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Xiaoqing Eleanor Xu
Saint Louis University

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Xiaoqing Eleanor Xu, Ph.D.
Saint Louis University

INTRODUCTION

The globalization of capital flow has resulted in an increasing number of firms choosing to cross-list their stocks in foreign stock exchanges to raise public equity capital abroad, and more recently, the booming of venture capital (VC) inflow to developing nations to finance the start-ups and growth companies in those emerging economies. The dramatic rise in venture-funded activity in developing nations has been largely fueled by institutional investors in the United States and other developed nations. Among the developing nations, China, in the transition from a central planning regulated economy to a free market economy, has progressed quickly in grasping these unique funding opportunities to encourage the emergence of innovative enterprises and ensure its relevance in the global economy.

I. Introduction and Literature Review

Venture capitalists specialize in long term private equity financing of startup and growth companies that offer high potential returns and substantial risk. In the U.S. and Western Europe, most venture capital funds are organized as private limited partnership where the venture capitalists serve as general partners and outside investors serve as limited partners. Venture capitalists are actively involved in monitoring, strategic management, marketing and planning of the companies they fund (also called investee companies). Venture capitalists usually provide capital infusion in well-defined stages tied to significant development of the company's products, market, and profitability. Such staging allows venture capitalists to gather information, monitor progress and maintain the option to discontinue investments and withdraw from unsound projects. In addition, venture capitalists typically take an active role in guiding an exit decision, such as initial public offerings or mergers and acquisitions.

Over the past three decades, the venture capital industry in the U.S. has experienced tremendous growth from almost zero to US$190billion in 1999. Annual inflows into U.S. venture capital funds reached $27billion in 1998, and nearly doubled in 1999 to a record $46billion. Venture capital has provided initial financing to companies like Microsoft, Apple, Intel, Lotus, Sun Microsystems, Federal Express, and has established itself as the "engine" for entrepreneurial technology enterprises. On the other hand, the extraordinary developments in technological innovations and e-commerce have created additional opportunities for venture capitalists. The success of the US venture capital industry cannot be measured independent of its contribution to the country's economic development and prosperity.

In the past ten years, venture capital has emerged as an important area of finance for academic researchers, and has attracted increasing attention and keen interest from institutional investors, multinational corporation executives, entrepreneurs, and policymakers around the globe. Research on the venture capital industry, pioneered by Barry et al. (1990), Lerner

(1994b), Gompers (1995, 1996), Murray (1995), Gompers and Lerner (1998, 1999), and Brav and Gompers (1997), has examined the economics of the venture capital cycle (including venture capital fundraising, investing, and exiting) in the U.S. and Western Europe. The existence of higher agency cost associated with information asymmetry between venture capitalists and entrepreneurs (in contrast with lower agency costs between shareholders and managers in a publicly-traded company) is a distinct feature of venture capital finance. To deal with the agency problem, venture capitalists typically purchase block ownership of equity, syndicate their investments, sit on the board of directors, stage multiple-rounds of financing, and take an active role in monitoring and intervening in the operations of venture-backed companies [Learner (1994a, 1995)].

Due to higher density of competition, declining opportunities and returns in their home markets, venture capitalists in developed countries have been attracted to emerging economies that are relatively under-explored and under-funded. Despite the dramatic growth of venture capital inflow into the developing nations and the substantial difference that may exist between the venture capital cycle in developed and developing economies, none of the existing academic studies have examined the economics of the venture capital cycle in developing nations. As more and more venture capitalists from developed nations are looking to developing economies (such as China) for attractive investment opportunities and local entrepreneurs, a deeper understanding of the venture capital cycle in those economies is highly warranted [Folta (1999)].

The rest of the paper is organized as follows. Section 2 explores the opportunities and challenges for venture capital finance in China. Section 3 examines venture capital fundraising, disbursements and exiting mechanisms in China, and compares that with the venture capital cycle in the U.S. The final section presents conclusions.

II. Opportunities and Challenges for Venture Capital Finance in China

As technology plays a more important role in both developed and developing nations, the funding of entrepreneurial enterprises becomes crucial to the future of their economies. Those countries that are unable or unwilling to nurture an entrepreneurial environment will be left behind by the opportunities created by technological innovations. It is with this understanding that many developing nations have taken bold steps in promoting domestic and foreign venture capital investments to ensure their relevance in the global economy. The recent boom in venture capital inflows to developing nations can also be explained by the perception by many institutional investors that returns to venture capital investments in developed nations are likely to decrease in the upcoming years [Gompers (1998)]. According to a recent news release by Venture Economics, venture capital fundraising in the U.S. has slowed down and venture capital returns declined in the 4th Quarter of 2000. As venture capitalists search for the most profitable innovative enterprises around the world, they discover many undervalued potentials in emerging countries. The globalization of private equity capital flow is taking place dramatically and this will fundamentally change the dynamics of the venture capital industry. Among the developing nations that receive growing attention from the VC industry, China offers tremendous investment and market opportunities for foreign venture capitalists.

Much of the interest in venture capital investing in The People's Republic of China is closely related to its rapid economic growth in recent years. China has attracted renewed business attention since its official return to a market orientation. China’s dynamic growth can be attributed largely to its policy of economic reform and opening its markets to the outside world, which began in 1978 under the leadership of Deng Xiaoping. Rapid economic growth, bold reform measures, and massive infrastructure plans point to enormous market potential in China. As illustrated in Table 1, China has maintained a real GDP growth rate of above 7% from 1991-1999, which is well above the growth of developed countries such as the U.S. and Japan. Although the financial turmoil in 1997-1998 dragged most of the Southeast Asian economies into a recession, China is one of the few countries that have successfully weathered the Asian financial crisis. With a market of 1.3 billion people, the 7th largest economy in the world, and the 10th largest trading nation of the world, China offers tremendous opportunities and huge potential for foreign investments. China's accession to the World Trade Organization (WTO) will open up more markets and opportunities for foreign investments and speed its transition from a regulated economy to a free market.

As part of its continuing efforts to reform State-owned Enterprises (SOE's) and develop a market economy, China opened the Shanghai Stock Exchange in December 1990 and the Shenzhen Stock Exchange in July 1991. The Chinese equity market has expanded dramatically from eight listed companies in 1990 to over one thousand listed companies in 2000. However, for many Chinese private enterprises, access to public equity and bank loans is difficult to attain because the traditional financing sources in China are mostly reserved for SOEs. The "capital crunch" for private businesses in China has created serious barriers for the healthy development of innovative enterprises. In an attempt to spur economic growth in a nation gradually shifting from a central planning economy to a free market economy, the Chinese government has begun to realize the long-term economic power of a vibrant entrepreneurial sector. In light of the success of venture-backed innovative enterprises in the U.S. and Western Europe, China is eager to create government-backed venture capital funds, to encourage the establishment of non-governmental venture capital funds, and to open doors for the inflow of foreign venture capital funds.

However, venture capital financing in China is no simple task – the country has no legal infrastructure that operates in a clear fashion, the government's attitude toward foreign investment in high-tech industry remains ambiguous, business transactions typically operate through a "personal relationship" network, and venture capital exit to the public equity market is extremely difficult.

China lacks a mature legal environment and a supportive institutional framework for a vibrant entrepreneurial sector. A high-tech start-up in the U.S. typically begins with entrepreneurs with intangible assets (business ideas or technology) getting together to organize a private business entity, without the need to meet onerous capital requirements. However, according to China's Company Law established in 1994, to setup a limited liability company in China, domestic entrepreneurs first need to register their capital (minimum Chinese RMB 500,000, equivalent to US$60,386) with the State or Local Administration of Industry and Commerce. This minimum capital requirement is extremely high relative to the low average personal income in China. On the other hand, intangible properties (such as business ideas, unproved technology) may not be valued at more than 20% of the Chinese limited liability company's registered capital. Even though preferred shares, stock option plans, and convertible notes are commonly used in high-tech start-ups in the US, the registration of capital in China does not allow for various types of shares to be established. All of these barriers discourage the formation of start-up high-tech companies and work against promoting innovative enterprises in the private sector.

Since foreign individuals and entities are generally not allowed to directly invest in or lend to a limited liability company in China, foreign venture capital firms typically invest in a

Chinese investee company through the formation of a Sino-foreign Joint venture. This has substantially complicated the venture capital investment process. The current Joint Venture (JV) Law in China requires a cumbersome process of review and approval by the Ministry of Foreign Trade and Economic Development, plus the transfer of assets and capital by both parties to the newly formed joint venture. The JV law also limits foreign ownership interests to take up less than 25% of the Joint Venture. These procedures and restrictions are counter-productive and a simplified procedure is greatly needed to encourage and efficiently channel foreign venture capital investments in China.

One more obstacle facing foreign venture investors is the ambiguity of defining which industries are restricted or prohibited to foreign investment. The confusion over China's foreign investment policy is best illustrated in the government's contradictory messages regarding foreign investments in the Internet and telecommunications sector in the past two years.[1] Foreign investors need to be informed of the investment areas in a timely and clear fashion so that funding can be more efficiently and effectively channeled to private enterprises in China.

Another challenge for venture capital capitalists investing in China is the difficulty in monitoring and overseeing entrepreneurial firms in such a large country. Gomper and Learner (1999) show that over half of the venture investee companies in the U.S. have a venture director with an office within sixty miles. Venture capitalists' frequent visits, intensive monitoring and close nurturing of their investee companies have significantly lowered the agency costs involved in venture capital finance and contributed to the success of venture-backed companies in the U.S. However, most venture capitalists find it hard to oversee their investments in China due to the great size of the country and the substantial costs required to break down local barriers. Rapid development of infrastructure and communications in China are expected to ease this barrier.

Finally, a remaining major problem with the venture capital industry in China is the difficulty of finding effective exit mechanisms. This is further explained in Part 3 of our paper. A more market-oriented environment toward stock listing (versus the current quota-based, government-selecting mechanism for IPOs) should be promoted to ensure the competitiveness of private enterprises and the healthy exit of venture capital. The to-be-launched Nasdaq-style growth enterprise markets in China should stimulate venture capital investments, as they are expected to effectively lower the current exit barrier for venture-backed private enterprises.

Chinese policy makers, entrepreneurs, domestic and foreign venture capitalists, financial intermediaries and academic researchers have come to realize these difficulties associated with venture capital finance in today's transitional Chinese economy. The Chinese government invited worldwide high-tech industry leaders, venture capitalists and overseas academic experts to Beijing for conferences in venture capital and high-tech developments during past two years, showing a decisive effort to establish a mechanism conducive to venture capital.[2]

Reform of the legal framework governing the venture capital cycle, simplification and clarification of the investment procedures involved, and creation of a more supportive environment for venture capital, are all needed to foster a strong and vibrant Chinese venture capital industry.

III. The Venture Capital Cycle in China

Due to the private nature of the venture capital industry and the emerging nature of the Chinese Economy, information and statistics on venture capital finance in China are difficult to

[1] See Hills (1999b).
[2] See Hills (1999a)

obtain. This study exhausts various resources, including the Asian Venture Capital Journal, the Venture Economics Databases, the National Venture Capital Association, The Wall Street Journal, The China Business Review and the Far Eastern Economic Review to explore venture capital finance in China and Hong Kong (HK). Macroeconomic data from China/HK are obtained from the Great China Database provided by the Taiwan Economic Journal. This section of our article examines the fundraising, investing and exiting of venture capital in China/HK, and compares it with the venture capital cycle in the United States.

As illustrated in Table 2, Hong Kong accounted for more than 40% of the foreign direct investment in mainland China. Since Hong Kong has a stronger legal framework and a more mature venture capital industry, many foreign venture capital funds targeting Greater China are now based in Hong Kong, investing in mainland China directly through joint ventures with mainland companies, or indirectly through Hong Kong companies that conduct their primary business operations in China. Given that Hong Kong has become a Special Administration Region of the PRC since 1997, and its long-standing role as the gateway of capital to China, we present aggregate analysis for venture capital fundraising, investing and exiting in China and Hong Kong.

1. Venture Capital Fundraising

Table 3 compares the venture capital under management in China/HK with that of Japan, Asia and US, while Table 4 and Figure 1 details the annual venture capital fund inflow to China/HK, Japan and US. [3] In 1999, the combined VC under management in mainland China and Hong Kong exceeded that of Japan for the first time. The $22billion (US) China/HK venture capital pool represents 32% of the $69billion (US) Asian venture capital pool in 1999. The number of China/HK venture funds also increases substantially from 39 in 1991 to 190 in 1999, with 52 of the venture capital funds exclusively oriented toward mainland China. By comparison, there are more than 2,100 US venture funds under management in 1999 with a total pool of $160billion (US).

There was a phenomenal boom in China/HK venture capital fundraising before 1996, especially in 1994 and 1995. However, the inability of these funds to produce healthy returns and the Asian Financial Crisis cooled down the fundraising activities in 1996 and 1997. The venture capital fund inflow into China/HK rebounded spectacularly since 1998 and reached a peak in 1999 and 2000, due to the recovery of Asia, positive sentiment in the expected entry of China into WTO, and rapid developments in the e-commerce and high technology sectors in China/HK. New funds raised in China/HK totaled US$5.4billion in 1999, which is higher than the $4.86billion venture capital funds raised in Japan in 1999 and accounts for 33% of the $16.6billion venture capital funds raised in Asia in that year. By comparison, the total amount of all Asian venture capital funds raised in 1999 is only one third of the $46billion venture capital funds raised in the U.S.

Tables 5 and 6 and Figures 2 and 3 list the largest venture capital funds raised in China and Hong Kong, and a breakdown of the sources of China/HK venture capital funds as of 1999. Less than one third of the venture capital amount raised in China is domestically funded, while more than one third is from other Asian sources such as Hong Kong and Singapore, with the remaining one third from non-Asian countries such as U.S. and U.K. Most foreign venture capital firms, such as AIG Investment Corporation (Asia) Ltd., ChinaVest and Citicorp China Investment Management Ltd., have regional offices in Hong Kong, but others such as Asian

[3] Venture capital under management refers to total VC funds available for investment plus total investment portfolio currently held.

Strategic Investment Corp., CGU-CDC China Capital Partners and IDG Technology Venture Investment Inc., established offices directly in the major cities of China. Most domestic venture capital firms, such as Beijing Technology Development Fund, Canton Venture Capital Company Ltd. and Shangxi Science Technology Fund Development Corp., are owned or backed by the State or local governments. Shanghai Info-Tech Venture Capital Co., Ltd. was launched in July 2000 as China's first non-governmental venture capital company. As of the first half of 2000, there were only 17 mainland China-oriented funds with capital of US$100 million or more. Of the venture capital committed to these Chinese funds, corporations accounted for 43%, while insurance companies, banks, and government agencies accounted for 18%, 18% and 12%, respectively.

As a key capital center in Asia and a gateway to mainland China, Hong Kong's venture capital industry has grown dramatically over the past ten years. In 1999, 77% of the funds raised in HK came from non-Asian countries (mostly from US), 7% from Hong Kong locally, and 16% from other areas in Asia. Of the venture capital raised in HK in 1999, corporations accounted for 43% and insurance companies for 30%. The size of Hong Kong's venture capital funds are on average larger than those of mainland China. Table 6 lists 14 Hong Kong venture capital funds that are US$500million or more as of June 2000. Most of the venture capital funds raised in Hong Kong are primarily oriented toward the greater Chinese market, but some also invest in other Asian countries.

Unlike the venture capital funds in China/HK, the largest sources of 1999 venture capital funds commitments in the U.S. are pension funds (23%), individuals & families (22%), and endowments & foundations (21%), Corporations only account for 15% of the fund commitments in 1999. The 1979 amendment that allowed the U.S. pension funds to invest in private equity stimulated the inflow of funds into the venture capital industry. U.S. entrepreneurs also benefited enormously from their close ties with business angels, university endowments and government foundations.

2. Venture Capital Disbursements

Venture capitalists refer to investments by venture capital funds into investee companies as "disbursements". In the United States, venture capitalists disbursed a record $48billion in 3,638 U.S. investee companies in 1999, compared to $18billion in 1998 and $2.6 billion in 1991.

Table 7 presents the annual venture capital disbursements in China and HK, and compares this with those in Japan, Asia and US. Disbursements in China increased substantially from 1992 to 1996 and then declined in 1997 and 1998, due to the Asian financial crisis and venture capitalists' frustrations over the weak institutional and legal framework governing venture capital investments in China. Although venture capital disbursements in China began to recover in 1999 to $421million (US) from $243million in 1998, it was still well below the level in 1994-1996, and represented only 4.6% of the 1999 venture capital disbursements in Asia. Venture capital disbursements in Hong Kong grew from $1.2billion (US) in 1998 to $1.7billion in 1999, which accounted for almost 20% of all venture capital disbursements in Asia. Many of the venture capital investee companies in Hong Kong have substantial business interests, strong connections and primary market orientation in mainland China. These "red-chips" offer venture capital investors transparency, more accessible Hong Kong-based management, more liquid capital market, less legal and institutional obstacles, and convenient access to the huge technology and market potential of mainland China.

Japan is still the largest venture capital investment base in Asia, partly due to the decisive efforts by the Japanese government to nurture high-technology entrepreneurial activities and a stronger legal framework. However, the prolonged Japanese recession and the failure of the banking sector in Japan have created a negative environment for the survival of venture-backed innovations. Given the current economic environment and growth pattern, venture capital disbursements in China/HK are going to surpass those of Japan in the near term.

Table 8 describes the breakdown of disbursements by company stage, regions and industry sectors for China, HK, Japan and Asia. In 1999, expansion stage investments accounted for 37% of all disbursements in China, 38% in Hong Kong, 50% in Japan, 45% in Asia and 55% in the US, followed by start-up stage investments, which represented 34% of all disbursements in China, 25% in Hong Kong, 15% in Japan, 21% in Asia, and 22% in the US. Expansion and start-up stage companies attracted the majority of invested capital in China, HK, Japan, Asia and the US. Geographically, 93% of the funds raised in China were invested in domestic companies. However, only 10% of the funds raised in HK were invested in HK companies, with 86% of the funds raised in HK invested in mainland China and other Asian companies. In terms of areas of investments, infrastructure, consumer products/services, computer/Internet related industry, and utilities attracted the majority of venture capital investments, while the telecommunications, consumer products/services, infrastructure and manufacturing areas are most popular in Hong Kong. In comparison, Internet related companies received 66% of the US venture capital disbursements in 1999.

In the Chinese economy with relatively greater uncertainty and a higher level of information asymmetry, we should expect the venture capitalists to increase the intensity of monitoring, to stage the investment rounds in shorter durations, and to decrease the funding size per round, when compared with their venture capital investment counterparts in well-developed economies such as the United States. However, more than 90% of the venture capital disbursements in 1999 to Chinese companies are first-round investments, while the follow-on investments have outweighed the first-round investments for venture capital disbursements in the United States in 1999. This lack of follow up investments in China might reflect the developing nature of the Chinese venture capital industry and the daunting process and massive bureaucracy involved in conducting foreign venture capital investments in China.

3. Venture Capital Exit Mechanisms

Exit or divestment can be accomplished by a number of means such as an initial public offering or acquisition by another company. Studies of the U.S. market [Barry et al (1990), Lerner (1994b), Gompers (1996), Brav et al. (1997)] suggest that the most profitable venture capital exit has, on average, been disproportionately by way of an IPO. In 1999, 270 US venture-backed companies exited though IPOs with an all time high offering size of $20.9billion. The venture-backed IPOs accounted for half of the number of US IPOs in 1999, and significantly outperformed the non-ventured-backed IPOs in the aftermarket. NASDAQ was founded in 1971 as the first electronic stock market in the world, providing venture capitalists with a public equity market to exit their investments in start-ups. The success of the high technology companies introduced in NASDAQ further stimulated the venture capital cycle and innovative enterprises. Black and Gilson (1998), among many others, argue that an active well-developed stock market is critical for the venture capitalists to the exit their investments in successful portfolio companies, and therefore, is necessary for the development of a healthy and vibrant venture capital industry.

Venture capital exit to the public equity market is extremely difficult in China. Various IPO exiting channels for China ventured-backed firms are listed in Table 9. The two domestic stock exchanges in China, the Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE), are oriented toward state-owned companies. Furthermore, to be considered for listing on SHSE or SZSE, companies have to post three consecutive years of profits, which creates a serious barrier for private equity to exit. In addition, according to China's Company Law published in 1994, venture capital investment in a company falls under the "legal person shares" category when the investee company goes public in China. In a developed stock market such as the US, venture capitalists' shares in an IPO are typically subjected to a lock-up period of 180 days, after which the venture capitalists may freely liquidate the shares or distribute the shares to partners. But in the present shareholding system in China, legal person shares cannot be traded on the stock exchange or over-the-counter. They can only be disposed in a restricted private sale, typically associated with low liquidity and unfair prices. This discourages the exiting of venture capital investments in China through domestic listing. Another obstacle to foreign venture capital investment in China is foreign exchange control, which requires foreign investors to obtain government agency approval to convert the proceeds of stock sales to foreign currencies before they can be remitted offshore.

Mainland Chinese companies or foreign joint ventures in China may also seek listings in offshore stock markets such as Stock Exchange of Hong Kong (SEHK), Hong Kong Growth Enterprise Market (HK GEM), New York Stock Exchange and NASDAQ. The HK GEM was established in 1999 as a NASDAQ-style second board for high tech enterprises in HK and mainland China to list their shares. Nine stocks were listed in HK GEM in 1999 and the number rose to forty in 2000. To get around various restrictions for domestic listings in China, foreign venture capital investors have taken some of their investee companies to the public equity market in Hong Kong and the United States. Many venture capitalists are frequent participants in the public equity capital market and have expertise and experience in monitoring and valuing investments. However, approval from the Chinese Securities Regulatory Commissioner must be obtained before seeking offshore listings. Venture capital divestments in China (in U.S. dollars) totaled $49million in 1998 and $10 million in 1999, reflecting an extremely difficult exiting mechanism. However, in 2000, we have witnessed the listing of mainland venture-backed companies such as Sohu.com and Netease.com on NASDAQ and several other listings on HK GEM by mainland venture capital backed companies. As for the venture backed Hong Kong incorporated companies that conduct their main business operations in mainland China, they may exit through the SEHK, HK GEM, or listings in overseas markets. Total divestments in Hong Kong rose from $122million in 1998 to $365million in 1999 (in U.S. dollars), reflecting a more constructive environment for venture capital to exit in Hong Kong.

For the past two years, China has planned for the opening its own Growth Enterprise Markets as the second board of the Shenzhen and Shanghai Stock Exchanges [see Leggett (2000)]. However, the second board has not yet been launched as high-tech stocks have been going through a deep correction since April 2000. This second board is much anticipated, as it may bring more opportunities for private growth enterprises to access the public capital market and more liquidity for venture capitalist to exit their investments.

IV. Conclusion

Despite the developing nature of venture capital activities in China and many barriers and difficulties, foreign and domestic venture capital financing in China is likely to grow dramatically over the next few years. Policy makers in China are well aware of the problems and deficiencies in the present legal system governing private enterprises and venture capital investments in China. The Company Law and Joint Venture Law are presently being revised in China to address some of the legal obstacles faced by entrepreneurs and venture capital investors. On the other hand, long awaited legislation that is supportive of venture capital finance in China is in the final stage of passage by the National People's Congress. China's perspective entry into WTO also promises a wider range of opportunities and markets for foreign investments. A growing number of foreign venture capital firms, such as ABN ARMO, Advent, AIG, Baring, J. P. Morgan Chase, Citicorp, H&Q, IDG and Walden, have taken bold steps in raising funds and making investments in China, aggressively positioning themselves to take advantage this huge emerging market with its many opportunities and challenges. In addition to government-backed venture capital funds, non-governmental, homegrown venture capital funds have also emerged in China. In general, China is gradually moving toward developing a more friendly, efficient and vibrant venture capital industry.

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Table 1. Real GDP Growth Rate (%) 1991-1999

Year	China	HK	China/HK	Japan	USA
1991	9.2	5.0	7.6	3.8	0.8
1992	14.2	6.2	11.8	1.0	4.0
1993	13.5	6.2	11.4	0.3	2.5
1994	12.6	5.5	10.2	0.6	4.1
1995	10.8	3.9	9.0	1.5	2.2
1996	9.3	4.5	7.8	3.9	4.1
1997	8.8	5.0	7.3	0.9	4.3
1998	7.8	-5.3	6.7	0.5	4.6
1999	7.1	3.1	6.1	0.3	5.0

Sources: Great China Database; Statistical Abstract.

Table 2. Foreign Direct Investments in China 1991-1999

Year	Foreign Direct Investments in China*	Sources of Foreign Direct Investments (FDI) in China				Annual China Venture Capital Inflow*	Annual China/HK Venture Capital Inflow*	CHINA Venture Capital Inflow/FDI	CHINA/ HK Venture Capital Inflow/ FDI
		HK	US	Japan	Other				
1991	4,366	59.07%	7.58%	13.97%	19.38%	16	157	0.37%	3.60%
1992	11,007	70.01%	4.72%	6.80%	18.48%	583	685	5.30%	6.22%
1993	27,515	63.40%	7.52%	4.95%	24.14%	677	1,203	2.46%	4.37%
1994	33,767	58.71%	7.38%	6.18%	27.74%	898	2,942	2.66%	8.71%
1995	37,521	53.80%	8.22%	8.56%	29.42%	1028	2,007	2.74%	5.35%
1996	41,726	49.97%	8.25%	8.85%	32.92%	294	685	0.70%	1.64%
1997	45,257	47.62%	7.65%	9.70%	35.03%	96	1,941	0.21%	4.29%
1998	45,463	42.67%	8.57%	7.58%	41.18%	166	4,772	0.37%	10.50%
1999	40,319	40.58%	10.46%	7.37%	41.59%	540	6,846	1.34%	16.98%

Sources: 2000 National Venture Capital Association Yearbook; 2001 Guide to Venture Capital in Asia; Great China Database; Statistical Abstract.

* Note: Figures are in million US $.

Table 3. Venture Capital under Management 1991-1999

	Venture Capital under Management in Million US $					Number of Venture Capital Funds			
Year	China	China/HK	Japan	Asia	USA	China/HK	Japan	Asia	USA
1991	184	2,173	15,352	21,925	37,200	39	115	334	1,082
1992	878	2,656	16,028	23,431	40,800	48	116	354	1,149
1993	1,422	3,095	17,750	26,222	44,700	58	120	399	1,240
1994	2,384	6,037	15,300	30,951	51,900	73	190	659	1,337
1995	3,458	8,044	14,851	33,433	60,100	87	276	753	1,465
1996	3,612	8,729	11,254	33,791	70,600	101	270	839	1,594
1997	3,500	10,670	7,722	32,137	86,200	107	210	796	1,790
1998	3,112	15,442	12,513	45,785	114,000	129	231	918	1,995
1999	3,735	22,288	21,729	69,132	160,100	190	221	1,068	2,124

Sources: 2000 National Venture Capital Association Yearbook; 2001 Guide to Venture Capital in Asia.

Table 4. Annual Venture Capital Commitments (Inflows) as a Percentage of Gross Domestic Products 1991-1999

	China			China/HK			Japan			USA		
Year	GDP	Annual Venture Capital Fund Inflow (VC)	VC/GDP	GDP	Annual Venture Capital Fund Inflow (VC)	VC/GDP	GDP	Annual Venture Capital Fund Inflow (VC)	VC/GDP	GDP	Annual Venture Capital Fund Inflow (VC)	VC/GDP
1991	406,090	16	0.004%	492,180	157	0.032%	3,402,120	782	0.023%	6,720,889	1,500	0.022%
1992	483,041	583	0.121%	583,671	685	0.117%	3,719,420	870	0.023%	6,990,599	3,600	0.051%
1993	601,083	677	0.113%	712,884	1,203	0.169%	4,275,010	605	0.014%	7,168,662	3,900	0.054%
1994	542,534	898	0.166%	672,552	2,942	0.437%	4,688,970	710	0.015%	7,461,109	7,200	0.097%
1995	700,219	1028	0.147%	838,759	2,007	0.239%	5,137,360	1,633	0.032%	7,621,904	8,200	0.108%
1996	816,490	294	0.036%	969,788	685	0.071%	4,595,160	1,582	0.034%	7,931,305	10,500	0.132%
1997	801,552	96	0.012%	971,824	1,941	0.200%	4,192,670	1,010	0.024%	8,272,897	15,600	0.189%
1998	946,198	166	0.018%	1,108,441	3,218	0.290%	3,715,150	1,242	0.033%	8,654,492	27,800	0.321%
1999	989,262	540	0.055%	1,147,864	5,470	0.477%	3,788,338	4,860	0.128%	9,084,060	46,100	0.507%

Note: Figures are in million US $.

Sources: 2000 National Venture Capital Association Yearbook; 2001 Guide to Venture Capital in Asia; Great China Database; Federal Reserve Board; Statistical Abstract.

Figure 1. Annual Venture Capital Commitments (Inflows) as a Percentage of Gross Domestic Products 1991-1999

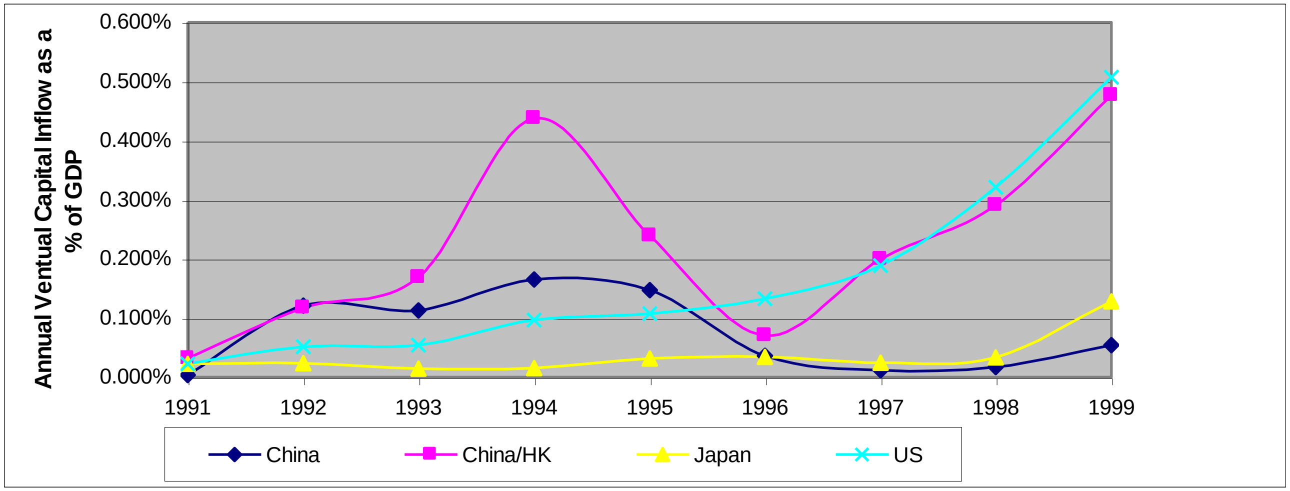


Table 5. Venture Capital Funds in China with capital no less than US$100Million (Period: 1991 to 2nd quarter of 2000)

Vintage Year	Fund	Capital (in Mil US $)	Management Firm	Firm Location	Firm Type
1992	BOC China Fund Ltd.	150	BOCI Direct Investment Management Ltd.	Hong Kong	Bank Subsidiary
1993	China Merchants China Direct Investment Ltd.	137	China Merchants China Direct Investment Mgt. Ltd.	Hong Kong	Corporate Subsidiary
1993	ChinaVest IV	125	ChinaVest Ltd.	Hong Kong	Independent Venture Capital Firm
1993	Cathay Investment Fund Ltd.	120	New China Management Corp.	USA	Independent Venture Capital Firm
1993	China Aeronautical Technology Fund Ltd.	110	TL Aero-Fund Investment Management Ltd.	Hong Kong	Independent Venture Capital Firm
1994	China Automobile Components Group, L. P.	108	Asian Strategic Investment Corp. (ASIMCO)	China	Independent Venture Capital Firm
1994	ING Beijing Investment Co. Ltd.	100	Baring Capital (China) Management Ltd.	Hong Kong	Bank Subsidiary
1995	Citicorp Everbright China Fund	180	Citicorp China Investment Management Ltd.	Hong Kong	Bank Subsidiary
1995	China Automobile Components Group, L. P.	125	Asian Strategic Investment Corp. (ASIMCO)	China	Independent Venture Capital Firm
1995	Newbridge Investment Partners	105	Newbridge Capital Ltd.	Hong Kong	Independent Venture Capital Firm
1996	The China Retail Fund	186	AIG Investment Corporation (Asia) Ltd.	Hong Kong	Insurance Firm Subsidiary
1998	ChinaVest V	100	ChinaVest Ltd.	Hong Kong	Independent Venture Capital Firm
1999	SIIC Asset Management Co, Ltd.	200	SIIC Asset Management Co, Ltd.	Hong Kong	Corporate Subsidiary
2000	IP Fund One	260	Acer Technology Ventures	Singapore	Independent Venture Capital Firm
2000	ACR Fund	128	Asia Cyber Republic Ltd.	Hong Kong	Independent Venture Capital Firm
2000	CGU-CDC China Investment Fund	100	CGU-CDC China Capital Partners	China	Independent Venture Capital Firm
2000	DragonTech Ventures Ltd.	100	DragonTech Venture Management Ltd.	Hong Kong	Independent Venture Capital Firm

Figure 2A.
Sources of Venture Capital in China 1999

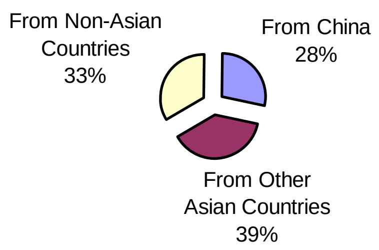
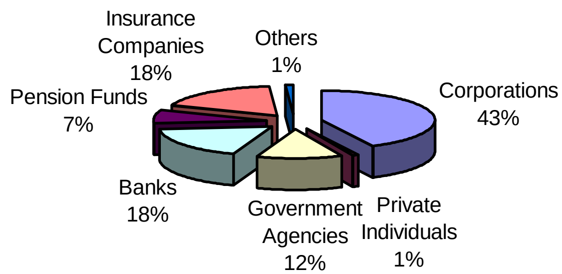


Figure 2B.
Sources of Venture Capital in China 1999



Source: 2001 Guide to Venture Capital in Asia.

Table 6. Venture Capital Funds in Hong Kong with capital no less than US$500Million (Period: 1991 to 2nd quarter of 2000)

Vintage Year	Fund	Capital (US Mil $)	Management Firm
1994	AIG Asia Infrastructure Fund I	1,100.0	AIG Investment Corporation (Asia) Ltd.
1994	The Asian Infrastructure Fund	779.5	Asian Infrastructure Fund Advisers Ltd.
1996	Direct Investment Fund	500.0	PAMA Group
1995	ABN AMRO Asia Capital	500.0	ABN AMRO Asia Capital Investment Ltd.
1997	AIG Asia Infrastructure Fund I	1,700.0	AIG Investment Corporation (Asia) Ltd.
1997	The HSBC Private Equity Fund 2	525.0	The HSBC Private Equity (Asia) Ltd.
1998	AIG Asian Opportunities Fund	750.0	AIG Investment Corporation (Asia) Ltd.
1998	Asia Pacific Growth Fund III.	750.0	H&O Asia Pacific (H.K.) Ltd.
1998	Prudential Asia Private Equity LP	540.5	PAMA Group
1999	Carlyle Asia Partners, L.P.	1,100.0	Carlyle Asia Investment Advisors Ltd.
1999	Asia opportunities Fund	1,000.0	Chase Capital Partners Asia
1999	Cyberworks Ventures	750.0	Pacific Century CyberWorks -CyberWorks
2000	Technology Venture Fund - Asia	750.0	Carlyle Asia Investment Advisors Ltd.
2000	CVC Capital Partners Asia	500.0	CVC Asia Pacific Ltd.

Figure 3A. Sources of Venture Capital in HK

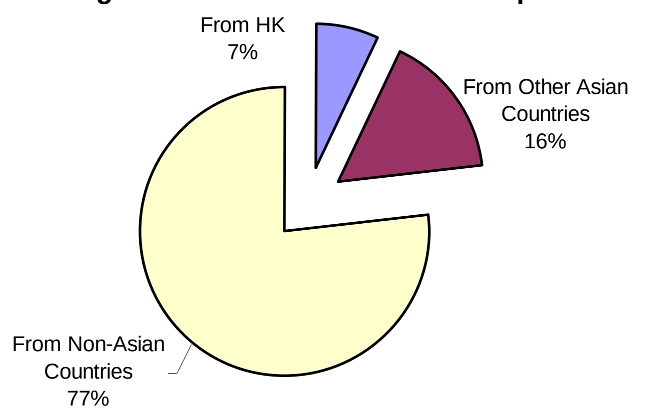
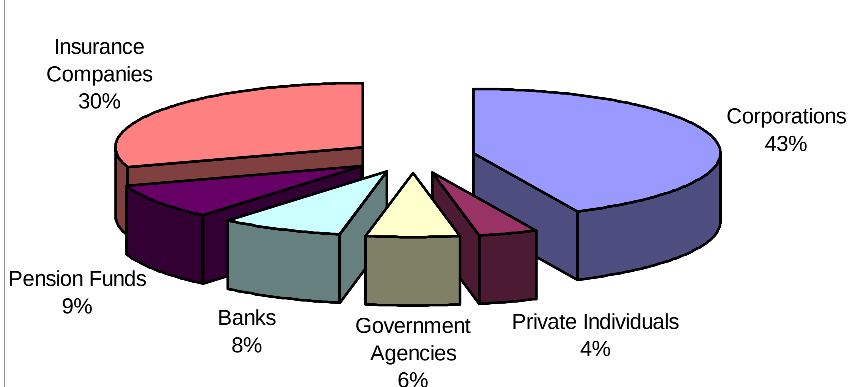


Figure 3B. Sources of Venture Capital in HK 1999



Source: 2001 Guide to Venture Capital in Asia.

Table 7. Annual Venture Capital Disbursements (in Million US$) 1992-1999

Year	China	HK	Japan	Asia	US
1992	65		406	1,162	4,900
1993	242		322	1,587	4,900
1994	645		693	2,486	4,900
1995	678		1,467	5,534	5,700
1996	609	1,183	1,429	5,561	9,900
1997	550	778	992	4,611	14,000
1998	234	1,248	927	4,914	19,200
1999	421	1,735	2,296	9,071	48,000

Sources: 2000 National Venture Capital Association Yearbook; 2001 Guide to Venture Capital in Asia.
Note: Statistics on annual VC disbursements to HK from 1992 to 1995 are not available.

Table 8. Venture Capital Disbursements 1999

	China	HK	Japan	Asia
Disbursement in 1999*	421	1,735	2,296	9,071
Investment Portfolio*	3,408	7,187	8,964	31,558
Number of Investee Companies in the Venture Capital Investment Portfolio	411	1,300	10,987	21,897
* Note: Figures are in Million US dollars.				
Disbursement by Financing Stage in 1999[4]				
Seed	10%	3%	3%	4%
Start-up	34%	25%	15%	21%
Expansion	37%	38%	50%	45%
Mezzanine	9%	5%	19%	12%
Buyout	7%	20%	1%	9%
Turnaround	2%	8%	12%	9%
Others	1%	1%	0%	0%
Disbursement to Companies by Region in 1999				
Local Companies	93%	10%	86%	60%
Other Asian Companies	4%	86%	5%	32%
Non-Asian Companies	3%	4%	9%	8%

Disbursements by Industry in 1999: the Top Four Industry Sectors

China		**HK**	
Infrastructure	22.30%	Telecommunications	16.40%
Consumer Products/Services	11.70%	Consumer Products/Services	13.90%
Computer related	6.70%	Infrastructure	13.20%
Utilities	6.60%	Manufacturing	12.20%
Japan		**Asia**	
Financial Services	17.50%	Telecommunications	11.40%
Consumer Products/Services	10.30%	Electronics	10.30%
Telecommunications	9.20%	Financial Services	10.10%
Computer related	9.70%	Consumer Products/Services	10.00%

Sources: 2000 National Venture Capital Association Yearbook; 2001 Guide to Venture Capital in Asia.

[4] Seed stage: venture with an initial concept for research and development of a product; start-up stage: company in the stage of product development and initial marketing; expansion stage: company at growth and expansion in production capacity and market or product development; mezzanine: financing provided to help a company go public; buyout: financing provided to enable the existing management or an outside investor to acquire a product line or business; turnaround: financing provided to re-establish a business which has encountered performance difficulties. (Source: 2001 Guide to Venture Capital in Asia)

Table 9. Structure and Characteristics of Various Existing Channels for China Venture-backed Companies

China-backed Securities	Listing Firms	Stock Exchange and Currency	Ownership Restriction	Statistics as of Dec. 1998
A Shares	Mainland China incorporated	Traded in Chinese RMB on Shenzhen Stock Exchange (SZSE) or Shanghai Stock Exchange (SHSE)	Domestic Investors	825 A share issues (425 listed on SHSE and 400 listed on SZSE)
B Shares	Mainland China incorporated	Traded in Hong Kong $ on Shenzhen Stock Exchange (SZSE); US $ on Shanghai Stock Exchange (SHSE)	Offshore Investors	106 B share issues (52 listed on SHSE and 54 listed on SZSE), 81 of them have matched A share issues for domestic investors.
H Shares	Mainland China incorporated	Traded in Hong Kong $ on Stock Exchange of Hong Kong (SEHK) or Growth Enterprises Market (GEM)	Offshore Investors	41 H Share issues, 18 of them have issued A share for domestic investors, 10 of them are cross-listed in New York as N shares.
Red Chips	Hong Kong incorporated and managed, with substantial business interests in mainland China or mainland Connections	Traded in Hong Kong $ on Stock Exchange of Hong Kong (SEHK) or Growth Enterprises Market (GEM)	Offshore Investors	47 Red Chips
N Shares	Mainland China incorporated	Traded in US $ on New York Stock Exchange (NYSE) or NASDAQ	Offshore Investors	10 N share issues, all of them are American Depository Receipts (ADRs) of the underlying Chinese H shares listed on SEHK

Sources: Great China Database; NYSE; SEHK.