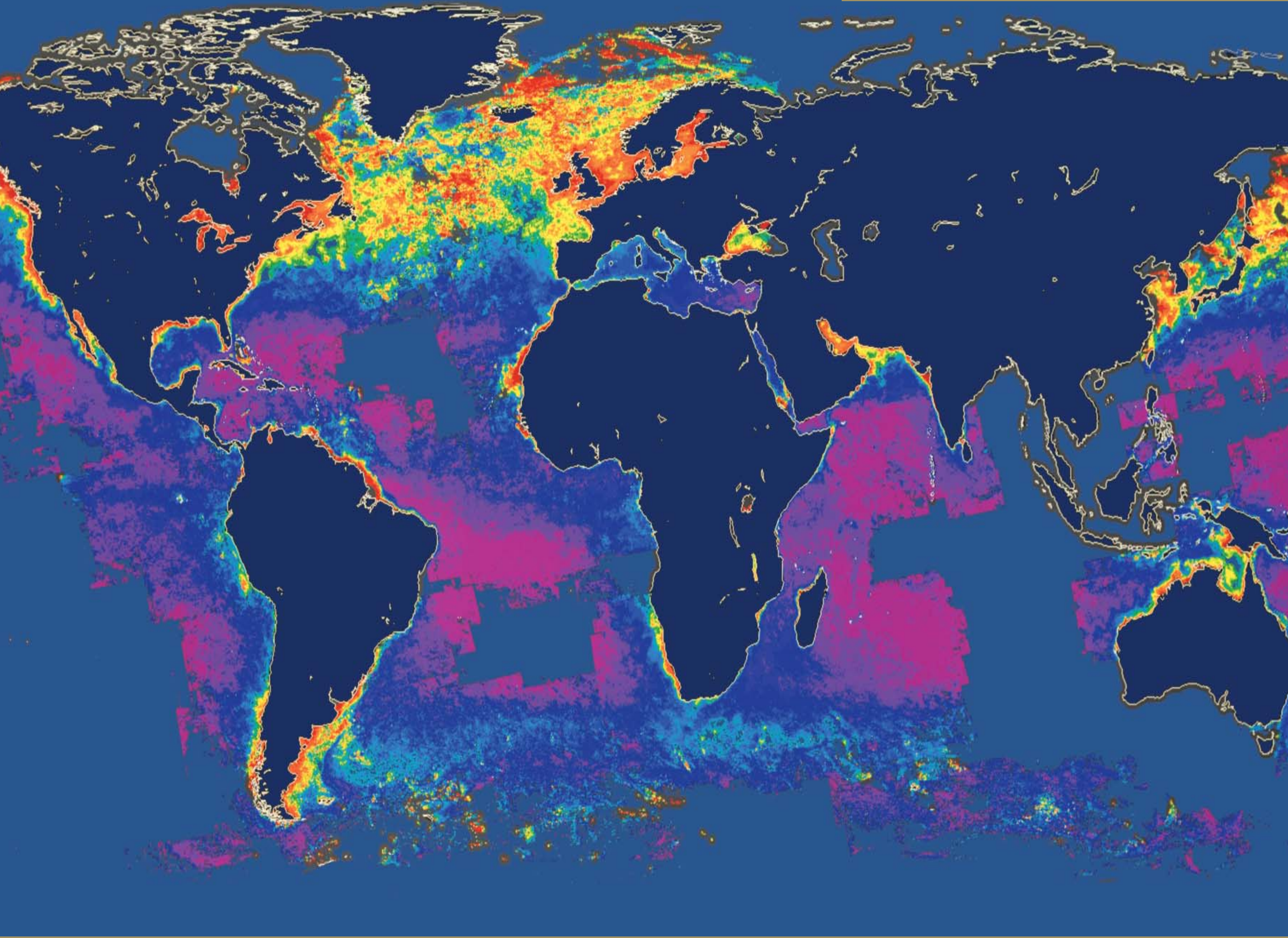
Strategic Growth Markets



Ernst & Young

Quality In Everything We Do

Transition

Global Venture Capital Insights Report 2006

Foreword

The last year marked a period of transition in the global venture capital industry, as important developments in all the major markets signaled a passage into a new venture landscape. In the mature markets of North America, Europe, and Israel, this transition was expressed in the increased globalization of venture capital funds and venture-backed companies, changes in the regulatory landscape that have altered the operational assumptions of both funds and portfolio companies, and challenging capital markets. The convergence of globalization, Web 2.0, and media, as well as cross-innovation between IT and life sciences are further indications that the venture capital industry is operating in a new environment.

The emerging markets of China and India moved into a new phase in their development as venture capital hotbeds last year. In China, venture-backed companies launched a second wave of successful IPOs on NASDAQ, the first year of fundraising for China-dedicated funds concluded with US$4 billion in committed capital, and foreign venture capitalists advanced the deployment of various operating models. India saw increased investments by foreign venture capitalists, the continuing development of an important domestic consumer market, and significant announcements of planned investments by Intel, Cisco, and Microsoft.

In 2005 the global investment activity sustained the momentum that developed in 2004 with about US$31 billion invested across the globe. At the same time, venture capital firms stockpiled the most investment capital since 2001 through new fundraising activity. Clean-tech, Web 2.0, medical technologies, and wireless applications received growing investment. Mergers and acquisitions and initial public offerings by venture-backed companies also showed continued strength during this period, setting the stage for continuing investment in 2006.

Our fourth annual global report provides insight into global venture capital investments, the venture-backed exit landscape, the state of the pool of privately held venture-backed companies and venture capital investors, the policy landscape, Web 2.0, and the outlook of global limited partners. Throughout the report, partners from some of the top venture capital firms around the globe share their own perspectives on the lessons of the past year and what lies ahead—we are grateful for their contributions.

We hope you find this report useful and we look forward to working together with you on the global challenges and opportunities that lie ahead.

Strategic Growth Markets—Ernst & Young

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By Gil Forer and Dr. Martin Haemmig

Following an active year of rebuilding, 2005 can be described as a year of transition in the venture capital industry. Transition came in the form of enhanced globalization of venture capital funds and venture-backed companies, regulatory changes that have impacted both funds and portfolio companies, and challenging capital markets. The convergence of globalization, Web 2.0, and media, as well as cross-innovation between IT and life sciences provides further indication that we are moving into a new environment in the venture capital industry.

Investment activity in 2005 sustained the momentum that developed in 2004 in the major mature hotbeds of the United States, Europe, and Israel. The emerging markets of China and India also saw interesting developments in 2005. While investment in China was slightly lower compared to 2004, mainly due to regulatory action by the Chinese authorities, which nearly put a stop to foreign venture capital investment in Q2 05, revised regulations helped investments to rebound in the remainder of the year. India saw increasing investment by Sand Hill Road venture capitalists in India-based companies and major commitments to Indian innovation by Intel, Cisco, and Microsoft at the end of the year.

Most notably, fundraising by venture capital firms increased significantly in 2005 with venture capitalists stockpiling the most investment capital since 2001. Mergers and acquisitions (M&A) and initial public offerings (IPOs) by venture-backed companies also showed strength during this period—setting the stage for continuing investment in 2006.

Investment Landscape

While investments in venture-backed companies in 2005 remained relatively consistent with 2004 levels, a strong trend toward later-stage financings suggests that investors are confident in the prospects of their portfolio companies and optimistic in regard to exit opportunities. Overall, venture capital investments worldwide reached the level of US$31.3 billion (€25.8 billion). The United States, Canada, Europe, and Israel represent 93 percent of capital invested, while China and India account for the remainder.

RENEWED FUNDRAISING AND INCREASED EXITS

In 2005, US$26.5 billion (€22.3 billion) was raised in new venture capital funds in the United States, Europe, and Israel according to Dow Jones VentureOne—an increase of 30 percent from the same period a year ago. Despite an overhang of world-wide venture capital funds estimated to be more than US$60 billion, venture capital firms continue to find a robust level of interest from limited partners and are raising funds at a pace expected to surpass last year's figure.

Venture-backed company exits also grew in value and number in 2005. The United States and Israel saw increasing M&A valuations, while Europe experienced an increase in IPOs. In the United States, 356 companies were acquired for an aggregate amount paid of US$27.3 billion, according to Dow Jones VentureOne statistics, an increase of 17 percent as the median amount paid rose to US$23 million with more mature companies being acquired and increased competition among buyers.

In Europe, venture-backed IPO activity surged last year with 60 offerings that raised €2.03 billion (US$2.40 billion), a 71 percent increase in transactions and a 185 percent increase in capital raised compared to 2004. One factor that may have contributed to the IPO increase in Europe is the maturing of the AIM and new exchanges such as Alternext that are making it easier for smaller companies to achieve exits via the public market.

The median time between initial investment and exit has risen to more than five years, compared with less than three years in the mid-1990s. The impact of that longer period to exit is critical for both venture-backed C-level executives and investors. Emphasis on capital efficiency, capital deployment milestones, and more calculated risk-taking will continue to be critical both for investors and their investees.

UNITED STATES, EUROPE, AND ISRAEL

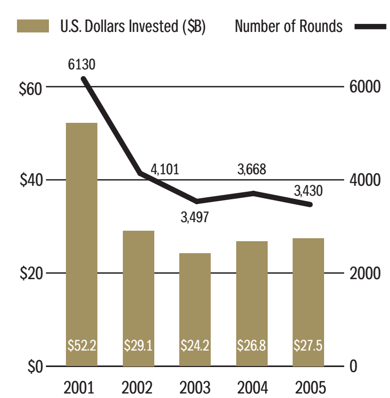
The established markets of the United States, Europe, and Israel experienced a trend of increased later-stage investment, with fewer but larger financings. In the United States, US$22.1 billion (€18.6 billion) was invested in 2,239 financing rounds, essentially no change in terms of deals, but an increase of 2 percent in terms of capital, with later-stage capital rising to 49 percent of total capital invested from 44 percent in the previous year. In Europe, €3.6 billion (US$4.25 billion) was invested in 1,020 financing rounds, 5 percent less capital and 16 percent fewer rounds than the previous year; as in the United States, later-stage capital grew to represent 49 percent of the total amount invested, up from 44 percent last year. In Israel, US$1.1 billion (€0.92 billion) was invested in 171 financing rounds, a decline of 17 percent in terms of deals and 20 percent in terms of capital invested compared with 2004; later-stage financing, however, increased to 55 percent of capital invested from 49 percent in the previous year.

By industry, biopharmaceutical and software companies continued to dominate venture-capital investing in the United States, Europe, and Israel throughout 2005. Among the noteworthy U.S. trends in 2005 was an increase in financing for medical-devices companies, which garnered more than US$2 billion in capital this year—the most capital directed at this segment since 2000.

In addition, US$2.42 billion was invested in consumer and business-service companies, which includes a number of Internet companies. This is the most money to this segment since 2001—and a 53 percent increase over 2004—signaling interest in Web 2.0 and other services.

Like the United States, Europe experienced an increased focus on medical-device financing—the €310.9 million invested in European medical-device companies was the most capital directed to this segment since 2001.

FIG. 1 Aggregate U.S., European, and Israeli VC Investment



Source: Ernst & Young/VentureOne

New activity also appeared in a range of emerging industries in Europe, such as alternative energy, which saw investments increase 25 percent to €50.3 million in 2005. This was likely fueled by the success of several venture-backed energy IPOs around the world last year, including Europe's largest, Q-Cells (XETRA: QCE), a solar-cell developer that raised €313.2 million in its public offering.

In Israel there was significant interest in products and services companies, which received US$54.3 million invested, an increase of 36 percent. There was also interest in medical-devices companies, which garnered 26 deals and US$123.8 million invested in Israel over the course of the year. Biopharmaceutical investing increased to US$129.4 million, with 12 deals.

CHINA AND INDIA

China is becoming more and more of a factor in the global venture capital market. In 2005, US$1.1 billion was invested in 233 mainland Chinese companies, a decline of 16 percent in terms of capital invested, according to Zero2IPO. At the same time, Chinese companies were involved in significant liquidity activity in U.S. markets last year, including Baidu's US$109 million IPO, Focus Media's US$170 million IPO, and the US$1 billion strategic investment Yahoo! made in Alibaba.com. Several innovation clusters are expected to emerge in China, with the main focus being adapting technology applications to the local market.

The decline in investment activity in China during the first half of 2005 has been attributed in part to the enforcement of a regulatory initiative by China's State Administration of Foreign Exchange (SAFE), known as Circulars 11 and 29, that had halted the establishment of the offshore corporate structures allowing foreign venture capitalists—the largest source of venture-capital investment in China—to exit a Chinese company investment through an IPO on a foreign exchange.

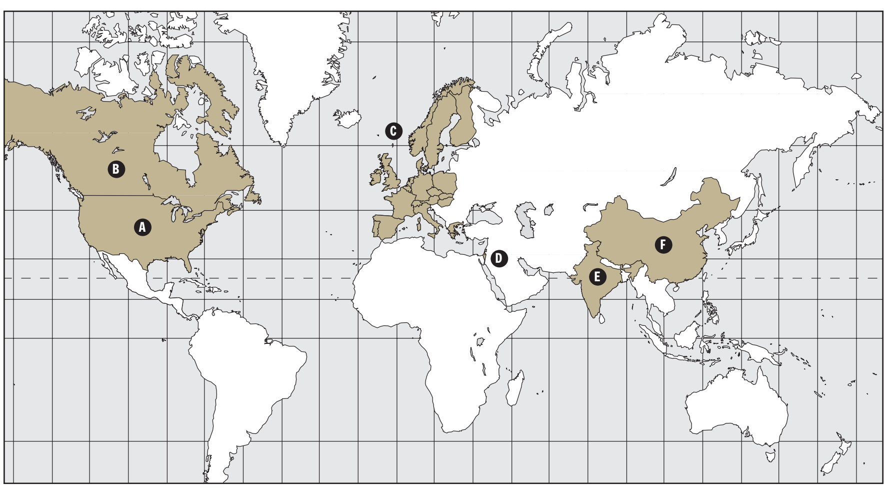
In a development applauded by the Chinese Venture Capital Association and legal observers, SAFE recently issued a new initiative, Circular 75, that laid out a new process for establishing offshore structures, restoring the exit path for foreign investors. As a result, Chinese venture-capital investment is expected to rebound. The US$4 billion in

Although venture capital is a local business, requiring hands-on involvement in building portfolio companies, investors' mind-set and operational/investment models have become much more global.

new China-focused funds raised is a strong leading indicator of robust investment activity in the future.

In India, where the market is focused mainly on post-venture private-equity deals, early-stage investing is in "comeback mode," reports TSJ Media, which notes new interest in purely India-based companies. TSJ Media tracked 22 early-stage investments in India-based companies worth a total of US$79 million in 2005. Six early-stage cross-border investments totaling US$71 million were also completed. Notable deals in India last year include a US$12 million investment by Nokia Growth Partners and New Enterprise Associates in Sasken, the Indian telecom company that also went public in 2005; a US$10 million second round to the travel site Makemytrip.com from Softbank Asia Infrastructure Fund (SAIF); and a US$10 million second round to HelloSoft, a U.S.-India digital-signal processing company, from investors such as TD Capital, Venrock Associates and Sofinnova Ventures. The increased interest by foreign venture capitalists in India can be demonstrated by the recent announcement by Draper Fisher Jurvetson of its new US$200 million India fund.

FIG. 2 | 2005 Global Venture Capital Hotbeds



Country	US$B Invested	Rounds	Country	US$B Invested	Rounds	Country	US$B Invested	Rounds
A United States	$22.1	2239	*Texas*	*$1.0*	*108*	*Germany*	*$0.6*	*106*
Bay Area	*$7.7*	*731*	*Washington State*	*$0.8*	*86*	*Sweden*	*$0.3*	*96*
New England	*$2.8*	*272*	B Canada	$1.6	591	D Israel (all sites)	$1.1	171
New York Metro	*$2 .2*	*159*	C Europe	$4.3	1020	E India	$1.1	92
So. California	*$2.1*	*203*	*UK*	*$1.2*	*307*	F China	$1.1	233
Potomac	*$1.0*	*97*	*France*	*$0.8*	*213*			

Note: Data does not include PIPE or buyout transactions.

Source: Ernst & Young/VentureOne, except B (Thomson MacDonald), E (TSJ Media), and F (Zero2IPO).

Globalization

In the era of increased globalization of venture capital funds, the HSBC's tag line, "The World's Local Bank," can be slightly adjusted to "the world's local venture capitalists" to describe one of the key elements of transition in the venture capital industry. Although venture capital is a local business, requiring hands-on involvement in building portfolio companies, investors' mind-sets and operational/investment models have become much more global. The Sequoia Capital landscape map on page 48 provides a case study of venture industry globalization. Global consumer markets, increased international competition, investment opportunities in emerging markets, the higher cost of building a company in the mature markets, and advancements in technology are all driving the globalization of both venture capital funds and their portfolio companies. The world is indeed flat, and both investors and company executives have to adjust their operating and investment models.

Investors are increasingly working with their portfolio companies to take advantage of the low-cost pool of talent in emerging markets. Private venture-backed companies must increasingly act like multinational companies earlier in their life cycles, taking advantage of the new global ecosystem that matches the increased demand for innovation with an international supply of talent, innovative technologies, business models, and capital. Start-ups increasingly need to look at India, China, Russia, Romania, Bulgaria, and other low-cost/high-talent markets to outsource R&D and manufacturing very early on. Many venture capitalist firms, especially those in Silicon Valley, will not fund a company without a strategy to take advantage of global cost-efficiencies. With modest exit markets for venture-backed companies and increasing global competition, capital efficiency will be a key success factor for portfolio companies and investors alike.

In the last year we have seen the emergence of various operating and investment models of Silicon Valley venture capitalists in China. The common foundation of all the models is collaboration. Collaboration among funds will increase in the coming years as global investors seek out local funds in emerging innovation hotbeds for help in making the right investments and penetrating large developing consumer markets. As cross-sector innovation increases, so will collaboration among funds to complement each other with the right skills and expertise when investing in the cross-sector deals that will likely characterize the next wave of disruptive technology or business models.

CHINA

The nation that invented the compass, papermaking, printing, and gunpowder is getting back on the innovation track. Although China's venture capital ecosystem is in an early stage of development, and much remains to be done to create vibrant and sustainable venture capital hotbeds, there is no doubt that several Chinese innovation-based venture capital hotbeds will emerge. As recent example of the progress of technology innovation in China, Tom Friedman cites the statistic that almost 10 percent of the research papers submitted to the 2005 Siggraph convention, a premier global conference for computer graphics and interactive technologies, were submitted by Microsoft's research lab in Beijing—more than MIT or Stanford.[1] But innovation is not only the ability to create disruptive technologies, it is also the ability to create disruptive business models. Shanda, Ctrip, Focus Media, and Alibaba.com are examples of disruptive business models that were successfully developed and deployed in China.

Private venture-backed companies must increasingly act like multinational companies earlier in their life cycles.

On the other hand, as demonstrated by the SAFE regulatory action last year, significant challenges face the young venture capital industry in China. Some of the most important challenges include:

- Lack of a local NASDAQ-like exchange to provide exits for high-growth venture capital-backed companies
- Weak intellectual property regulation and protection, making it difficult to capitalize on innovation
- Lack of a comprehensive venture capital law in terms of structures and taxations
- Shortage of the management talent, both at the company and investor levels, needed to build growth companies
- Underdeveloped system for technology transfer
- Large degree of control exercised by the central government in the venture ecosystem, resulting in disincentives for both entrepreneurs and investors
- Lack of stability in regulations

China experienced four substantial developments in the venture capital ecosystem last year. First, the venture-backed M&A market became more active, as evidenced by Yahoo!'s investment in Alibaba.com. Second, the significant increase in Chinese patents, by companies such as SMIC and Huawei, is helping to drive the needed increase in intellectual property (IP) protection in China. As Chinese technology companies create and register their own IP, they will have an incentive to demand effective IP protections. Third, the amendment of SAFE's Circulars 11 and 29 and the release of Circular 75 demonstrated the willingness of the government to listen and take action to foster venture capital activity. Last, the increased investments by foreign venture capitalists, mainly Silicon Valley-based, and their operating models in China have fostered the development of the venture capital ecosystem in China. The increased activity of Silicon Valley venture capitalists in China is based on new investment opportunities and the need to support

[1] Thomas L. Friedman, "How to Look at China," article, *New York Times*, November 9, 2005.

the increasing number of their U.S. portfolio companies with a presence in China.

In the past, venture capitalists have invited their peer firms to co-invest with them in a local deal. This is not enough today, since technology, talent and customers are globally dispersed. To enter new or emerging markets, venture capitalists can either start their own office from the outset, which is risky, team up with a local venture capitalist, or work through a multinational in the target country that is a portfolio company customer. This trend is seen most clearly in the operating models deployed by foreign venture capitalist firms—mainly from Silicon Valley—in China over the past few years. Most of these funds chose an operating model based on various levels of collaboration with local funds and local investment teams. The following is a brief summary of the main operating models used by foreign venture capitalists in China:

- Joint fund between a U.S. firm and a China-based firm in which the Chinese team is usually responsible for operations and investing with the U.S.-based team bringing expertise and experience; the US$250 million joint IDG-Accel China Growth fund is an example of this model
- Strategic limited partners based on an approach in which the local fund serves as a deal feeder and a local arm to the fund overseas; Sierra/Gobi, DCM/Legend Capital, 3i/CDH, are a few of the better known examples of this model
- A stand-alone China-based fund with a homegrown investment team, such as the Sequoia China fund
- Team expansion in China through a local office, whether a single junior professional to a full team, most frequently in Shanghai—NEA, Bessemer, Apax Partners, Blue Run, and DCM, are just a few of the funds with a local presence in China
- Corporate partnership model that leverages multinational technology firms as limited partners while providing them access to markets or new technology/solutions—examples include WI Harper and Gobi; this model may expand beyond China to other emerging markets, as it can be combined with other models listed above

INDIA

While the Indian venture capital ecosystem is less developed than China's, key events last year suggest that venture capital activity in India will accelerate. Some of the most important developments include major announcements by Microsoft, Intel, and Cisco about future investments in the technology sector in India. Microsoft announced the establishment of an innovation center, and Cisco announced dedicated venture capital resources to India. Other developments include DFJ's new India-dedicated fund, the increase in venture capital deals, the increase in investment activity by Silicon Valley-based investors, the shift to core innovation in some of the large foreign corporation research centers, the expansion of middle-class market, and government initiatives to change the regulatory environment.

Foreign venture capitalists will likely step up investment activity over the next 12 to 18 months, helping to foster development of the venture capital industry in India. Since many of the Silicon Valley firms concluded their China strategy development last year, they will be able to devote more time to their India strategy. In addition, the East Coast and European funds that have been more conservative about China than their Silicon Valley counterparts will likely initiate investment activity in India. Foreign venture capitalists have a critical role to play in the development of the right venture capital ecosystem in India by providing the needed early-stage capital, instilling confidence with local investors and entrepreneurs, and by sharing their experience and expertise in building innovative fast-growth venture-backed companies. We anticipate that foreign venture capitalists will employ operating models similar to the ones seen in China.

EASTERN EUROPE

Is Eastern Europe the next venture capital hotbed? Will it have the role of low-cost R&D and manufacturing outsourcing for Western Europe, as India and China are for the United States? Although there is not yet a definitive answer, it is clear that some large technology multinationals and investors have taken the first steps. Global market leaders, such as SAP, are establishing innovation centers in Eastern Europe. In addition, a growing number of venture-backed European companies have established R&D teams in Eastern Europe.

Venture capital investors are starting to look at opportunities in the region—Dow Jones VentureOne tracked 15 Eastern European venture capital deals valued at US$81 million in 2005. Intel Capital and the Poland-based Enterprise Partners are among the most active investors in Eastern European companies. The two firms teamed up last year in a US$51 million investment in Grisoft, a Czech anti-virus software company whose products are used on more than 25 million PCs.

The advantages of Eastern Europe for Western Europe can include culture, language, geographic proximity, and the fact that some countries are already members of the EU. Eastern Europe and Russia also offer a pool of high-quality engineers.

The convergence of Web 2.0 with the needs of consumers in the vast emerging markets of China and India will create disruptive business models and technologies.

EMERGING OPPORTUNITIES

More than 50 years ago, the introduction of commercial TV created new ways to connect, communicate, and acquire customers. With over one billion people online worldwide and with over 200 million global broadband subscribers, the Internet is again changing the ways in which we connect and interact. The Internet makes it possible to work more collaboratively and break down the distinction between here and there with countries like India and China. Cheap or free technologies, such as those offered by Skype, a company that provides "free" phone calls with simultaneous video sessions and document-sharing over the Internet, are changing the entire start-up landscape. Outsourcing, distributed R&D, marketing, sales, and support can be done from anywhere in the world on a shoestring budget.

Moreover, the new technology cycle driven by the convergence of Web 2.0 — global wireless Internet that continuously connects people, objects, and machines — and the needs of consumers in the vast emerging markets of China and India, will create disruptive business models and technologies that will challenge today's incumbents and give rise to the next generation of global market leaders. China, India and other emerging markets are home to a growing wave of consumers who have different needs, disposable income, and purchasing behavior than those in the developed market. This new technology cycle also presents the need for cross-sector investment expertise and opportunities between multiple industry sectors such as technology, media, and entertainment.

China and India are not just the source for new and disruptive business models around Web 2.0 but also the main drivers of clean (or green) technology development. China's deputy minister of the environment, Pan Yue, said that China's "raw materials are scarce, we don't have enough land, and our population is constantly growing … in 2020, there will be 1.5 billion people in China … the environment can no longer keep the pace. Half of the water in our seven largest rivers is completely useless. One-third of the urban population is breathing polluted air."[2]

The emergence of opportunities in the clean technologies sector, which includes energy, water, and other environmental technologies, can be seen in current investment levels and successful IPOs. *New Energy Finance* reported that almost US$2 billion was invested in energy technology companies by venture capital and private equity funds in 2005.[3] *Red Herring* reported that four of the top 10 venture-backed IPOs in 2005 around the globe were of energy technology companies.[4] We expect that in addition to the existing specialized investors in this sector we will see a growing number of venture capitalists and private equity funds become players in the clean technology sector.

OUTLOOK

Although the venture capital industry is going through a transition, we believe it is a healthy one that will develop more opportunities in new sectors, across existing sectors and in the emerging markets. The role of venture capital to provide initial capital and company building expertise to new innovative companies continues to be vital both on the developed and developing venture capital hotbeds around the globe. The impact that venture capital has had in mature economies, such as the United States and Israel, will be followed by similar impact in the emerging markets in the years to come.

Increasing globalization, convergence of industry sectors, and the need to develop cross-sector expertise, will result in more collaboration among venture capital funds and multinational firms, as well as new forms of operating models around the globe. ■

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2 Thomas L. Friedman, "How to Look at China."
3 "Clean Energy Finance: Overview and Trends," article, *New Energy Finance*, December 8, 2005
4 *Red Herring*, January 2006.

PERSPECTIVE FROM SILICON VALLEY

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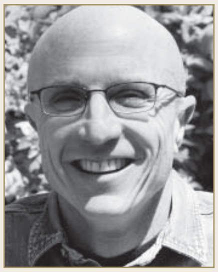


"As we have seen Silicon Valley starting to come back in the last 12 months, we will see the IPO market on Wall Street likely starting to come back as well over the course of the next 12 to 24 months."

E&Y: *When you look back at the venture capital activity in 2005 were there any takeaways or lessons learned that stood out to you?*

Komisar: We clearly are experiencing a bit of exuberance around the consumer Internet and it's demonstrated in a number of ways—increased competition by investors and the bidding up of valuations on these early-stage projects without any market validation. Now we are back to sort of the late 1990s situation, where you have no demonstration of market demand and no demonstration of efficient adoption. Nevertheless we are seeing valuations move up to the range where prudence would suggest market validations are required. We are ahead of ourselves in the consumer Internet and, as a result, we are also seeing more and more companies being created in the consumer Internet. New businesses perceive this area as relatively easy to enter, which is one of the reasons the valuations should be lower and we should be more skeptical. The common underlying business model is easy because it's basically plug and play into Google's business model. This current state of affairs makes me concerned that there is a bubble brewing in the consumer Internet. On the other hand, we are also seeing some impressive innovations in segments outside of the mainstream, such as energy and green technologies, and VOIP in particular. There are some very strong and, I think, high-potential areas for investment that are still very well-positioned and where we are seeing impressive entrepreneurs—but the consumer Internet is generally not one of the most attractive areas for investment.

In addition, venture capitalists are aggressive again, and they are raising new funds. Some limited partners are keen to fund even poorly performing venture groups in this sort of new age of the Web 2.0 consumer Internet. So the venture business itself is looking a little too exuberant—it is still too easy for new and underperforming funds to raise money.

E&Y: *What are some of the exciting investing opportunities that you are exploring?*

Komisar: We are excited around the crossover between life sciences and technology as the genetic code provides a new form for programming life-science solutions. On a global level there is no denying that there is excitement, mixed with trepidation, in the venture community around China. There is some excitement around India as well, but more around China. We have seen a lot of venture capitalists go into China in various different ways trying to experiment and understand the opportunities and how to realize them, but it is a very uncertain territory. We are still seeing projects come through from places like Israel and Europe but not at the compounding rates we see from India and China. Silicon Valley is doing exceedingly well, and it is very vibrant right now. Other notable areas in the United States include Boston and San Diego.

E&Y: *Globalization is a business imperative today both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization?*

Komisar: Silicon Valley is prospering as a center of innovation but not as a center of actual product development beyond the early-market innovation and market-validation stage. Silicon Valley has always been comfortable with outsourcing—not necessarily offshoring, but outsourcing. In Silicon Valley, emerging companies focus on the very core value proposition, using outside resources to give them the advantages they need to quickly and cheaply build product and compete. Now we are seeing that Silicon Valley is comfortable not only with outsourcing but also with offshoring. Thus, while these emerging companies are not necessarily global in their market initially, they are global in their development in terms of employing engineering talent and manufacturing talent that is not local and is most often not domestic. It is very common now to see a business model that basically says, yes there are four or five of us here in Silicon Valley with the following intellectual property, but we are going to develop the product using outside engineers.

From the investors' point of view, globalization plays strongly into our management of the capital needs of the company and the ability of the business to scale. As we look at global businesses, businesses that are built domestically to service global market, there are more of those as well.

Overall, ideas tend to be local—even ideas that pertain to something like the Internet, which is global. There is an understanding that often these services or these products or these customer experiences don't travel. They have to be adapted, which means they have to be translated, and I don't mean translated literally but translated in terms of the value of end-user experience if you're truly going to address multiple markets. This costs money. It takes talent that you don't necessarily have in the early stages. So when you're looking at these early-stage businesses, including Internet-based businesses, their markets are still largely defined by those consumers that they understand best and that they are going to initially be able to address—largely local.

E&Y: *From a Silicon Valley perspective, do you perceive China and India as a threat or opportunity? How are you addressing each market in each case?*

Komisar: I do believe that China and India are clearly going to create competitive investment opportunities that are going to put pressure on innovations here in Silicon Valley and elsewhere and on the funds that finance them. But I don't see that pressure as being so burdensome that we are going to find that the economics of innovation radically change. I think what we are seeing is a big market in India and a big market in China that are going to give rise to innovations, investments and entrepreneurship in those markets. But in the near term those are not going to create less potential for similar opportunities in the United States.

There are more opportunities being created in India and China than there were certainly five or 10 years ago. But we are still seeing great opportunities created in the United States by terrific entrepreneurs—including Chinese and Indian entrepreneurs in the United States.

E&Y: *As the median time from initial investment to exit has increased, do you see a role for private equity funds in the venture-backed market?*

Komisar: I see it as more cyclical than anything else. The reason that time frame has expanded is because of the lack of IPO appetite by Wall Street. But, as we have seen Silicon Valley starting to come back in the last 12 months, we will see the IPO market on Wall Street likely starting to come back as well over the course of the next 12 to 24 months. I don't think we are creating a new capital market where private equity firms are going to see an opportunity to come in and displace the IPO market. I do think that, given the size of some of these opportunities, we may see a role for private equity at later stages before going public while these companies are still not profitable—because I don't think we are going to see Wall Street embrace perpetually unprofitable companies with unproven business models and large capital needs. Thus, there might be an opportunity for private equity firms to provide late-stage capital to venture-backed companies as they expand globally. Overall, we are going to see a return to a rational public IPO market in the near future that will continue to fuel the entrepreneurial growth in innovation.

E&Y: *Do you expect IPOs to be a viable transaction for your portfolio companies? If so, what are the characteristics of the companies that you think are IPO-eligible?*

Komisar: I do. That doesn't mean we are not going to see a lot of M&A. We will, but what I don't see is the need necessarily to bring in private equity to extend runways to get to an IPO or liquidity event.

From the company perspective, we are much more focused on performance—financial performance, bottom-line performance—before going into the public market. We are much more focused on substantiated business models that need expansion capital rather than venture capital from the public market in order to demonstrate that there is a business. In short, we are much more focused on fundamentals when we think about exposing those companies to the public market.

E&Y: *What are some of the challenges that the venture capital industry needs to address in the next 12 to 24 months?*

Komisar: We need to make sure that there is follow-on capital for the portfolio companies to be able to accelerate their growth and scale once they have demonstrated a value proposition and customer base. We need to ensure that the companies we do bring to public markets perform well in order to create confidence, so that there is demand for more of a pipeline. Also, as an industry we have got to be more rational in the way in which we look at these opportunities. If we start to get overly exuberant around something like the consumer Internet, bid up prices, create more competition in new areas forcing start-ups to forsake good business models in order to blindly compete for share and scale, we'll see a repeat of what we saw in the late '90s. This can only create disappointment among early-stage investors, entrepreneurs, and any later-stage investors. Thus, we have to be rational and we have got to be more disciplined. Another challenge is that we, as a community of investors, have got to begin to think more about new and exciting peripheral opportunities and not just focus on yesterday's opportunities. I think we owe it to ourselves as venture capitalists, if we are truly going to be part of the innovation economy, to really innovate, to look for those opportunities that can make a difference and that are too often orphaned in the capital markets. Then, hopefully, we can begin accelerating and harvesting those ideas in the marketplace, while providing for significant innovation with meaningful impact on the economy and society. ■

PERSPECTIVE FROM CHINA

Peter Liu

Chairman, WI Harper Group, San Francisco/Beijing

"Localization is one of the key success factors in China. Local teams always do better than foreigners and overseas Chinese. They have a better understanding of the culture, the demand, as well as the rules of game."

E&Y: *When you look back at venture capital activity in 2005, were there any takeaways or lessons learned that stood out to you?*

Liu: Looking back, 2005 was a critical year for the venture capital industry in China. In the first half year, government policies greatly influenced investment by foreign venture capitalists, but successful IPOs later in the year, like Baidu and Focus Media, attracted lots of international investors.

The Chinese venture capital market continues to demonstrate a high potential for venture capital exits. There were 17 venture-backed IPOs and 12 venture-backed M&As in 2005. Venture capital firms realized strong returns as a result of investments in companies such as Baidu.com, Wuxi-based Suntech, Focus Media and Alibaba.com, which was acquired by Yahoo! China.

More funding has brought more competition to the venture capital industry in China. Mainland-based domestic and foreign venture firms raised US$4 billion in new funds due to their positive performance, setting a record for fundraising in China.

Investment in the IT industry accounted for 60.3 percent of total venture capital investment and the sector's investment case ratio topped 66 percent, both figures far higher than seen in services and traditional industries. Investment in the Internet industry reached US$203 million, exceeding financing in the telecom industry.

The government still plays a critical role in the Chinese venture capital industry. According to a survey of venture capital firms in China conducted by Zero2ipo Venture Capital Research Center in 2005, the sequential release of SAFE-issued Circulars No. 11 and 29 had a universal negative impact on foreign venture capital investor confidence, while Circular No. 75 played a positive role in helping the venture market to rebound.

E&Y: *What are some of the exciting investing opportunities that you are exploring today in China?*

Liu: Our investment focus in China is on the Internet, digital media, wireless applications, biotechnology and semiconductors. We invested in five companies in China in 2005, all of which represented very high-potential areas.

The wireless value-added services (WVAS) market continues to grow strongly in China. China is the largest mobile telecom market in the world. By the end of 2005, the number of mobile users exceeded 400 million. WVAS is now a growing revenue stream for mobile operators. The total SP WVAS market in 2003 and 2004 was RMB 44.3 billion (US$5.5 billion) and RMB 84 billion (US$10.4 billion), respectively. The WVAS market size is expected to reach RMB 123.5 billion (US$15.4 billion) in 2005. China Broad Media, our portfolio company, enjoys great market potential and is building leadership in this sector.

Panorama, another WIH portfolio company in China, is the largest image provider in the Chinese creative stock image market, comparable to overseas models like Getty Images (U.S., NASDAQ: GYI) and Corbis (U.S., Bill Gates-invested). The Chinese stock image market is expected to grow from RMB 800 million (US$99.4 million) to RMB 1 billion (US$124.2 million) in five years.

Another firm, iKang, is the pioneer and leading provider of healthcare management services in China. The addressable market size in China is very large, given that the private health insurance market increased from RMB 3.65 billion (US$453.5 million) in 1999 to RMB 26 billion (US$3.23 billion) in 2004, a 48 percent annual increase. Chinese health care spending as a percentage of GDP is much lower than that of developed countries, indicating that the near-term growth potential in this market is large.

E&Y: *Globalization is a business imperative today both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face in addressing globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Liu: Globalization provides an opportunity for local companies to expand quickly in overseas markets after building a successful business in China. Local firms have also been learning a lot from successful business models in the developed markets.

In terms of challenges, most successful Chinese venture-backed companies have built effective business models that are unique to the China market, but some of these models do not work in foreign markets, and the founders need to learn international business rules. Although the local management team understands the local market best, they need to add international resources in order to expand overseas successfully.

The leading venture capital firms are making investment decisions from a globalization perspective. We pay attention to companies that have the potential to grow up to become an international company.

E&Y: *From a Silicon Valley perspective, do you think that Silicon Valley perceives China and India a threat or opportunity? How should it address each market?*

Liu: China and India are becoming great opportunities for global investment. Both countries have great market potential, fast-growing economies and advantages in either cost or technology, all of which are very attractive to international investment from Silicon Valley.

China and India are developing their economies with totally different approaches. China is moving from a focus on infrastructure investment to a focus on service sector investment. Chinese government policy support is shifting from real estate, power plants and highways to software outsourcing centers in Beijing, Zhongguancun, Dalian and Shanghai. Conversely, India has "accidentally" created a very successful service sector with companies like Infosys, TCS, Wipro and Genpact without going through the "traditional" way, while the Indian government is now desperately seeking solutions to enhance infrastructure (roads, utilities, etc.).

Both countries have different growth patterns, but China's growth might still be way ahead of India's, given the established physical infrastructure and scale of its economy. China's centralized political system also provides strong, stable support to the economy, which is unique because this approach is more efficient when allocating resources to different segments.

China offers broader opportunities (infrastructure in second-tier cities, inter-provincial highways, automobiles, mobile communications, Internet, healthcare, semiconductors, consumer goods and services) while India's opportunities are more narrowly focused on IT and biotechnology/pharmaceuticals. Given the current incentives that India government is offering to foreign investors in infrastructure, we will probably see more growth in such segments very soon, too.

Overall, China is more cost-effective for foreigners seeking manufacturing outsourcing, while it makes sense to take advantage of the software and technology resources in India. Both countries are learning from each other in terms of improving their respective weaknesses with their counterpart's experience and knowledge.

E&Y: *What are the lessons learned for foreign investors in China over the last couple of years?*

Liu: Although we all agree that China is increasingly attractive for investors, it has always been pointed out that foreigners need to understand its uniqueness in order to succeed here.

Consumer-oriented products have proved to have the highest potential due to the population base here, but Chinese customers are very price-sensitive, diverse in demands, and easily influenced by popularity and fashion.

Localization is one of the key success factors in China. Local teams always do better than foreigners and overseas Chinese. They have a better understanding of the culture, the demand, as well as the rules of game.

Government still plays a critical role in many business areas. Some sectors are still controlled and restricted for foreigners. Some industries are highly influenced by policies, like service providers of wireless applications.

E&Y: *What can we expect from future China-based venture-backed IPOs? What will be the preferred exchange(s) for listing? What are the characteristics of a potential IPO company from China?*

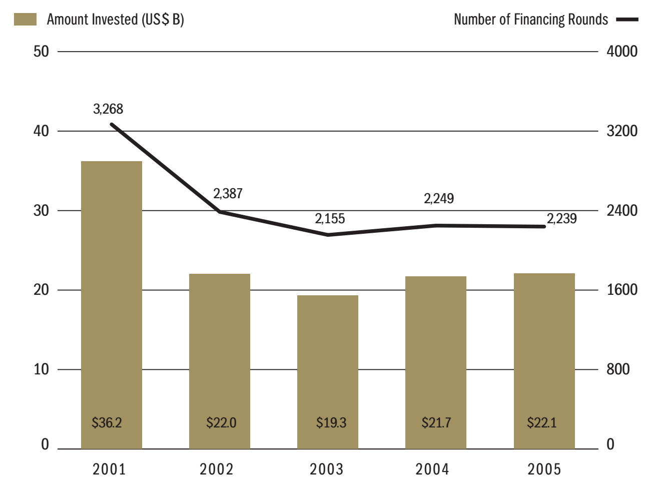
Liu: There have been 24 Chinese firms listed in NASDAQ with total capitalization of over US$15 billion. In the short term, we are confident that there will be more China-based venture-backed IPOs on NASDAQ by companies with successful business models. NASDAQ is so far the most attractive place for Chinese firms seeking IPOs.

Two kinds of firms are most promising for successful IPOs. The first one is the fast-growing firm with comparable successful models listed in the international markets, especially the U.S. This kind of firm is easy for foreign investors to understand and could expand quickly, given the proven model. The second one is a firm generating constant and increased revenue, making full use of the domestic market potential. This firm makes lots of money with a successful business model, building strong competitive advantages and brand in the market in a short period.

Continued on page 75

United States

Annual Venture Capital Investment



Most Active Investors in U.S. Companies – 2005

Firm	Equity Investments
New Enterprise Associates	64
Draper Fisher Jurvetson	63
U.S. Venture Partners	54
Venrock Associates	44
Intel Capital	42
Sequoia Capital	40
Morgenthaler	37
Polaris Venture Partners	36
Menlo Ventures	35
Austin Ventures	34
Accel Partners	34

Top VC Funds Raised – 2005

Firm	Fund Name	Amount (M)
Technology Crossover Ventures	Technology Crossover Ventures VI	$ 1,400
Menlo Ventures	Menlo Ventures X	$ 1,200
Wind Point Partners	Wind Point Partners VI	$ 715
August Capital	August Capital IV	$ 550
Perseus-Soros BioPharmaceutical Fund	Aisling Capital II	$ 550
Sequoia Capital	Sequoia Capital Growth Fund III	$ 520
North Bridge Venture Partners	North Bridge VI	$ 500
Greylock Partners	Greylock XII	$ 500
Clarus Ventures	Clarus Ventures	$ 500
Frazier Healthcare Ventures	Frazier Healthcare V	$ 475

Top Venture-Backed IPOs – 2005

Company	Industry	Raised (M)
Under Armour	Cons/Bus Products	$ 124
DealerTrack	Software	$ 113
Adams Respiratory Therapeutics	Biopharmaceuticals	$ $97
Coley Pharmaceutical Group	Biopharmaceuticals	$ $96
Advanced Analogic Technologies	Semiconductors	$ $90

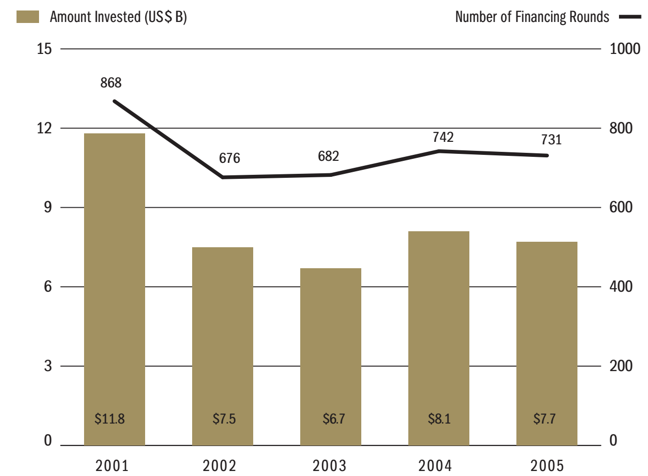
Top Venture-Backed M&As – 2005

Company	Industry	Price (M)	Acquirer
Shopzilla	Retailers	$ 570	Scripps
Angiosyn	Biopharmaceuticals	$ 527	Pfizer
ESP Pharma	Biopharmaceuticals	$ 500	Protein Design Labs
Airespace	Communications	$ 450	Cisco Systems
Rent.com	Cons/Bus Services	$ 433	eBay

Source: Ernst & Young/VentureOne

Bay Area (Silicon Valley)

Annual Venture Capital Investment



Most-Active Investors in Bay Area Companies – 2005

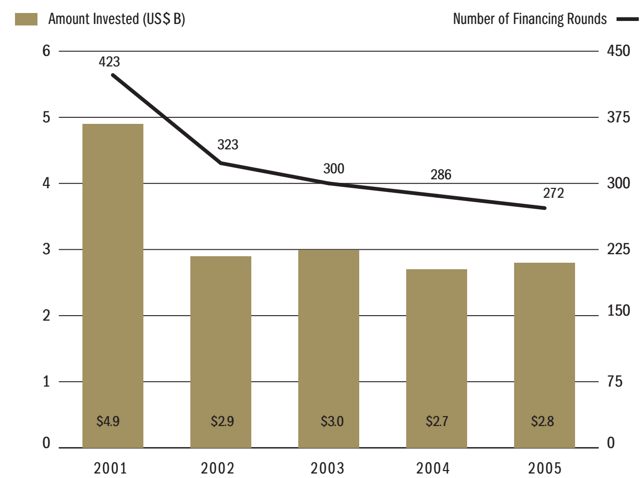
Firm	Equity Investments
U.S. Venture Partners	40
Sequoia Capital	34
New Enterprise Associates	33
Accel Partners	27
Draper Fisher Jurvetson	26

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Software	$ 2,191	265
2	Communications	$ 1,157	76
3	Biopharmaceuticals	$ 1,047	59
4	Semiconductors	$ 913	71
5	Medical Devices	$ 734	55
6	Cons/Bus Services	$ 575	81
7	Electronics	$ 434	35
8	Information Services	$ 253	46
9	Retailers	$ 89	8
10	Medical IS	$ 61	8

New England

Annual Venture Capital Investment



Most-Active Investors in New England Area Companies – 2005

Firm	Equity Investments
North Bridge Venture Partners	24
Highland Capital Partners	17
Flagship Ventures	16
Atlas Venture	14
Polaris Venture Partners	13
General Catalyst Partners	13

Top Industry Segments – 2005

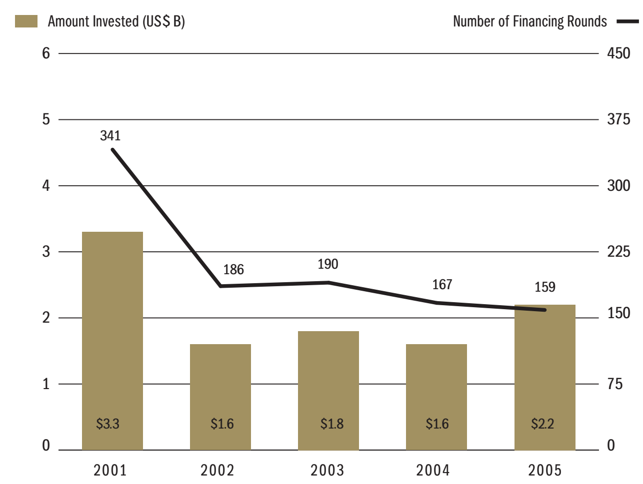
Rank	Segment	Amount (M)	Rounds
1	Software	$ 678	98
2	Biopharmaceuticals	$ 583	35
3	Communications	$ 327	35
4	Information Services	$ 280	12
5	Medical Devices	$ 251	25
6	Medical IS	$ 189	6
7	Electronics	$ 153	14
8	Cons/Bus Services	$ 94	17
9	Semiconductors	$ 49	9
10	Cons/Bus Products	$ 49	8

Source: Ernst & Young/VentureOne

Global VC Investment in Perspective

New York Metro

Annual Venture Capital Investment



Most-Active Investors in New York Metro Area Companies – 2005

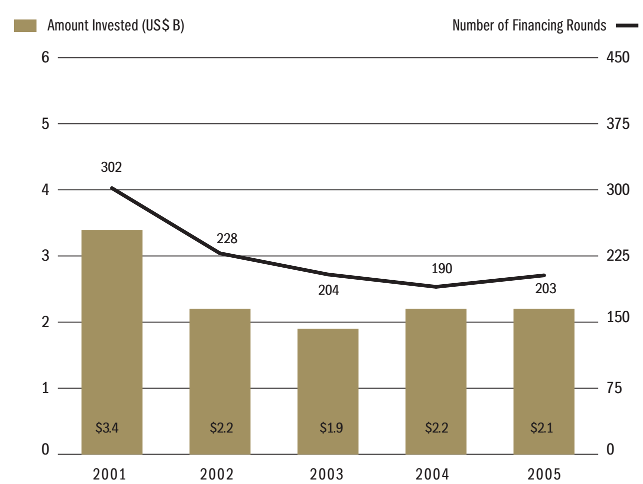
Firm	Equity Investments
Morgenthaler	7
NJTC Venture Fund	5
JPMorgan Partners	5
Edison Venture Fund	5
Axiom Venture Partners	5

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Cons/Bus Services	$ 631	26
2	Biopharmaceuticals	$ 411	24
3	Software	$ 398	47
4	Communications	$ 330	17
5	Information Services	$ 149	15
6	Medical Devices	$ 117	10
7	Semiconductors	$ 39	6
8	Medical IS	$ 38	5
9	Electronics	$ 21	4
10	Retailers	$ 7	2

Southern California

Annual Venture Capital Investment



Most-Active Investors in Southern California Area Companies – 2005

Firm	Equity Investments
Mission Ventures	12
Enterprise Partners Venture Capital	12
Versant Ventures	9
Domain Associates	9
Redpoint Ventures	8
Anthem Venture Partners	8
Miramar Venture Partners	7

Top Industry Segments – 2005

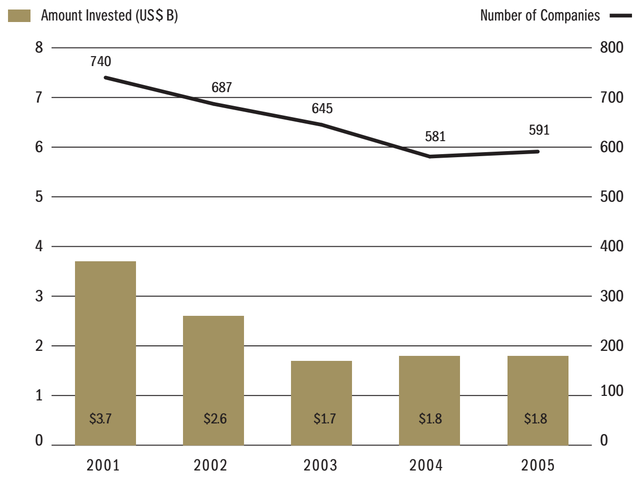
Rank	Segment	Amount (M)	Rounds
1	Biopharmaceuticals	$ 491	33
2	Semiconductors	$ 305	22
3	Software	$ 305	51
4	Medical Devices	$ 277	25
5	Communications	$ 230	16
6	Cons/Bus Services	$ 150	16
7	Healthcare Services	$ 94	6
8	Information Services	$ 67	9
9	Electronics	$ 41	6
10	Medical IS	$ 39	5

Source: Ernst & Young/VentureOne

Global VC Investment in Perspective

Canada

Annual Venture Capital Investment



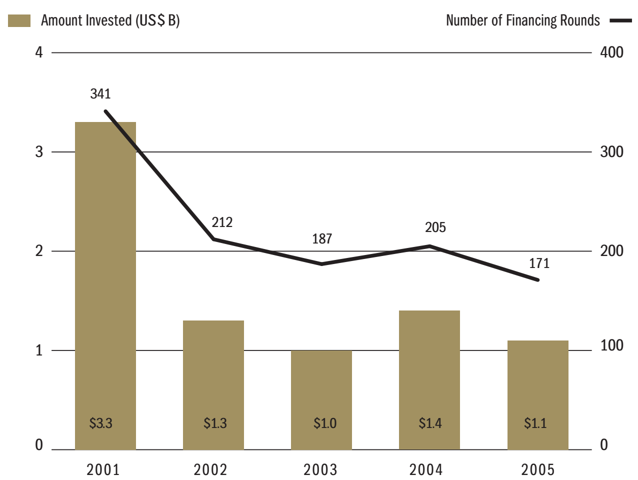
Source: *Thomson MacDonald*

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Biopharmaceuticals	$ 344	65
2	Communications/Networking	$ 335	60
3	Software	$ 286	102
4	Consumer/Business Services	$ 101	59
5	Manufacturing	$ 139	68
6	Electronics	$ 123	38
7	Internet Focus	$ 104	37
8	Medical Devices	$ 77	20
9	Energy	$ 65	31
10	Semiconductor	$ 50	10

Israel (All Sites)

Annual Venture Capital Investment



Source: *Ernst & Young/VentureOne*

Most-Active Investors in Israel (All Sites) Companies – 2005

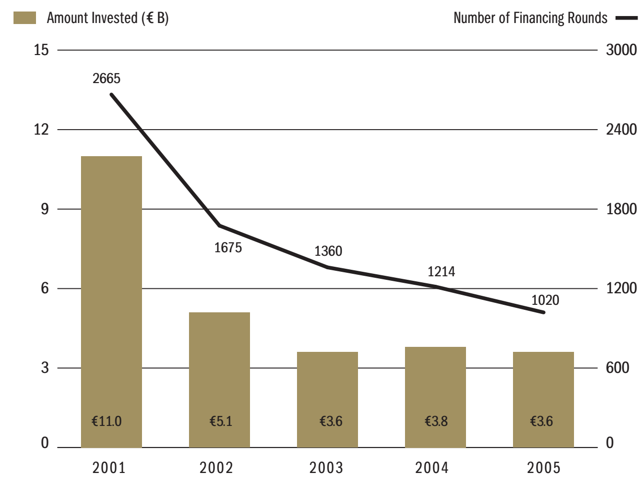
Firm	Equity Investments
Pitango Venture Capital	28
Vertex Venture Capital Israel	13
Star Ventures Management	11
Jerusalem Venture Partners	10
Infinity Venture Capital Fund	9
Evergreen Venture Partners	8
Ofer Brothers Hi-Tech	8
Giza Venture Capital	8

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Software	$ 286	54
2	Semiconductors	$ 170	20
3	Communications	$ 165	26
4	Biopharmaceuticals	$ 129	12
5	Medical Devices	$ 124	26
6	Electronics	$ 119	16
7	Cons/Bus Services	$ 47	5
8	Medical IS	$ 35	3
9	Adv Spec Mat & Chem	$ 13	4
10	Cons/Bus Products	$ 7	2

Europe

Annual Venture Capital Investment



Most-Active Investors in European Companies – 2005

Firm	Equity Investments
3i Group	56
YFM Group	22
SPEF Venture	21
SEB Foretagsinvest	21
Innovacom	18
Sofinnova Partners	17
I-Source Gestion	17
Enterprise Ventures Limited	17
Atlas Venture	16
XAnge Private Equity	15
Industrifonden	15
CDC Entreprises Innovation	15
Apax Partners	15

Top VC Funds Raised – 2005

Firm	Fund Name	Amount (M)
Inventages Venture Capital	Whealth LP	€ 800
Sofinnova Partners	Sofinnova Capital V	€ 385
Index Ventures	Index Ventures III	€ 300
Techno Venture Management	TVM Life Science Ventures VI	€ 240
Avida Group	Iris Capital Fund II	€ 177
Iris Capital	Iris Capital Fund II	€ 177
Wellington Partners Venture Capital	Wellington Partners III Technology Fund	€ 150
Banexi Ventures Partners	Banexi Ventures 4	€ 130
NeoMed Management	NeoMed Innovation IV	€ 103
3TS Capital Partners	3TS Capital Partners II	€ 100

Top Venture-Backed IPOs – 2005

Company	Country	Industry	Raised (M)
Q-Cells	Germany	Energy	€ 313
Thielert	Germany	Cons/Bus Products	€ 142
TradeDoubler	Sweden	Cons/Bus Services	€ 138
Interhyp	Germany	Cons/Bus Services	€ 103
Tipp24.de	Germany	Information Services	€ 96

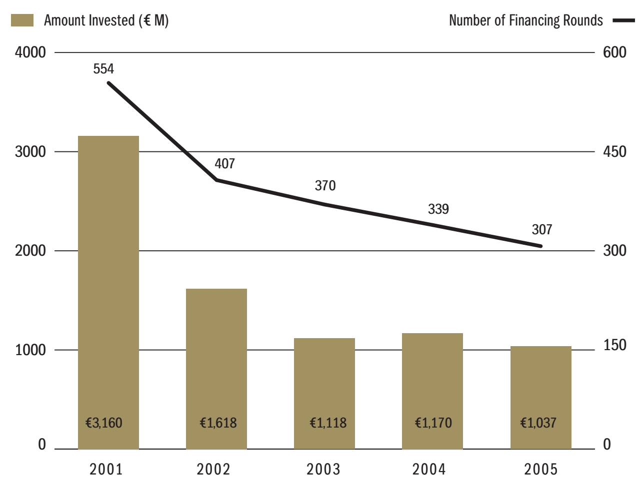
Top Venture-Backed M&As – 2005

Company	Country	Industry	Price (M)	Acquirer
Skype Technologies	United Kingdom	Software	€ 2,080	eBay
B2 Bredband	Sweden	Communications	€ 650	Telenor
Sit-up	United Kingdom	Communications	€ 284	Telewest
GWI	Germany	Medical IS	€ 257	Agfa-Gevaert
Arakis	United Kingdom	Biopharmaceuticals	€ 155	Sosei

Source: Ernst & Young/VentureOne

UK

Annual Venture Capital Investment



Most-Active Investors in UK Companies – 2005

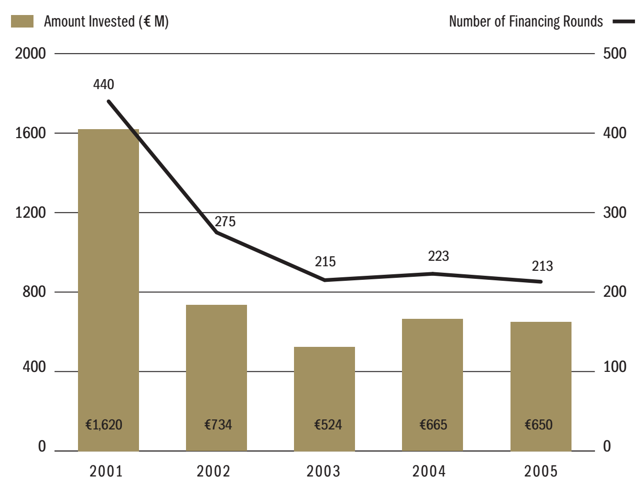
Firm	Equity Investments
YFM Group	22
3i Group	22
Enterprise Ventures Limited	17
Wales Fund Managers	12
MTI Partners	11

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Biopharmaceuticals	€ 274	39
2	Software	€ 260	97
3	Semiconductors	€ 97	10
4	Cons/Bus Services	€ 80	37
5	Communications	€ 59	23
6	Retailers	€ 58	8
7	Medical Devices	€ 54	24
8	Information Services	€ 52	11
9	Electronics	€ 44	18
10	Adv Spec Mat & Chem	€ 23	13

France

Annual Venture Capital Investment



Source: Ernst & Young/VentureOne

Most-Active Investors in French Companies – 2005

Firm	Equity Investments
SPEF Venture	20
I-Source Gestion	17
XAnge Private Equity	14
Sofinnova Partners	13
Siparex Group	12
Innovacom	12
CDC Entreprises Innovation	12
Banexi Ventures Partners	12

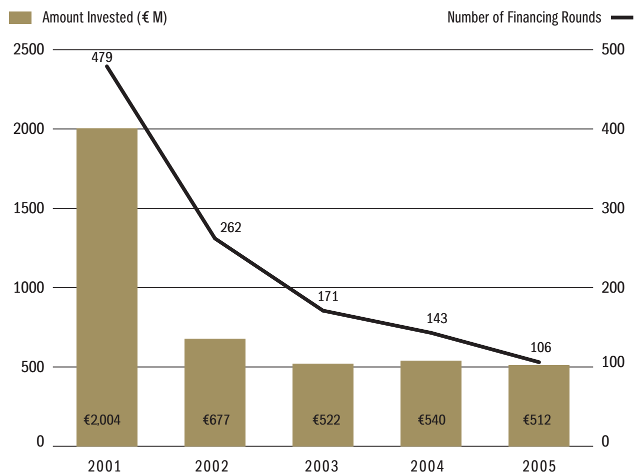
Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Software	€ 171	75
2	Biopharmaceuticals	€ 123	28
3	Cons/Bus Services	€ 84	20
4	Medical Devices	€ 84	20
5	Semiconductors	€ 62	14
6	Communications	€ 51	14
7	Electronics	€ 27	11
8	Information Services	€ 16	14
9	Medical IS	€ 8	1
10	Cons/Bus Products	€ 7	3

Global VC Investment in Perspective

Germany

Annual Venture Capital Investment



Most-Active Investors in German Companies – 2005

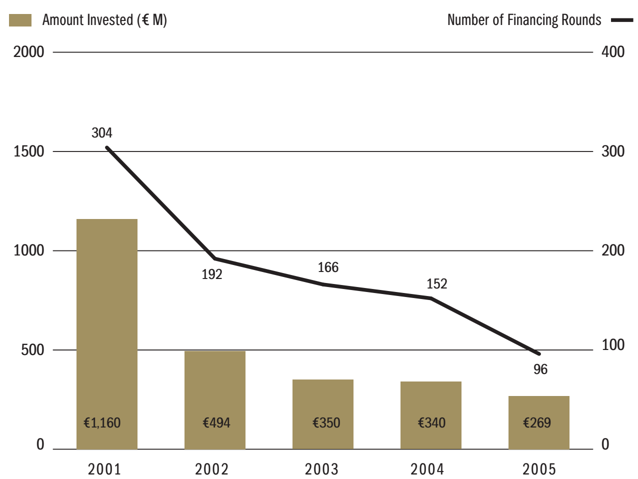
Firm	Equity Investments
Wellington Partners Venture Capital	6
3i Group	6
Dr. Neuhaus Techno Nord	6
BMP	5
TVM Techno Venture Management	4
TechnoStart	4
IBB Beteiligungsgesellschaft	4

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Biopharmaceuticals	€ 237	32
2	Software	€ 87	27
3	Energy	€ 46	3
4	Electronics	€ 38	9
5	Communications	€ 30	5
6	Medical Devices	€ 23	8
7	Cons/Bus Products	€ 17	3
8	Medical IS	€ 8	3
9	Information Services	€ 8	5
10	Cons/Bus Services	€ 8	4

Sweden

Annual Venture Capital Investment



Source: Ernst & Young/VentureOne

Most-Active Investors in Swedish Companies – 2005

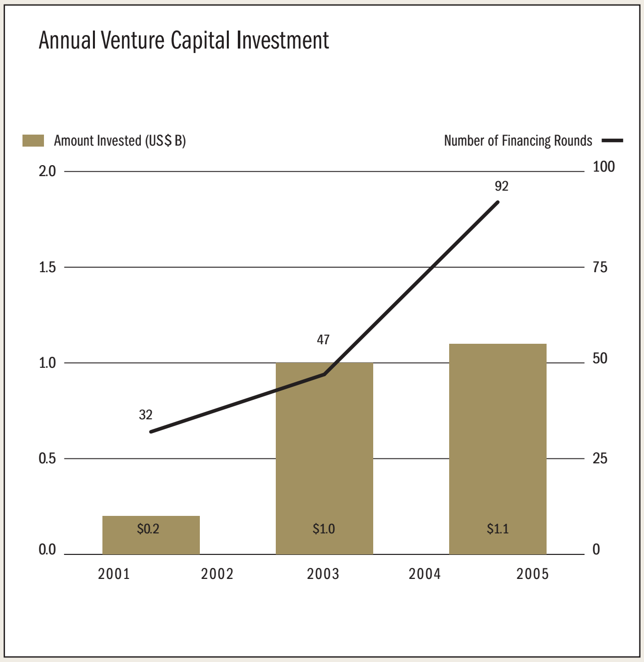
Firm	Equity Investments
SEB Foretagsinvest	20
Industrifonden	15
LinkMed	9
3i Group	8
InnovationsKapital AB	8
Creandum KB	6

Top Industry Segments – 2005

Rank	Segment	Amount (M)	Rounds
1	Biopharmaceuticals	€ 72	13
2	Software	€ 55	24
3	Medical Devices	€ 44	17
4	Semiconductors	€ 36	7
5	Communications	€ 23	10
6	Information Services	€ 12	3
7	Electronics	€ 6	6
8	Cons/Bus Products	€ 6	5
9	Cons/Bus Services	€ 3	3
10	Medical IS	€ 3	1

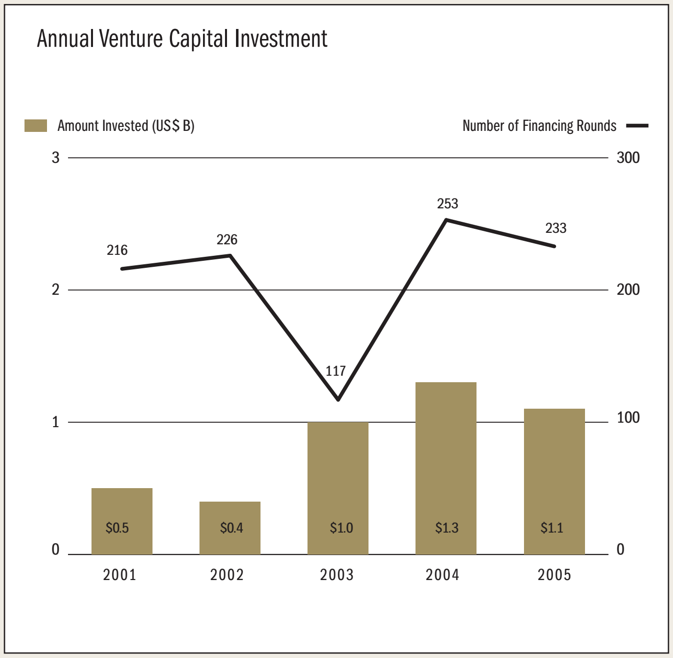
Asia

India



Source: TSJ Media

China



Source: Zero 2IPO

PERSPECTIVE FROM EUROPE

Petri Niemi

Senior Partner and Head of Technology, Capman Technology, Helsinki, Finland

"Increasing entrepreneurial activity in knowledge-intensive sectors such as ITC, together with continued consolidation trends, offer attractive investment, value creation, and exit opportunities within the Nordic technology market."

***E&Y:** Looking back at venture capital activity in 2005, were there any takeaways or lessons learned that stood out to you?*

Niemi: Year 2005 reminded us, once again, about the basic value-creation elements, such as growth, strategic position, and profitability, with the portfolio companies. One needs to find the true value in the companies in order to create and realize value during the life of the investment. There is no free lunch in the sense that one can not build a credible portfolio on hype. The cyclical nature of the business was also evident in 2005. It takes skill and experience to be able to live through the cycles and still produce returns.

***E&Y:** What are some of the exciting investing opportunities that you are exploring?*

Niemi: Increasing entrepreneurial activity in knowledge-intensive sectors, such as ICT, together with continued consolidation trends offer attractive investment, value creation, and exit opportunities within the Nordic technology market. The technology market is maturing, implying better balance between later- and earlier-stage investment opportunities and improving availability of seasoned and internationally exposed management teams.

Each Nordic country has its own special characteristics—largely following the heritage of national flagship companies and sectors—in terms of deal flow and attractive investment opportunities. For instance, Norway has an active energy and marine-related technology sector, whereas Finland and Sweden have strong backgrounds in telecom-related software and hardware, respectively.

China, India, and other rapidly evolving markets offer twofold opportunities. First, having large pools of highly educated but still relatively low-cost labor, they act as potential resource pools for existing and new investments. Second, as the markets develop further, they offer considerable growth opportunities in the form of direct demand for ICT-related products and services from local customers, for Nordic as well as other international technology providers.

***E&Y:** Globalization is a business imperative today, both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Niemi: Globalization influences portfolio companies basically on two fronts. First, globalization implies a tightening competitive situation in domestic markets as international competitors enter the market. This is evident, for instance, in some more mature segments of the software markets: basic products are becoming international, whereas add-on features (on top of the international product), as well as the services, are local. Second, in order to grow and gain meaningful market share, the portfolio companies need to expand their customer base at some point, also internationally. The specific challenges in terms of executing internationalization depend on the case, from building up a partner network to gaining local presence.

One view on internationalization and value creation is to build regionally strong companies. Regional expansion is among the key drivers in many M&A transactions, i.e., trade buyers often seek to get a foothold on a certain market through M&A, hence focusing on building strong Nordic players is an interesting value-creation option.

***E&Y:** Do you perceive China and India as a threat or opportunity? How are you addressing each market?*

Niemi: As an opportunity from having large pools of highly educated but still relatively low-cost engineers and vast, growing consumer markets. As a Nordic investor focusing on making investments in Nordic companies, China, India, and the like offer predominantly indirect investment opportunities, i.e., opportunities that we seek to materialize through a Nordic platform, such as through M&A and/or expanding customer base to these markets.

***E&Y:** As the median time from initial investment to exit has increased, do you see a role for private equity funds in the venture-backed market?*

Niemi: Longer holding periods underline the importance of the ability to fund the company through the life cycle of the investment, or, alternatively,

Continued on page 23

PERSPECTIVE FROM SILICON VALLEY

Promod Haque

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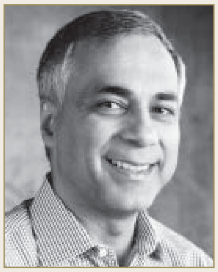

"In China and India, where the middle class is gaining more purchasing power, there is a realization by venture capitalists that proven models in the United States, proven consumer services models, and e-commerce models in the United States, can now be transplanted in these countries."

E&Y: *When you look back at the venture capital activity in 2005 were there any major takeaways or lessons learned?*

Haque: The key trend that stands out in 2005 is consumer-services-driven deals. Internet-driven consumer deals are really becoming very interesting and are starting to get a lot more funding than they ever have in the past, so this is clearly a trend. I'm thinking more of consumer services; not just software and not just hardware, but actual services. It's really starting to stand out as a very, very interesting emerging growth sector. Another takeaway is that if I am looking at the whole life cycle of these companies from inception to liquidity, it is taking longer for companies to get to liquidity The third takeaway is that exit valuations are still relatively low and, consequently, there is lot more interest, awareness, and focus on capital efficiency.

E&Y: *What are some of the exciting opportunities that you are exploring?*

Haque: One area that is of interest for us is the consumer services arena. In China and India, where the middle class is gaining more purchasing power, there is a realization by venture capitalists that proven models in the United States, proven consumer services model, and e-commerce models in the United States, can now be transplanted in these countries.

China has already proven this to some extent. India is relatively unproven. You have seen a lot of interest in this area, and we have actually done a deal ourselves recently. It is an online travel company going after the travel market in India (Yatra Online) and you are seeing numerous other types of Internet consumer services deals that have proven business models in the United States. People are saying you can transplant this model into some of these emerging countries that have a large middle class with a high purchasing power and a purchasing power that is growing.

Another key sector is wireless. This is taking place in emerging countries as well as in developed countries such as the United States and certainly in Europe, which to some extent is ahead of the United States in this area. The whole area of value-added services in the wireless domain is growing significantly.

E&Y: *These days globalization is really a business imperative both for venture-backed companies as well as for venture capitalists. Can you elaborate on some of the opportunities and challenges that your portfolio companies face when they address globalization?*

Haque: We are very focused on globalization, and we are a VC firm that has a global investment focus. Our global focus can be seen through our investments in what we call "hybrid companies" or "cross-border" companies. These are companies that are headquartered here in the United States but have extensive operations in India. We also have about three companies that are headquartered here but have operations in China. Most of them are doing product development in China, but they are also starting to do some of their marketing and operations work out of China, too. In addition to doing deals that are focused on these markets, we are also investing in United States-based companies that have extensive operations either in India or China. This is mainly driven by the availability of cheaper talent. Thus, the capital efficiency theme comes into play and the availability of talent itself is a big issue. The other thing that is also very interesting, depending again on the type of sector you are in, is true global venture-backed companies that have a global scope from day one. For example, one of our portfolio companies, Veraz Networks, is actually a United States-Israel-India company. About 65 percent of its sales happen outside of the United States. Veraz's markets are global, as they sell more products in the Far East, Eastern Europe and in Latin America compared to what they sell in developed countries.

In addition, penetrating global markets is very hard, and extremely difficult for start-up companies. For larger companies, it's a different story because they have brand awareness and they already have sufficient infrastructure in place. Thus, one of the important factors for start-ups is leveraging partnerships with larger players. For example, Veraz Networks, because of its close partnership with ECI, which has presence in Eastern Europe, has been able to penetrate this market very efficiently. So penetration of global markets for start-ups is an imperative, but it's also a challenge. Part of what we as venture capitalists provide is the ability to introduce start-ups to customers in these various countries and business partners.

E&Y: *From a Silicon Valley perspective is China or India a threat in addition to being an opportunity?*

Haque: Actually I do not think they are a threat. Let's look at the product companies that are in our portfolio. The CEO is based in Silicon Valley, the initial architectural team is based in Silicon Valley, product management functions are in Silicon Valley, because the markets are here or in Europe. It is very difficult for a company to get started in India or in China and be able to have the global perspective and relationships with customers. The early adopters of these technologies are still in the Western Hemisphere, so it's very difficult for core innovation to take place in these countries at this point. I think five years from now, it will be a different story. But today, when we look at starting a product company, our first choice is to start it in the Valley or start it in Israel because there is a lot of expertise there in terms of product management and familiarity with customers.

Israeli companies to some extent have to make sure that the product management and the sales and marketing people are in Silicon Valley. We want to ensure that the early development of disruptive technologies or disruptive concepts, product validation, and market validation are done in collaboration with early adopters of technologies—and those early adopters are pretty much still in the Western Hemisphere.

Whether it's the enterprise sector or wireless infrastructure or some value-added services that are related to the wireless infrastructure, the early adopters are still in the Western Hemisphere. Therefore, you have to have product innovation happening in close proximity to your market. Hence, we don't see India and China as a threat in the short term, certainly not in the next five years. Five years out, we don't know. It is clear that China and India's own internal markets will grow. Companies that are focused on services to those markets must reside there in order to be close to the market. For example, the online travel company in India that I mentioned before must be in India, and companies like Ctrip must be in China, because that is where the consumers are and that is where they need to do product validation and product development. But those are different players than product companies. Currently, we don't see China and India as competition in this area yet.

E&Y: *Do you see Israel's role as an innovation center changing in the coming years because of India and China?*

Haque: I don't think you will see the role changing. I think what we are going to see is that Israeli companies are going to have the same capital efficiency issues to deal with as a Silicon Valley-based company. Thus, I think we are going to see a lot more collaboration between Israel and India, and the hybrid model will evolve in Israel as well. Companies will get incubated in Israel, perhaps sales and marketing people will be based in the United States, architectural teams and some product management based in Israel, and a lot of development will be outsourced because of these capital efficiency issues that I raised. Let's take again the Veraz Networks example. At Veraz, the largest workforce is in Israel, the second largest is in India, and the third is in the United States. I'm not talking about sales force but rather about product development and manufacturing.

In summary, the role might not change, but I think it's going to transform itself a bit. And, by the way, when you look at Israel from a capital efficiency perspective, companies don't have to go to India either. There is a lot of talent available in Eastern Europe. For example, we have two companies that are doing product development in Belarus and in St. Petersburg. The key will be to utilize talent around the globe.

E&Y: *As the median time from initial investment to exit has increased in the last several years, do you see a role for private equity funds in the venture-backed market?*

Haque: You might argue that because it is taking longer to get to liquidity, private equity has a role to play. But, I don't think so. We are starting to see traditional venture capital firms that have focused on later stage investments and recently raised a fair amount of capital. Also, the needs of venture-backed companies are very different from the normal needs of private equity-backed businesses. Also, as companies become more and more capital efficient, even though it takes longer to get to liquidity, the amount of capital that you need to utilize shouldn't really rise dramatically. It is going to take a little longer, but it can't be proportionally higher. Thus, I think what you will see is late-stage capital available from traditional VCs and late-stage VCs. Private equity does have a pretty interesting play in technology buyouts. We've started to see more technology buyouts and we will continue to see more. My view is that there are not a lot of IPOs happening in the marketplace today. Exits are happening but there aren't tremendous amounts of exits. If you look at the number of companies that are getting started or have been started over the last three to four years, there are a lot of companies. Thus, sooner or later you are going to start to see some aggregation or consolidation of these companies, both in the private and public markets. That's where I think private equity is very well equipped to provide the kind of capital that's required to make that happen.

E&Y: *Is IPO still the preferred transaction for your portfolio companies or are you looking at other alternatives?*

Haque: I think we are going to see more IPOs happening in 2006 and 2007 versus what we saw in the last couple of years. One of the reasons we are not seeing a lot of IPOs today is because the revenue threshold of US$50 million to US$60 million and probability threshold for IPOs is vastly different than what it was four or five year ago. Thus, because the standards changed, it has taken more time, (five to six years), for VC-backed companies to reach the new thresholds of revenue and profitability. Part of the reason why you haven't seen a lot of venture-backed IPOs in the last four or five years is because there were very few companies that qualified. I believe that this year we are going to start seeing more companies meet and exceed these thresholds. At the same time we will see more M&As happening, too, because a US$30 million to US$40 million company is a lot more attractive to a public company than a company that is just US$5 million to US$6 million in revenue.

We are still going to focus on building companies for the long term, and we prefer IPOs as an exit alternative. But the concern in the marketplace today is not only about revenue and profitability thresholds but the need to be SOX compliant. Just being SOX compliant costs around US$1.5 million per company and it takes away your profitability. In addition, you have the stock compensation. These issues have made it more difficult for companies to go public. But, again, I believe we will start seeing more companies go public because they are reaching these new thresholds.

E&Y: *What do you see are the overall challenges that the VC industry needs to address in the next 18 to 24 months?*

Haque: Globalization is a challenge that a lot of venture capitalists are grappling with and they are trying to figure out their strategies—whether this is funding companies abroad, doing hybrid investments or helping their companies sell globally. Another challenge over the next two to three years is exits. More venture-backed companies have to go public or get acquired, and the venture capital model has to demonstrate that it can fund a company that can be taken public or sold five or six years later. We must generate returns, because at the end of the day it's all about creating returns. There is a concern in the industry that too much capital has been raised. This can result in ill-disciplined behavior where too much money gets thrown into VC-backed companies and increases valuation because of the supply-demand imbalance.

My view is you are going to see a shake-out of venture capitalists, especially those that come up for refinancing. There are firms that have not been able to demonstrate returns, don't have a track record, and at some time or another will have to answer to the limited partners and say should I or shouldn't I be in the venture business. ■

Petri Niemi, continued from page 20

the ability to syndicate when necessary. The potential future role of PE, as opposed to VC, investors may have more to do with the maturing of the underlying technology market than holding periods per se. The maturing technology market implies that there is an increasing number of technology companies having characteristics required by PE investors, such as being profitable and having established customer relationships and mature management teams.

E&Y: *Do you expect IPOs to be a viable transaction for your portfolio companies? If so, what are the characteristics of the companies that you think are IPO eligible? If IPOs are not a likely transaction for your portfolio companies, why not?*

Niemi: The IPO market has definitely picked up. On the other hand, so has the trade sale market, since the two typically move hand-in-hand. According to Thomson Financial the total proceeds from European IPOs grew 63 percent in 2005, even though the number of IPOs decreased somewhat. According to Dealogic M&A activity in 2005 exceeded that of 2004 both in terms of the number (up 20 percent) and the value (up 28 percent) of deals.

The IPO activity, as well as the requirements, vary substantially across markets, Norway being the hottest Nordic IPO market for the time being. Even though we consider IPO a viable exit route for some of our portfolio companies, trade sale is still expected to remain the most typical, and even preferred, exit route. To mention some of the benefits of a trade sale: trade sale is size agnostic (as opposed to an IPO); further, the process is typically simpler than that of an IPO. ■

PERSPECTIVE FROM SILICON VALLEY

Doug Leone

General Partner, Sequoia Capital, Menlo Park, California

"The interest in China and India is no longer driven by the fact that companies in those geographies could serve as back-end R&D or manufacturing services, due to the low-cost labor arbitrage factor, to the U.S. market."

E&Y: *When you look back at the venture capital activity in 2005, were there any major takeaways or lessons learned that stood out to you?*

Leone: Yes, there are a few. We'll think of 2005 as another beginning of an Internet private equity bubble, where we will have seen the beginning effects of a great deal of funds being raised. This has led to many non-businesses, or look-alike businesses, being funded, especially in and around the Internet. There are numerous search companies, social networking companies, trading of virtual goods companies, all aiming at different micro-segments, many of which do not have a prayer of ever generating a profit. The Internet has gotten so large that early traction is no longer a true sign of sustainable growth. Today, it is relatively easy to build a Website that generates X thousands of page views. How many investments with an advertising model, do you think, need to be funded? If you take the projections of all these companies they are bigger than the total ad market, both online and offline.

Also, 2005 was the time when venture guys really focused overseas, mainly in India and China. This was the year that the planes to Beijing and the hotels in Bangalore were fully booked months in advance.

This was the year we saw a number of new venture firms being established with many new groups out fundraising. For some reason, there appears to be an insatiable appetite by limited partners to invest in a category (venture capital) that cannot sustain even a fraction of the capital currently within it. It is the craziest thing that LPs are willing to invest so much in a category that has yielded so little and from so few.

E&Y: *Why is it crazy that LPs are willing to invest so much in venture capital?*

Leone: The returns have been miserable. If you take away a couple of exits, such as Google and MySpace, there haven't been meaningful returns generated. There are firms that have never generated a positive return or have not even returned capital in 10 years that are raising money successfully. And that surprises the heck out of me. People talk about the top quartile—it's not about the top quartile, it's barely about the top decile, or even a smaller subset than that.

E&Y: *What are some of the exciting investment opportunities that you're exploring on a global basis?*

Leone: You are essentially asking me what's hot. I will tell you that any venture guy that answers that question doesn't know what he is doing, for the simple reason that by the time a venture guy can state what's hot, it is by definition not hot at all. When we funded Yahoo!, we didn't know that mapping the Internet with a set of online yellow pages was going to be hot and that you could build the portal from that. We didn't know that was hot. We just made an investment in something that we thought might be important. When we invested in Google, no one at Sequoia envisioned that search was going to be one of the major requirements in the Internet, and that you could build a mammoth company from that. We just thought it was a better search experience and that someone might want to own it at a premium. Now, many would say that search is hot–well that's just looking in the rearview mirror, from an early-stage investment standpoint.

The wireless platform is very interesting. We have a lot of information in our wireless phones that lives and dies there—we lose our phone and lose the information. The wireless phone is not synchronized with the rest of our world and there are carriers that act as gatekeepers. The browsing experience is unpleasant. Basically there is lots of room for improvement. This creates opportunities. Is this hot? Who knows?

I will tell you that people in their twenties who want to change the world are "hot."

I will also tell you that in China and India there are major wide spaces where industries simply don't exist and are dying to be created.

E&Y: *How do you see the role of the technology sector in Israel changing with the emergence of China and India?*

Leone: The interest in China and India is no longer driven by the fact that companies in those geographies could serve as back-end R&D or manufacturing services, due to the low-cost labor arbitrage factor, to the U.S. market. The interest in China and India is the growth of the middle class in those countries.

Israel has always been a technology-centric market with super-bright engineers catering to the United States or European market. I think of the Israeli opportunity as much more technology-centric and China/India being more consumer-driven, technology-enabled opportunities. So, I think Israel versus China/India provides two very different opportunities.

E&Y: *Globalization is a business imperative today, both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Leone: Globalization plays a very important role in venture capital investing. When we fund a company, we need to be mindful not only of our U.S.-based competitors, but of our worldwide competitors. Do you remember the security firewall company called Raptor? It lost to Checkpoint, a company out of Israel. In addition, many customers are no longer located in the United States, especially for our chip companies that cater to the cell phone market. Infosys and Tata are doing more and more product selection on behalf of large U.S. companies who might have outsourced many data processing functions to them. Our little companies need to be mindful of these trends.

From a fundraising standpoint, limited partners are now worldwide. We see interest out of Hong Kong, Singapore, Europe and India — all looking for the same golden goose that our U.S.-based LPs are searching for. Many of these people will lose lots of money investing in the venture capital industry.

E&Y: *From a Silicon Valley perspective, we all know that you and your peers view China and India as an opportunity, but do you think that they pose any threat?*

Leone: The answer is, "yes," for sure. Silicon Valley is the most vibrant entrepreneurial community in America and a true national treasure. I would tell you that you go to Bangalore, and it feels more like Silicon Valley than Boston does. You go to Israel it feels to me more like Silicon Valley than any other location in the United States. So, I think from entrepreneurial fervor aspect, it is definitely a threat. We have the best engineers here in Silicon Valley, but at five times the cost of India and 10 times the cost of China. Most of our start-ups outside of the Internet have engineering resources outside of the United States. Nevertheless, Silicon Valley is a unique place, and I would not bet against it, even 20 to 30 years from now.

E&Y: *As we look at the median time from initial investment to exit in the United States, we can see that it has increased dramatically in the last five to six years. Do you see a role for private equity funds in the venture-backed market?*

Leone: I believe you are asking me whether deep-pocketed private equity funds will provide the exit vehicle for venture-backed companies as a replacement to IPOs.

The simple answer is that they might, but not for great companies. The numbers just do not work otherwise. Venture capital returns are driven by a few wonderful investments, usually priced at premiums, that make up for numerous failures. Do I think that private equity, as you call it, will supplant IPOs for those few valuable investments? No. Do I think private equity firms will buy a few venture capital companies in roll-ups or recaps? Possibly, but it will not move the IRR needle for the venture firms.

E&Y: *What's your outlook for the next 12 to 24 months, including the IPO outlook?*

Leone: The real question is how long will it take institutional investors to forget 1999? Probably a while longer. Two years ago, we all would have guessed that by 2005 a whole set of companies that were coming up would have gone public by now, and yet, very few have. I don't think the pubic market is going to welcome many companies without a meaningful run rate (US$100 million or so) without a credible profitability model. SOX is costing more than we would have imagined and is really having a dragging effect on our small companies who want to go public. It now costs over US$1 million on SOX to get ready for an IPO. From a macroeconomic standpoint, I believe we have a two-year window where the economy will do well — then the election will hit and who knows? Many are forecasting strong economic times for the next two to five years, driven by the spending ability of the baby boomers. If they are correct, we will see another IPO bubble, in two to three years as greed sets in and froth returns.

E&Y: *Would you comment on the outlook for the next 12 to 24 months in India and China?*

Leone: I believe that China will be more lucrative over the next 12 to 24 months, and I think India will take longer. In the case of China, there are lots of opportunities for shrewd investors and lots of pitfalls for those who parachute in on a monthly basis. From a high-tech standpoint, I feel that a great deal will be lost in India before meaningful returns are generated. ■

Venture-Backed Exits: A Positive Outlook

By Gil Forer and Joseph Muscat

EXITS—LIQUIDATING AN INVESTMENT through an initial public offering or sale to a strategic or financial buyer—drive the venture capital industry. The expectation of such an exit within a defined period of time is the basis of any venture capital investment. Part of the change the venture capital industry is undergoing today comes from factors that alter the old formulas of exit expectations—regulation, globalization, new transaction alternatives and the emergence of new stock exchanges challenging the dominance of established markets.

In the United States, venture-backed IPOs are at historically low levels, while venture-backed M&A activity is robust, both in terms of number of transactions and valuations. Europe, in contrast is coming off one of its better years in terms of venture-backed IPOs with 60 transactions, according to Dow Jones VentureOne, nearly one-third more than in the United States. More than a dozen Chinese venture-backed companies were floated last year, among them some of the top global technology offerings.

While there is a different capital market story for each area, several common themes emerge from interviews with investment bankers and other stakeholders in the United States, Europe and China. Market demand continues for great companies, including venture-backed companies, both in terms of initial public offerings and acquisitions. At the same time, the number of exit options available to venture-backed companies—whether the exchange or the funding vehicle—is increasing, making it more important than ever to allow a company's business imperatives to determine the choice of exit. Most importantly, market stakeholders anticipate that improving market conditions in all three regions will result in increased venture-backed IPO activity in 2006 and 2007, as well as continued growth in venture-backed M&A transactions.

United States

Last year 41 venture-backed companies raised US$2.24 billion in IPO transactions, reports Dow Jones VentureOne in the United States. Venture-backed companies generated proceeds of US$27.33 billion in 356 M&A transactions in the same period, the most since 2000. The median valuation of M&A transactions was US$23 million, the highest annual figure tracked. The comparable median pre-money valuation for IPOs was US$166 million—fewer transactions, but at a much higher valuation than M&A. In the case of both venture-backed IPO and M&A, the time from initial venture financing to exit continues to increase, reaching a median 5.9 years for IPO and 5.4 years for M&A.

MERGERS AND ACQUISITIONS

The surge in venture-backed M&A activity stems, at least in part, from a feeling that M&A is less risky, less complicated, and takes less time to conclude than a comparable IPO. Coupled with less interest on the part of venture capitalists generally to serve on the board of a public company in view of today's liability issues, this reduces the attractiveness of an IPO.

Moreover, in a significant shift, valuations are currently higher than comparables in the public market. Home runs—or, at least, triples—are now more likely in M&A than in prior years. "It's unusual because there is typically a liquidity premium for public companies," says Stephen O'Leary, a senior managing director of the Jefferies Broadview Technology Investment Banking Group, "but with increasing frequency, transactions with private companies are valued more highly than public companies."

Perhaps that's why there were 16 percent more M&A transactions overall in North America this past year, according to data from Jefferies Broadview. Moreover, the value of North American transactions announced during 2005 was US$135.4 billion, more than the aggregate amounts in any of the years 2001, 2002, 2003, and 2004. With the Sarbanes-Oxley Act being a factor in limiting smaller-company interest in an IPO, M&A poses an attractive alternative, especially for technology companies.

Increasing M&A activity is part of a growing consolidation trend in the technology industry, according to Cole Bader, an investment banker specializing in mergers and acquisitions with Thomas Weisel Partners in San Francisco. Cole Bader says that "the strength and breadth of the global technology players has only become greater in the last couple of years. As a result, it's awfully hard for a private company to be successful. And if they are successful in a new space, it's not very hard for one of the much larger players to turn around and start taking market share."

In terms of specific sectors, software makes up the lion's share of M&A transactions, as strategic sales are increasingly popular as an exit strategy. In the words of Cully Davis, managing director of Equity Capital Market at Credit Suisse, "People are chasing software, not for growth, but for cash flow and M&A possibilities." Biotech saw a lot of M&A activity among larger-cap companies. Alternative fuels such as ethanol are attracting attention. There are also new investment opportunities in the crossover sectors of media and Internet, IT and life sciences, and wireless telecom and computing.

O'Leary also sees interest building in the communications sector, with the eBay-Skype deal being the kind of blockbuster M&A transaction capable of shaking up an industry. Skype, he says, typifies two phenomena, the globalization of the marketplace and the emergence in importance of the consumer value chain. The wireless business is expanding in Europe, China, and India. The next big thing, like Skype, may arise outside of the traditional U.S. marketplace, as companies are formed to serve the needs of domestic markets. "With capital flows becoming so efficient around the world, a global supply chain and global networks for venture capitalists, we really can't look at it on a country-by-country basis anymore," O'Leary notes.

Can M&A make up for the lack of IPOs in U.S. VC portfolios? "The continued strength of the M&A market has offset the relative weakness of the IPO market to a certain degree for venture firms looking to exit their portfolio companies," observes Mark Heesen, president of the National Venture Capital Association, based in Washington, D.C. "However, the venture industry needs stars and stars are produced by IPOs. Asking the M&A marketplace to shoulder the load over a long haul may yield diminishing returns for the venture industry and the overall U.S. economy," says Heesen.

INITIAL PUBLIC OFFERINGS

"This has been a challenging marketplace," says O'Leary of the overall IPO environment in 2005. Davis agrees that the first half of 2005 was a "tough go" but points to positive earning calls during the course of the year that made investors "more willing to open their wallets to invest in IPOs, which are traditionally a little more risky." Growth-oriented venture-backed companies particularly benefited from this increased appetite for risk and ultimately rewarded their investors by generating outsized returns, compared with broader markets.

A number of factors made the IPO environment challenging in 2005. New regulations and heightened investor scrutiny in the wake of the corporate scandals of the bubble period have created an overhang on new public issuances. O'Leary points to the impact of regulation, greater board liability, structural changes in investment banking, and consolidation of many organizations that were mid-market leaders in the growth-focused IPO marketplace. Compounding these factors are considerable levels of volatility in the initial investor base and limited capacity for small-cap stocks.

At the same time, the hurdle to going public in the United States has been raised. Where companies with revenues of US$30 million to US$50 million would have been viable IPO candidates in other times, the range today is US$80 million to US$90 million, creating a much higher bar in terms of critical mass. In fact, O'Leary suggests that companies should not plan to go public unless they have the visibility longer term to achieve at least a half-billion dollar market cap.

A change in the institutional investor environment is one of the factors contributing to the higher bar, in the view of Bill McLeod, managing director of Capital Markets for Thomas Weisel Partners. "Fund sizes are much larger than they were 10 years ago, which means that they need to make larger investments to have an impact on their portfolios," says McLeod, and "that's why stocks under US$250 million in market cap usually don't attract the same household name investors as a billion-dollar market cap stock."

For venture-backed companies, this means taking the time necessary to become big enough to go to market. The quickest time from initial venture financing to IPO among Dow Jones VentureOne's top IPO deals for 2005 was DealerTrack's 3.8 years. The longest was more than nine years, for Eschelon Telecom, a Minnesota communications company.

Information technology companies have experienced the most volatility in the last few years, with IPOs in this sector totaling US$2.5 billion in 2002, US$1.6 billion in 2003, US$10.2 billion in 2004 and US$5 billion in 2005, according to Jefferies Broadview. However, it appears that venture-backed IT accompanies are experiencing a resurgence of interest from investors. According to Dow Jones VentureOne data, five of the top 10 venture-backed IPOs in 2005 were in the IT sector.

Among specific sectors, Credit Suisse's Davis saw IPO strength in companies providing technology-enabled services, such as GFI Group, a provider of online inter-dealer brokerage services that raised US$82 million last year. There was also renewed interest in semiconductors and telecommunications, with offerings from venture-backed companies like Advanced Analogic Technologies and Cbeyond Communications.

In life sciences last year there were "several very short pockets and windows of opportunity where companies could go public," says Davis. "The life sciences space has always been characterized by very big swings, with huge amounts of interest followed by periods of total drought, where there is very little ability for companies to go public at a reasonable price." He observes that an unusually high number of biotech companies priced below the mid-point of their anticipated range. Top venture-backed life sciences offerings last year include Adams Respiratory Therapeutics and Coley Pharmaceuticals.

"The life sciences space has always been characterized by very big swings, with huge amounts of interest followed by periods of total drought… "

Going into 2006, McLeod sees a renewed optimism for venture-backed IPOs that gained momentum in the fourth quarter last year as the market environment improved. "Venture capitalists are seeing the same dynamics that we are seeing and hoping that this is a more sustainable upturn for the growth area," says McLeod. He notes that the IPO pipeline, which includes around 110 companies in registration, doesn't reflect the current substantial activity by venture capitalists exploring IPO options that will manifest itself as new filings in four to five months time.

THE IMPACT OF THE SARBANES-OXLEY ACT

In interviews with industry observers, the ripple effect of Sarbanes-Oxley is a recurring theme underlying the challenging IPO market in the United States. While few argue with the need for effective regulation, the current compliance functions and costs represent a significant hurdle. If a widely speculated two-tier system is implemented, with relaxed SOX requirements for smaller companies, venture-backed companies may find it less costly to go public. Whether legislators will revise the statutes and what the public's reaction will be are questions of interest to venture capitalists and entrepreneurs alike.

ALTERNATIVE FUNDING SOURCES

In another key development in the United States, traditional lines among venture capitalists, private equity firms and hedge funds are blurring as the latter become more active in the venture capital space. In light of declining returns, hedge funds are broadening their investment scope to include stakes in privately held growth companies. These investments in pre-IPO companies, Davis points out, show how "hedge funds have dramatically shifted their profile of how long they hold investments, from a couple of hours or days, to months or even years."

At the same time, private equity firms are increasingly involved in venture-backed M&A transactions, putting up financing with a view to a future exit. According to O'Leary, PE investors are "more aggressive today, combing venture portfolios looking for deals." PE market share of tech M&A has increased fourfold over four years through 2004, according to Jefferies Broadview data. Other data show that technology buyouts represented just 4 percent of M&A value in

2003, but reached 23 percent in 2005. Since venture capitalists are "exit-constrained, having to work hard to find exits, while PE firms are clearly deal-constrained, competitive on the inbound side," in O'Leary's view, "there is a natural matching of the two universes." It's "no surprise" that private equity firms are providing venture capital exits, says Weisel's McLeod, because "when you have a dozens of multi-billion-dollar private equity funds, there is a lot of money searching for a home."

In another trend that may continue through 2006, there has been more activity in the form of 144A private-placement transactions. This type of private placement involves equity or equity-linked securities that are offered or sold by an issuer only to qualified institutional buyers (QIBs), as defined by the SEC, or to purchasers that the seller or any intermediary acting on behalf of the seller reasonably believes is a QIB. This is a route to liquidity, says Davis, that allows foreign companies to "bypass registration in the United States but still access a large universe of U.S.-domiciled investors." He points to companies such as Submarino, "the Amazon.com of Brazil," which have used this vehicle to raise capital in the United States rather than by an IPO.

Europe

The return of venture-backed IPOs was the main exit story in Europe last year. While venture-backed M&A activity was respectable — 163 transactions with a median value of US$22.5 million, according to Dow Jones VentureOne — venture-backed IPOs came roaring back to life with 60 offerings raising US$2.03 billion. To put this in perspective, this represents a 71 percent increase in transactions and a 185 percent increase in capital raised, compared with 2004. In 2003, Europe saw only nine venture-backed IPOs, which raised a mere US$128.9 million.

INITIAL PUBLIC OFFERINGS

"The IPO market is very strong and the European markets, as a whole, are very strong," says John Porter, managing director of Equity Capital Markets for Morgan Stanley in London. He notes that markets are at a three- to four-year high point across the board going into 2006. Total equity and equity-linked issuance reached nearly US$230 billion in 2005 compared with about US$196 billion in the prior year, according to Morgan Stanley data. The percentage of equity issuance represented by IPOs grew to 28 percent in 2005, up from just 20 percent in 2004.

European venture-backed companies benefited from a new investor appetite for growth stocks. "Investors are telling us that they are looking for ways to outperform the market — new ideas, new names, growth-orientated stocks, and technology stocks are creating excitement," says Porter. Venture-backed offerings have fit this profile by providing strong returns to investors in both initial and secondary offerings, generating continuing demand for venture-backed listings.

Overall, demand for IPOs is outstripping supply in the pipeline. Porter points to several factors underpinning the healthy IPO market. "The IPO market functions best in an environment of stability," he says, adding that the low interest rates, reasonably low volatility in the secondary market, strong liquidity and general stability in the political environment are all important stabilizing factors.

In terms of sector interest, oil prices are fueling demand for energy offerings. "Renewables and alternative energy have received a lot of buy-side interest," says Porter. Indeed, the largest venture-backed IPO in Europe last year was the US$313 million offering by Q-Cells, a German provider of silicon solar cells for renewable energy generation. Conergy, another venture-backed solar power company based in Germany, was also among the top European listings with its US$63 million offering.

Internet-related offerings were also strongly represented among the top venture-backed offerings. There was Interhype, a German online mortgage broker; Meetic, the French online dating site; RueDuCommerce, a French online retailer; Tipp24.dem, a German lottery site; and TradeDoubler, a Swedish provider of online marketing and sales solutions.

EMERGENCE OF AIM

Perhaps the most important sub-plot to the European IPO story in 2005 is the continued emergence of London's AIM, the Alternative Investment Market sponsored by the London Stock Exchange, as a listing platform for smaller growth companies. In fact, the continued strength of IPOs in Europe is likely due in part to the growing role played by AIM, making it easier for smaller companies in the UK and elsewhere to achieve exits via the public market. "AIM has grown up in many ways from a smaller exchange targeting a specific UK investor base to become an investable and very liquid exchange" that will increase exit opportunities for venture-backed companies, says Porter.

The impact of AIM's entrance into the capital markets spotlight is being felt far beyond Europe. In addition to positioning itself as pan-European, the exchange highlights the level of liquidity it offers and its simplified regulatory burden. O'Leary points out that for companies with capitalizations of GBP 50 million to GBP 150 million AIM is actually "meaningfully more liquid than NASDAQ" in terms of volume of shares traded, and that London's leading financial institutions are increasingly seeing AIM's small-cap constituents as an attractive asset class. As evidence of AIM's increasing globalization, O'Leary cites the following AIM statistics: 76 non-UK IPOs listed on AIM in 2005, up from 40 in 2004 and just five in 2003. Right now, more interest in AIM comes from companies in areas other than the United States — Western and Eastern Europe, India, and Canada — who, may be daunted by the regulatory hurdles posed by the post-Sarbanes-Oxley and listing in the United States.

But as AIM becomes a more international market, O'Leary believes it will be "unfortunately to the detriment of the U.S. exchanges." Supporting O'Leary's view is data recently released by Citigroup[1] showing that as recently as 2000, 90 percent of the money raised by new foreign listings was raised in the United States, but by 2005 the situation had become reversed: 90 percent of the capital raised by foreign companies through IPOs came through transactions outside the United States, mainly listings in London and Luxembourg.

Even in the United States, companies are increasingly exploring the pros and cons of an offering on AIM as an alternative to the expense of operating as a U.S.-listed company. The NVCA's Heesen believes that there is a lot of talk at this point, but so far little action when it comes to listing outside the United States. He also suggests that going public elsewhere may "give an aura that you skirted something" and that you may therefore not be ready for an IPO in the United States.

The return of venture-backed initial public offerings was the main exit story in Europe last year.

David Ryan, managing director and co-head of the Asia/Japan Financing Group at Goldman Sachs, sees AIM in the context of a broader globalization where companies increasingly have listing opportunities beyond NASDAQ and choose their market according to their business imperatives. NASDAQ has a long history as a proven platform for technology and life science companies where, in Ryan's words, "investors have a significant degree of sophistication and experience," making it still a destination for these kinds of growth companies. "If you are eligible to go out on NASDAQ, there is strong appeal and considerable merit to a NASDAQ listing," Ryan says. Conversely, for a company like the private equity-backed Mengniu Dairy, a Chinese producer of milk, ice cream, and other dairy products, Hong Kong was an attractive place to go public, because of the greater brand awareness and familiarity among institutional investors. Companies naturally gravitate to markets where they will be among peers, have access to an investor base that understands their business model, and gain the most marketing impact.

China

Sixteen venture-backed companies conducted IPOs in 2005, according to Zero2IPO, a Beijing-based research firm. Six venture-backed Chinese companies were also acquired during the course of the year. These venture-backed exits came in the context of general capital market enthusiasm for Chinese growth companies, along with an interrupted pipeline of venture-backed IPOs due to regulatory action by the Chinese government at the beginning of 2005 that affected the ability of foreign venture investors to exit investments via foreign listings. Although the government restored this exit path by the end of 2005, it is likely that some planned IPOs were delayed until the regulatory issue was resolved.

VENTURE-BACKED IPOS

The Chinese venture-backed IPOs emerged from two broad categories: companies in traditional consumer products sectors that were backed by investors best defined as private equity; and innovative technology companies backed by venture capital investors. Companies like Yurun Food, Haisheng Juice, and Xiwang Sugar provide examples of companies in the private equity-backed consumer products category. The Internet search engine company Baidu.com, alternative energy company SunTech Power, and advertising company Focus Media are several of the notable innovative venture-backed companies to conduct IPOs.

A look at where the companies listed helps to illustrate the business drivers behind the choice of exchange. The Chinese consumer products companies, focused on Asian markets, stuck to the Hong Kong Main Board. The tech and media companies, looking for global branding, went for NASDAQ. SunTech Power,

[1] *Wall Street Journal*, January 26, 2006.

seeking visibility with large corporations, opted for the NYSE and realized the largest tech IPO in 2005 with a US$396 million offering.

It was a successful year in terms of venture-backed offerings notes Ryan, who says that "most of the [venture-backed] deals that came to the market this year performed well, traded well, and have been successful from the point of view of both investors as well as the venture backers."

CHINA CAPITAL MARKETS OUTLOOK

"The outlook is very constructive," says Ryan, adding that "investors feel that there remain a significant number of companies in China who are growing very, very quickly to whom they want exposure." He observes that global institutional investors have a significant appetite for equity exposure to China given that their portfolios are underweight relative to the size of the Chinese economy.

In Ryan's view, venture-backed companies like Baidu, Focus Media, and Yuron Food have fueled institutional investor enthusiasm because they have positioned themselves as the market leaders in their respective sectors. The success of these market leaders will also pull other companies into the IPO pipeline as they seek similar branding benefits associated with a successful public offering. The risk, however, is that "each successive wave of public offerings comes by companies at an earlier stage in their life cycle," says Ryan. The question then becomes whether the companies are prepared to withstand the challenges associated with being a public company.

Going into 2006, Ryan foresees continued strength for consumer products companies. "Companies that can tap into China's billion consumers will prove to be incredibly fast-growing and successful," he says. In addition, he anticipates that companies along the lines of Baidu and Focus Media in the Internet and technology-enabled services will continue to see a lot of action.

Looking Ahead

In the United States, while the "home run" IPOs that have driven venture capital returns in the past are still possible — there is always demand for great companies — they are currently harder to achieve. Going into 2006, improving capital markets conditions will likely provide renewed IPO opportunities for venture-backed companies. In the near term, there will probably be continued reliance on M&A and exploration of more innovative exit paths, including the possibility of going public on a foreign exchange, such the AIM, or a private placement. In some instances, companies may decide to remain private rather than go public.

Europe is also expected to experience increased venture-backed IPO activity as a result of improving market conditions and institutional investor demand for venture-backed offerings. The emergence of AIM as a credible and growing exchange for venture-backed companies holds the possibility of reinvigorating European venture capital, as liquidity tends to drive a virtuous circle of investment. The AIM might have broader effects on the global venture capital industry if listings by growth companies from around the world continue to rise.

The increasing number of China-focused venture capital funds being raised and invested suggest that there will be a robust population of venture-backed Chinese companies in the IPO pipeline. Until China establishes a growth-company-oriented exchange, Chinese companies will continue to choose pragmatically among established exchanges. An increasing part of the calculus for the management of Chinese venture-backed companies and their investors are the regulatory hurdles to listing and operating as a public company in the United States — they are continuously exploring alternatives to U.S. exchanges that will offer comparable valuations with simpler regulatory requirements.

More generally, venture capitalists will have to focus more in the months and years ahead on building stand-alone companies that can meet the high bar of the public markets, including helping their companies prepare for the rigors of operating as a public company. In addition, as the time to exit lengthens and the cost of bringing a portfolio company to market increases, venture capitalists will have to be even more careful to be capital efficient, evaluating companies, sectors and geographic regions with great care before entry, if they are to realize their targeted returns.

The emergence of new exchanges for growth companies, buy-outs of venture-backed companies by private equity firms, and the cost of operating as a public company have increased the complexity of decisions related to appropriate exit routes. Venture capitalists and portfolio management teams will need to make sure their interests are aligned and that they have thoroughly considered their global exit options. ■

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PERSPECTIVE FROM CHINA

Andrew Y. Yan

Managing Partner, SB Asia Investment Fund & Softbank Asia Infrastructure Fund, Hong Kong

"It is important to indicate that although NASDAQ is still the favored exchange for Chinese VC-backed technology companies, SOX is a significant barrier and Chinese companies are looking at other exchanges."

E&Y: *When you look back at venture capital activity in China in 2005, were there any takeaways or lessons learned that stood out to you?*

Yan: Overall, 2005 was a milestone year for venture capital in China, as it was the first time that the venture capital industry was recognized as a growing and independent industry by the capital markets and limited partners. In the capital markets we saw the second wave of successful Chinese IPOs on U.S. exchanges when companies such as Baidu, Focus Media and SunTech Power followed companies such as Shanda, Ctrip and SMIC. We also saw robust fundraising by Chinese funds that received a vote of confidence from limited partners. About US$4 billion was raised by China-dedicated funds such as SAIF, Sequoia China, CDH, GSR Ventures, Gobi, Northern Light, IDG-Accel and TDF.

E&Y: *What are some of the exciting investing opportunities that you are exploring?*

Yan: I see three interesting sectors in China. The first one is digital media. Not many people know that China has the largest pool of cable TV subscribers. This pool of subscribers is basically two to three times bigger than the one in the U.S. The second sector is chip design. I believe that China will become the largest semiconductor manufacturer. And the third one is consumer-driven Internet applications. The growing purchasing power of the middle class in China is the main engine behind the demand for Internet applications.

E&Y: *As SAIF invests both in India and China, what are the major differences between these two emerging venture capital hotbeds?*

Yan: I see three differences between the two venture capital eco-systems. The first is that the infrastructure in India is not as developed as in China, and the gap is quite substanital. The second is that although the domestic market in India is growing it is still relatively small. In addition, India is a democracy, which on one side creates more confidence and clarity with investors but on the other hand can result in lack of efficiency.

E&Y: *What can we expect in terms of Chinese VC-backed IPOs in the next 12 to 18 months?*

Yan: Overall I believe it is going to be quite positive. There are solid Chinese technology companies that will go public in the next 12–18 months. It is important to indicate that although NASDAQ is still the favored exchange for VC-backed technology companies, SOX is a significant barrier and Chinese companies are looking at other exchanges, especially if they can get similar valuations, even if they are a bit lower. There are several Chinese VC-backed companies that are exploring the opportunity to go public on the Tokyo Stock Exchange. Also, although today the valuations for technology VC-backed companies are still too low on the HKSE, I believe that this gap will close in the near future.

E&Y: *What are some of the lessons learned for foreign investors about China?*

Yan: First, you can make real money in China. Second, China continues to have high policy risk, as the government can make policy changes arbitrarily. The SAFE circulars last year showed investors that the policy risk is real. Thus, the lesson here is that China still needs to improve regulatory stability in order to encourage VC investment and to promote technology development. ■

PERSPECTIVE FROM CHINA

Richard Lim

Managing Director, GSR Ventures, Beijing/Menlo Park

"I think that we would be very disappointed if some time in the next five to 10 years we do not see the equivalent of a Yahoo! or eBay or Google emerge out of China."

E&Y: *When you look back at the venture capital activities in China in 2005, were there any major takeaways or lessons learned that stood out to you?*

Lim: I think most people would agree that the valuations of issues in 2005, especially the later issues, did not compare favorably with historical valuation levels. The number of exits, on the other hand, continued to do very well. We had seven or eight Chinese companies listed on NASDAQ with a market value at the end of the year of about US$6.5 billion. On the other hand, in our practice, which is primarily in early stage venture capital, valuations did not rise much. I think that valuations in Shanghai and Beijing went up significantly—even in early stage companies—but outside of these two main cities valuations have remained fairly steady. I also think that quality of businesses and teams improved significantly. We also started to see more entrepreneurs, some of them serial entrepreneurs, coming back and raising money.

E&Y: *What are some of the exciting investment opportunities that you have found today in China?*

Lim: We entered a couple of sectors that we think are tremendously exciting: semiconductor design and data over mobile phones. In semiconductors, last year for the first time China, according to preliminary numbers, was the largest market in the world for semiconductor components. Last year's semiconductor consumption in China was US$40 billion, up from US$26 billion in 2004, which was primarily domestic. In the second sector we are seeing developments that are ahead of anywhere else in the world. The wireless data sector is still nascent but it's developing very very rapidly. China is probably the first country in the world to roll out unlimited data access on mobiles at a price point that is one tenth of prices in the United States.

E&Y: *Globalization is a business imperative today for venture-backed companies in the developed markets. Is globalization a business imperatives for Chinese companies?*

Lim: I think that most start-up companies start with one market, and do well in that one market, before they start attacking other markets. Start-ups have a lot of things to overcome in the early days in terms of organization, people and product development. Thus, I think very few startup companies globalize. Globalization can be seen from several perspectives. For U.S.-based start-ups one of the things that has been pushing globalization is the cost of development and manufacturing. Since cost is so much lower in India, China or Eastern Europe investors have been pushing their portfolio companies to outsource at least a part of the R&D process. Now, that's not imperative in China because you have the cost structure you want in China. It is similar with manufacturing. In summary, globalization is much less of a business imperative for a Chinese company than for a U.S. company, especially in the first two to three years.

E&Y: *From a Silicon Valley perspective, do you think China is a threat or an opportunity?*

Lim: I think China is a threat to U.S. companies. It is difficult to fund a semiconductor company in the United States without understanding what's happening in China. So, is it a threat from that standpoint? Yes, because you need to be aware what's happening in China and from where your potential competitors can emerge. In addition, from an industry perspective it is clear that we are going see innovation from China. We are also seeing the migration of outsourcing jobs out of Silicon Valley to China and India. These outsourced jobs in the emerging markets might generate the next Googles, Yahoos and eBays. It is also interesting to mention that the top venture-backed IPOs in 2005 were not U.S.-based companies.

E&Y: *Are there any special lessons learned for foreign investors in China based on the last couple of years?*

Lim: The key lesson is that you need full-time local presence. Also, as Kevin Fong told us, venture capitalists make money because the markets are inefficient. If the markets are efficient, then you are not going to make 10 times your money back, 20, 30, 40, 50 times your money back on investments. That doesn't happen in efficient markets. But,

Continued on page 71

The Venture-Backed Pool: Portfolio Rebalancing and Increasing Investor Segmentation

By John de Yonge

THE DYNAMIC PROCESS OF PORTFOLIO REBALANCING in the global venture industry continues, as the number of private venture-backed companies in the United States, Europe and Israel declines and the industry focus of investment activity in these regions shifts, according to the results of the fourth annual Venture Insights® study of the venture-backed pool by Ernst & Young and Dow Jones VentureOne. As a result of this rebalancing, a population of nearly 2,000 companies that have not received venture financing in the last five years has emerged — representing billions in invested capital — raising the question of whether there is a backlog of companies waiting for an IPO or M&A transaction and what realistic prospects the companies have for achieving such a liquidity event. Contributing to the rebalancing is rapid decline in the overall number of investors actively investing in these three regions.

Our research shows a venture capital industry that may well look back at 2005 as a turning point. Venture capital firms in the United States have raised US$41 billion in new funds in the last two years. European firms closed on €3.7 billion in 2005, more than double the previous year's figure. When these new funds begin to be deployed in 2006 and beyond, the net reductions to the venture backed pool may well slow or even be reversed as investors fund innovative new companies pursuing global market opportunities.

Pool of Private Venture-Backed Companies: Portfolio Rebalancing

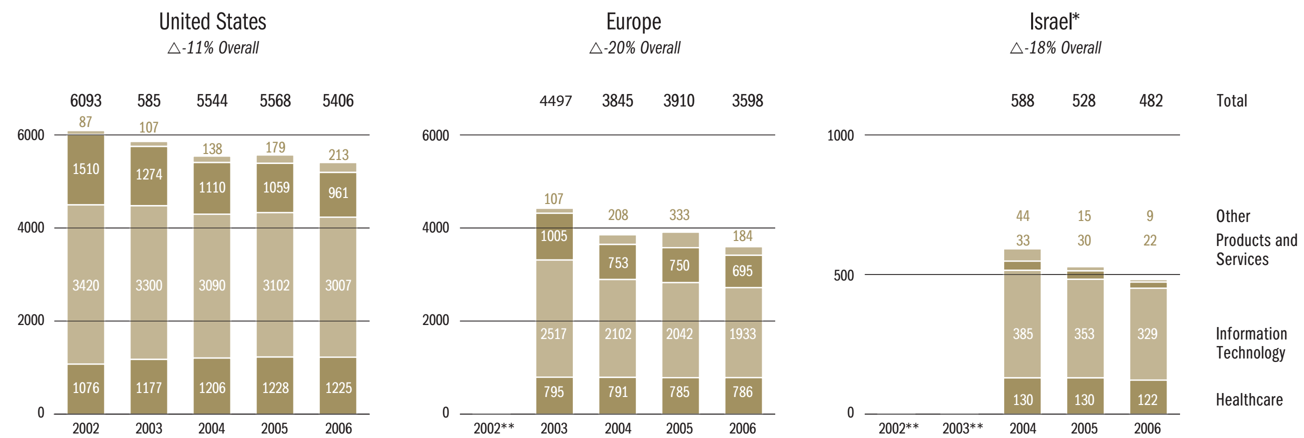
Each year Ernst & Young and Dow Jones VentureOne take a snapshot of the private venture-backed pool of companies in the United States, Europe and Israel in terms of both numbers and cumulative capital invested, giving us a measure of both size and value. To be included in the pool, a company must have been privately held on January 1, 2006, and have received at least one round of financing in the last six years. These criteria ensure that the companies included in our study are an active part of a venture capital firm's portfolio.

The pool of private venture-backed companies in the United States, Europe, and Israel contracted in 2005, both in terms of number of companies and cumulative capital invested in them — the continuation of a trend that we have observed for the past several years. It is perhaps no surprise that the contraction is concentrated in information technology and products and services, given the huge number of companies financed in these industries during the global technology and Internet boom of 1999–2000, and the challenges these companies faced in the subsequent downturn. Driven by investments in biopharmaceuticals and medical devices, the healthcare pool shows a different trend: whether in terms of number of companies or cumulative capital invested, the healthcare pool has actually grown significantly in the United States and Europe, while declining less rapidly in Israel.

UNITED STATES

The pool of private venture-backed companies in the United States stood at 5,406 companies with a cumulative US$132 billion invested in them as of January 1, 2006. Year on year, this represents just a 2.9 percent decrease in the number of companies and a 1.5 percent decrease in the total capital invested in them. Since 2002, however, the number of companies in the United States pool has

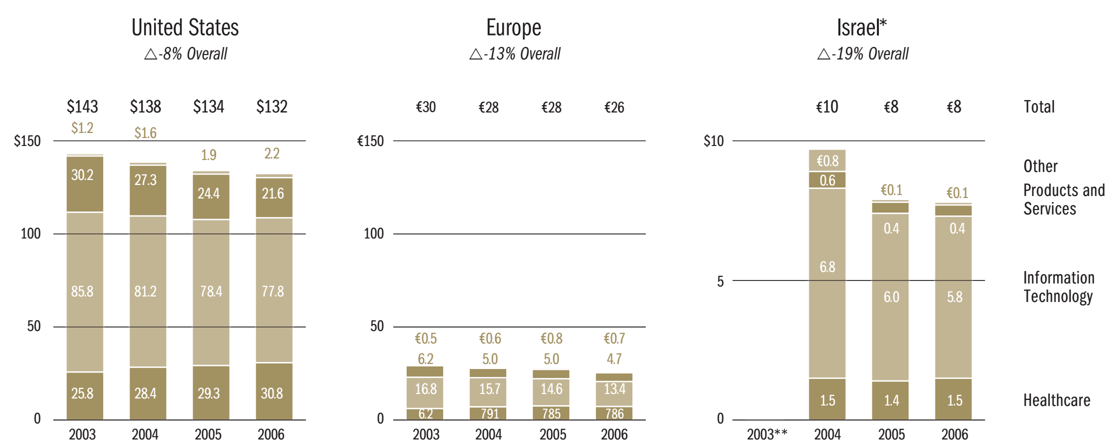
FIG. 1 Total Number of Companies in the Pool



Inclusion in Pool: Received at least one round of VC financing in the six years before the snapshot.
* Israeli data is based on Israeli-site companies. Israeli scale varies
** Data not available

Source: Ernst & Young/Dow Jones VentureOne.

FIG. 2 Total Cumulative Capital Invested in the Pool (US$ in Billions)



Inclusion in Pool: Received at least one round of VC financing in the six years before the snapshot.
* Israeli data is based on Israeli-site companies. Israeli scale varies
** Data not available

Source: Ernst & Young/Dow Jones VentureOne.

TABLE 1 Change in the U.S. Pool

Information Technology	Number of Companies 2003	2006	Change	Invested Capital (US $B) 2003	2006	Change
Communications	743	462	-37.8%	$31.8	$23.7	-25.5%
Electronics	208	232	11.5%	$4.8	$6.0	25.0%
Information Services	489	350	-28.4%	$9.8	$7.2	-26.5%
Semiconductors	286	314	9.8%	$7.8	$8.5	9.0%
Software	1693	1649	-2.6%	$31.6	$32.3	2.2%
Products & Services						
Consumer and Business Products	107	90	-15.9%	$1.2	$1.2	0.0%
Consumer and Business Services	1282	798	-37.8%	$25.9	$18.7	-27.8%
Retailers	121	73	-39.7%	$3.0	$1.7	-43.3%
Healthcare						
Biopharmaceuticals	403	511	26.8%	$11.9	$15.9	33.6%
Healthcare Services	123	116	-5.7%	$2.6	$2.5	-3.8%
Medical Devices	329	418	27.1%	$7.3	$9.1	24.7%
Medical IS	221	180	-18.6%	$4.1	$3.3	-19.5%

Source: Ernst & Young/Dow Jones VentureOne

TABLE 2 Change in the European Pool

Information Technology	Number of Companies 2003	2006	Change	Invested Capital (€B) 2003	2006	Change
Communications	267	226	-15.4%	€4.1	€3.0	-26.8%
Electronics	275	220	-20.0%	€1.1	€0.9	-18.2%
Information Services	521	323	-38.0%	€3.0	€2.0	-33.3%
Semiconductors	102	98	-3.9%	€0.09	€0..09	0.0%
Software	1352	1066	-21.2%	€7.7	€6.6	-14.3%
Products & Services						
Consumer and Business Products	100	101	1.0%	€0.2	€0.2	0.0%
Consumer and Business Services	790	510	-35.4%	€5.4	€3.9	-27.8%
Retailers	115	84	-27.0%	€0.7	€0.6	-14.3
Healthcare						
Biopharmaceuticals	457	459	0.4%	€4.9	€5.6	14.3%
Healthcare Services	45	40	-11.1%	€0.2	€0.2	0.0%
Medical Devices	217	224	3.2%	€1.0	€1.2	20.0%
Medical IS	76	63	-17.1%	€0.2	€0.3	50.0%

Source: Ernst & Young/Dow Jones VentureOne

dropped by 11 percent while cumulative capital invested has dropped by 8 percent. The rate of change has not been uniform across industry groups, however.

The IT pool in the United States has declined by 12 percent in terms of companies since 2003 and 9 percent in terms of capital invested since 2003. The size of the products-and-services pool has dropped even faster, contracting by 36 percent in terms of companies and 28 percent in terms of invested capital, in the same time. In contrast, the number of companies and capital invested in healthcare, driven by activity in biopharmaceuticals and medical devices, increased during this period by 14 percent and 19 percent, respectively. Key observations the United States pool include:

- The number of companies and amount of capital invested in semiconductors and electronics has grown significantly, reflecting increasing activity in storage, mobile, and consumer devices.
- Communications and information services have contracted sharply as the result of consolidation in these sectors, which were the focus of intensive investor activity in the 1999–2000 period.
- Retailers, a products and services segment, saw the greatest contraction, with a 40 percent reduction in companies and 43 percent reduction in invested capital.
- Medical devices experienced the largest gain in terms of companies, with a 27 percent increase to 418 companies.
- Biopharmaceuticals grew the most in terms of invested capital, with a 34 percent increase to US$15.9 billion from 2003 to 2006.

EUROPE

The pool of private venture-backed companies in Europe has contracted at a faster pace than in the United States. The European pool included 3,598 companies with €26 billion in cumulative capital invested at January 1, 2006 — representing a year-on-year reduction of 8 percent in companies and 7 percent in invested capital. Since 2003, the number of companies in the European pool has fallen by 20 percent, while invested capital declined by 13 percent.

Information technology, the largest component of the European pool, fell by 20 percent in terms of companies and by 23 percent in terms of invested capital since 2003. As in the United States, the products and services industry group contracted most sharply, with a 34 percent drop in companies and 24 percent decline in cumulative euros invested. While the European healthcare pool remained flat in terms of number of companies, the cumulative euros invested in this industry group increased by 18 percent to €7 billion, a gain of €1 billion in the space of four years. Several shifts in the European pool since 2003 stand out:

- All IT segments in the European pool experienced contraction. Information services underwent the greatest contraction, with a 38 percent reduction in companies, while semiconductors experienced the least, with just a 4 percent decline in companies.
- Of all the industry segments in the European pool, the consumer and business services segment declined the most, with a 35 percent reduction in companies and 28 percent reduction in invested capital.
- The biopharmaceuticals and medical devices segments showed significant gains. Biopharmaceuticals gained just 0.4 percent in terms of companies, but 14 percent in invested capital. Medical devices experienced a 3 percent increase in companies and a 20 percent increase in invested capital.

TABLE 3 Change in the Israel Pool*

	Number of Companies			Invested Capital (US$B)		
Information Technology	2003	2006	Change	2003	2006	Change
Communications	85	71	-16.0%	$6.8	$5.8	-14.0%
Electronics	42	41	-2.0%	$2.1	$1.9	-10.0%
Information Services	14	8	-43.0%	$0.5	$0.6	20.0%
Semiconductors	48	42	-13.0%	$0.2	$0.1	-50.0%
Software	196	167	-15.0%	$1.0	$0.7	-30.0%
Products & Services						
Consumer and Business Products	6	6	0.0%	$0.1	$0.1	0.0%
Consumer and Business Services	27	16	-41.0%	$0.5	$0.3	-40.0%
Retailers	–	–	–	–	–	–
Healthcare						
Biopharmaceuticals	45	41	-9.0%	$0.7	$0.6	-14.0%
Healthcare Services	–	1	–	–	–	–
Medical Devices	76	72	-5.0%	$0.7	$0.8	-14.0%
Medical IS	9	8	-11.0%	$0.1	$0.1	0.0%

** Companies with a site in Israel.*

Source: Ernst & Young/Dow Jones VentureOne

ISRAEL

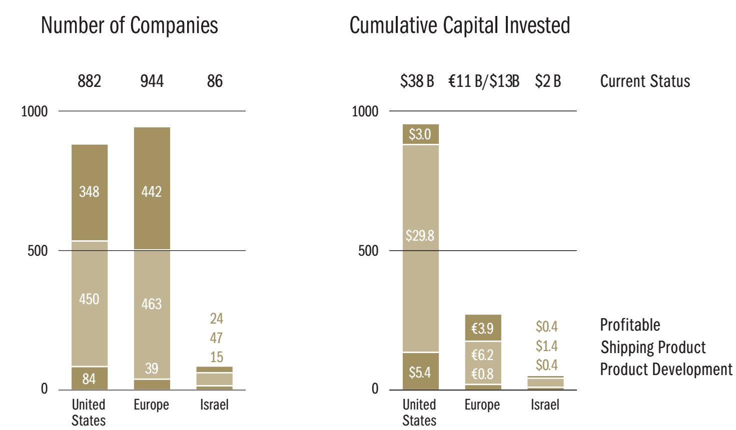
At the start of 2006, the Israeli private venture-backed pool comprised 482 companies[1] representing US$8 billion in invested capital. Compared with last year, this is a reduction of 9 percent in companies with effectively no change in invested capital. Measured for the first time by our study in 2004, the Israeli pool has declined by 18 percent in terms of companies and 19 percent in invested capital in just three years.

The Israeli pool is much more technology-dominated than its U.S. or European counterparts — a full 68 percent of the companies in the 2006 pool belong to IT segments. The IT component contracted by 14 percent for both companies and capital invested over the last three years. Products and services has contracted faster — though off a much smaller base — declining by 33 percent to 22 companies and by 37 percent to US$400 million in invested capital. The healthcare pool held fairly steady, losing just eight companies, or 6 percent, while capital invested remained unchanged at US$1.5 billion. Key changes in the Israeli pool include:

- Unlike the United States or Europe, the pool contracted in all significant Israeli industry segments.

[1] Based on companies with an Israeli site.

FIG. 3 Pool Companies Last Financed in 2000 or 2001



Note: All dollar amounts are US$

Source: Ernst & Young/Dow Jones VentureOne.

- The two largest IT segments, software and communications, declined by 15 percent and 16 percent, respectively, in terms of companies.
- In line with the United States and Europe, information services, a smaller IT segment in Israel, declined the most overall—by 42 percent in terms of companies and 50 percent in terms of invested capital.
- One important exception to the Israeli trend is electronics, a segment that lost 2 percent of its companies but gained 20 percent in invested capital.

Global Exit Backlog?

As a result of analyzing the date of latest venture financing of every company in the pool, we observed that 1,912 companies in the United States, Europe, and Israel received their last financing round either in 2000 or 2001; and these companies have a cumulative US$51 billion invested in them. Why is this important? The pool of private venture backed companies represents a pipeline of future IPO and M&A transactions that will return capital (and hopefully more) to their investors. The companies that we identified as going into their fifth or sixth year without a financing round are maturing from a venture capital perspective and are due for a liquidity event to provide their investors with an exit.

The European pool shows the largest population in this group—944 companies with €11 billion invested in them. While the United States group is slightly smaller, with 882 companies, it has much more capital invested in it—US$38 billion. The Israeli group contains 86 companies with US$2 billion in capital invested. As one can see in Figure 3, the majority of the companies in this group last financed in 2000–2001 are currently profitable or shipping product, suggesting that they are making money or at least generating revenue and do not need further venture capital financing. This large number of companies that have not raised a round in the last five to six years, whether out of choice or necessity, begs the question of what their prospects are for providing their investors with an exit to return on the substantial amount of capital invested in them.

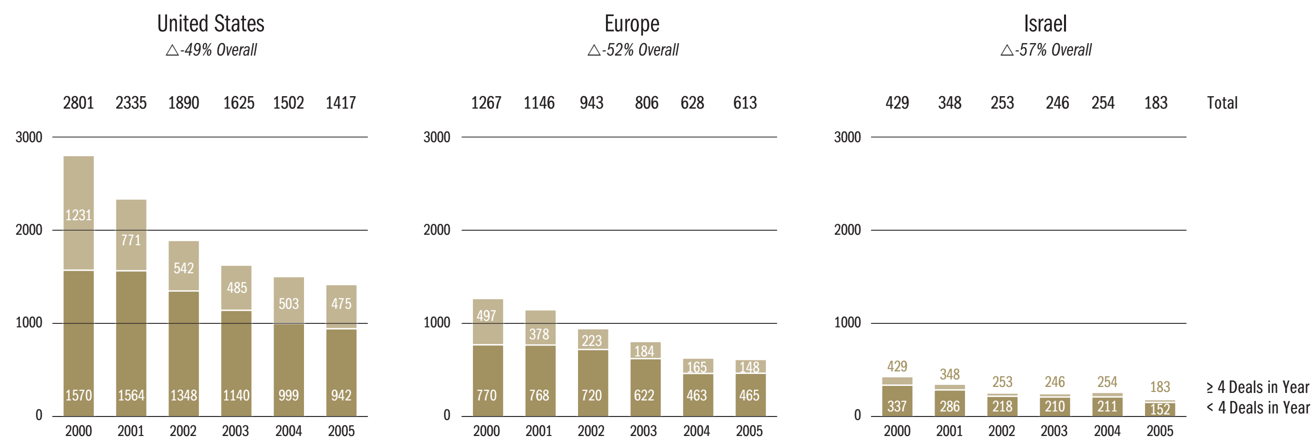
In the United States, where there were only 41 venture-backed IPOs last year, it is unlikely that the public markets will be able to accommodate anything but a small fraction of the 882 companies in this at-risk group, especially since capital markets conditions and the regulatory environment have raised the bar for IPOs—the robust M&A market will be the more likely exit path. Even so, with an average of US$43 million invested in each company, transaction values will have to be high to provide venture returns to investors, and the number of companies in this group represents over two years of inventory at current rates of venture-backed M&A in the United States (356 transactions in 2005). Given the large amount invested in these companies, U.S. investors might have simply put off the day of portfolio reckoning for these companies.

In Europe, the resurgence in venture-backed IPOs and the emergence of the AIM as a listing platform for small-cap companies could facilitate an exit for this group of companies that have not raised a round since 2000–2001. The average capital invested in these companies is €11.2 million, suggesting that many of them reached profitability in a more capital efficient manner than their U.S. counterparts and could be waiting for favorable capital markets in which to seek a strategic transaction. Still, at 944 companies, this group represents several years of inventory in terms of venture-backed IPOs and M&A at current rates in Europe

(61 IPOs and 163 M&A transactions in 2005) and indicate that European investors have also put off some difficult decisions related to rebalancing their portfolios.

Israel is somewhere in between the two larger markets, with an average of US$23 million invested in its group of pool companies that have raised a round in several years, and perhaps in a better position. Israeli companies typically establish headquarters overseas to be closer to their targeted market and access foreign capital markets for IPO and M&A exits—most often

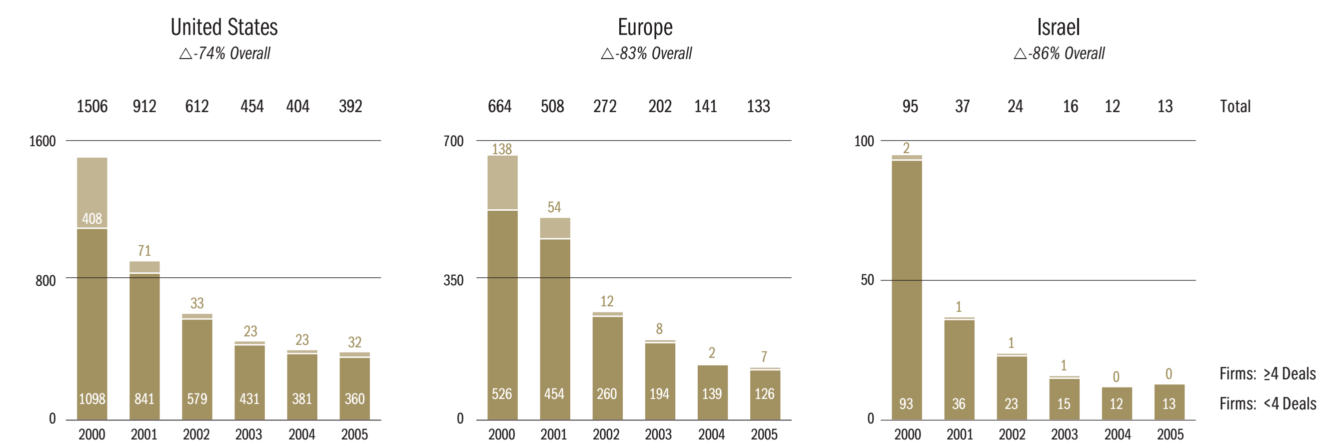
FIG. 4 | Investor Pool – Number of Firms Investing in All Industries by Region



Inclusion in Pool: Made at least one round of equity financing in a VC-backed company in the given year.

Source: Ernst & Young/Dow Jones VentureOne.

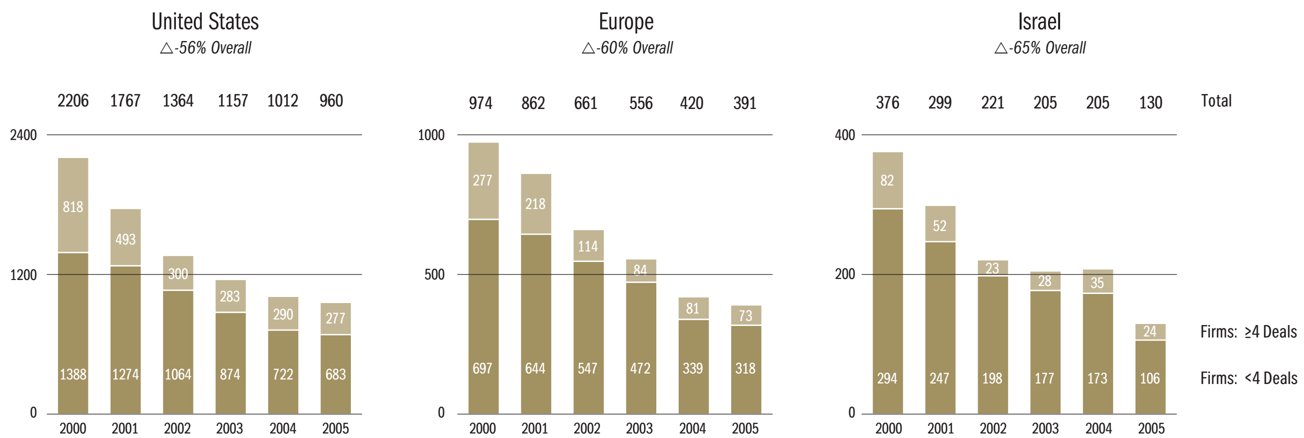
FIG. 5 | Products & Services Investor Pool – Number of Firms Investing in Products & Services Companies by Region*



*Note: Chart scales vary for clarity.

Source: Ernst & Young/Dow Jones VentureOne.

FIG. 6 Information Technology Investor Pool – Number of Firms Investing in IT Companies by Region*



*Note: Chart scales vary for clarity

Source: Ernst & Young/Dow Jones VentureOne.

in the United States in both cases. In the context of the United States capital markets, the Israeli "overhang" of 86 companies is not as daunting—but time is running short.

Pool of Active Investors: An Increasingly Segmented Market

As a complement to the analysis of the pool of private venture-backed companies, Ernst & Young and Dow Jones VentureOne analyzed the population of active investors. Since it is difficult to confirm that an individual venture capital firm is in or out of business, given the life cycle of limited partnerships, we chose to count how many firms made at least one investment in a company in the United States, Europe or Israel between 2000 and 2006. Our analysis included venture capital firms, corporate venturing firms and multi-focus private equity firms (found mainly in Europe).

The results confirmed that the anticipated shakeout in the venture capital industry, through a consolidation in the number of funds, is well underway. While the pool of venture-backed companies in the United States, Europe, and Israel has been diminishing quickly, the pool of firms actively investing in these regions has been shrinking even more rapidly. Between 2000 and 2006, the overall number of firms making investments in U.S. companies declined by 49 percent. During the same period, the number of firms investing in European companies dropped by 52 percent, while the count of active investors in Israel companies fell by 57 percent.

To differentiate between more active and less active investors, we tiered our analysis by firms that had made four or more investments in a year and those that had made fewer than four. In all three areas, the population of more active firms (four or more investments per year) declined the fastest, resulting in an increasingly segmented industry. (See Fig. 4)

On an industry basis, products and services experienced the greatest retreat by investors. In the United States, the number of active products and services investors declined by 74 percent. In Europe, the figure is 83 percent; and in Israel, 86 percent. The troubles of this industry segment, home to the "e-tailers" and other dot-com companies of the Internet bubble, no doubt discouraged most investors from pursuing opportunities in this area over the last few years. As Web-based services companies such as Salesforce.com come to the fore, and consumer-oriented offerings become increasingly important, it will be interesting to watch for reviving interest in this area. An early indication of possible renewed interested in the segment can be seen in the United States and Europe in 2005, where, although the total number of active investors declined year-on-year, the number of more active investors increased slightly, from 23 to 32 firms in the United States, and from two to seven firms in Europe – hardly big numbers, but a sign that leading firms could be returning to the space.

IT also saw steep declines in the number of active investors – a reduction of 56 percent in the United States, 60 percent in Europe, and 65 percent in Israel. The pool of firms investing in U.S. IT companies is the least segmented, with 29 percent of firms making four or more investments in 2005. Only 19 percent of investors in European firms, and 18 percent of the investors in Israeli firms, made four or more investments last year.

The number of firms investing in healthcare contracted the least, with a reduction of 26 percent in both the United States and Europe, and 37 percent in Israel. With its deep roots in science, regulatory risk, and relatively long times to liquidity, healthcare did not experience the same rush of new entrants during the Internet boom that are shaking out in products and services and IT. The number of firms investing in U.S. healthcare companies has actually risen since 2003.

Outlook

The overall reduction in the pool of venture-backed companies in the United States, Europe, and Israel represents a healthy rebalancing of the venture industry portfolio. On an aggregate level, the positions taken during the tech boom in segments like information services, communications, consumer and business services, and retailers are being traded for promising new opportunities in areas such as biopharmaceuticals, medical devices, semiconductors, electronics, and internet-related offerings (dubbed Web 2.0).

That said, the nearly 2,000 venture-backed companies that we identified as a potential exit backlog indicate that more work remains to be done in VC portfolios. Private equity firms, which showed a new appetite for buy-outs of venture-backed companies in 2005, might help to reduce the backlog and provide liquidity for venture capital firms if this trend accelerates.

The decline in the number of active investors since 2000 is no surprise as challenging market conditions reduced the pool to the most committed and successful firms. Will the number of active firms continue to decline? While some successful venture capital partners are breaking away to form new funds, limited partners are being much more selective in the ongoing surge in fundraising, focusing particularly on the proven top-tier, brand-name firms that continued to invest through the downturn. As a result, we are unlikely to see anything more than a modest increase in overall number of active investors. ■

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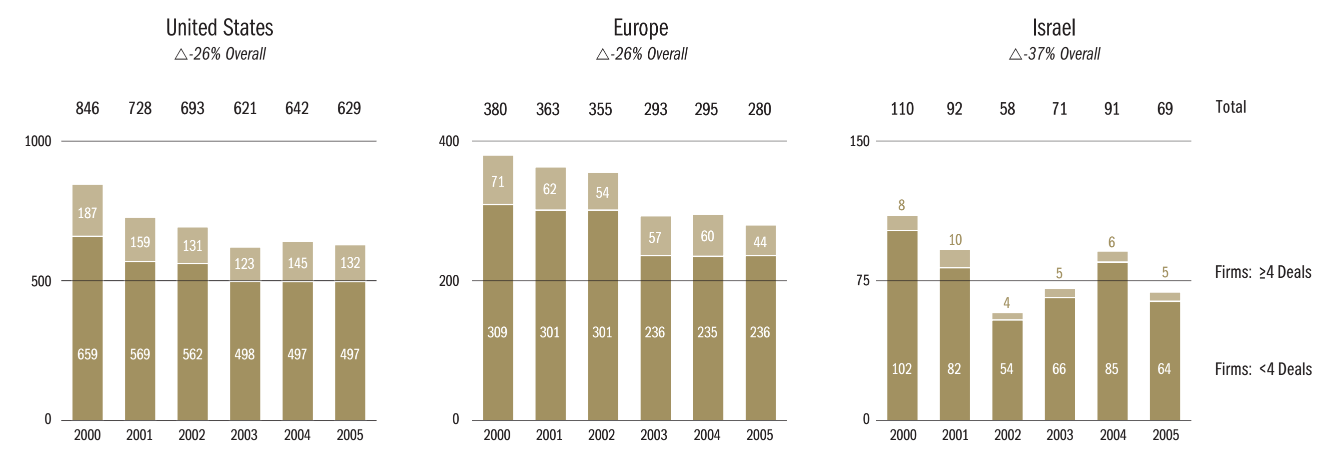
FIG. 7 Healthcare Investor Pool - Number of Firms Investing in Healthcare By Segment*



*Note: Chart scales vary for clarity

Source: Ernst & Young/Dow Jones VentureOne.

Global Healthcare Investment and Liquidity Overview

By Stephen Harmston

The venture capital industry is showing signs that it has reached an equilibrium in the new millennium. Gone are the days when venture capital investors funded as many as 10,000 investments in a single year, to the tune of US$100 billion-plus. Although fundraising and investment levels have declined substantially since the bubble burst, and are now recovering, the venture capital industry is characterized by a new stability.

One reason for this stabilization is that investors have diverted some of their attention to the healthcare industry. Healthcare, with its longer development cycle and capital intensity, missed out on the frenzy that occurred during the technology boom of 1999 and 2000, representing less than 15 percent of deals and about 10 percent of investments. Today, healthcare investment has grown to a more substantial portion of the venture capital market. In 2005 in the United States, healthcare deals made up 24 percent of all financings and garnered 30 percent of the capital invested. In Europe, the growth was even more substantial, representing 29 percent of rounds and 43 percent of the capital invested.

What is driving this interest in healthcare? What has clearly been shown in the last two years, in both the United States and Europe, is that achieving the ultimate liquidity option, an IPO, is a real possibility for healthcare companies. In the past two years, healthcare companies represented a third of the completed IPOs in Europe and more than half of the completed IPOs in the United States.

U.S. Healthcare Investing

For the past two years, venture capital investment into U.S. healthcare companies has stayed relatively steady and enabled the category to become an ever-larger presence. When the peak year of 2000 is factored out, total healthcare investments in 2004 and 2005 are the highest on record. 2005 saw US$6.70 billion invested in 537 healthcare deals, which is slightly less capital overall (4 percent), but 12 more deals than the year before.

With the aging of the baby boom generation and new research around genetics, cancer, and obesity, the support for healthcare innovations is steady, despite the regulatory hurdles. Venture capitalists have capitalized on this opportunity, with Domain Associates and Versant Ventures being the most active investors in U.S. healthcare companies in 2005, financing 25 transactions apiece.

Biopharmaceutical companies outpace all other subsectors, accounting for more than half of the total amount invested. Companies in this segment accounted for some of the largest deals in healthcare in 2005, including the US$100 million later-stage investment in FibroGen (South San Francisco, Calif.), a provider of therapeutic and biomaterials for medical and consumer uses.

Biopharmaceuticals

While biopharmaceutical companies remained the largest segment of the healthcare industry, overall investing in this subsector declined in 2005. For the year, there were 244 deals and US$3.79 billion invested, down by seven deals and 18 percent of capital from 2004. That being said, the total amount invested in biopharmaceutical companies was second in size only to software investments for the year. The relatively stable number of deals combined with the sharper drop in dollars may be the result of more early-stage deals in 2005, which are generally smaller in size. In fact, 42 percent of the biopharmaceutical deals completed in 2005 were for seed-and first-rounds, up from 38 percent in 2004.

The median amount raised in a round of financing for a biopharmaceutical company closed the year at US$10.4 million, down from US$11 million a year earlier. Meanwhile, the median pre-money valuation for a biopharmaceutical company was US$19.4 million, down slightly from US$21.4 million in 2004.

Within the segment, biotechnology companies raised the most money, US$1.77 billion in 117 deals, followed by pharmaceutical companies, which raised US$915.1 million in 51 deals, and drug discovery firms, which raised US$899 million in 61 deals. Among the largest deals in 2005 was the US$74 million later-stage investment in Perlegen Sciences (Mountain View, Calif.), a company that analyzes entire genomes in an effort to accelerate the development of new pharmaceuticals.

Healthcare Services

The healthcare services segment generally accounts for the smallest part of overall healthcare investment. This was certainly true in 2005, where healthcare services received US$396.7 million in 43 deals. However, this total represents an increase of one deal and 3 percent more money than was invested a year ago, showing slight growth and potential momentum in this area. The median amount invested in a healthcare services company was US$9.5 million, up from US$6.5 million in 2004. The median pre-money valuation was US$19.5 million, up from US$12 million the preceding year. Companies providing alternate site or outpatient services were the most active in the segment, with 11 more deals and more than twice as much investment compared with 2004, totaling 16 deals and US$125.2 million invested.

Medical Devices

The medical devices segment was the second most active healthcare segment after biopharma, with 195 transactions raising US$2.02 billion. The segment also reported one of the most significant investment increases of the year, with US$1.64 billion raised from 182 deals in 2004, increasing capital raised by 23 percent and accounting for 13 more deals. In fact, 2005 saw the most capital invested in medical devices since 2000. The median round size for a medical device company was US$7 million, up from US$6.3 million in 2004. The median pre-money valuation was US$21.7 million, up from 2004's US$15.7 million.

Companies producing surgical devices raised the most in this segment, some US$537.7 million in 47 deals. While deal flow was down slightly from 2004, the amount invested increased 26 percent. One of the largest deals was the US$40.3 million later-round for TherOx (Irvine, Calif.), a developer of systems to deliver oxygen-supersaturated solutions to oxygen-deprived tissues.

The investment activity in companies specializing in other therapeutic devices also rose considerably, with nine more deals and 58 percent more capital invested over 2004, for a total of 33 deals and US$360.4 million.

Medical Information Systems

Medical information systems saw a significant increase in investment in 2005, with capital rising 55 percent over 2004 to reach 54 deals and US$484.7 million. But with only four more deals in this segment, it is clear that the biggest cause of the increase was a US$171 million investment in Health Dialog (Boston, Mass.). The median amount invested in a medical information systems company was US$4.6 million, down slightly from US$5 million in 2004. The median pre-money valuation for these companies was US$8.2 million, about half the size of 2004. Every subsector in this segment reported small but increased deal flow in 2005.

For the past two years, venture capital investment into U.S. healthcare companies has stayed relatively steady.

European Healthcare Investing

Since 2000, the healthcare industry in Europe has not witnessed as drastic a reduction in financial backing as other industry sectors. While venture investments in IT and products and services sectors declined 88 percent and 94 percent, respectively, healthcare investing since 2002 declined only 37 percent.

Shorter-term, the decrease in the number of healthcare financings between 2004 and 2005 was fairly consistent across the industry's segments, which all posted fewer deals. However, larger medical device investments pushed the total amount invested in this segment up to €310.9 million in 2005, a 30 percent increase from a year earlier—making it the only healthcare segment to post a yearly increase in investment. Meanwhile, biopharmaceutical deals were down by 25 deals and investment in this segment was down by 7 percent to €1.16 billion.

The healthcare category was home to the largest deal of the year in Europe, the second quarter's €46.2 million later-round investment in Oxagen (Abingdon, UK), a firm that analyzes genetics for inflammatory and metabolic diseases.

Interestingly, healthcare financings in Europe saw a larger percentage of early-stage deals than the information technology industry. In fact, despite the trend of greater investment in later-stage rounds in Europe, 39 percent of the healthcare deals in 2005 occurred in seed- and first-round financings.

Israeli Healthcare Investing

Israeli venture-backed healthcare companies had a relatively positive year in terms of investment. Total capital into healthcare companies in Israel was US$290.9 million, almost the same amount invested as in 2004. However, deal flow was down: there were only 42 deals — 14 fewer than the year before. The median round size for an overall healthcare deal was US$4.4 million, up from US$2.5 million a year earlier

In contrast to the United States, the biopharmaceuticals sector was not the most active healthcare segment in Israel, although it did see significant activity, with 12 deals drawing US$129.4 million. The biopharmaceuticals segment was bolstered by a particularly active third quarter, in which half of the year's activity occurred. The two largest Israeli deals in 2005 were both biopharmaceutical deals: Predix Pharmaceuticals (Ramat Gan) received a US$43 million second round, and Inotek Pharmaceuticals (Ra'anana), received a US$35 million second round.

Again, the most active healthcare segment in Israel was medical devices, which had 26 deals and US$123.8 million invested. However, this was eight deals less and a 20 percent reduction in capital from 2004 for the medical devices industry.

Healthcare Liquidity

In the United States, among all the major industry groups, healthcare had the largest number of IPOs, with 21 companies raising an aggregate US$1 billion. Both in terms of number of companies and in amount raised, healthcare represented about half the venture-backed IPO market in 2005, as it did in 2004. When factoring out the bubble year of 2000, 2005 becomes the second most active year for healthcare IPOs since 1998.

The biopharmaceutical category represented about two-thirds of healthcare IPO activity, and the largest healthcare IPO of the year was in this category: the third quarter's US$131.1 million IPO for Adams Respiratory Therapeutics (NASDAQ: ARXT), of which US$96.9 million was raised by the Chester, N.J.-based company.

The median amount raised in equity prior to IPO for healthcare companies was US$76.5 million in 2005. The median pre-money valuation for a healthcare IPOs was US$155.1 million.

U.S. healthcare companies also achieved notable success with exits via mergers and acquisitions in 2005. The amount paid for companies in this sector hit a record-breaking median price of US$100 million, up from US$46.5 million in 2004. The median amount invested in a healthcare company prior to its M&A was US$21.3 million, only slightly higher than 2004. In total, there were 71 U.S. healthcare companies that were acquired or merged in 2005, with an aggregate amount paid of approximately US$9.42 billion.

With 34 deals closed, biopharmaceutical companies represented almost half of U.S. healthcare M&As in 2005. Comparatively, there were 15 M&As in medical information systems, 14 in medical devices, and eight in healthcare services. The largest healthcare acquisition of the year was the US$527 million purchase of La Jolla, Calif.-based Angiosyn by Pfizer (NYSE: PFE).

European healthcare IPOs also fared well, performing strongly in both the number of IPOs and the amount of capital raised. In fact, healthcare IPOs almost equaled the number of IT IPOs in Europe last year, showing that the public markets there are not tied to a specific industry trend. Significantly, 18 of the 22 European healthcare IPOs that occurred in 2005 were biopharmaceutical companies, which represented €575 million of the €604 million raised. The median amount raised in equity by European healthcare companies that completed IPOs in 2005 was €37.9 million. The median pre-money valuation was €63.2 million.

In Europe, 47 of the 163 M&As that occurred last year were for venture-backed healthcare companies. The median amount of equity these companies received prior to the exit was €14.5 million. The median amount paid was €22.5 million, which is not as dramatic as the US$100 million median in the United States, but still a profitable return.

Conclusion

The global healthcare market showed a new degree of stability in 2005, suggesting an optimistic outlook for continued stable growth in 2006. While total capital for VC investments in healthcare companies decreased globally in 2005, the drop was comparatively less than in other industry sectors. In the United States there were actually more deals overall, showing increasing capital into early-stage deals. This trend was also visible in Europe, with 39 percent of healthcare deals going to early-stage companies.

Sector-wise, medical devices had a very strong year, leading healthcare investments in both number of deals and amount of capital invested in Israel and Europe, with a significant increase in the United States. Biopharmaceuticals remained the most active subsector in the United States, though it suffered a decrease in the overall amount invested.

The global healthcare market is steadily becoming more liquid, as IPOs and M&As become a realistic and profitable exit for venture-backed healthcare companies. The healthcare industry had the most IPOs of all industries in the United States, and came in a close second in Europe behind IT.

M&A success was strong globally, which was most apparent in the United States, showing a record-high median price of US$100 million, more than doubling the 2004 median of US$46.5 million.

This new equilibrium in healthcare VC investments and liquidity offerings should bring a steady flow of quality companies to the pipeline, as well as a steady flow of return to investors. ■

***Stephen Harmston** is VentureOne's Director of Global Research.*

Biotechnology Trends and Outlook — *Beyond Borders: Global Biotechnology Report 2006*

The global biotech industry showed robust growth in 2005 on virtually every performance indicator, according to Ernst & Young's 20th annual edition of *Beyond Borders: Global Biotechnology 2006*. The industry is moving toward a state of "efficient capital markets," whereby biotech companies are evaluated on the strength of their business case, not on market conditions and excited speculation. As the IPO window yields to a more consistent market, 2006 should bring a continuation of the steady product focus, stable financial results and predictable valuations that surfaced in 2005.

In the aftermath of the genomics bubble of 2000, biotech investors have focused more on products and near-term results. Venture capitalists have become more risk-averse and prefer the security of later-stage, product-focused companies, causing a steady decline in early-stage deals since 2001. Venture-funded companies with advanced pipelines and accelerated paths to market are rewarded with the highest valuations.

In the United States, the biotech industry has delivered strong product approvals and solid financial results for the third consecutive year. Institutional investors showed a strong preference for IPOs by companies with later stage products, causing earlier-stage companies to accept lower valuations or delay their exit until reaching significant milestones. Many biotech companies failed to achieve the IPO valuations they sought, and were often priced below their range and fell even further on subsequent trading. As a result, M&A has regained strength as a viable exit strategy, enabling better valuations at earlier stages of development. Even with the poor valuations and performance of many U.S. IPOs, there was still a strong trend of successful follow-on offerings in the United States.

The European biotech industry is officially "back on track," showing markedly better performance after years of stagnant results. *Beyond Borders* reports that European biotech companies in 2005 raised €3.2 billion (US$4.0 billion) in equity financing—including venture capital, IPOs and follow-ons—making it the second best financing year ever. European biotech IPO activity was particularly strong, surpassing the United States for the first time with 23 transactions.

Biotechnology continues to grow rapidly in the Asia-Pacific, with the sector's top-line revenues increasing by an estimated 46 percent last year. Economic liberalization and strategic initiatives by Asia-Pacific governments are helping to accelerate growth in biotech. Foreign competition, intellectual property protection, and a still-developing venture capital infrastructure pose challenges to the domestic biotech industry in many Asia-Pacific countries.

The global biotech industry has thrived over the last three decades—generating over US$60 billion in revenues and hundreds of marketed products—and is poised to continue progressing toward stability, strong growth, and a broader base of successful players. ■

For 20 years, Ernst & Young has tracked biotechnology's progress with comprehensive data, in-depth analysis, and market insights. Beyond Borders: Global Biotechnology Report 2006 *offers a strategic view of biotechnology at a global level, as well as insight into major regional markets, including the Americas, the Asia-Pacific region, and Europe. To order the 20th Annual Edition of* Beyond Borders, *visit **www.ey.com/beyondborders**.*

PERSPECTIVE ON LIFE SCIENCES

Ashley Dombkowski, Ph.D.

General Partner, MPM Capital, San Francisco, California

"Now that biotech has demonstrated an ability to deliver drugs to the marketplace, more is expected from companies looking to finance in both the private and public markets."

E&Y: *When you look back at the last year in venture capital activity from a life sciences perspective, what were the key takeaways or lessons learned?*

Dombkowski: In 2005, an increasing number of larger deals underscored a trend that we expect to continue in 2006 and beyond: Not only has the average deal size grown steadily over the past few years, but compared to the early 2000 period—when we saw only 35 to 40 deals in excess of US$30 million—last year we saw closer to 80 deals of that scale. Why? Because life science investors are responding to new market dynamics and pursuing investments that have a distinctly different profile than in the past. More specifically, we're looking at a profile where later-stage clinical and commercial opportunities are central to value-creation.

One example is the biotech—or medtech—company with a product that represents blockbuster, billion-dollar potential. In this case, we insist that our investment be used to appropriately fund and staff the company to generate high-quality Phase II data. Clinical proof-of-concept data is the hook that is attracting the interest of acquisition-oriented large pharmaceutical or medtech companies, because data provides a strong rationale for M&A. Alternatively, clinical proof-of-concept data is attractive to public investors and can often catalyze an IPO. In years past, the bar was not that high. Preclinical work and in some cases, basic science, was sufficient—as long as the opportunity seemed sexy enough. However, now that biotech has demonstrated an ability to deliver drugs to the marketplace, more is expected of companies looking to finance in both the private and public markets. Of course, there have been, and always will be, exceptions. Acquirers and buyside public investors may be more willing to look at earlier stage programs, but that really requires unique market conditions that investors may hope for but are less willing to bank on. As a result, life science investors are working hard to position potential blockbuster companies to execute at a level of quality expected by big pharma and big medtech. This is the kind of undertaking that requires more dollars to be spent, and it is one of the major drivers of the increasing number of larger deals.

A second example occurs within smaller market categories, such as specialty pharma, niche biotech and many of the more traditional smaller medical device market opportunities. Here, we believe it is incumbent upon investors to fund the companies all the way to the marketplace, with an eye toward funding at a level that will tee up a commercial proof-of-concept. Positioning companies to execute on a commercial strategy can be a high-reward undertaking, but it also requires more capital and expertise than was allocated in the smaller rounds of years past. This type of opportunity and these companies are also driving the increase in deal size.

Finally, environmental factors (for example, the SEC's global settlement) that have impacted the sell-side along with structural changes on the buy-side have muted Wall Street's appetite for microcap biotech and medtech companies. To put it another way, companies that have a critical mass of assets are viewed as having a much better shot at attracting analyst attention, accessing Wall Street capital, and executing on their business model. Therefore, investors are increasingly undertaking the quid pro quos of these deals, namely: building critical mass and funding the companies at a level that allows them to execute at an accelerated pace. Xanodyne Pharmaceuticals, the largest deal done last year, provides a great example of this, as does Cerimon Pharmaceuticals, which did a US$70 million Series A.

That's not to say that early-stage opportunities are no longer of interest, but today's life science investors are taking a more critical look at them. You have to think very carefully about how you build the company, if and how other assets should be aggregated, and whether you can put in place a development plan that meshes with the financing plan and takes the company all the way through the value-inflection points.

E&Y: *In IT, we have seen private equity firms providing exits to venture-backed companies. Do you see anything similar happening in biotech and medical devices?*

Dombkowski: We think that there is a real gap in the healthcare marketplace between traditional venture capital and the traditional buyout capital from large-scale private equity firms. For a variety of reasons, there are valuable assets that have been left on the shelves of pharmaceutical companies or trapped in troubled public or venture-backed biotech companies, whether due to poor financing strategy or lack of critical mass. With the right amount of money, the right team, good bandwidth, conviction and the patience to go through the process of building a company based on complex but promising and complementary assets, there is a very real opportunity To fill the gap, healthcare-focused venture capital firms have both the deal flow to identify disparate assets and the technical expertise to determine their value. But, they often lack the large amount of capital and multidisciplinary skills needed to make a company out of them. On the other hand, private equity firms tend to have the kind of capital and company-building experience needed to do this kind of investing, but lack the required healthcare sophistication on clinical and commercial dimensions. As a result, there is an opportunity that has not been fully exploited—and by that I mean, that VCs with financial scale can either independently or in concert with the PE community take on these larger challenges of building the clinical, medical, scientific and healthcare-specific commercial expertise needed to pursue the opportunities that lie midway between venture and private equity.

So what could a company look like? Well, Cephalon provides an excellent example: a company where the value the assets was not clear till they were aggregated by a great management team, combined with a commercial and development infrastructure and only then did the potential become clear.

E&Y: *What is your outlook for biotech and med-device investing in the next 12 to 24 months?*

Dombkowski: It is a very exciting time to be investing in biotech and medtech companies, and we are very optimistic about the opportunities to invest in innovative companies in both these categories.

Both categories are supported by the strong fundamentals underlying investment in healthcare: persistent unmet medical needs; demographic trends as the baby boomers move into the key demand years for health care; the fact that interventions offered by drugs and devices can ameliorate, cure or prevent disease, and are therefore a preferred way to allocate healthcare spending; the correlate expectation that expenditures on drugs and devices will increase on an absolute and percentage basis over the next decade; and, finally, the fact that people of all ages want to live longer, better, more active lives providing positive demand features to the marketplace. All these factors come together to create a robust environment to support innovation and investment in biotech and medtech over the next decade at least.

But our interest goes deeper than these topline trends:

On the biotech side, we are at a time where the industry has emerged from its infancy and entered its adolescence. In the 1990s, the biotech industry had generated only a few dozen approved products; today, there are several hundred approved biotech products. The biotech industry is showing a remarkable level of productivity, even in comparison to the pharmaceutical industry, and this is a trend we expect to continue. And while the industry is far from being fully mature, profitability for the industry as a whole is now on the visible horizon.

On the medtech side, we are equally enthusiastic though the challenges and opportunities are different. Consolidation is playing a major role. Interventional cardiology and spine are mainstay categories for innovation, but investors are more aggressively branching out into new therapeutic categories that range from high-clinical-need categories like morbid obesity to lifestyle areas like aesthetics.

The real challenge for the venture investment community, as well as for entrepreneurs and management teams, is to focus on building the kinds of companies in which Wall Street, Big Pharma, and Big Medtech will have consistent interest—all of whom are demanding more from the innovators than they have in the past. So at the end of the day, the companies that we will look for and build will be companies that are able to attract the capital they need to bring their compounds and products all the way from the lab to the clinic and finally to patients in the market. We may exit our investments before the entire opportunity has been realized—but without a clear vision for this kind of complete business execution, reproducible investment performance would not be possible. This is, in fact, the fundamental principal around which we have built MPM Capital and we will continue to resource our companies with the capital and expertise they will need to step up to those challenges. ■

Sequoia Capital Private Portfolio Landscape Map

Sequoia Capital India:
At press time, Sequoia Capital and WestBridge Capital Partners announced that they will merge to form Sequoia Capital India.

Driving the Next Technology Cycle: Convergence of Web 2.0 and Globalization

By Gil Forer and John de Yonge

The technology industry over the last year has become increasingly abuzz about the promise of "Web 2.0." First coined by Tim O'Reilly, CEO of O'Reilly Media Inc., the term Web 2.0 has come to mean a bottom-up, user-driven Internet environment characterized by content sharing and syndication. Web 2.0 also describes the movement toward application services in which users access software through the Web — from any device anywhere — that previously was available only on a PC desktop.

Yahoo!'s acquisition of the photo-sharing site Flikr, the event listing site Upcoming.org, and Del.icio.us, a link-sharing site, only fueled enthusiasm for Web 2.0 companies over the last year. From Silicon Valley to China, investors and entrepreneurs alike are devoting new energy and capital to Internet offerings. In the United States, for example, the percentage of venture capital rounds and dollars directed to Internet companies rose in 2005, the first time since 2000, according to Ernst & Young/Dow Jones VentureOne data.

Where will the greatest impact of Web 2.0 come from? Just 12 years ago, Mosaic emerged as the first graphical browser for the Web — today, an estimated 1 billion people around the world use the Internet. An astounding 2 billion use mobile telephones. This proliferation of information and communications technologies is by no means limited to developed countries; to the contrary, North America represents only 25 percent of today's Internet users and 15 percent of mobile telephone users worldwide.

At the Ernst & Young Journey '05 conference in Israel last September, two of venture capital's most respected figures, Michael Moritz of Sequoia Capital and Joe Schoendorf of Accel Partners, each shared his vision of macro-technology trends with the conference participants; both looked to the convergence of Web 2.0 — in their own definitions — and the dynamics of the emerging markets such as China and India as the main drivers of the next technology cycle.

Michael Moritz, Sequoia Capital

For Moritz, who led Sequoia's investments in many of the world's leading "Web 1.0" companies, including Google, Yahoo!, and PayPal, the Internet can be likened to the canals established at the start of the industrial revolution that dramatically increased market access and lowered the price of goods. Internet infrastructure has redefined distance; a packet of data travels roundtrip from London to Sydney in 210 milliseconds — ideas can be shared globally at the speed of light.

In Moritz' view, the second stage of the Internet is the evolution of the global cellular IP connected network. Very large global companies are going to take advantage of the enormous cellular Internet infrastructure being rolled out around the world. "Imagine a world where we're constantly connected, where everything electronic is going to be connected to the Internet, and where, for good or worse, we won't be able to escape the reach of the global IP connected universe," says Moritz.

Moritz observes that China and India are moving more quickly than the United States or Europe to innovate on this second stage of the Internet. Any Western technology start-up must take China and India into account because both countries represent huge markets, but also because companies from these areas are deploying business models that incorporate a very low cost structure. "Nothing around the world today matches the ambition, the drive, the hunger, the willpower of entrepreneurs in China and India," says Moritz.

Just as Japanese carmakers disrupted the U.S. auto industry and Sony disrupted the consumer electronics industry, Indian software companies and Chinese communications companies will emerge to challenge our incumbent players, Moritz predicts. He points out that the best-performing companies today are distinguished by their use of the Internet, contrasting Delta, in bankruptcy, which did just 10 percent of bookings over the Internet, with profitable JetBlue, which made 65 percent of its reservations online.

Joe Schoendorf, Accel Partners

For Schoendorf, who was the Vice President of Marketing for Apple Computer and joined Accel in 1988 to assist the firm's portfolio companies to expand globally, the impact of the Internet is going to be driven by consumers who are currently under 25 years old. This group, which makes up more than half of the world's population, has grown up with the Internet and will integrate it into their lives in a way that older generations can't imagine. He points out that China already has the greatest number of Internet users under 25.

We are at the end of a 50-year technology cycle driven by Moore's law and at the beginning of a new one driven by globalization, according to Schoendorf. The first billion customers in the technology age came from North America, Europe, and Japan and generated a trillion dollars in revenue. The next billion customers will come from emerging markets and probably generate half that amount—but much more quickly.

"Globalization of the technology market will have profound effects, and change all the rules, change all the business plans," says Schoendorf, predicting that China and India will generate disruptive business models by employing the opposite of Moore's Law: freezing functionality and driving the cost down to sell to a billion customers.

The established giants are already being beaten in new markets by aggressive local companies: Lenovo has three times Dell's market share in China and is increasing its lead, while Huawei is undercutting Cisco by 50 percent in the fight for China's 16 percent share of the global router market. "What is required is a fundamental rethinking of how we design products and make money by lowering costs greatly," says Schoendorf.

We are at the end of a 50-year technology cycle driven by Moore's law…

The globalization technology cycle based on the next billion customers will create as many new companies on the order of Microsoft, Intel, and Dell as the Moore's Law explosion did and, "turn these incumbent companies into dinosaurs, because monopolists never see it coming," Schoendorf predicts.

Looking ahead, Schoendorf sees wireless Internet access becoming increasingly commoditized and essentially free in the next five years. At the same time, VOIP will become a free application, challenging incumbent mobile operators. He envisions the next big thing to be a voice-enabled device—not Windows-based, not a PC, not a telephone, and not a PDA—that provides Internet access anywhere, costs US$100, and sells a billion units.

Conclusion

We have entered a technology cycle driven by the convergence of Web 2.0—global wireless Internet that continuously connects people, objects, and machines—and the needs of consumers in markets such as China and India.

Emerging economies are adopting mobile telecommunications and technology unhindered by an established telecommunications infrastructure; as a result, they are embracing new mobile broadband technologies and standards at a much faster pace than developed countries. Korea, for example, has achieved the world's highest broadband penetration rate. The business wireless fidelity equipment (WiFi) market in Asia-Pacific is expected to rise from US$498.7 million in 2004 to US$865.0 million in 2010.[1] These countries are moving fastest to innovate on Web 2.0. and will be major sources, possibly *the* major sources, of the disruptive business models that will create the next wave of global companies. Fifty years ago, technology changed the way we met and connected with our customers. The introduction of TV created new ways to connect, communicate and acquire customers. Today, technology is changing it again. The increased use of the Internet is changing the ways we communicate, connect, acquire and do business with our customers. The convergence of Web 2.0 and globalization present this challenge to all companies, their executives and boards. ■

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1 *In-Stat* report.

PERSPECTIVE FROM EUROPE

Dr. Rainer Strohmenger

General Partner, Wellington Partners, Munich, Germany

"One of the important trends developing in today's market revolves around the energy sector and the out-performance of the solar cell companies ... This sector is providing amazing opportunities."

***E&Y:** When you look back at venture capital activity in 2005, were there any takeaways or lessons learned that stood out to you?*

Strohmenger: One major lesson learned is that the exit markets for life science companies in the United States have not been better than in Europe. When we compare the IPO performance in 2005 between the United States and Europe in the life science arena, we note that not only the volume but also the performance was better in Europe. The common perception of investors is often not substantiated by the facts.

***E&Y:** What are some of the exciting investing opportunities that you are exploring?*

Strohmenger: One of the important trends developing in today's market revolves around the energy sector and the out-performance of the solar cell companies. No one knows how the oil prices will develop. This sector is providing amazing opportunities. If we evaluate the life science industries, we note significant opportunities in the following two areas:

1. Cancer therapeutics and diagnostics, as cancer becomes a chronic disease in the upcoming years, impacting each of our lives.
2. Obesity and diabetes also create tremendous opportunities, particularly when coupled with the related diseases. These areas provide highly attractive investment opportunities, as the demand resides in the wealthy developed countries.

***E&Y:** Globalization is a business imperative today, both for venture-backed companies and for VC themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Strohmenger: Globalization reflects the VC business; venture capitalists buy locally and sell globally. The firms are locally developed, but selling the investments is done on a global basis. Life science in particular represents a global industry, focused on the two sides of the globe—the United States as a vital pharma market and Asia as a growth market. Any time a new investment is conducted, a competitive analysis is performed on a global basis as a standard due diligence procedure. Each portfolio company is required today to take steps to go global, either with partnerships or collaborations or subsidiaries across the borders.

Drug development may begin locally, but as the company moves toward clinical trials, a more global approach is required. To assist, Wellington Partners has put together its life science team with competencies from both sides of the world, including, for example, Thomas Widmann. In addition to his role as general partner for the Wellington Life Science Team, he is active as chairman of Actelion in Japan, spending a significant part of his time in Asia. Other examples are Erich Schlick, general partner, who already during his time as global head of R&D of BASF Pharma Knoll was involved in the first direct acquisition of a pharma company in Japan and integration of the researchers into the BASF Pharma team; and Mel Spiegelmann, venture partner, located in New York heading R&D at TB Alliance, developing new treatments for TB on a not-for-profit basis and supporting Wellington with his contact in the United States and to emerging countries. This international team is increasingly important to the portfolio companies, providing support and networks around the world.

***E&Y:** Do you perceive China and India a threat or opportunity? How are you addressing each market?*

Strohmenger: China is a challenge—not just a threat and not just an opportunity, but a challenge. IP protection is an issue in China, whereby China does not yet play a major role in the life science industry. India is closer to the life science markets, as they currently have an element of patent protection and a developing ethical pharmaceutical industry.

***E&Y:** As the median time from initial investment to exit has increased, do you see a role for private equity funds in the venture-backed market?*

Strohmenger: Yes. The large buyout funds have cash and are looking for opportunities. These investment opportunities could include more mature portfolio companies, providing PE the opportunity to generate value. In addition, undervalued companies currently public may be taken private. The increased role of PE in VC-backed companies could easily develop as interest rates go up. Once interest rates go up, an investment needs

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PERSPECTIVE FROM EUROPE

Francis Jaluzot

Chief Executive Officer, Sports Medias & Stratégie, Montreuil, France

"The choice of investors is essential. When trying to find funds, it is difficult to look beyond the actual sum of money proposed, and yet it is essential to do so."

Sports Medias & Stratégie is the provider of Sport*, a free weekly magazine featuring sports news in French. The company raised €7.5 million from various French venture capitalists since its creation in 2003. Its last financing was €2 million in April 2005.*

E&Y: *When you look back at 2005, were there any takeaways or lessons learned that stood out to you as you built your business?*

Jaluzot: In 2005, Sports Medias & Stratégie confirmed that betting on innovation in a very mature and traditional sector pays off. We took the following observation as our starting point: the world of press and sports magazines in particular is driven by powerful, long-established groups with a faithful clientele. We created breakthroughs in several areas:

- Treatment of the subject—*Sport* is considered more a lifestyle than a performance or result-based news magazine. This positioning corresponds to a trend that is being confirmed throughout the West, from Japan to Latin America, including Europe. Sports are now considered a means toward health, adventure, and entertainment!
- Method of distribution—The past few years have seen the emergence of free newspapers, but this concept had not yet been applied anywhere in Europe to magazines with a focus on sports.
- Relations with advertisers—Their communication in *Sport* corresponds more to one-to-one, relational marketing than to mere traditional mass advertising. Moreover, 90 percent of our advertisers are "non-captive," i.e., not directly connected to the sports sector; they include companies in the automotive sector, telecom, food industry, etc.

These innovations in a mature and established market have enabled Sports Medias & Stratégie to over-perform. Thus, while the average growth rate of the advertising market is 6 percent, and less than 2 percent for the press market, free magazines have increased their advertising income by 50 percent, and *Sport* has benefited from an increase of 73 percent.

E&Y: *Globalization is a business imperative today for venture-backed companies. What are the major opportunities and challenges you face in today's global markets? What do you expect your next transaction to be? What makes that the likely transaction?*

Jaluzot: Since it was launched in March 2004, *Sport* has been circulated on the Air France routes. From the very start, we received numerous requests from interested foreign operators who were intrigued by the concept and wanted to know about opportunities for development in other countries. We therefore considered the issue of internationalization. A survey has shown us that the new trend of sports as a lifestyle, versus competitive sports, is becoming widespread; that there is no equivalent concept abroad; and that the interest aroused is as strong as that generated in France.

Sports Medias & Stratégie is going to embark on a new round of fundraising, with a view to launching its first magazine abroad within the next 12 to 18 months. Our chosen strategy is to develop under our own management, by creating subsidiaries run by local teams, since the national culture is of the utmost importance. Sports Medias & Stratégie prefers to call on venture capitalists rather than key accounts, as the valuations that industrial enterprises could currently offer do not correspond to the company's growth prospects. If this launch abroad turns out to be a success, we shall probably consider an IPO to accelerate growth in other countries. In the meantime, we are also looking at external growth opportunities.

E&Y: *What is the role of your board, and have you learned any lessons in maximizing the relationship between the CEO and the board?*

Jaluzot: The choice of investors is essential. When trying to find funds, it is difficult to look beyond the actual sum of money proposed, and yet it is essential to do so. Indeed, the quality of the relations between the investors and the management team is extremely important. The development of a relationship based on trust is a vital prerequisite for the smooth running of the company. I also think it is appropriate for the CEO to keep his own advisers—lawyers, other entrepreneurs, etc.—so as to benefit from their objectivity. Sports Medias & Stratégie has chosen to include independent representatives on its board who give their unbiased opinions as sector specialists on the various issues encountered. That helps the venture capitalists to assess management decisions. Lastly, detailed and regular reporting contributes to transparency and strengthens the relationship of trust between the management and the other shareholders. ■

Global Limited Partner Perspectives on Venture Capital Trends: A Discussion Hosted by Cambridge Associates

By Andrea Auerbach

INSTITUTIONAL INVESTORS ARE THE BACKBONE of the venture capital and private equity industry, annually evaluating hundreds of managers across geographies and ultimately providing the commitments that enable managers to pursue their investment strategies. What is on their minds? As the following discussion will reveal, there are perennial concerns, including drivers of return, be it the state of the exit markets, the supply of capital amassed in certain segments of the market, and entry valuations and multiples. At the manager level, there is perhaps a heightened focus on organizational structure, distribution of economics, and succession management, especially as funds expand assets under management and/or products. Then there are the broader trends, including the globalization of venture capital toward Asia and its impact on established markets, such as taking attention away from Western European venture or evolving partnerships between U.S. and Asian managers. Conclusions drawn on these trends must then be taken into consideration within the context of access, especially given the resurgence in committed capital toward levels not seen since 2000. The panel participants, representing an impressive cross-section of the global institutional investor community, offer their thoughts on these topics for your reflection.

PARTICIPANTS

Ronan Cunningham
Irish National Pension Reserves Fund

Charles Froland
Performance Equity Management (JV with General Motors Investment Management)

Marianna Inston
Hermes Private Equity

Mark Weisdorf
JP Morgan Asset Management

MODERATOR/PARTICIPANT

Andrea Auerbach
Cambridge Associates

Auerbach: *What trends will have the greatest impact on the venture capital industry and the buyout industry over the next five years?*

Froland: The venture capital industry has seen greater stabilization in the last five years. Looking forward to the next five years, venture capitalists will begin to do the hard work of putting money to work and building businesses that the public market will favor. Overall, there are fewer challenges from the general partner perspective than there were five years ago. Many general partners have learned how to manage their funds and how they organize themselves with their limited partnerships on a going-forward basis. So I think they can really focus now on what they do the best, which is putting money to work with good entrepreneurs who have ways to develop new products, rather than having to repair and restructure a company or face down financing rounds and readjust expectations on the part of entrepreneurs. In summary, it's a happier investment environment across the board for general partners. The main question is whether, in the next five years, we will see a more favorable exit environment than we have seen in the last five years. I think there are some signs that we can expect a better environment. In the first instance, mergers and acquisitions (M&As), which in the last five years have actually been the predominant ways people have achieved exits on most of their portfolio companies, are showing price increases actually making M&A a reasonably profitable way to exit, whereas earlier it was almost just a break-even proposition.

IPOs are a big question because that's usually the way in which companies get the best return. Clearly we haven't had an IPO market for some time. If one is a historian, it looks like good IPO markets come around once every 10 years. Obviously, it's hard to predict, but if you look for trends to repeat you would expect that in the next five years we will see good IPO markets.

Auerbach: *The return toward lower pre-money valuations should help to facilitate more profitable exits into the M&A market as we wait for the IPO market to reinvigorate.*

Froland: I think that today, more than any time in the last 10 years, you are seeing companies with US$100 million in revenues clocking along at good revenue growth and still waiting for the right exit environment. A lot of venture capitalists are commenting on how Sarbanes-Oxley has not only made it more expensive to go public, but it's also made it something that people are much more wary about in terms of preparing their companies to go public. In the past, companies were usually able to go public within two to three years, whereas it's now taking as much as five to six years. This means that there are more opportunities in those six years for the market to turn and become unfavorable in pricing and exit. The venture industry has been thrown a curve that it's still trying to figure out how to work with in bringing companies successful results.

Weisdorf: I think Charles laid an excellent framework. I have been seeing signs during the latter half of the year that quality venture capital-backed companies that are getting out to market are being priced reasonably well. It is not the quantity of IPOs that we saw through the bubble. There are a reasonable number of IPOs that are getting done and are trading at two and three times their IPO price. Also, you are seeing the same thing in the M&A world. Decent companies with decent technology or business models are commanding and restrengthening prices, whether it's the M&A market or IPO market. In addition, it will be interesting to watch whether Europe can regroup and start to build a venture environment.

Since I am not seeing a lot of signs to that effect, I will be curious to see what others are seeing that would be healthy and helpful. I see a lot of focus toward South Asia, China and India, and we will get to that later. But it would be interesting to see the impact of the focus on China, and India on Europe. Europe might have a tougher time reestablishing itself in the venture world.

Cunningham: In the last 12 to 24 months, we saw the first big home wins for venture-backed companies from Europe and Asia. These were the successful Chinese IPOs on NASDAQ and the Skype's acquisition last year in Europe. I think Europe has had a slightly longer history of venture capital and it's somewhat unproven. But these kinds of high-profile, venture-backed deals can provide a bit of a catalyst. It also relates to the ongoing globalization of venture capital and, in particular, what the U.S. venture capitalists believe they need to do to be successful in the next five to 10 years.

Inston: One of the trends we focus on, both in venture and buy-outs, is the issue of succession and retirement of the generation of partners who have generated the returns that we have all enjoyed. We have seen some of it take place, but it will be a lot clearer in the next five years which firms have really nurtured the talent and whether those individuals are as capable as their predecessors. We believe there will be a clear differentiation between the firms that have planned it well and those that have not.

"Technology is really a global market, and companies have to construct themselves to be global companies earlier on in their life cycle."

Auerbach: *For those of you who have venture portfolios, is it a fairly even mix of tech and life science, or is it still more weighted to tech? Do you think life sciences will take a greater portion of commitment dollars as that side of the market grows?*

Froland: I think if you look at the broader industries, you will see that both in the United States and in Europe, healthcare has had some resurgence. But it is still less than 25 percent of the market in terms of dollars and deals being invested in. Technology is really a global market, and companies have to construct themselves to be global companies earlier on in their life cycle. What you see in Europe are tremendous areas of technology development that are certainly viable like other centers around the world. But their go-to-market strategy is less able to focus on local markets and has to go more to the United States or other parts of the world. It's less true in the telco and wireless areas. One of the reasons why China has been such a focus for a lot of venture capitalists in the last several years is the huge consumer market, the need to build infrastructure in China, and the huge appetite for technology, which means a lot of potential consumers. On the other hand, you do not see much technology development. You certainly see the ability to build companies there in a very fast way, obviously, given the underlying growth dynamics of the local market.

Weisdorf: If I can generalize, I think that the life science venture capitalists currently invest and deploy the large capital amounts they raised in the last several years. They are getting some exits, not as many as they would like perhaps, but I think they are focusing on investing their most recent funds' money and it will be a few more years before we see what happens there. But, I think they are in good shape. I also think we are going to see more of the non-life sciences continuing to pick up the slack in terms of fundraising and investing activities. Overall, there is a healthy life cycle in the biopharma sector of big pharma companies acquiring mature biotech companies and, by this, freeing up capital and people to drive the growth of younger biotech companies. In addition, I agree with previous comments about succession in the venture capital world. I also expect to see a lot more new teams or emerging teams. I am not seeing what I expected—enough support for new or emerging teams.

***Auerbach:** New and emerging teams, as always, face a longer fundraising cycle than established, branded managers. In many instances, these new teams are comprised of professionals who have been more focused on investments than investor relations and are not well known by the investor community. If these new teams lack sufficient breadth and depth in their track records and fledging organizations, it can be exceedingly difficult to gain the confidence of investors to support a first-time fund, especially in the current investment environment. Many investors have been paring down their manager relationships, resulting in portfolios of long-established, name-brand managers with little room for, or interest in, first-time funds. However, for those institutional investors who have the staff to invest the necessary time and resources to fully understand the potential of these new teams and arrive at a commitment decision, they may be better positioned to benefit as the next wave of successful managers emerges from this pack.*

Weisdorf: Taking a macro view on the manager universe, there were a lot of name brand firms that didn't do all that well and didn't behave with the discipline you would have expected from experienced investors through the bubble. It's still surprising to me the ease with which those firms were able to raise money again. On the other hand, you have GPs with emerging firms and newer teams, who actually have done quite well in a very difficult environment, and are having trouble getting the traction to raise their first or even second fund. Even though they have had events in their portfolio, they have got a reasonable track record, given the environment, but it is because they don't necessarily have the name brand, so to speak. It's interesting.

“Many of the name-brand venture firms are cutting back on their fund sizes and, along the way, are also cutting back on the number of relationships.”

***Auerbach:** Have there been instances where you have decided not to continue a relationship with a fund?*

Froland: Many of the name brand venture firms are cutting back on their fund sizes and, along the way, are also cutting back on the number of relationships. One recent example is a firm that closed its latest fund, which was three or four times over-subscribed in record time. They went from about 80 LPs in their prior fund to 37 LPs in their current fund. Now, it's hard to know how many of those guys decided not to return versus how many of them were asked not to return.

***Auerbach:** On the GP side, you definitely see some paring down of the number of LP relationships that they would like and then, on the LP side, in certain mature portfolios there is also a paring down. Sometimes, the feeling is mutual!*

Regarding the globalization of venture capital, have you noticed this trend and, as a result of this, how has your thinking toward the venture market changed over the last 24 months?

Cunningham: We expect to get indirect exposure to China and India through some of the GPs and their portfolio companies, but in the near term, it's not an area where we are going to be looking to back local groups or even some of the joint funds between local and U.S. groups that are obviously in progress.

Froland: There is a lot of interest in China and India and, obviously, you are seeing a lot of groups enter the market. But in perspective, less than probably 5 percent of total private equity in the world is invested in those developing markets. So, for most LPs it's still a pretty thin footprint to think about. We have seen in the venture area at least a dozen or more U.S. venture capitalists developing on-the-ground capability for investing in China, less so in India.

More venture capitalists are involved in India, with respect to their existing portfolio companies, through outsourcing models. But in terms of putting investment capital to work on the ground, I think most venture capitalists see China as the priority. I think it is mainly because of the huge local market that has an appetite for technology. China is also a tremendous market for telecom equipment. Also, China, as a matter of national policy, is engaged in developing its semiconductor industry, and U.S. venture capitalists have made a number of investments on the ground in this sector.

So, I think the investment platform is developing, but it's still early days. As a consequence, we have made a few investments, but I think one can get a lot of exposure there from what U.S. or European GPs are investing from their larger funds. So, one doesn't necessarily have to make a separate investment at this point.

Auerbach: *We have observed over the last couple of years that West Coast venture capitalists have been investing their 10 percent of allocation to other geographies in Asian-based opportunities, particularly in China. More recently, in the last two years, we have been tracking up to about two dozen partnerships and alliances between U.S. venture capitalists and mostly Chinese. We have found internally, and with our clients, that there is a lot of learning going on right now about the region and its opportunities. But there is also an institutional memory from the mid-'90s time frame recalling a pantheon of Asian venture capital managers whose results were not successful.*

My concern about these United States-Asia pairings isn't the transfer of knowledge from West to East regarding the venture capital process, but that sometimes you can't fit a Western model into an Asian context. Many of the successful Chinese companies have really localized the approach, the process or the content in a way that, maybe, a West Coast venture capitalist couldn't have foreseen. So those pairings can be very interesting; they can also sometimes cause concern, depending on the level of experience the U.S. venture group actually has on the ground in Asia and the mindfulness that this is not their home market.

The other thing that we often discuss with managers in this region are exits. There have been several highly successful NASDAQ IPOs of Chinese companies. But when you look back at the numbers for NASDAQ or NYSE IPOs from 2004 to the end of 2005, there were only 20. Not all Asian companies are going to go public, at least over here, and one question that we have is: What is the other exit strategy? Granted, Asian companies have more public market exit options than American ones, but pricing your round based on a NASDAQ exit assumption might be risky. This is what gives us a sense that there might be a bubble brewing over there, given the current valuation levels.

Weisdorf: I think there has been significant interest on the buyout side of the equation in Asia. Despite some mixed past experience, I haven't seen the level of interest that we have seen in 2005, and continuing in 2006, in the buyout world in Asia that we have seen in a long time, and it's quite significant. From the venture perspective, there are a lot of local firms in Asia that are getting audience from local money. There is a lot of high-net-worth money in Singapore, or India, or Bahrain, or wherever it happens to be, and some of the stock exchanges in the area are thriving.

Most of the nontechnology or life science venture/PE-backed companies are not necessarily coming to NASDAQ. For example, India-based companies are going public on the India Stock Exchange—which, by the way, has more listings on it than any stock exchange in the world—or China-based companies are going public on the Hong Kong Stock Exchange. I think that at some point in time, as those markets mature, we might get more comfortable with intellectual property rights, which is another point I want to make.

In China, we see fast-growing service opportunities and fast-growing manufacturing opportunities. To some participants in the venture capital community, that is venture capital—fast growth, fast profits. But what those opportunities tend to lack is the ownership of the intellectual property. And that is a factor, because if it's lacking, it actually doesn't count in other people's minds as venture capital. There is no sustainable competitive advantage other than scale, if you will, *"In China, we see fast-growing service opportunities and fast-growing manufacturing opportunities. But what those opportunities tend to lack is the ownership of the intellectual property."*

or local markets or ability to manufacture inexpensively.

India, on the other hand, agreed in 2005 to recognize the GATT intellectual property rights within the WTO timeline. So, interestingly, I am seeing a lot of stealth venture investing from U.S. firms. I am seeing it through American-based portfolio companies making investments or corporate venturing that has not been called corporate venturing. It's not directly in the corporate venture portfolio, but a lot of these companies that are building campuses in India are doing stealth venture investing. I agree it is in its very early days; we will have to see how it will play out. But if it does, if they stick by protecting the intellectual property rights that are generated there or that are shared with India, I think you might see India advance in certain ways, and in different ways than China will in the venture capital world. I think China will continue to do well on the service and manufacturing side, but will have trouble with the areas that involve development and IP. Now, of course, China is managing to set their own standards. They are trying to create China-owned IP by creating different standards and things, like RFID technology, but I think that's going to be a much tougher road.

Auerbach: *In India, what we witnessed over the last couple of years is a lot of the groups that started out doing venture have drifted more toward the call center development and expansion capital side of the market, which is interesting but it does leave a vacuum at the early-stage investment arena. And so we are observing that market closely and looking for signs that venture investing is really flourishing there the way it was about five years ago. One concern with these two very large domestic markets is that they can set their own standards and they can play by their own rules. It may end up being the standard that they decide to go with is indeed their standard, and non-Asian companies that want to capture market share in those markets will simply have to comply. The growth capital trend in India has caught the attention of the institutional investor community. It seems that there is more comfort in investing in that end of the Asian markets, perhaps, than on the venture side.*

Inston: We have a small Asian exposure, which is still meaningful enough to give us a window on the market. However, we have not pursued venture opportunities in any of those markets. Our exposure is more in the growth capital area and we believe that the demand for expansion capital continues to far outstrip supply. Although this may not be a completely fair generalization about the market, but at an individual company level, it is our understanding that there may not always be the alignment of interest between the private equity investors and entrepreneurs, where the two parties are not necessarily working together toward the same end goals.

Weisdorf: I think that it's starting to move beyond the call center trend in India. It is moving fast, very quickly up the value chain from the sort of call center to complicated analysis and synthesis of data and up to software development. In addition, we see a growing consumer-spending power, which is creating a significant opportunity on the buyout side and on the real estate side as well. There is so much opportunity when you have economies growing that quickly and wealth growing that quickly. Folks who are observing this, while it's in the early days on the intellectual property side are saying that maybe there is good opportunity for returns just on the buyout and the real estate.

Auerbach: *We are definitely seeing some managers switch over from venture to expansion in order to capture the growth in disposable income in India and China. It's interesting to watch managers who have done technology venture moving over to invest in retail chains or consumer finance. I think performance coming out of these two countries in the next couple of years should definitely give us a sense of the quality of the managers on the ground and the strength of their home markets.*

It sounds like some of you would consider investing in a Pan-Asian fund or perhaps a dedicated India fund or China fund. Does any one have a clear-cut view or would a little of both would be okay?

Cunningham: I think it depends on the market we're talking about. If we are talking about buyouts, I am a bit more skeptical with respect to some of the opportunities in a number of these countries. I don't deny the growth prospects, but I haven't yet really seen the returns. I think that, over time, you will feel a lot of change that you are going to have in the buyout stage. I believe that India probably, at the moment, has better prospects, for a lot of reasons. These are based on issues, such as business services, rule of law, democratic, and regulatory, that give you the stability to do private equity deals as an institutional LP. But the deal flow there and the opportunities have not risen to the level of returns that you have seen in North America and Europe. So we are struck by the contrast between the optimism that one can get from the underlying growth stories and the paucity of realized returns or private equity deals that show you exactly how you can do it.

Auerbach: *Is there any sector, tier, or region in the wider market that, in your view, may be more interesting than others in the near term?*

Inston: We will continue to, perhaps, be a bit old-fashioned. We are very much bottom-up driven and focus on individual manager selection with the macro trends as the backdrop. For us it is very much about how viable the strategy is, and how much it has been validated in some of those emerging sectors. Thus, we believe that if a trend is a lasting one, we do not have to be at its forefront.

Weisdorf: I think there will continue to be an opportunity in the life science area. We should remind ourselves that it takes a lot longer and a lot more money to develop a proprietary drug or therapeutic or diagnostic test than we seemed to think in the mid-'90s. And there is a lot of great proprietary technology being developed that will continue to require funds to further develop those technologies. I think it will pay to invest capital in those technologies that are truly proprietary; people want to live a longer and better life. That's, I think, a sustainable long-term trend. Thus, I think life science continues to be an area that people should stay close to. I am not close enough to the Central European story, in terms of having done research on it, but I would echo Marianna's comments; I don't think it has to be early. I think it can be secondary through an input trend, if the trend has some sustainability.

I think Central Europe may now be on a more sustainable trend than several years ago. I would certainly encourage people to look at doing the right research about Central Europe. I think India has seen a long-term trend, a 15-year trend of liberalization of laws, and there is a 200-year history of democracy and the British system of law. That doesn't mean that there is not some volatility along the way, but I think that India, with 1.1 billion people, 25 percent to 50 percent under the age of 25, 8 percent-plus growth in GDP, and intellectual property rights, has some legs to it and is probably deserving of more attention than even the increased attention that's been given to it. Lastly, I would mention South America. We all know there were challenges, there, particularly with some of the new governments that have been elected, but wherever there are challenges there are opportunities. It is certainly an area I think worth exploring. ■

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growth to fuel an above-average return. Companies with high growth rate and large capital needs, such as those in the life science industry, could be a potential source of such PE opportunities. However, PE has to build up the domain knowledge, perhaps through partnerships with life science venture capitalists.

***E&Y:** Do you expect IPOs to be a viable transaction for your portfolio companies? If so, what are the characteristics of the companies that you think are IPO eligible? If IPOs are not a likely transaction for your portfolio companies, why not?*

Strohmenger: Yes! In any new investment that we conduct, we want to see as many exit opportunities as possible as a prerequisite. The opportunity for either a trade sale and/or an IPO needs to be a possibility for an exit at the time VC money is invested. The characteristics of a company going public have changed slightly through the years. Currently, investors want relatively mature companies in the life science area. In the IT area, on the other hand, we see an increasing number of fairly immature companies trying to go public. Investors have only a limited memory; some have forgotten about the last bubble. This means that generally when the public markets go up, the risk aversion drops. In the IT market investors are already taking significant risks. ■

PERSPECTIVE FROM SILICON VALLEY

Scott Bonham

Managing Director, Granite Global Ventures, Menlo Park, California

"The biggest challenge for the venture capital industry is how to effectively address globalization."

E&Y: *When you look back at venture capital activity in 2005, were there any takeaways or lessons learned that stood out to you?*

Bonham: We've seen the importance of focusing on long-term investment opportunities. 2005 was a very good year for GGV as we exited many investments that we made in 2002 through 2004. A few years ago, venture capitalists were recovering from the fallout of the dot-com crash and there was a loss of investor enthusiasm for the asset class; China was still an unproven market for venture investors and was recovering from SARS. It was difficult for venture capitalists to pull the trigger, and no one was interested in China. But during that time, GGV believed that there were many good investment opportunities and that China was emerging as a great place for venture activity, and we were fortunate to have made some great investments in both the United States and China. So, I think the lesson learned is that during the darkest times you still have to stick to your convictions and follow your long-term investment themes.

E&Y: *Can you comment on China?*

Bonham: China is a lot like Silicon Valley back in the 1970s. There is a new venture capitalist industry forming and it's not clear who the winners are going to be. Additionally, you can't just take the venture capital model from the United States and transplant it into China. Successful venture capital investing in China will require new approaches. One of the key lessons in China is that you need to be very local. If you are a U.S.-based venture capitalist and start investing based on a frequent-flyer model, it's going to be tough for you to effectively evaluate the opportunity in front of you. Working with entrepreneurs is quite different in China. For example, we see a lot of differences in the term sheets in China versus the United States and the types of terms that work. We also find that roughly half of our deals are outside the two large centers of Beijing and Shanghai. Successful venture capitalists in China must build an effective network and understand opportunities outside of Beijing and Shanghai. These are just a few of the differences.

E&Y: *What are some of the exciting investing opportunities that you are exploring?*

Bonham: China is an exciting investment opportunity, as it has the world's largest consumer market and it is becoming the world's largest manufacturing center. The Chinese market is driven by a large emerging middle class that is buying consumer goods for the first time. Further, China is creating services and products for the global market based on its cost advantage and highly skilled and motivated workforce.

Alibaba.com is a great example of both of these trends. Before Alibaba, small-business owners in China were underserved, with no automated connections between buyers and sellers. Essentially people were buying and selling goods online for the first time without a robust e-commerce infrastructure. Another example, ChinaCars, is basically an infrastructure play and an online community to help automobile owners in China. ChinaCars is filling the gap between the needed and available information and services for auto owners. These are just two examples of companies serving a growing set of consumer needs, but the list is long.

On the manufacturing side, we've made a couple of investments in China in both the semiconductor and the software outsourcing markets. In both cases, China offers a low cost and highly skilled and motivated workforce that can compete and win on a global basis. We made an investment a couple of years ago in AAC Acoustics, a company that makes acoustic components for cell phones. It went public on the HKSE last year. AAC is now taking market share from the leaders that had dominant market share in mobile phones. They're competing not just on cost, but on quality and innovation. Another company, HiSoft, is a leading software outsourcing company in China and is now starting to take out some of the low-end outsourcing opportunities from India. There's now compelling cost arbitrage between China and India. Plus China has demonstrated it can deliver software outsourcing at a world class level, so there's now a strong economic case for companies to seriously consider China for their outsourcing needs. Following on this, people will very soon begin to view China as an innovator, not just a place for low-cost copies.

E&Y: *Globalization is a business imperative today both for venture-backed companies and for venture capitalists. What are some of the opportunities and challenges your portfolio companies face addressing* *globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Bonham: I think that all start-ups are grappling with how to embrace globalization. Twenty to 30 years ago, start-ups were built on the notion that you needed to get 12 engineers and lock them in a small room until the product was complete. In the small room, you got the fast turnaround cycles, based on effective and direct communication. The result was a product or service perfectly suitable for the North American market. Globalization has now fundamentally changed this paradigm. Markets, companies, ideas, and capital flow with relative ease around the world. Companies must be built differently to address this new reality.

Granite Global Ventures was formed in 2000 on the belief that there was going to be an opportunity for a new breed of venture capitalists that embrace globalization. Thus, globalization has created opportunities for GGV and the integrated global investment team we've built. However, effectively addressing a global set of opportunities with investment professionals around the world is a big challenge. For example, our Monday meetings are now Monday-night meetings because we have to connect with our China office on their Tuesday morning. We use various technologies to ensure effective flow of communication, in addition to a lot of travel. We also organize week-long quarterly off-sites for our global team to brainstorm, strategize, and visit companies and management teams, with a view to better understand the investment opportunities in both the United States and China. This investment approach requires much more time and energy than the localized focus of the past, but we believe the rewards are there.

E&Y: *From a Silicon Valley perspective, do you perceive China and India as a threat or opportunity?*

Bonham: I would say from the Silicon Valley point of view that China and India are opportunities, but that from a U.S. point of view they are too often perceived as threats. Most venture capitalists in Silicon Valley see what is happening and have already formulated their own approach to address globalization. But the story heard elsewhere is often one of protectionism. I worry that, as a nation, we have not fully embraced the imperative of globalization.

E&Y: *Do you expect IPOs to be a viable transaction for your portfolio companies?*

Bonham: M&A will likely continue to be the main path for investor liquidity. IPOs will continue to be "viable," but their complexion has changed as a result of recent reforms. Everyone really needs to consider more seriously the obligations of the directors of a NASDAQ- or New York Stock Exchange-listed company, in addition to the additional overhead cost to the company. We take governance very seriously, but I think a disproportionate reporting and compliance burden is placed on small companies. In addition, NASDAQ is not the only possible exchange for venture capital-backed companies to access the public markets. Many investors from Hong Kong, Tokyo, London, and Singapore are excited about investing in well-run companies and are increasingly welcoming them to their exchanges.

E&Y: *What are some of the challenges that the venture capital industry needs to address?*

Bonham: The biggest challenge for the venture capital industry is how to effectively address globalization: How do you effectively invest in companies that are being built globally? How do you build these companies? How do you build an investment model that can find them effectively? I think the globalization challenge creates an opportunity for new types of venture capital models and new venture capitalists to enter and make their mark on the world. ■

PERSPECTIVE FROM EUROPE

Jean-Bernard Schmidt

Managing Partner & Chairman, Sofinnova Partners, Paris, France

"Europe is an unavoidable reality. Venture capital syndicates are pan-European, as are the teams, the management and the expertise."

E&Y: *When you look back at venture capital activity in 2005, were there any takeaways or lessons learned that stood out to you?*

Schmidt: 2005 was a good year for European venture capital, both in the quality of the projects and the amounts invested. For Sofinnova in particular, it was a record year, with €80 million invested and five IPOs. This positive trend should continue in 2006.

In my opinion, two lessons can be learned from 2005. First, it is necessary to remain prudent and to keep a long-term vision. Businesses need time to mature before the exit, and need to keep reserves. Second, the venture capital industry is becoming increasingly competitive, while the economic environment is showing only a slight growth rate. Consequently, execution is essential. Nothing is possible without the right team and an appropriate marketing and sales approach.

E&Y: *What are some of the exciting investing opportunities that you are exploring?*

Schmidt: Life science is less sensitive to trends than the IT sector. So the major therapy areas—cardiovascular, central nervous system, etc.—have always been, and still are, priorities for investment. The same goes for medical equipment. It is perhaps for that reason that Sofinnova is currently a little more involved in the life science sector than in IT.

The context evolves more in IT. The high-growth markets currently include anything relating to consumer electronics (Sofinnova has several investments in this sector), mobility—in particular mobile phones and their new applications—and the Internet. In the Internet segment there are still good prospects for innovation and growth in the collection and sorting of information, networking, and transactions.

Historically, Europe possesses a good scientific and technological breeding ground in these sectors, and I have no doubt about the development prospects for European companies. Lastly, energy and the environment constitute an emerging sector. There again, Europe possesses a sound basis for development, and Sofinnova is starting to take a closer interest in this sector.

E&Y: *Globalization is a business imperative today both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization? How do these global opportunities affect the way you make or will make investments and raise additional capital?*

Schmidt: Globalization represents two opportunities for investees. First, outsourcing of R&D, particularly to China and India. This makes it possible to obtain quality work, and more flexibly, at less cost. Second, the opening of high-growth markets. European technology companies are moving development to Asia. For certain markets, such as mass markets, Asia has replaced the United States as the relevant market.

Globalization also generates constraints. The greatest of these is that worldwide competition is now instantaneous; numerous companies arrive in the same markets with similar products. A way of protection for venture capitalists is to focus on high-tech projects that have strong entry barriers regarding intellectual property. Patents, or at least unique know-how, have become a key criterion for investment.

For venture capitalists, globalization is also a synonym for internationalization of investments. Sofinnova is historically very close to the United States, thanks to the existence of its sister company Sofinnova Ventures, and makes 15 percent of its investments there. On the other hand, in Europe, Sofinnova was, in its early stages, very focused on France. Now, the investments are spread all over Europe: Norway, Sweden, Germany, Belgium, UK, Switzerland, Italy, and, soon, Spain. Sofinnova is not yet ready to invest directly in Asia, but in three to five years' time, I predict that investments will be spread as follows: 15 percent United States, 70 percent Europe, 15 percent Asia. As happened in the United States, a sister company could be set up in Asia to enable joint investments.

Finally, globalization impacts the source of funds. Our investors have an increasingly international profile and now include organizations in Northern Europe, Germany, Asia, the United States, and the Middle East. I expect that the next fundraising will probably be even more internationally oriented, perhaps including Chinese and Indian investors.

As mentioned previously, China and India today represent opportunities for outsourcing and growth markets. Soon, these countries will become major competitors, whether in the life science sector or in the IT sector. China is already a competitor, for that matter. However, I see that more as a challenge than a threat; European companies will thus always have to excel.

E&Y: *As the median time from initial investment to exit has increased, what is the impact on venture capitalist investors? Do you see a role for private equity funds in the venture-backed market? Can the AIM serve as a pan-European exchange for growth companies?*

Schmidt: The possibility of timely exits is a question of the utmost importance for venture capitalists who, like Sofinnova, invest upstream in young companies with a high technological content. Sofinnova thus participates in all the rounds of fundraising of its investees and makes a late-stage investment only when an early-stage investment has already been made.

To illustrate the situation, a few years ago, having a good idea was almost enough to be listed. Now, investors require advanced products from companies that have already proved themselves. The average time to exit has increased and, as a result, many venture capitalists have abandoned the early stage to concentrate on the late stage, with faster exit prospects. One consequence of the increase in the time to exit is the necessity to invest in installments, according to defined milestones, with the gradual increase of the installments paid. There will probably be some confirmation of this trend in the long term. In addition to IPOs and trade sales, one could envision the partial exit of the venture capitalists upon the entry into the investee's capital of a PE fund, like a secondary LBO. This stage could occur slightly upstream from the stock market exit or trade sale. At present, capital-development funds have considerable funds available, which could prompt them to work with the venture capitalists.

As for the stock markets in Europe, an alternative to centralization on the AIM would be to set up equivalent structures in each European country or zone: one in Paris, one in Northern Europe, etc. The failure of the markets previously set up, for example in Germany or in France, is due more to the insufficient quality of the companies and lack of shrewdness in the players than to the viability of the market itself. The advantage of the existence of several marketplaces would be twofold: taxes are much easier to manage nationally than internationally, and there is a local factor. Investing in a national company motivates and creates the desire to support a potential local champion. For example, Esmertec, one of Sofinnova's investees, based in Switzerland and who has made most of its turnover in Asia, chose to go public in Switzerland, with success and with a majority of Swiss buyers.

It seems to me that the presence of a company in a local marketplace does not hamper its visibility at an international level. Indeed, as soon as it is listed, the analysts from other countries have access to the information concerning it and are able to issue opinions that may attract foreign investors.

E&Y: *Do you expect IPOs to be a viable transaction for your portfolio companies? If so, what are the characteristics of companies that you think are IPO eligible? If IPOs are not a likely transaction for your portfolio companies, why not?*

Schmidt: Sofinnova performed five IPOs in 2005, and three are currently in progress. The companies concerned combine a certain amount of maturity and a future that is still open, with strong possibilities for growth. It is on that condition that a fund can take the responsibility, with regard to future investors, of floating a company. However, today the IPO pointer is placed a little too far along in the company's development; it would be better to float companies a little younger. That is true for NASDAQ, too.

E&Y: *What is the role of Europe in the globalized centers of innovation? Can you comment on Eastern Europe?*

Schmidt: Europe is an unavoidable reality. Venture capitalist syndicates are pan-European, as are the teams, the management, and the expertise. However, Eastern Europe is not yet a topical issue for Sofinnova. That will certainly change in the years to come, as these countries possess a sound mathematical and scientific grounding. Technologies are going to emerge, and in a few years, Eastern Europe will also represent interesting potential markets. ■

Policy, Regulation, and Venture Capital in a Time of Transition

By Joseph Muscat and John de Yonge

Venture capital activity was affected by a number of critical policy and regulatory issues in 2005 and, although progress has been made in some areas, these issues will likely continue to be of significant concern through 2006. Some of the issues have global implications; others are specific to regions or countries. To better understand these issues and their current and future impact, Ernst & Young interviewed attorneys, industry leaders, and policy makers in the United States, Europe, and China.

United States

In the United States, policymakers and advisors are focused on maintaining the competitiveness of American companies in a global economy. They are also concerned about regulation in general and about how specific legislation affects competitive balance.

GLOBALIZATION

While many industry observers view globalization primarily as investing in emerging markets and developing exchanges beyond NASDAQ, attorney Alex Lynch of Weil Gotshal & Manges in New York describes broader issues, including the protection of intellectual property, structuring contracts from a tax standpoint, and dealing with trade issues. All of these issues are relatively new for venture-backed start-up companies, "but many technology start-ups are doing business in India," Lynch notes, "and that is creating a new level of complexity."

Mark Heesen, president of the National Venture Capital Association (NVCA), believes that most venture capitalists are "bullish on Asia." But he does not expect a large number of U.S. venture capital firms to invest directly in Chinese or Indian companies except where that is an explicit investment objective of the specific fund. On the other hand, he notes that U.S. taxes are higher, making it desirable for many companies to do business overseas. An opportunity for major tax reform was missed and it may take several years before the issue is addressed again.

IMPACT OF REGULATION

All of the U.S. interviewees spoke of struggles with the compliance side of Sarbanes-Oxley and with the need for relief for smaller companies. Mark Bonham of Wilson Sonsini Goodrich & Rosati in Salt Lake City, noted that "going public takes longer, costs more, and puts directors and management under greater scrutiny. This permanent change in the overhead associated with going public — because of SOX — means the bar has been raised and IPO-bound companies are bigger than they used to be."

Attorney Lynch expands the cost side of compliance to include the higher directors' fees now required to attract and retain qualified individuals, particularly those expected to serve on audit committees. However the costs are calculated, more venture-backed companies in the United States are now exiting through M&A than through an IPO.

This may change. The NVCA's Heesen expects modifications of Sarbanes-Oxley because both Democrats and Republicans in Congress now believe that change must be directed to the smaller companies currently bearing the brunt of compliance costs. Heesen also sees more likelihood that the Securities and Exchange Commission (SEC) may relax the regulations for smaller companies. The SEC has commissioned a task force to look at what can be done to reduce the burden on smaller companies. The task force has drafted its recommendation and now it is up to the SEC commissioners to determine what action to take. At press time, the SEC had not yet released its draft plans on this issue.

Another area of regulatory interest for venture capitalists and entrepreneurs is Section 409(a), the provision of the American Jobs Creation Act of 2004 that governs nonqualified, deferred-compensation plans. Companies have until the end of 2006 to comply with new rules about the valuation of employee stock options. Failing compliance, amounts previously deferred will be included in the participant's current income and subject to tax and penalties when options vest. The firms could also be exposed to tax penalties. According to Heesen, the ruling has particular impact on the West Coast, where companies may have been more aggressive in valuing options at a lower cost.

With final rules on Section 409(a) expected by mid-2006, the NVCA was seeking clarification of a number of provisions — including who can value options and how much notification is required before an IPO or acquisition. Whatever the outcome, Heesen notes that both venture capitalist firms and portfolio companies have been put on notice that they must be more aware of how options are valued. Both public and private companies should be documenting the entire valuation process.

COMPETITIVENESS

The fundamental concern is maintaining the competitiveness of U.S. companies in an increasingly global economy. Heesen describes a three-legged stool bolstering U.S. competitiveness, representing three key areas requiring attention if the United States economy is to continue to thrive.

The first area is basic R&D, including the government's role in funding basic research. A specific issue within R&D is the need for patent reform, as evidenced in what Heesen calls the current "tug of war" between information technology and life science over the ability to go to court and secure judgments on patent infringement. Stem cell research often generates an emotional response but is important to venture capitalists and the life science community, and there is movement by several state legislatures to allow such research.

The second concern is immigration, specifically the inability of many companies to secure trained workers. The cap on the number of H1B visas being granted in the wake of September 11 hinders technically trained individuals — from engineers to PhDs in molecular biology — from coming to the United States. Yearly mandated caps on the number of visas permitted have been reached within months after the start of the new federal fiscal year for the past several years.

The third concern is the area of math and science education, K-12, where significant improvements are necessary if the United States is to remain competitive. All three are "huge issues," Heesen notes, "but they go to the heart of what venture capital is all about and what U.S. competitiveness is all about."

Disclosure is another issue, as requests for information submitted under the Freedom of Information Act to public pension funds that invest in venture capital can sometimes force privileged VC portfolio company data into the public domain. Fortunately, limits are being set by some states — including California and Texas — to protect sensitive information that, if made public, could change the competitive balance and even drive companies out of business.

OUTLOOK

Heesen is generally optimistic going forward. He expects VC firms to continue to be very disciplined in fundraising and to continue consistent investing quarter by quarter in diversified sectors from communications to biotechnology, and consumer IT to energy. He sees a pickup in first-time financing. He also expects more collaborative efforts as venture capitalists increase the use of syndication and thereby benefit from the wide experience base of the investing partners. He also sees a continued significant shift from IPOs to M&As as the primary exit strategy for venture-based companies.

Europe

The European VC community, like that in the United States, is concerned with globalization and with the international ramifications of the Sarbanes-Oxley regulations. Of more immediate concern to European attorneys and policymakers, however, is the risk of over-regulation and the hoped-for emergence of a pan-European exit market.

IMPACT OF REGULATION

Senior government people in the UK "are committed to VC as an asset class and as a driver for enterprise and productive growth in the economy," says Simon Witney, an attorney with SJ Berwin in London, "but there's a kind of schizophrenia at work." The people making the rules are not always achieving what their bosses say they want them to achieve.

In short, the venture capital world suffers from too much regulation and from regulation that is "hard to navigate and hard to apply to what is in many ways a different industry." Witney describes regulations that are often onerous or poorly thought through or that unintentionally catch things they are not meant to catch. In these categories he includes taxes, where changes affect ongoing deals, and pension law, where changes sometimes make deals prohibitively expensive. In general, the financial services industry is tightly regulated in the UK, but the problem is that "existing regulations designed for fund managers are not well suited to the VC industry." Witney singles out money laundering, where the rules create unintended complications for venture capital activities.

Witney believes that regulation is more stringent in the UK, less of an issue in Europe. Javier Echarri, Secretary-General of the European Venture Capital Association (EVCA), does not believe that Europe is necessarily over-regulated, although rules vary from country to country. He identifies the problem as "25+1," a situation where regulations can be imposed by each of the 25 European nations and by the European Union and feels that it ought to be one or the other. If the European Union does not impose unified regulations, he would prefer to retain the 25 individual national regulatory structures.

The EVCA has also been trying to fend off what it sees as unnecessary or wrongly oriented regulation by the International Accounting Standards Board. The system, Echarri says, "is based on an architecture that is dogmatic and inappropriate for the VC business model." Europe does not have a problem with fair market value concepts of VC investments. The problem arises in Europe with consolidation of accounts, where international standards force consolidation of the accounts of portfolio companies with those of the firm and sometimes of the management company — a process that "investors won't be able to understand and that adds complexity and cost to the whole operation."

A PAN-EUROPEAN MARKET

One of the "most significant developments of 2005," in Witney's view, is "the emergence of AIM, the UK's second-tier stock market, as a true competitor to NASDAQ." Within the last decade, a number of alternative markets sprouted in Europe. AIM is the only significant survivor and is, at least potentially, the pan-European market that Europe needs. Within the last year, as AIM has achieved critical mass, it has become an attractive exit option for portfolio companies, offering good valuations and good liquidity. It is becoming attractive as a market for potential U.S. issuers as well.

Although many observers are optimistic about the significant strides AIM is making, the exchange has not yet realized its ambition of being a truly pan-European market.

As an exchange-regulated market under the supervision of a Nominated Advisor (NOMAD), AIM does not have as much outside regulation as the London Stock Exchange or primary markets in other European countries. Unlike the fragmented markets of earlier years, Witney sees AIM as offering, "a fundamental feature needed for venture capital to thrive, an IPO market where companies can find an exit at a reasonably early stage."

Although many observers are optimistic about the significant strides AIM is making, the exchange has not yet realized its ambition of being a truly pan-European market. For now, EVCA's Echarri suggests that AIM is "an interesting initiative" and "could be a perfect model" but other models are also valid. "We believe that a single market would be much better than a multiplicity of platforms," he says, but "national issues and sensitivities" contribute to European market fragmentation and it remains to be seen how the move toward a European NASDAQ plays out.

INDUSTRY RESPONSE

While attorney Witney notes that "governments need to follow up on their rhetoric" with an understanding of how the things they do affect the VC industry and its portfolio companies, he sees many positive signs. A move toward deregulation is evident in both the UK and Europe, where the European Commission is trying to take steps to mitigate the regulatory burden placed on business.

In the UK, Witney is advising the government on an initiative to bridge the equity gap by establishing public/private partnership funds to invest in small companies. The program is modeled on the SBIC program in the United States and will launch this year, helping smaller companies that are too small for Series A venture rounds and would otherwise be starved for capital. This is a "good trend" for venture capitalists, Witney says, because the VC market can step in once initial capital needs are met and the companies are ready for more funding. Some European countries are also looking at the scheme with interest.

Meanwhile, the EVCA will continue its efforts to build awareness of the VC business model. Along these lines, EVCA sponsored a thorough study (conducted independently by the University of Munich) on the employment impact of venture capital and private equity. The study proved what venture capitalists know to be true but politicians don't always see, that VC investments create a significant number of jobs. From 2002 through 2004, total net employment creation was 1 million jobs, 420,000 created by buyouts and 680,000 by venture capital.

EVCA was also instrumental in persuading the European Commission to focus its key economic conference on risk capital. Held in October 2005, this was the first time the issue was addressed at this level. In March 2006, EVCA brought the message that venture capital can create economic growth and competitiveness to the Lisbon Spring Council of European Heads of State.

OUTLOOK

The enormous interest in emerging markets may force some reconsideration of strategies. Echarri views the growth of emerging markets as "a wake-up call but not a threat." Fundraising may be difficult in the next 18 months as many groups, not all with proven track records, compete for funds. At the same time, Echarri says, he expects to see more successful high-profile deals. Europe is a much younger market than the United States and is in a completely different VC phase, but it is similar in seeking top-tier returns. Those returns may be achieved in the near future through buyouts, a la Skype, but situations differ and "a key driver is finding the right exit strategy."

China

China is a very different marketplace from the United States and Europe when it comes to business activity in general and venture capital activity in particular, given the major role of the government in the economy. It should be no surprise, therefore, that some of the major Chinese venture capital stories of 2005 involved regulation.

"We are largely back in a situation where we can focus on the normal and ordinary issues associated with successful investing in China."

SAFE CIRCULARS

Story number one revolved around the SAFE circulars that first inhibited and then promoted venture capital investment. SAFE Circulars 11 and 29, issued early last year, restricted the establishment of offshore corporate structures allowing foreign-venture capitalists—the largest source of venture-capital investment in China—to exit a Chinese company investment through an IPO on a foreign exchange, creating what attorney Steven Toronto of Morrison & Foerster in Hong Kong calls a "liquidity issue." As a result, foreign venture capitalists significantly curtailed investment activity in China in Q2 2005. The introduction of Circular 75 in November reversed the situation, providing the exit path that venture capitalists need to succeed.

The introduction of Circular 75 came about with the input of the China Venture Capital Research Institute (CVCRI), which conducted an intensive study that recommended the cancellation of Circulars 11 and 29. In the words of Dr. Gong-meng Chen, director of CVCRI, "The earlier circulars had a negative impact on Chinese economic development, almost closing the door to international VC activity in China. Circular 75 reopened the door," reinvigorating the pace of international investment in China. Under Circular 75, instead of a substantive government approval process, there is a reporting process that strikes more of a proper balance between the interests of regulatory agencies and the interests of investors.

Under the new situation, attorney Toronto notes, "We are largely back in a situation where we can focus on the normal and ordinary issues associated with successful investing in China."

CAPITAL MARKET REFORM

Dr. Chen reports that China reached a very critical turning point last year. After 15 years of an ineffective Chinese stock market, largely because more than 90 percent of companies on the exchange are still state-owned and their shares cannot be traded, significant changes have taken place. Earlier reform attempts in 2001 and 2002 failed, largely because the markets were still immature and there was little understanding of corporate governance. In 2005, for the first time, reform efforts succeeded and some Legal Person Shares (company shares owned by the state) can now be traded. Very soon, Dr. Chen expects, international capital will be able to enter this market.

Continued capital market challenges exist for investors in China. Toronto outlines three. First, the continued nonconvertibility of Chinese currency makes it difficult to invest in, and repatriate out of, capital investments in China. Second, company law, despite recent improvements, does not yet provide the kind of flexibility and legal structuring of equity found in other jurisdictions. Last, exit opportunities through public offerings continue to present a challenge because of China's more robust regulatory process and because capital markets are not as well developed as in other jurisdictions.

On another front, Toronto points out that many sophisticated structures used in venture capital investment are still not possible in China. Nonetheless, some issues are being addressed that will help the investment process. Company law is being modified in a number of ways, making VC investment by both domestic and foreign investors comparable to what's available elsewhere. One example is pass-through tax treatment, made possible because China now, for the first time, recognizes the partnership system. In addition, Dr. Chen points out that it became possible toward the end of 2005 for one person to register a company, a regulatory development that should aid entrepreneurship and innovation. The new company law also allows a high percentage of noncash capital, a development that should encourage entrepreneurship by scientists and others without access to large amounts of cash.

All of these challenges mean that international investors wishing to invest domestically in China, rather than through offshore vehicles, need to factor in the need to find appropriate legal structures, the ability to repatriate capital, and the ability to achieve liquidity exits—all a bit easier in other jurisdictions. Nonetheless, ongoing measures do bring more transparency and predictability to the whole process, representing, in Toronto's words, an "intention to relax some of the fairly rigid capital equity structures in China." With the intention of providing more freedom in terms of the movement of capital, the system is definitely moving in the right direction.

OUTLOOK

Looking forward, Dr. Chen is very optimistic, not only for the next 18 months but for the next five to 10 years. Within this time frame, he believes that "the majority of listed companies will restructure, becoming stronger and more profitable, and international capital will actively enter these listed companies." At the same time, individual Chinese investors, currently more inclined to speculate than invest, will gradually adopt an investment orientation. New sources of capital are expected to be found among insurance and pension funds as they increasingly recognize that venture capital is an investment and not inherently a risky proposition. Insurance funds have already begun to flow into venture investment; pension funds are more sensitive and will take a bit longer.

Meanwhile, other issues are being addressed. One at the top of the list is the CVCRI's recommendation to establish a second exchange along the lines of NASDAQ. Several Chinese government departments—the Chinese Securities Regulatory Commission, the Ministry of Science and Technology, the Research Office of the State Council, and others—have been involved in this study. Specifics—when and how to develop a second board, what model to follow (NASDAQ or some other), and its impact on the main board—remain to be discussed.

It will also help that the Chinese government is beginning to pay attention to intellectual property protection. Progress is gradual, as it is with change in the capital markets, but Dr. Chen notes that the new five-year plan puts technological innovation as a national strategy. "Without IPP," he says, "there is not enough incentive to conduct technological innovation." Within the next few years, because it is so important to China's economy, IPP will be taken very seriously in China.

One concern is that because so much capital has flown into China in a relatively short period of time, the market may overheat and generate a bubble. As VC activity in China becomes more and more competitive, investors should be careful. Many will make money; some will lose money. As in any venture capital investment, the key is careful evaluation of the integrity of entrepreneurs, the quality of management, and all of the elements that go into successful VC investing anywhere.

Conclusion

Venture capital is still in a period of transition involving a focus on global markets, global competition, capital efficiency, and successful exits. Public policy and government regulation can both help and hinder the venture capital community as it seeks to succeed in a changed environment. While the specifics of the public policy and regulatory issues affecting venture capital vary by country, there is heartening unanimity in the across-the-board focus among policy-makers and advisors on globalization and efficient exit transactions in every region. ■

Joseph Muscat *is Americas director of Ernst & Young's Venture Capital Advisory Group, part of Strategic Growth Markets.* ***John de Yonge*** *is an associate director in Ernst & Young's Venture Capital Advisory Group, part of Strategic Growth Markets.*

PERSPECTIVE ON SARBANES-OXLEY

Ted Schlein

General Partner, Kleiner Perkins Caufield & Byers, Menlo Park, California

"But companies that can, and should, go public will continue on that path. [Sarbanes-Oxley] may slow them down some, but it won't stop them from entering the public markets."

E&Y: *As a board member of a new publicly traded company is there any advice you would give to board members of a company preparing to go public in terms of Sarbanes-Oxley (SOX) compliance (whether it be process, resources, time invested, board oversight, etc.)?*

Schlein: Be prepared. The cost of compliance is high. I am not sure you will feel that you are getting a lot of benefit from all that you need to do when you look at it from and ROI perspective, but it is the current regulatory environment and needs to be taken seriously.

E&Y: *How did the relationship between the audit committee/board, management and the audit firm evolve from pre-IPO to post-IPO from the point of view of SOX implementation, expectations, roles, etc.?*

Schlein: I believe that implementation of SOX has been positive from a governance perspective. Audit committees have been more serious about their charter and responsibilities and that is a good thing. Additionally, my observation is that the relationship between management and the company's auditor has become a bit more strained than pre-SOX. The rigor of the regulations creates the potential for situations in which the company is uncertain of the issues that it can talk to its auditors about, given the restrictions of SOX. The relationships seemed more collaborative in the past. I am hopeful that company relationships will evolve into a more consultative relationship as SOX is becoming better understood.

Finally Section 404 requirements in this first year of compliance appeared to be interpreted very conservatively by the accounting profession in implementing it. Over time we will see standardization on how Section 404 is implemented, which will be helpful.

E&Y: *What is the impact of SOX on the VC-backed market?*

Schlein: The cost of compliance is high for VC-backed companies looking to enter the public markets in the SOX environment. This raises questions as to the cost/benefit relationship from a shareholder perspective, as capital used in SOX compliance needs to be taken from other potential uses in the company that may have a potential return from a shareholder and enterprise value standpoint.

There is no data to suggest that this is stopping the VC-backed market. I see no change in how venture capitalists are looking at companies. We may see a future trend of more companies opting to be purchased rather than go public due to the enormous cost of compliance. But companies that can, and should, go public will continue on that path. It may slow them down some, but it won't stop them from entering the public markets.

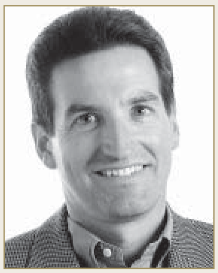
E&Y: *Would you like to highlight anything else?*

Schlein: SOX has been a major shift in corporate governance methods and is currently a one-size-fits-all approach. More consideration should be given as to the size of a company and depth of the SOX rules that they need to comply with. A tiered approach to application of SOX, based on company market capitalization, seems to make more sense than the current approach, continuing to protect shareholder value while not being overly burdensome. ■

PERSPECTIVE FROM TEXAS

David McLean

General Partner, Sevin Rosen Funds, Dallas, Texas



"The disciplined and measured approach taken by top-tier venture capital firms in their fund raising activities needs to continue."

***E&Y:** When you look back at the venture capital activity in 2005, were there any major takeaways or lessons learned that stood out to you?*

McLean: When the up-tick in IPO activity 2004 wasn't sustained in 2005, it underscored that we are in a capital markets environment where portfolio companies need to be much more mature, particularly in terms of financial performance, to go public. As the time to IPO extends, it creates a kind of domino effect with respect to the pressure this puts on returns. For us, this just reinforced our focus on the fundamentals of the companies that we invest in at an early stage. A big part of the investment decision for us is their ability to grow and become stand-alone public businesses. This has an impact on how we advise our current companies as well as the criteria we use to make investments in new ones.

On the flip side, the data suggests that about a third of the M&A transactions in 2005 returned four times invested capital or better to investors. While we believe that the best returns come from companies that go public and then continue to grow, it was encouraging that there was some growth in the value of acquisitions, which is the likely outcome for some of our companies.

***E&Y:** What are some of the exciting investing opportunities that you are exploring?*

McLean: As a generalist firm, we don't have an over-specialization in any one area. We are looking now at a range of alternative energy investments, not just in terms of energy source—solar energy, new battery technologies, fuel cells, etc.—but also energy management. Finding solutions to energy management problems over the next five years will have a significant impact on many businesses.

We also have a small, but important, percentage of our portfolio in the life science area. We look for breakthroughs in drug discovery and technologies at the boundary between IT and life sciences where IT technologies are applied to the pharma business, such as the investment last year in Metabolon. There is also a broad sector called systems biology that uses very sophisticated mathematics to predict the behaviors of biological systems that can be applied to a variety of markets, including big pharma. We have spent quite a bit of time looking at this area, including involvement with select universities, and have actually seeded a company in this area.

Communications continues to be a big focus for us, including fixed mobile convergence as well as peer-to-peer networks in all of its offshoots. At the same time, I have a personal interest in extensions in the semiconductor business, such as plastic electronics. This is part of a field of material science devoted to extending well-established processes used to build electronic circuits to the field of conductive polymers, where circuits are printed using a variety of existing technologies. This is a market that is still in its infancy, but there are a variety of applications, such as organic lighting and incorporating electronics into clothing, that will develop in the future.

***E&Y:** Globalization is a business imperative today both for venture-backed companies and for venture capitalists themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization?*

McLean: Although a number of VC funds are establishing offices in places like China or India, we tend to a take a cautious approach with respect to where we invest, particularly as it relates to looking ahead to exit and what the liquidity event would be. Because we are an active early-stage investor, we tend to focus in North America because we believe it is important to be close to our portfolio companies. China, for example, merits a measured and cautious approach because the financial ecosystem there needs to mature before a predictable environment for venture-backed businesses can emerge.

In terms of doing business globally, the majority of our companies—particularly the software and systems-oriented companies—have some portion of their business in key centers around the world. Locating development activities in India, China, or Eastern Europe is an important part of building a business while managing your costs and maximizing productivity. You can get the most mileage out of your cash in India and China.

There is also enormous opportunity for our portfolio companies to sell in China and India. Phenomenal growth is possible in these countries, especially for companies focusing on IT infrastructure and wireless communications. Still, there is a cost of doing business overseas. For small companies that don't have a great deal of personnel or breadth to support the business globally, there is an important balance one must find between chasing global opportunities and being able to capitalize on them. While the companies I am responsible for are more immediately focused on serving businesses closer to home, global opportunities are a critical part of their overall growth strategies.

***E&Y:** From your perspective, do you perceive China and India a threat or opportunity?*

McLean: We see competition from China and India in the form of hybrid companies that may keep their technology centers in the home country but maintain their headquarters and sales activities in the United States—this is essentially the model that many Israeli companies have deployed. Most of our portfolio companies do not compete with Chinese or Indian start-ups in their local markets.

***E&Y:** With portfolio companies in multiple regions, what is your assessment of the venture capital environment in Texas and other investment hotbeds?*

McLean: Texas remains a vibrant community for venture-backed start-ups—the three key centers of Dallas, Houston, and Austin remain quite strong. Austin, in particular, has developed a vital entrepreneurial community over the last 10 years. California will continue to grow—the deal flow in our California office is very good and I made an investment in a Silicon Valley start-up company not long ago. Overall activity remains robust in all of the key technology centers.

One of the most important challenges we face as we look ahead—this was true last year, and it will be true next year and the year after—is the abundance of capital that has been flowing into this asset class. The disciplined and measured approach taken by top-tier venture capital firms in their fundraising activities needs to continue. There is always the potential to have too much capital serving a market with a finite ability to grow, running the risk of run-ups in valuation and the funding of "me too" companies, all of which we want to guard against. The data suggests that venture capital firms over the last year have tried very hard to take the high road and stay disciplined—and that is ultimately good for the industry. ■

Richard Lim, continued from page 33

inefficiencies don't last forever. The third lesson is that the management teams in China still lack the depth of experience that you see in the United States.

***E&Y:** Let's look at the exit landscape; what do you think we can expect from future China-based IPOs?*

Lim: I think a lot of them will still come on NASDAQ, at least for the next few years. NASDAQ still gives the highest multiples and the best liquidity for technology venture-backed IPOs. Some of them might end up in London, but I think that Honk Kong and other Asian exchanges do not provide great valuations or liquidity for venture-backed technology companies. I also think that there continues to be a pipeline of good companies coming out. I think that we would be very disappointed if some time in the next five to 10 years we do not see the equivalent of a Yahoo! or eBay or Google emerge out of China, at least one.

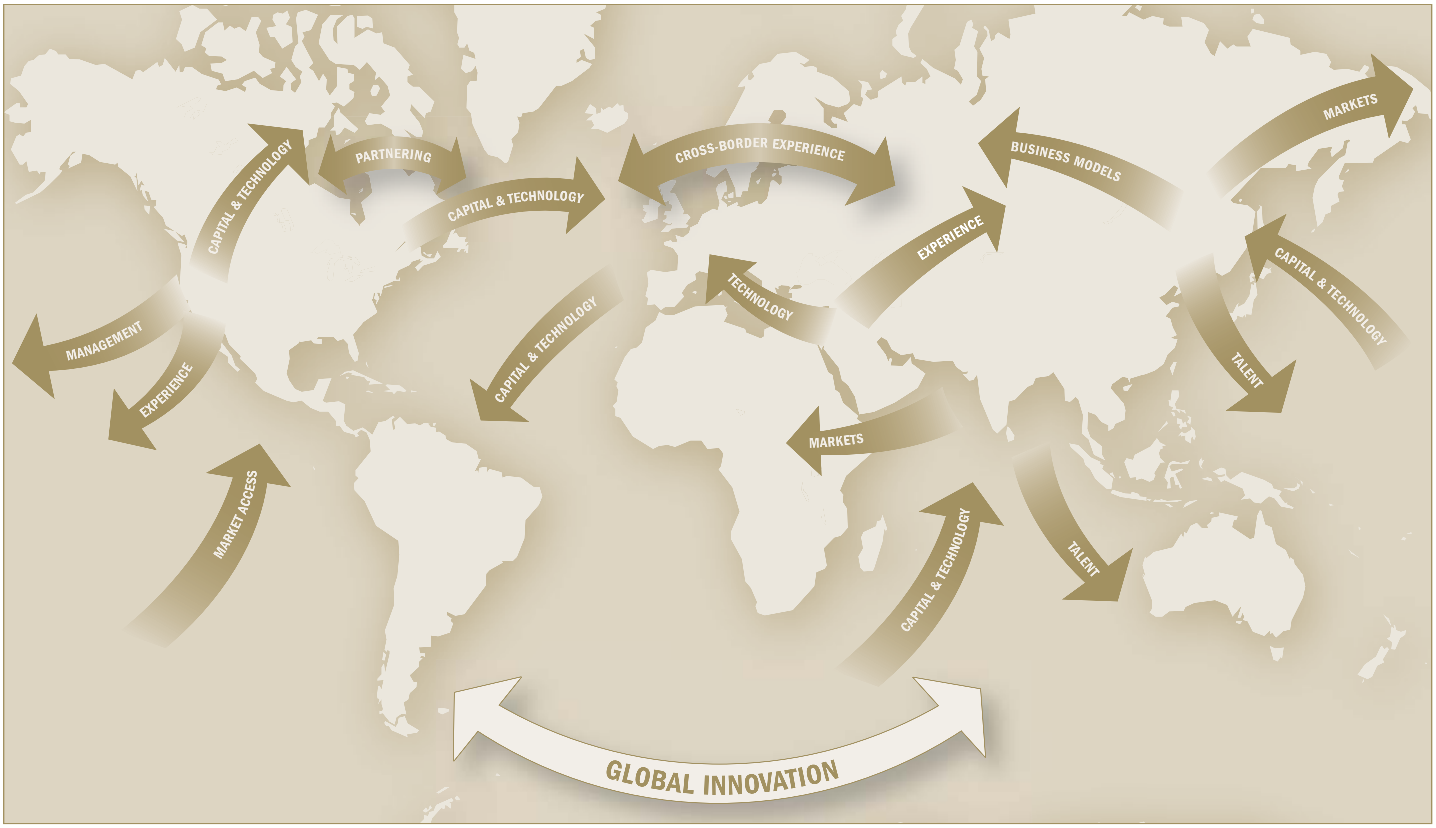
***E&Y:** Will future IPOs from China also come from new industry sectors?*

Lim: I don't think it is going to change dramatically. It is still going to be semiconductor-component companies and the Internet-related companies, as China is the largest Internet market and probably the largest wireless single market in the world.

***E&Y:** What are some of the challenges that the venture capital industry needs to address in China?*

Lim: The first is management quality and depth and a sufficient pool of experienced talent. I think that in the long term we will see the development of a larger pool of experienced management. In addition, we will continue to see the development of other components of the venture capital ecosystem. For example, it is still relatively more difficult to raise early stage capital in China. Further, stability in the rules in China would be appreciated. And it is less a matter of what the rules are as opposed to more stable rules. ■

Globalization and Collaboration: Insights from Ernst & Young's Strategic Brainstorming Sessions



OVER THE LAST YEAR, the Ernst & Young Venture Capital Advisory Group engaged some of the world's leading venture capital stakeholders—investors, entrepreneurs, business advisors, government officials and academics—in discussions on the impact and implications of globalization on the venture capital industry. In four strategic brainstorming sessions, we addressed topics such as opportunities and challenges in emerging markets, lessons that the development of Silicon Valley and Israel can offer to emerging technology hotbeds, the role of foreign investors in China and India, and models of investing. Emerging from the discussions was a picture of a global venture community characterized by increasing collaboration in which the established and emerging investment hotbeds traded strength for strength, a dynamic interchange of capital, technology, business models, talent, and market opportunities.

2005 Strategic Brainstorming Sessions:

- April 6, Shanghai: Creating a Technology Hotbed in China—Lessons Learned from Silicon Valley and Israel
- June 8, Menlo Park: Doing Business in China—The Role of Silicon Valley VCs
- November 11, Boston: Doing Business in China—The Role of East Coast Investors
- December 8, Mumbai: Creating a Technology Hotbed in India—Lessons Learned from Silicon Valley and Israel

Sessions Scheduled in 2006:

- April 25, Palo Alto: Energy Technology—Innovation, Investment, Opportunities and Exits

Key Session Takeaways

Summarized below are some of the key points related to the major developed and emerging technology hotbeds that arose during the session discussions in 2005.

SILICON VALLEY

- A China strategy is essential for VC portfolio companies. China represents a potential supplier, customer, acquirer, source of capital efficiency, and pool of talent.
- Silicon Valley VCs offer China and India capital, company building experience, management/board talent and exit paths.
- The Silicon Valley venture community is seeking disruptive business models in China and India. Disruptive technologies will be generated as well.
- The VC industry is increasingly segmented: global funds vs. domestic only
- Yahoo!'s investment of US$1 billion in Alibaba.com is an important milestone in Silicon Valley's relationship with China.
- Leading Silicon Valley VCs have struck alliances with experienced VCs in China—most locally operating players are now under collaborative agreements.
- Silicon Valley VCs have established their China strategies and are now focusing on India.
- Key venture industry questions include: What are the new forms of accessing new markets? What is the impact of China and India? What is the impact of Web 2.0?

NEW ENGLAND

- A China strategy for portfolio companies is essential. East Coast VCs are focusing on helping portfolio companies do business in China through local VC contacts and other business development activities.
- The venture community is not focused yet on investing in China, but concerned about missing potential opportunities. Partnering with Chinese funds rather than direct investment is the preferred approach to China.
- Boston-based VCs are among the first in the new wave into India.

E&Y Hotbed Criteria

Capital Sources: Venture capital and private equity, government R&D funding, and public capital markets

Intellectual Capital: Universities, research institutions, and pillar companies

Social Dynamics: Entrepreneurial spirit and risk-taking, new business formation, acceptance of wealth creation, and acceptance of failure

Tax, Legal, and Regulatory Environment: Property rights, tax incentives, stock options, and intellectual property protections

Infrastructure: Presence of sophisticated advisors (legal, accounting, banking), in addition to physical infrastructure (transportation, communications)

Market: Large domestic market for technology, early adopters of innovative products

Attractive Environment: Quality of life, entrepreneurial role models and success stories, political stability

INDIA

- Growing domestic consumer market purchasing power is driving a new wave of consumer-driven Internet applications in India. Other key sectors are software and business process outsourcing (BPO).
- Investors are risk-averse and currently focused on later-stage opportunities; as a result, there is lack of early-stage venture capital.
- A domestic limited partner base (e.g., pension funds, family offices) is needed to support the formation of small, early-stage venture capital funds.
- Foreign venture capitalists are increasingly focused on innovation in India and seeking models for investing in the country.
- Key strategic investments in Indian innovation by Intel, Cisco, and Microsoft.
- Government needs to act as a catalyst: SBIC model, tax incentives, R&D support.
- Strong ties (Indian expats/returnees) with Silicon Valley VCs create partnership opportunities.

ISRAEL

- The growth of a vibrant venture capital ecosystem in Israel provides lessons for emerging markets.
- Israeli companies must be global from the start to be where their customers are.
- The Israeli government acted as a catalyst to the VC industry through the establishment of the Yozma funds and providing tax incentives to foreign investors.
- Capital efficiency is key to Israeli venture capital success.
- The emergence of China and India will require Israeli companies to take advantage of the pool of talent and capital efficiency opportunities available in these countries.
- Israel will remain a top technology innovation center and become a technology provider for China and India.

CHINA

- China's vast, fast-growing middle class consumer market has very different characteristics than its Western counterparts in terms of early technology adoption, disposable income, culture, and needs.
- Entrepreneurs are generating innovative business models for the local market based on Web 2.0 with potential global impact.
- Growing investment from Silicon Valley VCs is creating more competition for later-stage deals.
- Entrepreneurial spirit, but a shortage of management talent.
- Supportive financial and legal systems, effective domestic venture capital law, regulatory stability and intellectual property protections are needed—the Chinese government must be engaged to improve the legal/regulatory and fiscal environment.
- A Chinese NASDAQ for growth companies is needed for a sustainable VC Industry in the long term.
- 2005 was a milestone year for the Chinese VC industry: the first wave of fundraising by China-dedicated funds; the second wave of Chinese VC-backed IPOs on NASDAQ; a major series of acquisitions of Chinese VC-backed companies by U.S. firms; an overall record VC fundraising year (US$4 billion).

PERSPECTIVE FROM INDIA

Saurabh Srivastava

Chairman, India Venture Capital Association; Chairman, Infinity Technology Investments, Mumbai, India

"India will have a much more diversified venture capital ecosystem, both in terms of industry focus and stage of investment."

***EY:** When you look back at venture capital activity in India in the past year in 2005, were there any key takeaways or lessons learned?*

Srivastava: One takeaway is that the exit environment has improved. There is more M&A activity, and IPO activity continues to be robust, providing greater liquidity for venture-backed exits. Another takeaway is that opportunities in India are becoming much broader than IT. There has been expansion in multiple areas: healthcare, biotechnology, media, textiles, and manufacturing. The auto and car-component sectors are also rapidly emerging.

***E&Y:** What are some of the key challenges that the VC industry in India needs to address?*

Srivastava: One of the challenges for the industry in India is that, while investment has increased overall, most of it has been directed toward late-stage opportunities and not enough to early-stage companies. The early-stage part of the ecosystem is not really being adequately addressed, and this includes the whole area of angel investment. Over the last two years, maybe US$3.5 billion in venture capital has been invested in India. I would suspect 90 percent or more came from overseas investors. And then only a fraction of this, I doubt more than 10 percent or 15 percent, has gone into early-stage rounds.

As far as VC operations are concerned, the requirement that foreign venture capitalists, because they are investing in Mauritius-based structures, come in through the Foreign Investment Promotion Board is a hurdle. While the clearances and approvals are largely routine, it would be preferable to have an Indian structure on limited partnerships that doesn't present too many restrictions on investments.

***E&Y:** What are the barriers investors face when it comes to investing in early-stage deals? What needs to be changed to help promote early-stage investment?*

Srivastava: Because the market has been buoyant over the last period, venture capitalists found that later-stage deals provided good enough returns while carrying less of the risk inherent in early-stage deals.

Another reason why venture capitalists tend to forget about early-stage deals is that many firms do not have fund managers with experience in operations. Most fund managers have investment banker experience. This often means that they tend to concentrate on later-stage deals instead of seed or early-stage investments, which require more hands-on involvement.

Although the entrepreneurial spirit is growing in India, there are still few "serial entrepreneurs," entrepreneurs who bring the experience of having been involved in the establishment of multiple successful ventures. Venture capitalists are more likely to invest in early-stage deals when they know experienced entrepreneurs are managing the company.

In India there is no special scheme that helps to bridge the gap between new companies and the VC industry comparable to the SBIC program in the United States. An Indian program akin to the U.S. SBIC program would definitely help to answer the needs of companies in a start-up situation.

Thirdly, the concept of VC or private equity is rather new in India and, therefore, not yet well-understood and established. Raising domestic funds for young companies is hard. Getting funds from overseas generally takes more time as foreign investors often have to be present in the country before they feel confident with early-stage investments. At the moment, foreign investors are increasingly beginning to look into the possibilities of forming partnerships with Indian VC funds that are doing early-stage investments.

That said, I would like to point out that the entrepreneurial class is moving up—the quality of entrepreneurs is improving dramatically in India. As a result, early-stage funds are beginning to be formed. I think it is really just a matter of time before we see an improved early-stage environment.

***E&Y:** What is the role of foreign venture capitalists and particularly, U.S. venture capitalists in the development of the venture capital industry in India?*

Srivastava: The role of U.S. venture capitalists is huge, mainly because the United States is the place where the VC industry is most developed. The majority of investment in India is coming from U.S. venture capital funds. There needs to be more domestic venture capital formation in India—and this will definitely happen over time. In the meantime, the United States will continue to be dominant in the Indian market.

Besides capital, U.S. investors bring expertise. Investors working for funds investing in India have often been managing funds in the United States. They are now using this experience when investing in Indian companies.

In addition, the recent announcements by Cisco, Intel, and Microsoft of innovation development programs in India are important because these multinationals are focused on early-stage ventures in technology and products, rather than IT services. Technology-driven products is not an area that has received much attention by investors up to this point. I think this will change quite quickly as entrepreneurs, encouraged by the support of these three major companies, start to create ventures in this area.

E&Y: *Where do you see interesting and exciting investment opportunities over the next year?*

Srivastava: Apart from the well-established, knowledge-based services areas such as IT services and BPO, which are not areas that have been played out at all, there will be some exiting investment opportunities in the healthcare industry, especially in the biotechnology area. I also expect to see interesting things happen in the media industry.

The mobile industry also is developing fast. Both mobile Internet and the convergence of information and entertainment on the mobile device will provide interesting opportunities for investors as the user base grows by 3 million to 4 million new phones each month. The usage of mobile phones cuts across a broad demographic of people, and I'm beginning to see business plans focused on the opportunities in this segment.

E&Y: *Looking ahead to the next 12 to 18 months, what do you think the state of the Indian venture capital industry will be?*

Srivastava: I am very optimistic. I think that the amount of annual investment in India will continue to rise from the current figure of about US$2 billion per year. More and more new funds are being announced that are looking for early-stage opportunities, focusing on products and bringing a more specialized approach. As a result, India will have a much more diversified venture capital ecosystem, both in terms of industry focus and stage of investment. Overall, we can say the future is looking bright for the Indian VC industry. ■

Peter Liu, continued from page 11

E&Y: *What are some of the challenges that the venture capital industry needs to address in China? On a global basis?*

Liu: More and more international venture capitalists are bringing money here, resulting in more competition for deals. It is not wise to pursue investment in some hot areas, as valuations have become too high. One of our investment philosophies is to always look for deals using our own methodology. We build a truly local team with strong experience, knowledge and network in the local market.

Venture capital is still a new industry in China. The government sometimes does not fully understand the industry's business model and value. Venture firms, especially foreign ones, should learn to engage the government and pay close attention to its policies. ■

PERSPECTIVE FROM INDIA

Sumir Chadha

General Partner, WestBridge Capital Partners, Silicon Valley/Bangalore

"2005 was the first year where the bulk of venture capital dollars went into companies focused predominately on the domesic Indian markets in areas such as consumer Internet and consumer wireless."

E&Y: *When you look back at venture capital activity in India in the past year in 2005, were there any key takeaways or lessons learned that stood out to you?*

Chadha: One of the biggest takeaways in the last year is that the nature of the opportunity in India has shifted dramatically. Historically, the Indian venture industry has invested mostly in companies that are exporters—offshore services of different kinds—but 2005 was the first year where the bulk of venture capital dollars went into companies focused predominantly on the domestic Indian markets in areas such as consumer Internet and consumer wireless. The focus on Indian consumers is a trend that is accelerating dramatically. This is a function of the Indian consumer markets really hitting a substantial scale.

E&Y: *What are some of the key challenges and opportunities that the VC Industry in India should address?*

Chadha: The Indian venture capital industry has really gone through three phases. Phase one occurred in the mid-1990s when a lot of Indian banks established venture arms and two foreign players entered the market: Walden-Nikko, and Draper International, both small funds focused on India. While both funds fared well, neither of them continued investing for different reasons: Bill Draper, the founder of Draper International, retired and Walden became focused more on China and Japan. No institutions were created in the first phase.

In the second phase, from 1998 to 2000 during the bubble, some 20 to 25 venture funds were formed in India. But when the downturn hit, many of those venture funds shut down, and investors pulled out of India. Many venture funds shifted to a later-stage buyout model—funds like Citibank ventures, ICICI Venture, and ChrysCapital. Only Westbridge and one or two other firms really stuck with the early-stage model during the downturn. And there certainly were a couple of very lean years in venture, even leaner than last year, especially 2002 and 2003. Very few venture deals were being done. A lot of people had written off the asset class, saying "venture in India will never work."

Fast-forward to 2005 and 2006, and we are now seeing tremendous interest in Indian venture. There are four or five new independent Indian funds being formed to focus on Indian venture. A lot of the U.S. players are entering the market, either putting a partner or an associate on the ground in India, and starting to do deals.

Two years ago there was no ecosystem—too few players to create a market. There were lots of good entrepreneurs, and there continues to be, but there was no stable, steady, committed source of venture funding. Westbridge is the largest and most established venture fund in India with US$350 million under management. The next largest firm today is about US$40 million under management, but we are seeing this change, because suddenly there are several new entrants with a US$100 million first-time fund or a US$120 million first-time fund. The biggest issue facing the industry—the lack of an ecosystem—is being addressed. Between Indian players and U.S. players, at least 10 venture groups will set up shop in India this year.

One of the other challenges that the Indian VC industry needs to address is the lack of seed-stage funding. There are almost no capital sources for an entrepreneur seeking to raise US$200,000 or US$300,000 today. The funding environment at this level is very disorganized, very limited, and with no institutional angel funding to speak of. We have been encouraging the government to create a number of seed-stage funds to fill that gap in the market.

But overall, the good news is the ecosystem is really coming together, and this year should be the biggest year for venture capital in India in the last decade.

E&Y: *What are the barriers investors face when it comes to investing in early-stage deals and what needs to be changed to help promote early-stage investment?*

Chadha: A local presence is one of the key requirements for successful early-stage investing in India. Early-stage deals in India differ from those in Silicon Valley or elsewhere in the United States in that entrepreneurs tend to need a lot more mentoring and there is not as much of an established ecosystem, not just for funding, but also for recruiting management talent or providing business advice. A lot of the burden that would be shouldered by the ecosystem in Silicon Valley must be borne by the VC. Investors must have a very strong local presence, a very strong local network of executives they can bring on board, and a strong network of operating partners that they can put on the boards of directors to mentor young entrepreneurs. That is one of the biggest barriers that investors face investing in India: it just takes a lot more work than in the United States.

This will change with the passage of time and the development of a start-up ecosystem. A lot of the right elements are now falling into place after many years, so we are seeing lot of venture funds being created—a lot of seed funds, even venture debt firms. There has also been a lot of entrepreneurial success in the last year, with many companies going public and a lot of entrepreneurs making money, many of whom are coming back to mentor the next generation of entrepreneurs. The trend certainly seems to be moving in the right direction.

E&Y: *What is the role of foreign venture capitalists and particularly U.S. venture capitalists in the development of the venture capital industry in India?*

Chadha: If you look at two other markets where U.S. venture capitalists have been very active, Israel and China, it's interesting to see how different they are. In Israel, the U.S. VC firms are very strong and well-positioned, while in China a lot of the best venture funds are really domestic Chinese funds. My guess is that India is going to fall somewhere in the middle.

Like China, the primary opportunity in India is the domestic market. In Israel, the main opportunity lies in export to the U.S. markets, which is why a lot of the U.S. venture capitalists have a competitive advantage. Unlike China, however, the entry of the U.S. venture capitalists has happened so quickly that the domestic industry hasn't really had an opportunity to form—we are seeing only now the formation of a domestic venture capital industry in India. Unfortunately, the first two venture capital phases in India were not very successful, but I think we are seeing many more sustainable firms being created and much better venture teams coming to India in this phase. U.S. firms have an important role to play in providing a large amount of the capital and training to people in the Indian venture business. In terms of their influence on the industry, it will likely fall somewhere between what it is in China and in Israel.

E&Y: *Globalization is a business imperative today both for venture-backed companies and for VC themselves. What are some of the opportunities and challenges your portfolio companies face addressing globalization? How do these global opportunities affect the way you make investments and raise additional capital?*

Chadha: We have been surprised at the pace at which many of our companies are going global from a customer perspective. Some of our younger companies are deriving a substantial amount of revenue, not only from India but also from the United States, Japan, and Europe. Many of our companies, particularly in the wireless side, are generating substantial revenues from emerging markets—not only India, but countries like Brazil, Russia, and China.

The biggest challenge we face today is the globalization of sales and marketing. Through this wave of globalization, we are finding that a customer in India for wireless value-added services software suddenly looks very much like a customer in China or a customer in Russia. If we can solve the problem for the Indian customer, we have potential customers globally. That really wasn't true even five years ago, but it's happening now very quickly. Our Indian companies have to deal in different cultures and navigate different markets where they don't know the local players—all while facing a lot of competition. This challenge is one that we are very focused on helping our companies with.

E&Y: *Is China an opportunity or threat for the Indian VC and tech communities? What approach to China are your portfolio companies taking?*

Chadha: On the opportunity side, many of our software and design companies in India use China as a manufacturing base. Most of our manufacturing is outsourced to China because the Chinese companies are able to do an outstanding job at manufacturing, while we do a lot of the design and software high-end work in India. It's a model that works well by complementing the strengths of both countries—China as a very powerful, low-cost manufacturing center, and India as a high-end design and software center.

On the challenge side, there is a competition globally for capital, and capital seeks to go where the returns are highest. But those returns are uncertain and nobody can predict what future returns will be; as a result, there is marketing competition for foreign direct investment and venture capital dollars. India and China are competing with each other to attract the dollars of venture capitalists in Silicon Valley and elsewhere. Some partnerships feel that there is a bigger opportunity in China and some partnerships feel there is a bigger opportunity in India. China is a threat in the sense that everybody is competing for a limited pool of venture dollars.

E&Y: *Do you see an evolution away from services toward IP-based products in India's venture community?*

Chadha: Yes. During the downturn, a lot of venture funds focused on offshore services because it was the industry that in India was scaling and was relatively capital-efficient. And as the United States went through a difficult economic period, there was a lot of outsourcing going on for cost reduction reasons, and there still is. A lot of the investment during this period was focused on offshore services to U.S. companies, including many of our own portfolio companies that have done extremely well. This strong development in India of outsourcing of IT and IT development has translated into highly advanced skills among Indian engineers that are allowing them to start companies on the cutting edge of different technologies.

For example, Texas Instruments today does its end-to-end DSP chip development for the latest cell phones entirely in Bangalore. SAP, too, is developing major modules of their next generation product in Bangalore. Cisco is also doing significant design work in Bangalore. A lot of core technology development has shifted to India in the last three or four years, and the natural progression is to see teams of engineers leave the big firms to start their own product and IT-based companies focused predominantly on the Indian market. We are beginning to see that trend and have backed several of those companies last quarter, companies like Bharti Telesoft.

E&Y: *Where do you see interesting and exciting investment opportunities over the next year?*

Chadha: I continue to believe that consumer Internet and consumer wireless are the two largest opportunities for venture in India. These are large, fast-growing markets. Businesses in these sectors, as has been proven in the United States and China, require a small amount of capital to scale and so can be very capital-efficient, generating high returns for venture investors. For both consumer Internet and consumer wireless, the market is still in early days in India. On the Internet side, India went from about a million Internet users in 2000 to about 25 million to 30 million users today, with the user base expected to grow to 100 million over the next four years. That's going to create a lot of opportunities in online advertising, e-commerce, social networking, etc. On the consumer wireless side, we went from 3 million subscribers in 2000 to over 80 million subscribers today, and we think that number will go to 250 million subscribers over the next five years. This represents a big market opportunity for wireless value-added services—games, ringtones, wallpaper, and the like. Consumer Internet and wireless is an area that Westbridge is laser-focused on—and so are a lot of other U.S. and Indian VC firms.

E&Y: *Looking ahead, what will be the state of the Indian venture capital industry in 12 to 18 months?*

Chadha: We are going to go from an industry that had very few players investing very limited amounts of capital to a relatively vibrant and strong industry with more than 10 serious dedicated funds focused on Indian venture. The risk is that things may become overheated—there may be too much capital being raised—and we are concerned about that. Nonetheless, we will definitely create a real ecosystem with lots of firms in Bangalore, Delhi, and Bombay, seeding ventures and investing in companies. This is very positive for the Indian venture industry, so we are optimistic. ■

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