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Interchange: Venture Capital Pro and Con

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Does Venture Capital Kill Innovation?

by Bart Stuck

Venture capital is a class of long-term private equity funding that emerged after World War II and has become a global financial force - to the tune of tens of billions of dollars - for funding the commercialization of a wide variety of innovative products and services that we take for granted today.

Roughly one-third of the total market value of NASDAQ is in computer and communication stocks; many of these companies, such as Google, Intel, Oracle, PeopleSoft, BEA Systems, Symantec, Adobe, eBay, Amazon, and Cisco, were venture capital-funded. Despite this, we claim that the venture capital industry as it exists today does not foster innovation.

This is based on our review of the numbers. For some time, there has been limited VC funding for significant innovation. In April, 2005, Michael Weingarten and I co-authored an article for IEEE Spectrum where we reviewed 1,303 electronic high tech IPOs from 1993 to 2002 and rank-ordered the level of technology innovation on a scale from 1 to 5, with 1 being a significant disruptive technology. Only three percent of all IPOs met this criterion. The great majority of IPOs did not involve profoundly new technologies.

Despite the fact that most startups in that "golden age" of VC funding were not that innovative, the market rewarded VCs willing to fund startups with disproportionately high return, making it at least possible to fund innovation. Over a 10 to 20 year time horizon early/seed stage VC funds outperformed balanced and later-stage funds by up to four times, and public equities by even more. There was a reward for investing in new companies with new ideas.

Despite this, the proportion of VC funding for new startups has been declining steadily since 1995, and now is no greater in absolute terms than the levels seen in 1995. In addition, the most recent one, three, and five-year VC investment returns indicate that early stage funds since 2002 have been lagging balanced and late-stage funds by a substantial margin.

What's going on? For one thing, having experienced lots of good startups dying during the high tech nuclear winter of 2002-2005, the private equity market has become extremely risk-averse. Valuations for Series B/C/D rounds no longer sell at step-ups. They frequently sell at flat levels

or even step-downs. Series A investors who don't invest their pro capita shares in the later rounds typically find that their investments are washed out by converting to common.

As a result, even VCs willing to invest in Series A rounds must reserve most of their capital for later rounds. In other words, in today's environment, one cannot be an early stage fund. To survive, you must be balanced.

Another factor is the sheer size of A-list VC funds and the need to find investment homes for billions of dollars of committed capital; we are told that 50 or so of the 700 odd VC funds return half the the total returns of all VC funds. It's hard to do this investing \$2 to 5 million in Series A rounds, but a lot easier to invest \$20 to \$50 million in later rounds. So the very success of some of the A list VCs in raising capital inexorably pushes them into looking more like LBO funds than true VCs.

Net-net, we're not that sanguine about VCs as a robust source of innovation. Even in the good old days, there was less VC-funded innovation than one might believe, and now the cash engine has moved to late stage funding. What is the lesson for entrepreneurs with good ideas? They will need to figure out alternative ways to make it to the expansion phase, when capital becomes broadly available.

Stuck is co-founder and managing director of Signal Lake, an early-stage private equity venture fund with offices in Westport, CT, and Boston, MA. He worked with Bell Laboratories in Murray Hill from 1972 to 1984, before striking out on his own. From 1984-1998, he was an independent consultant, involved with more than 450 client engagements and \$60 billion in capital placements. He holds bachelor's and doctoral degrees in electrical engineering from MIT.

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VCs Still Reward Good Management

by Fred Beste

Entrepreneurs, not venture capitalists, drive innovation. Scientists and engineers, not venture capitalists, start technology companies, and for the most part venture capitalists go where they take us. In the 1980s it was mostly all manner of health care-related ventures. In the 1990s it was mostly information technology and telecommunications. At the moment it is mostly Web 2.0, clean energy and biotech.

My counterpart laments the hordes of "me-too" companies out there today. For sure there are legions of copycats, as there are always many more followers than leaders. Way back in the 1970s the launch of a high profile, blockbuster Winchester disk drive company spawned 50 more virtually overnight. Today one finds the phenomenon still healthy with respect to solar cell technology and social networking companies. Buyer beware.

My counterpart's April, 2005, IEEE Spectrum article, "How Venture Capital Thwarts Innovation," closed by stating, "Perhaps there's just too much money chasing too little innovation," to which I say, "Bingo!"

Here is an excerpt from a February, 1988 editorial written by then-Venture Capital Journal editor Jane Morris:

"In December, 1972, Business Week published an article, 'More Venture Capital Than Venture Deals?,' and since that time about every five years this question resurfaces. With a record amount of new capital garnered by the industry in 1987, industry participants and observers may once again be wondering if there are too many dollars chasing too few deals. The venture capital

industry has increased its annual rate of investment from \$400 million 10 years ago to over \$3 billion today."

How totally fascinating. Here was Jane writing (in 1988 - 20 years ago) about a then 26-year phenomenon with industry disbursements "blistering" along, concernedly, at a \$3 billion-per-year rate. In 2000, a mere dozen years later, that number was over \$94 billion. Of course that bubble-bloated, record number has been tailing off since, but 2007's investment pace still totaled \$29.9 billion.

Four hundred million to 29.9 billion in 45 years? That is a compound increase of just over 10 percent. What do you think the odds are that the number of quality companies in which to invest has increased more than 10 percent a year for 45 years as well?

I don't think so. Let me now turn to my counterpart's four postulates regarding how venture capital thwarts innovation.

1. A venture fund has a life cycle. True enough, but there are many funds, including ours, that have held onto portfolio positions for more than a decade, and if an entrepreneur is looking for fund managers with patience, the research required to find them is an afternoon's job. Our first fund, a standard 10-year limited partnership, did not fully liquidate until 17 years later - and we returned over seven times our capital base.

2. VCs act like business people, even when they have a technical background. My counterpart states, "Engineers who work with VCs for any length of time are inevitably frustrated by what they see as the VCs limited ability to understand revolutionary technology. It would be difficult to argue that VCs are ignorant of engineering and other technical areas," to which I say, "Guilty as charged, but so what?!"

The very oldest industry bromide is that the three most important elements of any venture capital investment decision are "management, management, management" (not technology). All four of the partners in our firm are liberal arts graduates, yet we have been successfully making seed stage, technology-based investments for over 20 years. When an entrepreneur approached us with an idea for a line of meaningfully-beyond-the-state-of-the-art broadband communications test equipment, we first noted that he had been recognized by his peers as the premier engineer in his field a couple of years earlier.

Then when we talked to some customer prospects and they told us essentially that they would figuratively kill to get their hands on instruments which featured the prospective line's specifications, we cut a check - no rocket science necessary, thank you. Nine years later we jointly delivered the company over to Hewlett-Packard.

3. VCs can't distinguish between smart and lucky. My counterpart states that "no one likes to invest in anything that seems daring." For sure, most investment opportunities do not feature daring technology, as there is a whole lot more in the world that is more evolutionary than revolutionary. I cannot think of a single example, however, of a credentialed team of scientists and engineers with a well-rounded, accomplished management team which failed to secure funding because its planned technology was too daring. Venture capitalists love an "unfair," protectable technological advantage.

4. VCs sync investments to business cycles. Whether one believes that the average investment cycle for a seed fund is five years (as many at least state) or eight years (as we believe), there is simply no way that anyone can prognosticate medium-term business cycles. Will the economy be strong and the IPO market robust in 2013 or 2016? Heck if I know. Last year VCs put \$29 billion

to work, a record amount, post-bubble. While much of it may turn out to have been ill-invested, it will not be because VCs are afraid to take technological risks.

Call me Shorty or call me forty, but don't call me thwarted.

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