WHY SEED? WHY NOW?



An Investor's
Perspective:
The Case for Seed
Stage Venture
Investing Today

Henry Wong, Director (415) 289-2500 henry@artemisventures.com

Despite the current economic recession, appreciating assets over a five to seven year investment cycle will typically outlast recessions and provide investors with the highest rate of return for any asset class.



Investment Thesis

Despite the current economic recession, investing in seed stage technology companies remains a compelling investment strategy more than ever. Surprisingly, there is little written to date on the increasing value of seed stage investing during recessionary periods, despite an increasing focus by many investment firms and individuals on just such a strategy. This article will address the reasons why allocating capital to this historically high performing asset class in today's depressed market climate will help maximize investor returns tomorrow. Although seed stage companies encompass a breadth of industries, this report will focus specifically on the high technology and communications industries. Finally, the research presented in this report is based upon U.S. data only, and thus the conclusions drawn are only appropriate for investors considering an investment in venture capital funds targeting U.S. investments.

In our view, technology has not changed the old rules of economics, but instead has sparked a wave of innovation and surges in productivity within enterprises. Part I will discuss why high technology continues to play a large and ever increasing role in driving and growing our economy. In particular, technology investment opportunities will continue to be attractive by providing high returns on investment for investors. Part II will show that seed stage investments continue to outshine all other asset classes and investment vehicles, even in today's depressed economy. Part III will discuss current trends in venture capital, which have created tremendous and underserved investment opportunities in today's seed stage startups. Finally, Part IV will demonstrate that seed stage investing can be used as an effective hedge strategy in today's weak economic climate, and also provide investment strategies for investors to capitalize on this financial opportunity. In sum, the Artemis Ventures investment team remains more bullish than ever on seed stage technology investing.

I. Technology and Communications Sector Investment Opportunity

Much has been written in recent years on the growing importance of technology in business as well as its affect on our personal lives. The subject of this section is not an attempt to restate an obvious point, but instead to establish our viewpoint for why investing in this growth engine, in particular, is a sound investment strategy. Despite claims from industry pundits in recent months, the Artemis investment team continues to see the development of a new economy rooted in technological innovation. In our view, technology has not changed the old rules of economics, but instead has sparked a wave of innovation and surges in productivity within enterprises. In fact, the technology sector has accounted for a large percentage of overall U.S. investment activity for the past two years (See Figure 1).



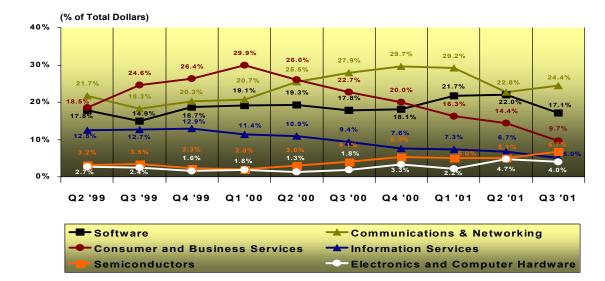


Figure 1: Technology Investments: Percentage of Total U.S. Investments

Source: PriceWaterhouseCoopers MoneyTree Survey/VentureOne

This importance of technology investment is also evidenced by current trends in the enterprise. Companies ranging from the small/medium enterprise to the Global 2000 are reinventing their information systems, moving mission critical applications to intranets, extranets, and the Internet itself. As a result of scaling up and out, more power is moving to the network edge. Three important developments are increasing the adoption of technology:

- Cost, size, and power consumption of computing, storage, networking, and interface technologies continue to decline, while performance and capabilities continue to increase.
- Optical networking, wireless networks, and standards-based application services are enabling new classes of devices, services, and business models based on pervasive, low cost, always-on, broadband access to a global Internet.
- Communications and computing technologies and business models are merging as the underlying network converges, creating demand for broad new classes of mediaand data-intensive network applications.

This is where access meets infrastructure to deliver the always on, always pervasive, always fast, always personal "Evernet." Take for example the following three trends

driving increased innovation and spending in corporate information technology:

- 1. GDP. On a macro-level, economists predict the technology sector's contribution to the GDP will double within the next 10 years, increasing from less than the 20% of total goods and services it is today to about 40%.
- IT SPENDING. The Four Technology Laws (Storage, Bandwidth, Processing Power, and Networking) continue to drive demand in corporate spending. We believe storage needs are doubling every 12 months, while bandwidth requirements for

Although we remain extremely cautious and recognize the severity of the current telecommunications downturn, we believe that the communications sector will eventually rebound and lead the overall technology sector out of its current doldrums.



the enterprise are doubling every 6 months. Moore's Law predicts processing power to double every 18 months, and Metcalf's Law states that the power of the network increases by x2 as you add an additional node to the network. In fact, our research indicates that companies will nearly triple their spending on information technology to 10% of sales by 2008, up from 3.5% today --- driven by the need for storage, bandwidth, processing power, and networking. We believe companies which align themselves with these prevailing laws will have the most upside growth potential in the future.

3. REAL-TIME FIRM. On an application level, driving this increase will be the new efficiencies gained by the move to real-time computing by enterprises. We believe that for every 1% increase in I.T. spending, a company can cut their general and administrative expenses by 1.5 to 2%. That's a 50% to 100% ROI on the investment. A great example of a real time enterprise is Cisco: Cisco earned \$7B in revenue in 1Q01 and \$4B did not require human intervention.

Although we remain extremely cautious and recognize the severity of the current telecommunications downturn, we believe that the communications sector will eventually rebound and lead the overall technology sector out of its current doldrums. In this vein, there are still many opportunities in the communications and networking sector. These opportunities lie in infrastructure enhancements which improve bandwidth utilization, increase power amplification, and extend the coverage of networks. In addition, communications software and underlying applications which facilitate the migration, integration, and convergence of the wireless enterprise also provide strong investment opportunities. As a result, innovation continues to thrive and investors should remain bullish on technology and communications investing.

II. Seed Stage Technology Investment Opportunity

Our belief is founded upon over 20 years of venture capital returns data showing seed stage consistently outperforming every asset class, including a balanced portfolio, later stage venture, buyout, mezzanine, and all private equity.

The financial opportunity to invest in seed stage technology companies remains more compelling than ever. Despite poor venture capital industry performance in recent months, the Artemis investment team believes seed stage investing will continue to provide the highest returns for investors. Our belief is founded upon over 20 years of venture capital returns data showing seed stage consistently outperforming every asset class, including a balanced portfolio, later stage venture, buyout, mezzanine, and all private equity. Figure 2 shows venture capital returns have averaged approximately 25% for the past 20 years, while Figure 3 shows seed stage venture investing has averaged 33% in the previous 10 year timeframe.



Figure 2: VC IRR - Historical Returns

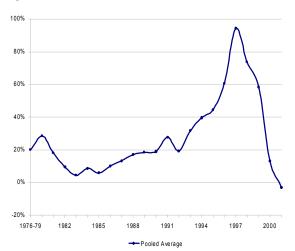
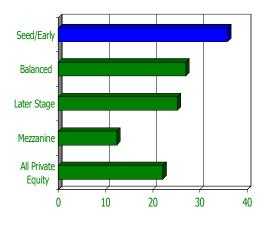


Figure 3: VC Returns by Stage (For the Previous 10 Years)



Source: PricewaterhouseCoopers/VentureOne

Source: Venture Economics/NVCA

Figure 3 also demonstrates that seed stage has outperformed every asset class in venture capital for the past 10 years, including balanced, later stage, mezzanine, and all private equity. Another venture industry tracking index, the Venture Economics' U.S. Private Equity Performance Index (PEPI) for historical returns provides further evidence of the superior performance of seed stage venture investing for the past 20 years (Figure 4).

Figure 4: U.S. Private Equity Performance (PEPI) Index

als =qelly : silvelliants (1 = 1) mask
Venture Economics' U.S. Private Equity Performance Index (PEPI)
Investment Horizon Returns as of 06/30/2001

Calculation Type: Pooled IRR

Fund Type	3 Months	6 Months	1 Year	3 Year	<u>5 Year</u>	<u>10 Year</u>	<u> 20 Year</u>
Early/Seed	-3.3%	-14.3%	-20.6%	81.4%	55.1%	34.5%	22.4%
Balanced	-2.6%	-13.6%	-16.1%	46.3%	35.5%	24.7%	16.6%
Later Stage	-2.7%	-11.3%	-16.3%	28.3%	24.6%	25.4%	17.4%
All Venture	-2.9%	-13.5%	-18.2%	54.5%	40.0%	28.4%	18.7%
All Buyouts	2.2%	-1.7%	-7.2%	6.1%	11.9%	14.4%	16.5%
Mezzanine	0.0%	2.6%	20.8%	11.0%	11.3%	12.2%	11.6%
All Private Equity	0.4%	-6.0%	-11.3%	20.1%	21.7%	20.2%	17.8%

Source: Venture Economics/NVCA

Although seed stage investing has consistently outperformed other private equity asset classes, it is also important to note its superior performance over other asset classes, including the public markets, hedge funds, and buyout funds. As shown in Figure 5, seed



> stage venture capital returns have beaten all other alternative asset and public market investment vehicles for the past 20 years as well.

Historical 20 Year Returns for Alternative Assets 22.4 25 18.7 18.7 20 16.5 14.9 13.2 Return 15 10 5 Seed Stage A IVenture Hedge Funds Buyouts S & P 500 NASDAO

Figure 5: Seed Stage vs. All Alternative Asset Classes

CapitalFunds

Source: Venture Economics, HFRI Equity Hedge Index

Funds

In one of the worst venture climates in recent history, both seed stage and venture overall are still outperforming NASDAQ.

Notwithstanding the historical high performance of seed stage venture, it is also important to consider the performance of seed stage venture during recessionary periods. Recent quarters have shown that the venture industry is not immune to either public market conditions or economic cycles. Declining valuations, limited liquidity options, and the decline of the Internet sector are the primary reasons for the negative trend of venture returns. Nonetheless, for the one-year period ending 6/30/01, venture capital, including seed stage, returns have declined less than the public markets. Much of this decline can be attributed to the Internet "bubble" where equities were grossly overvalued. In Figure 6, seed stage technology investing has proven its resiliency over the dominant public company technology index, NASDAQ. In the trailing twelve months ending 2Q of 2001, venture capital returned -18.2%, seed stage venture investing was -21%, while the NASDAQ returned -36.2%. Thus, in one of the worst venture climates in recent history, both seed stage and venture overall are still outperforming NASDAQ.

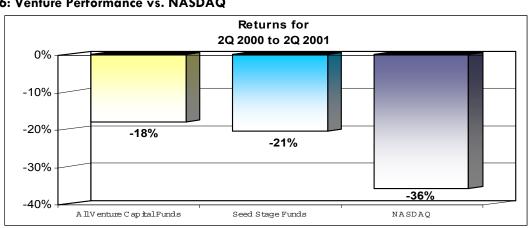


Figure 6: Venture Performance vs. NASDAQ

Source: Venture Economics/NVCA



It is important to note that seed stage returns are typically realized upon 5-7 year investment time horizons. Despite the current negative returns, the long-term outlook for seed stage returns remains positive. It is important to note that seed stage returns are typically realized upon 5-7 year investment time horizons. Seed and venture returns have always been correlated to liquidity, and until the IPO market opens up again, returns will remain depressed. The National Bureau of Economic Research (NBER), the federal agency charged with examining the state of the U.S. economy, recently reported that the U.S. has been in a recession since March 2001. The good news for seed investors, however, is that the NBER also reiterated that recession markets typically last 11 months in the U.S., while economic expansion averages growth cycles of 50 months. Assuming the current recession follows previous economic cycles, investors should see liquidity markets opening again in late 2002. Venture returns, and seed stage in particular, will ultimately benefit from this resurgence. It is also important to restate an earlier fact that over the past 20 years seed stage venture investing has returned approximately 22% while venture capital has returned approximately 18%; and in comparison, the public markets have returned on average only 14%. Consequently, investors should feel confident that long-term seed stage returns will climb to their historical peaks.

In 2000 alone, only \$230M was invested in seed stage companies, while over \$22B was invested in post seed stage companies.

III. Current Trends Widen Seed Stage Opportunity

Despite the attractive returns in seed stage investing, financial investors continue to invest in companies with reduced development risk. In 2000 alone, only \$230M was invested in seed stage companies, while over \$22B was invested in post seed stage companies. This meant that post seed investing accounted for nearly 13 times the amount of deals invested in seed stage companies (See Figure 7).

Figure 7: Seed v. First Round Investment in 2000

Seed Stage	142 Deals	\$ 2 3 1 .7 M
First Round	1937 Deals	\$ 2 2 ,0 5 2 .8 B

Source: Venture Economics/NVCA

Second and third round financings are trending upwards, indicating a flight of capital to later stage investing. Not only does seed stage account for only a fraction of the amount invested in the post seed round, but investment in seed is on a downward trend. Figure 8 suggests venture investing is moving away from seed stage investing. Where seed stage accounted for 48% of new deals a year ago in 2Q of 2000, that number has dropped sharply to 30% in 2Q of 2001. Thus, the last few quarters actually suggest that many investors are moving away from seed stage, as the percent of seed deals as a part of the overall number of deals financed continues to trend downward. At the same time, second and third round financings are trending upwards, indicating a flight of capital to later stage investing.



(% of Total Deals) 60% 18 3% 40% 32.1% 20% 10.5% 7.0% 7.2% 3.0% 5.6% 5.3% 0% Q1 '00 Q2 '00 Q3 '00 Q4 '00 Q1 '01 Q2 '01 Q3 '01 Seed/First Second & Third Fourth & Beyond Corporate

Figure 8: Decreasing Investment in Seed Stage

Source: PricewaterhouseCoopers MoneyTree Survey

There is more evidence supporting the underserved landscape of seed investing. Further analysis shows that notwithstanding the increase in the amount invested and the number of companies raising money (Figure 9 and Figure 10 respectively), the average round sizes have increased in correspondence (Figure 11). The resulting effect is that many venture firms today are taking their investment focus off seed stage and focusing instead on later stage financings.

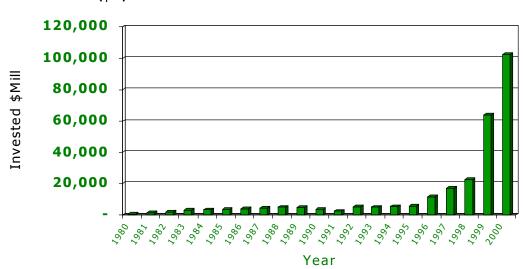
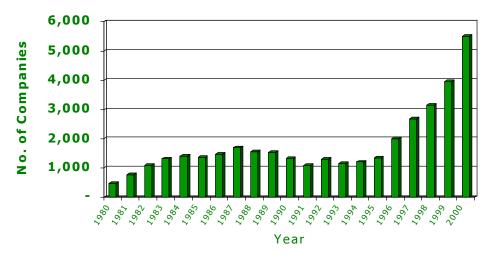


Figure 9: Total Invested (\$M)

Source: Venture Economics/NVCA

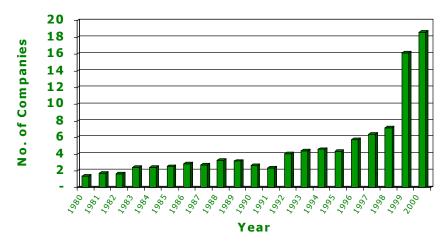


Figure 10: U.S. Venture Investing - No. of Cos.



Source: Venture Economics/NVCA

Figure 11: Average Round Size (\$M)

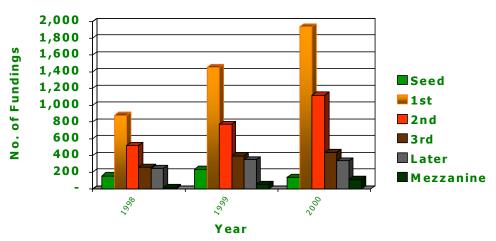


Source: Venture Economics/NVCA

The lack of players in this space has created a huge financial opportunity for investors wise enough to recognize these trends. In Figure 12, data shows that seed stage has always been only a fraction of the amount raised when compared with other rounds. This data further supports that many investors abandoned seed stage investing and focused on investing in later rounds in recent years. Ultimately, the lack of players in this space has created a huge financial opportunity for investors wise enough to recognize these trends.



Figure 12: Deals by Investment Stage



Source: Venture Economics/NVCA

Despite recent claims by many venture capitalists to "return to seed investing," many formed multibillion dollar funds and are thus unable to invest in seed stage companies.

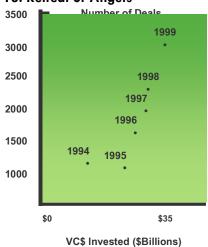
To further compound this lack of seed stage capital and magnify the existing opportunity to invest, consider these important trends in the private equity markets:

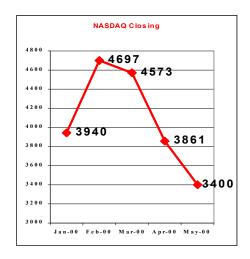
- " "angel" investments in seed stage companies have dramatically reduced since the market downturn;
- despite recent claims by many venture capitalists to "return to seed investing," many have formed multi-billion dollar funds and are thus unable to invest in seed stage companies;
- many funds are preoccupied with "putting out fires" and raising "bailout" funds for their current portfolio companies (and not doing deals), thus increasing the scarcity of seed stage capital to entrepreneurs.

What has occurred in the past 18 months, in which many high net worth investors, or "angel investors," have seen their net worth reduced dramatically, is well documented. The chart in Figure 13 shows the record number of deals being closed by investors during the Internet bubble and the beginning of trouble in 2000 when NASDAQ began its 18 month fall. As the portfolio value of many angels continued to drop, many faced liquidity constraints. The resulting illiquidity precluded angel investors from allocating anymore capital to seed stage companies. Thus, the retreat of the angel investors, who traditionally have accounted for a large percentage of dollars invested in seed stage companies, further exacerbated the scarcity of capital for entrepreneurs in the post "bubble" economy.



Figure 13: Retreat of Angels





Source: Venture One

Approximately 40% of funds under management today are managing \$1B+, while over half of VC dollars are now in funds greater than \$500M.

Next, a majority of venture investors who use to invest in seed stage, are now managing large funds which preclude them from investing in seed stage companies. There is an ever increasing trend in venture capital fundraising to raise larger and larger funds. In Figure 14, data shows that over 90% of venture funds today are over \$100M, compared with pre-bubble funds averaging around \$60M. In fact, Figure 15 shows that approximately 40% of funds under management today are managing \$1B+, while over half of VC dollars are now in funds greater than \$500M.

Figure 14: Funds Get Bigger and Bigger



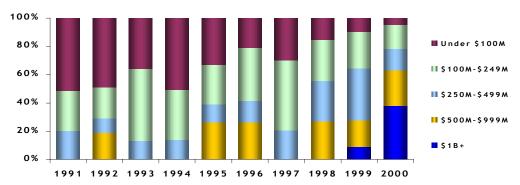
Source: Venture One, Venture Economics



Figure 15: VC Funds Under Management by Size

Majority of VC \$ Are Now in Large Funds





Source: Venture One

Although the greatest amount of VC money in history is now available to invest in entrepreneurship, large fund dynamics preclude managers from investing in seed stage companies.

Investment professionals today must put to work a larger amount of money in the same amount of time it took them in previous years.

Although the greatest amount of VC money in history is now available to invest in entrepreneurship, large fund dynamics preclude managers from investing in seed stage companies. As many funds have moved 'upstream' and raised increasingly large funds, the money managed per professional has increased as well. In 1995, the average investment professional managed approximately \$20M. In 2001, this figure ballooned to nearly \$75M per professional, including managers of billion dollar plus funds (the "megafunds"). While the amount under management has increased over the years, the addition of qualified investment professionals has not kept pace to offset this extraordinary growth. This means that investment professionals today must put to work a larger amount of money in the same amount of time it took them in previous years.

As investment professionals' limits are stretched, their resources allocated to each company is negatively affected. Moreover, the VC must invest funds in a proactive manner in order to achieve a satisfactory return on investment for its limited partners. The venture capitalist has only two strategies at this point: (1) invest in many companies and not allocate enough time to each investment ("spray and pray" approach), or (2) allocate larger amounts of capital into a few companies which, under the normal mortal stresses of time, they will have enough bandwidth to look after. Several mega-funds, including Crosspoint Ventures, chose a third option. After ample consideration, the principals chose to return the committed capital to its limited partners when faced with the unenviable task of achieving high IRRs for its Fund in a depressed market. The rationale becomes clear for the venture capitalist as the tools of his/her trade depend upon the careful feeding and nurturing of companies. Although the spray and pray model works in limited scope in upward trending economies, the answer becomes even more clear for the investment professional in recession markets which preclude 'spray and pray.'

To understand why a majority of today's funds preclude seed investing, it is important to look at the economics behind a venture fund. In today's environment, seed stage valuations typically range \$2M to \$4M (see Figure 16). Assuming the average investment professional needs to put \$75M to work in 3-5 years, that means roughly \$38M in fresh



capital will be allocated to new companies and the rest for follow-on investing. That also means the venture capitalist could invest about \$8M per year if they paced themselves over a five year period; in a more aggressive three year timeframe, this number could be well over \$10M per year, per professional. At today's typical seed stage valuation (\$2M), the typical venture professional will have to do 4 deals per year for five years. What does this mean? That means the venture professional will end up with 20 board seats and 20 companies to look after at the end of five years. This is in addition to any existing board seats already held by the investment professional from previous funds. As we've witnessed in the past 18 months, this pace is unsustainable and becomes ultimately unmanageable.

Figure 16: Median Pre-money Valuations by Round Class



 $Source: Price waterhouse Coopers\ Money Tree\ Survey,\ Venture\ One$

Seed valuations today simply cannot support a \$5M to \$7M investment.

Seed stage companies not only need less money than their later stage counterparts, but they also require much more hands-on help. Now consider an alternative scenario: what if the investment professional put more money to work per seed stage deal, say \$5 to \$7M? The answer this time comes from the entrepreneur's perspective, a symbiotic partner for the venture capitalist. Seed valuations today simply cannot support a \$5M to \$7M investment. It causes too much dilution too soon for the entrepreneur. Here is a numerical example to illustrate this point: If a typical pre-money valuation of a seed stage entrepreneur is \$2M, then an additional outside investment of \$5M would make the post money valuation of the company \$7M. This means the entrepreneur went from owning all of his/her company to now owning fewer than 30%, while the outside investor owns approximately 70%. Considering further dilution in future rounds and shares needed to allocate and incentivize current and future key team members, the forced dilution becomes undesirable. Thus, the rational answer for the entrepreneur is to take less money today (perhaps \$1M) and build a more valuable company in the future to hedge against dilution from outside investors. In today's market, the pre-money value of the company will usually equal the amount of funding the entrepreneur is seeking. Thus, entrepreneurs own about 50% of the company post financing and have enough incentive to continue to build value for its shareholders.

The last reason why a majority of funds today cannot invest in seed stage companies is more qualitative than quantitative. Seed stage companies not only need less money than their later stage counterparts, but they also require much more hands-on help. Given that the number of board seats for partners in large funds are in the double digits these days,



This vacuum effect created by retreating angels and venture capitalists has created a huge opportunity for financial investors dedicated to seed stage investing.

this leaves little time for them to allocate to the bandwidth-consuming task of developing companies at the seed stage. In a sense, many of the investment professionals have transitioned from being company builders to portfolio managers. On a final observation, the triage in the marketplace has forced many fund managers to focus on their portfolio instead of looking at new deals. Many have even entered the marketplace with intentions of raising "annex" or "bailout" funds; funds with stated intentions to rescue troubled companies. These factors will continue to prohibit other players from capitalizing on the investment opportunity in seed stage investment. Given these foregoing reasons, venture investors will likely allocate larger amounts to later stage companies and further vacate the seed stage space. This vacuum effect created by retreating angels and venture capitalists has created a huge opportunity for financial investors dedicated to seed stage investing.

IV. Investment Strategies in Seed Stage

The financial opportunity in seed stage investing remains as compelling as ever. In fact, seed stage investing may make even more sense in down markets as a hedge against volatile market conditions. This section addresses the different strategies private investors, alternative asset institutions, and strategic investors can employ to take advantage of this growing opportunity.

Seed stage investing is not for the faint of heart, as many of yesterdays' angel investors found out too late. For the individual investor, there are three options to 'play' in this area: (1) direct investment into seed stage companies, (2) investment in a fund of funds manager, or (3) become a limited partner in a seed stage venture capital fund. Direct investment into a company can pay huge rewards, but requires an in-depth knowledge of the business and industry to make a sound investment decision. For this reason alone, direct private equity investment in seed stage companies is fraught with problems for the individual investor. Seed stage investing is not for the faint of heart, as many of yesterdays' angel investors found out too late. There exists a high degree of risk in 'putting your eggs in one basket'; and generally, diversification is a more sound financial strategy. Lack of control, liquidity, ability to influence management and company direction, and due diligence requirements generally make direct investing into seed stage companies undesirable for most individuals. The typical exception is the retired executive who is interested in mentoring an entrepreneur. These instances are few and far between and relatively small when compared to how much angel money falls into the hands of entrepreneurs.

While many claim to be over allocated to 'early' stage venture, seed is a distinct financial opportunity offering different riskreturn scenarios. Individual investors can also invest in a fund of funds manager, who will in turn, invest in a seed stage venture capital firm. The drawback with this strategy is that many institutions, endowments, universities, foundations, fund of funds, etc. are 'behind the curve' and do not recognize the value in seed stage investment yet. While many claim to be over allocated to 'early' stage venture, seed is a distinct financial opportunity offering different risk-return scenarios. As an illustrative example, consider the number of fund of funds managers backing mega-funds in recent years and not doing the 'math' on whether the model will actually work. The verdict is still out on mega-funds, but a majority of industry pundits believe they will end up giving capital back to limited partners or else splitting up into smaller funds. Furthermore, fund of funds managers are 'portfolio' managers and are not in the trenches fighting with entrepreneurs as seed stage venture capitalists must do. In



other words, the level of control alternative asset managers have in formulating and directing a seed stage company is absolutely zero. Finally, alternative asset managers are generally more diversified and not as focused in on any particular asset class.

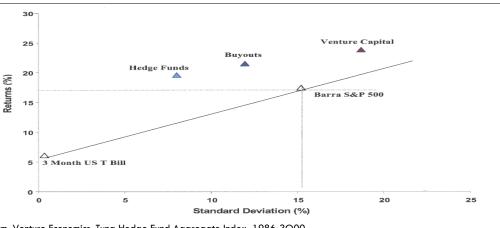
In terms of manager risk, it is important to invest with principals whom have deep operational experience.

Investment in a seed stage venture capital fund is perhaps the most effective way to take advantage of this emerging financial opportunity. As discussed earlier, seed stage investing is the highest performing asset class and can provide a 'shelter' during volatile market conditions. Of course, higher returns means higher risk as well. A discussion fully weighted on the benefits of seed stage private equity investing which ignores the obvious high risk nature of this asset class would not be a complete picture. Among the many risks to consider include: illiquidity, high minimum commitments, and manager risk. Investors must be able to wait on average 5-7 years before seeing liquidity in their investments. Also, accredited investors who allocate a portion of their assets to seed stage may find it a good way to diversify risk in recession markets. In terms of manager risk, it is important to invest with principals whom have deep operational experience. The best performing seed stage venture funds typically have experienced principals whom have built companies from development to exit, as opposed to having experience as service professionals. Finally, the size of fund is an important factor to consider as well. Back too small a fund, and investor value is exposed to dilution occurring from future rounds of financing in which the fund is fully committed and cannot participate. Back too large a fund and you run into the 'mega-fund' phenomenon discussed earlier. Seed funds ranging from \$100M -\$200M are typically 'just right,' and allow managers enough capital to hedge against dilution as well as provide a size actually manageable given a 5-7 year investment cycle.

Allocating a portion of assets to seed stage will help boost returns and help offset significant allocations to later stage venture and mega-funds to create a well diversified portfolio.

For the alternative asset managers and other related institutions, investing in a successful seed stage venture capital fund is also an effective way to diversify risk and fill a 'void' in its existing portfolio. Although many of these investors claim to have invested in early stage funds, a close examination of their portfolio will show they have allocated barely, if any at all, assets to seed stage venture managers. Once again, it is important to note the difference in "seed" versus "early" stage investing, the latter of which is well saturated. Allocating a portion of assets to seed stage will help boost returns and help offset significant allocations to later stage venture and mega-funds to create a well diversified portfolio (See Figure 17).

Figure 17: Alternative Assets: Risk v. Return



Source: Datastream, Venture Economics, Tuna Hedge Fund Aggregate Index, 1986-3Q00



For strategic investors, or corporations, the implications are obvious: invest in the seed stage to access next generation technology and outsource research and development.

If the typical recession lasts 11 months and the growth cycle averages 50 months, it would be wise to invest in a in a seed stage fund as a 'safe-harbor' during volatile times.

Appreciating assets over a five to seven year investment cycle will typically outlast recessions and provide investors with the highest rate of return for any asset class at the same time.

For strategic investors, or corporations, the implications are obvious: invest in the seed stage to access next generation technology and outsource research and development. For corporations, return on investment is usually a secondary goal, and plays second fiddle to the company's long-term strategic goals. Given the strategic philosophy of this type of investor, investing into a Fund of Funds is problematic because it does not serve to achieve any of its long-term strategic goals. Likewise, investing directly into seed stage companies is problematic too because most strategic investors do not have the requisite experience in nurturing seed stage companies and simply do not have the required bandwidth to do so. This issue is further compounded by the fact that most strategic investors do not hold board seats due to legal liability reasons; thus, are not able to influence the direction of the seed stage company. Investing in a seed stage venture fund is the best way for a strategic investor to expose itself to this sector without the liability risk.

In fact, it makes much more sense for strategic investors to invest in seed stage technology rather than try to duplicate in-house the innovation which occurs in an entrepreneurial environment. Other benefits include long-term return on investment, potential products/services serving the enterprise, expansion of distribution capability, growing of market potential for its existing product lines, etc. Moreover, developing relationships with seed stage investors allows the company to take a 'first look' at new technologies and possibly an acquisition target in the future to increase shareholder value. Investments into seed stage venture funds could be structured whereby the strategic investor gets co-investment rights or follow-on rights. This can ultimately tighten the relationship between the strategic corporation and the seed stage company for an even deeper relationship.

In all cases, investing in a seed stage venture capital fund can be used as a hedge to increase returns in the long-term, and reduce short-term risk during an economic recession. For example, if the typical recession lasts 11 months and the growth cycle averages 50 months, it would be wise to invest in a in a seed stage fund as a 'safe-harbor' during volatile times. When the investment becomes liquid again in roughly five years, the recession will be over and a growth cycle will have commenced. Liquidating securities during this period will increase overall value in your portfolio in the long-term, but preserve a solid asset value base in the short-term. Thus, investing in seed stage companies during a economic recession or down markets can increase your overall return on investment, while at the same decrease your portfolio risk.

Conclusion

The Artemis Ventures Team is more bullish than ever on the significant upside potential in seed stage technology companies. If seed stage investing was a good idea before the market downturn, then it is an even better idea during a recession when investors are "seeking shelter from the storm." Appreciating assets over a five to seven year investment cycle will typically outlast recessions and provide investors with the highest rate of return for any asset class at the same time. Current fund dynamics and investment trends have created a huge gap for deserving and talented entrepreneurs. While the usual suspects have vacated this space, the addressable market opportunity has been magnified tenfold. Investing in a seed stage venture capital fund is the best option to capitalize on this trend and diversify holdings. In our opinion, wise investors and financial managers should seriously consider the benefits of seeking out qualified seed fund managers and allocating a portion of their assets to them.



About Artemis Ventures

Artemis Ventures is a leading seed stage venture capital firm based in Sausalito, CA, focusing on investments in enterprise software and infrastructure and communications and networking companies.



Christine Comaford Lynch, Managing Director

Christine Comaford Lynch is Managing Director for Artemis Ventures, where she oversees the firm's investments in enterprise infrastructure and software/services. She is responsible for day-to-day operations and overall fund management. Christine's expertise is a result of over 20 years in operational high tech positions ranging from software engineer at Microsoft, Lotus, and Adobe, DBA at Apple and strategy advisor at Oracle and Symantec. Christine is four-time CEO/entrepreneur defining new markets, developing products to serve them, executing sales, marketing and product strategies resulting in merger, acquisition, and IPO. Throughout Christine's career, she has assisted over 700 of the Fortune 1000 in implementing new technology. She was a founder of First Professional Bank, Kuvera Associates, Corporate Computing, and PlanetU. All of these companies have either been acquired or taken public. She has received numerous entrepreneurial awards and recognition from the press and business schools including Fortune, Forbes, Businessweek, Upside Magazine, PC Week, USA Today, Stanford, Harvard and Northwestern.



Henry Wong, Director

Henry Wong manages the deal process for prospective investments, including deal sourcing, screening, conducting due diligence, valuation analysis, negotiation, execution, and also acts as a board director/observer. Henry's professional experience stems from both finance and legal backgrounds, having worked for such notable companies as Worldcom, Morrison & Foerster, and venture-backed satellite communications start-up Ellipso, Inc. Henry has experience building and exiting companies as legal advisor, operations executive, and principal investor. His telecommunications expertise covers satellite, telecommunications equipment, wireline and wireless carrier deal structuring, due diligence, and financing. He has helped raised over \$200M in corporate and venture financing for communications equipment and service companies, and his M&A experience includes: Teleglobe's \$6B acquisition of Excel Communications, Alltel's \$7B acquisition of 360° Networks, and Lockheed Martin's \$2.7B acquisition of Comsat Communications. Based on his expertise in the communications sector, he has published many papers in various legal and finance journals. He holds a BA in Finance from the University of Washington, and a JD and MBA from American University in Washington DC.

For additional information, please visit www.artemisventures.com or contact henry@artemisventures.com.

