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U.S. Market Commentary

Time to Venture … into Venture?

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CAMBRIDGE ASSOCIATES LLC

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Time to Venture ... into Venture?

The venture capital model is not broken—indeed, fundamentals look better than they have for many years—but returns will likely continue to be concentrated in top-performing funds.

O how the mighty have fallen. Little more than a decade removed from its dot-com heyday, venture capital has lost much of its cachet, with fund raising and deal flow far below their peaks, and some openly questioning the efficacy of the venture capital model. Even recent successes—e.g., Groupon and Zynga—have quickly turned sour; indeed, many have blamed Facebook's high-profile initial public offering (IPO) stumble for the subsequent dearth of venture capital–backed IPOs in the consumer Internet sector. Investor interest, meanwhile, has stagnated, with a growing number questioning the wisdom of locking up capital for an uncertain (some might say unlikely) promise of above-average returns.

When we last opined at length on the industry[1] we came to much the same conclusion, observing that "venture makes sense *only* for investors fortunate enough to have access to select high-quality managers. For those without such access (i.e., the vast majority of investors), we believe there are better options that will offer similar (or superior) returns to those we expect from the U.S. venture capital industry as a whole."

While much of the above conclusion remains relevant, we have seen steady improvement in market conditions over the past few years. The capital overhang, for example, has come down to a more manageable level, while the number of venture capital firms and professionals—as well as assets under management (AUM)—has fallen considerably. We are reminded of Jim Grant's classic line that "no proper boom can be built on the uncleared debris of a preceding boom." Venture capital, it would seem, has cleared much of its debris.

The exit market, on the other hand, remains inconsistent. As noted, Facebook's post-IPO stumble seems to have had a damping effect on subsequent IPOs, particularly for social media–related companies; indeed, venture capital–backed IPOs and merger & acquisition deals are on track for a decidedly mediocre year despite the strong market rally. Of course, current venture capital investments will be dependent on *future* exit markets, about which neither we nor anyone else can offer confident predictions.

All that said, part of the trouble with assessing venture capital today—as with every asset class—is the extraordinary macroeconomic backdrop with which we are forced to contend. For prospective venture capital investors, this poses both pros and cons. The obvious risk for investors in private markets generally stems from the long-term and *illiquid* nature of such asset classes. Put simply, while all asset classes would suffer in a euro breakup or failed U.S. debt auction or Chinese hard landing, etc., there would presumably still be a market for publicly traded securities; the same cannot be said for private investments (as was dramatically illustrated in 2008). Of course, one could argue this is in fact a positive (by preventing investors from selling at the bottom).

In addition, an exogenous macro event could actually prove beneficial to venture capital, at least on a selective basis, as there would arguably be even more of a premium on innovation, and venture capital might be one of the few places that could produce *organic* (i.e.,

[1] Please see our October 2009 Market Commentary *U.S. Venture Capital: Good, Bad … or Ugly?*

productivity-driven) economic growth. The number of great companies started during the Depression is legion[2] and several strong technology businesses began in the wake of the dot-com crash. For example, Data Domain and Isilon, two storage technology companies founded in 2001, have collectively returned over $1 billion to venture capital investors and are benefitting from today's tremendous growth in digital data. More recently, it is notable that a number of venture capital–backed companies, particularly on the IT side, weathered the 2008 crisis quite handily.

Overall, we view venture capital's recent troubles as a qualified opportunity, as investors' waning enthusiasm (and more discerning behavior) has resulted in a lower level of capital commitments and a less-daunting overhang, potentially laying the groundwork for a return to the more capital-constrained conditions that were integral to the industry's prior success. While macro concerns are certainly a worry given venture capital's illiquid nature, this merely reinforces a cardinal rule of private investing to which investors should *always* hew—namely, such investments should not be made without the financial (and emotional!) wherewithal to weather short-term tempests. As noted, venture capital could certainly prove a long-term port in the storm for investors willing and able to ride out what are likely to be substantial bumps in the economic road. Finally, as venture capital will almost certainly continue to be an area where returns are concentrated in a small group of winners, investors should, as always, choose carefully.

Improved Fundamentals

As shown in Figure 1, annual venture capital fund raising for the past three years has been in the neighborhood of $15 billion to $20 billion, well below late-1990s and (to a lesser degree) 2005–08 levels. Further, the amount of capital invested has topped funds raised for five years running, which has reduced our estimate of the overhang from about $65 billion at the end of 2009 (around the time of our last commentary on venture capital) to less than $44 billion as of June 30.[3]

AUM and the number of firms and professionals, meanwhile, are below their 2005 peak, but well above pre–Internet bubble levels. While the industry has undoubtedly gone through a shakeout—starting after the Internet bubble, pausing during the 2003–07 credit boom, then resuming in the wake of the 2008 crisis—it remains materially larger than in the mid-1990s (Figure 2).

The question, of course, is what should be considered "appropriate" in all these areas, and the unfortunate answer is … we don't know. Looking back over the past two decades—which included two enormous booms/bubbles and subsequent busts—it is difficult to say which periods were "normal" and which unusually good or bad. For example, current AUM and staffing levels look lean relative to their 2005 peak, but distended compared to 1995 (and remarkably similar, in certain respects, to 2000).

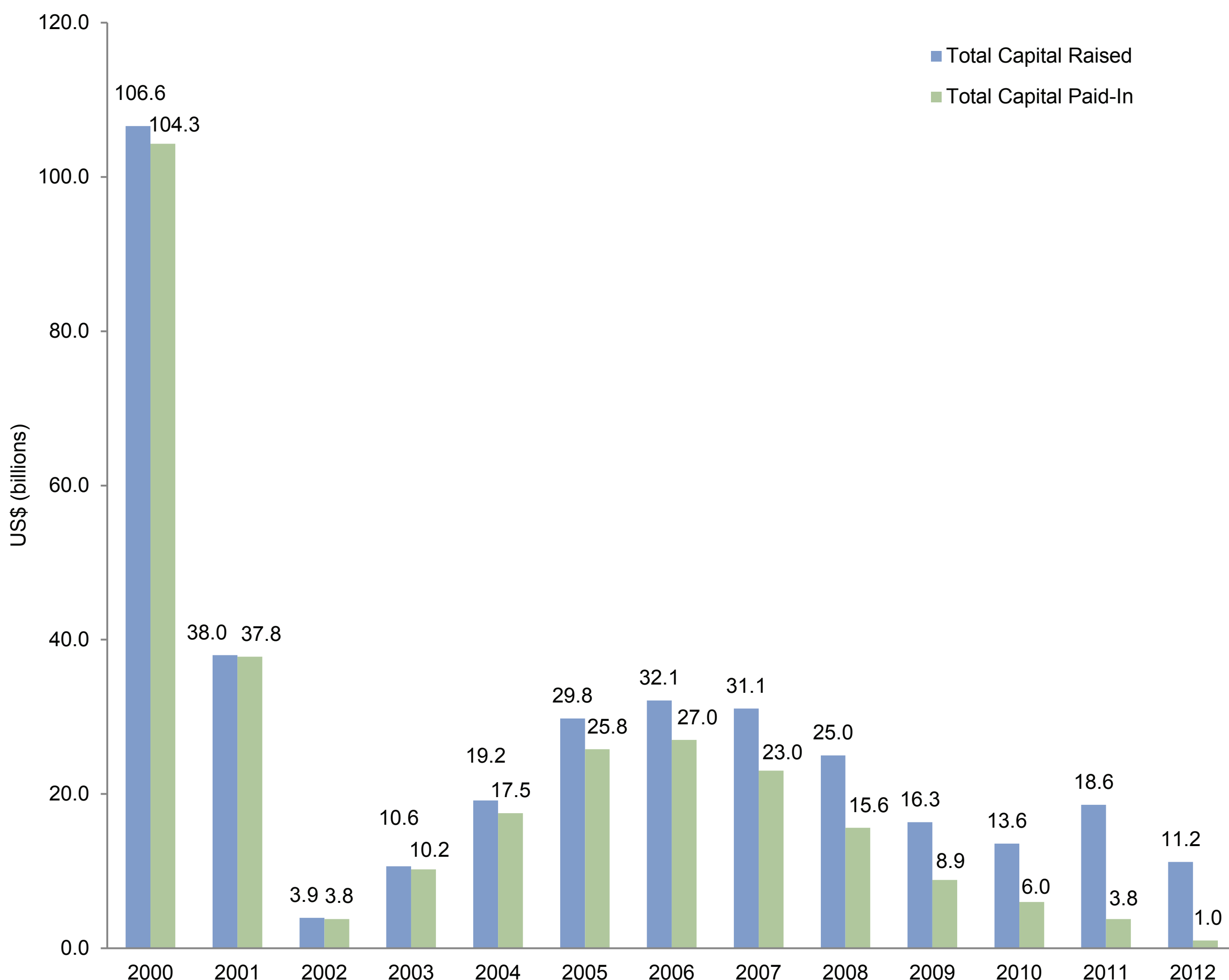
That said, it is also true U.S. venture capital firms and their portfolio companies have not only become more globally focused, but have

[2] A partial list includes Converse, Hewlett-Packard, La-Z-Boy, Motorola, Revlon, Ryder, Texas Instruments, Unisys, and Xerox.

[3] Based on paid-in capital and uncalled capital over six years (six-and-a-half years for the current figure). Arguably, this timeframe best represents dry powder for new investments.

Figure 1. U.S. Venture Capital Estimated Capital Overhang

As of June 30, 2012



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2006–12 Cum
Capital Commitment (US$)	106.6	38.0	3.9	10.6	19.2	29.8	32.1	31.1	25.0	16.3	13.6	18.6	11.2	147.9
% Paid-In	*98%*	*99%*	*96%*	*96%*	*91%*	*87%*	*84%*	*74%*	*62%*	*54%*	*44%*	*20%*	*9%*	
Est Paid-In Capital (US$)[1]	104.3	37.8	3.8	10.2	17.5	25.8	27.0	23.0	15.6	8.9	6.0	3.8	1.0	85.3
Capital Uncalled (US$)	2.3	0.2	0.1	0.4	1.7	4.0	5.1	8.1	9.4	7.5	7.6	14.8	10.2	62.6
Remaining Fees (US$)[2]														18.7
Total Uninvested (2006–12)														**43.9**

Sources: Cambridge Associates LLC Private Investments Database and National Venture Capital Association.

[1] Estimates based on the percentage paid-in by funds tracked by Cambridge Associates in each vintage year.

[2] Assumes a 2.0% management fee based on committed capital over ten years and no reinvestment of capital.

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Figure 2. The State of the Venture Capital Industry
As of December 31, 2011

	1990	1995	2000	2005	2010	2011
Number of Active Firms*	384	423	859	1,002	833	842
Venture Capital Under Management (US$ bn)	$28.2	$38.9	$224.0	$277.3	$182.2	$196.9
Average AUM per Firm (US$ mm)	$73.4	$92.0	$260.8	$276.7	$218.7	$233.8
Venture Capital Raised (US$ bn)	$3.2	$9.5	$103.7	$30.3	$13.8	$18.7
Average Fund Size Raised (US$ mm)	$37.7	$58.4	$162.6	$130.9	$81.5	$108.1
Number of Professionals	3,686	4,859	7,921	9,266	6,328	6,125
Average AUM per Professional (US$ mm)	$7.6	$8.0	$28.2	$29.9	$28.8	$32.1
Number of First-Time VC Funds Raised	13	44	104	34	44	45
Number of Funds Raising Money	86	165	649	234	157	173

Source: National Venture Capital Association, *2012 Yearbook*.
* Defined as firms that raised funds in the last eight vintage years.

also begun to address an increasing number of industries—technology is just beginning to make inroads into education, energy, and health care, for example.

The bottom line is that while conditions have improved since 2005, the industry is hardly facing a capital or manpower shortage. In short, it seems reasonable to say that the size of the venture capital industry is roughly in line with opportunities *for the moment*, although pinning this down remains a nebulous task at best.

The Innovation Question

Investments, of course, are the flip side of the coin—the appropriate level of fund raising depends on the amount of money that can profitably be put to work (an unknown, but real, quantity). As noted, one of the more positive data points in this regard is that investments have outpaced fund raising for five years running. Indeed, this is even more impressive considering capital needs for many start-ups have been falling since the late-1990s, as the cost of infrastructure—e.g., processing power, storage, and bandwidth—has declined precipitously. Further, most software and Internet start-ups now rent infrastructure from companies such as Amazon, which is even less costly (and time-intensive) than building and maintaining it themselves.

As a result, small investments (less than $2 million in some cases) can theoretically be enough to capitalize companies to become legitimate, profitable entities in a relatively short period of time. While most companies will require follow-on capital to continue to scale their businesses, one could plausibly argue this capital is going into de-risked companies. Of course, the converse is that the barrier to entry is commensurately lower, which is particularly apparent with consumer Internet deals.

More broadly, there is a legitimate question about whether (or more accurately, how) the

"right" level of venture capital fund raising has changed over the past two decades. For example, while an enormous amount of high-speed network capability has already been built out, demands for increased speed and bandwidth have ramped up as well. Demand for such networks seems akin to a gas—increasing to fill whatever space is available. It is also impossible to know what is "around the corner"; few, for example, predicted the recent explosion in mobile technology/cloud computing.

High-profile venture capitalists Roger McNamee and Mike Maples argued in a blog post earlier this year that while the social networking wave was "about to crest," the Hypernet—in their words, the physical infrastructure that results from combining the Internet with cellular and Wi-Fi—remains "undersupplied and undercapitalized." Part of what makes it well-nigh impossible to pin down reasonable fund-raising levels is the ever-shifting nature of the industry. Several of the world's most valuable companies—like Google, Facebook, and even Apple—provide products or services that were almost unimaginable just five to ten years ago.

Others, meanwhile, argue that contrary to conventional wisdom, innovation has actually stagnated in recent years. Perhaps the most notable skeptic is PayPal co-founder (and early Facebook backer) Peter Thiel, who argues that current breakthroughs cannot hold a candle to past discoveries—bluntly put, social networking is no internal combustion engine. Further, Thiel and others point out that increasingly burdensome regulations not only constrain new innovators (by codifying existing structures and raising barriers to entry), but also force successful firms to divert increasing amounts of time and money away from innovative processes and toward political efforts (consider, for example, the seemingly endless antitrust cases against Google, whose main product is free). Nonetheless, it is important to note that Thiel continues to be an active early-stage venture capital investor.

The short answer is that the "correct" level of fund raising is yet another nebulous question with no clear answer. Further, the aforementioned issue of small funding stakes resulting in huge gains is a double-edged sword—the increasing "winner-take-all" nature of many markets means that some venture capital investors will do fabulously well … and many will not.

Seed-Stage Funds—Bubble … or Opportunity?

Not surprisingly, the trend toward smaller deals has spurred an increase in seed funds, and we have increasingly been asked by clients about the opportunity (or lack thereof) afforded by such funds. In our opinion, the "new breed" of seed or "micro venture capital" funds—many of which formed around or since 2006—has developed relatively quickly into a legitimate part of the venture capital space, and investors should evaluate them in much the same way as traditional venture capital funds.

While seed-stage fund-raising totals are difficult to pin down, as data often include early-stage funds playing in different markets, we can say definitively that the area is very much on investors' radar screens. Interest has been increasing thanks to high-profile successes in the consumer Internet and social networking space—Facebook, Groupon, and Zynga, for example, were big winners for early investors despite post-IPO stumbles, in addition to continued success stories such as LinkedIn.

However, the number of companies receiving seed financings has exploded in recent years, though only a small percentage will garner follow-on financing. This impending "Series A crunch" may well temper the current level of enthusiasm.

Holistically speaking, most dedicated seed funds have short track records, and we expect to see a shakeout over the next few years; indeed, we are already starting to see growing dispersion of returns and quality among managers. Some successful managers, of course, will be tempted by the lure of raising larger funds and moving up market, while access will quickly become an issue for those that continue to raise small micro venture capital funds. As with the traditional venture capital funds, limited partners that identify and commit early to highly promising emerging funds can be rewarded not only with good returns, but also with future access.

It is also worth noting that these funds have been disruptive and have forced traditional venture capital funds to adapt. Many existing venture capital funds have started their own seed programs and/or devoted more resources to the space, although success has been sporadic, largely because traditional venture capitalists have not been able or willing to devote as much time and resources as dedicated managers. Additionally, entrepreneurs want to avoid the black mark of having the firm that provided their seed funding decline to fund a subsequent Series A. Thus far, the most successful venture capitalists have instead developed a symbiotic relationship with seed-stage managers.

The bottom line on seed funds is that they are a legitimate player in venture capital, and investors should consider them alongside other, more traditional managers when building a program.

Plus ça change …

For investors, of course, the question is whether venture capital looks attractive at the moment, and if so, how one should approach it. The underlying fundamentals look better than they have in several years, although macro concerns remain a significant wildcard. Interestingly, one of the more notable aspects of venture capital today is its relative *lack* of buzz. The most recent chatter has focused on the Facebook IPO fumble—hardly a shining moment for the industry, and perhaps indicative of a general lack of enthusiasm, at least among investors generally, for venture capital. This seems to us a positive.

As with any asset class (and arguably more so than most), venture capital's best returns have tended to follow periods of relative disinterest, and vice versa. For example, while many remember the late-1990s as the golden age of venture capital, this is true mainly for investors that were *already in the asset class*—while triple-digit returns were commonplace for existing funds in the late-1990s, the 1998–2000 vintage years remain three of the worst *ever* on a median return basis. This is somewhat tautological—the pace and scale of innovation do not fluctuate with venture capital fund raising, and investors generally pile into an asset class *after* it has already seen heady gains. Thus, many investors that started venture capital programs in the late-1990s not only missed out on the constrained capital-driven gains of early movers, but were almost by definition funding second- and third-tier companies, with predictable results.

The question, then, is where the prospects for venture capital returns stand today. As mentioned, the fact that investments have been running at a faster pace than funds raised is encouraging, although ultimately such investments must lead to profitable exits. Still, it is

encouraging that venture capitalists are finding what they believe to be attractive opportunities. On the other hand, given that we cannot know how much government interventions have altered the underlying economy, such optimism may be based on a faulty premise (i.e., true demand may be much weaker than it appears, thus leading to overinvestment). The questions raised by Peter Thiel and others about the pace and usefulness of current innovation are also important, yet impossible to quantify.

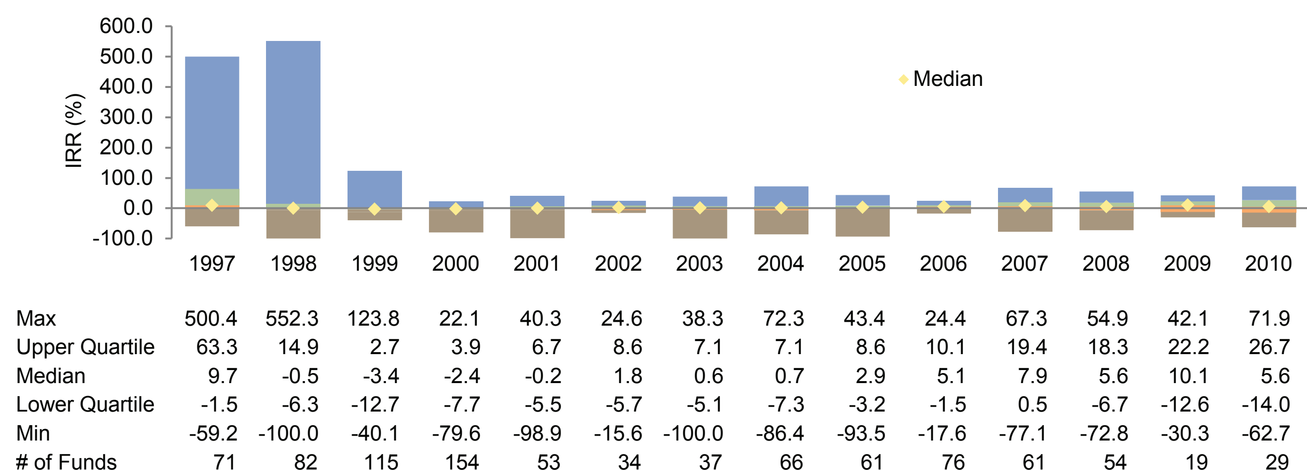
Finally, it is hard to overstate the importance of access to top-flight funds. As shown in Figure 3, *median* returns for venture capital funds have been mediocre at best since the late-1990s, but upper-quartile returns have ranged from solid to spectacular. The factor behind this is no secret—top-tier funds, both established and high-quality emerging ones, get privileged access to many deals, for both their counsel and network of contacts, and this is unlikely to change.

This is perhaps best illustrated in Figure 4, which compares net venture capital internal rates of return to public market equivalent returns (PME[4]) for the Russell 2000® Index. As shown, returns for the venture capital universe as a whole have handily beaten the PME for most vintage years, *but only because of top-quartile funds*. For investors in the top 25% of funds, venture capital has generally performed exactly as advertised, topping PMEs by a significant margin, but most of those invested in the other 75% of funds have essentially locked up their money, and paid venture capital fees, for the privilege of earning returns below those available in the public market.

[4] PME is a method of comparing public market investments to private equity and venture capital by staggering cash flows to approximate the flows of funds into and out of private equity/venture capital funds (i.e., measuring dollar-weighted instead of time-weighted returns).

Figure 3. Internal Rates of Return (%) Net to Limited Partners of U.S. Venture Capital Funds by Quartiles

Vintage Years 1997–2010 • As of June 30, 2012 • U.S. Dollar



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Max	500.4	552.3	123.8	22.1	40.3	24.6	38.3	72.3	43.4	24.4	67.3	54.9	42.1	71.9
Upper Quartile	63.3	14.9	2.7	3.9	6.7	8.6	7.1	7.1	8.6	10.1	19.4	18.3	22.2	26.7
Median	9.7	-0.5	-3.4	-2.4	-0.2	1.8	0.6	0.7	2.9	5.1	7.9	5.6	10.1	5.6
Lower Quartile	-1.5	-6.3	-12.7	-7.7	-5.5	-5.7	-5.1	-7.3	-3.2	-1.5	0.5	-6.7	-12.6	-14.0
Min	-59.2	-100.0	-40.1	-79.6	-98.9	-15.6	-100.0	-86.4	-93.5	-17.6	-77.1	-72.8	-30.3	-62.7
# of Funds	71	82	115	154	53	34	37	66	61	76	61	54	19	29

Source: Cambridge Associates LLC Private Investments Database.

Notes: Based on data compiled from 912 U.S. venture capital funds, including fully liquidated partnerships, formed between 1997 and 2010. Internal rates of return are net of fees, expenses, and carried interest. Vintage year funds formed since 2009 are too young to have produced meaningful returns. Analysis and comparison of partnership returns to benchmark statistics may be irrelevant.

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Figure 4. Public Market Equivalent Returns
1981–2011

Venture Capital Funds Have Outperformed the Russell 2000® Index in Most Vintage Years …

	USVC			**Russell 2000® PME**			**USVC Value Add**	
Vintage Year	D/PI	TV/PI	Net LP IRR	D/PI	TV/PI	Net LP IRR	IRR-Based	TV/PI-Based
1981	1.8x	1.8x	8.5%	2.2x	2.2x	13.3%	-485 bps	-0.4x
1982	1.8x	1.8x	7.4%	2.2x	2.2x	11.7%	-435 bps	-0.5x
1983	2.0x	2.0x	10.2%	2.0x	2.0x	10.5%	-24 bps	0.0x
1984	1.8x	1.8x	8.6%	1.9x	1.9x	10.2%	-158 bps	-0.1x
1985	2.7x	2.7x	12.9%	1.9x	1.9x	10.0%	293 bps	0.8x
1986	2.9x	2.9x	14.5%	2.3x	2.3x	11.7%	283 bps	0.6x
1987	2.7x	2.7x	18.3%	1.8x	1.8x	12.0%	625 bps	1.0x
1988	2.4x	2.5x	18.9%	1.8x	1.8x	13.7%	526 bps	0.7x
1989	2.6x	2.6x	19.2%	2.0x	2.0x	14.3%	483 bps	0.6x
1990	3.1x	3.1x	33.1%	1.6x	1.6x	15.5%	1,763 bps	1.5x
1991	3.1x	3.1x	27.2%	1.8x	1.8x	15.1%	1,208 bps	1.3x
1992	3.1x	3.1x	32.8%	1.6x	1.6x	14.1%	1,864 bps	1.5x
1993	4.1x	4.1x	46.7%	1.5x	1.5x	14.3%	3,232 bps	2.6x
1994	5.4x	5.4x	59.3%	1.4x	1.4x	12.6%	4,668 bps	4.0x
1995	6.2x	6.2x	87.9%	1.3x	1.3x	10.2%	7,772 bps	4.9x
1996	5.0x	5.0x	103.3%	1.2x	1.3x	8.2%	9,512 bps	3.7x
1997	3.1x	3.1x	91.8%	1.2x	1.3x	7.2%	8,459 bps	1.8x
1998	1.4x	1.5x	12.1%	1.3x	1.4x	7.2%	490 bps	0.1x
1999	0.8x	0.9x	-1.0%	1.2x	1.4x	6.2%	-727 bps	-0.5x
2000	0.6x	1.0x	-0.5%	0.9x	1.4x	6.5%	-704 bps	-0.4x
2001	0.6x	1.1x	2.0%	0.7x	1.3x	6.4%	-435 bps	-0.2x
2002	0.6x	1.0x	0.3%	0.7x	1.3x	5.6%	-532 bps	-0.2x
2003	0.4x	1.2x	4.9%	0.4x	1.2x	3.9%	94 bps	0.0x
2004	0.3x	1.4x	8.7%	0.3x	1.1x	3.1%	566 bps	0.3x
2005	0.3x	1.2x	5.2%	0.3x	1.1x	3.3%	196 bps	0.1x
2006	0.2x	1.2x	7.5%	0.2x	1.1x	4.1%	344 bps	0.1x
2007	0.2x	1.3x	13.0%	0.2x	1.1x	5.9%	714 bps	0.2x
2008	0.1x	1.2x	13.5%	0.1x	1.2x	9.5%	398 bps	0.1x
*2009**	*0.1x*	*1.2x*	*16.4%*	*0.1x*	*1.1x*	*8.6%*	*778 bps*	*0.1x*
*2010**	*0.0x*	*1.2x*	*22.4%*	*0.0x*	*1.0x*	*-1.3%*	*2,368 bps*	*0.2x*
*2011**	*0.0x*	*1.0x*	*11.8%*	*0.0x*	*1.0x*	*3.0%*	*875 bps*	*0.0x*

Underperformed Public Index
Slightly Outperformed Public Index, <3%
Outperformed Public Index, >3%

Figure 4. Public Market Equivalent Returns (continued)
1981–2011

… But Not When Top Quartile Funds Are Excluded

	USVC Less First Quartile Funds			**Russell 2000® PME**			**USVC Value Add**	
Vintage Year	D/PI	TV/PI	Net LP IRR	D/PI	TV/PI	Net LP IRR	IRR-Based	TV/PI-Based
1981	1.6x	1.6x	6.7%	2.3x	2.3x	13.3%	-658 bps	-0.7x
1982	1.6x	1.6x	5.6%	2.5x	2.5x	12.2%	-662 bps	-0.9x
1983	1.7x	1.7x	7.6%	2.0x	2.0x	10.2%	-260 bps	-0.3x
1984	1.4x	1.4x	4.9%	2.1x	2.1x	10.7%	-578 bps	-0.6x
1985	2.2x	2.2x	10.3%	2.1x	2.1x	10.2%	7 bps	0.2x
1986	1.7x	1.7x	7.7%	2.0x	2.1x	10.9%	-320 bps	-0.4x
1987	2.2x	2.2x	13.7%	1.8x	1.8x	11.5%	218 bps	0.4x
1988	1.7x	1.9x	9.9%	2.1x	2.2x	13.6%	-364 bps	-0.3x
1989	2.1x	2.1x	13.6%	2.1x	2.1x	14.1%	-48 bps	0.0x
1990	2.5x	2.5x	23.5%	1.8x	1.8x	15.5%	802 bps	0.7x
1991	2.0x	2.0x	15.4%	1.9x	1.9x	14.1%	126 bps	0.1x
1992	1.9x	1.9x	15.9%	1.7x	1.7x	12.7%	322 bps	0.2x
1993	2.0x	2.0x	19.7%	1.6x	1.6x	12.8%	685 bps	0.4x
1994	2.0x	2.1x	18.8%	1.5x	1.5x	10.5%	831 bps	0.5x
1995	2.2x	2.2x	27.3%	1.4x	1.4x	9.2%	1,810 bps	0.8x
1996	2.0x	2.1x	31.1%	1.3x	1.4x	7.4%	2,370 bps	0.7x
1997	1.1x	1.2x	4.7%	1.3x	1.4x	6.8%	-211 bps	-0.2x
1998	0.8x	0.9x	-1.1%	1.3x	1.5x	7.2%	-831 bps	-0.6x
1999	0.5x	0.6x	-7.2%	1.1x	1.5x	5.8%	-1,307 bps	-0.8x
2000	0.5x	0.8x	-3.8%	0.8x	1.4x	6.2%	-994 bps	-0.6x
2001	0.4x	1.0x	-0.7%	0.6x	1.3x	6.1%	-684 bps	-0.4x
2002	0.5x	0.9x	-2.4%	0.6x	1.3x	5.2%	-758 bps	-0.4x
2003	0.2x	0.8x	-3.7%	0.3x	1.2x	3.5%	-728 bps	-0.3x
2004	0.2x	0.9x	-1.8%	0.2x	1.1x	3.1%	-499 bps	-0.2x
2005	0.1x	1.0x	-1.3%	0.2x	1.1x	3.4%	-476 bps	-0.2x
2006	0.1x	1.0x	1.3%	0.1x	1.1x	4.0%	-264 bps	-0.1x
2007	0.1x	1.1x	3.1%	0.1x	1.1x	5.6%	-252 bps	-0.1x
2008	0.1x	1.0x	1.9%	0.1x	1.1x	9.5%	-755 bps	-0.1x
*2009**	*0.0x*	*1.1x*	*8.9%*	*0.0x*	*1.1x*	*9.2%*	*-29 bps*	*0.0x*
*2010**	*0.0x*	*1.0x*	*6.8%*	*0.0x*	*1.0x*	*-2.0%*	*881 bps*	*0.1x*
*2011**	*0.0x*	*0.9x*	*-30.1%*	*0.0x*	*1.0x*	*15.8%*	*-4,588 bps*	*-0.1x*

Underperformed Public Index | Slightly Outperformed Public Index, <3% | Outperformed Public Index, >3%

Sources: Cambridge Associates LLC Private Investments Database and Frank Russell Company.
Notes: D/PI represents distribution to paid-in capital and TV/PI represents total value to paid-in capital. Vintage year internal rates of return (IRRs) are calculated from pooled cash flows and ending market values for all funds in that vintage year. PME returns represent the IRR that would have been generated for each vintage year if those cash flows were invested in and divested from the Russell 2000® Index. Net IRR is cumulative since inception. Data as of December 31, 2011.
* Funds formed from 2009 onward are too young to assess for this analysis.

Conclusion

Despite widespread claims to the contrary, we do not believe the venture capital model is "broken." We are inclined to view recent data positively, as fund raising and investment appear to have settled out at reasonable levels for the industry as a whole, and believe innovative people will continue to … innovate. Macro concerns—both in terms of exogenous events and increased regulations—are certainly worrisome, but such concerns are hardly unique to venture capital, and as noted could even prove a relative benefit as seen in prior crises.

The bottom line is we expect *top-tier* managers to continue to generate returns that justify locking up capital for multiple years. Many of the analyses that consider venture capital to be broken have focused on aggregate or median returns, but venture capital investing has never been about getting median returns. Instead, investors should aggressively seek out top-flight funds—both established *and new*. Of course, this is easier said than done, and we recognize not all investors will be able to do so. It is of course impossible for all investors to earn market-beating returns, and this basic truth is exacerbated in a winner-take-most space like venture capital.

Thus, as we have repeatedly stressed over the years, *not all, or even most, investors should have an allocation to venture capital*. Rather, only those with sufficient resources and the ability to access the best firms, along with the willingness and fortitude to ride out the inevitable rough spots, should even consider putting money in venture capital. ■