This product is part of the Pardee RAND Graduate School (PRGS) dissertation series. PRGS dissertations are produced by graduate fellows of the Pardee RAND Graduate School, the world's leading producer of Ph.D.'s in policy analysis. The dissertation has been supervised, reviewed, and approved by the graduate fellow's faculty committee.

DISSERTATION

Venture Capital Investments in China

FENG ZENG

This document was submitted as a dissertation in March 2004 in partial fulfillment of the requirements of the doctoral degree in policy analysis at the Pardee RAND Graduate School. The faculty committee that supervised and approved the dissertation consisted of Charles Wolf, Jr. (Chair), C.R. Neu, and Hongbin Cai.

RAND PARDEE RAND GRADUATE SCHOOL

The Pardee RAND Graduate School dissertation series reproduces dissertations that have been approved by the student's dissertation committee.

Published 2004 by the RAND Corporation
1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516
RAND URL: http://www.rand.org/
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Fax: (310) 451-6915; Email: order@rand.org

SUMMARY

Venture capital (VC) has been growing rapidly in developing countries since 1990, but little research has been done on VC in developing countries so far. This research contributes to the knowledge of VC in developing countries by studying VC investments in China. China is an attractive starting point to study VC in developing countries because China is the superstar of developing countries in attracting VC investments. Detailed research on VC in China will be of great interests to various VC practitioners and policy makers in developing countries.

This thesis provides a detailed description of the history of venture capital in China by using a unique data set of VC-backed firms collected by the author. It finds that venture capital experienced dramatic change in China in the 1990s. Major findings of this thesis are summarized as follows:

The Organization of International Venture Capital Funds in China

Most of the venture capital investments in China have been conducted by international venture capital funds. The dominance of international venture capital funds is mainly due to China's strict regulations against fund-raising in China. Most of the international venture capital funds were incorporated as joint venture funds with state-owned enterprises (SOEs) to economize on transactional costs in China in the early 1990s. By the end of the 1990s, as China's market-oriented reform deepened and the rule of law improved, international venture capital funds were much less likely to have SOE partners

Choices Between SOEs and Private Firms

One of the most dramatic changes in VC investments in China is the shift from investing in SOEs to investing in private firms. In the early 1990s, 90% of VC-backed firms were SOEs. In contrast, fewer than 10% of the VC-backed firms were SOEs in the late 1990s.

International venture capitalists were willing to compromise governance structure by investing in SOEs in the early 1990s because of several reasons related to China's institutional environment. In the early 1990s, SOEs enjoyed the most favorable access to

resources in China, including capital, human resource, raw materials and access to IPOs. In contrast, private firms had insecure property rights and were heavily discriminated against by the Chinese government in the early 1990s.

International venture capitalists became increasingly interested in private firms as China's market-oriented reforms provided greater room for private enterprises to grow. The rise of NASDAQ in the late 1990s provided an ideal place for China's VC-backed private firms to have IPOs. These two factors made private firms increasingly attractive to international venture capitalists by the end of 1990s.

Types of VC-Backed Industries

In the early 1990s, international venture capitalists were generally interested in low-tech industries. However, in the late 1990s, information technology (IT)–related firms accounted for about 90% of the VC-backed firms in the late 1990s. The percentage of investments in high-tech industries in China in the late 1990s has been remarkably high compared with VC investments in other countries. It is also inconsistent with the profile of fast-growing private firms in China. The rise of the NASDAQ and the Chinese government's policies to promote high-tech industries in China are likely the main reason behind the dramatic shift from focusing on low-tech to focusing on high-tech.

Stages of VC-Backed Firms

International venture capitalists were more interested in early-stage firms by the end of the 1990s. These VC-backed early-stage firms tended to concentrate on Internet-related industries, suggesting that the increased interest in early-stage firms is likely to be mainly driven by the NASDAQ.

Equity Stakes and Valuations

In the late 1990s, the average investment amount was slightly higher and the equity stake held by venture capitalists decreased, which suggests that the valuation of VC-backed firms had increased dramatically by the end of 1990s. This increase in valuation and risk-taking in the late 1990s is consistent with the booming NASDAQ, and the phenomenon of "money chasing deals" in VC investments in the United States.

Discussion and Conclusions

The Chinese government plays an important role in shaping VC investments in China. Unfortunately, most of China's current regulations have negative impacts on VC investments. A common theme of VC investments in China in the 1990s is the desire to evade Chinese government regulations. Of all the policy constraints on VC development in China, not being able to list in China's domestic stock exchanges is likely to be the most binding constraint.

This research provides an affirmative answer to the question of whether developing countries can develop and benefit from VC. Despite all the difficulties of conducting VC investments in China, these investments still experienced dramatic growth in the 1990s and have successfully generated some solid multi–billion dollar firms listed in the NASDAQ. China's experience shows that VC can play a prominent role in large developing countries.

The research finds that the information-agency approach has had limited success in explaining VC investments in China. The effects predicted by the information-agency approach are likely to be secondary compared with the effects of the Chinese government's IPO policies and private property policies. Because developing countries typically have cumbersome government regulations and insecure property rights, it is important to study those areas in particular to understand VC in developing countries.