

Harvard Business School  
Case Selections (Reprint)



哈佛商学院案例精选集

(英文影印版)

实务系列

From the Field

# 风险投资业

INSIDE

# Venture Capital

 中国人民大学出版社

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实务系列

**Inside Venture Capital**

**风险投资业**

B. Zider      B. 齐德 等 编写

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# SERIES INTRODUCTION

Welcome to this entry in the *From the Field* series of case collections from HBS Publishing. We have three main objectives for this series:

*To enrich readers' understanding of business by presenting coherent collections of field-based research published by Harvard Business School.* Understanding business involves much more than earnings reports and news headlines. It means understanding how managers perceive and analyze the complex challenges their companies face and the strategies and tactics they devise in response. For nearly a century HBS has been researching the world of managers from *inside* companies and delivering their stories to facilitate superior teaching and learning. You won't find easy answers or quick fixes in these cases, but you will discover balanced, detailed pictures of industries, markets, and technologies, and the intelligent professionals who – like you – are trying to cope with them.

*To focus on the latest HBS work on tumultuous, fast-growth industries.* Today's companies are fast-moving targets. We keep our *From the Field* collections current by concentrating only on newer case studies. And the series is focused on rapidly evolving industries with business practices that no one could have foreseen even a decade ago.

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The Editors

# INTRODUCTION TO THIS COLLECTION

Each item in this collection has been chosen because it reveals particular elements of the venture capital industry today. Each of the items is introduced with a summary. Following each item is a set of “Questions and Ideas to Consider” that we hope will drive you to the Internet for more research!

We open the collection with an article from *Harvard Business Review*, “How Venture Capital Works.” This article seeks to debunk some popular myths about the venture capital industry. The ONSET Ventures case offers both an inside look at a venture capital firm and an interesting counterpoint to “How Venture Capital Works.”

The next two cases look more closely at the often complex relationship between venture capitalists and entrepreneurs. “AsiaMail.com” includes a substantial guide to the capital-raising process, written from the entrepreneur’s perspective, while the edocs, Inc. series focuses on actual negotiations between entrepreneurs and venture capitalists.

Venture capitalists and entrepreneurs share the same goal: to eventually take the firm public. The case on W.R. Hambrecht + Company’s “OpenIPO” process illustrates both the traditional IPO process and Hambrecht’s alternative approach. Amazon.com’s experience of preparing to go public focuses on the challenges of this process.

The Intel Capital case illustrates the increasing popularity of corporate venture capital. Finally, the “Note on Private Equity Information Sources” highlights valuable sources of information about private equity, many of which are not available on the Web.

## Did You Know?

**HBS Publishing has many other recent cases on retailing and related subjects. Here is just a small sampling of cases published since 1999:**

- Alloy.com: Marketing to Generation Y 500-048
- CVS: The Web Strategy 500-008
- Egghead to Egghead.com (A) 599-093 and (B) 599-099
- Kmart, Inc. and Builders Square 200-044
- Priceline.com: Name Your Own Price 500-070
- Victory Supermarkets: Expansion Strategy? 599-094

**To get information on these and other HBS Publishing materials, visit our Web site: [www.hbsp.harvard.edu](http://www.hbsp.harvard.edu). In the search field, enter “electronic commerce.” You might be surprised by how much you’ll find!**

# RESEARCHING COMPANIES ON THE WEB

As you read the cases in this collection we are sure you will want to conduct research using a variety of Internet sources. Obviously, it always makes sense to visit the Web sites of companies profiled in these cases, since that is often the handiest way to gather basic information about current lines of business, marketing campaigns, and recent financial performance. But there is a wealth of information available on other sites, too. Below we list a number of Web sites that provide information about public companies, much of which is available free of charge.

Business-information sites we've come to like:

- Hoovers.com for basic company profiles, including lists of key subsidiaries, executives, and competitors.
- The "News and Media" section of hotbot.com, a regularly updated archive of items from many news sources.
- Kompass.com for information on foreign companies.
- For information on and discussions of technology companies, magazines run some of the most useful sites, including redherring.com and thestandard.com.
- Quicken.com, Smartmoney.com, Dowjones.com, and the "Business and Finance" section of Yahoo.com, for clear, readable presentations of key financial performance data and access to useful screening tools.
- CBS Marketwatch.com or – by paid subscription – wsj.com, for breaking financial news.

A final note about currency: At certain points we will tell you what we found at particular Web sites while we were putting this collection together. We apologize for any out-of-date directions and "dead links" you may find, but such is the transitory nature of certain information on the Web.

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# HOW VENTURE CAPITAL WORKS

(B. Zider / 98611 / 9 p)

## Summary

In this article, Bob Zider, president of the Beta Group, a California-based firm that invests in commercializing new technologies, presents an analysis of present-day venture capitalists and shows why its practitioners have a lot more in common with investment bankers than you might think. The popular mythology surrounding the U.S. venture-capital industry derives from a previous era. Venture capitalists who nurtured the computer industry in its infancy were legendary both for their risk taking and for their hands-on operating experience. But today things are different, and separating the myths from the realities is crucial to understanding this important piece of the U.S. economy. Today's venture capitalists are more like conservative bankers than the risk takers of days past. They have carved out a specialized niche in the capital markets, filling a void that other institutions cannot serve. They are the linchpins in an efficient system for meeting the needs of institutional investors looking for high returns, of entrepreneurs seeking funding, and of investment bankers looking for companies to sell. Venture capitalists must earn a consistently superior return on investments in inherently risky businesses. The myth is that they do so by investing in good ideas and good plans. In reality, they invest in good industries--that is, industries that are more competitively forgiving than the market as a whole. And they structure their deals in a way that minimizes their risk and maximizes their returns. Although many entrepreneurs expect venture capitalists to provide them with sage guidance as well as capital, that expectation is unrealistic. Given a typical portfolio of 10 companies and a 2,000-hour work year, a venture capital partner spends on average less than 2 hours per week on any given company. In addition to analyzing the current venture-capital system, the author offers practical advice to entrepreneurs thinking about venture funding.



*Before you can understand  
the industry, you must  
first separate myth  
from reality.*

# HOW VENTURE CAPITAL WORKS

BY BOB ZIDER

**I**NVENTION AND INNOVATION drive the U.S. economy. What's more, they have a powerful grip on the nation's collective imagination. The popular press is filled with against-all-odds success stories of Silicon Valley entrepreneurs. In these sagas, the entrepreneur is the modern-day cowboy, roaming new industrial frontiers much the same way that earlier Americans explored the West. At his side stands the venture capitalist, a trail-wise sidekick ready to help the hero through all the tight spots – in exchange, of course, for a piece of the action.

As with most myths, there's some truth to this story. Arthur Rock, Tommy Davis, Tom Perkins, Eugene Kleiner, and other early venture capitalists are legendary for the

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***Bob Zider** is president of the Beta Group, a firm that develops and commercializes new technology with funding from individuals, companies, and venture capitalists. It is located in Menlo Park, California.*

parts they played in creating the modern computer industry. Their investing knowledge and operating experience were as valuable as their capital. But as the venture capital business has evolved over the past 30 years, the image of a cowboy with his sidekick has become increasingly outdated. Today's venture capitalists look more like bankers, and the entrepreneurs they fund look more like M.B.A.'s.

The U.S. venture-capital industry is envied throughout the world as an engine of economic growth. Although the collective imagination romanticizes the industry, separating the popular myths from the current realities is crucial to understanding how this important piece of the U.S. economy operates. For entrepreneurs (and would-be entrepreneurs), such an analysis may prove especially beneficial.

## Venture Capital Fills a Void

Contrary to popular perception, venture capital plays only a minor role in funding basic innovation. Venture capitalists invested more than \$10 billion in 1997, but only 6%, or \$600 million, went to start-ups. Moreover, we estimate that less than \$1 billion of the total venture-capital pool went to R&D. The majority of that capital went to follow-on funding for projects originally developed through the far greater expenditures of governments (\$63 billion) and corporations (\$133 billion).

Where venture money plays an important role is in the next stage of the innovation life cycle—the period in a company's life when it begins to commercialize its innovation. We estimate that more than 80% of the money invested by venture capitalists goes into building the infrastructure required to grow the business—in expense investments (manufacturing, marketing, and sales) and the balance sheet (providing fixed assets and working capital).

Venture money is not long-term money. The idea is to invest in a company's balance sheet and infrastructure until it reaches a sufficient size and credibility so that it can be sold to a corporation or so that the institutional public-equity markets can step in and provide liquidity. In essence, the venture capitalist buys a stake in an entrepreneur's idea, nurtures it for a short period of time, and then exits with the help of an investment banker.

Venture capital's niche exists because of the structure and rules of capital markets. Someone with an idea or a new technology often has no other institution to turn to. Usury laws limit the interest banks can charge on loans—and the risks inherent in start-ups usually justify higher rates than allowed by law. Thus bankers will only finance a new

## PROFILE OF THE IDEAL ENTREPRENEUR

From a venture capitalist's perspective, the ideal entrepreneur:

- is qualified in a "hot" area of interest,
- delivers sales or technical advances such as FDA approval with reasonable probability,
- tells a compelling story and is presentable to outside investors,
- recognizes the need for speed to an IPO for liquidity,
- has a good reputation and can provide references that show competence and skill,
- understands the need for a team with a variety of skills and therefore sees why equity has to be allocated to other people,
- works diligently toward a goal but maintains flexibility,
- gets along with the investor group,
- understands the cost of capital and typical deal structures and is not offended by them,
- is sought after by many VCs,
- has realistic expectations about process and outcome.

business to the extent that there are hard assets against which to secure the debt. And in today's information-based economy, many start-ups have few hard assets.

Furthermore, investment banks and public equity are both constrained by regulations and operating practices meant to protect the public investor. Historically, a company could not access the public market without sales of about \$15 million, assets of \$10 million, and a reasonable profit history. To put this in perspective, less than 2% of the more than 5 million corporations in the United States have more than \$10 million in revenues. Although the IPO threshold has been lowered recently through the issuance of development-stage company stocks, in general the financing window for companies with less than \$10 million in revenue remains closed to the entrepreneur.

Venture capital fills the void between sources of funds for innovation (chiefly corporations, government bodies, and the entrepreneur's friends and family) and traditional, lower-cost sources of capi-

tal available to ongoing concerns. Filling that void successfully requires the venture capital industry to provide a sufficient return on capital to attract private equity funds, attractive returns for its own participants, and sufficient upside potential to entrepreneurs to attract high-quality ideas that will generate high returns. Put simply, the challenge is to earn a consistently superior return on investments in inherently risky business ventures.

## Sufficient Returns at Acceptable Risk

Investors in venture capital funds are typically very large institutions such as pension funds, financial firms, insurance companies, and university endowments—all of which put a small percentage of their total funds into high-risk investments. They expect a return of between 25% and 35% per year over the lifetime of the investment. Because these investments represent such a tiny part of the institutional investors' portfolios, venture capitalists have a lot of latitude. What leads these institutions to invest in a fund is not the specific investments but the firm's overall track record, the fund's "story," and their confidence in the partners themselves.

How do venture capitalists meet their investors' expectations at acceptable risk levels? The answer lies in their investment profile and in how they structure each deal.

**The Investment Profile.** One myth is that venture capitalists invest in good people and good ideas. The reality is that they invest in good industries—that is, industries that are more competitively forgiving than the market as a whole. In 1980, for example, nearly 20% of venture capital investments went to the energy industry. More recently, the flow of capital has shifted rapidly from genetic engineering, specialty retailing, and computer hardware to CD-ROMs, multimedia, telecommunications, and software companies. Now, more than 25% of disbursements are devoted to the Internet "space." The apparent randomness of these shifts among technologies and industry segments is misleading; the targeted segment in each case was growing fast, and its capacity promised to be constrained in the next five years. To put this in context, we estimate that less than 10% of all U.S. economic activity occurs in segments projected to grow more than 15% a year over the next five years.

In effect, venture capitalists focus on the middle part of the classic industry S-curve. They avoid both the early stages, when technologies are uncer-

tain and market needs are unknown, and the later stages, when competitive shakeouts and consolidations are inevitable and growth rates slow dramatically. Consider the disk drive industry. In 1983, more than 40 venture-funded companies and more than 80 others existed. By late 1984, the industry market value had plunged from \$5.4 billion to \$1.4 billion. Today only five major players remain.

Growing within high-growth segments is a lot easier than doing so in low-, no-, or negative-growth ones, as every businessperson knows. In other words, regardless of the talent or charisma of individual entrepreneurs, they rarely receive backing from a VC if their businesses are in low-growth market segments. What these investment flows reflect, then, is a consistent pattern of capital allocation into industries where most companies are likely to look good in the near term.

During this adolescent period of high and accelerating growth, it can be extremely hard to distinguish the eventual winners from the losers because their financial performance and growth rates look strikingly similar. (See the chart "Timing Is Everything.") At this stage, all companies are struggling to deliver products to a product-starved market. Thus the critical challenge for the venture capitalist is to identify competent management that can execute—that is, supply the growing demand.

Picking the wrong industry or betting on a technology risk in an unproven market segment is something VCs avoid. Exceptions to this rule tend to involve "concept" stocks, those that hold great promise but that take an extremely long time to succeed. Genetic engineering companies illustrate

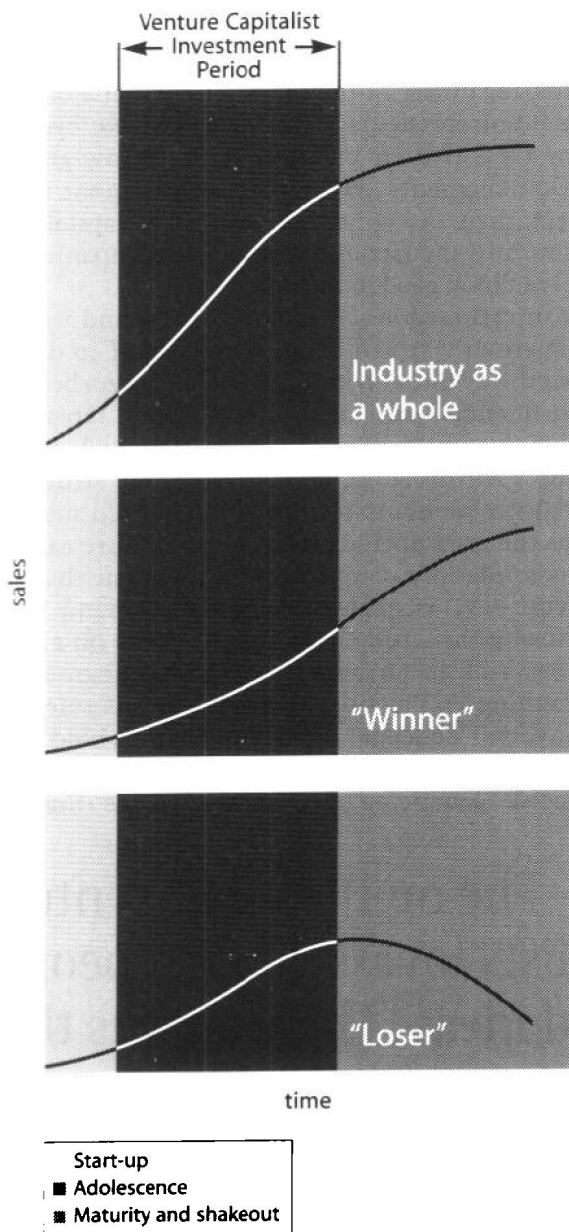
**The myth is that venture capitalists invest in good people and good ideas. The reality is that they invest in good industries.**

this point. In that industry, the venture capitalist's challenge is to identify entrepreneurs who can advance a key technology to a certain stage—FDA approval, for example—at which point the company can be taken public or sold to a major corporation.

By investing in areas with high growth rates, VCs primarily consign their risks to the ability of the company's management to execute. VC investments in high-growth segments are likely to have exit opportunities because investment bankers are

## TIMING IS EVERYTHING

More than 80% of the money invested by venture capitalists goes into the adolescent phase of a company's life cycle. In this period of accelerated growth, the financials of both the eventual winners and losers look strikingly similar.



continually looking for new high-growth issues to bring to market. The issues will be easier to sell and likely to support high relative valuations—and therefore high commissions for the investment bankers. Given the risk of these types of deals, investment bankers' commissions are typically 6%

to 8% of the money raised through an IPO. Thus an effort of only several months on the part of a few professionals and brokers can result in millions of dollars in commissions.

As long as venture capitalists are able to exit the company and industry before it tops out, they can reap extraordinary returns at relatively low risk. Astute venture capitalists operate in a secure niche where traditional, low-cost financing is unavailable. High rewards can be paid to successful management teams, and institutional investment will be available to provide liquidity in a relatively short period of time.

**The Logic of the Deal.** There are many variants of the basic deal structure, but whatever the specifics, the logic of the deal is always the same: to give investors in the venture capital fund both ample downside protection and a favorable position for additional investment if the company proves to be a winner.

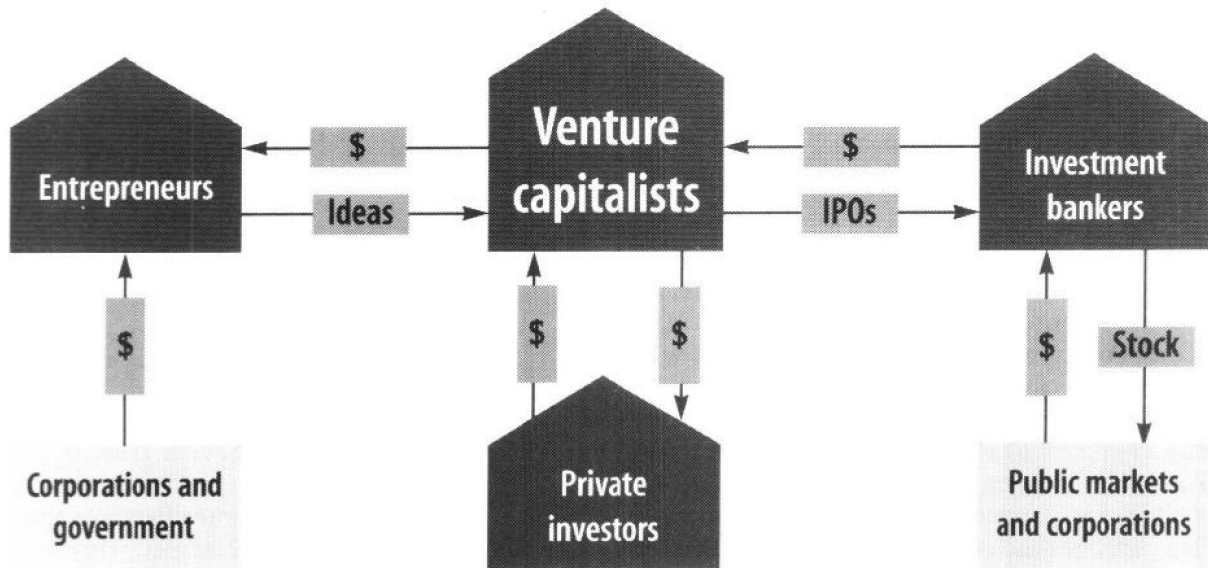
In a typical start-up deal, for example, the venture capital fund will invest \$3 million in exchange for a 40% preferred-equity ownership position, although recent valuations have been much higher. The preferred provisions offer downside protection. For instance, the venture capitalists receive a liquidation preference. A liquidation feature simulates debt by giving 100% preference over common shares held by management until the VC's \$3 million is returned. In other words, should the venture fail, they are given first claim to all the company's assets and technology. In addition, the deal often includes blocking rights or disproportional voting rights over key decisions, including the sale of the company or the timing of an IPO.

The contract is also likely to contain downside protection in the form of antidilution clauses, or *ratchets*. Such clauses protect against equity dilution if subsequent rounds of financing at lower values take place. Should the company stumble and have to raise more money at a lower valuation, the venture firm will be given enough shares to maintain its original equity position—that is, the total percentage of equity owned. That preferential treatment typically comes at the expense of the common shareholders, or management, as well as investors who are not affiliated with the VC firm and who do not continue to invest on a pro rata basis.

Alternatively, if a company is doing well, investors enjoy upside provisions, sometimes giving them the right to put additional money into the venture at a predetermined price. That means venture investors can increase their stakes in successful ventures at below market prices.

## HOW THE VENTURE CAPITAL INDUSTRY WORKS

The venture capital industry has four main players: entrepreneurs who need funding; investors who want high returns; investment bankers who need companies to sell; and the venture capitalists who make money for themselves by making a market for the other three.



VC firms also protect themselves from risk by coinvesting with other firms. Typically, there will be a "lead" investor and several "followers." It is the exception, not the rule, for one VC to finance an individual company entirely. Rather, venture firms prefer to have two or three groups involved in most stages of financing. Such relationships provide further portfolio diversification—that is, the ability to invest in more deals per dollar of invested capital. They also decrease the workload of the VC partners by getting others involved in assessing the risks during the due diligence period and in managing the deal. And the presence of several VC firms adds credibility. In fact, some observers have suggested that the truly smart fund will always be a follower of the top-tier firms.

### Attractive Returns for the VC

In return for financing one to two years of a company's start-up, venture capitalists expect a ten times return of capital over five years. Combined with the preferred position, this is very high-cost capital: a loan with a 58% annual compound interest rate that cannot be prepaid. But that rate is necessary to deliver average fund returns above 20%.

Funds are structured to guarantee partners a comfortable income while they work to generate those returns. The venture capital partners agree to return all of the investors' capital before sharing in the upside. However, the fund typically pays for the investors' annual operating budget—2% to 3% of the pool's total capital—which they take as a management fee regardless of the fund's results. If there is a \$100 million pool and four or five partners, for example, the partners are essentially assured salaries of \$200,000 to \$400,000 plus operating expenses for seven to ten years. (If the fund fails, of course, the group will be unable to raise funds in the future.) Compare those figures with Tommy Davis and Arthur Rock's first fund, which was \$5 million but had a total management fee of only \$75,000 a year.

The real upside lies in the appreciation of the portfolio. The investors get 70% to 80% of the gains; the venture capitalists get the remaining 20% to 30%. The amount of money any partner receives beyond salary is a function of the total growth of the portfolio's value and the amount of money managed per partner. (See the exhibit "Pay for Performance.")

Thus for a typical portfolio—say, \$20 million managed per partner and 30% total appreciation on the fund—the average annual compensation per

## PAY FOR PERFORMANCE

### ANNUAL IRR OF FUND OVER FIVE YEARS:

0%    10%    20%    30%    40%    50%

### AVERAGE ANNUAL COMPENSATION (IN MILLIONS)

\$20 million managed per partner:

0.2    0.6    1.4    2.4    3.8    5.4

### AVERAGE ANNUAL COMPENSATION (IN MILLIONS)

\$30 million managed per partner:

0.3    0.9    2.1    3.6    5.5    8.1

partner will be about \$2.4 million per year, nearly all of which comes from fund appreciation. And that compensation is multiplied for partners who manage several funds. From an investor's perspective, this compensation is acceptable because the venture capitalists have provided a very attractive return on investment and their incentives are entirely aligned with making the investment a success.

What part does the venture capitalist play in maximizing the growth of the portfolio's value? In an ideal world, all of the firm's investments would be winners. But the world isn't ideal; even with the best management, the odds of failure for any individual company are high.

On average, good plans, people, and businesses succeed only one in ten times. To see why, consider that there are many components critical to a company's success. The best companies might have an 80% probability of succeeding at each of them. But even with these odds, the probability of eventual success will be less than 20% because failing to execute on any one component can torpedo the entire company.

| INDIVIDUAL EVENT                                  | PROBABILITY |
|---------------------------------------------------|-------------|
| Company has sufficient capital                    | 80%         |
| Management is capable and focused                 | 80%         |
| Product development goes as planned               | 80%         |
| Production and component sourcing goes as planned | 80%         |
| Competitors behave as expected                    | 80%         |
| Customers want product                            | 80%         |
| Pricing is forecast correctly                     | 80%         |
| Patents are issued and are enforceable            | 80%         |
| COMBINED PROBABILITY OF SUCCESS                   | 17%         |

If just one of the variables drops to a 50% probability, the combined chance of success falls to 10%.

These odds play out in venture capital portfolios: more than half the companies will at best return only the original investment and at worst be total losses. Given the portfolio approach and the deal structure VCs use, however, only 10% to 20% of the companies funded need to be real winners to achieve the targeted return rate of 25% to 30%. In fact, VC reputations are often built on one or two good investments.

A typical breakout of portfolio performance per \$1,000 invested is shown below:

|               | BAD   | ALIVE | OKAY  | GOOD  | GREAT | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|
| \$ INVESTED   | 200   | 400   | 200   | 100   | 100   | 1,000 |
| PAYOUT YEAR 5 | 0     | 1X    | 5X    | 10X   | 20X   |       |
| GROSS RETURN  | 0     | 400   | 1,000 | 1,000 | 2,000 | 4,400 |
| NET RETURN    | (200) | 0     | 800   | 900   | 1,900 | 3,400 |

Those probabilities also have a great impact on how the venture capitalists spend their time. Little time is required (and sometimes best not spent) on the real winners—or the worst performers, called *numnuts* ("no money, no time"). Instead, the VC allocates a significant amount of time to those middle portfolio companies, determining whether and how the investment can be turned around and whether continued participation is advisable. The equity ownership and the deal structure described earlier give the VCs the flexibility to make management changes, particularly for those companies whose performance has been mediocre.

Most VCs distribute their time among many activities (see the exhibit "How Venture Capitalists Spend Their Time"). They must identify and attract new deals, monitor existing deals, allocate additional capital to the most successful deals, and assist with exit options. Astute VCs are able to allocate their time wisely among the various functions and deals.

Assuming that each partner has a typical portfolio of ten companies and a 2,000-hour work year, the amount of time spent on each company with each activity is relatively small. If the total time spent with portfolio companies serving as directors and acting as consultants is 40%, then partners spend 800 hours per year with portfolio companies. That allows only 80 hours per year per company—less than 2 hours per week.

The popular image of venture capitalists as sage advisors is at odds with the reality of their schedules. The financial incentive for partners in the VC

firm is to manage as much money as possible. The more money they manage, the less time they have to nurture and advise entrepreneurs. In fact, "virtual CEOs" are now being added to the equity pool to counsel company management, which is the role that VCs used to play.

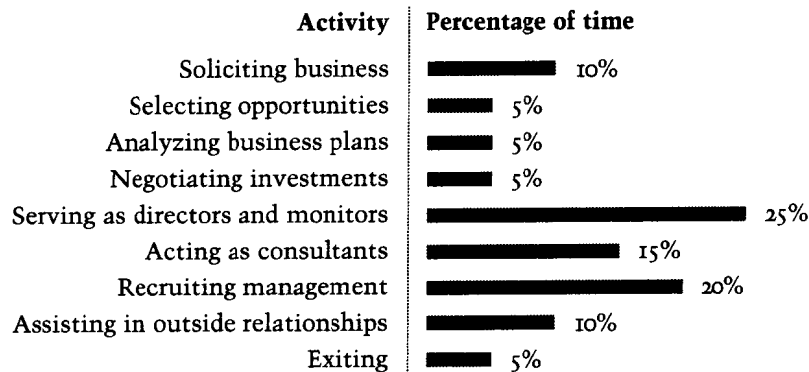
Today's venture capital fund is structurally similar to its late 1970s and early 1980s predecessors: the partnership includes both limited and general partners, and the life of the fund is seven to ten years. (The fund makes investments over the course of the first two or three years, and any investment is active for up to five years. The fund harvests the returns over the last two to three years.) However, both the size of the typical fund and the amount of money managed per partner have changed dramatically. In 1980, the average fund was about \$20 million, and its two or three general partners each managed three to five investments. That left a lot of time for the venture capital partners to work directly with the companies, bringing their experience and industry expertise to bear. Today the average fund is ten times larger, and each partner manages two to five times as many investments. Not surprisingly, then, the partners are usually far less knowledgeable about the industry and the technology than the entrepreneurs.

## The Upside for Entrepreneurs

Even though the structure of venture capital deals seems to put entrepreneurs at a steep disadvantage, they continue to submit far more plans than actually get funded, typically by a ratio of more than ten to one. Why do seemingly bright and capable people seek such high-cost capital?

Venture-funded companies attract talented people by appealing to a "lottery" mentality. Despite the high risk of failure in new ventures, engineers and businesspeople leave their jobs because they are unable or unwilling to perceive how risky a start-up can be. Their situation may be compared to that of hopeful high school basketball players, devoting hours to their sport despite the overwhelming odds against turning professional and earning million-dollar incomes. But perhaps the entrepreneur's behavior is not so irrational.

## HOW VENTURE CAPITALISTS SPEND THEIR TIME



Consider the options. Entrepreneurs—and their friends and families—usually lack the funds to finance the opportunity. Many entrepreneurs also recognize the risks in starting their own businesses, so they shy away from using their own money. Some also recognize that they do not possess all the talent and skills required to grow and run a successful business.

Most of the entrepreneurs and management teams that start new companies come from corporations or, more recently, universities. This is logical because nearly all basic research money, and therefore invention, comes from corporate or government funding. But those institutions are better at helping people find new ideas than at turning them into new businesses (see the exhibit "Who Else Funds Innovation?"). Entrepreneurs recognize that their upside in companies or universities is limited by the institution's pay structure. The VC has no such caps.

Downsizing and reengineering have shattered the historical security of corporate employment. The corporation has shown employees its version of loyalty. Good employees today recognize the inherent insecurity of their positions and, in return, have little loyalty themselves.

Additionally, the United States is unique in its willingness to embrace risk-taking and entrepreneurship. Unlike many Far Eastern and European cultures, the culture of the United States attaches little, if any, stigma to trying and failing in a new enterprise. Leaving and returning to a corporation is often rewarded.

For all these reasons, venture capital is an attractive deal for entrepreneurs. Those who lack new ideas, funds, skills, or tolerance for risk to start something alone may be quite willing to be hired

## WHO ELSE FUNDS INNOVATION?

The venture model provides an engine for commercializing technologies that formerly lay dormant in corporations and in the halls of academia. Despite the \$133 billion U.S. corporations spend on R&D, their basic structure makes entrepreneurship nearly impossible. Because R&D relies on a cooperative and collaborative environment, it is difficult, if not impossible, for companies to differentially reward employees working side by side, even if one has a brilliant idea and the other doesn't. Compensation typically comes in the form of status and promotion, not money. It would be an organizational and compensation nightmare for companies to try to duplicate the venture capital strategy.

Furthermore, companies typically invest in and protect their existing market positions; they tend to fund only those ideas that are central to their strategies. The result is a reservoir of talent and new ideas, which creates the pool for new ventures.

For its part, the government provides two incentives to develop and commercialize new technology. The first is the patent and trademark system, which provides monopolies for inventive products in return for full disclosure of the technology. That, in turn, provides a base for future technology development. The second is the direct funding of speculative projects that corporations and individuals can't or won't fund. Such seed funding is expected to create jobs and boost the economy.

Although many universities bemoan the fact that some professors are getting rich from their research, remember that most of the research is funded by the government. From the government's perspective, that is exactly what their \$63 billion in R&D funding is intended to do.

The newest funding source for entrepreneurs are so-called angels, wealthy individuals who typically contribute seed capital, advice, and support for businesses in which they themselves are experienced. We estimate that they provide \$20 billion to start-ups, a far greater amount than venture capitalists do. Turning to angels may be an excellent strategy, particularly for businesses in industries that are not currently in favor among the venture community. But for angels, these investments are a sideline, not a primary business.

into a well-funded and supported venture. Corporate and academic training provides many of the technological and business skills necessary for the task while venture capital contributes both the financing and an economic reward structure well beyond what corporations or universities afford. Even if a founder is ultimately demoted as the company grows, he or she can still get rich because the value of the stock will far outweigh the value of any foregone salary.

By understanding how venture capital actually works, astute entrepreneurs can mitigate their risks and increase their potential rewards. Many entrepreneurs make the mistake of thinking that venture capitalists are looking for good ideas when, in fact, they are looking for good managers in particular industry segments. The value of any individual to a VC is thus a function of the following conditions:

- the number of people within the high-growth industry that are qualified for the position;
- the position itself (CEO, CFO, VP of R&D, technician);
- the match of the person's skills, reputation, and incentives to the VC firm;
- the willingness to take risks; and
- the ability to sell oneself.

Entrepreneurs who satisfy these conditions come to the table with a strong negotiating position. The ideal candidate will also have a business track record, preferably in a prior successful IPO, that makes the VC comfortable. His reputation will be such that the investment in him will be seen as a prudent risk. VCs want to invest in proven, successful people.

Just like VCs, entrepreneurs need to make their own assessments of the industry fundamentals, the skills and funding needed, and the probability of success over a reasonably short time frame. Many excellent entrepreneurs are frustrated by what they see as an unfair deal process and equity position. They don't understand the basic economics of the venture business and the lack of financial alternatives available to them. The VCs are usually in the position of power by being the only source of capital and by having the ability to influence the network. But the lack of good managers who can deal with uncertainty, high growth, and high risk can provide leverage to the truly competent entrepreneur. Entrepreneurs who are sought after by competing VCs would be wise to ask the following questions:

- Who will serve on our board and what is that person's position in the VC firm?
- How many other boards does the VC serve on?