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9-806-077
FEBRUARY 1, 2006

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# Adams Capital Management: Fund IV

Joel Adams, founder and general partner of Adams Capital Management (ACM), a $700 million early-stage venture capital firm investing in the information technology, networking infrastructure, and semiconductor industries, glanced up as his fellow general partners trooped into his office on a brisk December morning in 2005 for their annual retrospective and planning meeting. The main topic on the agenda was a new one, —would 2006 be the right time to launch their fourth fund? Since late 2000, ACM had been deploying its $420 million third fund, using its "markets first" strategy, an approach that identified and sought to take advantage of discontinuities within the three industry segments it targeted. Having invested in a company exploiting such a change, the general partners then guided the investment through a five-point structured navigation system. In November 2005, ACM III sold a portfolio company and made its first distribution to its limited partners (LPs). The fund's portfolio also had 18 other operating companies that were showing steady growth, and two new investments were in the due diligence phase and preparing for final negotiations. "The question as I see it," said Adams to his partners, "is whether we need to exit more companies and generate additional distributions to our LPs before we start raising ACM IV."

Since ACM's first fund had closed in 1997, the investment environment had gone from robust to hysterical to deflated and now, finally, to what appeared to be a modest recovery. Likewise, ACM's performance had been whipped about. Fund I was almost top-quartile, Fund II could return capital with a few breaks, and Fund III, a 2000 vintage fund was "too new to tell, "Adams noted (see **Exhibit 1** for performance data).

The firm had adopted its strategy in part to differentiate itself for potential LPs. But the partners also believed that the pure opportunistic approach of many venture firms—where each general partner was often given wide leeway in determining which, and how many, markets and business models to invest in—could cause the firm to lose sight of the portfolio as a whole. Without a "markets first" strategy, through which the entire firm agreed upon the markets of interest *before* considering individual companies, the partners felt that firms would invest more on the basis of the fashion of the moment than on business fundamentals or market analysis.

In Fund III, ACM had taken more significant ownership positions than in the past—typically 35% or more—led every deal, and held a seat on every board. In 85% of the fund's investments, it was the first institutional money in the company. Adams believed that this was the only way to respond to the sharply reduced volatility of the venture capital market: "build a collection of really good companies and own enough of them to matter."

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Professors Felda Hardymon, Josh Lerner, and Senior Research Associate Ann Leamon wrote the original version of this case, "Adams Capital Management: March 2002," HBS Case No. 803-143 which is being replaced by this version prepared by Professor Felda Hardymon and Senior Research Associate Ann Leamon. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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ACM knew this strategy was not without its risks. Fund III's portfolio contained some promising companies, but, Adams said, "When you own a significant chunk of the company and it doesn't do well, that hurts the fund. " Going to market with a good small early fund, a struggling second fund and a yet unproven third fund might not be easy. "The LPs may want to know why we don't go back to taking smaller positions in more companies," he noted. "I have to be able to give them an answer."

## Venture Investing in 2005

The first half of the 21st century had truly witnessed the Dickensian best and worst of times. The final years of the 1990s had seen an unprecedented run-up in venture activity. Everything had increased—the amounts of capital raised, the management fees paid, the amounts invested, the prices that companies could command, the exit valuations received, and the speed with which investments became liquid.

As the century changed, so did the venture environment. The NASDAQ reached its peak in March 2000 and by 2001, the party had come to a grinding halt. After a decade marked by continuously rising amounts of capital flowing into venture funds, 2001 raised half of 2000's record of $71.7, and 2002 and 2003 raised barely 10% ($7 billion and $8 billion, respectively).[1] (See **Exhibit 2** for fund-raising data).

By 2005, the numbers of deals, their price levels, and the size of the rounds had all fallen considerably from their peaks in 1999 and 2000. Since the precipitous drop, though, they had steadied (see **Exhibit 3** for trends). The initial decline, termed a "train wreck," reflected the fact that almost three years of record-breaking venture activity had funded too many companies chasing too few customers in almost all technology sectors. In addition, the larger companies that VC-backed start-ups targeted as customers had cut their capital expense budgets, and on top of that, were suffering from a backlog of earlier technology investments that had not yet been fully implemented. Spending on technology fell off sharply. As a result, portfolio companies significantly under-performed expectations, often forcing their investors to resort to inside rounds for continued financing because all firms were trying to fix their own troubled portfolios. Thereafter, activity had resumed albeit at a lower level.

A further complication for the venture capital (VC) industry was the longer path to liquidity. The Initial Public Offering (IPO) market dried up in 2001, only to revive—at least to a degree--in 2004 and 2005. The number of venture-backed mergers and acquisitions had stayed reasonably steady in the vicinity of 300 transactions from 2000 through 2004 and even looked likely to continue for 2005 based on first-half data, the number of IPOs had plummeted from 264 in 2000 to 41 in 2001 and a mere 24 and 29 in 2002 and 2003. Although this number had tripled in 2004, to 93, 2005's first half saw an uninspiring 20 IPOs, a number nonetheless close to the total for all of 2002.[2]

By mid-2005, though, glimmers of recovery pierced the gloom. VC fund-raising for 2004, at $15 billion, equaled the sum of the previous two years' total. Firms had triaged the worst of their problem companies, by selling them for the intellectual property, merging them with other weak companies, or shutting them down. Technological evolution provided market opportunities for young companies and some older ones, weaned off the easy-money of the bubble, had brought their products to market and were profitable. Disclosed prices for mergers and acquisitions rose to the highest average since

[1] Abstracted from data from Private Equity Analyst and Asset Alternatives.

[2] Thomson Financial/Venture Economics, "Venture Backed M&A Volume Holds Steady," *www.nvca.org*, accessed December 8, 2005.



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Q1 2002.[3] The door to the IPO market, blown off its hinges in 2004 by VC-backed Google's debut, reopened, with new companies pricing their offerings almost every week. The pace and valuations of deals had risen, and with it, investor confidence. "It's not that VC has become hard," said one veteran venture capitalist. "It's just gotten back to normal."

## Adams Capital Management

Joel Adams, founder of ACM, grew up in Phelps, New York, a small town between Rochester and Syracuse. "My dad owned a dairy farm," recalled Adams, "and his program was the following: you turned six, you start getting up at 4:45 in the morning and doing chores." Adams was 15 when his mother passed away, leaving his father with no choice but to delegate most of his wife's responsibilities to the three children. Looking back on those days, Adams said: "At the time the confluence of events was a hell of a wake-up call for a teenager, but I learned invaluable lessons about money and time management."

After graduating from the University of Buffalo in 1979, Adams joined nuclear submarine manufacturer General Dynamics, where he became a test engineer, the lead engineer responsible for starting and testing a sub's nuclear reactor and representing General Dynamics during the Navy's sea trials of the new boats. In 1984 he moved to Pittsburgh to attend the business school at Carnegie Mellon University (CMU), lured by its strong program in entrepreneurship.

During Adams' second year at CMU, he worked part-time for Fostin Capital, a small VC firm that invested on behalf of the Foster's, a wealthy Pittsburgh family. Adams joined Fostin after graduation as a junior partner, with the firm's new $14 million fund. Shortly thereafter, the firm and Adams became involved with APA/Fostin I, a joint venture formed with Patricof & Co. to manage the $40 million fund that the state of Pennsylvania wanted to invest in VC.

In 1994 after nine years with Fostin, Adams, CFO Andrea Joseph, longtime secretary Lynn Patterson, and former partner Bill Hulley formed Adams Capital Management, Inc. to handle the Fostin portion of the $60 million APA/Fostin II, raised in 1992. In 1997, ACM raised its first fund, the $55 million ACM I, with its markets-first investment strategy.

### *Discontinuity-based investing*

Ever since he had joined Fostin, Adams had been dissatisfied with what he considered a lack of focus and discipline in the firm's investment strategy. "Here's a nuclear engineer, walking into this industry, with a very small fund in Pittsburgh whose strategy was to be diversified by stage, by industry, *and* by geography," Adams recalled. "After about a year, I said, 'This isn't a strategy at all—you could do anything." He was especially nonplussed by the method of developing deal flow. Rather than learning about markets and then targeting specific deals within them, he said, "The approach at Fostin was to open the mail in the morning" to see what business plans had arrived.

Two of Adams' experiences at Fostin acquainted him with the power of targeted investing. The first was his involvement with Sherpa Corporation, a developer of software applications for engineering product data management. "I understood the issues of engineering data management from my days at General Dynamics," Adams said. "I was a much smarter investor looking at an industry that I knew." Not only was he a better investment manager and board member, he realized,

[3] Ibid.



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but he was also a better negotiator. "Entrepreneurs are passionate and biased about their businesses," he said. "If the first time I hear about a market is from the entrepreneur, I'm at a big disadvantage."

His second revelation was even more powerful. Seeking a computer in 1987, Adams happened to learn about a mail-order operation in Texas called PCs Limited that custom-built personal computers and undercut retail prices. After speaking with the company's CEO, Adams invested $750,000 in the future Dell Computer's first outside venture round. Had the firm held this position, it would have been worth $382 million as of the end of September 2005.

Adams realized that Dell had created such an explosion of value by exploiting a *discontinuity* — a dramatic and sudden change in a large and established market. In this instance, the discontinuity involved distribution. The rise of direct distribution surprised the large personal computer manufacturers, which had highly entrenched networks of retail dealers. These networks, Adams noted, "couldn't be unwound overnight." Dell could build a multi-billion dollar business from scratch because his large and sleepy competitors could not respond to this distribution discontinuity in time.

As ACM expanded, Adams resolved that any new partners would be engineers, and thus bring their technical training to bear in thorough examinations of a few promising markets (see **Exhibit 4** for partner biographies). ACM's strategy evolved to focus on investments in markets that the partners already knew well and had already identified as attractive.

A few initial prerequisites had developed over time. The first was that the companies in which ACM invested would sell to businesses, not consumers, and their value propositions would be driven by return on investment (ROI). "That's ROI for the customers, not us," said Adams. "Our first question is, 'If somebody is going to buy this company's product, what does the Chief Financial Officer's recommendation look like?'" The second criterion was that the business was 'first-generation applied technology,' or one of the first companies to use a specific technology for a specific application.

Given the partners' engineering backgrounds, the firm focused on the information technology (IT) and telecommunication/semiconductor industries, areas that were, in their view, experiencing significant discontinuities. The most important criterion was that, as in the case of Dell, ACM's portfolio companies would exploit discontinuities in existing markets, shifts that would create opportunities for start-up companies to become market leaders. In the IT industry, the partners anticipated that the need to create virtual enterprises on a global scale would force companies to look for highly adaptable systems. The telecommunications industry, faced with global expansion in bandwidth requirements for data, seemed to be faced with an entire rethinking of the existing technology and infrastructure, while reaching the limits of current silicon technology appeared likely to revolutionize the semiconductor industry. Within these areas, ACM's partners sought to identify four primary causes of discontinuities (see **Exhibit 5** for more on discontinuities):

1. *Standards.* Despite the emergence of a technology standard in some fields, existing manufacturers would often cling to their proprietary technologies in an attempt to preserve their captive customer base. Even as customers demanded the standard, the existing manufacturers perceived it as a threat to their oligopolistic market positions, and were reluctant to adopt it.

One such example was FORE Systems, which built communications devices that conformed to the ATM (asynchronous transfer mode) standard for communications in wide-area networks. The big players at the time, AT&T/Lucent and Northern Telecom, each had proprietary protocols for those communications. These manufacturers clearly had the technical prowess and market muscle to



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exploit ATM as well, but they were slow to do so for fear of cannibalizing their own market shares. In April 1999, FORE was acquired by GEC plc for $4.5 billion.

2. *Regulation.* Unexpected regulatory changes could force market players to adapt quickly to a new market reality. An example of such a dislocation had occurred in the U.S. cellular market where a host of new opportunities and networks had emerged after the government's creation of the PCS spectrum. From a technology point of view, the new spectrum provided a chance for GSM, the cheaper and more easily-deployed base station technology popular in the rest of the world, to gain ground on the unwieldy proprietary technology dominant in the United States. GSM equipment manufacturers and the upstart carriers who provided their services used their agility in the new regulatory environment to challenge the giants.

3. *Technology.* A technology-based discontinuity could take two forms. In one, it could appear as a whiz-bang package that took big competitors months or years to duplicate, such as Apple's Macintosh operating system. Alternatively, it could involve the *convergence* of technologies that had hitherto been separate, requiring innovation to allow these once-disparate systems to interact. An example here was the rise of corporate remote access, which forced companies to buy technology that would connect the public carrier telephone networks to the corporations' internal local area networks.

4. *Distribution.* Dell Computer in the earlier example provided the ultimate example of a distribution-based discontinuity—the rise of mail-order completely surprised existing personal computer manufacturers, to the great enrichment of Dell and its shareholders.

This top-down approach to identifying markets was crucial in helping ACM achieve consensus about and control over where its partners would invest. Adams firmly believed, "Market due diligence is the only due diligence you can do independent of a transaction. If you present the partners with the industry and market dynamics ahead of time, then we can all talk about each other's prospective deals, and leverage each other's knowledge base and contacts before we make an investment."

ACM's approach to identifying discontinuities included its Discontinuity Roundtable, a group of advisors that met periodically with the ACM partners to identify and discuss market discontinuities that could lead to fruitful investment theses. The 20-person Roundtable comprised industry experts and observers who attended meetings depending on the topic at hand. Among their number had been Clayton Christensen of the Harvard Business School known for his research on how innovation affected markets; George Kozmetsky, inveterate entrepreneur and founder and backer of over 200 companies; Atiq Raza, former CEO of AMD, the chip-maker that competed against Intel; and Mike Maples, former CTO of Microsoft. The process required partners to write discontinuity white papers that advanced the investment thesis and to present them to a Roundtable of appropriate experts drawn from the pool. The group would discuss the merits of the thesis under consideration, usually agreeing to pursue two or three of the eight to ten papers presented in a meeting. The meetings would also identify other avenues for future exploration.

Once an investment thesis was thoroughly vetted by the Discontinuities Roundtable, the ACM partners would systematically search for deals in that domain. Sometimes this took the form of identifying pockets of excellence in the appropriate technology and supporting entrepreneurs in forming a company. In other cases, it was a matter of identifying and sorting through several existing potential investments. This process gave the partners deep knowledge of these companies' opportunities and therefore made ACM more attractive as an investment partner.



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## *Structured Navigation*

In addition to a systematic approach for identifying markets, ACM also developed a system for managing its investments, called "structured navigation." The system was born out of the observation that early-stage technology companies shared many of the same benchmarks and needed many of the same elements to succeed. Jerry Sullivan, who had joined the firm from MCC, Tektronix and Phillips, explained:

> Our investments typically have high development costs coupled with the direct sales force characteristic of companies at these stages. The majority of our investments—90%—are software-based, so resource planning and allocations are well understood by all of our general partners. We feel that our structured navigation strategy applies to all companies within the model.

Aspects of the structured navigation included:

1. *Round out the management team*. Like most other VC firms, ACM was deeply involved in helping its entrepreneurs complete their management teams. "Almost 85% of the time, we're the first money in, so the entrepreneur has been trying to build a management team without capital," Martin Neath, a former executive vice president with IBM and now ACM general partner, said. "People are going to join a company that has some capital behind it, so we fundamentally believe that if you've got a great opportunity that's well-funded, you're going to attract a lot of talent." ACM devoted significant resources to the creation of its Services Group, which helped its portfolio companies in this area.

2. *Obtain a corporate partner or endorsement.* The notion that an early stage company, hoping to exploit a sea change in a large existing market, could forge a partnership (an endorsement, a distribution deal, or an equity investment) with one of the very players from whom it hoped to steal market share seemed entirely contradictory. But the ACM partners believed that this should almost always be possible. From ACM's perspective, forging these relationships early would often create other exit opportunities.

3. *Gain early exposure to industry and investment banking analysts.* Industry analysts such as Gartner, Giga, and Forrester often created the first wave of market interest in a new technology. This group's validation could speed the acceptance or application of a new technology. While industry analysts could help create a market for the technology, analysts at investment banking firms could create an exit for the company, and ACM tried to make sure they met the portfolio companies early. "First of all, the good analysts really do understand the businesses of these little companies," N. George Ugras, a general partner in the Silicon Valley office, said. "But the second thing is, [bankers are] in the fee business, and they need to put marriages together. [Introducing the two parties early] is a tactic that will set you up for deals later on."

4. *Expand the product line.* A first-generation applied technology company would be confronted by high initial costs of development and sales. In such a case, Bill Frezza, a general partner in ACM's Boston office, observed, "The marginal cost of the development for subsequent products or the next sale is much lower." Once a new technology product had been developed and a base of customers secured, the costs of leveraging that technology into another, similar product and selling it into a base of existing accounts was comparatively small. But "sometimes the entrepreneur hasn't thought that out yet," he noted. "Our approach ensures that the companies are adequately focused on this value creation opportunity."

5. *Implement best practices.* ACM's partners felt that their entrepreneurs should focus on developing products and selling them to customers, not on structuring stock option packages or compensation



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plans. After working with dozens of companies with similar structures, the partners felt that they should be able to provide boilerplate versions of plans that worked.

ACM used these five "steps" (in no particular order) to manage its investments, keeping track of which steps each company had 'finished' and which it still needed to complete. The process, the partners felt, not only made their investments more successful, but also provided the partners in four offices across the U.S. with a commonly understood internal barometer of a company's progress (see **Exhibit 6** for offices). "If ten months into a deal you can't attract talented people, corporations don't care, and you can't get the bankers interested—you're learning something," observed Sullivan. "And maybe you ought to get out."

## Defending the Strategy

Was it really necessary to formulate such a rigorous strategy for investing in early-stage businesses? Adams admitted that, to a certain extent, the strategy was motivated by the practical necessities faced by a small firm based in Pittsburgh raising a $55 million fund in 1997. "We had to get ourselves above the muck, and the way you do that is with a well-defined, market-centric strategy that you execute in a disciplined manner," he said. It had also given a small partnership, scattered among offices in Pittsburgh, Philadelphia (later Boston), and Austin, Texas (Silicon Valley was added in 1999) a common language and approach that facilitated communication.

Adams balked at the conventional wisdom about VC and venture capitalists—namely, that VC was a personality-driven business, and that successful venture capitalists were all genius dealmakers whose vision turned everything they touched into gold. "I just don't buy the 'rock star' model that many venture firms promote," Adams said.

Instead, he wanted to build a venture firm in the same way that most businesses were built — with a structure in which any of its employees were, in principle, replaceable. "We wanted to develop a system where you could throw anybody out of here and the thing will still cook along," he said. "We wanted to build a system for executing this business. We're engineers, we think that way. We're not rock stars. We have a system for finding areas that are of interest, getting deals, and making them valuable. That's what we do."

### *The Funds*

Since 1997, the partners felt that strict adherence to strategy, combined with the systematic portfolio management that navigation provided, had served the firm well. They had grown from a $55 million fund to managing $700 million and from one office in Pittsburgh to four in areas in which 68% of all VC activity in the U.S. occurred. Each fund had been invested according to plan, although the results had not been entirely anticipated.

ACM I had invested in 15 companies for a total cost basis of $55 million. Information technology accounted for 49% of the portfolio; telecommunications for 30%, medical devices for 11% and networking infrastructure for 10%. As of September 2005, the fund was fully invested and had exited all but one company, distributing stock valued at $122.7 million for a net IRR to its LPs of 46% (just below the upper quartile). The general partners hoped to achieve at least $140 million in total proceeds by the end of Fund I's contractual life.

With its smaller size, ACM I had aimed for percentage ownership in the low teens. The firm had held a board seat in 67% of its original 15 companies, and its positions could get diluted if it was



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unable to participate fully in subsequent rounds. However, as Adams said, "This was the home-run era of early stage VC investing—significant returns were almost the norm. We had our share, with three acquisitions and three IPOs. That was a good fund."

Based on the early success of Fund I and the frenzy around VC, ACM had closed the $150 million ACM II at the end of 1999, followed quickly by the $420 million ACM III at the end of 2000 (see **Exhibit 7** for fund statistics). In the over-heated environment of 1999 and early 2000, though, the partners found that the game had changed. "At first it seemed that home-runs were still possible," said Adams:

> …Putting money to work was paramount. Unfortunately, this meant that we had less time to investigate new markets and we therefore had less diversification in the portfolio. If the big companies were looking for drop-add-multiplex-switches, that was what we backed as all of them were being bought because every big company needed its own drop-add-multiplex-switch. We ended up with a lot of similar companies. Our goal was to own around 20%, and we usually had enough money to keep our position, which was not always the best thing in retrospect.

Fund II had stayed the strategic course. Of the 14 companies in the portfolio, three had been acquired, five written off, and six were still active and showing strong revenue growth. The firm had moved away from investing in medical devices though. Information technology made up 45% of the portfolio, semiconductors 38%, and telecommunications 17%. Although Fund II's value currently stood at a 40% discount to cost, Adams hoped that, with a few breaks, it could return the LPs' capital.

Fund III's approach of taking larger position had been adopted in response to the changes that the partners noted in the market—in particular, a reduction in volatility. As Adams explained,:

> The days of the consistent home-runs are gone. Reduced volatility means that we need to build portfolios that are more balanced and consistent in their performance. We're not looking for 20x returns, although we certainly wouldn't refuse them. I just don't think that's the norm anymore. Instead, we're looking to build a solid portfolio that yields 2x to 5x returns based on operating success—positive cash flow and net income. We look to own enough of each company that every deal is an impact deal, both for us and for the company. And here, because outcome volatility has fallen so substantially, we need to have diversity among our companies. You might say that beta has fallen so we must increase alpha. We had to assemble an interesting collection of really good companies that addressed significant discontinuities in the market and own enough of them to matter. We've done that. We've also added value to them through the ACM Services Group, which provides corporate partnering, recruitment and financial management guidance.

By September 30, 2005, Fund III had called 74% of its committed capital. Information technology accounted for 59% of the portfolio, with semiconductors 22% and networking infrastructure 19%. With two to three new investments planned for the next 12 months, Fund III was on track to have 23 companies in its portfolio; one had been written off and one acquired. The current mid-range return was estimated at 2x capital. The companies had shown 71% compounded revenue growth since 2001. By year-end, the fund would see a 3x on the sale of its investment in Works, Inc. to Bank of America, and the beginning of negotiations on additional exits with likely realizations of 1x to 3x.



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## Considerations for Fund IV

Adams planned to apply the lessons of the past three funds to Fund IV. The firm had targeted $300-350 million to be invested in 20 companies. As they had in Fund III, the partners planned to acquire and maintain significant positions and board seats (see **Exhibit 8** for Fund III's portfolio companies). They would also continue the strategy of two partners per deal, ensuring that each deal team could devote the necessary time to making its company succeed. Information technology would likely make up 35% of the portfolio, with semiconductors and networking infrastructure at 30% each and 5% in "other". Adams felt that this would provide less volatility than typical early-stage portfolios. Yet he wondered if this was the correct approach, and more importantly, whether the partners should start raising Fund IV now or wait until they had completed more distributions. He and his partners had several issues to consider.

### *Returning to Their Roots*

One strategy they could pursue was returning to the less concentrated investment approach of the Funds I and II. Rather than anticipating a number of smaller returns, they could look harder for home runs, take smaller positions in a greater number of companies, and maybe even move into other sectors. "I have to remember that it's the 35x return from one company that made Fund I," Adams observed. "One 25x return covers a multitude of .9x companies." Such a strategy also meant that ACM would interact with more VC firms and build additional networks to source and refer deals. "Yet if Fund III's remaining 18 portfolio companies perform as we expect," Adams continued, " it should generate a total fund multiple of 3x and the large ownership aspect of the strategy will have been proven. It's truly too soon to tell, but the indications are encouraging."

### *Waiting*

Another option was waiting for a year and returning to the market with two or three completed exits and a maturing portfolio. "A few more exits like Works," said Adams, "would give us a compelling story. We had a good small first fund, a second fund that, with a few breaks, could return capital in a very tough environment, and a promising third fund with a clearly articulated and proven strategy."

Attractive as waiting might be, it incurred its own risks. In 2005, 182 VC firms appeared likely to close funds, down slightly from 2004's 194 firms, but raising a total that had risen by 47%, to $25 million from 2004's $17 million.[4] Delaying its entry into the fundraising arena might cost ACM IV potential LP commitments, as investors either deployed their money with other firms or forgot ACM existed after a five- or six-year absence from the market. Adams said. "Many of the LPs we approached for Funds II and III are still there; how many will have moved on after another year?"

Another concern involved the deployment of ACM III. At the current investment pace, the fund would be fully invested, except for reserves, once the next few deals under negotiation were complete. Waiting a year would essentially remove the firm from the deal market, and "nothing is more useless than a VC without a checkbook," Adams said. After the new fund closed, the team would have to refill its pipeline. In the interim, it might have missed any number of good opportunities. During that lull, Adams also worried that some of his partners might leave for more active firms. He observed, "Partners usually get into VC because it's fun to do deals. There are nice

[4] Emily Mendell and Joshua Radler, "Private Equity Enjoyed Record Fund-Raising Year in 2005," *Press Release from National Venture Capital Association*, www.nvca.org, January 17, 2006, accessed January 23, 2006.



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rewards to the other parts of the job, but it's asking a lot if a team can't make any new investments for a year."

### *Reconsidering the Life Sciences Industry*

A third option, or one to consider in tandem with the others, was the extension of ACM's sector focus. Adams knew that many life sciences companies had shifted their strategy from drug discovery, a process that took tens of millions of investor dollars and decades of effort, and had been recapitalized as product companies to refine a few promising compounds. While ACM did not possess life science expertise, a life science firm might welcome it into a deal based on its skills in growing and managing young companies.

"In a way," he commented:

> …these companies have encountered a discontinuity. We would be reaping the benefits of their investment, leveraging our partner firm's expertise, yet also providing the structure of our navigation to help them adjust to a new process and a new way of doing business. We may not know life sciences, but we know product development and team building. And it seems that life sciences are nicely uncorrelated with technology; possibly less so than networking infrastructure with semiconductors. Does this look like non-correlation or opportunism?

He also wondered to what degree his engineer colleagues would be willing to invest in an area in which they had little specialized knowledge. If one partner became "the life guy", would that affect team dynamics? Scope expansion often meant that each expert had to educate the other partners on specialized areas, making the deal approval process tedious, time-consuming, and cumbersome. Additionally, if one sector was under-performing, those that were successful often resented the burden of making up for others' losses.

## The Balance Question

"Simply put, it seems that the VC industry has encountered a discontinuity," Adams said. "But what is the best way to exploit it?"

His biggest concern was that ACM had only made one distribution to the Fund III LPs and the next would not be complete for at least another few months. Fund II's investors had yet to received a distribution. A five-year holding period was not unusual, though, and firms often raised additional funds on the promise of unrealized gains. So would the team be better advised to hold off for a year until they had exited more of the portfolio? A recent study had noted the persistence of performance—both positive and negative—among VC firms. In addition, it was well understood in the market and corroborated by academic studies that higher-numbered funds tended to exhibit higher returns, theoretically easing the process of raising the next fund (see **Exhibit 10**).[5] Delaying would also forestall the immense drain of partner time and energy that fund-raising represented, allowing the team to focus on the immediate task of generating returns from the current portfolio.

Adams looked around the table at his partners. "Sometimes," he said, "discretion really is the better part of valor. But is this one of those times?"



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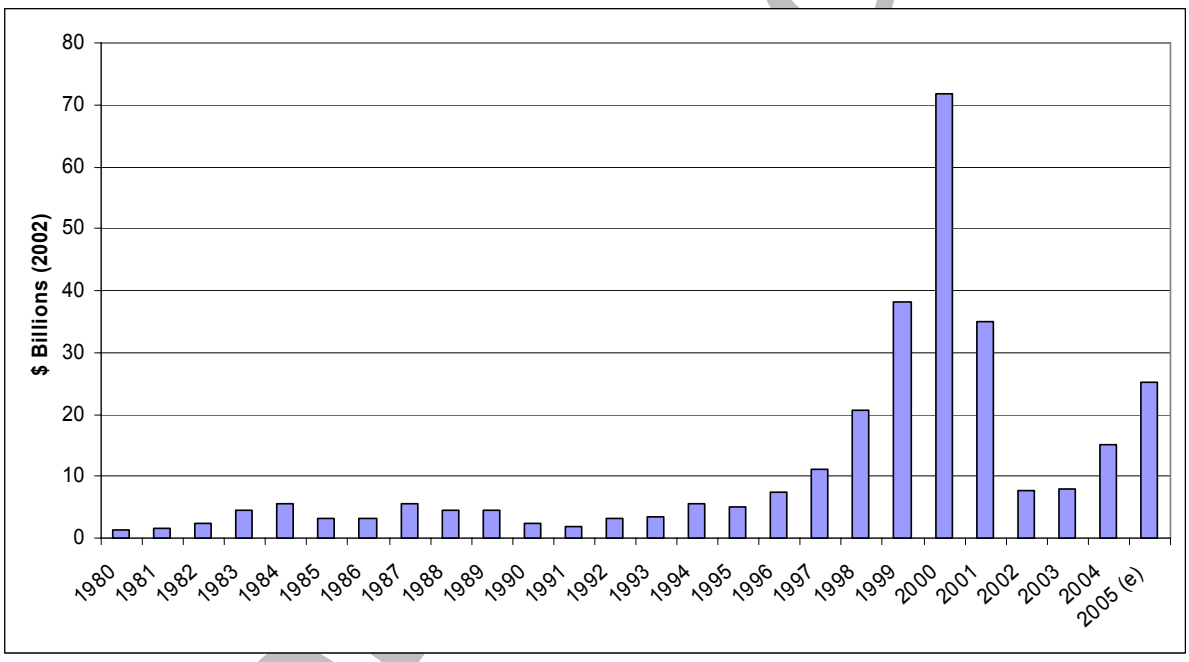
**Exhibit 1** Investment Returns for ACM Funds as of September 30, 2005

| | ACM I (starting 9/97) | ACM II (starting 10/99) | ACM III (starting 11/00) |
|---|---|---|---|
| Russell 2000 Index | 57.7% | 32.3% | 38.1% |
| NASDAQ | 35.6% | -47.1% | -12.9% |
| Upper Quartile Venture Capital IRR | 67.1% | -3.97% | -1.74% |
| **ACM Net IRR to LPs** | **45.8%** | **-36.9%** | **-10.8%** |

Source: Compiled from Datastream data; Cambridge Associates LLC, *U.S. Venture Capital Index and Benchmark Statistics*, September 30, 2005, pp. 14 and 15; and company information.

.

**Exhibit 2** Venture Funds Raised, 1980 through 2005 (estimated)




Source: adapted from *Private Equity Analyst* and unpublished records of *Asset Alternatives*. 2005 estimates from Thomson Financial/Venture Economics (www.nvca.org/pdf/FundraisingQ42005final.pdf), January 17, 2005, accessed January 23, 2006.

[5] Steve Kaplan and Antoinette Schoar, "Private Equity Performance: Returns, Persistence, and Capital Flows," *MIT Sloan School of Management Working Paper 4446-03*, November 2003, *https://dspace.mit.edu/bitstream/1721.1/5050/2/4446-03.pdf.*, accessed December 9, 2005.



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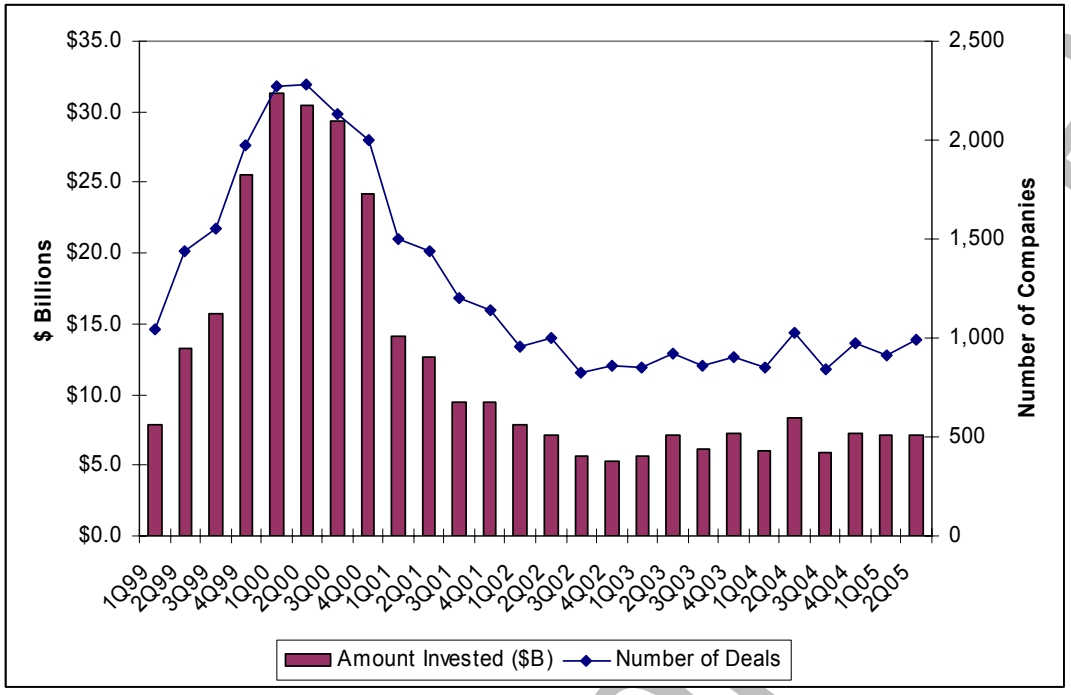
**Exhibit 3** Venture Investment by Quarter




Source: adapted from Thomson Financial/VenturEconomics data, www.venturexpert.com, accessed December 7, 2005.

**Exhibit 4** Biographies of ACM's General Partners

**Joel P. Adams** founded Adams Capital Management in 1994 and has led its growth to $700 million capital under management. As a General Partner, Joel is responsible for identifying, leading and managing investments in his area of domain expertise. Before establishing ACM, Joel served for eight years as Vice President and General Partner of Fostin Capital Corp., a Pittsburgh-based, family-owned investment firm. Prior to Fostin, Joel served for seven years as a nuclear test engineer for General Dynamics, where he managed chemical, electrical and mechanical engineering teams and directed nuclear power plant sea trials. Joel is a director of several private and public companies, a member of several charitable organizations, a frequently requested speaker on the topic of venture capital, and a board member of Carnegie Mellon University.

**Education:**

- M.S. Industrial Administration - Carnegie Mellon University
- B.S. Nuclear Engineering - State University of New York at Buffalo

**Martin Neath**, who helped build Tivoli Systems, Inc., now an IBM company, into a multi-billion dollar software and service operation, joined Adams Capital Management in August 2001 as a General Partner. Martin was the seventh employee and first application engineer at Tivoli when he began his career there in 1990, after working at Texas Instruments for five years. While at Tivoli, Martin was responsible for product strategy and development, marketing, customer support, product



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services and information technology, and was extensively involved in sales and customer service. Tivoli went public in 1995 and was acquired by IBM a year later. Martin served as Executive Vice President of Tivoli overseeing much of the company's day-to-day operations, including five business units, engineering, corporate marketing, customer service, training and education, office of the Chief Technology Officer, and North American sales. In 1998, he was named a member of the IBM Senior Management Group (SMG), a team of the top 300 executives from around the world charged with the overall responsibility for IBM's strategy and business execution. After retiring from IBM in 1999, Martin helped build several young technology companies in the Austin area, including two years as President and COO of Works, Inc., a provider of procurement applications to midsize companies.

**Education:**

- B.S. Computer Science - Tufts University

**N. George Ugras** joined Adams Capital Management in 1999 as a General Partner, after spending a year as an investment professional at Apax Partners, a private equity firm in New York. Prior to joining Apax Partners, George spent four years as a Management Consultant at McKinsey & Co. in New York, working closely with clients in the telecommunications and media industries, on strategic and operational issues. George makes investments in and works with portfolio companies in the telecommunications, networking, and semiconductor industries.

**Education:**

- Research Fellow, Physics - California Institute of Technology
- Ph.D. with honors, Applied Physics - Yale University
- B.S. Engineering Physics - Fairleigh Dickinson University

**William A. Frezza** joined Adams Capital Management in 1997 as a General Partner. Prior to his work at Adams Capital, Bill was Founder and President of Wireless Computing Associates, providing technology and strategic consulting services to major vendors in the semiconductor and telecommunications industries. Bill served as the Director of Marketing and Business Development for Ericsson, Inc.'s wireless data division and has extensive engineering and product management experience from General Instrument Corp. and Bell Laboratories. Bill has also been involved in several start-up ventures, holds seven patents, and was a regular columnist for Network Computing Magazine and InternetWeek. He was recently elected to serve on the Board of Directors of the Materials Research Society (MRS).

**Education:**

- M.S. Electrical Engineering - Massachusetts Institute of Technology
- B.S. Biology - Massachusetts Institute of Technology
- B.S. Electrical Engineering - Massachusetts Institute of Technology

**Jerry S. Sullivan** joined Adams Capital Management in 1997 as a General Partner. Prior to joining the team, Jerry was President of Design Technologies, Inc., focusing on evaluating and assessing the design and manufacturing processes used in electronic product creation. Jerry came to Design Technologies from Microelectronics and Computer Technology Corporation (MCC), where he served as Vice President. Prior to joining MCC, Jerry spent several years at Tektronix, and 10 years with N.V. Philips. In addition, Jerry honed his international management skills through five years on location with Philips in Europe.



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**Education:**

- Advanced Management Program - Harvard Business School
- Ph.D. Physics - University of Colorado
- B.S. Engineering - University of Colorado

Source: Company information.

**Exhibit 5** ACM's View of Discontinuities

## *Discontinuity: The Mother of Opportunity*

Our strategic focus is built upon the concept of a discontinuity - a circumstance or event that disrupts the equilibrium in a particular industry and creates new entry opportunities. Discontinuities are rapid and permanent structural changes in established markets that incumbents, hindered by economics or aging infrastructure, are not able to respond to in a timely fashion.

Examples of specific discontinuities that create new entry points into large established markets include:

- The development of software technology allowing protection of content without proprietary hardware;
- The de-monopolization of the utility industry to permit customer choice among power producers, leaving incumbent utilities burdened with uneconomical infrastructures;
- The changes in the FDA approval processes affecting the introduction of advanced, technology-driven diagnostic devices supporting the convergence of new technologies into tightly integrated, software-based lifesaving systems;
- The emergence of communications protocols that support efficient transaction clearing over public networks, allowing digital content owners to greatly lower distribution costs and improve customer service;
- The move to a property-based spectrum management regime via FCC spectrum auctions, vastly increasing the amount of spectrum available for the introduction of innovative narrowband and broadband wireless technologies.

Compelling market opportunities that can be exploited by breakthrough innovation are created by discontinuities such as ***industry standards***, ***regulations***, ***technology convergence*** and ***distribution***. And because even the best product or service will not stimulate great returns in a small or mediocre market, we focus on established markets approaching a billion dollars in size. We constantly watch these markets for discontinuities and the emerging companies that are positioned to take advantage of them. This is where we concentrate our investments.

Source: Company information.



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**Exhibit 6** ACM's Offices

Source: Company information



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**Exhibit 7a** ACM's Three Funds, Performance as of September 30, 2005

| | ACM I | ACM II | ACM III |
|---|---|---|---|
| Inception | 8-Dec-97 | 8-Oct-99 | November 17,2000 |
| Contributed capital | $ 55,000,000 | $ 150,000,000 | $ 310,800,000 |
| Capital due from partners | $ - | $ - | $ 109,200,000 |
| Committed capital | $ 55,000,000 | $ 150,000,000 | $ 420,000,000 |
| Realized gains or (losses) | $ 80,538,701 | $ (61,322,492) | $ (6,535,645) |
| Unrealized gains or (losses) | $ (739,379) | $ (48,526,830) | $ (21,510,569) |
| Income from investments | $ - | $ 723,339 | $ 1,609,780 |
| Net operating loss from inception | $ (4,449,845) | $ (13,355,712) | $ 44,820,025 |
| **Gross value of partnership** | **$ 130,349,477** | **$ 27,518,305** | **$ 348,743,541** |
| Less distributions | $ (122,699,588) | $ - | $ - |
| Less withdrawals | $ - | $ (6,828) | $ (11,269) |
| **Net Partnership Capital** (includes capital due from partners) | **$ 7,649,889** | **$ 27,511,477** | **$ 348,732,272** |
| **Percentage increase from inception** | **137.00%** | **-81.65%** | **-16.97%** |
| **Represented by:** | | | |
| Value of current portfolio investments | $ 7,588,479 | $ 20,794,332 | $ 216,664,268 |
| Cash and temporary investments | $ 73,898 | $ 6,704,095 | $ 22,873,888 |
| Capital due from partners | $ - | $ - | $ 109,200,000 |
| Other net current assets (liabilities) | $ (12,488) | $ 13,050 | $ (5,884) |
| **Net Partnership Capital** | **$ 7,649,889** | **$ 27,511,477** | **$ 348,732,272** |
| Less capital due from partners | $ - | $ - | $ (109,200,000) |
| **Current Net Partnership Capital** | **$ 7,649,889** | **$ 27,511,477** | **$ 239,532,272** |

Source: Company information.

**Exhibit 7b** ACM I's Exited Investments as of September 30, 2005

| Purchased | Company Name | Cost ($000s) | Proceeds ($000s) | Gain/(Loss) ($000s) | x Return |
|---|---|---|---|---|---|
| 1997-1999 | AirNet Communications | $ 5,271 | $ 553 | $ (4,718) | 0.1 |
| 1999 | CorTekCommunications (acq. by Nortel) | $ 3,500 | $ 124,385 | $ 120,885 | 35.5 |
| 1997-1999 | Triton Network Systems | $ 2,315 | $ 1,040 | $ (1,275) | 0.4 |
| 1997-1998 | Physicians Data Corp. | $ 1,300 | $ 44 | $ (1,256) | 0.0 |
| 1998 | Reciprocal | $ 2,020 | $ - | $ (2,020) | 0.0 |
| 1999 | Advanced Radio Telecom | $ 3,000 | $ 1 | $ (2,999) | 0.0 |
| 2000 | CAVU | $ 2,000 | $ - | $ (2,000) | 0.0 |
| 1999-2001 | Hologix | $ 4,975 | $ 386 | $ (4,582) | 0.1 |
| 1998-2001 | InfoLibria | $ 5,012 | $ 5 | $ (5,007) | 0.0 |
| 1999-2000 | Partnerware | $ 4,500 | $ 56 | $ (4,444) | 0.0 |
| 1997-1999 | MedAcoustics | $ 3,813 | $ - | $ (3,813) | 0.0 |
| 2000-2004 | Context Media | $ 2,557 | $ 87 | $ (2,470) | 0.0 |
| 1998-2004 | CoManage | $ 5,756 | $ - | $ (5,756) | 0.0 |
| | **Total** | **$ 46,018** | **$ 126,557** | **80,539** | **2.75** |

Source: Company information.



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**Exhibit 8** ACM III's Companies as of September 30, 2005

| Portfolio Company | Value or Proceeds As % of Cost |
|---|---|
| IT 1 | 107.4% |
| Semiconductors 1 | 40.0% |
| Networking Infrastructure 1 | 156.0% |
| Semiconductors 2 | 56.1% |
| IT 2 | 100.0% |
| IT 3 | 75.1% |
| Semiconductors 3 | 49.4% |
| Semiconductors 4 | 35.0% |
| Networking Infrastructure 2 | 241.4% |
| IT 5 | 37.7% |
| Semiconductors 5 | 125.4% |
| Networking Infrastructure 3 | 100.0% |
| IT 6 | 100.0% |
| IT 7 | 36.9% |
| IT 8 | 100.0% |
| IT 9 | 60.1% |
| Semiconductors 6 | 100.0% |
| IT 10 | 293.4% |
| **Total** | **91.0%** |
| % of committed capital | 56.4% |

Source: Company information.



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**Exhibit 9** ACM's Total Portfolio as of September 30, 2005

| Sector | Fund | 1st Investment | Board Seat? | Cost ($000) | Stage | Status |
|---|---|---|---|---|---|---|
| IT 1 | 3 | Jun-04 | Y | 9,980 | Recap | Privately held |
| Communications 1 | 1 | Nov-97 | Y | 5,271 | Expansion | Went public |
| Semiconductors 1 | 2,3 | Dec-99 | Y | 15,625 | Early stage | Privately held |
| Software 1 | Pre-ACM | Apr-97 | Y | 2,604 | Expansion | Went public |
| Communications 2 | 1,2 | Feb-00 | Y | 14,000 | Early stage | Out of business |
| Networking Infrastructure 1 | 3 | Sep-04 | Y | 8,000 | Expansion | Privately held |
| Software 2 | 1 | Oct-98 | Y | 5,840 | Early stage | Privately held |
| Semiconductors 2 | 3 | Apr-03 | Y | 13,496 | Early stage | Privately held |
| Software 3 | 1,2 | Mar-00 | Y | 7,714 | Early stage | Acquired |
| Communications 3 | 1 | Jan-99 | Y | 3,500 | Early stage | Acquired |
| IT 2 | 3 | Apr-05 | Y | 7,750 | Expansion | Privately held |
| Software 4 | 2 | Jul-00 | Y | 4,000 | Early stage | Privately held |
| Services 1 | 2 | Jul-00 | Y | 14,024 | Expansion | Privately held |
| Communications 4 | 1 | Jun-99 | N | 3,000 | Expansion | Went public |
| IT 3 | 3 | Feb-02 | Y | 19,846 | Expansion | Privately held |
| Software 5 | 1 | Jun-98 | Y | 6,218 | Expansion | Out of business |
| IT 4 | 1,3 | Jun-01 | Y | 10,011 | Early Stage | Out of business |
| Medical 1 | 1 | Sep-97 | Y | 1,300 | Early stage | Out of business |
| Semiconductors 3 | 2,3 | Nov-00 | Y | 44,756 | Early stage | Privately held |
| Software 6 | 2 | Apr-00 | Y | 11,996 | Expansion | Acquired |
| Semiconductors 4 | 2,3 | Apr-00 | Y | 10,436 | Early stage | Privately held |
| Medical 2 | 1 | Sep-99 | Y | 3,813 | Expansion | Out of business |
| Software 7 | 2 | Oct-99 | Y | 4,550 | Early stage | Acquired |
| Networking Infrastructure 2 | 3 | May-03 | Y | 6,480 | Early stage | Privately held |
| Communications 5 | 2 | May-00 | Y | 8,140 | Early stage | Privately held |
| IT 5 | 3 | Oct-02 | Y | 13,355 | Expansion | Privately held |
| Semiconductors 5 | 3 | Jul-03 | Y | 6,913 | Early stage | Privately held |
| Communications 5 | 2 | Jan-01 | N | 3,230 | Expansion | Privately held |
| Communications 6 | 2 | Aug-00 | Obs | 2,500 | Early stage | Privately held |
| Networking Infrastructure 3 | 3 | Mar-01 | Y | 3,960 | Early stage | Privately held |
| Software 8 | 1 | Oct-99 | Y | 4,500 | Expansion | Out of business |
| IT 6 | 3 | Aug-03 | Y | 10,814 | Expansion | Privately held |
| Services 2 | 1 | Mar-98 | Obs | 2,020 | Expansion | Out of business |
| Services 3 | 2 | Apr-00 | Y | 6,667 | Early stage | Privately held |
| IT 7 | 3 | Feb-01 | Y | 13,028 | Early stage | Privately held |
| Medical 43 | 1 | Feb-98 | Obs | 2,112 | Expansion | Privately held |
| IT 8 | 3 | Jun-01 | Y | 15,000 | Early stage | Privately held |
| IT 9 | 3 | Jul-01 | Y | 8,994 | Early stage | Privately held |
| Semiconductors 6 | 2,3 | May-05 | Y | 13,270 | Expansion | Privately held |
| Communications 7 | 1 | Dec-97 | N | 2,315 | Early stage | Went public |
| Communications 8 | 1 | Mar-99 | Y | 5,020 | Early stage | Privately held |
| IT 10 | 3 | Jul-01 | Y | 16,173 | Expansion | Acquired |

Source: Company information.



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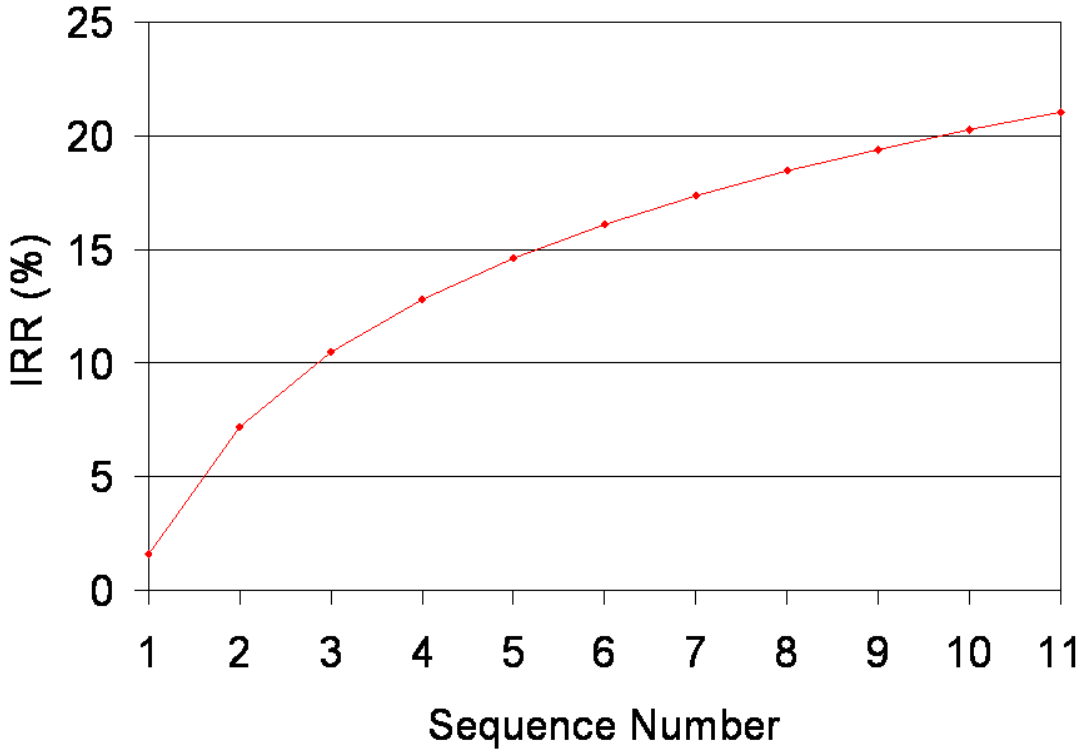
**Exhibit 10** Relationship between Internal Rate of Return and Fund Sequence Number




Source: Josh Lerner and Antoinette Schoar, unpublished research and working papers, 2005.



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