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Fostering the Venture Capital Market by the Government Policy - A Case Study of Z-Park Practice in China

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I. Introduction

When evaluating the competitive advantage of a nation or a region, the role of achievements in the fields of scientific research and business innovation weighs heavily. Venture capital investment reinforces the entrepreneurial spirit by producing innovative and cutting-edge technology and products. Venture capital funds and builds companies from the simplest form-just an entrepreneur and an idea expressed as a business plan to freestanding, mature organization.

Being as the earliest and largest science park in China, Zhongguancun Science Park has taken brave steps in financial innovation and actively attracted overseas and domestic fundings into the Park to address the financing difficulty of the high-tech firms in Zhongguancun. Using Zhongguancun Science Park as an example, this article traces the development of venture capital market in China in the past decade, focuses on the government supporting policies in the field, and concluded the positive effect of government role in fostering the venture capital market in a high-tech region of an emerging economy.

II. Venture Capital: Standard Mode and Global Trend

The earliest mode of venture capital investment was born in the Silicon Valley, where scientists and researchers would choose to run a business of their own if their inventions were not accepted by the companies. Meanwhile, over 100 VC companies in the area invested in certain selected ventures and helped them grow rapidly and ultimately get purchased by big companies. After that, both sides would start a new round of venture and investment separately with the profits gained.

High Technology is the most important growth point of entrepreneurial companies. This can be seen from the areas around the world with the most concentrated research and development, i.e., computer and electronic component, medical care, and automation. (Martin Haemmig, 2006)

Venture capital plays a major role in the development of the high tech industry. Of the companies that receive venture capital financing, 28% are in the seeding stage, 53.6% are in the growth stage and 18.4% are mature stage companies. Some of the successful companies will be able to go public.

Investors always focus on growing countries and regions. And GDP growth is an important indicator when they consider a VC investment. According to the forecast of Goldman Sachs & Co., by 2050, Brazil, Russia, India and China will have the fastest economic growth worldwide. By that time, a lot of investments will pour in and numerous business opportunities will arise. And this will constitute an ideal environment for the development of entrepreneurial companies. The present total venture capital worldwide has become 3.5 times that of six years ago.

III. Venture Capital in China

These days venture capitalists from Silicon Valley to Sydney are trolling for deals in China. For China funds, the money keeps pouring in. In 2005, they raised some \$1.17 billion, up from just \$325 million in 2002, according to Hong Kong-based Asian Venture Capital Journal. IDG-Accel China Growth Fund's new China fund raised \$150 million, Sequoia Capital China attracted \$200 million, and JPMorgan Chase recently launched funds to invest in China. Carlyle Group paid \$375 million for an 85% stake in state-owned Xugong Group Construction Machinery, and Warburg Pincus ponied up \$115 million for a 22.5% stake in Harbin Pharmaceutical Group. (*Business Week*)

As their understanding of venture capital increases, local governments around China have begun to pay closer attention to the development of the local venture capital industry. Some companies, especially high tech firms have also started venture capital operations. Companies such as Stone Group Corp., Start, Legend, Tsinghua Tongfang, and Haier have set up their own independent venture capital firms or joint venture venture capital firms to invest strategically.

According to a published statistics by People's Daily, the distribution of venture capital firms are concentrated in two areas. 1) Most VC firms are concentrated in China's eastern region. 2) In terms of industry, the VC firms are concentrated in the high tech sector. 89% of the VC firms chose to invest in high tech projects.

IV. Problems of Venture Capital in China

Since its reform and open door policy from early 1980s, China has been undergoing a transfer from a planned economy to market economy. As a remnant of the planned economy, China didnot allow private individuals or private corporations to raise money. In addition, the limited partnership is not a legal organization form for a venture capital fund. It was in the early 1990s, international venture capital funds brought the concept of venture capital investment to China and dominated China's venture capital investment market. Being as a newly developed phenomenon, there are several problems with the venture capital market in China.

First of all, lack of the exiting mechanism for venture capital. It usually takes venture capital a huge amount of risk by trading their investment for stock equity, whose value exceeds their initial investment if the vc-backed company goes IPO. There are various tools for venture capital to realize exits, e.g., transfer of shares, M&A, IPO in overseas market, re-purchase of shares. However, the exiting mechanism for venture capital has not been established perfectly in China.

Secondly, intellectual property and intangible assets are not sufficiently protected. Due to the lack of protection of intellectual property, venture capital firms are more hesitated to invest in a potential project, as it means more risk for venture capital in non-perfect legal system.

Thirdly, poor quality of the professionals in accounting firms, legal firms, technology evaluation insitution and investment consulting firms. Qualified talents in the aboved mentioned field cannot meet the demands in China.

V. Zhongguancun Science Park

Zhongguancun Science Park is the earliest as well as the largest science park in China. Since China's reform and opening to the world started in 1979, continuous systematic changes have led to a series of venture establishment waves in Zhongguancun. In this process, a number of scientists and technicians with entrepreneurial spirit have gradually left the old system, which completely isolates scientific activities from economic activities. These entrepreneurial risk-takers slowly carved out a new world that differs greatly from the traditional planned economy. Nicknamed "Scientific Town", Zhongguancun is traditionally the largest base of scientific research and education in China, where most of the country's cutting-edge research is conducted. After China's reform and opening up, the entrepreneurial practices of scientists and technicians in Zhongguancun coincided with the reform plan of the central government and the first high-tech special zone was thus established. Approved and encouraged by the central government of China, Zhongguancun Science Park was established as the first national science park in China in year 1988.

For a long period of time, the name of Zhongguancun Science Park was called "Beijing Experimental

Zone for the Development of High and New Technological Industries,” in which *experimental* refers to piloting some new rules and institutions on a small scale as to explore a way suitable to China’s reality for developing high-tech industries. So a number reform measures have been piloted in Zhongguancun and then promoted nationwide. With the exploration going into depth, the reform of enterprises and the development of enterprise management have forced the government to make innovations in its economic, scientific and social administration.

After 20 years' development, Zhongguancun science park has been formed into a pattern of one park with 10 sub-parks and covers an area of 232 square kilometers. Over the past two decades, it has developed a high-tech, low input, high output and low discharge business structure which conserves resources and is environment friendly, and the Park is noted for its leading edge companies specializing in electronic information, photoelectronics, bio-engineering, new medicine, new materials and environmental friendly energies. There are in the Park over 50 universities represented by the internationally renowned Tsinghua University and Peking University and over 200 research institutes, the most famous one being the China Academy of Sciences and the Chinese Academy of Engineering. There are also close to 20,000 Chinese and foreign high-tech companies in the Park. Several thousand items of scientific and technological advances are made in the Park and put into application throughout China every year. Zhongguancun Science Park has grown into China’s leading center for scientific and technological innovation and gained international renown.

VI. Venture Capital in Zhongguancun Science Park

Nowadays Zhongguancun Science Park has become the most active VC investment area in China. According to a statistics by Zhongguancun Science Park, 374 million US dollars were invested in 70 Zhongguancun hi-tech firms in year 2005, and the investment was increased to 746 million US dollars in 114 Zhongguancun hi-tech projects in year 2006. VC investment in Zhongguancun accounted for nearly half of the total VC investment in China.

By the end of year 2007, there are altogether 106 public companies in Zhongguancun Science Park, among which, 20 hi-tech companies had their IPO successfully in year 2007, with the fund financed nearly 5.4 billion US dollars. 10 other companies have submitted their application for IPO to both China's Security Regulatory Commission and foreign stock exchange market and are undergoing their roadshow for IPO.

Half of "2007 Deloitte Technology Fast 50 China" and half of "2007 Top 50 with Investment Potential" by Tsinghua are all from Zhongguancun Science Park.

VII. Zhongguancun's Policy on Venture Capital

Since the foundation of the Administrative Committee of Zhongguancun Science Park in 1999, which is a government department affiliated to the People's Government of Beijing Municipality, a closer study has been made to the development of the venture capital market in Israel and the Silicon Valley in the United States.

It was early in the 2001, the first Guiding Fund for Venture Capital was set up by the Administrative Committee of Zhongguancun Science Park with the purpose to encourage venture capital companies to invest in technology-based small and medium-sized enterprises(SMEs). Unlike past investment which has been injected into technology-based SMEs, the fund was, for the first time, targeted at venture capital companies who invested in the most innovative and promising high-tech companies in the Park. This was a breakthrough for the government support by a direct budget into the venture capital industry. From then on, a series of measures and policies had been made relating to the support for the venture capital industry in Zhongguancun Science Park. Some most important ones are

illustrated as follows.

Partnership with VC firms

The Administrative Committee of Zhongguancun Science Park forms a partnership with the approved VC firms and would match the VC firms' investment in Zhongguancun hi-tech firms without interfering the VC companies' decision making or equity management.

Venture partners shall meet 3 requirements. Firstly, its registered capital is no less than 100 million RMB or managed VC bigger than 300 million RMB. Secondly, its aggregated investment exceeds 100 million RMB. Thirdly, at least 3 senior VC professionals with no less than 5 years related working experience are in the management of the VC firm. By the end of 2007, 33 VC firms have become partners of Zhongguancun Science Park, IDGVC, GSR, Lenovo Investment are included.

Guiding Funds for Venture Capital Investment

The Guiding Fund for Venture Capital Investment was piloted from year 2001 with the purpose to encourage venture capital companies to invest in the hi-tech SMEs in Zhongguancun Science Park. This government support from direct government budget is targeted at the venture capital companies who have been approved to establish the partnership with the Administrative Committee of Zhongguancun Science Park. The guiding funds take 3 ways in supporting the venture capital companies. The first way is **Matching Fund**. The government's Guiding Fund will matching the VC company's investment at a ratio between 10% to 30% and the maximum of matching per hand is 3 million RMB. The second way is **Mother Fund**. The Guiding Fund will take the form of Mother Fund to co-invest in the chosen projects or hi-tech companies. By the end of 2007, guided by the Matching Fund and Mother Fund, VC companies totaled 224 million RMB co-investing in 27 companies in Zhongguancun Science Park, 4.2 times more than the matching and mother fund. The third way is **Co-sharing a Joint VC Company**. By the end of 2007, 7 joint VC companies have been established with a 900-million yuan size of investment, among which the government's Guiding Fund accounted for 245 million yuan.

Risk Premium(Subsidy)

In order to encourage the VC companies to invest in the starting-up companies, a Risk Subsidy will be offered according to the actual investment of the VC companies. The risk subsidy is around 10 percent of the VC company's actual investment with maximum of 1 million RMB per hand. In year 2006 and 2007, 18 VC companies have received 35 million yuan for their 56 investment projects with the total investment of 640 million yuan in Zhongguancun Science Park. These VC companies include IDGVC, Info Tech Ventures, Tsinghua Ventures, Northern Light VC and etc.

Equity Depository and Transfer

Government's Equity in the invested companies will be entrusted and commissioned to the co-investing VC companies. The commission fee is as high as 50% of the due dividend from the invested companies plus 50% of the capital gain after the investment withdrawal. At the time of withdrawal, the equity of the government will be transferred to the cooperative VC companies and shareholders of the invested company in priority at an original price. This is evidence showing that purpose of the government's co-investment is not profiting, but encouraging and guiding.

VIII. Analysis on the Effect of Zhongguancun's Policy on VC

Since the piloting of Zhongguancun's policy on VC, mainly the Guiding Fund in 2001, it plays a most important role in attracting more social investment to the Science Park and helps developing the

hi-tech industry in Zhongguancun and achieves the goal of a public policy.

To Guide and Magnify the investment. By the end of 2007, guided by the Matching Fund and Mother Fund, VC companies totaled 224 million RMB co-investing in 27 companies in Zhongguancun Science Park, 4.2 times more than the matching and mother fund. 7 joint VC companies have been established with a 900-million yuan size of investment, among which the government's Guiding Fund accounted for 245 million yuan, bringing a 3.7 times more investment.

To expedite the hi-tech industry development. To cooperate with VC companies of rich investment experience, the science park will not only benefit in funding, but also in advanced management conception, international management system and other key factors that help growing a company.

To encourage independent innovation. The Guiding Fund targets at hi-tech companies with self-independent technology or products. Among the companies receiving the investment from Guiding Fund, 7 enjoy a world leading technology or product, 13 own a top technology or product in the country, 9 have more than 1 patents, others are applying for patents. For example, Beijing Sizhi Technology owns 40 more US patents and patents of other 16 countries. Beijing Changxunxintong Technology has applied 5 international patents for their world leading technology and 3 for their invented products. Beijing Xinjiayi Electronic Company invents 2 world leading technologies and

To Focus Investment on Hi-tech Companies at Seeding Period. VC companies usually avoid to invest in a seeding company with many uncertain factors and much more risks. The Guiding Fund helps VC companies recognize the value of potential seeding companies and pay attention to the fast growing small start-ups. The hi-tech start-ups benefit a great deal from the investment which could support them over the death valley at an early stage. For example, iSoftStone Information Service Corporation was among the first companies who received the Guiding Fund in year 2002 and grew into a leading IT outsourcing service provider in China. After supported by the government's Guiding Fund, it attracted other investors including AsiaVest Partners, Fidelity Asia Ventures, InfoTech Pacific Ventures and Mitsui Ventures Global Fund in year 2005 and 2007. iSoftStone was honored to be one of the 2006 top 25 of China Software Outsourcing Corporation, one of the Deloitte 2006 and 2007 Technology Fast 50 China.

IX. Zhongguancun's Effort on Investment Withdrawal

Purpose of VC investment is profit-gaining. Just as mentioned before, there are various tools for venture capital to realize exits, e.g., transfer of shares, M&A, IPO in overseas market, re-purchase of shares. However, the exiting mechanism for venture capital has not been established perfectly in China. In order to solve the bottle-neck problem of exiting way for venture capital, the Administrative Committee of Zhongguancun Science Park promoted and pioneered, under the instruction of the central and local government and with the work-in of other related government department, the third board market as Technology Equity Exchange and Share-Transferring Market for the high-tech firms in Zhongguancun Science Park. This encouraged the active entrance of the venture capital into the Park.

Technology Equity Exchange

Zhongguancun Technology Equity Exchange was established in March 2003 and merged into Beijing Equity Exchange in 2004. By the end of 2006, the technology equity exchange has reached 12 billion yuan.

Zhongguancun Share-Transferring Market

A pilot Share-Transferring Market was opened in January 2006 in Zhongguancun Science Park. This market has attracted many non-public hi-tech companies with technology advantage and growth

potential. Among the 43 companies selected to prepare for the share-transferring market, 25 have been listed in the pilot market, the other 18 are undergoing the process of auditing and due diligence. 4 listed companies in the share-transferring market have raised fund as 50million, 60million, 73million and 10 million yuan separately. And the highest P/E ration has reached 20 times.

X. Conclusion

In conclusion, government's fund support to the venture capital industry is to play a role as leverage with the principle as guidance(in hi-tech industry), magnification(for the investment), risk sharing and exit guarantee. From data collected and assessment made, government policy in fostering an early- stage venture capital market in Zhongguancun Science Park has been proved as effective, successful and worthy of carrying forward.

References

1. Office of the Icelandic Prime Minister, Science and Technology Policy, Agreed at a meeting of the Science and Technology Policy Council on 18 December 2003;
2. DLA Piper, China Venture Capital and Private Equity Practice;
3. US National Venture Capital Association, Venture Impact-The Economic Importance of Venture Capital Backed Companies to the U.S. Economy, Fourth Edition;
4. Feng Zeng, Venture Capital Investments in China, 2004;
5. Sajai Singh, Venture Capital Investment In The Indian Market, at the ABA SBL meeting on August 6, 2006, as a part of the ABA 2006 Annual Meeting, Hawaii;
6. 2000-2007 Zhongguancun Development Report;
7. 2000-2007 Zhongguancun statistics reports;
8. 2006 Work Report on VC Market in Zhongguancun Science Park;
9. Finance Development Division of Administrative Committee of Zhongguancun Science Park, Zhongguancun's Measures on Promoting Finance and Investment, Dec. 2007;
10. Finance Development Division of Administrative Committee of Zhongguancun Science Park, Effect Evaluation of 2007 Zhongguancun Developing Funds for Finance and Investment;
11. Zhang Guilin, Venture Capital Investment Trend Research In the United States and China, 2002
12. Martin Haemig, Lecture Given in Peking University, 2006.