The Future of Venture Capital: Private Equity Gets More Private

The venture capital industry's old guard is poised to gain even more power. What it means for VCs, investors, and entrepreneurs.

By Steve Bird

After a very difficult three years in the venture capital industry, signs of improvement are finally emerging. Yet most VC industry-watchers agree there are still too many startups, too many VC firms, and too much capital waiting to be invested. History and common sense suggest the industry is due for a major shake-up. Some argue that the impending crunch will bring new blood and a more democratic process to a clubby, clique industry. We believe that, for better or worse, just the opposite will happen.

Several long-term trends have been quietly at work in the VC industry for the past twenty or so years: an increasing concentration of power and profits among a handful of firms; a widening gap between the returns of top-tier firms and everybody else; and the emergence of 'brand–name' VCs that set the direction of the industry. Instead of turning these trends on their heads, we believe the coming crunch will accelerate them.

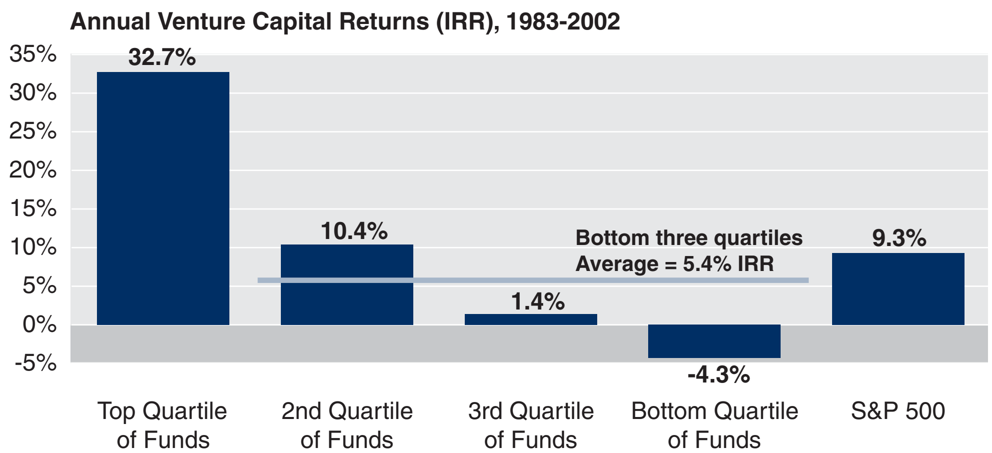
The result, once the dust settles, is likely to be a smaller, more exclusive, and more stable industry, one in which the bulk of profits and power are concentrated in as few as fifty firms. Hundreds of other VC firms will still ply the trade, but they will likely be little more than supporting players. In arriving at this state, the industry will endure significant upheaval—as many as half of all VC firms and more than seventy percent of venture-funded startups remaining from the dot-com boom could shut their doors in the next two to three years. But what emerges from the ashes should be a more stable and profitable industry, one less prone to the gyrations and excesses that prevailed in recent years.

In this paper we lay out one scenario—the most likely, in our opinion—of what the VC industry could look like over the next three to five years. We readily admit we cannot predict the future. If another technology or product boom comes along, or if investors become enamored of venture capital as they did in the late 1990s, all bets are off. But by bringing empirical research and fact-based analysis to the table, we hope to provide the setting for a rational debate about the changes that, although not always evident, are in fact re-shaping this industry.

The VC Industry Matures Through Turmoil

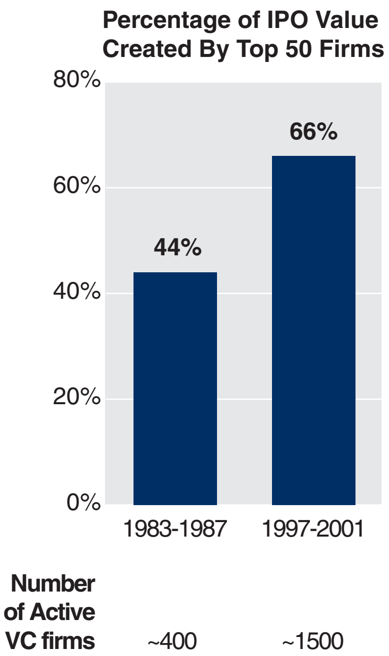
To better understand how the VC industry is likely to evolve, we examined the performance of more than 900 VC funds over a twenty-year period. Our analysis convinced us that a handful of firms are inextricably pulling away from the pack, and that despite the free-for-all feel of the Internet boom, the industry is actually evolving to a smaller, more mature network of firms. Consider:

Figure 1
Annual Venture Capital Returns



Source: Thomson Venture Economics. n = 904 funds

Figure 2
Concentration of Returns



Source: Focus Ventures analysis of Venture One data

For an explanation of this analysis, please see the inset "The Power of the Top 50 VCs"

The top quartile of VC funds vastly outperform the rest of the industry
Analysis of more than 900 VC funds shows that over the last twenty years the top quartile earned an annual IRR of 32.7%, while the bottom three quartiles of funds earned a collective IRR of 5.4%. *(Figure 1)*

The top tier of VC firms markedly consolidated their power and influence over the last fifteen years
During the VC boom of 1983-1987, the top 50 early-stage VC firms shared in 44% of VC-funded IPO value created. Between 1997-2001, the top 50 firms shared in 66% of VC-funded IPO value created. *(Figure 2)*

The same VC firms lead the pack year-in and year-out
Of the top 50 early-stage firms in the 1983-1987 boom, thirty-eight were also in the top 50 during the 1997-2001 boom. Excluding reformations of old firms, 'churn' of the top early-stage firms was only about 16% over fifteen years, remarkably low by most industry standards.

The top-tier VC firms are now big enough to corner the market
At the end of 2003, the top 50 early-stage VC firms had a 'capital overhang' (unspent capital) of $36B. At our forecast investment level of $7-12B per year for early-stage financings, this is enough capital to cover all early stage deals for the next three to five years.

What these facts suggest is that over the last twenty years, and even during the most recent VC/IPO frenzy, the industry was undergoing a quiet and rational maturation. A small group of established, respected firms—a leader class—consolidated its grip on the bulk of the industry's profits. Newcomers who tried to break into the industry found that, while there weren't many barriers to entry, there were significant barriers to success; most failed to outperform the public equity markets. (These are likely to be some of the first firms to exit in the coming contraction.)

This maturation and consolidation should not come as a surprise. Venture capital is not a 'typical' industry, but it is not different enough to completely avoid the laws of economics. As in most industries, there is a virtuous cycle in the venture capital industry that rewards the leader class and confers upon them long-term competitive advantage. Through repetitions of this cycle, the largest, most successful firms gradually lengthen the distance between themselves and the hundreds of smaller firms that trail them. The cycle works like this:

A firm builds a successful series of funds and earns a strong reputation among entrepreneurs, limited partners (LPs), and VCs. This helps the firm gain access to higher quality startups (entrepreneurs put the firm on the short list for financing, and other VCs call the firm to syndicate their deals). Early successes earn the firm some clout with Wall Street (the gate-keepers to IPO), greasing

The Power of the Top 50 VCs

We examined the performance of the leading early-stage venture capital firms over a twenty-year period with the goal of answering three questions:

- How concentrated are the returns of the venture capital industry? (Specifically, what percentage of industry profits were generated by the top 50 venture capital firms during the two most recent industry booms, the PC boom of 1983-1987, and the dot-com/high-tech boom of 1997-2001?)
- How has that concentration of profits shifted over time?
- How much "churn" was there among the top tier of venture capital firms between the two booms?

To conduct this analysis, for each of the two booms we used data from Venture One to identify venture-backed startups that went public and the early-stage VC firms that backed them. We calculated each startup's market capitalization at the time of IPO and ascribed that value to their VC backers, then ranked the VC firms based on the amount of IPO value their portfolio companies created. For instance, companies in which Kleiner Perkins invested went public between 1997 and 2001 with total market capitalization (at time of IPO) of $35.3 billion. (Valuation numbers reflect the total market capitalization of portfolio companies – no adjustment was made for the equity stake held by the VC firm.)

By comparing the lists from the two booms (1983-87 and 1997-2001), we made three interesting discoveries: the majority of returns in venture capital are concentrated in a shockingly small number of firms; that concentration has increased over time; and for the most part, the same firms that dominated in the early 1980s are still calling the shots today.

The VC industry expanded dramatically during the Internet boom of 1997-2001, but has yet to adjust to the 80% drop in annual financing activity

the skids for future public offerings. Better deals and more IPOs yield higher fund returns, which further boost the firm's reputation with LPs. This allows the firm to raise larger funds and hire more general partners, giving them a shot at more of the best deals, and so on.

Over time, with repeated turns of the wheel, the leaders should be able to pull away from their followers. This is exactly what happened in venture capital over the last twenty years. The Internet boom did not delay this trend—it accelerated it. The coming contraction in the VC industry should further speed this process by killing off many of the stragglers.

Setting the Stage for a Shake-Out

Clearly, the Internet/high-tech explosion was a boon for the venture capital industry. A lot of people made a lot of money, and thousands of new startups and VCs came into life. But the industry's infrastructure, which expanded so rapidly to satisfy the frenzy, has yet to adjust to today's lower investment level. The result is a serious mismatch: thousands of venture capitalists sitting on billions of dollars, with too few quality companies in which to invest, all relying on a slowly recovering IPO market. To appreciate the magnitude of overcapacity in the VC industry, consider the following:

- In 1996 there were approximately 600 active VC partnerships. In 2000, there were more than 1500. By 2002, financing activity was off more than 80%, but there were still more than 1200 active VC firms, only 20% less than at the peak. *(Figure 3)*
- At the end of 2003, the VC industry was sitting on approximately $100B in un-invested capital. At the current pace of investment, this is enough to sustain the industry for five to seven years without raising another penny.

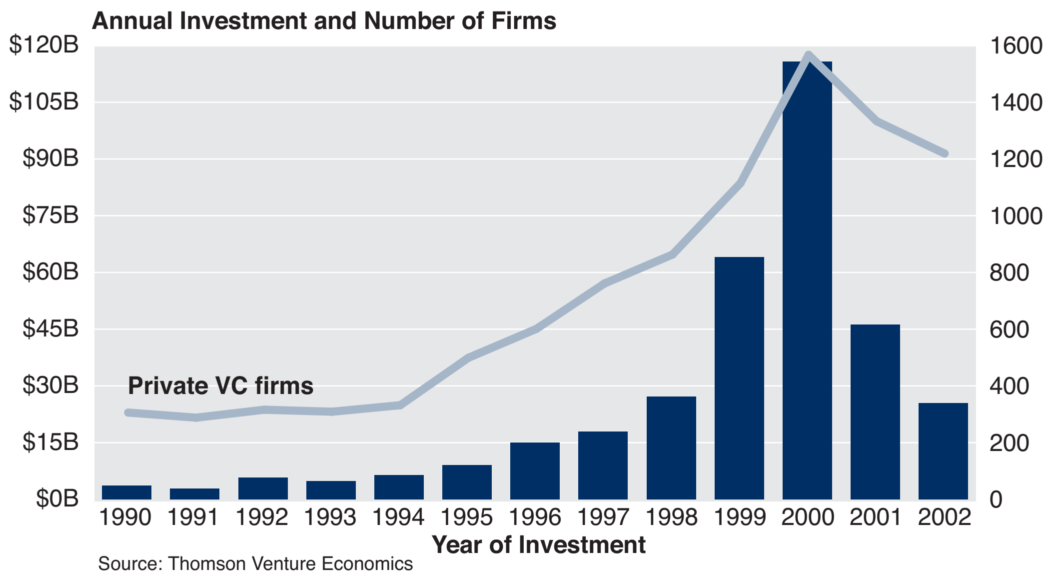
In most industries, excess capacity, once built, is hard to get rid of. But in venture capital the assets are people and money, both relatively liquid. We anticipate that the imbalances highlighted above will soon correct themselves in a symbiotic process, shrinking the industry to a more rational size. The two most immediate triggers will be the imminent collapse of several thousand startups funded during the boom of 1997-2001, and the need for many, if not most VCs, to raise money in the next one to two years.

Thinning the Startup 'Bulge'

During the boom, there was an explosion not only in the amount of venture capital invested, but in the number of companies receiving that capital. A simple analysis—and common sense—suggest that most of these companies will soon cease to exist.

According to Venture One, between 1997 and 2001, 6,885 companies received venture money. As of this writing fewer than 300 have gone public. Another 1,775 have gone out of business, and roughly 1,400 have merged or been acquired. Of the 3,400 or so that remain, a small minority are growing quickly and making money. But most are surviving on the cash they raised during the boom, or are being held afloat by venture capitalists loathe to write off their investments.

Figure 3
Venture Capital Investment Activity



Source: Thomson Venture Economics

U.S. VC investments will likely total only $15-20B per year for the foreseeable future

Now consider that in the decade 1991-2000, there were an average of 174 IPOs per year by venture-backed companies. *(Figure 4)* If the IPO market recovers quickly from its current slump and even grows, reaching, say, 200 IPOs per year in 2007, 400-600 companies remaining from the Internet boom could conceivably go public by the end of 2007. If we estimate (and this is probably generous) that an equal number will be purchased or merged in that time, then roughly 1,000 startups will have 'successful' exits. (We qualify 'successful' because there is no guarantee these mergers and acquisitions will yield high returns for investors.)

So what about the other 2,400 venture-backed companies, representing more than 70% of those remaining from the Internet boom? By the end of 2007, the youngest of these companies will be seven to ten years old. The reality is, if they haven't gone public, merged, or been acquired, most will be forced to shut their doors. And odds are, they will take the bulk of their invested capital with them to the grave.

Bad News for VCs

For many VC funds, this spells disaster. Most of the 1200 or so active VC partnerships raised their last funds during the boom, with year 2000 being the peak. Most venture funds are raised with a three- to five-year life in mind, meaning that the bulk of the industry's general partners will hit the road in the coming two years to raise their next fund. Returns on the last batch of funds have been poor (according to Thomson Venture Economics, the industry earned a –30% IRR in 2002 and a +8% IRR for 2003) and the impending collapse of so many startups is only likely to make things worse.

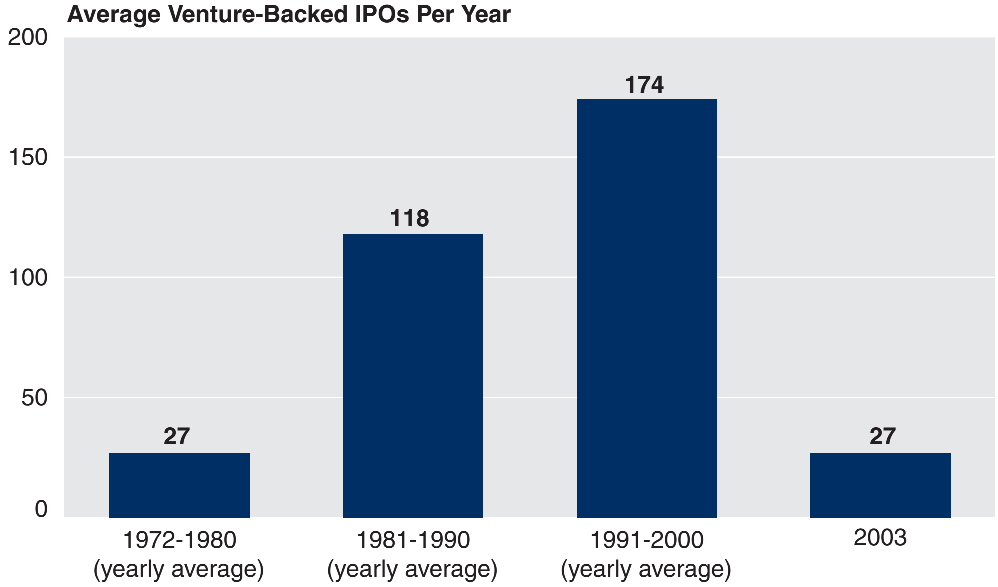
Together, the myriad factors at play—the industry's lackluster returns; an overabundance of VC firms trying to raise capital simultaneously; a potential cascade of venture-backed startups collapsing; and a stagnant IPO market—will make it extremely difficult for most VCs to raise money. Although it may be too obvious to state, a firm without a fund to invest is essentially defunct. This is why we believe a large number of firms will close shop in the next two to three years.

A Downsized Industry

For people in the industry, this assertion will not come as a shock. Many general partners and insiders acknowledge there has to be some reckoning for the excesses of the Internet heyday. (The correction has already hit most other industries; it is only due to the long investment cycle on venture funds that it hasn't come sooner to venture capital.)

What may surprise many in the industry, however, is the magnitude of the potential contraction. We modeled several 'steady state' scenarios for the industry over the next three to five years. *(Please see the inset "Sizing Up the VC Industry")* Our modeling suggests three things:

Figure 4
Average IPOs Per Year



Source: Thomson Venture Economics

At $15-20B per year of investment, the industry can earn reasonable returns: 24% gross IRR, or about 16% net IRR to investors

- In the absence of another technology or product boom, U.S. VC investments are likely to be only about $15-20B per year for the foreseeable future. In other words, the current level of activity may be the norm for years to come.
- At this level of investment, only 500-600 VC firms are needed to support the industry's activity. This is less than half the number that exists today.
- On a positive note, assuming that recent valuation levels persist, the industry can earn reasonable returns at this size, in the range of 24% gross IRR (or about 16% net IRR to investors). This should come as welcome news after the poor performance of the last few years.

Winners and Losers: The Rich Get Richer

The VC industry's contraction is not likely to strike randomly. Newer VC firms, particularly those that raised their only funds during the boom, will have the toughest time raising capital. Meanwhile, old-guard or brand-name firms will have a marked advantage.

In some ways this is nothing new—LPs have always favored more experienced firms. But several factors differentiate today's fundraising environment from that of past years.

First, with the industry's current abysmal returns, LPs are 'fleeing to quality' in unprecedented numbers, shunning perceived second-tier firms for more established VCs.

Second, investment activity in the industry is much smaller than in recent years. This means the big, top-tier firms are raising smaller funds, and fewer of them. As a result, many LPs—even repeat investors—could be locked out.

Third, a new generation of LPs is seeking to invest in venture capital. These would-be LPs, mostly American state pension funds and European investors, watched in frustration from the sidelines as the U.S. VC market ran up huge profits during the Internet boom. Now they see an opportunity to invest at the bottom of what they hope is a cyclical trough. The numbers involved are substantial (state pension funds often manage tens of billions of dollars) and all these new LPs expect to invest in the top VC funds.

These trends are already having powerful effects. Several brand-name funds got a jump on the pack by making the rounds to LPs in the summer of 2003, and they were significantly oversubscribed, one by as much as nine times its target fund amount. If these trends continue, the result will likely be a bottleneck at the top of the industry, and a lot of uncertainty for the other thousand or so firms. The crucial question is this: will investors who are turned away from top-tier firms be willing to invest with young, unproven VCs?

For the most part, the odds appear to be against it. For many existing LPs, the Internet boom was their first foray into venture capital. Now, as valuations plummet and legions of portfolio companies implode, many first-time investors are feeling badly burned. Furthermore, many new LPs are under significant pressure from their stakeholders to invest in only the most historically profitable VC firms. (Witness the growing movement for 'full disclosure,' which seeks to reveal the returns of VC firms in which state pension funds invest.) This additional scrutiny makes it even less palatable for fund managers to invest in unproven VCs.

In short, there's simply not room for everyone in the top funds. If, as seems likely, most LPs are turned away from the brand name funds, and they then decide to sit out this round of fundraising, LPs could trigger a broad industry contraction by denying second- and third-tier funds their very lifeblood—new capital.

This is not to say that venture capital, like investment banking, will consolidate to just a handful of mega-firms. But to put it in crude terms, the old guard now has the power to corner the market. The telling fact, mentioned earlier, is this: the top 50 early-stage firms from the last boom have enough capital in their funds to cover all early-stage VC investment for the next three to five years. Since the top firms still get first crack at the best startups, we expect a further bifurcation of industry returns, with the top-tier firms locking up the best deals, and everyone else adopting a 'use it or lose it' approach, probably with unimpressive results.

The upshot? Another—and possibly decisive—turn of the cycle which creates distance between the leader class and everyone else.

Sizing Up the VC Industry

In an effort to understand what the venture capital industry might look like over the next few years, we built a simple model using a handful of descriptive parameters. The intent was not to predict the future, but to sketch some boundaries on likely industry performance, and better understand the trade-offs between key variables. The result, shown below, is one vision of the industry in an equilibrium scenario. (It goes without saying that unforeseen events, such as another IPO boom, could change this picture significantly.)

As inputs, we used a blend of current industry figures, emerging trends, and historical data. The reader will note that the values of various parameters are not all drawn from the same time period—in an effort to reflect the continuing evolution of the industry, we used historical figures and current trends to make educated guesses about the future values of these variables. For example, we based our IPO rate on market performance over the past 20 years, but for valuation and financing data, we relied on data from the mid 1990s. We also avoided using figures from the dot-com boom, as those numbers skew the results dramatically, and seem unlikely to repeat in the near future. Finally, and importantly, we didn't include liquidity through M&A events. Doing so could raise returns by about 20%.

A simple version of the model is presented below. Although it's rough, the exercise suggests that the industry can invest about $15 billion per year and generate a net IRR for investors in the high teens (low to mid-twenties gross returns). The toughest numbers to peg, because they vary so wildly, are the number and value of IPOs. If these values increase, as historical trends suggest they might, the industry could sustain a higher level of investment than what's shown here, and still generate reasonable returns.

	Startup	2nd Round	3rd Round	Later Rounds	Total
Deals per year	536	441	417	349	**1,743**
Average investment per deal ($MM)	$6.3	$8.8	$10.6	$9.9	
Total investment ($MM)	$3,375	$3,882	$4,417	$3,453	**$15,128MM**
Average premoney valuation ($MM)	$6.0	$30.6	$55.4	$67.2	
IPO rate by round	28%	34%	36%	43%	
Average years to IPO	4	3.2	2.7	2.2	
Gross IRR	31%	19%	13%	35%	**24%**

Inputs and rationale:

Number of IPOs—150 per year, extrapolation from last 20 years
(source: Thomson Venture Economics; see Figure 4)

IPO rate (percentage of companies eventually going public)— Rate for venture financings from 1987 to 1996
(source: Venture One, 8,614 data points)

Average Deal Size— average investment per round for venture financings from 1995 to 1997
(source: Venture One, 1,062 data points)

Premoney valuation— average premoney valuation for venture financings from 1995 to 1997
(source: Venture One, 1,062 data points)

Years to liquidity— average time to IPO for venture financings from 1987 to 1996
(source: Venture One)

IPO valuation— extrapolation of IPO pre-money valuations from last 20 years
(source: Thomson Venture Economics)

For LPs locked out of the brand-name early-stage funds, expansion-stage VCs offer a proven—and profitable—alternative

Implications

If this scenario plays out, it carries significant implications for VCs, LPs, and entrepreneurs. As the number of firms dwindles, and data on the relative returns of funds becomes more publicly available, we expect brand-name early-stage firms to be in even greater demand from LPs and entrepreneurs. LPs, meanwhile, will find it harder than ever to place money with those firms.

Some options do remain for those locked out of brand-name early-stage firms. Expansion-stage or late-stage VCs (which usually invest in the fourth or later rounds of financing) offer a proven alternative to the top early-stage firms. Analysis by Thomson Venture Economics shows that over the last twenty years, late stage investors (third and later rounds) have earned returns almost identical to those of early-stage investors. ***(Figure 5)*** (The one obvious exception, the year 1999, is at least partly explained by the aberrant investing environment of the dot-com boom—many startups went public so quickly that they never bothered to raise a third round of financing. When 1999 is excluded, long-term returns of late stage investors are nearly equal to those of early-stage investors.) If the contraction develops as we anticipate, and LPs are increasingly shut out of top-tier early-stage firms, we expect expansion-stage firms to attract more capital and attention.

Investors with the stomach for it can also place their bets with upstart VCs specializing in emerging markets. China and India in particular present a possible opportunity for a handful of firms to gain a foothold in the upper rung of the industry. However, LPs investing with these firms should prepare for a long, rocky, and unpredictable ride.

For entrepreneurs, though the funding environment is slowly improving, the easy money of the Internet boom isn't likely to reappear anytime soon. Capital is much tighter, valuations have receded from the stratospheric heights of the late 1990s and 2000, and VCs have raised the bar once again on investment criteria.

There is a silver lining for entrepreneurs, however. As a result of the industry's reduced activity, VCs should be able to devote more attention to companies they do fund. The result, hopefully, will be fewer, higher quality startups, valued more rationally, with a higher chance of eventual success. This should lead to better long-term returns for everybody.

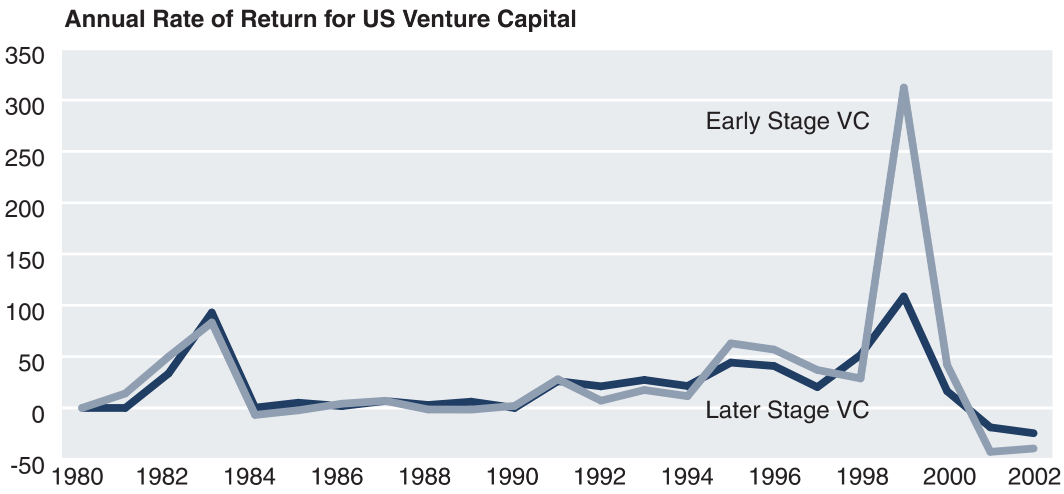
The Next Boom: Mob-scene or Moderation?

Most signs point to a shrinking, more mature, and more rational VC market. But what will happen when the next boom comes around? Did the Internet frenzy simply whet people's appetites for investing in venture capital? Or has the brutal collapse of the last few years left investors more cautious?

At this point it is impossible to say. Certainly investors and entrepreneurs will want to be involved, as they should, when they smell opportunity. But prospective LPs would be wise to heed two facts:

First, it was the established firms that captured the lion's share of VC wealth during the last boom, not the 'tourist investors' who jumped in late. This is best illustrated by Figure 2: out of more than 1500 VCs, the top 50 early-stage firms shared in 66% of the IPO value created during 1997-2001. The other 1,400+ firms fought over the rest.

Figure 5
Early vs. Late-stage VC Returns



Source: Thomson Venture Economics

Personal connections, confidentiality, and experience are still the foundations of venture capital. Just because the industry is maturing doesn't mean it is becoming more efficient

Second, even during the great, historic gold-rush of the late 1990s, money given to an unproven VC firm would probably have performed better in the stock market. During the Internet boom of 1997-2001, the top quarter of VC firms vastly outperformed the S&P 500, with an annual IRR of 57.4%. But the bottom three quarters of firms earned an IRR of only 5.0%. The S&P 500, meanwhile, earned 7.5% annually.

Considered in a logical light, this should come as no surprise. Venture capital is built on personal connections, confidentiality, and experience; the best venture capitalists have been in the game a long time, and they know how to leverage these intangible assets. They also know how to protect them. Just because the VC industry is maturing doesn't mean it is becoming more 'efficient,' in the classic sense of the word. That is, the flow of information and opportunity will never be equal or open. Neither newcomers nor the investors who give them money should expect to perform as well as the old guard on the first go-round.

Still, that doesn't mean they won't try. More LPs than ever are trying to get into venture capital. How, then, do we reconcile the conflicting realities that confront the industry? On one hand we have the industry's dismal returns, a glut of over-funded, under-performing startups, a stagnant IPO market, and a growing realization that unless you're one of the lucky few who invest with top-tier firms, venture capital simply isn't that profitable.

On the other hand, in the wake of the Internet boom, interest in venture capital is as high as it has ever been. Many investors, even traditionally cautious ones like pension fund managers, now view venture capital as a way to boost their fund returns by a point or two while keeping an eye on emerging trends.

Squaring these conflicting views requires considering both short-term and long-term outcomes. In the short term, if LPs decline to place their money with unproven firms, the venture capital industry will endure a difficult but necessary contraction that should stabilize the industry structure, cement the leadership of the dominant firms, and allow the industry to reach a sort of equilibrium.

If LPs *don't* heed the lessons of the last boom, and instead dive in head first, the flood of new capital could buoy otherwise moribund VC firms and forestall an imminent collapse. It's simply too early to say which of these scenarios will prevail in the short term.

In the long run, however, it is the laws of supply and demand—not LPs alone—that will determine the industry's structure. No matter how much capital pours into the VC market in the next few years, only so many quality startups are born each year. And for better or worse, the top-tier funds are sure to snatch them up. In doing so they will continue to drive the virtuous cycle that cements their dominance. In other words, whether one looks at the short or long-term views, the end game is the same—a smaller, more private, and concentrated industry. The question now isn't whether the old guard is pulling away from the pack, but how quickly.

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