CHAPTER 1

Laying the Foundation

This book doesn't profess to have all the answers, but it will provide solutions for, and alternatives to, many valuation issues faced by early stage, venture-backed companies. Furthermore, this book is not a treatise on proper accounting treatment; other books are available that cover that topic, and it should be said that there is little consensus among accounting firms as to how a particular issue should be treated. However, this book does provide an experiential and practical guide to valuing early stage, venture-backed companies. It incorporates what I've learned during more than 15 years of focused start-up work along with the collective wisdom of the many practitioners whom I've had the joy and honor to work with over the years.

A UNIQUE LANDSCAPE

To really understand the context in which early stage companies are valued, a thorough background of the different economic and socioeconomic environments in which such companies exist is needed. In addition, a working understanding of the venture capital industry is helpful, given that venture capital is the engine that powers these companies to success (success is the goal, even though it's not always achieved). The following paragraphs and sections lay the basic groundwork for the unique aspects of valuing early stage companies.

Readers who were performing valuations during the dot-com boom of the late 1990s are familiar with the crazy valuations that were prevalent at the time for early stage companies. Early stage companies, those with

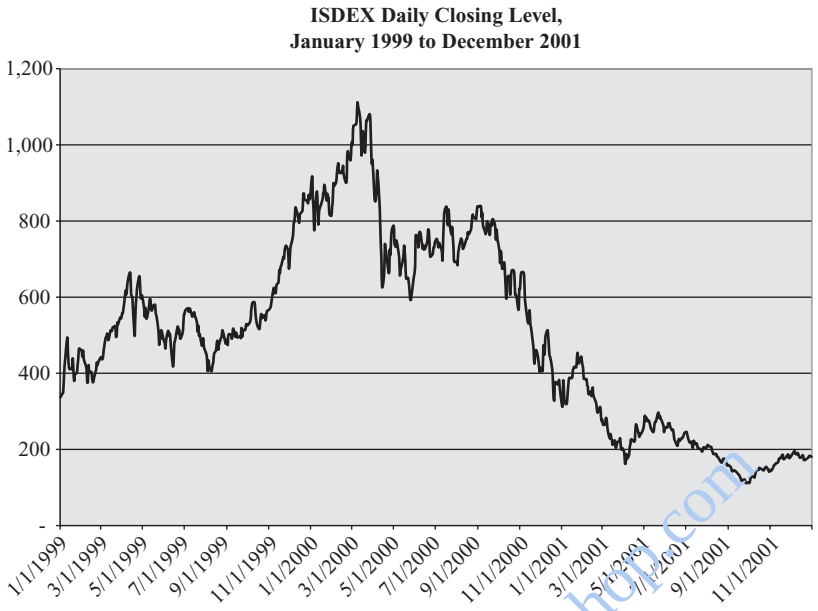

EXHIBIT 1.1 Internet Stock Index, January 1999 to December 2001

little or no revenue or income, were commanding huge valuations, sometimes eclipsing the market values of many well-established "old economy" companies. I look back fondly at that time, recalling how any valuation, no matter how ridiculous, seemed to be accepted—and even revered—by the investing public. Valuation professionals could make no mistake, and "experts" such as Henry Blodgett and Mary Meeker achieved iconic status. But reality finally set in, and the bubble burst with a bang during March and April 2000, as shown in the Internet Stock Index (ISDEX) chart in Exhibit 1.1.

A telling story is that the ISDEX is no longer published as of this writing. Even more telling, however, is that during the two-plus years from December 1999 through February 2002, more than 800 Internet-related companies went out of business, according to Webmergers. The carnage is shown in Exhibit 1.2, which displays an expected inverse of the ISDEX chart and also supports the adage that what goes up must come down.

Ironically, as all of these start-ups began to start down, a new start-up entered the scene in April 2000, *Fucked Company*, which chronicled the plight of failing Internet companies with humor and irreverence. Styled after *Fast Company*, a magazine for start-up technology companies that is still in circulation, *Fucked Company* followed the same path of the very companies

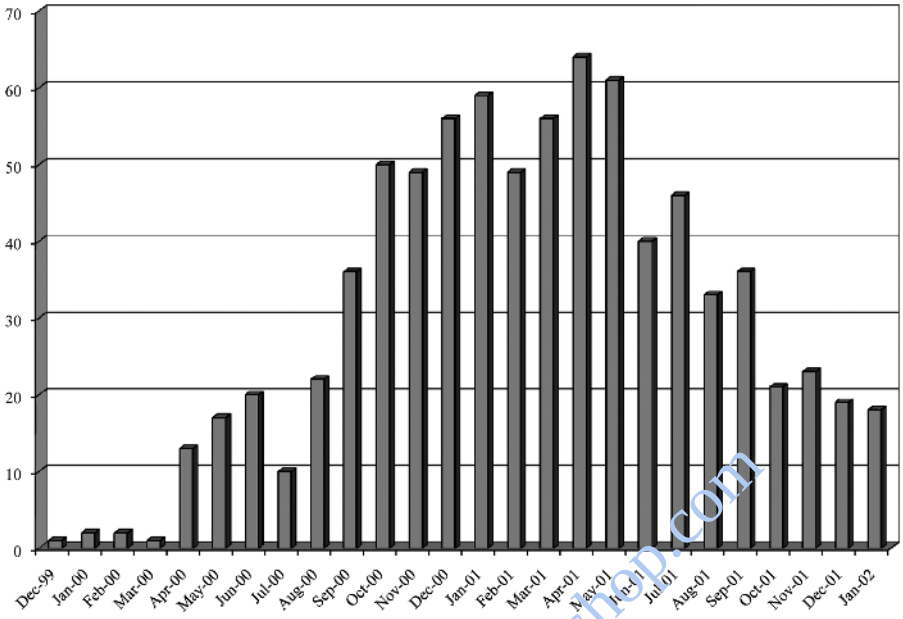

EXHIBIT 1.2 Internet Shutdowns and Bankruptcies by Month, December 1999–February 2002

Source: Data from Webmergers, Inc.

it ridiculed, ultimately being sold to TechCrunch in April 2007, seven years after its illustrious start.

At this point, readers may be asking, what does all of this have to do with valuing early stage companies? The fact is that there are no hard-and-fast rules in valuing early stage companies. Although it can be said that valuing closely held companies is more art than science, that statement is even more applicable to early stage companies. A fledgling start-up has too many unknowns, ranging from an inexperienced management team to an iffy customer base to an uncertain market for initial public offerings. When a prominent venture capital expert was asked what figures into his valuations, he answered, "Three guys, a garage, a product, or a beta site."

We've often heard that hindsight is 20/20. Looking back at the dot-com bubble, I wonder how in the world things got so crazy! I believe the answer lies at the core of valuation theory, and specifically in one aspect of that theory—uncertainty. Fundamentally, valuation professionals need only three basic items to value any asset (and I'm not referring to "three guys, a garage, and a product"): (1) an income stream, (2) a discount rate, and (3) a growth rate. A seasoned valuation professional can consider those three things and then value the asset. However, when one or more of those

items is unknown or uncertain, the underlying valuation becomes murky. For early stage companies, at least two of the three necessary inputs are subject to substantial uncertainty.

First, the income stream is sometimes little more than an "Excel exercise" based on a spreadsheet model that is typically built on numerous, untested assumptions. Second, the growth of the income stream is a pure SWAG (i.e., scientific wild-ass guess). The importance of the discount rate under these circumstances diminishes—without a relevant and reliable income stream or growth rate, what is there to discount?

So what was driving such high valuations during the late 1990s? Clearly the Internet played a big role, but that is only on the supply side. On the demand side, capital was flowing like beer at a frat party. This is shown in Exhibit 1.3, which demonstrates the amount of capital committed to venture funds at various times from 1980 through the second quarter of 2009 (annualized). Notice what happened in 1999 and 2000 and even during the residual period in 2001. The stock market frenzy during that time was a capital and business siren beckoning both investor and entrepreneur to drink the Kool-Aid of high valuations. Initial public offerings (IPOs) hit feverish highs, mirroring the amounts of capital companies were able to raise. After a sobering up in 2002, the trend resumed as venture capital commitments began a slow and cautious return through 2007, when the

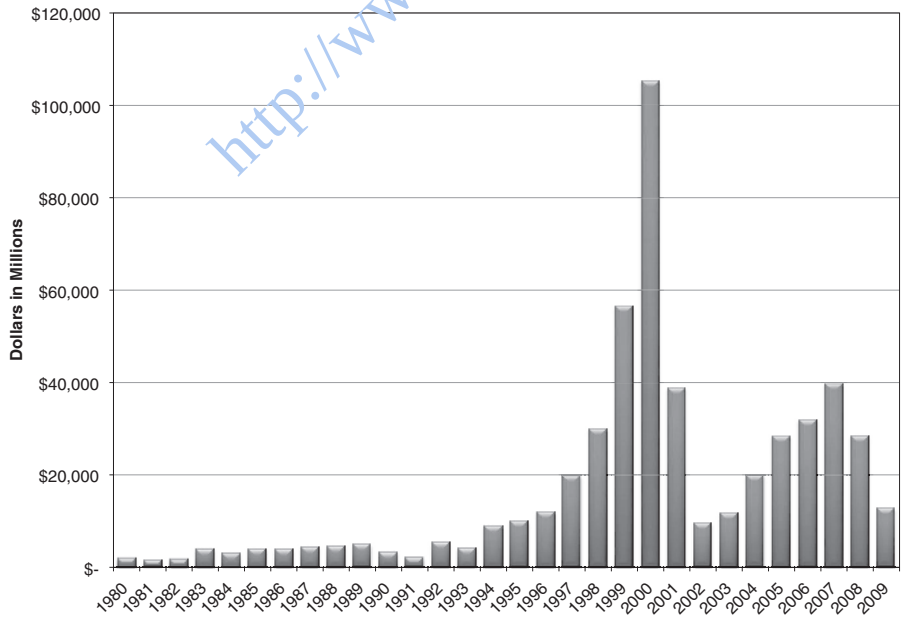

EXHIBIT 1.3 Venture Capital Commitments by Year

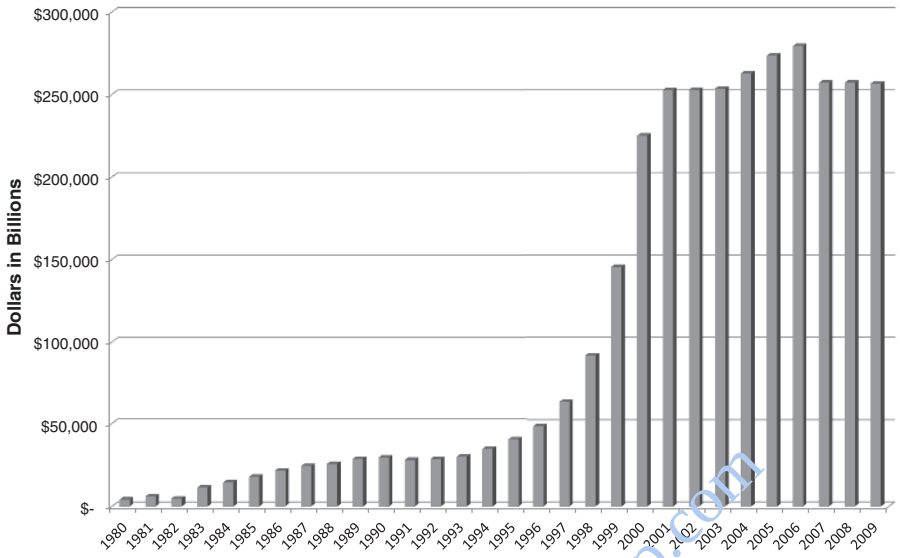

EXHIBIT 1.4 Venture Capital under Management

current economic crisis put the brakes on committed capital. The second quarter of 2009 showed the lowest number of funds raising capital since 1996 and the lowest raising of capital since 2003.

However, even though capital commitments have slowed, the amount of venture capital sitting on the sidelines waiting for an opportunity to play is staggering, as shown in Exhibit 1.4. More than $250 billion (with a "b") of capital has been looking for a home since 2001. Interestingly, given the amount of capital raised per year shown in the foregoing chart, it appears that during the past nine years what has been raised has essentially been invested. The lesson to be learned here is that there is plenty of money available to invest but a perceived lack of investment opportunities. What does this say about current valuations?

The ultimate goal of any venture capital (VC) fund is to create value for its investors. One thing VC funds focus on to accomplish this goal is liquidity for their investments, which take the form of either mergers/acquisitions or IPOs. As shown in Exhibit 1.5, both the number of IPOs and the amount of capital raised by these IPO companies peaked between the last quarter of 1999 and the first quarter of 2000. Many paper millions were made by thousands of new investors, and some were even lucky enough to sell off before the big crash and convert at least some of their paper profits into real dollars.

The majority, however, were not as fortunate. VC investing plummeted, and IPOs went on a two-year chill. But as with most things in business,

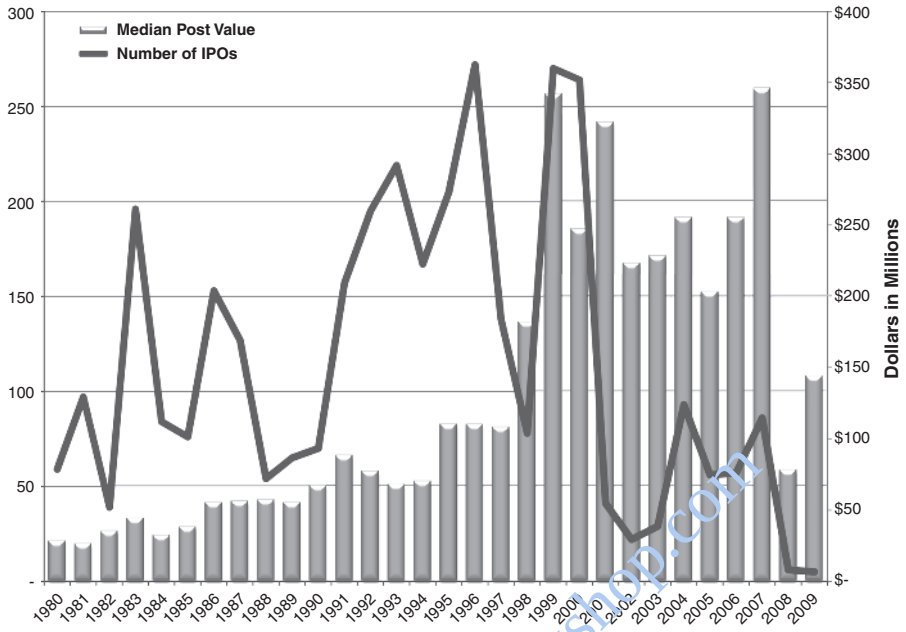

EXHIBIT 1.5 Venture-Backed IPOs

the cycle returned; new investment increased, and IPOs began to emerge from the dot-com debacle through 2007. What goes around comes around, though, and a new nadir was reached in 2008, when only five IPOs went out. During the second quarter of 2009, as many new venture-backed IPOs went out as in all of 2008, but currently, it is not clear whether the IPO window will be open again, as it was in 1999 and 2000. I'd say that will be based on the converse of what goes up must come down (i.e., what comes down must go up).

Granted, tremendous business potential was created by the Internet, but no one really knew just how *much* potential there was. This uncertainty was the primary driver behind the run-up in valuations; investors were afraid that they would miss out if they didn't invest. Going back to our three valuation ingredients, cash flows were projected to increase at a phenomenal pace (remember "get big fast"?), while discount rates continued to be drawn from the general marketplace for the most part. Since most of these companies didn't have positive earnings before interest, taxes, depreciation, and amortization (EBITDA, a common measure of available cash flow), let alone earnings, revenue multiples replaced price-to-earnings (P/E) multiples. The moderation in multiples that one would expect from moving up in the income chain (net income to revenue),

however, did not occur. Instead, new terms were invented to "fit" these absurd valuations.

A walk down memory lane brings to mind such valuation metrics as:

- Price to employees
- Price to page views
- Price to click-throughs
- Price to downloads
- Price to personal digital assistants
- Price to property, plant, and equipment (PPE)
- Price to doors passed
- Price to next year's revenue

You will notice a prevalent lack of financial metrics for obvious reasons. But Internet companies weren't the only ones looking for valuation validation in the marketplace. Infrastructure players, such as competitive local exchange carriers and cable companies, were being valued based on price to property, plant, and equipment or price to subscribers. Although nonfinancial metrics weren't new in the late 1990s, they were the *only* metrics on many occasions.

Performing a valuation engagement for an early stage company requires an approach that is different from a valuation engagement for a typical revenue and income-generating entity. The absence of financial metrics from which to derive value, coupled with intense uncertainty, mandates a different analytical skill set. Such assignments force the valuation professional to delve deeper into the qualitative aspects of the company, its management team, and its market prospects more than is typical in a "traditional" valuation engagement. These roles are discussed in more detail in the following sections.

Early stage company valuations are usually performed for the issuance of common stock options, but they can be done for other purposes as well. I am often asked to value an early stage company for investment purposes, but since most early stage companies already have a modicum of external investment, I tend to suggest a more advisory role than a formal valuation. In real life, the valuation of an early stage company is a result of a mutually accepted valuation between the company and its financial backer or backers. The valuation incorporates the entrepreneur's determination of the acceptable amount of ownership that may be given in return for the investor's capital or expertise as well as the investor's assessment of the risks and rewards of the investment. As such, understanding the valuation

process both from the investor's perspective *and* the company's perspective is critical. The stage of development is also important and follows a pretty consistent path for most early stage companies.

Valuation methodologies differ by the stage of investment and the availability of quantitative and qualitative data. However, the basic components of early stage company valuations are universal and somewhat simple and should be understood before a potential investor takes on such an engagement. The following sections discuss how investors consider, construct, and justify valuations of early stage companies and offer perspective on the dynamic role of valuation throughout a company's life cycle. However, before I discuss the nitty-gritty of valuation, an overview of the venture capital industry—the primary source of funds for early stage companies—is helpful.

AN OVERVIEW OF THE VENTURE CAPITAL INDUSTRY

Venture capital is money provided to young, rapidly growing companies that have the potential for significant growth in the markets they serve. Venture capital is an important source of funding for start-up companies because many such companies do not have access to traditional sources of capital for their growth needs. Venture capital investing has grown from the small investment pools typical of the 1960s and the early 1970s to a mainstream asset class that is a viable and significant part of the institutional and corporate investment portfolio. As shown in Exhibit 1.3, total venture capital commitments (i.e., promises to provide money to the fund at some future point) and fund size were relatively stable from 1978 through 1994, before a sharp increase occurred in both categories from 1998 through 2000 with the advent of Internet-based companies like eBay and Amazon.com. Commitments dropped precipitously in 2001 and 2002 before edging up annually through 2007 and then dropping again in 2008 and 2009.

Investment Focus

Venture capitalists may be generalist or specialist investors depending on their investment strategy. Generalists invest in various industry sectors, various geographic locations, or various stages of a company's life. Alternatively, specialists focus on one or two industry sectors or seek to invest in only a localized geographic area or in a particular stage in a company's life cycle. As of 2007, there were approximately 740 venture capital firms

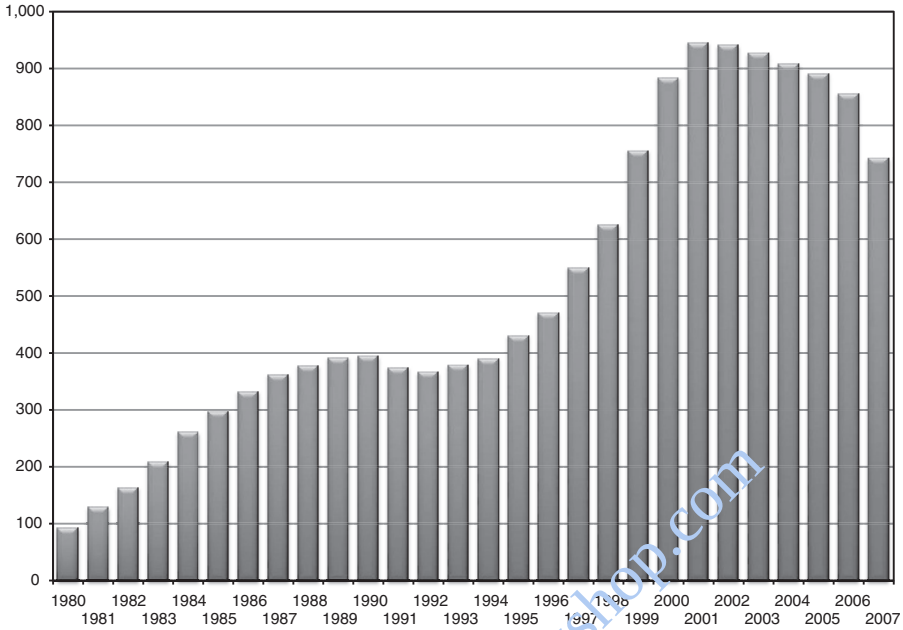

EXHIBIT 1.6 Existing Firms by Fund Vintage Year

representing 1,550 separate venture funds, more than eight times the number existing in 1980. Employment-wise, the industry had approximately 8,900 professionals managing more than $255 billion in venture capital spread over various "stages" of investment. Through 2007, more than 600 venture firms had exited the industry, about 200 of this total having exited since 2001, as shown in Exhibit 1.6.

Venture firms often invest in start-up companies, but they also invest in companies at various stages of the business life cycle. "Seed" investing (investment made before there is a real product or company organized), "early stage" investing (investment in companies in their first or second stages of development), and "expansion stage" investing (financing a company to allow growth beyond a critical mass to become more successful) are common categories of venture investing. There are other "stage" breakdowns disseminated by various organizations, including the National Venture Capital Association (NVCA) and the American Institute of Certified Public Accountants (AICPA), but they are generally in agreement.

Exhibit 1.7 shows the amount of investment by stage from 1990 through the first quarter of 2009 (annualized). The significant amount of expansion—second- and third-stage funding during 1999 and 2000—resulted from a change in investor attitudes toward risk. Before the

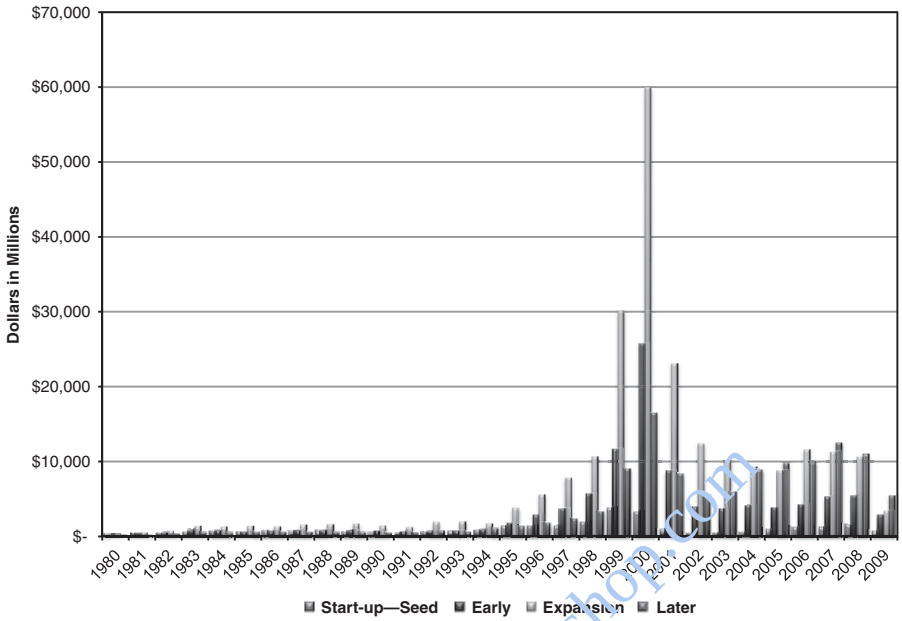

EXHIBIT 1.7 Venture Capital Investments by Stage

Internet bubble burst, investors were willing to "bet" significant sums on potentially huge market opportunities. However, the realities of the current market environment have slaked that thirst; overall investment fell considerably during 2003; it inched up from 2005 through 2007 but fell again in 2008 and 2009 as the prevailing economic sentiment took its toll.

While high-technology investment makes up most of the venture investing in the United States and the venture industry receives a lot of attention for its high-technology investments, venture capitalists also invest in enterprises such as construction companies, manufacturers of industrial products, and providers of business services. Venture firms come in various sizes, from small, seed specialist firms with only a few million dollars under management to firms that have more than a billion dollars in capital invested around the world. What all these types of venture investing have in common is that venture capitalists are not passive investors; they have an active and vested interest in guiding, leading, and growing the companies they have invested in. They seek to add value through their experience in investing in tens and hundreds of companies.

As Exhibit 1.8 shows, over the long term, venture capitalists have been quite successful in generating substantial net internal rates of return for their investors for the periods measured. However, timing is everything.

EXHIBIT 1.8 Performance of Venture Capital Funds, 2008

Fund Type	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Early/Seed VC	25.6%	6.8%	3.1%	34.5%	20.8%
Balanced VC	35.4%	14.6%	10.1%	14.9%	14.2%
Later Stage VC	38.2%	11.6%	9.0%	8.6%	13.9%
All Venture	31.3%	10.7%	6.9%	17.9%	16.4%

The 1999 and 2000 vintage funds actually had negative returns at the one- and three-year measurement points. Fortunately, most funds were able to continue holding their investments until they could sell for nominal returns of at least three percent.

Length of Investment

Venture capitalists generally like to exit their investments in three to seven years. However, an early stage investment may take seven to twelve years to mature, whereas a later stage investment may take only a few years; consequently, the appetite for the investment life cycle must be congruent with the limited partnerships' appetite for liquidity. Most venture investments are illiquid until distributions have been made by the general partner. As Exhibit 1.9 shows, venture investments, in terms of both number of deals and amount of investment, have slowed considerably from their peak in 2000 and are currently on par with pre-1997 levels.

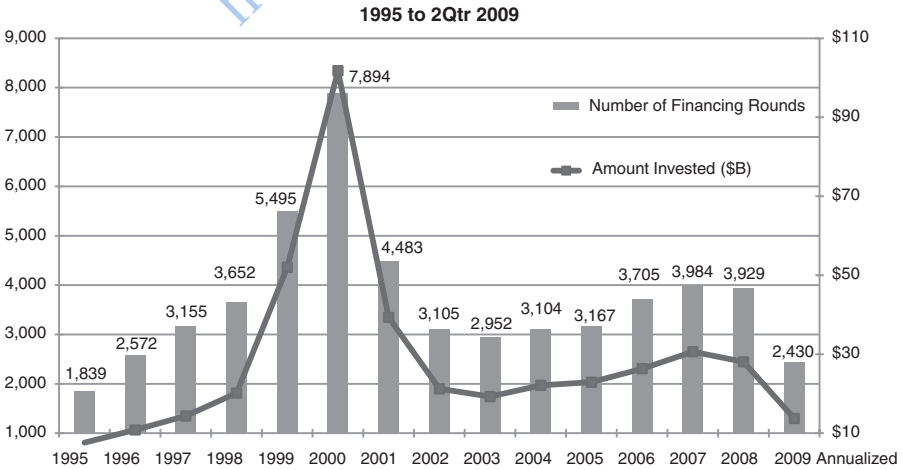

EXHIBIT 1.9 Total Number of Deals and Amount Invested

Capital Calls

Making investments in portfolio companies requires the venture firm to start "calling" its limited partner commitments. The firm will collect or "call" the needed investment capital from the limited partners in a series of tranches commonly known as "capital calls." These capital calls from the limited partners to the venture fund are sometimes called "takedowns" or "paid-in capital." Although some firms call this capital down in equal installments, many venture firms now try to match their funding cycles with their capital needs and therefore call their capital on an as-needed basis.

Illiquidity

Limited partners make investments in venture funds with the understanding that the investment will most likely be for the long term. It may take several years before the first investments start to return proceeds; in many cases, the invested capital may be tied up in an investment for seven to ten years. Limited partners generally factor this illiquidity into their investment decisions. Exhibit 1.10 demonstrates the volatility related to limited partner distributions. As shown, limited partners experienced substantial investment returns in 1999 and 2000 before the bottom fell out in 2001 and 2002. Distributions climbed back up in 2004 and 2005 before flattening again in 2006 and remaining there through 2007. Overlaying this chart with Exhibit 1.3 reveals that distributions lag commitments on a year-to-year comparison, but what isn't known is how long those particular limited partners (LPs) had to wait for their specific distribution. Many funds have multiple distributions, given that underlying portfolio companies are either sold or have an IPO.

Exits

As noted previously, VCs seek to exit their investments within three to seven years of the initial investment. While an IPO may be the most glamorous and heralded type of exit for the venture capitalist and owners of the company, the most successful exits of venture investments have occurred through a merger or acquisition of the company by either the original founders or another company. Prior to 2001, venture-backed IPOs dominated the markets, as shown by Exhibit 1.11. However, after the tech wreck in 2000, venture-backed IPOs have struggled because investors have been wary about wading back into the "tech IPO" pool.

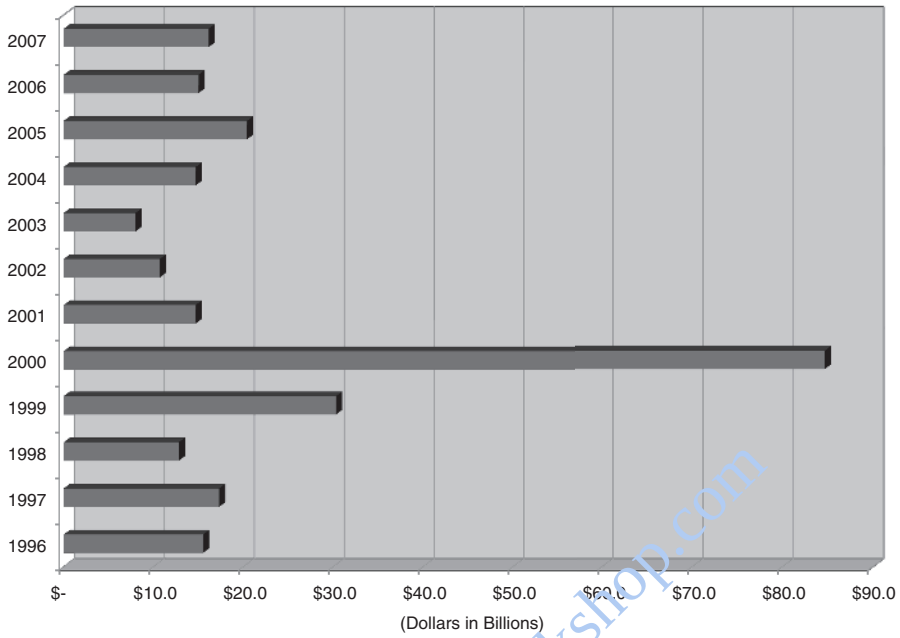

EXHIBIT 1.10 VC Limited Partner Distributions

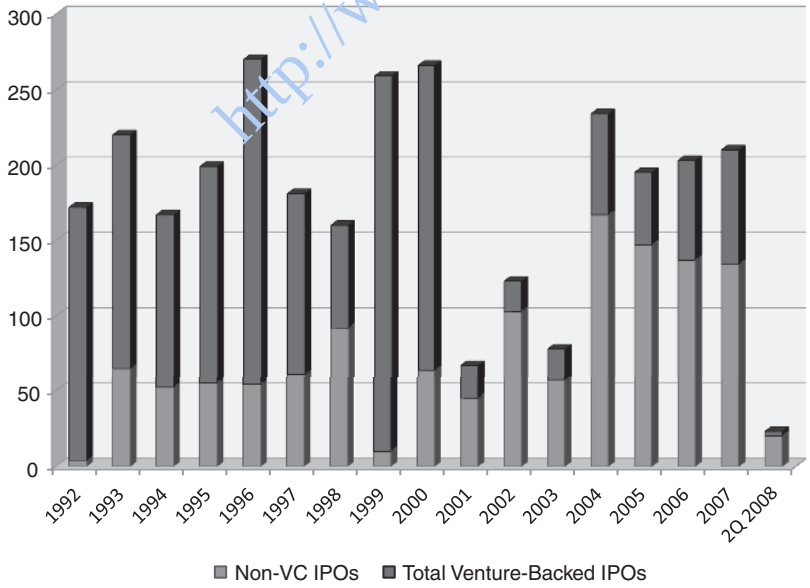

EXHIBIT 1.11 Venture-Backed and Non-Venture-Backed IPOs

Valuations

Like a mutual fund, each venture fund has a net asset value (i.e., the value of an investor's holdings in that fund) at any given time. However, unlike a mutual fund, this value is not determined through a public market transaction but through a valuation of the underlying portfolio. As noted previously, a venture investment is fairly illiquid, and at any point the venture fund may have investments in both private companies and the stock of public companies. These public stocks are usually subject to restrictions for a holding period and are thus subject to a liquidity discount in the portfolio valuation. However, by their very nature, private equity investments require a significant amount of valuation judgment. Accordingly, investors in the same company may have different, but supportable, views on valuation. I have seen this repeatedly throughout the years in all kinds of economic environments.

In response to a maturing industry and investor demands for greater transparency and valuation consistency, the Private Equity Industry Guidelines Group (PEIGG) was formed in 2003 to deal with the issue of valuation guidelines. The first version of the guidelines was issued in 2003, and they have been continually updated and refined since then. The latest guidelines can be found at www.peigg.org. With the advent of fair value requirements for portfolio investments, venture funds have been slowly but surely engaging in more stringent valuation exercises for their portfolio companies. I expect this trend to continue as the Financial Accounting Standards Board (FASB) moves further into full fair-value financial statements.

CONCLUSION

Performing valuations for early stage companies requires an understanding of the unique circumstances faced by such companies. The environment in which funding occurs, the myriad drivers of investment availability, and potential exit strategies all combine to influence the valuation process in ways that are difficult to quantify. Discerning these influences and having the ability to place them in context with the valuation engagement will allow for more relevant and useful valuations for early stage companies.

Exhibit 1.12 (shown on the following pages) summarizes many of the differences in perspective between a VC and a common stock investor.

EXHIBIT 1.12 Summary of Differences in Perspectives of Venture Capitalists and Common Stock Investors

	Venture Capitalists	"The Rest of Us"
Investment Focus	VCs are usually well diversified with respect to companies in the sector(s) they target. They usually have superior access to industry and company information as compared with common shareholders.	Common stock investors typically have most of their investment concentrated in the company with little or no diversification. In addition, common stock investors typically have limited access to information about other private companies or alternative investments.
Length of Investment	As discussed previously, VCs have the ability and expectation to wait three to seven years for their returns, and in some cases as long as ten years.	Common stockholders typically do not have the wealth or risk tolerance to be comfortable waiting this long for their return. They usually value long-term investments significantly lower than would a VC.
Capital Calls	VCs are not concerned about where the money for future investments is coming from (i.e., once they close fund raising for their next fund). Often, there is a potential "agency affect"; it is not their money and therefore they will manage it appropriately.	Common stock investors put in their own money (albeit in the form of sweat equity or foregone salary). This creates the antithesis of the "agency affect." Common stock investors often can't protect their investment by buying into the next rounds, and so forth.
Illiquidity	By their very nature, VCs are more comfortable with illiquidity than other types of investors, since their investment horizon is long. Moreover, they have access to emerging secondary markets for sales of limited partner units that are not available to common investors (or at least rarely). Finally, they have access to their other portfolio companies and peer portfolio companies for potential mergers and/or sales, neither of which are available to the typical common stock investor.	The common stock investor is less forgiving of illiquidity and has fewer (often no) options for mitigating illiquidity compared to the VCs. One could expect that a common stock investor would put a much higher discount on the same asset as compared with the VCs.

(*Continued*)

EXHIBIT 1.12 (*Continued*)

	Venture Capitalists	"The Rest of Us"
Exits	VCs have a priority position and can obtain a return *of* capital and maybe even a return *on* capital in a number of scenarios.	Common stock investors are generally at the low end of the capital structure and typically need a "home run" in order to see any return on, or of, their investment. While discounts may address this potential lack of timing, it is not clear whether current valuation techniques adequately reflect the perspective of the common stock investor.
Valuations	Because they are typically well diversified, VCs are more comfortable with a range of valuations. For example, if one of their portfolio companies fails, they have other companies that hopefully (and statistics back this) do quite well. VCs have been successful, as a whole, in creating superior returns for their limited partners.	Common stock investors are much more sensitive to valuations. Being well down in the capital structure, they need a "home run" to achieve a decent return; because they are un-diversified, this "home run" must be *their* company. Having no liquidity (as compared to at least some for the VC), they need a liquidity event to happen sooner rather than later. Given all these factors, it isn't surprising that a common stock investor might look at exactly the same set of financial statements and other information and end up putting a much lower value on the same security than the VC, let alone one that is by design inferior to the VC's (i.e., common vs. preferred).

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