Venture Capital in APEC Economies

Report to APEC

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Research Counselor: J. Kimball Dietrich
University of Southern California
Marshall School of Business

With the assistance of
Mohamad Hisham B. Mohd Noh
PhD Candidate, Department of Economics
University of Southern California

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EXECUTIVE SUMMARY

Venture capital funds raised and invested increased dramatically in Asian APEC economics in the period following the Asian Financial Crisis of 1997. While the collapse of the public equity markets in Asia, following the NASDAQ after March of 2000, has had similar repercussions on both the raising of new venture capital funds in the last two years and exit strategies of venture capital funds, these trends are not more pronounced than in developed venture capital markets like the United States. However, more venture capital funds in Asia are directed to economic restructuring of traditional industries than is the case in developed markets. This is particularly true of large venture capital markets like Korea and Japan, but much less so in China, China Hong Kong, Chinese Taipei, and Singapore. The role of venture capital financing in Asia, therefore, differs somewhat from the typical part played in the United States, which is to finance start-up and growing firms in high technology industries.

Banks and other lenders finance most small firms in the United States. The venture capital industry in the United States has evolved as a specialized industry able to overcome the challenges of information opaqueness in businesses without long histories or tangible capital, and with complex business plans requiring a long time to be realized, and provides a relatively small share of small firm finance. The complexity of venture capital financed firms are of course characteristics of high technology firms. The risks of investments in high technology and other firms financed by venture capital has induced the standard operating procedure that venture capitalists invest in equity positions in start-up firms and take an active role in management. The requirements of the institutional and individual investors typical in the U.S. venture capital markets have fostered a dominant reliance on limited partnerships to organize venture capital funds. These characteristics of venture capital in the United States provide an interesting comparison to practices of venture capitalists in the Asian APEC economies.

APEC economy policies towards venture capital show a wide variation in terms of special treatment accorded the industry. This result is based on an analysis of the venture capital regulatory environment, tax treatment of venture capital investments and income, limitations on organizational form and allowable investments, and special government programs for venture capital for nine Asian economies. Venture capital policies are compared in terms their fostering investment in high-technology industries, amounts of funds raised, and concentrations of venture capital firms and professionals in each economy. There is no discernable pattern in the effectiveness of active government policy towards venture capital. The United States, Hong Kong, and Chinese Taipei all have with robust venture capital markets but have few or no specific economic policies for venture capital. Some economies, like Korea and Japan, have active government involvement and sizable venture capital industries, but most venture capital investment is concentrated in restructuring "traditional", not financing high technology start-up firms

Venture Capital in APEC Economies

Introduction

The development of domestic venture capital industries is widely seen as a valuable means to foster the development of small, high technology firms that can be the engine of economic growth in Asian economies. The success of venture capital achieving these goals in the United States, Israel, and Chinese Taipei is widely discussed. This report discusses recent developments in venture capital in the Asian Pacific region (Part 1) and describes recent trends in the venture capital industry in the United States, where it is most highly developed (Part 2). This discussion is followed by an analysis of policies and economic environments in APEC economies that is geared to identifying best practices in the APEC region as well as regulatory barriers to the development of an efficient venture capital industry for financing small and medium enterprises (Part 3). The analysis identifies those characteristics of the U.S. venture capital industry that are appropriate guides for Asian venture capital markets or aspects of the U.S. industry that may not be important for a specifically Asian domestic small-firm financial sectors providing funds for growth in that sector. Finally, case studies provided in the Appendix illustrate policy issues concerning small and medium firm financing in the Asia Pacific region raised in the report.

The last five or six years have posed enormous challenges for start-up firm finance in the Asian economies of APEC. First came the Asian Financial Crisis in 1997 with the consequent devaluations, financial system difficulties, and in many cases severe policy responses leading to tightening of monetary and fiscal policy. In March 2000, the equity values of publicly traded technology and other high-tech smaller firms began to collapse after reaching their peak in the U.S. NASDAQ market. The decline in the largely technology stock NASDAQ index was mirrored by all the second-board exchanges in Asia (see Figure 1) although second-board prices indices like NASDAQ have stabilized in the Asia Pacific region since 2001 at levels between 20% to 40% of their peaks (see Figure 2). This report first discusses the somewhat surprising impact of these events on the flow and allocation of venture capital in the APEC region since 1995. Subsequent sections compare policies concerning venture capital in different APEC economies, and, finally, assess the role of venture capital in the overall context of small-firm finance.

The extensive history and scale of the venture capital industry in the United States make the practice and regulation of US venture capital a useful reference point for many of the policies, laws, and regulations affecting venture capital in Asian economies. Notwithstanding this, each economy is confronted with specific challenges imbedded in a unique institutional and commercial history. To the extent that this report compares venture capital environments in Asia with that of the United States, it is with the principle goal of identifying policies or institutional structures that appear to respond to differences in the local demand for small and medium size enterprise financing and to identify policies or practices that work or do not seem to work in fostering the development of efficient small-firm financing markets. The selected case studies in the Appendix illustrate both financial market structures in APEC economies that appear to achieve the goal of development of SMEs and policies that appear to inhibit or restrain the development for a more robust market for small firm financing.

1. Recent Trends in Venture Capital in Asia

This discussion of recent trends in venture capital in APEC economies in Asia updates the study published by the International Finance Corporation (Aylward 1995). The discussion draws upon other recent analyses of the venture capital trends in the region, specifically the discussions in *The 2003 Guide to Venture Capital in Asia* published by the Asian Venture Capital Journal (AVCJ) and Kenney *et al* (2002). Review of the data and commentary provides a consistent picture of the flow of venture capital following 1997 by all observers.

Venture Capital Raised After the Asian Financial Crisis

Perhaps the most surprising conclusion coming out of the review of the post-Crisis venture capital market is the enormous acceleration of funds raised annually by venture capital firms operating in Asia (see Table 1) following the Asian Financial Crisis and the rapid increase in the estimated size of the total pool of venture capital funds (Table 2). One industry observer described these developments as follows:

> Until the Asian financial crisis of 1997-98, Asian private equity players were largely composed of smaller funds focused on minority investments and the occasional start-up. … Post-1997, however, a number of offshore equity funds have moved into the Region, fueled by the enormous rise in US equity markets, and attracted by what looked to be a bumper buyout market after the Asian crisis. Foreign capital helped drive the Asian recovery.[1]

In the following discussion, we concentrate initially on the data for the six largest pools of venture capital in the region, namely those for the economies of China, China Hong-Kong, Japan, Korea, Singapore, and Chinese Taipei. These six economies collectively account for over 95% of the venture capital industry in the Asian APEC economies.

[1] *The 2003 Guide to Venture Capital Asia*, 2002, p. 6.

Summing the total funds raised from Table 1 for each of the six economies from the period 1994 to 1997 and comparing them to the funds raised since then (1998 to 2001), total funds raised more than doubled (increased 116%) in the period since the Asian Financial Crisis. The largest increase was in the combined Chinese Taipei total that was close to four times the earlier period (up 283%) and all the economies experienced close to double the growth in funds raised. Even during the technology stock price collapse in the latest year available, 2001, new venture funds raised averaged one-and-a-half times the 1994-1997 average. By 2001, the total venture capital pool in the six economies was over 2.5 times its level for 1997, having reaching a total of $77.8 billion. Recent date indicate that the pace has slowed further in 2002, down close to 70% from 2001, in line with the global private equity industry. Asian private equity capital under management reach $88.6 billion in 2002, and new investments were only ddown 7% from 2001 levels[2]. Venture capital activity in the Asian Pacific region demonstrates robust growth in the post-Crisis period and appears to be at least as strong as elsewhere in the world in the period following the technology-stock price decline.

Hong Kong and Singapore serve as important hubs for venture capital investment activity throughout the region. While Table 3 shows that while the largest concentration of venture capital professionals in 2001 is in Japan (1,531), Hong Kong and Singapore are second and third in terms of professionals and Hong Kong is by far the largest center of venture capital under management with $26 billion. Japan at $21.5 billion and Singapore with $9.7 billion under management are second and third, where Korea and Chinese Taipei are nearly tied for fourth with $6.2 billion each. Australia, with $4.7

[2] *The Asian Venture Capital Journal*, "Asian Private Equity Report for 2002," press related dated January 13, 2003.

billion in 2001 and 431 professionals, is the only other Western Pacific APEC member in the same size category. Table 4 shows that most of the funds in Japan are from domestic sources (79%), while Hong Kong and Singapore raise 67% and 38%, respectively, outside Asia, confirming their role as a center of foreign capital inflows into Asia. Table 5 provides another confirmation of the role of Hong Kong and Singapore as regional venture capital centers in that domestic investments for those two economies are relatively small (under 15% of the total for each), while their other Asian venture capital investments are substantial, namely 85% for Hong Kong and 64% for Singapore. Aside from Hong Kong and Singapore, nearly all of the 2001 disbursements for venture capital funds in other economies in Table 5 are directed at domestic investments, with Japan and Korea near 90% and Chinese Taipei close to 80%.

Of the remaining APEC economies in the region covered by the AVCJ data, only in Malaysia and Thailand have venture capital funds raised followed the pattern in the average of the largest six venture capital economies: in Thailand venture capital raised increased 366% in the period 1998-2001 relative to 1995-1997, where the corresponding increase was 246% for Malaysia. The remaining economies experienced either a smaller increase (the Philippines) or a declining pattern in the period following the Asian Financial Crisis. By 2001, Malaysia and Thailand accounted for 70% of the total venture capital under management in the five smaller venture capital markets, although less than 2% of the venture capital in the Asian Pacific region.

Investors in Venture Capital in Asia

Sources of venture capital in the Asian region differ remarkably from the types of investors typical in the United States where, in 1998, 47% of the fund committed to venture capital came from pension funds, 11% from individuals, 13% from foreign investors (and others), and 8% from endowments, while corporations supplied only 18% and banks and insurance companies another 3%[3]. While specific shares have changed, the situation was similar in 1987 in the United States when individuals, pension funds, foreign investors, and endowments provided a total of 74% of the commitments to venture capital funds then. In other words, about three-quarters of venture capital funding in the United States is provided by individual or institutional investor private funds, less than a quarter from corporations and banks, and no funds from government. In the United States, private investors, not governments or corporations, dominate the funding of venture capital activity.

The situation in Asia, as shown in Table 6, is in general reversed from that in the United States. In all of the Asian APEC venture capital markets shown in Table 6, between 26% (Thailand) to 59% (Chinese Taipei) come from corporations. Financial institutions also play a much larger role in Asian venture capital markets. For example, among the six major venture capital economies, banks and insurance companies provide 43% of the funding in China Hong Kong, 41% in Japan, and over between 22% and 34% for the other four economies. Outside of Australia and New Zealand, venture capital funding sources among Western Pacific APEC members represent very different investors in terms of risk tolerances and investment horizons than in the United States. Government agencies also play a large role in some Asian economies, for example providing 39% in Malaysia, 21% in Singapore, and with only China Hong Kong, Japan, the Philippines, Chinese Taipei, and Thailand raising less than 10% of their venture capital from government sources.

[3] Gompers, 2001, Figure 2B.

The difference in funding of venture capital activity may have important implications for differences between the United States and Asia in terms of the expectations of investors and the role venture capitalists expect to play in the companies they invest in. Typical U.S. venture capital investors demand high average returns in exchange for tolerating substantial risk in individual investments and they have a relatively short-term investment horizon (usually ten years). In Asia, governments, financial institutions, and corporations dominate venture capital and may have different expectations concerning both expected investment performance, the role of venture capital firms in company management, and expected investment horizons. We explore the implications of some of these differences in Part 3 below.

Concentrations of Venture Capital Investments in the Pacific Region

Two characteristics of venture capital show wide variation in the Asia Pacific region: stage of financing (shown in Table 7) and industrial sector allocation of investments (shown in Tables 8 and 9). In the United States, most venture capital is directed to start-up firms' early (defined as seed and startup) and expansion stage financing. Most venture capital goes to the expansion phase of firm development (between 40% and 55% between 1998 and 2000) and about a quarter to seed financing. Later stage financing for start-up firms accounts for close to 20%, implying that new firm financing accounts for over 90% of venture capital investments in the United States in the period 1998 to 2000[4].

Among the six largest venture capital markets in Asia, different economies display different allocations to different stages of financing and different allocations to start-up firm financing and financing for established-firm buyouts and restructuring.

[4] Gompers, 2001, Table 1.

China, for example, devoted 41% to seed and start-up financing and a total of 90% to start-up firms when expansion and mezzanine financing are included (typical for U.S. venture capital firms), where Japan and Korea devote somewhat less to early-phase financing and substantially more to buyout or turnaround financing (26% and 34%, respectively). In the Asian Pacific region, with the exception of China, Malaysia, New Zealand, Chinese Taipei and Vietnam, venture capital investments in buyouts and turnarounds are much higher percentages of total venture capital than in the United States, specifically more the 20% for other Asian economies and in the case of Korea and China-Hong Kong, more than a third of investment. These developments have been widely noted by observers of venture capital, for example, "On the brighter side, the restructuring economies of Japan and South Korea provided scope for buyouts, and the hope about China's potential – capped by its belated entry into the WTO – gave some succor to private equity practitioners."[5] The implication is that more venture capital funds are directed to established (if troubled) firms than in Asia outside of China than is typical in established venture capital markets like the United States.

Different patterns of investment also observed when looking at venture capital investments in the Asian Pacific region classified by the industrial concentration, both in contrast to the United States and among the APEC economies. Table 8 presents data on the five largest concentrations of venture capital investment by industry in 2001 for the Asian economies. Table 9 classifies venture capital investments in Asian economies as high technology[6] and Table 10 shows similar data for the United States from the years

[5] *The 2003 Guide to Venture Capital Asia*, 2002, p. 24.
[6] "High technology" for Asian economies is defined as computer related, electronics, information technology, medical/biotechnology, and telecommunications. These are not exactly the same as classifications used in Table 10.

1998 to 2000. Comparing the data for Asian Pacific economies and the United States, the most obvious difference is the concentration in the U.S. data in high-technology firms relative to more traditional industries[7]. In contrast, many Asian economies have one or more of their five highest concentrations of venture capital in traditional industries like financial services, consumer services, agriculture, infrastructure, and heavy manufacturing. Except for China (just below 50%), Malaysia, Chinese Taipei, and Singapore, all the economies in Tables 8 and 9 invest more than 50% of the venture capital in traditional industries. For example, Japan and Korea show investments in 2001 of 65% and 61% of total venture capital in non-high technology industries. These data demonstrate the importance of restructuring in venture capital financing in many economies of the Asia Pacific region. A substantial share of private equity financing in the region is being used to finance economic activity and restructuring that are not targets of venture capital investments in developed venture capital markets like the United States.

Exit Opportunities

A major concern of investors in venture capital is liquidating their position in start-up firms, the so-called "exit." For many investors and the firms they finance, the most desirable exit is an initial public offering (IPO). Until the late 1990s, choices of markets to undertake IPOs were limited, but starting in the late 1990s, a number of economies opened "second-board markets" in addition to their major national exchanges. These markets have been plagued with some problems in liquidity and transparency of

[7] "High technology" is defined here as those industries in the top seven rows of Table 10, specifically companies described as online-specific, communications, computer software, medical and health related, semiconductor and other electronic, computer hardware, and biotechnology.

listed firms, but nonetheless continue to function, unlike the German Neuer Markt, which closed. While China has delayed opening a second board market, Singapore recently decided to keep its small-firm market, Sesdaq, operating and other exchange continue to trade despite perceived problems with these exchanges.[8]

While the most successful firms often prefer to list on NASDAQ, IPO activity on selected economy markets has actually surpassed that of NASDAQ since 2001 despite the collapse in high technology share prices. As one observer writes:

> For VC investors hoping for exits on public markets, the outlook in Asia has always been difficult. But although public listings remain in short supply, the story has improved considerably over the last three-to-four years. The Internet bubble produced several sizeable offerings, and deals funded in the post-cash buyout era have now begun to move to the checkout counter[9].

Figure 3 demonstrates that IPO activity on Asia Pacific region second board markets has remained stronger than on the NASDAQ, where IPO activity has fallen to a fraction of the level experienced in the late 1990s. Of course, not all IPOs are venture capital financed firms, but Asian second-board markets, while not robust, are still active and may be capable of offering a reliable exit strategy for some venture-capital financed firms now or in the future.

Other exit options for venture capitalists include mergers or acquisition of firms or private placements of venture capitalists' holdings with third parties. As one observer writes:

> Despite the downturn in m&a activity, trade sales have become an increasingly viable exit route as mergers and acquisitions have grown into an acceptable corporate strategy for Asia's conservative, family-dominated business community. Of the top 10 exits in 2001-2002, almost all were done through an acquisition rather than a listing[10].

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[8] See U.S. PECC FMD Committee (2001) for a survey of performance of second board markets.
[9] *The 2003 Guide to Venture Capital Asia*, 2002, p. 7
[10] *The 2003 Guide to Venture Capital Asia*, 2002, p. 7

In the United States, exit from venture firm investments are critical since the time horizon of venture investors are limited because of common use of the limited partnership form in the United States (discussed in the next section.) In some economies, the use of the corporate form of organization of venture capital funds (as in Chinese Taipei) means that investment horizons have no fixed end-point and entrepreneurs may attempt to delay the exit of the firm in order to gain maximum advantage for founders. Kenney *et al* (2002) argue that in some cases founders may seek exit or delayed exit strategies that retain maximum control of the firm.

Summary of Part 1

Venture capital funds raised and invested increased dramatically in Asian APEC economics in the period following the Asian Financial Crisis of 1997. While the collapse of the public equity markets following the NASDAQ after March of 2000 has had similar repercussions in Asia and the United States on both exit strategies of venture capital funds and the raising of new venture capital funds in the last two years, these trends are not more pronouncedly in Asia than in more developed venture capital markets. However, more venture capital funds in Asia are directed to economic restructuring of traditional industries than is the case in developed markets. This is particularly true of large venture capital markets like Korea and Japan, but much less so in China, China Hong Kong, Chinese Taipei, and Singapore. The role of venture capital financing in Asia, therefore, differs somewhat from the typical part played in the United States, which is to finance start-up and growing firms in high technology industries.

2. Venture Capital as a Source of Funding for Start-Up Firms in the U.S.

Policy interest in start-up high-technology firms is based on their perceived importance to economic growth and the long-run competitiveness of a region's industry. Many observers of the United States' economy associate the growth in employment and incomes with the evolution of small firms in new industries. For example, Gompers (2001) writes:

> Small firms and new business creation have become potent forces for economic development in the United States. Prior to 1980, large firms created the majority of new jobs in the American economy. During the last two decades, however, a major structural shift occurred. Fortune 500 companies lost four million jobs. At the same time, firms with fewer than 100 employees added 16 million new jobs [Birch (1990)]. This was the first time in the twentieth century that the shift from large to small firms occurred, and it represented a fundamental change in the nature of growth in the American economy.[11]

Economic policy makers throughout the late 1990s around the world viewed the American growth as a model to be emulated.

Berger and Udell (1998) provide a close examination of small-firm financing in the United States. Their detailed analysis places small-firm funding into perspective. Table 12 presents a summary of the data analyzed by these authors, based primarily on year-end 1993 survey data. The most important conclusion in terms of an analysis of venture capital is the very small role venture capital plays in the aggregate in the small-firm sector of the U.S. economy. In 1993, less than 1.85% of small-firm financing was provided by venture capital. Over half the equity interest in small firms was provided by the principal and "other equity", which includes other members of the start-up team,

[11] Gompers (2001), p. 1

family members, and friends of the principal. Over half of the financing is in the form of debt, with banks and trade credit forming the majority of the debt financing.

The problem of small-firm finance is usually discussed in terms of the difficulty of advancing funds to firms that are "informationally opaque." Informationally opaque in the small-firm finance literature means that small firms confront investors with special difficulty in valuation and risk assessment because they are small, often have heterogeneous and less well known outputs and customers, characteristically have short operating histories, lack sophisticated information systems, may have cash flows that are difficult to monitor, and possibly do not have public audited financial statements. Such firms are not well suited for public sources of financing where publicly available information meeting accepted standards of reliability is essential. The small firm financing problem is how to resolve the issues poor information to potential suppliers of funds create in terms of controlling the risks and providing adequate expected returns to investors.

The small-firm financing literature focuses on two main solutions to the problems posed by small firm fund requirements that go beyond the ability of principals, family, and friends to provide. These two solutions rely on "intermediated" financing, where financial intermediaries specializing in small-firm finance develop means to overcome problems associated with information opaqueness. One source can be called "bank financing," but, while we use the term bank financing, the actual intermediary could be a commercial bank, savings institution, finance company, or insurance company specializing in lending to small firms. The other institutional source of financing to small firms is private equity capital from venture capitalists.

Bank financing can resolve the risks of poor information by carefully constructing debt contracts to minimize risks, requiring collateral, special reporting, and by developing expertise in a firm's industry and management's skills over time through *bank relationships*[12]. Berger and Udell (1995) demonstrate that a long-term bank relationship with a small firm can reduce the firm's cost of funds and the requirements for collateral. Such a bank relationship requires, of course, that bankers (or other financial intermediary specialists) can understand the firm's business so that it can assess the skill of the management and estimate the firm's future market prospects. As Table 11 demonstrates, bank financing and non-venture capital equity dominate small-firm finance in the United States.

Venture capital is source of funds to small firms that cannot establish bank (or other financial institution) relationships. As Gompers (2001) states:

> Companies that lack substantial tangible assets and have uncertain prospects are unlikely to receive significant bank loans, however. These firms face many years of negative earnings and are unable to make interest payments on debt obligations[13].

Start-up technology firms are exactly the type of firms that banks are least likely to be able to lend to because of the informational opaqueness and the lack of tangible assets or assets that can be readily evaluated (like financial assets). Firms developing software or new technology for the communications or biosciences industries are largely investing in human capital. Furthermore, entrepreneurs of these firms are most likely to be engineers or scientists with highly technical training and complex product designs. The venture capital industry in the United States evolved primarily to fund these types of start-up firms.

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[12] Berger and Udell (1995) describe relationship lending.
[13] Gompers (2001), p. 2.

Venture capital in the United States has developed many ways to control the risks of investing in start-up high technology firms with expected long periods of losses or low earnings. First, venture capitalists typically make equity investments in start-up firms. These equity investments are essential for venture capital investors to control for problems in the development of new products and services and to add value both for their investors and for the recipients of funds. Venture capitalists take an active role in management, usually requiring representation on the board of directors and substantial voting power: Barry *et al* (1990) report that venture capitalists typically hold a third of the equity in initial public offerings of venture-capital backed start-up firms[14]. They further report (based on analysis of data from 1977 to 1987) that:

> …Venture capitalists specialize in a narrow set of industries for which they can develop expertise; they control concentrated equity positions in their portfolio companies and they serve on companies' boards…We examine whether the capital markets recognize the monitoring provided by venture capitalists, and find that IPOs with higher-quality ventures capitalists are less underpriced[15].

Venture capital in the United States is apparently a type of financial intermediary that has evolved specifically to finance small firms developing high technology businesses or are involved in complex business situations like leveraged buyouts.

Because of the active role venture capitalists assume in firms they finance, there is a danger that they can blunt the initiatives of entrepreneurs by threatening to claim more than their share of the value created by new business innovations. Myers (1998) has analyzed the incentive problems complicating the relationship between entrepreneurs and venture capital and argues that an essential component to solving these problems is going public. At the time a firm goes public, the gains from the entrepreneur's efforts are

[14] Barry *et al* (1990), p. 448.
[15] Barry *et al* (1990), p. 469.

capitalized and split according to clear rules between venture capitalists and the founders. Exit strategies involving IPOs therefore are an important part of the characteristics of venture capital in the United States.

Raising venture capital funds can create conflicts of interest between investors in the funds and managers of the funds. In the United States, institutional investors must rely on fund managers to make key decisions and participate in the management of portfolio firms. The solution to concerns that fund managers will serve their own interests at the expense of venture capital fund investors is the use of the limited partnership form of organization. Virtually all venture capital funds in the United States are organized as limited partnerships with the fund managers acting as general managers and investors being limited partners. Compensation agreements between the investors and fund managers are carefully crafted to assure as much as possible that managers will invest in companies and participate in their management in ways that serve fund investors interests. The nearly universal use of the limited partnership form, in 1987 two-thirds of venture capital funds in the United States, demonstrates its robustness in a large variety of industry sectors and economic conditions over time[16].

Summary of Part 2

Banks and other lenders finance most small firms in the United States. The venture capital industry in the United States has evolved as a specialized industry able to overcome the challenges of information opaqueness in businesses without long histories or tangible capital, and with complex business plans requiring a long time to be realized. These are of course characteristics of high technology firms. The risks of investments in

[16] Sahlman (1990), p. 487. The other one-third were largely public venture capital firms or closed-end funds.

high technology and other firms financed by venture capital has induced the standard operating procedure that venture capitalists invest in equity positions in start-up firms and take an active role in management. The requirements of the institutional and individual investors typical in the U.S. venture capital markets have fostered a dominant reliance on limited partnerships to organize venture capital funds. These characteristics of venture capital in the United States provide an interesting comparison to practices of venture capitalists in the Asian APEC economies.

3. Venture Capital Policies and Regulations in APEC Economies

Any review of policies concerning venture capital in APEC economies must provide some standard of performance. From the review of recent venture capital developments in Section 1 above, it is clear that private-equity in APEC economies play different roles than in the United States. The activities and investments of venture-capital firms have been very different, with for example high-technology being the focus of some economies while restructuring in traditional industries is the emphasis of others. While no list of criteria of positive venture-capital industry performance can be without controversy, this study distills from the discussion concerning venture capital and small-firm financing three basic standards against which to measure "best practices" in APEC economies:

(1) Investments in new technologies;

(2) Size and growth in private-equity funds raised and investments made;

(3) Number of professionals and firms active in the economy.

Our review will seek to identify relations between venture capital policy and performance against the three benchmarks listed above.

Asian APEC economies have adopted or have inherited a variety of policies affecting the venture capital industry. Kenney *et al* (2002) provides a critical review of these policies on a country-by-country basis and Urbas (2002) provides a summary of policies for seven economies around the world, including three in the Asia Pacific region (Japan, Singapore and Chinese Taipei). Table 12 updates and expands the issues raised by Kenney *et al* and Urbas relying on public sources and a survey of PECC APEC economy representatives and their domestic venture capital industry sources.

Table 12 contains policy initiatives concerning venture capital firms under four columns: (1) regulations and regulatory bodies; (2) tax treatment; (3) limitations on organizational form and ownership; and (4) special venture capital funding programs. In addition to the details provided by Table 12, for purposes of discussion here a simplified summary of economies with substantial special venture capital policies under the four headings is provided here. This table represents judgments by the authors of significant special treatment for the venture capital industry.

Table: Summary of Active Venture Capital Tax/Regulations Policies in APEC Economies

Economies	Regulations	Venture Capital Taxation	Limitations On Structure	Special Government Programs
China	X		X	X
Hong Kong, China				
Indonesia	X	X	X	X
Japan	X		X	
Korea	X	X	X	X
Malaysia	X	X	X	X
Singapore	X	X	X	X
Chinese Taipei	X	Before 1999		
Thailand	X	X		X

Note: Table represents judgments concerning importance of regulations and tax treatment *specifically* related to the venture capital industry in Table 12 made by authors. Sufficient data for the Philippines and Vietnam not available for inclusion.

Before reviewing the results in the summary and detailed table, it may be useful to review quickly the U.S. situation as a benchmark. In the United States, there are no special regulations or regulatory bodies specific to venture capital. Early in the history of venture capital, the Small Business Investment Act (1958) was enacted authorizing the establishment of small business investment corporations (SBICs). Later SBICs were authorized to raise funds publicly. Banks were authorized to invest in SBICs through their holding companies. SBICs could borrow two times the equity investment from the Small Business Administration created in the 1958. As Kenney *et al* state:

> For the most part, these public SBICs failed and/or were liquidated by the mid 1970s. After the mid 1970s, with the exception of the bank SBICs, the SBIC program was no longer significant for the venture capital industry.[17]

[17] Kenney *et al*, p. 4

There is currently no special law or authority regulating venture capital.

The most important indirect effect of government regulation stems from government regulations (under the Employee Retirement Income Security Act of 1973 or ERISA) regulating allowable investments for pension funds. That act was originally interpreted to disallow investment in venture capital funds until loosened beginning in 1977 and relaxed completely by 1982[18]. Pension funds provide nearly half of venture capital funds in the United States (see above) so the changes in ERISA have been important regulatory changes.

There is likewise no special tax treatment for venture capital but venture capital indirectly depends on some aspects of the U.S. tax code. Specifically, capital gains are taxed at a substantially lower tax rate than personal or corporate income tax rates, making long-term gains more attractive as an investment to investors. Also important is that, subject to some limitations, limited partnerships are not taxed at the partnership level but rather at the investors' level. The economic policy environment in the United States can thus be seen as creating factors important to the development of the limited partnership form of venture capital funds attractive to investors expecting the realization of gains as a major source of returns, but these policies are general and not specific to small-firm finance.

The United States has few restrictions on organization form aside from those limiting bank holding company investments in the equity of non-financial firms, tax and securities laws. These laws and associated policies are general for all businesses operating in the economy. There are no specific laws governing authorities to invest or

[18] Kenney *et al*, p. 5

be financed by venture capital firms aside from restrictions on investments of certain classes of financial institutions and pension funds, but again, these are general restrictions. There are no non-tax subsidies or incentives specific to venture capital aside from generally available small-business loan guarantees from the Small Business Administration and tax laws governing deductions for investment and other favorable tax treatment for smaller firms or firms with losses. Finally, there are no special programs for venture capital firms.

Venture Capital Policies in Asia

The situation for venture capital in Asia shown in Table 12 is more complex than in the United States. Here we can emphasize only a few aspects of special venture capital treatment in Asian economies. First, government involvement in terms of providing funds to venture capital and establishing specialized government entities is widespread. There are special government funds in virtually every Asian economy except Chinese Taipei, Japan, and China Hong Kong. It is difficult to make the case that government sponsored support for venture capital is a distinguishing feature of venture capital performance by the three standards listed at the beginning of this section. In terms of two of the standards, size of total funds and number of firms and professionals in the economy, all three of the economies without major government programs rank among the top economies in the region. On the other hand, measured in terms of investments in technology, Chinese Taipei ranks highest and does not have a policy of special venture capital programs, but the next two highest percentage of high-technology in venture capital, Malaysia and Singapore, do provide special funds earmarked for venture capital in high technology.

All Asian APEC economies in this study, except China Hong Kong, have special laws and special regulatory authority designated by law or regulation for venture capital firms. These regulatory interventions in the venture capital industry have had no apparent systemic affect on the success of the venture capital industry in terms of the three standards. The effects of regulation in assisting or distorting allocations of venture capital are most likely more subtle, having to do with the interaction of venture capital regulation and other, general, restrictions on foreign investment activity and rights of minority shareholders. For example, China, Korea, and Malaysia restrict foreign ownership to under 33%, 50%, and 30%, respectively (China will increase to 49% in 2005).

Tax incentives specific to venture capital (or angel financing) are also very common. While China, China Hong Kong, and Japan have no specific tax exemptions for venture capital, other economies do have special tax treatment for venture capital firms. Probably the most interesting case of tax policy directed to venture capital is Chinese Taipei, where tax policy is accorded a significant role in the early development of the venture capital industry[19]. The reduced and deferred tax of gains from investments in venture capital in that economy were discontinued in 1999, and the long-term effect of the tax change is not clear given other developments in the economy.

The policy area of greatest importance to the development of innovative financing vehicles to fund the growing and changing industries of Asia are restrictions on organizational form. One impact of these restrictions is that in some economies possibly sub-optimal financial instruments (like debt) are used to resolve standard risk-management issues in informationally opaque investments. This is not to say that unique

[19] See Kenney *et al*, p.35, for a discussion.

financial instruments or methods cannot solve such problems in economically efficient ways. The concern emphasized here is that inefficient or less than optimal investments are made unnecessarily and their removal would only make transactions less expensive. For example, some foreign venture capitalists have said that most restrictions inhibiting investments can be evaded or mitigated by creative funding vehicles and transnational organization forms. Good examples of complex corporate structure resulting from regulations are provided by the SINA and Zindart cases (Appendix). The requirement to get around government regulations inhibiting desirable investments introduces unnecessary costs.

Summary of Venture Capital Policy Review

Venture capital in Asia operates in a variety of legal and economic environments in economies with different endowments and challenges. Industrial development, institutional characteristics, custom and culture vary widely across jurisdictions. It is unlikely in these circumstances that a venture capital industry resembling that in the United States is feasible or desirable. In some ways, the term venture capital (rather than private equity or small firm finance) is perhaps misleading in terms of guiding the policy discussion.

The evolution of financing intermediaries servicing the needs of start-up firms and restructuring industries will occur within the constraints and opportunities offered by particular situations. The most important feature of economic policy favoring small firm development is to provide the freedom necessary for efficient financial entities to develop and respond to changing market opportunities. Some of the appeal of the venture capital solutions for small-firm finance that evolved outside Asia for informationally opaque firms is that these solutions may be used to circumvent problems that exist currently in Asian economies. For example, the distressed nature of the banking systems in many economies means that commercial banks and other credit-granting institutions cannot play their usual role in financing restructuring and growth in traditional industries like financial services and heavy industry where information opaqueness is not a major issue. Undeveloped bond markets also inhibit the use of debt to finance buyouts, mergers and acquisitions, other restructuring situations. Finally, the limitation on the rights of minority owners in some economies may inhibit the use of foreign equity in financing some high-risk start-up firms or spin-offs of firms as part of economic development or restructuring.

The most important objective of policy makers appears to be to create an environment where innovative economic institutions or methods can develop to solve these limitations to productive investments in an efficient ways that are satisfactory to investors, fund managers, and firms receiving funds. Industry observers note[20] that with sufficient flexibility from regulators and taxing authorities, most barriers to investments in attractive business opportunities can be overcome. The costs of inflexibility or complex rules are that the transactions become more costly and the legal arrangements (contracts or other commitments) inhibit efficient operation by recipients of funds. The cases included in the appendix to this report illustrate some examples of how policy has helped and possibly hindered the exploitation of socially valuable investments in small firms or restructuring industry.

[20] Telephone conversation with Bob Theelen, founder and chairman of ChinaVest, December 23, 2002.

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Table 1: New Venture Funds Raised in Asia (US$ million)

Economies	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Australia	78	175	248	451	378	388	399	486	1,052	643
China	583	677	898	1,028	294	96	166	540	2,028	821
Hong Kong, China	710*	787*	3,097*	1,980*	621	1,920	3,132	5,321	3,160	2,416
Indonesia	0	31	117	29	45	265	39	38	0	9
Japan	870	605	1,688	1625	1,572	1,006	1,237	4,865	4,624	2,264
Korea	151	97	269	889	1,040	277	549	1,495	1,812	830
Malaysia	69	23	20	228	9	19	55	205	169	250
New Zealand		14	33	11	2	47	56	130	144	81
Philippines	11	33	33	42	35	25	52	75	83	16
Singapore	42	306	634	1,055	721	1,146	620	2,352	1,810	1,057
Chinese Taipei	28	65	46	154	416	568	1,096	1,139	1,507	794
Thailand	25	7	14	29	33	39	15	40	285	81
Vietnam	12	109	115	53	22	17	10	40	22	18

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*
* Note: Prior to 1997, there is no separate data for Hong Kong. Instead the data given is the sum of venture capital funds in both China and Hong Kong, China.

Table 2: Venture Capital Pool in Asia (US$ million)

Economies	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Australia	1,277	1,437	1,653	2,306	2,842	2,709	3,060	3,645	4,186	4,742
China	878	1,422	2,384	3,458	3,612	3,500	3,112	3,755	5,201	6,044
Hong Kong, China	2,656*	3,095*	6,037*	8,044*	8,019*	9,632	14,462	21,203	24,128	26,019
Indonesia	57	99	225	245	289	426	328	333	169	153
Japan	16,028	17,750	17,750	14,851	11,254	7,722	12,513	21,729	21,138	21,515
Korea	1,629	1,687	1,902	2,567	3,224	1,857	2,995	4,986	6,020	6,251
Malaysia	147	160	194	437	448	406	460	667	587	811
New Zealand		14	49	65	72	110	187	415	514	587
Philippines	26	58	85	123	166	169	224	292	383	291
Singapore	896	1,013	1,833	3,164	3,981	4,468	5,258	7,791	9,286	9,754
Chinese Taipei	470	508	562	696	1,336	1,913	3,598	4,447	5,852	6,261
Thailand	90	98	117	165	201	177	242	265	597	580
Vietnam	22	131	247	303	276	292	258	318	157	114

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*
* Note: Prior to 1997, there is no separate data for Hong Kong. Instead the data given is the sum of venture capital funds in both China and Hong Kong, China.

Table 3: Overview of the Venture Capital Industry in Asia, 2001

Economies	No. of Venture Capital Funds/Companies	Number of Venture Capital Professionals	Venture Capital Under Management (US$ million)
Australia	169	431	4,742
China	200	360	6,044
Hong Kong, China	177	631	26,019
Indonesia	31	105	153
Japan	232	1,531	21,515
Korea	180	483	6,251
Malaysia	41	95	811
New Zealand	30	68	587
Philippines	18	59	291
Singapore	117	509	9,754
Chinese Taipei	165	437	6,261
Thailand	16	58	580
Vietnam	7	21	114

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 4: Venture Capital in Asia: Sources by Geographic Region, 2001.

Economies	Domestic (% total)	Other Asia (% total)	Non Asia (% total)
Australia	83	5	12
China	53	23	24
Hong Kong, China	11	22	67
Indonesia	60	16	24
Japan	79	3	18
Korea	65	7	28
Malaysia	51	23	26
New Zealand	87	13	0
Philippines	42	15	43
Singapore	34	28	38
Chinese Taipei	85	5	10
Thailand	20	14	66
Vietnam	13	11	76

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 5: Venture Capital in Asia: Disbursement by Geographic Region, 2001

Economies	Domestic (% total)	Other Asia (% total)	Non Asia (% total)
Australia	95	4	1
China	86	13	1
Hong Kong, China	11	85	4
Indonesia	60	16	24
Japan	87	5	8
Korea	92	6	2
Malaysia	92	7	1
New Zealand	91	9	0
Philippines	80	16	4
Singapore	15	64	21
Chinese Taipei	79	7	14
Thailand	95	4	1
Vietnam	80	20	0

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 6: Institutional Source of Venture Capital in Asia, 2001

Economies	Corporations (% total)	Private Individuals (% total)	Government Agencies (% total)	Banks (% total)	Pension funds (% total)	Insurance Companies (% total)
Australia	12	3	10	14	49	12
China	41	7	17	23	4	8
Hong Kong, China	35	1	4	13	17	30
Indonesia	52	6	12	19	4	7
Japan	44	3	2	28	10	13
Korea	43	1	13	22	9	12
Malaysia	32	3	39	17	2	7
New Zealand	18	5	12	8	36	21
Philippines	57	13	8	15	0	7
Singapore	36	4	21	15	10	14
Chinese Taipei	59	9	6	14	4	8
Thailand	26	2	6	36	15	15
Vietnam	38	5	10	34	5	8

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 7: Venture Capital in Asia by Financing Stage, 2001

Economies	Seed (% total)	Start-up (% total)	Expansion (% total)	Mezzanine (% total)	Buyout (% total)	Turnaround (% total)
Australia	2	9	45	5	39	0
China	8	33	41	8	4	6
Hong Kong, China	4	19	33	7	32	5
Indonesia	2	9	58	2	8	21
Japan	3	13	47	11	20	6
Korea	7	19	35	5	9	25
Malaysia	4	29	48	4	9	6
New Zealand	7	22	55	3	9	4
Philippines	1	15	64	1	13	6
Singapore	2	26	42	8	17	5
Chinese Taipei	9	26	43	14	3	5
Thailand	3	15	45	2	9	26
Vietnam	5	26	59	0	0	10

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 8: Venture Capital in Asia by Five Biggest Sectors (percentage of total disbursement to industry), 2001

Industries	Australia	China	Hong Kong, China	Indo-nesia	Japan	Korea	Malay-sia	New Zealand	Philip-pines	Singa-pore	Chinese Taipei	Thai-land	Viet-nam
Total Disbursement to Industry (millions)	**$5,524**	**$5,675**	**$10,287**	**$89**	**$9,226**	**$5,823**	**$516**	**$248**	**$143**	**$4,195**	**$3,717**	**$296**	**$107**
Agriculture/Fisheries				13.5%									11.2%
Computer related		27.4%	9.9%		7.3%			14.0%	9.3%		20.0%		
Construction												8.9%	
Consumer-products/services	17.8%	8.5%		12.4%	9.3%	9.5%		18.5%	32.8%	8.7%			
Electronics				17.8%	9.9%		14.1%		6.0%	10.1%	17.8%		
Financial services	6.7%		10.9%		24.7%	24.3%							8.4%
Information-technology	9.3%	7.7%	9.9%	10.5%		10.3%	16.8%	14.4%	15.6%	14.1%	16.5%	9.8%	
Infrastructure		9.8%	11.0%										11.2%
Manufacturing – Heavy	14.7%					10.8%	10.0%					8.1%	
Manufacturing – Light							11.5%						8.4%
Medical/Bio-technology								7.5%		8.8%	6.3%		
Mining and metals	7.0%												
Telecommunications		7.4%	15.3%	8.1%	10.8%	10.7%	10.2%	17.1%	11.9%	16.9%	9.0%	12.4%	
Travel/Hospitality												11.9%	11.2%
Total share of the 5 biggest sector as percentage of total disbursement	**55.5%**	**60.8%**	**57.0%**	**62.3%**	**62.0%**	**65.6%**	**62.6%**	**71.5%**	**75.6%**	**58.6%**	**69.6%**	**51.1%**	**50.4%**

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 9: Venture Capital Industry Concentrations in High Technology Firms in Asia, 2001

	Australia	China	Hong Kong, China	Indo-nesia	Japan	Korea	Malay-sia	New Zealand	Philip-pines	Singa-pore	Chinese Taipei	Thai-land	Viet-nam
Computer related	5.8%	27.4%	9.9%	1.2%	7.3%	8.3%	9.4%	14.0%	9.3%	7.9%	20.0%	7.7%	4.7%
Electronics	1.0%	4.2%	7.2%	17.8%	9.9%	8.5%	14.1%	5.5%	6.0%	10.1%	17.8%	6.3%	0%
Information-technology	9.3%	7.7%	9.9%	10.5%	5.3%	10.3%	16.8%	14.4%	15.6%	14.1%	16.5%	9.8%	6.5%
Medical/Bio-technology	6.0%	3.8%	5.0%	3.4%	1.9%	1.4%	3.5%	7.5%	0%	8.8%	6.3%	2.6%	7.5%
Telecommunication	6.1%	7.4%	15.3%	8.1%	10.8%	10.7%	10.2%	17.1%	11.9%	16.9%	9.0%	12.4%	0%
High Technology (Total)	**28.2%**	**50.5%**	**47.3%**	**41.0%**	**35.2%**	**39.2%**	**54.0%**	**58.5%**	**42.8%**	**57.8%**	**69.6%**	**38.8%**	**18.7%**
Other industries	71.8%	49.5%	52.7%	59.0%	64.8%	60.8%	46.0%	21.5%	57.2%	42.2%	30.4%	61.2%	81.3%
Total Disbursement to Industry (millions)	**$5,524**	**$5,675**	**$10,287**	**$89**	**$9,226**	**$5,823**	**$516**	**$248**	**$143**	**$$4,195**	**$3,717**	**$296**	**$107**

Source: Asian Venture Capital Journal, *The 2003 Guide to Venture Capital in Asia*

Table 10

Venture Capital Industry Concentrations in High Technology in the United States

	Dollars (millions)			Percent of Total		
	1998	1999	2000	1998	1999	2000
Online specific	3,284.7	18,513.1	25,246.1	17.1%	38.5%	31.0%
Communications	3,318.5	8,335.4	17,627.8	17.3%	17.3%	21.7%
Computer Software	3,834.7	7,500.9	14,374.3	20.0%	15.6%	17.7%
Medical and Health	2,392.2	2,457.0	3,613.7	12.5%	5.1%	4.4%
Semiconductor	827.0	1,740.2	6,098.8	4.3%	3.6%	7.5%
Computer Hardware	556.2	1,303.8	2,279.2	2.9%	2.7%	2.8%
Biotechnology	1,030.1	1,182.2	2,763.8	5.4%	2.5%	3.4%
High-Technology (Total)	15,243.4	41,032.6	72,003.7	79.3%	85.4%	88.5%
Other Products	2,443.7	4,551.9	6,279.4	12.7%	9.5%	7.7%
Consumer Related	1,083.7	1,710.4	1,665.6	5.6%	3.6%	2.0%
Industrial & Energy	441.1	751.1	1,423.8	2.3%	1.6%	1.7%
Total	19,211.9	48,046.0	81,372.5	100.0%	100.0%	100.0%

Source: Gompers (2001), Table 1

Table 11: Small Business Finance in the U.S.

Sources of Funding			
Sources of Equity		**($ million)**	**Of Total**
Principal owner	$	524.3	31.3%
Angel finance		60.0	3.6%
Venture capital		31.0	1.9%
Other equity		215.2	12.9%
Total Equity	**$**	**830.6**	**49.6%**
Sources of Debt			
Financial Institutions			
Commercial banks	$	313.8	18.8%
Finance companies		82.1	4.9%
Other financial institutions		50.1	3.0%
Nonfinancial business and government			
Trade credit	$	264.1	15.8%
Other business		29.2	1.7%
Government		8.1	0.5%
Individuals			
Principal owner	$	68.5	4.1%
Credit card		2.4	0.1%
Other individuals		24.5	1.5%
Total Debt	**$**	**842.9**	**50.4%**
Total Equity + Debt	**$**	**1,673.4**	**100.0%**

Source: Berger and Udell (1998), Table 1. See source for notes and definitions.
Based on the 1993 National Survey of Small Business Finance

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia

Australia

1) Regulations and regulatory body	a) Venture Capital Bill, 2002 and Taxation Laws Amendment (Venture Capital) Bill, 2002: i) Venture funds can now establish Venture Capital Limited Partnerships (VC LPs) and Australian Venture Capital Funds of Funds (AFOFs). These investment vehicles are flow-through for tax purposes, meaning that capital gains or losses will flow straight through to end investors rather than venture fund managers. ii) For Australian funds to qualify as LP funds, a fund must 1) limit its investments to unlisted Australian companies or trusts, or to listed Australian companies in the process of delisting. 2) invest only in companies when the value of assets of the company is less than A$250 million. 3) not invest in property development, a specified list of finance-related activities, or passive investments that do not involve regular business operations (for example, where income comes from rent or royalties). 4) limits its investment to businesses that are primarily based in Australia at the time of the initial investment. 5) not invest more than 30 per cent of its committed capital in any single investment. 6) structure its partnership so that no partner – and its associates – owns more than 30 per cent of the VC LP, although there may be certain exclusions to this. 7) structure its funds with an investment time horizon of 5-15 years. b) Australian Stock Exchange's (ASX) Amendment, 2002: i) The new ASX guidelines amend the escrow restrictions on VC funds that hold minority stakes in companies listing on the ASX through initial public offering. While VC funds may still be subject to limits, they gain the flexibility to realize the return on their investment in a listed company in order to reinvest the proceeds in new opportunities. The new guidelines remove existing conditions on investments by VC funds whereby they were not able to sell down their holdings in the companies until two years after the company's listing on the exchange. ii) The criteria to enable VC funds obtain relief from the two year escrow provisions: 1) The VC fund has a strategy of VC investment and there are no personal connections between the investor and the founders of the company.

	2) The fund does not hold more than 30 per cent of the company prior to the company's capital-raising on the ASX. 3) The fund's board representation is limited to one non-executive director 4)The fund has paid issue prices for securities that are comparable to the issue prices paid by other unrelated parties investing at or around the same time, and has not obtained any identifiable benefit for itself over and above the benefit of the opportunity to invest in the company. (The amendments do not remove escrow restrictions for company founders or other parties regarded as promoters of a public listing.
2) Tax treatment, if any	a) The foreign investors are now considered to be exempt from capital gains tax on their investments in Australian VC LPs provided that the investors are resident in a designated country – US, the UK, Japan, Germany, France and Canada. b) Any individuals or institutions that invest less than 10 per cent of the VC LP's capital will be treated in the same way as a pension fund – investing without incurring capital gains tax. This includes investors from any country, not only the list of "designated" countries determined by the Australian government.
3) Limitations on organizational form and ownership	
4) Special programs	a) In 1997, the government set up a cluster of Innovation Investment Funds to channel A$130 million into venture capital. It followed up with a A$160 million for a program called Building on IT Strength (BITS) which launched a network of technology incubators. b) In May 2002, the Australian government announced 4 new investment funds under the Pre-Seed Fund Program to help bridge the gap between scientific research and commercial innovation by injecting more than A$100 million of private and public sector capital. More than A$30 million in private capital have been committed to the funds, matched by A$72.7 million from the federal government.
5) Venture Capital Association	Australian Venture Capital Association Limited Level 5 88 Phillip Street NSW 2000 Tel: 61-2-9251-3888 CEO: Mr. Andrew Green Website: www.avcal.com.au

Sources: Australian Venture Capital Association Limited's website at www.avcal.com.au

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

China

1) Regulations and regulatory body	Under the 1997 regulations, the investment parameters include requirements that not less than 20% of the fund's net asset value be invested in domestic government bond, and there can be no leveraging, securities margin transactions or investment in other funds (AVCJ). Reports that China is currently working on regulations to allow foreign investors to buy small and medium sized enterprises (US Dept of Commerce reports). Rules on Administration of Foreign-Invested Venture Capital Investment Enterprises ("2003 Rules", effective March 1, 2003): a) Onshore foreign-invested VC investment enterprises (FIVCIE) may be established either in the form of non-legal person cooperative joint venture or in the form of a limited liability company. The FIVCIE will only need one requisite investor who could be either a foreign investor or a Chinese investor – it could easily translate into a structure of one general partner plus all other limited partners. i) The minimum total amount of committed capital from all investors is set at US$10 million while each investor other than the requisite investor is only required to commit at least US$1 million. ii) In addition to be primarily engaged in VC investment business, the requisite investor is required to have at least US$100 million capital under its management in the aggregate for 3 years preceding the time of application, at least half of which has been used to make VC investment. iii) Under 2003 rules, investors are no longer required to submit their audited financial statements, their bank credibility certification and the letter of explanation for source of capital. b) A FIVCIE may establish the management and operation structure under its joint management committee or board of directors, and may also contract with a venture capital investment management company (the "manager") to manage the FIVCIE's operations. c) A FIVCIE is required to use its capital to "mainly make equity investment". Investments in publicly traded stocks (other than stocks of an investee company that has gone public after its investment) and certain corporate bonds will be prohibited.

	d) FIVCIE is required to submit an annual reporting on its capital raising and utilization to MOFTEC. (All information on the "2003 Rules" are provided by Richard Xu) Principal regulator: Ministry of Foreign Trade and Economic Cooperation (Kenney).
2) Tax treatment, if any	Under current Chinese tax rules applicable to foreign-invested enterprises (FIEs), foreign investors and FIEs generally would not need to pay any income tax on dividend income received from their investee companies. No foreign investor is required to pay any Chinese tax either when it repatriates its legitimate profit or dividend income. (Richard Xu)
3) Limitations on organizational form and ownership	Investing in Chinese portfolio is through a Chinese-foreign Equity Joint Venture or direct investment in Chinese limited liability corporation (Kenney). The maximum foreign investment is capped at 33% initially, rising to 49% after 2004. The regulations require the foreign investor's capital contribution to the joint-venture be made in a freely convertible currency (AVCJ). In terms of legal structure, the Joint-Venture regulations provide that the joint venture must be in the form of a limited liability company (AVCJ).
4) Special programs	State Development Planning Commission (SDPC) proposed a $150 million joint venture fund with foreigner VC firms to reestablish VC industry in China and to consolidate a fragmented local VC industry. (AVCJ 2002)
5) Venture Capital Association	China Venture Capital Association Beijing office: 516 West Tower China World Trade Center 1 Jianguomenwai Avenue Beijing 100004 Tel: 8610-65055419, 65055429 Chairman: Mr. Chang Sun Website: www.cvca.com.hk Hong Kong office: 12/F St George's Building 2 Ice House Street Central, Hong Kong Tel: 852-2521-3183

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Hong Kong

1) Regulations and regulatory body	No special regulation related to VC (Kenney)
2) Tax treatment, if any	
3) Limitations on organizational form and ownership	
4) Special programs	Government-funded Applied Research Fund formed in 1983 to provide grants and loans to small and medium-sized high-tech firms. The fund is currently administered by 4 private fund managers. (Kenney)
5) Venture Capital Association	Hong Kong Venture Capital Association Room 34, 3rd Floor, New Henry House 10 Ice House Street Central, Hong Kong Tel:852-2845-6100 Chairman: Mrs. Monique Lau Website: www.hkvca.com.hk

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Indonesia

1) Regulations and regulatory body	a) Presidential decree (1988) recognizing venture capital under the Financial Act: i) the VC firm may either be wholly Indonesian-owned or a joint-venture between Indonesians and foreign investors. ii) Maximum ownership by foreign investors is limited to 85% of capital. b) Minister of Finance decree (1988): i) VC investment cannot exceed 10 years. ii) VC investment is limited to early start-up, expansion and turnaround stages. iii) Divestment activities in all forms must be reported to the Ministry of Finance within 3 months. iv) Minimum paid-up capital of Rp3 million for wholly Indonesian-owned VC firm and Rp10 million for joint-venture VC firm between Indonesians and foreign investors. c) Minister of Finance decree (1995). To obtain the VC license: i) the VC firm has to provide proof of capital in form of bank deposits. ii) a sample of VC financing agreement and a list of shareholders and managers of the VC firm have to be submitted to the Ministry of Finance. iii) each VC firm has to submit regular operational and financial statements to the Ministry of Finance, latest by 1 month after the statement period. iv) the financial statement is to be audited by public accountants and to be submitted, at the latest 3 months after the end of the financial year. d) Minister of Finance decree (1995): i) VC firm is limited to investing in SMEs with annual revenues not exceeding Rp5 million. Such investments are also limited to SMEs that are not listed in the stock exchanges and the duration of the investment is limited to no more than 10 years. ii) In the event of the investee company having obtained listing approvals, the VC firm must divest its shares back to the investee firm latest by 36 months later. (All information on industry regulations are provided by the Ministry of Finance).

	Principal regulator: Ministry of Finance
2) Tax treatment, if any	All sources of income from the VC investment are non-taxable for 10 years (Ministry of Finance).
3) Limitations on organizational form and ownership	a) To qualify for the tax exemption incentives, the VC firm must be wholly Indonesian-owned or joint venture between Indonesians and foreign investors. b) The maximum 85% limit on foreign ownership upon establishment of a VC firm can be lifted later. (Ministry of Finance)
4) Special programs	A two-step government fund. JEXIM (Japan Export Import Bank) gave a 53 million yen soft loan to the Ministry of Finance, which disbursed this amount to the provincial VC firms (Ministry of Finance).
5) Venture Capital Association	Assosiasi Modal Ventura Indonesia c/o PT Bahana Artha Ventura Graha Niaga M floor Jl. Jend. Sudirman Kav. 58 Jakarta 12190 Tel: 62-21-250-5270 Chairman: Mr. Rahadrawan

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Japan

1) Regulations and regulatory body	a) Investment Operations Responsibility Association Law (1988) limiting investor liability. (Kenney) b) Law on Temporary Measures to Facilitate Specific New Business (1989) to extend financial and informational support and loan guarantees to VC firms. (Kenney) c) Fair Trade Commission (1994) allowing VC to serve on the board of directors of their portfolio firms. (Kenney) d) Limited Partnership Act for VC Investment (1998) limiting the liability of investors to their original amount of investment. (Kenney) Principal regulator: Ministry of Economy, Trade and Industry (METI)
2) Tax treatment, if any	"Angel Tax" (1997) aimed at stimulating angel investment, allowing investors to deduct their capital losses from capital gains on other investments. (Kenney)
3) Limitations on organizational form and ownership	a) Until recently, Japanese VC funds are generally not partnerships, but use the assets provided by their corporate parent firms. Passage of 1988 law has led to increased of VC partnership funds. (Kenney) b) Anti-Monopoly Law prohibiting any single investor from owing more than 49% of total equity and when shareholding is greater than 25%, the shareholder is not allowed to be dominant (Kenney) c) Commercial Code revised to allow firms to issue stock options. VC firms that qualified for specific METI programs could have option pools up to 30% of their outstanding shares (compared to 10% for other firms). (Kenney)
4) Special programs	
5) Venture Capital Association	Japanese Venture Capital Association Website: http://www.jvca.co.jp

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Korea

1) Regulations and regulatory body	a) Small and Medium Size Enterprise Start-up Support Act (SMESS Act) (1986) to support the establishment and growth of small enterprises. SMESS Act was later amended to allow the chaebols into the VC industry. To qualify as VC firm under SMESS Act, firms are required to have initial capital investment of $13 million. The VC firms covered under SMESS Act are meant to focus primarily on equity investment in start-up and early stage enterprises that are less than seven years old. (Kenney) b) New Technology Financial Support Act (NTEFC Act) (1986) bringing VC firms into institutional financial community. VC firms covered under NTEFC Act are permitted to invest their funds more freely. (Kenney) c) Special Law to Promote the Venture Business (SLPVB) to promote innovative small firms. (Kenney) d) In 1997, government permitted pension funds to invest up to 10% of operating funds in VC partnership. (Kenney) e) Special Measures Law for Fostering Venture Businesses (1997) to facilitate the start-up of small, high-technology firms, designated as "venture businesses". To qualify, the firm must satisfy one of the three conditions (Baygan): i) equity investment exceeding 10% of capital for over 6 months. ii) investment in research and development exceeding 5% of revenue. iii) sale of products incorporating patent rights. In addition, the government enacted liberalized provisions for VC investments by institutions, including banks and pension funds. Under the special law, banks are allowed to freely invest in VC activities. f) In May 1998, restriction on foreign investment in Korean partnership is lifted. (Kenney). g) In 2001, the government revised regulations for the National Pension Scheme to allow it to invest in VC limited partnership funds. (Baygan)

	Principal regulators: Ministry of Trade and Industry (MTI) administers the SMESS Act; Ministry of Finance (MOF) administers the NTEFS Act.
2) Tax treatment, if any	a) Special Tax Treatment Limit Law: i) Tax exemption on income from dividends of VC. ii) Tax exemption on investor's income from dividends of VC. iii) Separate taxation on dividend income of Investment Association. iv) Deduction of reserve for the loss from investment. v) Special law to assess the stocks by fair market value. vi) Tax exemption on income from transfer of VC stocks. b) Special Law to Promote Venture Business (SLPVB) i) Tax relief for angel investors. (These information were furnished by KIET).
3) Limitations on organizational form and ownership	Regulations limiting VC investment to less than 50% of total equity. Ability of VC firms to conduct management monitoring is limited. (Kenney) Since 1998, VC new limited partnerships have increased rapidly.
4) Special programs	a) The government has invested significant sums of capital including matching funds into the VC industry (Kenney): i) Kookmin Venture Fund (1998) - $26 million ii) Korea Venture Fund (1999) - $87 million iii) Dasan Ventures (2000) - $45 million b) In August 2001, the government announced a $300 million fund to resuscitate the VC market (Kenney). c) The government also provides guarantees to reduce investment risks. The Technology Credit Guarantee Fund (TCGF) provides equity guarantees for venture investors (Baygan): i) 70-100% guarantees on equity investment up to KRW3 billion in high-technology venture businesses. In return, TCGF receives 2-4% as the guarantee premium and also collects 20-40% of capital gains in profits. ii) 100% guarantees on the primary collateralized bond obligation (CBOs) of venture businesses. A Special Purpose Company (SPC) acquires convertible bonds issued by venture businesses and then issues CBOs based on these convertible bonds, fully guaranteed by TCGF.

5) Venture Capital Association	Korea Venture Capital Association #159, Samsung-Dong Kangnam-Gu Seoul Tel: 02-6000-7979-82 Chairman: Mr. Sung-Shin Kwak Website: www.kvca.or.kr

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Malaysia

1) Regulations and regulatory body	a) Under the Securities Industry Act (9183), a VC firm can register as exempt dealer status. b) VC firm cannot invest in listed securities, unless given exemption. Principal regulator: Securities Commission
2) Tax treatment, if any	Tax incentives (Securities Commission): a) VC firms are given full tax exemption on all sources of income for up to 10 years, provided that 70% of the funds are invested in start-up, seed capital and early stage financing. Losses from the disposal of shares during any year of assessment within the exempt period can be carried forward to the post-exempt period. b) Alternatively, VC firm can be granted tax deduction on the amount invested in the investee firm, provided that the investment is made at seed-capital, start-up or early stage, and that the VC firm has not disposed of its shares in the investee firm prior to its IPO listing.
3) Limitations on organizational form and ownership	a) To qualify for the tax incentives, the VC firm must be incorporated in Malaysia. b) Currently, there is no distinction between fully-owned and local-owned VC firms. However, under the Foreign Investment Agency regulation, foreign investments in all sectors are limited to 30% ownership, unless given approvals by the authorities.
4) Special programs	Special funds for the VC industry (Security Commission): a) RM200 million fund was launched to finance high-technology projects. b) RM120 million MSC Venture One fund was launched to provide VC financing to IT and multimedia companies. c) RM500 million grants were given to 5 banks to be dispersed to their venture capital affiliates. In 2001, the government has established the Malaysia Venture Capital Management (MAVCAP) with RM500 fund. MAVCAP has channeled RM100 million in equity financing to four local VC firms in information communication technology (ICT). The government will also establish a new fund of RM1 billion for VC investment in non- ICT industries (Ministry of Finance).

5) Venture Capital Association	Malaysian Venture Capital Association Unit C-8-7, Block C Megan Phileo Promenade 189 Jalan Tun Razak 50450 Kuala Lumpur Tel: 603-2166-5169 Acting Chairman: Ms. Chok Kwee Bee Website: www.mvca.org.my

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

New Zealand

1) Regulations and regulatory body	The government is currently looking at the tax rules to further encourage inbound VC funds, including possible limited partnership structures under which the tax authorities look through a VC fund to tax investors on the basis of their own tax rates. (The New Zealand Herald).
2) Tax treatment, if any	Tax benefits (Trade New Zealand): a) there is no formal or comprehensive wealth tax. b) most VC firms do not pay capital gains tax. c) corporate tax is at a flat 33%
3) Limitations on organizational form and ownership	Investment in New Zealand is governed by The Overseas Investment Commission (OIC). Most investment in New Zealand does not require approval except for proposals that involve international equity investment of 25% or more in a company that has a value of NZ$50 million or more, or are related to fishing quota or particular land purchases. (www.nzvif.com)
4) Special programs	a) The Industry NZ Investment Ready Scheme (Vcapital.co.nz): i) To assist high growth potential (or high growth) businesses and entrepreneurial concepts raise capital or assist in partnership negotiations. ii) To assist businesses and entrepreneurs with high growth potential opportunities become investment ready. An accredited broker will assist in capital raising or strategic partnership negotiations. b) New Zealand Venture Investment Fund (VIF) (Venture Investment Fund website, www.nzvif.com): i) The government is establishing a NZ$100 million VIF which will be invested in individual funds called VIF Seed Funds which will be managed by professional VC fund managers. ii) VIF Seed Funds will be fixed duration, private equity, investment vehicles in which VIF will always be a minority investor. The VIF program will normally invest up to one third of the total capital for each approved VIF Seed Fund, with the rest of the capital to be raised from private sector investors. iii) Standard criteria for investment are 1) initial investments are to be made in innovative New Zealand businesses (majority of assets and employees in New Zealand). 2) Initial investment must be made in seed-stage, start-up or early expansion businesses. 3) Total investment in any one company must not be more than 15% of the total capital in the fund.

	iv) Fund investment will exclude investment in the following industries: property development, retailing, mining, hospitality-industry businesses, re-investing and re-lending and businesses associated directly with other investors in the fund or directly with the fund managers. c) Biotechnology blueprint (The New Zealand Herald, May 13, 2003): The government's Biotechnology Taskforce has released a blueprint to create a NZ$10 billion industry within 10 years. The blueprint calls for: i) the government to actively recruit five key international scientists and entrepreneurs every year. ii) looking at existing tax structures and applying them in a way that is user friendly for biotech companies. The taskforce stopped short of calling for tax breaks. iii) government funding for investment in biotechnology research to increase from NZ$134.5 million to NZ$500 million over the next 5 years. iv) creating a single industry body.
5) Venture Capital Association	New Zealand Venture Capital Association P.O. Box 99 345 Newmarket Auckland Tel: 64-027-4875-753 Chairman: Mr. Phil Norman Website: www.nzvca.co.nz

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Singapore

1) Regulations and regulatory body	Since March 2000, the Monetary Authority of Singapore has allowed banks to acquire share of company engaged in private equity/venture capital investment (Dept of Commerce). Principal regulators: Singapore Economic Development Board (EDB) & Monetary Authority of Singapore (MAS).
2) Tax treatment, if any	The approved VC firms may apply for the following tax incentives administered by the EDB and MAS: a) "Pioneer" incentives of tax relief of up to 10 years allowed for management fees and performance bonuses received from approved VC funds (Urbas). b) Losses from sale of shares, up to 100% of equity invested, can be set off against the investor's other taxable income (Urbas). c) Section 13H of the Income Tax Act which allows an approved VC fund a tax relief period of up to a maximum 10 years in respect of: i) gains arising from divestment of approved portfolio holdings. ii) dividend income from approved foreign portfolio firms. iii) interest income arising from approved foreign convertible loan stock (SVCA).
3) Limitations on organizational form and ownership	In 1999, the government announced changes in bankruptcy laws, employee stock option plans and tax system to encourage VC investing. (Kenney) To qualify for the tax incentives, a) the VC funds and VC fund management firms must be incorporated and based in Singapore. b) the approved VC fund shall commit to invest a certain percentage of its subscribed funds in Singapore and seed-stage and/or restart projects in Singapore. c) An approved venture capital fund management firm shall commit to employ a certain number of local VC professionals to manage the approved VC fund. (SVCA)
4) Special programs	a) In 1999, a $1 bln Technopreneurship Program was established to encourage high-technology enterprises. There are three sub funds (Kenney):

	i) A broad based $500 million to attract VC firms to Singapore using investment. ii) A strategic fund investing in VC firms around the world to establish relationships and seek knowledge transfer. iii) Early Stage fund to invest in Singaporean seed stage firms and to develop VC funds willing to invest in the early stages. b) In 2001, Startup Enterprise Development Scheme (SEEDS) was established, a US$50 million program that takes dollar-for-dollar equity stakes in promising startups backed by third-party private sector investors.(Urbas)
5) Venture Capital Association	Singapore Venture Capital Association 151 North Buona Vista Road #02-25 The Breakthrough Singapore 139347 Tel: 65-6311-9693 Chairman: Mr Lee Kheng Nam Website: www.svca.org.sg

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Chinese Taipei

1) Regulations and regulatory body	a) Clause restricting VC funds from investing in publicly traded securities. (Thomson) b) Prospective VC fund is required to achieve a minimum commitment of NT$200 million for registration. (Thomson) c) Regulations governing maximum investment (Kenney): i) banks cannot invest more than 5% of total capital in a single fund; ii) insurance firms' investments are limited to not more than 25% of any fund's total capitalization. iii) pension funs are prohibited from investing in VC funds. Principal regulator: Ministry of Finance.
2) Tax treatment, if any	1) Regulation governing venture capital investment enterprises (1983) (Kenney): a) up to 20% tax deduction for domestic investors, provided they maintained their VC investment for at least 2 years; b) statute revised in 1991 to allow corporate investors same 20% tax deduction. Tax incentives discontinued in 1999, and VC funds are now governed by The Scope and Guidelines for Venture Capital Investment Enterprises.
3) Limitations on organizational form and ownership	Organizational structure of VC funds is termed "paper corporations" whose investments are managed by VC firms whose operations have some semblance to those of a consulting firm. There is no concrete liquidation date (evergreen). It pays a management fee and a carried interest to the VC firm in return of its services in finding deals and managing the investments. There is a board of directors and mandatory board meetings. (Kenney) Also, the VC management firm is privately held company (Kenney).
4) Special programs	US$1.6 billion in government funds have been allocated for R&D in biotechnology over the next 3-5 years. (US Dept of Commerce reports)

5) Venture Capital Association	Taiwan Venture Capital Association Room 301 142 Min Chuan E Road Sec.3, Taipei Tel: 02-2545-0075 Website: www.tvca.org.tw

Table 12: Laws, Regulation, and Taxation concerning Venture Capital in Asia (continued)

Thailand

1) Regulations and regulatory body	The Ministry of Finance has issued a notification to determine that management of VC is a securities business and to allow venture capital management companies to manage small and medium-sized enterprises (SMEs). To ensure that VC will be invested in SMEs, the Securities and Exchange Commission has issued criteria on granting VC management license: a) VC fund must be mobilized from 17 institutional investors and managed by VC management companies. b) SME invested by VC fund must have maximum fixed assets (excluding lands) value of 200 million baht and have maximum of 200 employees. c) IF SMEs and VC fund having co-shareholders and such shareholders possess shares more than one-third of the total share of both SMEs and VC fund, it is prohibited for such VC fund to invest in SMEs more than one-third of the total shares sold of SMEs. Concurrently to promote the VC fund, the SEC has allowed securities companies to: a) invest in VC management companies more than 50% of the total shares sold of the VC fund. b) invest in VC fund more than 50% of the total shares sold of such VC fund. (The information above is obtained from Securities and Exchange Commission (Thailand) circular notice. 11 February 2002) Principal regulators: Securities and Exchange Commission & Ministry of Finance.
2) Tax treatment, if any	Exemption from corporate income tax, dividend tax and capital gain tax. (Ministry of Finance)
3) Limitations on organizational form and ownership	
4) Special programs	TB1 billion Fund for Venture Capital Investment in SMEs established by the government. (Ministry of Finance)

5) Venture Capital Association	Thai Venture Capital Association 12/F Sathorn City Tower 175 South Sathorn Rd Bangkok 10120 Tel: 66-2-679-6312 Chairman: Mr. Virapan Pulges

Sources:

The main source is from Kenney unless otherwise noted.
1) Asian Venture Capital Journal (AVCJ), August 2002.
2) Australian Venture Capital Association Limited, www.avcal.com.au
3) Baygan, Gunseli. 2003. Venture Capital Policy Review: Korea. OECD STI Working Paper 2003/2.
4) Hardymon, G Felda, Lerner, John & Leamon, Andrea. 2002. Chengwei Ventures and hdt Investment. Harvard Business School.
5) Kenney, Martin, Han Kyonghee and Tanaka, Shoko. 2002. Scattering Geese: The Venture Capital Industries of East Asia, A Report to the World Bank.
6) Korea Institute for Industrial Economics and Trade (KIET)
7) Ministry of Finance, Indonesia. Presidential Decree 1988, Minister of Finance Decrees 1988 & 1995.
8) Ministry of Finance, Malaysia. The 2003 Budget.
9) Ministry of Finance, Thailand's website (www.mog.go.th)
10) New Zealand Venture Investment Fund (www.nzvif.com)
11) Securities Commission (Malaysia). Capital Market Masterplan (2001), www.sc.com.my and from discussions with the Securities Commission officials.
12) Securities and Exchange Commission (Thailand).
13) Singapore Venture Capital Association
14) The New Zealand Herald, May 13 & 17, 2003 (www.nzherald.co.nz)
15) Thomson Financial/Venture Economics. 2001 Taiwan Venture Capital Yearbook: An Analysis of Venture Capital in Taiwan.
16) Trade New Zealand (http://www.tradenz.govt.nz/page_Article/0,1300,3048,00.html)
17) US Department of Commerce Reports
18) VCapital Limited (www.vcapital.com.nz)
19) Xu, Richard. Brief Summary of Rules on Administration of Foreign-invested Venture Capital Investment Enterprises (http://www.cvca.com.hk/detail.asp?ColumnID=E1F3E23C-02B9-45E5-B76E-FC0225A0F278&ClassID=E1F3E23C-02B9-45E5-B76E-FC0225A0F278&ArtID=003EBD48-2346-441D-A8E6-D9EE65585E3F)

Chart 1: Second Board Market Indices since January, 1997

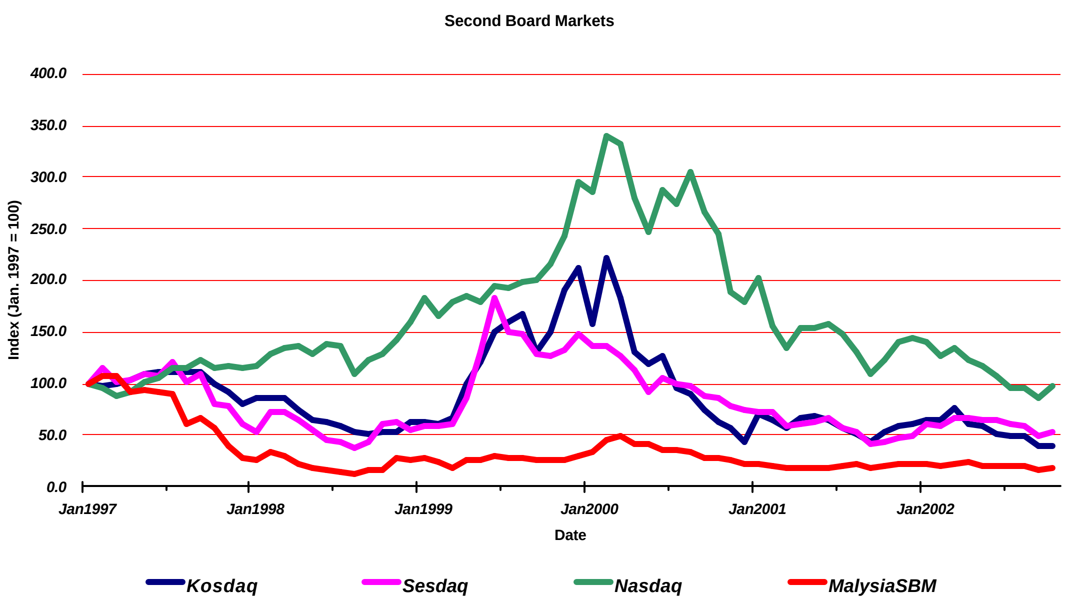


Chart 2: Second Board Market Indices

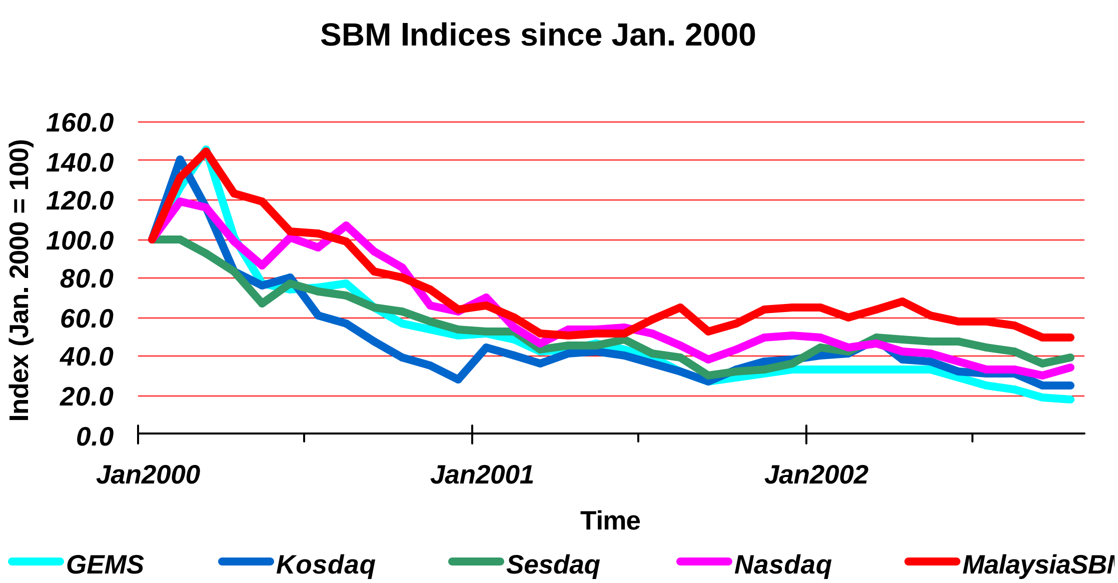
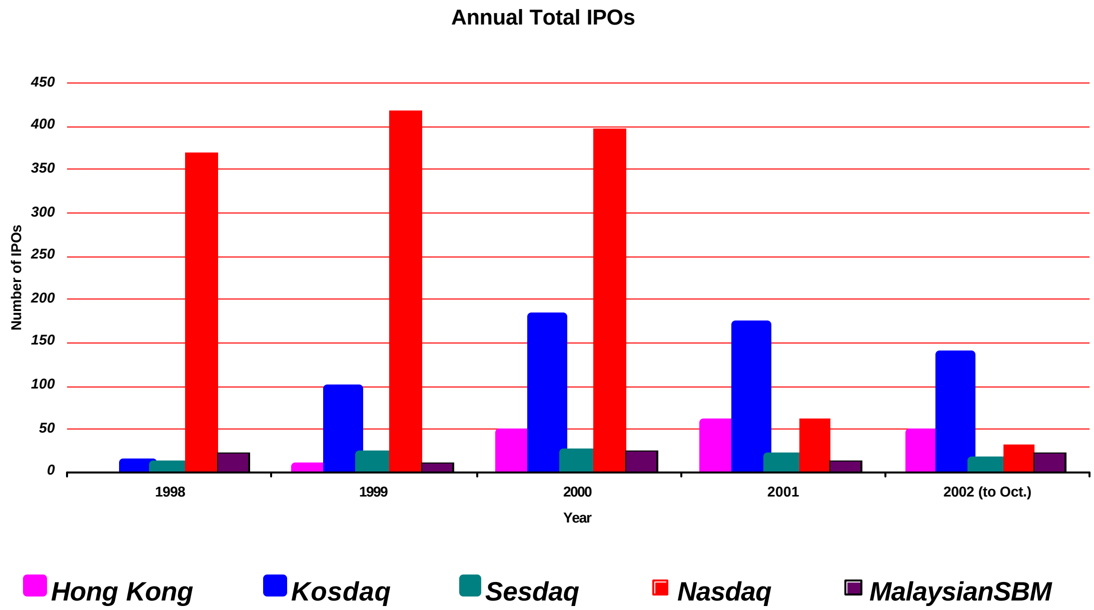


Chart 3: Second Board Market IPOs



Hong Kong GEMS data from November, 1999, only

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Appendix: Case Studies

SINA Corporation

Unisem Corporation

Zindart

SINA

Company description and business history

SINA is a Cayman Islands-registered internet media company running a Chinese-language network of websites with republished news and comprehensive content as well as a virtual company providing e-commerce and other services for Chinese communities worldwide. With a branded network of 15 localized web sites targeting Greater China and overseas Chinese, SINA operates three major business lines including SINA.com (online media and entertainment service), SINA Online (consumer fee-based online and wireless VAS) and SINA.net (small and medium-sized enterprises VAS), providing an array of services including online portals, premium email, wireless short messaging, virtual ISP, search, classified information, online games, e-commerce, e-learning and enterprise e-solutions. SINA's primary business focus is on China that has generated 85% of total revenue. As of December 31, 2002, it has 66.1 million registered users and over 10 million active paid users for a variety of fee-based services.

SINA was formed in 1998 by the merger of two of the world's largest Chinese web sites: Sinanet.com of Sunnyvale, California and Beijing Stone Rich Sight Information Technology Company. Sinanet.com was established in 1995 by Benjamin Tsiang and two partners. Tsiang is currently the senior vice president, general manager of Sina Mobile. Beijing Stone Rich Sight Information Technology Company, a Sino-Foreign joint venture, was established in December 1993 as computer software company focused on providing solutions to computer users wishing to communicate in Chinese. Among its co-founders are Zhidong Wang who became president and CEO of SINA from August 1999 until June 2001 and Yuan-chao Yan, who is currently SINA's chief technology officer.

The initial management team was an unstable mix of Silicon Valley, Chinese and Taiwanese cultures and management styles[21]. Executives disagreed fundamentally as to whether SINA should focus on the mainland Chinese market or overseas China market, and the American executives disliked the centralized decision-making style of the Chinese members. After co-CEO Jim Sha and board members from Goldman Sachs and Flatiron resigned in what insiders called a devastating "boardroom coup," Zhidong Wang became the president and CEO. Although a large portion of SINA's equity remains in the hands of the American investors, Wang has made SINA over as a primarily Chinese firm.

An initial plan for IPO listing in 1999 was shelved temporarily, in part due to the need to search for a replacement investment bank for Morgan Stanley and also due to SINA's heavy focus on news aggregation which conflicted with the Chinese government's protection of traditional media. SINA had to undergo major restructuring to qualify for listing abroad. To work around state policy (as the Chinese government does not permit foreigners to hold stakes in domestic internet companies) and to get clearance from the regulators, SINA has to set up a complicated investment structure that

[21] This paragraph detailing management struggles and shake-ups is quoted from SINA's company profile on ChinaOnline website: www.chinaonline.com/refer/company_profiles/currentnews/secure/SINA.asp

segregates its principal assets – the China-based operations – from the company incorporated in the Caymans Islands and headquartered in Hong Kong. That vehicle was the one that was listed on Nasdaq on April 13, 2000, with IPO of 4 million shares at $17 per share. SINA's organization structure as reported in its latest Securities and Exchange Commission filing[22] is provided below.

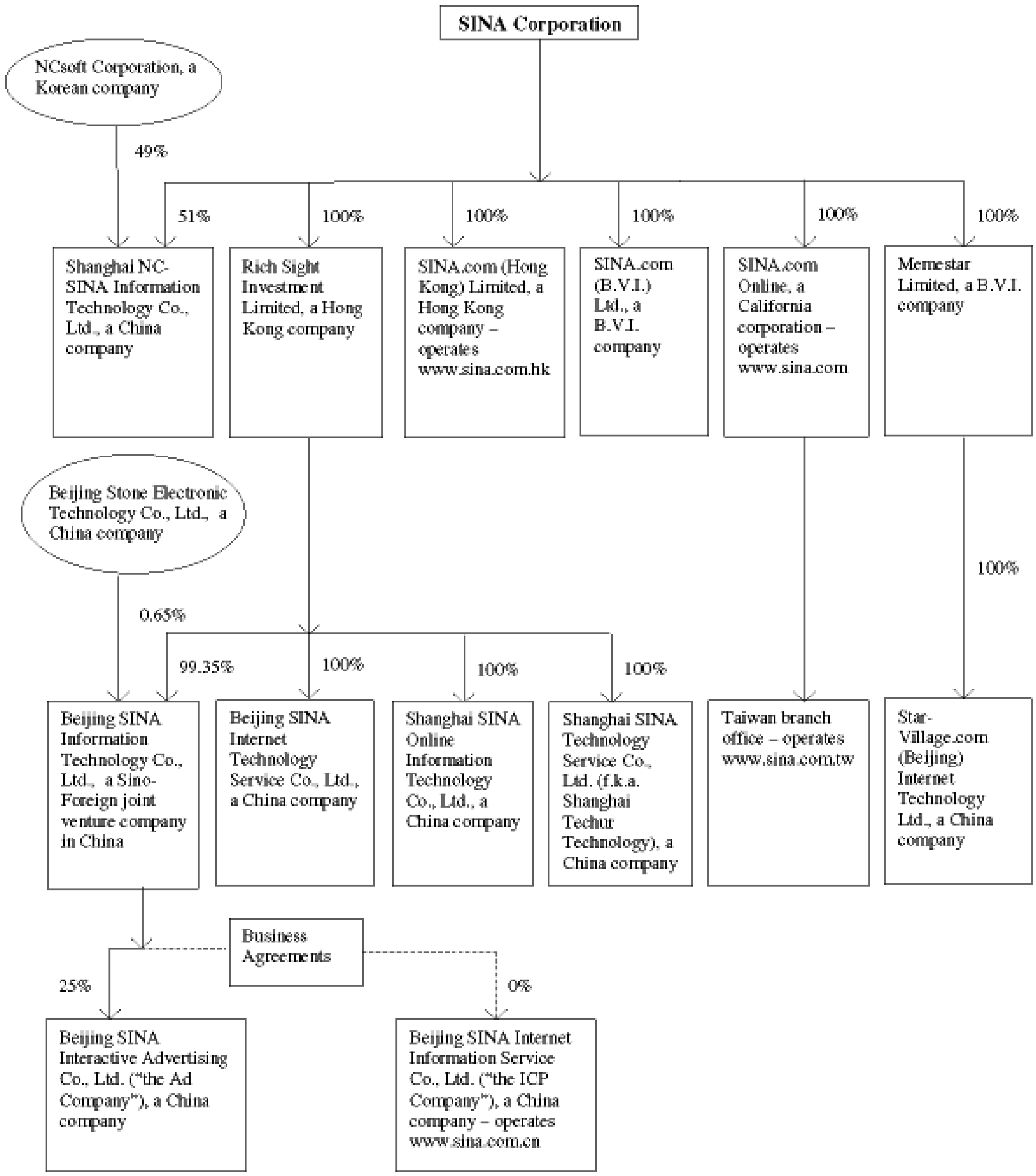
On June 2001, Zhidong Wang resigned as chairman and Daniel Mao took over as CEO. Mao has been SINA's COO since early 1999. Prior to joining SINA, Mao was vice president of Walden International Investment Group and has helped to bring about the merger between Sinanet.com and Beijing Stone Rich Sight Information Technology Company.

Since 2001, SINA has moved aggressively to expand its revenue base and to reduce its dependence on advertising, acquiring stakes in Sun Television Cybernetworks Holdings[23] (September 2001) and MeMeStar[24] (January 2003), a leading mobile value-added service provider with 2 million paying subscribers in China. In addition, SINA entered into a joint venture with CITIC Industrial Bank[25] (December 2002) to launch an online payment system for e-commerce business as well as with NCSoft[26] (December 2002) to develop online game market.

The complex organization structure portrayed below is therefore the result of several factors. Joint ventures and affiliated firms reflect in part the firm's history and evolving business strategy. In part, substantial foreign financing and limitations on investments in its major markets mandate the organization structure of SINA. Organization complexity also results from the history of management changes and interventions by venture capital investors in the structure and strategy of the firm.

[22] SINA Corporation Form 10-K, dated March 31, 2003, page. 12
[23] AFX Asia News, September 14, 2001 (Lexis-Nexis Academic Online)
[24] Global News Wire – Business Daily Update, January 7, 2003 (Lexis-Nexis Aacademic Online)
[25] Global News Wire – Business Daily Update, December 2, 2002 (Lexis-Nexis Aacademic Online)
[26] Business Wire Inc, November 21, 2002 (Lexis-Nexis Academic Online)

SINA Organization Chart 2003



Notes: To comply with Chinese regulations, BSIT entered into agreements with two limited liability companies incorporated in China: Beijing SINA Interactive Advertising Co., Ltd. (the "Ad Company") and Beijing SINA Internet Information Services Co., Ltd. (the "ICP Company"). The Ad Company is a Chinese advertising company that is 75% owned by Yan Wang, our president and 25% owned by BSIT. The ICP Company is a Chinese Internet content provider that is 30% owned by Daniel Mao, our chief executive officer, 30% owned by Yan Wang and 40% by four other employees of the Company. All individual shareholders of 12 the Ad Company and the ICP Company are required under their agreements with BSIT to transfer their interest in the Ad Company or the ICP Company to BSIT or to any person specified by BSIT at any time at BSIT's request, provided that such transfer will not be in violation of Chinese laws and regulations. Through ten-year proxies, BSIT has complete voting control over the Ad Company and the ICP Company. Therefore, the financial position and results of operations of the ICP Company and the Ad Company are consolidated with the financial statements of SINA. In the opinion of SINA's Chinese counsel, the ownership of BSIT and its businesses comply with existing Chinese laws and regulations.

SINA Board of Directors and Management 2003

Board of Directors:
Daniel Chiang, Chairman
Daniel Mao, CEO
Pehong Chen
Lip-Bu Tan
Ter Fung Tsao
Duan Yongji
Mr Yi-chen Zhang

SINA's Management:
Daniel Mao, CEO
Wang Yan, President
Charles Chao, Exec. Vice President, CFO
Hurst Lin, Exec. Vice President of Global Business Development, US General Manager
Yuan-choa Yan, Senior Vice President, Chief Technology Officer
LC Chang, Senior Vice President, Sales and Marketing, and Brand Management Center
Benjamin Tsiang, Senior Vice President, General Manager of SINA Mobile
Chen Tong, Vice President, Chief Editor of Sina.com
Albert Yen, General Manager of SINA Hong Kong and South China

Financial History

The following describes as much of the financial history of SINA as could be found from public data sources. Information on pre-IPO financing has only been obtained for the last 2 stages.[27]

Venture capital financing

1) Completion of a $25 million round of financing on March 10, 1999. Investors included Walden International Investment Group, Goldman Sachs, Flatiron Partners, Crystal Internet, the Economic Development Board of Singapore, and other venture and private investors.

2) Completion of a $60 million Series C financing round, with 7,675,661 Series C preference shared issued at $8.32 per share in October and November 1999 to 42 investors. Dell Computer Corporation was a lead investor. Also investors include Creative Technology Ltd, Pacific Century Cyberworks Ltd, various venture funds affiliated with SOFTBANK Corp, Sumitomo Corporation, Trend Micro and United Overseas Bank of Singapore and the venture funds it manages. SINA's earlier financial backers, Crosslink Technology Partners, Crystal Internet, the Economic Development

[27] Data are obtained from SINA's filing of Schedule 14A with the SEC, October 11, 2000 (http://ccbn.tenkwizard.com/filing.php?repo=tenk&ipage=1224381&doc=1&total=&attach=ON&TK=SINA&CK=1094005&FG=0&FC=000000&BK=f5f5f5&SC=ON&TC=f5f5f5&TC1=f5f5f5&TC2=f5f5f5&LK=0000FF&AL=FF0000&VL=800080)

Board of Singapore, Goldman Sachs and Walden International Investment Group, also participated in this round of financing.

Below is the partial breakdown of shares allocation:

1) Trend Micro – 480,769 (affiliated with Daniel Chang, currently chairman of SINA board).
2) Dell, USA – 2,539,062
3) James Sha – 39,204
4) Entities affiliated with Yoshitaka Kitao – 496, 450:
    i) Softbank Contents Fund – 120,192
    ii) Softbank Ventures, Inc – 120,192
    iii) Softven No 2 Investment Enterprise Partnership – 240,385
    iv) E*O Investors, LLC – 15, 681
5) Entities affiliated with Lip-Bu Tan – 627, 647:
    i) China Walden Ventures Investment Ltd – 150, 046
    ii) Infotech Ventures Ltd – 19,614
    iii) Pacven Walden Ventures III, L.P. – 78,456
    iv) Pacven Walden Ventures IV Associates Fund, L.P. – 5,940
    v) Pacven Walden Ventures IV, L.P. – 318,672
    vi) Seed Ventures II Ltd – 23,536
    vii) WIIG Global Ventures Pte Ltd – 31,383
6) Creative Technology Ltd – 1,201,923
7) Entities associated with Ter Fung Tsao – 47,042:
    i) Standard Food of Taiwan – 7,840
    ii) Crosslink Technology Partners, LLC – 39,202

Initial Public Offering

SINA began trading on Nasdaq on April 13, 2000. Below is the significant ownership of SINA as of September 30, 2000 based on 41,184,887 shares outstanding[28].

1) Lip-Bu Tan – 5,288,373 of which
    i) China Walden Investment Ltd – 1,486,008
    ii) CWV Investment, L.P. – 445, 321
    iii) InfoTech Ventures Ltd – 108,955
    iv) WIIG Global Ventures Pte Ltd – 174,330
    v) Pacven Walden Ventures III – 1,305,821
    vi) Pacven Walden Ventures IV – 1,546,564
    vii) Pacven Walden Ventures IV Associate Fund – 28, 828
    viii) Seed Ventures II – 190,746
    ix) Trust controlled by Tan – 1,800
2) Yongji Duan – 3,841,080
3) Dell, USA – 2,539,062
4) Zhidong Wang – 1,500,589

[28] No data is available on pre-IPO share ownership structure, including the number of shares offered in the IPO by existing shareholders, necessary to assess the exit of the VC firms.

5) Daniel Chiang – 1,924,392
6) Dr Pehong Chen – 43,732
7) Ter Fung Tsao – 1,849,555
8) James Sha – 759,442
9) Daniel Mao – 900,706
10) Victor K Lee – 56,815
11) Hurst Lin – 536,406

Company's performance

SINA's performance can be assessed by looking at two measures: its reported operating statistics and its stock market performance.

Operating statistics

Below are the selected operating data for the last three years (fiscal-year ending June 30), in thousands of US dollars.

SINA Corporation Operating Results

	Year Ending		
	June 30, 2000	**June 30, 2001**	**June 30, 2002**
Net revenue	14,170	26,683	28,508
Cost of revenue	11,520	15,354	13,608
Gross profit	2,650	11,329	14,900
Total operating expenses	57,052	54,122	34,642
Loss from operations	54,402	42,793	19,742
Total assets	156,038	133,122	121,335

SINA demonstrates continuing revenue growth, but the growth slowed in 2002, and the improvements in operating performance measured by falling losses from operations are attributable mainly to cost reductions in the year following the introduction of management under Daniel Mao. In its latest reported results for the period October-December 2002, SINA announced its first quarterly profit of $1.5 million since its IPO in 2000, with strong earnings from wireless services, online gaming enterprise services and advertising. Non-advertising revenue surged 2.3 times to $5.5 million from a year ago, accounting for 43% of total revenue

Stock Performance

As shown in the following graph, SINA's share-price since the IPO in 2000 (just after the March, 2000, peak in the Nasdaq index), fell more precipitously than the overall index of Nasdaq stocks. However, starting in late 2002, SINA's stock has more than doubled in value. No doubt, the relatively strong performance of SINA reflects fundamentals associated with SINA's first reported profitability due to revenue growth and cost reductions, as well as continued strength in the Chinese economy.

Evaluation of SINA Case

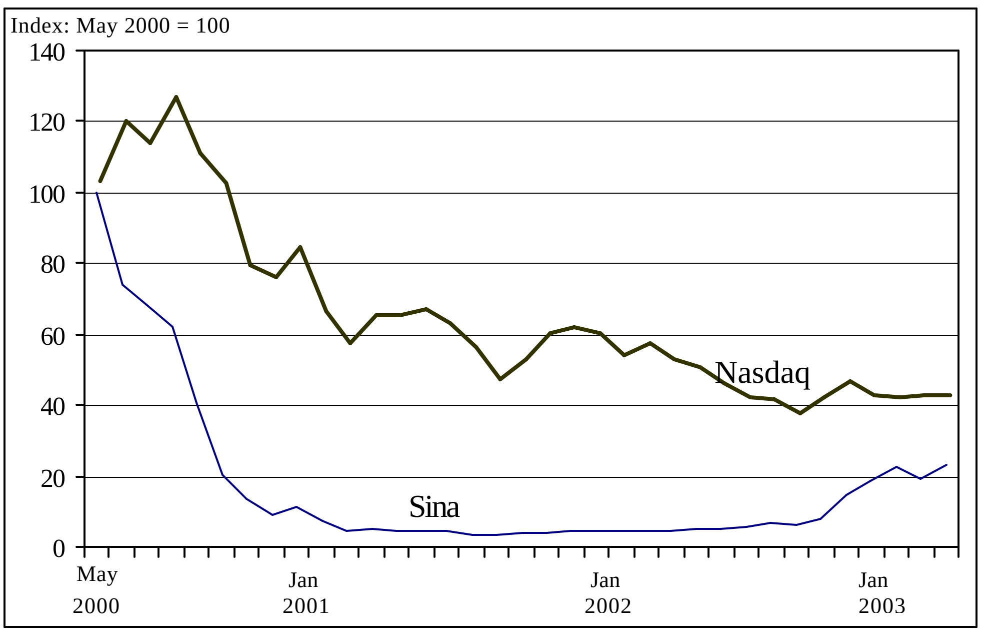
The SINA case is an example of the important role venture capital can play not only in the financing of high-tech small enterprises, but more importantly in the management of start-up firms. Walden International and its affiliates have played a key role in the evolution of the firm and its strategy.

Another interesting issue is the complexity of the firm's organization that results from an interaction of financing needs and Chinese regulation on ownership of firms and allowable foreign investments. The firm is domiciled in the Cayman Islands to enable a listing on Nasdaq and a complex international corporate structure. Few U.S. venture-capital financed firms require such a complex structure.

The firm's performance is still an outstanding issue. While recent results are promising, the share price has yet risen to compensate investors in the IPO for their investments. On the other hand, high-technology stocks in general continue to be discounted substantially relative to their highs.

In summary, SINA illustrates several points about the advantages of an active venture capital industry in terms of providing funding for innovative and informationally opaque businesses, but also demonstrates the importance of the ability to intervene in management by venture capitalists with powers of control, and further provides an example of complex organizational structures required by restrictive regulation along several dimensions.

SINA Share Performance Since 2000



Sources:

1) Much of the SINA's company profile was obtained from Sina website at www.sina.com
2) Articles on SINA obtained through Lexis-Nexis Academic Online.
3) SINA's SEC filings http://ccbn.tenkwizard.com/fil_list.asp?&TK=SINA&CK=1094005&FG=0&FC=000000&BK=f5f5f5&SC=ON&TC=f5f5f5&TC1=f5f5f5&TC2=f5f5f5&LK=0000FF&AL=FF0000&VL=800080&st=2&page=0&extras=
4) ChinaOnline at www.chinaonline.com
5) Yahoo finance at http://finance.yahoo.com/?u

UNISEM

Company description and business history

Unisem (M) Sdn Bhd was incorporated in June 19, 1989 by Mr Francis Chia and Mr John Chia. Walden International Investment Group was one of its seed investors. It commenced operations in July 1992 and was listed on the Kuala Lumpur Stock Exchange (Mainboard) in July 30, 1998.

The company's principal activities are in manufacturing a wide range of integrated circuits (ICs) and other semiconductor devices, and provides semiconductor sub-contract manufacturing services on a one-stop integrated turnkey basis for multinational corporations (MNCs). Services offered include full assembly/packaging of integrated circuits and semiconductor devices, final testing for electrical functionality of ICs, general and customized packing operations and drop-shipment services direct to customers. Nearly 65% of its production is exported to the US, Canada, Europe, Japan and Asian countries with the balance sold to the multinational corporations located at various free trade zones in Malaysia.

Over the past two years, Unisem has been hit by poor technology spending, as major technology multinational corporations such as Intel, Microsoft and Nokia have warned of slow sales growth[29]. For a subcontractor like Unisem, the macro outlook determines its performance, especially in the United States where 50% of its production is sold. Currently, Unisem's products are used for PC-related, consumer and telco products that accounted for about 20% to 25% of its sales respectively, with automotive (3%) and instrumentation and equipment related circuits (28%) making up the rest. Unisem also faces problem of over-capacity in the manufacturing sector, with its capacity utilization standing at about 30%. To expand its portfolio of products and services, Unisem has been looking to build its capacity to service consumer products such as mobile phones and personal digital assistants (PDA) that continue to see strong demand.

In 2002, Unisem spent RM70 million in capital expenditure, mostly in testing and state-of-the-art machines. Unisem is targeting outsourcing contracts by multinational integrated device manufacturers (IDMs) and other semiconductor players.

Unisem's Board of Directors:
1) Mr John Chia Sin Tet, chairman
2) Tan Sri Dato' Dr Mohd Rashdan Bin Haji Baba
3) Tan Sri Dato' Shamsuri Bin Arshad
4) Mr Colin Garfield MacDonald
5) Mr Yen Woon
6) Mr Sundra Moorthi s/o Krishnasamy
7) Mr Francis Chia Mong Tet
8) Mr Tee Yee Loh
9) Mr Chua Khing Chiew

[29] The source of this paragraph was from Malaysian Business, February 1, 2003 (Lexis-Nexis Academic Online).

Financial history

a) Venture capital financing

Limited information on VC financing have been culled from Unisem's listing prospectus:

	Place and date of incorporation	Authorized share capital (RM)	Issued and paid-up share capital (RM)
1) BI Walden Ventures Sdn Bhd	Malaysia Jul 21, 1989	500,000 Ordinary shares	10,000 Ordinary shares
		500,000 Redeemable preference shares	20,000 Redeemable preference shares

	Place and date of incorporation	Authorized share capital (RM)	Issued and paid-up share capital (RM)
2) BI Walden Ventures Kedua Sdn Bhd	Malaysia Mar 10, 1992	40,000 Ordinary shares	30,000 Ordinary shares
		360,000 Redeemable preference shares	270,000 Redeemable preference shares
3) Pacven Investment Ltd/ Rodyk & Davidson	Singapore Apr 7, 1988	S$3,500,000 Ordinary "A" shares	S$51,002 Ordinary "A" shares
		S$31,500,000 Redeemable preference "A" shares	--
		S$500,000 Ordinary "B" shares	S$8,000 Ordinary "B" shares
		S$4,500,000 Redeemable preference "B" shares	--
4) Pacven II Pte Ltd/ Rodyk & Davidson	Singapore Mar 28, 1990	S$100,000 Ordinary shares	S$20,002 Ordinary shares
		S$900,000 Redeemable	S$72,000 Redeemable

		preference shares	preference shares
5) O, W&W Pacrim Investment Ltd	Cayman Islands Jul 2, 1991	US$300,000 Ordinary shares	US$40,003 Ordinary shares
		US$1 Ordinary "A" shares	US$1 Ordinary "A" shares
		US$120,000 Redeemable preference shares	US$11,200 Redeemable preference shares
		US$1 Ordinary "B" shares	--

b) Initial Public Offering

Unisem undertook a listing exercise that involved a 2-for-1 bonus issue of 70 million RM1 shares to increase its share capital to RM105 million from RM35 million previously. For listing on the KLSE main board, the company made a public issue of 38 million RM1 shares and an offer for sale of 16.11 million RM1 shares at RM5.10 per share, based on its proforma net tangible assets per share of RM2.48 as of December 31, 1997. The public issue would raise cash proceeds of RM193.8 million which would be used for construction and facilitation of its cleanroom (RM10.497 million), financing the purchase of plant and machinery (RM159.227 million) for phase II of its factory buildings and the purchase of management information system (RM 1 million), with the balance set aside for working capital and for paying listing expenses. Upon listing, the company's share capital would be enlarged to RM143 million from RM105 million.

Unisem's shareholding structure before and after listing:

	Before IPO		After IPO	
	No. of Shares	%	No. of Shares	%
Bandar Rasah Sdn Bhd	42,000,000	40.00	35,556,000	24.86
Jayvest Holdings Sdn Bhd	4,200.000	4.00	3,555,600	2.49
Colin Garfield MacDonald	10,500,000	10.00	8,889,000	6.22
Koo Hong@Ku Hong Hai	10,500,000	10.00	8,889,000	6.22
Francis Chia Mong Tet	4,200,000	4.00	3,555,600	2.49
Tetkim Holdings Sdn Bhd	4,200,000	4.00	3,555,600	2.49
Tee Yee Loh	4,200,000	4.00	3,555,600	2.49
BI Walden Ventures Sdn Bhd	7,200,000	6.86	6,095,314	4.26
BI Walden Ventures Kedua Sdn Bhd	5,400,000	5.14	4,571,486	3.20
Pacven II Pte Ltd	5,040,000	4.80	4,266,720	2.98
Pacven Investment Ltd	4,320,000	4.11	3,657,189	2.56
O, W&W Pacrim Investments Ltd	3,240,000	3.09	2,742,891	1.92
Total	105,000,000	100.00	88,890,000	62.18

Note: BI Walden Ventures and BI Walden Ventures Kedua funds are managed by Walden International Investment Group out of its Kuala Lumpur office while Pacven II and Pacven Investment are managed by Walden International Investment Group out of its Singapore office. Total Walden shares before IPO was 20.91% and after IPO was 13%

The IPO was only 50.23% subscribed and the stock posted 4.3% discount on first day trading (closed at RM 4.88; offer price was RM5.10)

<u>Company's performance</u>

Operating statistics

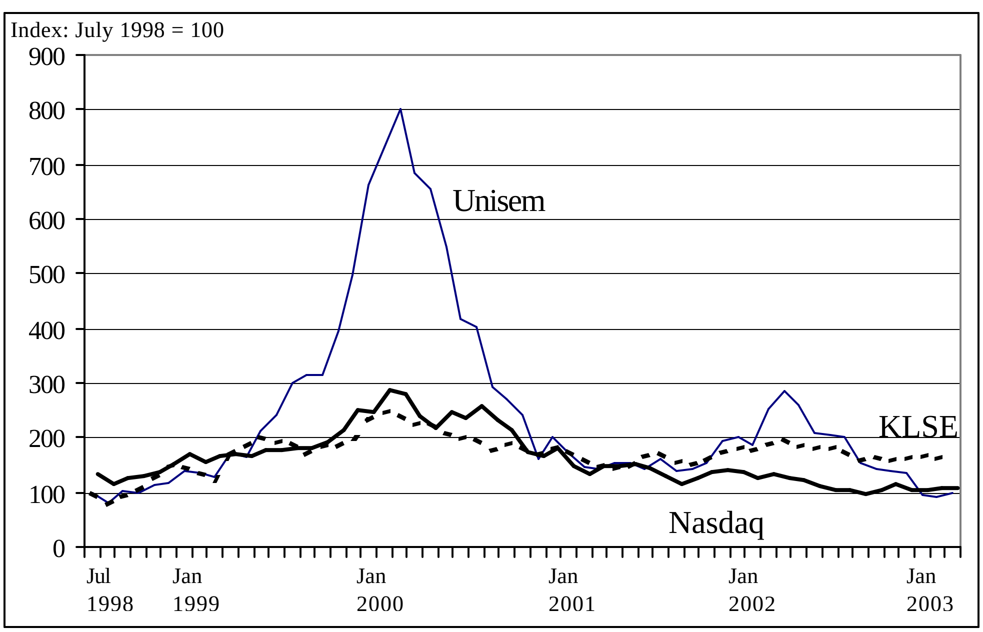
Below are the selected operating data for Unisem (fiscal-year ending December 31) in thousands of Malaysian Ringgit.

Unisem Operating Results

	2000	**2001**	**2002***
Revenue	403,880	187,907	164,962
Other income	9,841	3,918	1,101
Profit (Loss)	206,103	55,077	(2,069)
Depreciation	(38,898)	(56,127)	
Taxes	(20,393)	(8,996)	(4,020)
Net profit (loss)	146,812	(10,046)	(6,252)
Earnings per share			
(a) Basic	102.67	(7.03)	(4.37)
(b) Fully diluted	102.64	(7.03)	(4.34)
Total assets	802,116	661,652	108,312

* The financial results for the year 2002 is only for the 9-months ending September 30.

Stock performance



Source:
1) Unisem's Initial Public Offering prospectus (May 28, 1998)
2) Articles on Unisem from Lexis-Nexis Academic Online
3) Unisem's website at www.unisem.com.my

Zindart

Company description and business history

Founded by George K.D. Sun in July 1978, Zindart produces and markets high-quality die-cast and injection-molded products, including die-cast collectibles, collectible holiday ornaments, and action figures and miniature figurine playsets used primarily as toys. Zindart is a multinational corporation with headquarters in Hong Kong and its main manufacturing operations are located in neighboring Guangdong province in China. The company provides a turnkey manufacturing service that enables it to satisfy customers' requirements at every stage in the production process, including component sourcing, product engineering and model making, computer-aided mold design and production, and manufacturing and packaging of the finished product.

In February 1998 , the company acquired Hua Yang, a producer of complex, hand-made high-quality books and specialty packaging for $35 million. In July 1999, the company acquired Corgi Classics Limited for $46.4 million, owner of the world's leading collectible brands, active in scale model cars and other collectibles. Corgi is the leader in the UK collectibles markets in these categories and also distributes its classic collectibles in Europe, the US and Asia. Zindart's customers include many well brands including Hallmark Cards Inc., Mattel® Toys, Sieper Werke GmbH, Promotional Partners Corp. Ltd., Penguin Putnam Inc, Hasbro, Pokemon Collectibles, L.V.M.H., and MacMillan Childrens' Books.

Zindart's Board of Directors:
Peter A.J. Gardiner, executive chairman of the board of directors
Robert A. Theleen, vice-chairman of the board of directors
Iran S. Gray
George Chen
Leo Paul Koulos
Takaaki Ohya
Gordon L.M. Seow
Victor Yang

Zindart's Management:
Executive Officers
Peter A.J. Gardiner, executive chairman of the boards of directors
Ken Fowler, CFO

Corgi
Christopher Guest, CEO
Colin Summerbell, UK sales director
Len Kalkun, finance director
Alex Welsh, senior vice president, Americas, Far East

Zindart Manufacturing
Richard Tong, president and CEO
K.H. Li, vice president of technical services
C.W. Ng, vice president of operations
Franki Lee, vice president of marketing and sales
Daisy Lee, vice president of finance and administration

Hua Yang
Kevin Murphy, president and CEO

Financial history

Venture capital financing

In 1987, in order to secure the Chinese government support for the company's operations in China, Mr Sun (the company's founder) and certain management staff collectively sold a controlling interest in the company to certain Chinese entities[30]. In 1993, in order to enable the company to gain access to US management expertise and capital markets, Mr Sun asked the Chinese entities to sell their shares in the company to funds under the management of ChinaVest, Advent and certain other shareholders, which they did, and concurrently Mr Sun sold a majority of his shares to these parties.

Zindart's largest beneficial shareholders are private equity funds under the management of two US-based venture capital firms, ChinaVest Group and Advent International Corporation. Prior to the IPO, the funds under the management of ChinaVest indirectly owned 51.5% of the outstanding shares of the company, and funds under the management of Advent indirectly owned 14.9% of the outstanding shares of the company.

Zindart Pte Ltd ("Zindart Singapore"), an investment holding company incorporated in Singapore, owns 100% of the shares prior to the IPO, and after the closing date will own 78.1% shares of the company, thereby retaining control of the company.

Principal shareholders of Zindart	Shares beneficially owned	Percentage of shares before IPO	after IPO
Zindart Singapore	5,000,000	100	78.1
ZICHL	5,000,000	100	78.1
ChinaVest IV Funds	5,000,000	100	78.1
All executives officers and directors	5,000,000	100	78.1

The shareholders of Zindart Singapore are ZICHL (76%), Longvest Management Ltd (14.0%) and Ertl (Hong Kong) Lyd (10.0%)

[30] Information on the VC financing in Zindart was obtained from the company's Form F-1 filing to the SEC on February 21, 1997.

ZICHL is an investment holding company incorporated in the Caymans Islands. The shares of ZICHL are owned by four shareholders, as listed below.

Name of beneficial owners	Shares beneficially owned	Percentage of shares before IPO	after IPO
ChinaVest IV Funds	2,577,000	51.5	40.3
Advent Funds	744,000	14.9	11.6
Long Gain Limited	239,500	4.8	3.7
Cititrend International Holdings Ltd	239,5000	4.8	3.7

The ChinaVest IV Funds consists of the following three limited partnerships: ChinaVest IV, L.P., ChinaVest IV-A, L.P., and ChinaVest IV-B, L.P.

The Advent Funds consist of the following three limited partnerships: Advent International Investors II, L.P., Advent Asia/Pacific Fund, L.P., and Asia/Pacific Special Situations Fund, L.P.

Long Gain Limited, incorporated in the British Virgin Island, is the personal investment holding company of Mr Henry Hu, a former director of ZICHL and a former director and CEO of the company[31].

Cititrend International Holdings Ltd, incorporated in Bermuda, is the personal investment holding company of Mr Carl Tong, a former director of ZICHL and the company.

Initial Public Offering

Zindart Limited was floated on the Nasdaq on March 1997 through the public offering of 3,000,000 of the company's American Depository Shares (ADRs) at a price of $12.75 per share. Of these shares, 1,000,000 were being offered by the company and 2,000,000 were being offered by selling shareholders. The net proceeds of the offering will be used for the repayment of $10 million of indebtedness incurred in the company's acquisition of Hua Yang and for general working capital purposes. At the time of the offering, the company was profitable and sales and earning had increased in each of the preceding five years. Sales increased from $29 million to $47 million from 1992 to 1996, while net income increased from $2 million to $4.6 million.[32]

[31] According to the company's Form F-1 (February 21, 1997), there was a dispute between ChinaVest and Advent, and Long Gain Ltd and Cititrend International Holdings Ltd in January 1997. The dispute revolved around additional shares that the latter parties claimed they were entitled to receive in ZICHL as a result of the IPO under their prior employment agreements, such that their total indirect beneficial ownership of the shares in the company would equal 14.16% of the outstanding shares prior to the IPO. Also, the latter parties (Long Gain Ltd and Cititrend Internationals Holding Ltd) offered to sell their current holdings in ZICHL and the additional ZICHL shares that they were demanding to ChinaVest and Advent as a substantial premium over the offering price if the ADSs in the IPO.

[32] Form F-1 (above), p. 10.

Company's performance

Operating statistics

Below are the selected data for financial year (ending March 31), in thousands of US dollars.

	1998	1999	2000	2001	2002
Net sales	111,534	113,605	137,120	136,083	120,693
Cost of sales	(77,422)	(78,323)	(91,845)	(93,161)	(86,880)
Gross profit	34,112	35,282	45,275	42,922	33,813)
Selling, general and administrative expenses	(19,140)	(20,479)	(30,806)	(34,922)	(37,779)
Other income (expenses), net	160	196	(1,483)	(2,862)	(2,444)
Amortization of good will	(85)	(698)	(1,542)	(1,974)	(1,976)
Income before taxes	15,047	14,301	11,444	3,164	(8,386)
Provision for income taxes	(1,419)	(1,377)	(2,099)	(688)	162
Minority interest	(3,632)	(757)	(307)	(294)	(210)
Net income	9,996	12,167	9,038	2,182	(8,434)
Basic earnings per share	1.41	1.38	1.02	0.25	(0.95)
Total assets	105,827	90,911	146,598	140,204	125,639

For the third fiscal quarter ending December 31, 2002, Zindart reported revenues of $29.2 million and net profit of $0.7 million. Revenues for the nine months ending December 31, 2002 were $91.3 million with net profit of $0.8 million.

Stock Performance

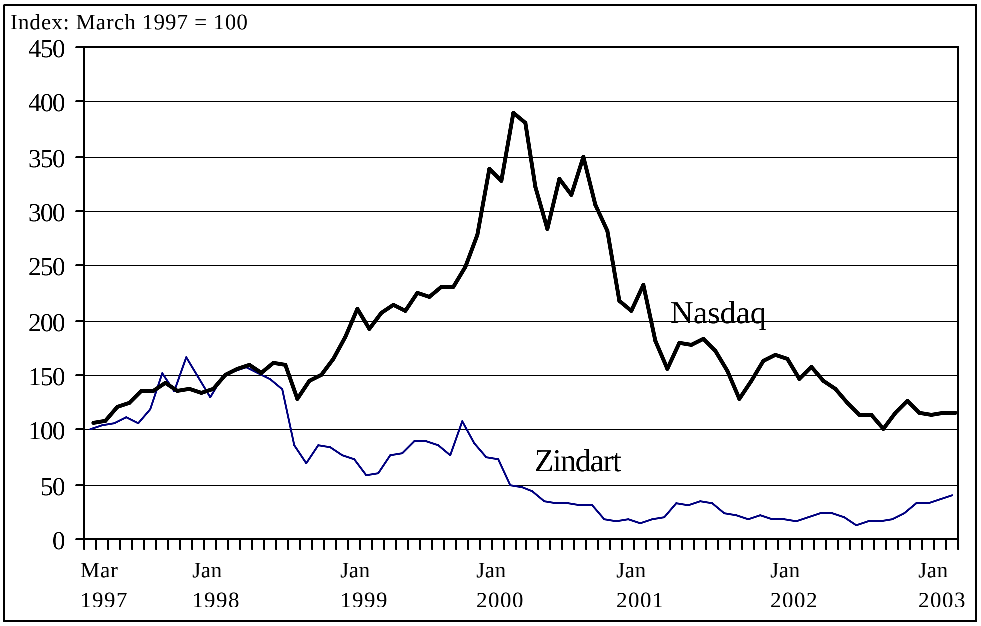
Zindart, as a manufacturer to toys in a "traditional" industry, did not follow the Nasdaq index up to highs during the high-technology bubble, in fact it was selling at about 50% of its IPO price when the Nasdaq peaked in March, 2000. However, recently its shares have increased from a low of around 10% of the issue price to nearly 50% of that price. These increases no doubt reflect reduced losses from cost-cutting moves.

Evaluation of Zindart Case

Zindart is not a high technology company. The financial history of Zindart is conducted by venture capital and exemplifies the role venture capital can plan in more traditional manufacturing with complex multinational firms in emerging markets. At the time of the IPO, Zindart Singapore owned 100% of the shares of Zindart Hong Kong, the company going public. Zindart Singapore would own 78.1% following the IPO. ZICHL, a Cayman Islands company, owns 76% of Zindart Singapore, and ZICHL in turn is 67.8% owned by the venture capital firm, ChinaVest, with other shares owned by U.S.

investment funds. Zindart's current management was elected in 2000 demonstrating that venture capital firms continue to have an active role in the management of the firm, with the chairman of ChinaVest, an early venture capital investors, serving as chairman of Zindart's board. The registration statement discussed problems of foreign ownership regulation in China as having caused specific restructuring of the firm's assets prior to its IPO. Recent management changes reflect the continued active role of venture investors in the firm's operations and strategy; the venture owners

Zindart Share Price versus Nasdaq Index



Zindart

Sources:

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3) Zindart's SEC filings
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