

## **New Rules for Software VC**

**A look back at the history of tech investing reveals what's driving VC strategy and startup funding today.**

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Venture capitalists have been investing in software for some 35 years now. Both the investment returns that VCs have made from their software investments and the fate of the software start-ups themselves have always been dependent on the state of the stock market and, most particularly, on the state of the market for IPOs.

In the years since the "Great Bubble" of the late 1990s, market conditions have changed substantially. Software startups must change their expectations and their operations accordingly.

### **How Software VC Began**

The first tech investment "boom" actually took place in the 1960s. Early in the decade, investors bet heavily on NASA and other high-tech, "-onics" investments, but by decade's end, the boom had gone bust.

The next period of tech investment - 1973 to 1982 - was a formative decade for venture capital - and coincidentally, for my career. During that time, there was virtually no market for IPOs. The stock market was extremely depressed. New companies came to the public market very infrequently. During the late 1970s, a few companies held successful IPOs: FedEx and Tandem Computers, for example.

The VCs who were funding emerging companies at this time only had two choices: get the start-up to positive cash flow from operations ASAP or sell them as projects to large companies, because there was almost no opportunity to exit to the public markets.

In my original firm, we were able to bring equity from our institutional clients to what I called "post-venture companies" - the start-ups that had made it to positive cash flow - and provide growth capital and even some liquidity to the founding investors at valuations that in retrospect were very, very low.

### **The VC Industry Expands**

In 1983, the stock market began to recover as interest rates declined after the inflation-busting credit crunch during 1980-1982. For the first time in a long decade, the IPO market opened up and in fact became hot - not as hot as we now know it could become - but hot for that time.

The newly expanded venture capital community played a key role in this rebirth of the IPO.

In 1979, a change in pension fund investment rules enabled these major investors to invest in venture capital funds. When the National Venture Capital Association was founded in 1974, there was only about \$500 million around the VC "table," controlled by a handful of firms. Those figures began to grow rapidly after the 1979 ruling and really expanded when VC returns rose with the re-opening of the IPO market.

The newly expanded size and influence of the VC community and strength of their startups did not go unnoticed. A whole new guard of investment banking intermediaries emerged. These companies - Hambrecht & Quist, Alex Brown & Co., Robertson Stephens, L. F. Rothschild Unterberg Tobin, and others - adapted themselves to the VC business model and built profitable channels to the public markets for VC-backed companies.

The major investment banks began to take notice of this newfound success. For the first time, these big banks began to underwrite IPOs for new companies. In 1980, Morgan Stanley co-managed the first equity offering for Apple Computer. As I recall, it was the first time Morgan had ever co-managed an offering - they had insisted on being a sole manager before that deal.

Because VC investors' ability to get liquidity from the public markets improved, the VC fund returns improved significantly, and the supply of capital from pension firms increased. All of this contributed to a large jump in the number of VC firms and the number of people who called themselves "venture capitalists."

### **The IPO as SOP**

As with any market, the oversupply of VCs led to another industry slump in the late 1980s. Many new VC firms never raised a second fund. However, the window of access to the public markets remained reasonably open. Oracle, Sun and Microsoft all went public in 1986, raising public capital for growth and returning good money back to their investors.

This stage continued right through to the mid 1990s. The general presumption was that if you funded a startup which built a functional product, established channels, marketed itself, provided customer support and reached profitability (or was in the process of clearly establishing profitability), you could take the company public. For new companies which had grown to \$20 to \$50 million in revenue and were backed by one or more professional VC firms, there would definitely be an opportunity to file for a \$30 to \$50 million IPO. The IPO as exit had become "standard operating procedure".

The favorable IPO climate created a positive environment for both VCs and startups. There was continuity in the road toward liquidity for the investors as the ventures they invested in worked to establish themselves as businesses. Although the survival rate for pure startups remained relatively low, the investment continuity fostered risk-taking by both investors and entrepreneurs - some of whom would leave positions at large, established companies to risk their career at a startup.

## **The Bubble Days**

In the late 1990s, the tech investment "bubble" emerged with the build-out of the Internet. The environment of funding continuity was transformed into a mad Darwinian gamble.

Rather than a rare dot-com-driven anomaly, investment bubbles are endogenous to long-term cycles of fundamental technological innovation. Such bubbles fund the development of transformational technologies and the deployment of infrastructure networks that didn't exist before. Canals, railroads, electrification, and the autos-oil-highway complex all spawned their own investment bubbles long before the Internet came along.

Bubbles also fund the vast array of experiments in learning what to do with the new networked infrastructure, most of which fail but a few of which become the iconic companies of the next generation: from Western Union to Google.

Investors invest in a bubble knowing that everything is going to change, but knowing they don't know what will take hold. This creates an environment of highly speculative funding of both infrastructure and the businesses that are launched to exploit it.

Thus, bubble investments are "transiently rational." Venture capitalists can rationally think of paying too much to invest in a start-up as buying an option in the possibility of creating a sustainable business with three possible outcomes. The first outcome is that they can sell the option to the "greater fools" in the public market. If the bubble ends before the VCs can get out, they have two choices: write it off or, if it really seems there is a promising business hidden inside it, they can re-capitalize it on a rational basis. Needless to say, this is a lot more work and takes a lot more time: but it is what VCs are in business to do versus feeding the frenzy.

During a bubble, anything can go public and often does. Out of the thousand dotcom IPOs, there are only a handful of Amazon.coms, eBays, Yahoos and Googles. Historically, this is how bubbles have worked. There is no "intelligent design," only "natural selection." Very few functional businesses emerge from the mass of "hopeful monsters" that are funded during a speculative bubble, but very possibly none would survive in the absence of the frenzy.

## **Post-Dotcom Bubble Reality**

During the last five years since the dotcom bubble burst, we've operated in a very different investment environment with very different implications for venture capital - and, in fact, for the entire American economy.

There are a variety of reasons for this - not all of which stem from Sarbanes-Oxley regulation. The threshold of access to public markets has gone through a phase change. To be a candidate for the U.S. public market, companies generally must have \$100 million in revenue and a clear track record of profitability and positive cash flow. The fact is that very few venture-backed startups can reach that stage - it is a very high bar to pass.

At the same time, access to public investors has become more difficult. It isn't just that investors have become risk averse relative to new companies. There has been consolidation in the structure of the capital markets, particularly in the banking world. Hambrecht & Quist, Robertson

Stephens, Alex Brown and many other tech investment specialists have disappeared from the landscape, themselves cashing out during the bubble. Today's "big bulge" bracket firms are unlikely to get interested in deals that are the size of the IPOs of a decade ago.

On the VC side, the calculations have become somewhat daunting. If the minimum scale of an IPO is approaching \$100 million, and the VC doesn't want to sell more than, say, 25-30 percent of the company at the IPO price - not to mention the fact that the company must remain profitable even after absorbing several million dollars of incremental expenses for regulatory compliance, then the start-up must have grown into at least some \$100 million of revenues to qualify.

How many start-ups ever reach that scale? Not a lot.

### **New Rules for Software VC**

The rational calculation for funders of innovative technology startup companies is quite different from what it used to be. In the "old days," the Series A and B venture rounds would prove that the product actually would "light up when you plugged it in," as an old partner of mine used to say, and would secure reference customers.

At this point, the heavy investment would be committed: to build a sales force, develop indirect channels, build marketing capability, broaden geographic coverage, and so on. The trouble is that the dollars that would normally be raised to fund this expansion, rationally, should not be spent today, given so few new companies will reach the scale to go public.

Today, it is beginning to appear that the rational decision for the VC is to sell the company after the B round, when there is initial proof of product success and the acquisition of marquis customers.

That means the venture industry is very over-capitalized for its current economic role. The role VCs have traditionally played in innovation, will remain - but they will be financing innovative *projects* as opposed to innovative *businesses*.

The alternative is to go in with clear intention of fully funding a start-up to sustainable positive cash flow. The criteria for committing to a fully-funded venture are very stringent and very rarely met.

Here is a list of must-haves to "jump start a startup" today and make it a candidate for venture investing.

- Begin with a first-class, seasoned management team
- Find a market undergoing demand growth where some form of disruption is creating a space for a new business
- Buy the components of the business - technology, distribution, customer base - that you can; only build what you have to (which usually does include building innovative technology)

I am currently involved with three fully-funded ventures - and none of them "smell" like a startup. Each began with a veteran team with whom we conducted a market analysis and a search for available building blocks. Each had been effectively launched with the acquisition of a \$30-\$50 million existing company. Some of the acquired products needed to be rebuilt, but the technology acquisition meant the time to market and business sustainability were radically improved for all three ventures.

### **A Case Study from the Past**

Fully-funded start-ups may seem a relevant approach today - but they're nothing new. BEA Systems was started in a very similar way. BEA began with a deep analysis and evaluation of the market for enterprise computing as it went through the radical disruption of distributed computing.

The team - Bill Coleman, Ed Scott and Alfred Chuang, who had met each other at Sun Microsystems -began working together with us in 1994. The original vision involved creating a new platform for distributed applications that would have the same bulletproof nature as mainframe transaction processing software (specifically IBM's CICS).

Before building the product from scratch, the team began to look for technology that already existed. BEA began with the purchase of two companies which already had licensed source code from AT&T to the Tuxedo software platform, developed in Bell Labs and to Novell with Unix Systems laboratories. After acquiring the Tuxedo software itself from Novell in early 1996, BEA reached well over \$100 million in revenues and profitability in just two years and was able to go public in 1997.

Living through today's challenging investment cycle will prepare the next generation of technology leaders. I believe there is a lot to be learned from failure. At BEA, we used to look for managers who had already been through one failed startup or one near-death experience at a big company...preferably both! There is simply no substitute for the scars and experience of operating under stress.

The critical conjunction is where the ability to read a market meets the ability to understand tech-enabled opportunities for innovation. We haven't run out of opportunities - and therefore, we still have the ability to build substantial, innovative businesses. But the way we do it may never be the same.

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