuters

Facebook’s colossal IPO is a reflection of this new environment, but is not the only case. In fact, as Figure 3 shows, the average post-IPO valuation for companies that went public from 2010-2012 was almost twice as large as the average post-IPO valuation from 1996-2009. Also exacerbating the trend is the increasing average age of companies at the time they go public. The takeaway is clear: the IPO market, as it has emerged from the doldrums of the decade, is proving dysfunctional for many. Increasingly, it functions well only for a very few companies that can attract extraordinary interest, and at transaction sizes large enough to insure the support of the major investment banks.

There are several causes for this, but two are critical. First, institutional investors have shown a tendency to “pile on,” seeking to invest in a few name-brand companies with promises of high returns. This kind of herd behavior is common to all investment markets, but its effect is amplified by the lack of transparency in the VC marketplace. The brand-based investing that has characterized recent behavior in Silicon Valley has diverted resources from smaller emerging companies to large-scale, name-brand deals. A second, related cause is the globalization of the venture marketplace. The quintessential example is Digital Sky Technologies, the Russian firm that co-invested, with Goldman Sachs, \$500 million in Facebook.⁸ These foreign investors and sovereign funds specialize in big, bold investments, often in name-brand companies, that further concentrate the availability of growth financing. Lastly, these anticipated or real IPO valuations realized by the few are directly impacting valuation expectations for other liquidity alternatives such as mergers and acquisitions. Clearly demonstrated in the Instagram pre-IPO acquisition by Facebook; IPO valuation signals have impacts all the way down the value chain. This is as it should be, but the reality that very few firms have access to the IPO market makes these expectations a distortion and in fact uninformative.

The disappearance, and partial re-appearance, of the IPO market has been very unsettling for the VC marketplace. For entrepreneurs, the focus on high-priced IPOs has created unwieldy expectations of explosive growth. In order to attract top talent and capital, managers are sometimes required to prematurely commit to high-growth business plans that limit flexibility and adaptability. For the venture capitalist, the present is a moment of great diversity: there has never been a period with more varied opportunities, risks, rewards, and new markets to test and reshape established models. For the limited partner investors in VC funds, the challenge is to find VCs with the skills to help build and manage their portfolio companies over a potentially extended period and then achieve liquidity in a choppy and uneven marketplace. But for all, the all-important path to liquidity is an increasingly unmanageable “winner take all” risk.

**FIGURE 3: AVERAGE POST-IPO VALUATION (USD MIL)
1996-2009 VS. 2010-2012**

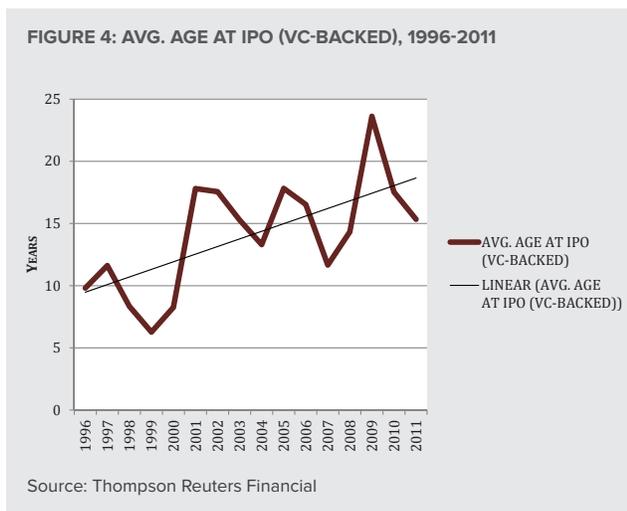


Source: Thompson Reuters Financial

⁸ Frommer, “Goldman Sachs Invests \$450 Million in Facebook at \$50 Billion Valuation,” *Business Insider*, January 2, 2011

HOW WE GOT HERE

The venture economy has long been a process of staged development, leading from seed funding, expansion and growth financing to liquidity through an IPO, merger, or acquisition. Though mergers and acquisitions have historically been the most common liquidity vehicles, the IPO market plays the keystone role in providing growth financing, liquidity paths for founders and venture investors, and importantly in benchmarking valuations for merger and acquisition deals. In this way, a healthy IPO market both directly and indirectly drives liquidity in the venture economy – and is essential for financing innovation.



There are several intermingled explanations for how we got to the current troubled situation, the union of which suggests a problem of market structure. The interaction of unintended consequences of regulatory changes, the inevitable advancement of technology, and the disappearance of key market players served to replace the vibrant IPO market of the 1990s with its severely flawed cousin.⁹

The Vanishing of the Four Horsemen

Bridging the gap between public and private markets has always required navigating an opaque and complex information maze. In the 1980s and 1990s, the gap was closed by a group of specialist firms known as “the Four Horsemen” – Alex. Brown, Hambrecht & Quist, Montgomery Securities, and Robertson Stephens, as well as others – that played a major role in the majority of venture-backed technology IPOs in 1980s and 1990s. According to Michael Moe, founder and CEO of ThinkEquity, the Four Horsemen “were involved in 36% of all IPOs in the US in the 1990s,” but they acted as much more than underwriters.¹⁰ They provided venture capital, bridge financing, and wide-ranging research services and after-market support. It was a competitive but tight knit financing community that critics asserted sometimes resembled a form of “insiderism”.¹¹

By the dawn of the new millennium, the Four Horsemen, and anything closely resembling them, had vanished. Hambrecht & Quist, the last holdout of the Four Horsemen, was acquired by Chase Manhattan Bank in late 1999. The others had been acquired in 1997.

The quick disappearance of these relatively small investment banks after being acquired exposes the cultural differences between the big commercial banks on Wall Street and niche technology investment bankers such as the Four Horsemen. An example: Chase initially bought out Hambrecht & Quist for \$1.35 billion, but by the time of Chase’s merger with J.P. Morgan in late 2000, little of the H & Q infrastructure remained as the Wall Street bank’s interests moved upmarket.¹² As H & Q founder

⁹ Weild and Kim, “Market Structure is Causing the IPO Crisis,” Grant Thornton, September 2009

¹⁰ Currie, “San Francisco Retells the Growth Story,” *Euromoney*, April 2005

¹¹ Gupta, “An IPO Reincarnation?,” *Institutional Investor*, July 2010

William R. Hambrecht notes: “Incumbents, when threatened, move upmarket...they never move down... they aren’t interested in \$50 million and \$100 million deals anymore. They want to keep the half-a-billion dollar deals and billion-dollar deals that make them money.”¹³ The story is general: when the bulge bracket banks encountered the market turbulence of the early 2000s, they quickly abandoned their boutique branches and only reentered the VC market for the largest deals.

The Four Horsemen were the backbone of the IPO process during the 1980s and 1990s, but their influence touched the whole venture marketplace. Not only did the vibrant IPO market, bolstered by the Four Horsemen, provide growth financing for ventures, it energized the core mechanism for incentivizing employees: the incentive stock option, which has suffered from the shrinking IPO window.

Perhaps most importantly, the Four Horsemen understood the importance of staged investment for the stability of venture financing. Staged investment minimizes risk for investors and limits dilution by keeping entrepreneurs focused on immediate benchmarks, and securing higher valuations for incremental financing rounds. The Four Horsemen, by maintaining close relationships with entrepreneurs and investors and signaling access to eventual liquidity, were able to help encourage the availability of sufficient funds at each investment stage. They did this through a full range of activities, including facilitating visibility of emerging young companies by educating potential investors through early research coverage and investment conferences, providing investment banking services for private transactions, and even making direct investments themselves or through venture funds they managed on behalf of others. The retreat of these specialized firms has coincided with the hollowing-out of expansion stage funding characterized by the barbell.

Unintended Consequences of Changes in Regulation

Several other recent institutional and regulatory changes, coincident with the departure of the Four Horsemen, have had the unintended consequence of stifling access to and reshaping the IPO marketplace. While detailed discussion is beyond the scope of this article, the more notable include:¹⁴

The Manning Rule (1996): The order precedence rule implemented by the Financial Industry Regulatory Authority [FINRA] prohibited broker-dealers from trading before their customers at the same price, narrowing stock spreads and hurting broker-dealers’ economics

Regulation Fair Disclosure (2000): The regulation led many high-quality sell-side analysts to leave Wall Street, “dumbing down” and devaluing stock research. Stricter enforcement of the segregation of the research and investment banking functions provided less incentive for researchers to follow emerging pre-public companies as closely, thereby removing part of the information pipeline from the marketplace.

Decimalization (2001): The change from fractional to decimal increments eliminated 96% percent of the economics from trading in small-cap stocks, leading to automation and the retreat of skilled traders.

Sarbanes Oxley (2002): Though well-intended, it vastly increased the cost and time required to go public, thereby essentially disqualifying many firms from consideration.

¹² Cox, “A History Lesson with Merrill Deal,” *The New York Times*, January 23, 2009

¹³ Preston, “A model of ‘disruptive’ investment banking,” *International Herald Tribune*, May 30, 2009

¹⁴ Weild and Kim, “Market Structure is Causing the IPO Crisis,” *Grant Thornton*, September 2009

SECONDARY MARKETS CAN HELP: FROM BARBELL TO PIPELINE

From the disappearance of the Four Horsemen to the detrimental effects of well-intended regulations, the pathway from private to public markets is broken and needs rebuilding. While a healthy IPO market is critical for the long-term vibrancy of the venture economy, the backlog of trapped value in liquidity seeking investments created by the shrinking IPO window is a problem of immediate concern. Some recent regulatory relief will likely help, most notably the JOBS Act, but more immediate entrepreneurial action is already taking place with the recent emergence of a new secondary market in private company securities. Once a backwater, shunned by many, it has recently come to be understood that secondary markets can play a big role in releasing this value back into the economy by providing a pipeline to earlier liquidity, in smaller bite sizes, and laying the groundwork for a more natural turnover of a company's stockholder base.

The recent evolution of the secondary market in private securities can be traced to the disruptions that arose out of the collapse of the tech stocks in 2000 and 2001. For compound reasons, many top-tier limited partner (LP) investors found themselves unable or unwilling to meet their venture fund commitments. Venture funds were triaging their portfolios, making sharp reductions in preparation for a long nuclear winter. It was in everyone's interests to move these troubled LP commitments into the hands of new investors who were willing to step up to the unfunded future commitments. From this opportunity arose a new class of fund-of-funds investor that specialized in acquiring LP positions, which rapidly evolved into an appetite to expand their investments in specific portfolio companies that were perceived as winners. Direct acquisitions of shares from founders and departing employees followed.

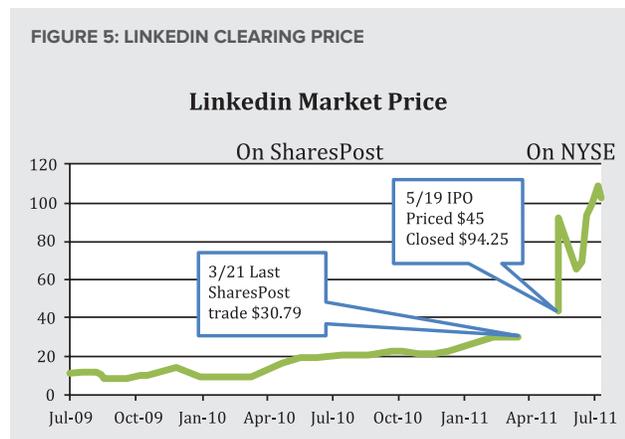
Most well known among these secondary funds are new specialists such as Industry Ventures and Saints Capital, but there are others, including W Capital and Millennium, as well as funds with a private-equity focus such as Paul Capital, Lexington Partners, and Collier Capital.

A recent and important addition to the market has been the creation of true exchanges in private securities, the most well-known being SharesPost and SecondMarket. Through such exchanges direct purchases of private company secondary shares could now be executed in a more visible and efficient market, while still offering the investor protections intended by regulation. The benefits of an 'efficient market' (in an economic sense) go beyond simply providing better market clearing and transaction pricing. By scaling their institutional robustness and capability they become important tools for companies to help manage their shareholder liquidity needs. This includes the needs of vested employee stock option positions, which can enhance employee retention and help manage liquidity needs driven by ill designed tax laws. These exchanges also facilitate successful transitions of a company's investor base from private to public. For example, SharesPost's involvement in LinkedIn is informative. In late January 2011, SharesPost announced an auction of 100,000 LinkedIn shares through its online trading platform.¹⁵ LinkedIn CEO Jeff Weiner saw the auction as a way to generate liquidity: "Historically when companies had established a certain level of performance and maturity, the IPO was a natural next step. The reason for that was to generate liquidity...to get access to currency...capital...and for credibility. The secondary market can help check the box for a few of those objectives."¹⁶ The clearing prices in the SharesPost auction mapped remarkably well to LinkedIn's

¹⁵ Johansmeyer, "SharesPost LinkedIn Results: \$30.79 Clearing Price," *Social Times*, January 31, 2011

eventual IPO price: SharesPost completed the auction on March 21, 2011 at a clearing price of \$30.79 per share. Two months later, on May 19, LinkedIn completed its Initial Public Offering at \$45 a share, which quickly ballooned to nearly \$94 per share in its first day of trading. By May 20, LinkedIn was valued at roughly \$9 billion.

By providing opportunities for VC and Angel investors, as well as long-term employees, accelerated and orderly access to liquidity allows those important stakeholders to manage their risks and needs for liquidity, and helps the company transition its ownership, in smaller increments, to investors with a fresher or longer term time horizon. This secondary market is an optional stair-step that helps to overcome the divide between private and public markets. Historically, venture-backed companies as they approached IPO had an entirely private equity stockholder base, whose immediate goal was to exit soon after the IPO. At the other end of the IPO divide, public market investors have been reluctant to get involved in private equity markets. Historically this gap was bridged through the focused market-making activities of specialists like the Four Horsemen. The emerging secondary markets are now poised to facilitate this transition.



Effectively bridging this divide will help emerging high potential companies develop a healthy evolving shareholder bases with investment profiles that match the opportunities provided.

To bridge this gap, a constellation of institutions must work together to connect companies with secondary investors. Private and public investors tend to operate in different networks and rarely interact. An important development in connecting these networks was the passage of the JOBS Act in April, 2012. Prior to the Act, SEC regulations prohibited companies from raising capital through “crowdfunding”. The Act overturned this prohibition, though only in a limited way – offerings must now be conducted through a broker or funding portal, and investments are capped at \$1 million.¹⁷ These restrictions make the existence of online platforms such as SharesPost and SecondMarket crucial to the success of this secondary marketplace.

A smooth transition of a company’s stockholder base facilitated by secondary markets not only opens up investment opportunities in companies yet to go public but also helps restore a damaged incentive structure that sometimes encourages founders and some venture investors to prioritize liquidity over long-term shareholder value. The compounding effects of the backlog of value and the increasing average age of companies that successfully go public, not only affects entrepreneurs and investors – it also impedes hiring and retaining great talent, who are also frustrated by the inability to realize value from their incentive stock options, even though a company may be succeeding in the marketplace. The absence of a market for their stock under option can lead employees to look elsewhere if the promise

¹⁶ Kapsch, “Investing in Secondary Markets,” *Investment U*, February 2, 2012

¹⁷ Kardis, et. al, “Capital Markets Relief: JOBS Act Eases Regulatory Barriers to IPOs and Other Capital Raising Alternatives,” *K and L Gates White Paper*, April 5, 2012

of “cashing in” is too-long deferred. With effective secondary markets, venture-backed companies can now weave partial liquidity incentive programs into their corporate culture to attract and retain high-quality employees. Such a program signals to prospective employees and investors that the company is built for the long-term and not just as a liquidity vehicle.

Some private companies have already engaged secondary marketplaces in this way. TrueCar, a web-based car seller founded in 2008, raised \$200 million in September 2011, of which \$52 million was equity facilitated through the SharesPost platform. TrueCar’s goal was not only to raise fresh capital, but also to subsequently provide \$35 million in liquidity for existing shareholders and employees.¹⁸

There is still a great deal of uncertainty about the current scope and future viability of secondary markets. A review of the transactions of some of the larger secondary marketplaces suggests that most secondary trading has been in the big-name pre-IPO companies such as LinkedIn and Facebook, and that most deals are well under \$500,000. Secondary marketplaces will need to prove themselves as effective markets when the IPO cycle inevitably slows and these big-name opportunities dry up. There are also other challenges that may arise. Perhaps most important is the challenge of convincing Boards of Directors to allow secondary selling of employee owned shares, often acquired through the exercise of stock options. Practice in this area is evolving, with restrictions on employee selling varying widely. The greatest concern is whether allowing employee selling, while the individual is still an employee, incentivizes retention. A secondary matter is the transparency of the transaction pricing. A track record of successful common share sales may create upward pressure on the exercise price startup Boards of Directors set on new stock options granted employees, making it more difficult, or at least more expensive, to attract and retain top talent. The implied value of such options at the date of grant is very subjective and speculative, and has been subject to increasing regulation and disclosure.

CONCLUSION

The new venture financing process is important. It drives the technology economy of the US and significantly impacts financial well-being far beyond the eco-centers of Silicon Valley, New York and Boston. Is it broken? I would rather say it is in a process of continual evolution. In this paper we have described the current situation as a barbell, with startup capital and IPO markets at either end – each demonstrating apparent robustness. We have explained that the IPO market’s current apparent health is a misleading barometer, and that it is a market of excess that benefits few. A major consequence is that expansion capital, the middle bar of the barbell, is constrained. To convert the barbell to a pipeline of value creation what is needed are more efficient markets and information flows that can operate in the private capital marketplace. A recent innovation is the creation of secondary marketplaces for investing in private companies. Secondary markets can help fill the gap created by the peripatetic IPO market. For secondary selling to thrive, however, the market will need informed intermediaries to manage partial liquidity programs and facilitate investor introductions. This evolution may fill a critical void created by the disruptions to the venture-financing marketplace of the past 10 years and deserves our attention and support.¹⁹

¹⁸ Gupta, “SharesPost Helps Raise \$200 Million for TrueCar,” *Institutional Investor*, September 23, 2011

¹⁹ Most notably, Section 409A of the Internal Revenue Code, taken together with actions by the Securities and Exchange Commission, which have reduced the discretion exercised by Boards in setting the deemed fair market value of the underlying securities, to enable the issuance of incentive stock options on a tax advantaged basis.

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