

The Influence of Venture Capital Firms:  
Evidence from Chinese Initial Public Offerings

Shao Zhang

A Thesis

In

The John Molson School of Business

Presented in Partial Fulfillment of the Requirements  
for the Degree of Master of Science in Administration (Finance) at  
Concordia University  
Montreal, Quebec, Canada

August 2010

©Shao Zhang, 2010



Library and Archives  
Canada

Published Heritage  
Branch

395 Wellington Street  
Ottawa ON K1A 0N4  
Canada

Bibliothèque et  
Archives Canada

Direction du  
Patrimoine de l'édition

395, rue Wellington  
Ottawa ON K1A 0N4  
Canada

*Your file* *Votre référence*  
ISBN: 978-0-494-70993-1  
*Our file* *Notre référence*  
ISBN: 978-0-494-70993-1

**NOTICE:**

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

**AVIS:**

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

---

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

  
**Canada**

## **Abstract**

### **The Influence of Venture Capital Firms: Evidence from Chinese Initial Public Offerings**

Shao Zhang

Few studies have been completed about the performance of venture capital (VC) firms in the Chinese capital markets. I conduct an exploratory study of lead venture capital firms and their influence on the performance of their portfolio companies in Mainland China. I find that VC-backed firms experience a higher level of underpricing compared to non-VC backed ones in the Mainland stock market while the participation of VC firms in general helps to improve the post-IPO performance of their portfolio companies. As for different types of VCs, firms backed by independent VCs perform relatively better than their counterparts in the post-IPO period, but IPOs with local Chinese VCs underperform foreign VC firms in terms of controlling for the level of underpricing. In addition, I find that IPOs listed in the Mainland market experience more underpricing than the IPOs of Chinese companies listed in the US and Hong Kong markets. Contrary to expectations, I find no evidence that VC reputation has an impact on the performance of portfolio companies. Finally, the influence of VCs declines two to three years after the IPO when they seek to exit from their investment.

## **Dedication**

I dedicate this thesis to my father in heaven, who encouraged me to pursue my master's degree and who has been a great source of inspiration while I was working on my thesis. I also dedicate this thesis to my mother, who has supported me all the way and who gives me motivation to overcome all the obstacles and to achieve my goals in life.

## Table of Contents

1. Introduction.....	1
2. Literature Review.....	7
2.1 Theoretical Framework on IPO Underpricing .....	7
2.3 Empirical Studies of IPOs in China .....	9
2.4 IPOs backed by VC Firms.....	10
2.5 Specialties in Mainland China.....	14
2.6 Studies of VC firms in China .....	16
3. Hypotheses.....	18
4. Data and Empirical Methodology.....	24
4.1 Development of VC Industry in China .....	24
4.2 Data Selection .....	25
4.3 Sample Distribution.....	26
4.4 Methodology .....	27
5. Empirical Results.....	28
5.1 Description of Main Variables .....	28
5.2.1 Comparison of Non-VC backed and VC backed IPOs (Non Matched Sample)..	29
5.2.2 Comparison of Non-VC backed and VC backed IPOs (Matched Sample).....	34
5.3 Further analysis of VC backed Companies.....	38
5.3.1 VC Institutional Affiliation .....	39
5.3.2 VC National Origin .....	42
5.4 Listing Stock Market.....	47
6. Conclusions.....	52
Reference .....	54
Table 1 .....	60
Distribution of Round Deals by VC Fund and Deal Amount, 2000 -2007	
Table 2 .....	61
IPO Development in Mainland China, 2000-2007	
Table 3 .....	62
Distribution of IPOs by Industry and Market in the Whole Sample, 2000- 2007	
Table 4 .....	63
Distribution of VC Backed IPOs by VC Types, 2000-2007	

Table 5 .....	64
Test of Differences between VC Backed and Non-VC backed IPOs, Non-Matched Sample	
Table 6 .....	75
Cross-Sectional Regression based on entire sample of VC backed and Non-VC backed Companies	
Table 7 .....	89
Test of Differences between VC Backed and Non-VC backed IPOs, Matched Sample	
Table 8 .....	100
Cross-sectional Regression based on Matched sample of VC backed and Non-VC backed Companies	
Table 9 .....	109
Correlation among three proxies for VC reputation	
Table 10 .....	110
Mean and Median of Main variables by VC institutions	
Table 11 .....	112
Cross-Sectional Regressions by VC Institutions	
Table 12 .....	118
Mean and Median of Main variables by VC Origin: Chinese (Mainland), Foreign and Overseas Chinese VC firms	
Table 13 .....	120
Test of Differences between Local VC and non- local VC firms	
Table 14 .....	123
Cross-Sectional Regressions by VC Origin: Chinese (Mainland), Foreign and Overseas Chinese VC firms	
Table 15 .....	128
Cross-Sectional Regressions by VC Origin: Local VC firm and non-Local VC firm	
Table 16 .....	133
Mean and Median of Main variables by stock market: Chinese (Mainland), Hong Kong, US, and Singapore Markets	
Table 17 .....	135
Test of Differences between IPO listed in Chinese stock market and non-Chinese stock market	
Table 18 .....	138
Cross-Sectional Regressions by Stock Market: Chinese (Mainland), Hong Kong, US and Singapore Markets	
Table 19 .....	140
Cross-Sectional Regressions by Stock Market: Chinese and Non-Chinese Stock Market	

# 1. Introduction

Venture capital firms (also known as VC firm) are investment firms who engage in high-risk funding in capital markets. VC firms are important source of capital for start-up companies who otherwise have difficulty to raise funds. They also bring monitoring and financial services to the companies they invest in (Lerner, 1995). VC firms offer funds to their portfolio companies in exchange for shares, and they materialize their return through initial public offering (IPO) events, buyback or acquisitions from their portfolio companies. Inspired by the success of VC industry in US in the early 1980s, the Chinese government established its own VC industry in the mid-1980s, with the aim of developing their local high-tech industries (Xiao, 2002). In the 1990s, the development of the Chinese VC industry was slow due to lack of experience and very often misdirection from government officials. However, with the continuous support from the government and private funds, the Chinese VC industry saw a rapid expansion beginning in 1999 and 2000 (Pukthuanthong and Walker, 2007). In recent years, the fast growth of Chinese economy is getting more and more attention from around the world. With strong economic performance and more open financial markets, numerous opportunities have been created for venture capitalists from all corners of the world to invest in China. In 2004, China absorbed the third largest amount of venture capital investment, just behind the US and UK (Pukthuanthong and Walker, 2007). An analysis from Hawkins and Doyle Inc. reports that China's business, consumer and retail industry obtained \$1.25 billion investment with 94 deals in 2008, which is a 83% increase over the prior \$682 million investment in 2007. In 2010, about 208.4 billion Chinese Yuan have been raised

from 171 IPOs in the Chinese capital market so far, according to Bloomberg data. And according to the statement from PwC (PricewaterhouseCoopers), China will have 300 new listings this year, compared to 99 new listings in 2009. China is becoming the world's biggest initial public offering market, and this trend is likely to continue in the future.

At present, both foreign VC firms and domestic VC firms participate and take an active role in the Chinese capital markets. As millions of foreign VC funds flood into the market, it is very important for international investors to understand the specific characteristics of the Chinese market, especially for the Western VC investor. There are distinct disparities between the Western market and the Chinese market. For example, besides providing funding support and financial services, investors in the Chinese market also need to work on network and personal relationship inside and outside of their business (Pukthuanthong and Walk, 2007). Due to government controls and cultural differences, the financial information they can access might not be as transparent as in the West (Ahlstrom and Bruton, 2001; Chen, 2001). As such, foreign investors must consider the unique characteristics displayed by the Chinese market and take these factors into account when they make investment selections and strategic planning. As for domestic investors, they are facing more competition from foreign institutions and foreign VC funds which in general have much more investing experience and financial expertise. Therefore, understanding the overall picture of Chinese VC industry and its unique characteristics is very important for all investors participating or seeking to participate in this market, which is the first objective of this study.



Studies on venture capital investments abound. Megginson and Weiss (1991) confirm the certification role of VC firms in controlling the level of underpricing, and Barry et al. (1990) find that the screening and monitoring services which VC firms provide to their investment companies help to reduce the degree of underpricing. Brav and Gompers (1997) study the US stock market and find that VC backed IPOs outperform non-VC backed IPOs in the long-run period after the IPO. On the other hand, Franzke (2004), who examines IPOs in the German Neuer market, finds that VC backed IPOs experience higher levels of underpricing compared to non-VC backed IPOs. Audretsch and Lehmann (2002) also observe a decrease in the survival time of German companies backed by VCs in the Neuer market. Nahata (2008) study the role of VC firms in the US market and find that companies backed by more reputable VC firms are able to go public faster and achieve better post-issue operating performance. Tian (2009) documents that portfolio companies backed by VC syndication experience less underpricing and achieve better post-IPO performance.

Research on the role of VCs in the Chinese market is beginning to emerge. Tan et al. (2008) find that domestic VC firms provide less monitoring and financial services in their portfolio companies compared to foreign VC firms. Gao and Zhang (2002) explain the characteristics of different types of VCs such as government, university, corporate and foreign VC firms and point out that government and university VC firms face substantial pressure from local governments which limits their ability to attract the most experienced and valuable financial experts who are able to provide monitoring and value-added services into new investment companies. However, no empirical work is conducted in either of these papers. Only recently, Sun and Fang (2009) conduct an empirical study

about the performance of VC backed and non-VC backed IPOs in the Chinese stock market. They find that VC backed IPOs experience higher levels of underpricing but have better post-IPO performance than non-VC backed IPOs.

In this paper, I start with a comparison between VC backed and non-VC backed IPOs. One of the characteristics of the Chinese market is that not all the IPOs are listed in the Mainland stock market: there are certain companies who choose to go public in foreign markets, such as in the US, Hong Kong and Singapore stock markets. Although many studies confirm the certification role of VC firms in controlling the level of underpricing in the Western market (Barry et al., 1990; Megginson and Weiss, 1991), the result in Mainland market is the opposite: VC backed IPOs experience higher underpricing than non-VC backed ones. This finding is consistent with the work of Sun and Fang (2009). The higher underpricing can be considered as the premium VC firms pay to their underwriters in exchange for more benefits in the future such as long-term marketing support, favourable analyst revisions, and higher stock return after the IPO (Hoberg and Seyhun, 2006). With respect to listings in foreign markets, the existence of VC firms does not have any significant influence on the level of underpricing for Chinese companies listed in Hong Kong, US or Singapore markets. As for post-IPO performance, companies backed by VC firms have higher stock return and operating performance, which is consistent with the study by Brav and Gompers (1997) that the value-added service from VC firm appears to be recognized by the stock market after the IPO, and that their participation also improves the companies' operating performance. In addition, the paper examines the reputation level of lead underwriters with whom VC backed and non-VC backed companies worked with. In line with Megginson and Weiss (1991), VC

backed companies show the ability to attract more prestigious underwriters than non-VC backed firms.

Besides comparing the result with previous studies in Western market, this paper contributes to the analysis of the performance of different types of VC firms. To the best of my knowledge, only few studies (Wang et al., 2002 and Tykvova and Walz, 2006) categorize VC firms into different types and study their influence on portfolio companies but none of these have been done for the Chinese market. In this paper, three measures are used to examine the impact of different types of VC firms on companies' performance: underpricing, stock return and return on assets. VC backed companies are first separated into four groups based on their institutional affiliation: financial VC, independent VC, government VC, and corporate VC. In line with Tykvova and Walz (2006), no remarkable result is found about the effect of the different VC institution affiliations on the degree of underpricing. However, with respect to post-IPO performance, portfolio firms with independent VCs outperform the other types as reflected by a better and more stable stock returns.

I further categorize the VC sample into Chinese VC firms, foreign VC firms (most are US firms) and Overseas Chinese VC firm (Singapore, Hong Kong and Taiwan). The companies backed by local VC firms experience much higher underpricing than companies backed by foreign VC firms. This result could be explained by the argument from Gao and Zhang (2002): due to the significant control of the local governments and lack of investment experience, local VC firms, most of which are government owned enterprises, have less freedom to choose the most profitable investment, making them

less attractive to financial experts and market investors. Similarly, given the government control on equity ownership and the less mature investment environment, IPOs listed in the Mainland market experience more underpricing than the Chinese IPOs listed in the US and Hong Kong markets.

Finally, I find that VC reputation does not show a significant impact on companies' performance and the influence of VC firm are largely reduced in the long term after IPO.

The remainder of the paper is organized as follows. Section 2 reviews the related literature about venture capital and the characteristics of VC industry in China. Section 3 explains the hypotheses. Section 4 describes the data selection and sample statistics. Section 5 reports the main empirical results and analysis, and the conclusion is presented in section 6.

## **2. Literature Review**

### **2.1 Theoretical Framework on IPO Underpricing**

Underpricing, the spread between initial offering price and first day trade price, is a common occurrence during initial public offerings (Ritter, 1984; Levis, 1993). Rock (1986) explains this price difference as the result of information asymmetry. Offering firms lower their offer price as compensation to uninformed investors who might bear the risk of trading against informed investors with superior information about the capital market. Beatty and Ritter (1986) re-enforce Rock's argument and point out that ex-ante uncertainty surrounding the IPO could exacerbate the degree of underpricing. Carter and Manaster (1990) also find a negative relation between underwriter prestige and the degree of IPO underpricing; companies with less prestigious underwriters tend to have more underpriced IPOs.

Some researchers posit that underpricing an IPO could be a strategy high-quality firms use to obtain higher proceeds in the future. These issuers use underpricing as a signal of their superior quality to investors to convey the companies' value. The degree of underpricing is found to be positively related to the companies' stock price after the IPO (Grinblatt and Hwang, 1989). High-quality firms can also lower their IPO price to signal investors that they are good firms and are capable to cover their loss on underpricing by their high earning (higher dividend) in the future; and investors react more favourably when dividend announcement is made by the companies who underprice their IPO (Allen and Faulhaber, 1989). Under the assumption that the issuer is better informed about the issue value than underwriters or investors, underpricing could also be

used by high quality firms as an issue strategy to obtain higher proceeds from seasonal equity offering in the future (Welch, 1989).

In addition, overpriced offering could cause issuers a higher cost of legal liabilities and/or a higher risk premium demanded by the investors on the future securities offerings. So underpricing the offering could protect the issuers against potential legal loss and damage to their reputation if the issuers do not do well after the issuing (Tinic, 1988). Also, Booth and Smith (1986) propose that when the underwriter is unable to certify the issue price in the case of competitive underwriting, “issue price discounting can substitute for the incurrence of direct certification cost.”

## **2.2 Empirical Studies of IPOs in Developed and Emerging Markets**

In terms of IPO underpricing, Michaely and Shaw (1994) study the IPOs in US market from 1984 to 1988 and report that the IPOs managed by reputable investment banks (underwriters) experience significantly less underpricing. Schenone (2004) also investigates the relationship between issuers and underwriter, they point that issuers who build a good pre-IPO banking relationship with their prospective underwriter have about 17% lower underpricing than issuers who don't have such relationship. Spindler (2009) examines IPOs in US market from 1997 to 2005 and finds that IPO prospectus disclosure is significantly and negatively related with the level of first day underpricing. As for European market, Goergen et al.(2003) report that the average underpricing is around 54% for IPOs in Germany market and 25% in France market. Giudici and Roosenboom (2004) explain that the underpricing in the Euro New Market is due to the reduced interests of insiders in controlling the underpricing since most of their shares are not

being sold at the moment of IPO. In terms of emerging market, Pande and Vaidyanathan (2008) study the IPOs in Indian National Stock Exchange and find that the degree of underpricing is positively related with the demand generated during the bookbuilding of the issue and the listing delay. Boulton et al. (2010) examine the IPOs across 29 countries from 2000 to 2004 and investigate the influence of corporate governance on the degree of underpricing. They point that when outsiders are given more power of corporate governance in the company, IPO issuers tend to underprice their IPO to create more demand on the offer which will disperse the ownership and reduce the influence of outsiders in monitoring and controlling the behaviour of corporate insiders.

With regard to post-IPO performance, Michael and Shaw (1994) report that IPOs managed by more repeatable underwriters perform better two years after the issuing. In terms of IPO selling method, Pukthuanthong et al. (2007) find that bookbuilding IPOs perform better than auction IPOs up to 18 months after the IPO with lower aftermarket volatility. Jian and Kini (1995) study non-financial US IPOs from 1980 to 1997 and examine the effect of investment strategy by issuers before the IPO. They find that the development of R&D and diversified product lines before the issuing help to improve the company's operating performance and increase the possibility of survival after the IPO.

### **2.3 Empirical Studies of IPOs in China**

Many studies have conducted empirical research on Chinese IPOs. Jenkinson and Ljungqvist (2001) report 60% higher level of underpricing in Chinese market than the ones in other emerging markets. Chan et al. (2004) find a 178% average return on the

first trading day for 570 A-share IPOs in Chinese market between 1993 and 1998. They explain that institutional setup is the main factor causing the huge underpricing, such as the delay or waiting time between offering and listing, the stake owned by government and legal entities, and the wealth of province where the IPO firms were founded. Besides the institutional factors, Chen et al. (2004) also conclude that firms which intend to sell additional shares in a short period of time after their listing have a higher degree of underpricing. Moreover, the ex-ante uncertainty regarding the IPO value (Yu and Tse, 2005) and the limited number of rights for investors purchasing IPO shares (Chang et al., 2008) are also factors that possibly contribute to the high degree of underpricing in the Chinese IPO market.

As for long term performance, Chan et al. (2004) compare the wealth of A-share IPOs against the non-IPO benchmarks for one to three years after the IPO. Their results show that A-share IPOs slightly underperform the non-IPO benchmarks. Wang (2004) also looks at the post-issue operating performance of Chinese IPOs between 1994 and 1999 and finds that operating performance ratios such as return on assets, operating income to assets and sales to assets, three years after the IPO are much lower compared to their values three years before the IPO.

## **2.4 IPOs backed by VC Firms**

The empirical evidence regarding the impact of VC firms on their portfolio companies' performance is mixed. Many studies have explored the ability of VC firms in reducing underpricing, helping companies to go public earlier, and achieving better post-IPO performance. Megginson and Weiss (1991) confirm the certification role of VC



firms to their issuing companies. They argue that with the support of VC firms, issuers could attract higher quality underwriters and auditors. The positive signal that VC firms send to the capital market helps to reduce the cost of underpricing accrued to issuers due to information asymmetry and helps to maximize the net proceeds from the IPO. By comparing the VC backed IPOs with a control sample of non-VC backed IPOs, they find that VC backed companies are associated with significantly lower degree of underpricing, are able to attract more prestigious underwriters and institutional investors during the IPOs and go public at a younger age than non VC backed ones. Barry et al. (1990) report that the screening and monitoring services that VC firms provide, such as serving on the board and holding large equity positions, strengthen investors' belief about VC firms' abilities to guide and manage the new enterprises. The reduction of investors' uncertainty in return helps to reduce underpricing.

In terms of their influence in post-IPO performance, Jain and Kini (1995) find that VC firms guide their portfolio companies to focus more on R&D, and the presence of VC firms attract more investors and prestigious underwriters during and after issuing the IPO. They also argue that the values which venture capital firms bring to their investment companies help them to survive for a longer post-IPO period. Brav and Gompers (1997) also show that VC backed IPOs outperform non-VC backed IPOs in the long-run using equal weighted returns. Soufani et al. (2008) study VC backed and non-VC backed IPOs in Canada and UK markets from 1996 to 2005 and find that VC backed IPOs have a higher 90-day cumulative return than non VC backed IPOs. Chemmanur et al. (2009) look at U.S. manufacturing firms and conclude that screening and monitoring are the two keys that lead VC backed companies to a better and more efficient operating performance

than non-VC backed companies, arising from the improvements in sales and reduction in production costs.

On the other side, some scholars question the influence of VC firms on the issuing companies. Instead of supporting the certification role of VC firms, Ljungqvist (1999) believes that the low degree of underpricing is not associated with the involvement of VC firms in their portfolio company but rather due to the behaviour of old shareholders who need to reduce underpricing in order to maximize their proceeds from the IPO. Franzke (2004) examines the IPOs in German Neuer market from 1997 to 2002 and finds that companies backed by VC firms actually experience higher underpricing than non-VC backed companies. The higher underpricing of VC backed IPOs is considered as a premium that venture capitalists trade with top underwriters who could help them to sell at a higher exit price (Hoberg and Seyhun, 2006) or allocate venture capitalists with other hot IPOs in their personal accounts (Loughran and Ritter, 2004).

With respect to long term performance, Audretsch and Lehmann (2002) find a decrease in the survival time of German companies backed by VC firms in the Neuer market. By analyzing that same market, Kraus and Burghof (2003) also suggest that VC backed companies underperform non-VC backed ones when venture capitalists seek to exit from their investment companies after the IPO. Doukas and Gonenc (2001) and Brau et al. (2004) find no significant difference of post-IPO performance between VC backed and non-VC backed companies.

While most studies focus on the influence of venture capital firms in general, a few have segregated venture capital firms and studied them in terms of different types. Firstly, reputation has been considered as a good indicator when analyzing capital markets

(Diamond, 1989). Nahata (2008) finds that more reputable VC firms are more efficient in screening and monitoring; and companies backed by VC firms with higher reputation are able to get listed in the market faster and achieve better operating performance after the IPO. Krishnan et al. (2008) also recognize that the reputation which venture capitalists gain from cumulative market capitalization helps their portfolio investment to achieve superior long-run performance. Concerning reputation, Gompers (1996) proposes the grandstanding hypothesis about the difference between young and well established venture capital firms. He suggests that younger VC firms may use underpricing as a device to conduct more IPOs in order to establish their reputation in the capital market. Lee and Wahal (2004) explore the grandstanding hypothesis and analyze the impact of VC firms on underpricing of IPOs between 1980 and 2000. They find that the initial return of companies backed by VC firms is positively related with the capital inflows one year after the IPO. Another point of view about VC firms is about syndication. Brander et al. (2002) point out the value-added hypothesis that syndicated VC investments have higher returns. Tian (2009) also examines the impact of cooperation among VC firms. He indicates that the portfolio companies backed by VC syndication experience less underpricing, have better post-IPO performance and have higher probability to survive after the IPO. There are also a few scholars who look at VC firms by institutional type (financial, government, corporate and independent VCs). Independent VC firms in Germany and Singapore markets are associated with lower degree of underpricing and add more value to their portfolio companies (Tykvova and Walz ,2006; Wang et al.2002 ).

## **2.5 Specialties in Mainland China**

Chinese socialist traditions have resulted in the creation of distinct national legislations to protect equity ownership. In order to exercise enough control and maintain ownership of Chinese companies, restrictions on market access and government approvals at the entry and exit phases were launched by Chinese law (Hoo, *et al*, 2005; Li 2008). Major banks were also encouraged by the government to have significant stakes in the capital market and they became one of the few large board members to direct the companies, leaving limited seats and control for independent directors. This corporate governance structure is different from that observed in Western firms with cross-holdings and interchanging board memberships (Pukthuanthong and Walker, 2007). For venture capitalists, even if they try to obtain more board seats in their funded firms, the power provided to them as board members is still limited. So the influence of venture capital firms on Chinese companies is not as strong as the VC firms in the Western market (Bruton and Ahlstrom, 2003).

The legal restraints and the bureaucratic system creates more obstacles for both foreign and domestic VC firms to access the Chinese market, to monitor their portfolio companies or plan an exit from their investment. As a consequence, it is common to see foreign VC firms invest in China using offshore holding companies and trade in foreign markets (Linton,2006) to retain more operating control on their portfolio companies and have easier exit from their investment. Since the offshore structure actually weakens the control of Chinese government on equity ownership, in order to foster direct development of onshore investment in domestic equity markets, some regulations were revised in the

past few years to provide relatively easier access and more exit possibilities (Jingu and Kamiyama, 2008).

Besides legal issues, Chinese culture also creates a strong and different social environment, which could be very challenging especially for Western investors to adapt to. In the high-power distance organizational environment in China, the behaviour and attitude of Chinese employees are characterized by a high degree of collectivism. Instead of relying on individual power and the ability to influence organizations like in the Western society, Chinese employees and managers most often work in a team and participate less in the decision making process (Boisot and Child, 1988; Meindl et al., 1989; Bruton et al., 2002b). According to Chow et al. (1996) and Hofstede (1993), peoples' participation in a collectivism atmosphere tends to be less successful in cooperation, communication and goal achievement than in the individualist culture in US. Besides collectivist orientation, "GuanXi" is another cultural factor that differentiates China from the West. According to Pukthuanthong and Walker (2007), GuanXi refers to the connection and relationship that business people could establish and maintain by using their personalized network within and outside of the companies. They point out that GuanXi networks cannot be built overnight and it is not a written contract protected by the national law, and neither is it considered to be free. People need to offer certain benefits to the parties with which they want to build the special connection. Since Chinese venture capital is not a mature market yet, with the limited protection of investors' right by Chinese legal system, venture capitalists in China particularly need to establish a good GuanXi network with the "key people" inside and outside of an organization, which will help them to obtain favourable information to reduce

information asymmetry in order to avoid the cost due to lack of investor protection, and to obtain more possibilities of exit strategies (Pukthuanthong and Walker, 2007).

In addition, Chinese accounting and auditing practises tend to be more resistant to disclosing full financial and accounting information of the company. The reporting standards in China often focus on production figures rather than on financial performance, and their financial reporting is less transparent than in the Western countries (Allen et al., 2002; Pukthuanthong and Walker, 2007). Consequently, foreign venture capitalists, especially Western ones, may find it difficult to select their investments or monitor their investing companies.

## **2.6 Studies of VC firms in China**

In the Chinese market, Sun and Fang (2009) find that VC backed IPOs experience higher underpricing yet have better post-IPO operating performance than non-VC backed IPOs, and VC firms with higher reputation have better post-IPO performance.

In terms of VC types, Gao and Zhang (2002) point out that government and university VC firms represent a group with more access to investment information and opportunities. However, local government intervention and government centered projects can limit their selection of the most profitable investment. Due to this limitation, it becomes difficult for government owned VC firms to attract the experts who provide financial expertise in new venture management.

Even though cultural and regulatory challenges faced by foreign VC firms in China are huge (Pukthuanthong and Walker, 2007), the local VC firms seem to not fully utilize

their advantage. Tan et al. (2008) state that local VC firms are still lacking investing experience and expertise to monitor and support their portfolio companies. They find that local VC firms take less active roles in monitoring their portfolio companies. They don't require and check financial reports as often as foreign VC firms. Also, local firms don't fully use the cash flow rights such as stock option plans as a motivation strategy. They find that local VC firms only offer stock options to top management while foreign VC firms introduce stock options for all employees in their invested companies. Furthermore, local VC firms provide much less value-added services to the new entrepreneurs. For example, they don't participate in board meetings as frequently as foreign VC firms do, and they do not pay much attention to companies' operational issues.

### **3. Hypotheses**

Most studies dealing with venture capital research and IPOs have focused on the comparison of VC backed IPOs and non-VC backed IPOs and have confirmed the positive impact VC firms have on their portfolio companies. Megginson and Weiss (1991) find that the presence of VC firms help to reduce underpricing cost, and Barry et al. (1990) argue that the value-added services VC firms provide in their portfolio company strengthen investors' confidence about the company and help to reduce the level of underpricing. VC backed companies have also been found to outperform non-VC backed companies in the post-IPO period. Compared to non-VC backed companies, VC backed companies are found to have higher stock returns both in the short-term (Soufani et al., 2008) and in the long-term after the IPO (Brav and Gompers, 1997), and higher possibility of survival after the companies are listed in the market (Jain and Kini, 1995). Based on existing studies, I state my first hypothesis as follows:

H1: Chinese VC backed companies experience lower underpricing and better post-IPO performance compared to Chinese non-VC backed companies.

While the studies of VC firms in general have been extensive, only a few papers have examined the different types of VC firms and explored their impact. Tykvova and Walz (2006) segregate VC firms into four institutional types (Independent, financial, government, and corporate VCs) and study the influence of different types of VC firms on the portfolio companies in the Germany market. They believe that bank-based and government VC firms are mainly aiming to connect investors with companies requiring



funding support and they will not participate as much as independent VC firms who play a significant role in providing financial services and management in the portfolio companies as long-term investors. Their results show that companies backed by independent VC firms have lower underpricing and higher stock return in the long-term after the IPO than their counterparts. Wang et al. (2002) look at the Singapore market and find similar results that companies backed by independent VC firms experience lower degree of underpricing and receive more value-added services from their VC investors. As for the Chinese market, Gao and Zhang (2002) explain the characteristics of VC firms by different types such as government and university VC firms. They find that with the support from the government, both types of VC firms have privileged access to new venture investment opportunities and information, but due to the local government intervention and control, they have to choose some projects which will not bring investors the maximum return on their investment. As a result, these two types of VC firms are less attractive to the most experienced and valuable financial experts who are able to provide monitoring and value-added services in new investment companies. The empirical results from Tykvova and Walz (2006) and Wang et al (2002) clearly indicate that independent VC firms are relatively long-term and management-oriented investors and their portfolio companies perform better than other VC backed companies. They also show that government and university VC firms in China are likely to face more pressure from the local government in selecting the best investments and lack more experienced financial manager. Based on these arguments, I state my second hypothesis as follows:

H2: Independent VC firms in China are expected to outperform other types of VC firms.

According to Zero2IPO, 74% of VC investment came from foreign venture capital in 2006. With more and more foreign VC firms participating in the Chinese capital market, the differences between local VC firms and foreign VC firms are drawing investors' attention. Zhang and Jiang (2002) report that local VC firms have much less investing experience than foreign VC firms: managers in local VC firms have 2.1 years of relevant experience on average, while it is 11.9 years for managers in foreign VC firms. Due to lack of experience and expertise to direct and support their portfolio companies, local VC firms are found to provide less monitoring, value-added services and corporate governance to their portfolio companies compared to foreign VC firm (Tan et al., 2008). Given these factors, my third hypothesis is stated as follows:

H3: Companies backed by local Chinese VC firms will underperform their counterparts.

As mentioned earlier, Chinese authorities legislate regulations to protect equity ownership, including in the stock markets. Shanghai and Shenzhen stock exchanges are the two stock markets in Mainland China. Unlike other Western stock markets, these two stock markets were initially controlled by the Chinese government with the aim of raising funds for large state-owned enterprises (SOEs). Because of the capital controls imposed by the government, the stock markets are not entirely open to all investors, leaving less

funding opportunities for private companies who face more obstacles in getting listed on the Mainland markets (Linton, 2006). In addition, with the pressure and intervention of local government funds in the market, the Mainland stock market hasn't developed a market-oriented structure; there are still many restrictions for private and international funds to participating in the market, the guidance for market participants to enter and operate in the capital market are not well defined, and intermediaries to monitor and supervise the market and protect the interests of investors haven't been well established (Livett, 2005). Moreover, there are also regulations enforced to protect the government ownership but restrict the VC firms' exit from their investee companies by means of IPO (Pukthuanthong and Walker, 2007). On the other side, foreign stock exchanges such as NYSE and NASDAQ in the US have a long history of development and are mature markets. These US markets are more liquid and tend to be less volatile; the guidelines and requirements for investors to play in the market are more transparent and well defined which reduce the investor's uncertainty and risk (Chapman and Xu, 2008). Thus, compared to well-established markets such as US or Hong Kong, the Mainland Chinese stock markets are less developed and have issues such as the legal constraints, government control and the loss of investors' confidence. Given these differences, I expect to observe significant differences between Chinese firms listed in the Mainland Chinese markets and those listed in foreign stock markets. I, therefore, state my fourth hypothesis as follows:

H4: Chinese companies listed in the Mainland stock market are expected to experience higher levels of underpricing and lower post-IPO return than companies listed in US, Hong Kong or Singapore markets.

Finally, as many scholars argue that the reputation of a VC firm helps to enhance their portfolio companies' performance, I expect a similar relation to be observed in the case of the Chinese VC industry. Hsu (2004) evaluates the effect of VC reputation and finds that financial offers (amount of capital) offered by high reputation VCs are three times more likely to be accepted, and more reputable VCs are able to acquire start-up equity at a 10 to 14% discount. Measuring the reputation of VC firms by cumulative market capitalization of IPOs backed by the VC firm in the IPO market and the VC's share of aggregate investment in the VC industry, Nahata (2008) provides evidence that more reputable VC firms are more efficient on screening and monitoring, and companies backed by VC firms with higher reputation are able to be listed in the market faster, access public markets faster and achieve higher asset productivity (asset turnover) at IPOs. Krishnan et al. (2008) also use the past market share of VC-backed IPOs as the proxy for VC reputation and finds a significant and positive relation between VC firms' reputation and post-IPO performance of their portfolio firms measured by return on asset, market to book equity ratio and listing survival. They explain this relationship as the result of continuous post-IPO support and development in the portfolio companies by reputable VC firms. Since reputation has proven to play a significant role in the investment of venture capital, I state my fifth hypothesis as follows:

H5: Chinese IPOs backed by VC firms with a higher reputation are expected to have a lower degree of underpricing and better post-IPO performance compared to IPOs backed by less reputable VC firms.

## **4. Data and Empirical Methodology**

### **4.1 Development of VC Industry in China**

The Chinese venture capital market has been on a growth track for the last decade. In 2000, there were 100 companies built by VC firms with an invested capital of approximately 8 billion Chinese Yuan. By 2004, China had the third largest amount of venture capital investments, just behind the USA and the UK (Pukthuanthong and Walker, 2007). Table 1 reports the number and amount of financial deals invested by venture capital funds. During the global IT boom, investments by Chinese VC firms reached a peak in 2001 with an investment of \$1,637.83 million - four times the amount (\$416.64) in 2000, and of this, \$1,333.31 million were invested in the information technology industry.<sup>1</sup> And following the IT boom's collapse, Chinese venture capital investments shrank to \$445.94 million with the number of deals of financial rounds decreasing to 78 in 2002. The continuous government support and the development of private fund industry have given a big boost to Chinese capital market. The VC industry went through major reforms in 2003. With the revision of regulations and the opening up of the market to domestic and international investors, the VC industry witnessed a steady growth thereafter with the number of venture capital deals increasing to 452 totalling \$13,151.23 million by 2006.

Exit through an IPO is the major strategy for private equity investment in China (Takeshi and Tetsuya, 2008). In 2006, about 50% of private equity investors chose to exit by selling shares to the public (Zero2IPO). Table 2 reports the number of VC and Non-VC backed IPOs and the offer amount of each group from 2000 to 2007. We can see that

---

<sup>1</sup> Zero2IPO database

the number of IPOs supported by VC firms grew at a rapid rate during this period. In 2001, there were only 4 IPOs backed by VCs with an average offer size of \$213.79 million. Subsequent to the global collapse of the IT boom, 18 companies backed by VC firms were went public in 2003 with \$380.26 million of capital raised on average in each IPO, compared to 10 non-VC backed IPOs with only \$43.59 million of capital raised on average in each IPO. The number of IPOs backed by VC firms increased consistently since 2004. In 2006, there were 50 companies backed by venture capital launched in the stock market with a total offer amount of \$57,313.27 million, a record highest amount of capital raised by VC firms since 2000. The year 2007 was a remarkable year for the Chinese VC industry as the number of IPOs backed by VC firms was twice as many as in 2006. VC firms were involved in almost 50% of all IPO events with a similar amount of offer size as Non-VC backed IPOs.

## **4.2 Data Selection**

Since the major development of the Chinese VC industry started in the year 2000, my sample is consists of IPOs from the year 2000 to 2008. The first main data source is Zero2IPO. General information about VC firms and their portfolio companies in Mainland China are manually collected from this database. There were over 200 VC backed IPOs for my sample period. Due to the global recession stemming from the financial crisis in the United States in December 2007, the data after 2007 is excluded. Observations are also deleted when the needed variables are not available. In total, the sample includes 186 Chinese IPOs backed by VC firms from 2000 to 2007. Due to syndication among VC firms, more than one VC firm could participate in a single funded company. In this paper, I focus on the influence of the lead VC firm, where the lead VC

firm is one that had the most stakes or invested the largest amount prior to the IPO in a particular company (Tykvova and Walz, 2006). These firms are considered to have the highest influence on the company and are therefore considered to be the lead VC firms. There are 11 IPOs backed by two or more VC firms with same amount of investment at the same time. In these cases, the one which has the most VC investing experience (based on total companies and total amount of investment in China) is assumed to be the lead VC for that company. The non-VC backed IPOs in China are collected from Sina-Finance website and SDC VentureXpert. A final list of 745 non-VC backed IPOs remain after deleting observations which have incomplete data. In total, there are 931 IPO observations for the whole sample between 2000 and 2007. The portfolio companies' performance such as initial return, post-IPO stock return and return on assets as well as issuer's industry and underwriter are downloaded from Bloomberg.

### **4.3 Sample Distribution**

Table 3 displays the distribution of IPOs by industry and by market based. The description of each industry is defined by SDC VentureXpert. The majority of VC backed sample falls within the traditional and technology industries and most of non-VC backed IPOs are concentrated in the manufacturing/mining industry. In terms of stock market, the VC backed IPOs are equally distributed in Mainland China, Hong Kong and the US stock markets, while most of non-VC backed IPOs are listed in Mainland China. It is notable that two thirds of VC backed companies are launched on an overseas exchange. This could be because of the constraints faced by VC firms in Mainland China noted earlier in the paper. Table 4 presents the distribution of the VC backed IPOs over time distinguished by VC institution, VC nation and trading markets. The type of institutional



affiliation is defined in SDC VentureXpert. About half are backed by independent VC firms which include private equity firms, private equity advisors or funds, venture consulting firms and management consulting firms, 39 are backed by financial institutions such as investment/merchant bank, investment management firms/financial consulting, insurance firm affiliate or subsidiary, commercial bank affiliate or subsidiary, bank group and affiliate/subsidiary of other financial institutions, 40 companies are supported by Chinese government programs and state-owned funds, and only 16 firms are backed by corporate venture programs or corporate subsidiaries. In terms of VC nation, there are as many foreign investors as local ones in the Chinese VC market. Among foreign investors, 64 are from the US. The IPOs backed by VC firms are equally distributed in Mainland China, Hong Kong and US stock markets.

#### **4.4 Methodology**

The methodology used in this paper is straightforward. The paired t-test and the Kruskal-Wallis test are used to compare the mean and median differences, respectively, of IPO offering characteristics, firm characteristics, and company operating and stock return performance of different groups. In addition, cross-sectional analysis is employed using ordinary least squares (OLS) regressions to further estimate the VC's effects after controlling for factors such as firm size, offer amount and firm growth rate.

## **5. Empirical Results**

### **5.1 Description of Main Variables**

The dependent variables that measure firm performance include the following: initial stock return (degree of underpricing), 3- to 6-month post IPO abnormal stock returns, 1- to 3- year post IPO abnormal stock returns, IPO year ROA, and 1- to 3-year post IPO ROA. The abnormal stock return is computed by subtracting the market index return from individual returns. Return on assets (ROA) and industry adjusted ROA are used as proxies for operating performance. Since the data on the whole industry is not available, the average ROA in each year and for each industry is calculated from the sample of 931 companies, and the difference between individual ROA and average ROA is deemed to be the industry adjusted ROA. The 4-year average ROA (IPO year and 3 years period after IPO) and 3-year average ROA (3 years period after IPO) are also examined to detect any change in the firm's operating performance.

Underwriter reputation, company size, initial offer size and book to market ratio at IPO year are included as control variables in the regression analysis. Underwriter influence is measured by the number of issues and total volume public offerings by underwriters in China, following Megginson and Weiss (1991). The average amount per each issue is used as a proxy for underwriter certification.

The empirical study is organized as follows. First, I compare the performance of VC backed companies with non-VC backed companies based on the whole sample and then with a matched sample. Next, I focus on the VC-sample and study their differences by firms' institutional affiliation type (independent, financial, government and corporation)

and firms' origin (Chinese, foreign and overseas Chinese). Finally, I look at the stock performance of VC backed companies listed in different market (Mainland China, Hong Kong, US and Singapore).

### **5.2.1 Comparison of Non-VC backed and VC backed IPOs (Non Matched Sample)**

The 931 observations in the whole sample are distributed into four markets: Mainland China, Hong Kong, United States, and Singapore. The tests are conducted on the whole sample and subsamples within the different trading markets. Table 5 displays the t-test for the differences in means and Kruskal-wallis test for the differences in median between Non-VC backed and VC backed IPOs. The test based on whole sample in Panel A detects significant difference between VC backed and non-VC backed IPOs on underpricing; the initial return of non-VC backed IPOs is 36.2% higher than the initial return of VC backed IPOs and the median difference is also significant for the two groups (31% for VC backed IPOs and 84.2% for non-VC backed IPOs). The value of underwriter reputation for VC backed companies is also significantly higher than non-VC backed companies.

VC backed companies also have better post IPO performance than non-VC backed companies. For the short-run returns and ROA, the differences are insignificant. One year after the IPOs, the differences between the two groups start to manifest themselves. VC backed companies achieve a positive mean of excess stock returns, while the mean excess returns for non-VC backed companies is negative. In the two-year period after the IPO, VC backed companies enjoy an average excess return of 45% while non-VC backed companies underperform the market index with a negative 4.6% average excess return.

As for operating performance, there are significant mean and median differences between the two groups. VC backed companies have both higher ROA and average ROA starting two years after the IPO and the result persists when using the industry adjusted ratios. It is also worth noticing that the difference in stock returns and operating ratio between the two groups lasts until three and four years after the IPO respectively.

The results based on the whole sample show that the presence of VC firms does help companies to control the level of underpricing and improve the post-IPO performance. Since VC backed companies are partnered with more reputable underwriters, it could be explained that the involvement of VC firms attract more prestigious underwriters. With the presence of reputable underwriters, the uncertainty that investors have about the issuers is reduced (Carter and Manaster, 1990), which in return helps to decrease the degree of underpricing.

The analysis for the different markets (Panels B, C and E) shows that the initial-day return of VC backed issues is not significantly different from that of non-VC backed IPOs in the Chinese, Hong Kong and Singapore markets. In the US market (Panel D), companies backed by VC firms have slightly higher mean initial return than non-VC backed companies. This effect however is not significant when we run the cross-sectional regression by controlling the companies' characteristics in Table 6.

In the post-IPO period, VC backed companies in the Singapore market have higher excess returns than non-VC backed ones and the differences are significant from 3-month to 2-year after the IPO, while the results in the other markets are not significant. For operating performance, the average ROA of VC backed IPOs are significantly higher

than non-VC backed ones in the Chinese, Hong Kong and Singapore markets (table5-Panels B,C, and E).

Moreover, VC backed companies are able to attract more prestigious underwriters than non-VC backed ones in the Chinese and Singapore markets (table5-Panels A, B and E).

Results of the cross-section regressions are displayed in Table 6. The effects of VC firms are examined by using a dummy variable *VC*; 1 for VC backed companies and 0 for non-VC backed companies. The regression equation is as follows:

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{VC} + \epsilon \quad (1)$$

When controlling for firm size, growth potential (BTM ratio), offer size and underwriter reputation, the coefficient of *VC* is significant and negatively related with the degree of underpricing for the whole sample (Panel A). With the presence of VC firms, the initial return (underpricing) decreases by 39.4%. The result confirms the certification role that VC firms play in reducing the underpricing of portfolio companies (Megginson and Weiss, 1991).

Panels B, C, D, and E display the cross-sectional regressions based on the subsamples in different stock markets. In the Chinese market (Panel B), the coefficient of variable *VC* is positively and significantly related with underpricing. This result is opposite to the findings by Megginson and Weiss (1991) and Barry et al. (1990) that companies backed by VC firms have lower level of underpricing than non-VC backed ones. When portfolio companies are listed in the market, venture capitalists earn their

return on investment by selling their shares at a higher price. Among the 50 VC backed companies listed in China, there are 40 companies whose VC stakeholders keep at least 75% of shares when the company goes public, which means that these venture capitalists still keep a major ownership at the time of the IPO. Because of this, most of their profits will be tied up until a later time when they sell the majority of their shares. Hoberg and Seyhun (2006) find evidence that VC firms collaborate with their underwriters, who provide venture capitalists extended marketing support after the IPO and help them to achieve higher stock price when they exit from the investee companies by distributing most of their shares. They find that VC firms obtain more benefits by tolerating greater underpricing and are able to sell their shares at higher stock price after the IPO. Hence, the higher underpricing associated with VC backed companies in the Chinese market can be considered as the premium VC firms pay to their lead underwriters in exchange for the future benefits including long-term marketing support and favourable analyst revisions which help them to achieve higher stock return after the IPO. In Panel B, the coefficient of the variable *Underwriter* is positively and significantly related with underpricing, which also imply that underwriters receive a lower offer price as premium VC firms pay to them.

For the Hong Kong, US and Singapore markets, there is no significant relation between VC involvement and the degree of underpricing (Panels C, D, and E). As mentioned earlier, these overseas stock markets are more mature and exhibit a better structure than in Mainland China. They are better defined and have higher standards of disclosure requirements for all companies listed on their exchanges, i.e. full disclosure of the company, more transparent information and better corporate governance (Chapman

and Xu, 2008). As such, one should not expect many differences between VC backed and non-VC backed companies listed in these markets, so the additional value VC firms add in the companies is not observable. In a better protected and well developed market, the degree of uncertainty and information asymmetry, which are considered to be the factors causing underpricing (Beatty and Ritter, 1986; Rock, 1986) are expected to be reduced as well. Since the issues causing underpricing are better solved in overseas markets, the VC firms' activities seeking to reduce information asymmetry and strengthening investors' confidence are considered much lower, which explains why the impact of VC firms on controlling the level of underpricing is not significant in these markets.

After the IPO, the results in table 6 by and large indicate that the presence of venture capitalists help their investment companies achieve better operating performance (measured by ROA) and higher stock returns after the IPO ( one and/or two years after the IPO, except for the US market).

In terms of control variables, variables Firm Size and BTM are negatively related with underpricing. This indicates that large companies experience less underpricing while high growth companies experience higher levels of underpricing. Both relations are consistent with information asymmetry as an important determining factor for the level of underpricing.

### 5.2.2 Comparison of Non-VC backed and VC backed IPOs (Matched Sample)

The same tests are also conducted by using a matched sample. A control group of non-VC backed companies is selected to match the sample of 186 VC backed companies. Within the sample of non-VC backed IPOs, companies that are in the same industry, went public in the same year and were listed in the same market as each VC backed company are selected. Within the selected group, the control observations are further matched by companies' value and potential growth rate. The matching approach in Tykvova and Walz (2006) is used:

$$V = [(MV_c - MV_v) / MV_{avg}] + [(BTM_c - BTM_v) / BTM_{avg}] \quad (2)$$

where  $MV_c$  and  $MV_v$  are market values for non-VC backed and VC backed companies respectively,  $BTM_c$  and  $BTM_v$  are book to market ratios for non-VC backed and VC backed companies respectively, and  $MV_{avg}$  and  $BTM_{avg}$  are average values calculated based on the whole sample of 931 companies. Finally, the one with minimum value of  $V$  is selected in the control group, giving a sample of 144 observations in each VC backed and non-VC backed group.

For the t-test in Table 7, the differences of underpricing between VC backed and non-VC backed companies is not significant for the whole sample and the subsample markets including Chinese, Hong Kong and Singapore markets. The underpricing of VC backed IPOs in the US market is higher than non-VC backed IPOs, yet the result is not very significant.



As for post IPO performance, the results are consistent with those reported for the non-matched sample. VC backed companies have higher excess stock returns and better operating performance than non-VC backed ones, especially in the long term. Two years after the IPO, VC backed companies in all the markets achieved higher excess return than non-VC backed ones. In the Chinese market for example, the mean excess return of VC backed companies is 69.3%, while the non-VC backed ones perform below the market index with negative excess return of 39.8%. In the short-run, VC backed companies in Hong Kong and Singapore Markets have stock returns over the market index against the non-VC backed ones with negative excess returns in the six- month and/or one- year periods after the IPO.

Looking at the average ROA over three years after the IPO, all VC backed companies in Chinese, Hong Kong and Singapore markets have significant and higher average ROA than non-VC backed firms. With industry adjustment, the mean of the average ROA in the three-year period after the IPO is 9% for VC backed IPOs listed in Chinese market while it is only 1.7% for companies that are not. The differences in the US market between two groups are in general insignificant. Finally, VC backed IPOs that are listed in Chinese, US and Singapore markets, are able to attract more reputable underwriters than non-VC backed IPOs.

Results from the cross-sectional regressions in the matched sample are displayed in Table 8. Due to the limited number of observations in the US and Singapore markets, the regressions are computed for the whole sample and the Mainland Chinese and Hong Kong markets only. The coefficient of variable *VC* is still negatively related to the initial

returns in the whole sample (Panel A) but lacks statistical significance. Panel B in Table 8 reports the regressions for the Chinese market. Consistent with the non-matched sample, the coefficients of variable *VC* and *Underwriter* are positively related with *Underpricing* at the 10% significance level. With the presence of VC firms and underwriter, the initial return increases by 34.2% and 22.2%, respectively. As explained earlier, these results make sense by knowing that most of the VC firms in this sub-sample still keep most of their shares after the IPO. VC firms are more tolerant on the offer price as a favour they bring to their underwriters who will help venture capitalists to sell their shares at a higher stock price later on (Hoberg and Seyhun, 2006).

In terms of post IPO performance, the overall results in Panel A (Table 8) shows that the presence of VC firms does help their portfolio companies to achieve higher stock return. For the one-year period after the IPO, the excess return increases by 70.2% for companies supported by VC firm; at three-year period after the IPO, the excess returns increase to 138.1% with the presence of VC firms. In the Chinese market (Panel B), the participation of VC firms increases the three-month excess return by 55.1% and increases one-year excess return by 125.9%, which further supports the explanation that VC firms underprice their IPOs as a premium paid to underwriters. VC firms also help their portfolio companies to increase their operating performance. The whole sample (Panel A) reveals an 11% increase of 3-year average ROA after the IPO (model 12, 18). In the subsamples (Panels B and C), the coefficients of variable *VC* is positively related with ROA ratios in most of the models as well.

To summarize, my results do not support the first hypothesis that VC backed companies will have lower level of underpricing. Instead, the presence of VC firms in

the companies listed in the Chinese market is found to have the effect of increasing the level of underpricing. This result is consistent with the study by Sun and Fang (2009) in Mainland China and supports the argument by Hoberg and Seyhun (2006) that VC firms tolerate higher underpricing in order to receive more favours from underwriters such as long-term marketing support and favourable analysts' revisions, which help them to sell their shares at a higher price after the IPO. As for companies listed in Hong Kong, US or Singapore markets, the existence of VC firms does not have significant influence on the underpricing compared with non-VC backed IPO. For the companies that are able to list in the overseas markets, whether or not they are backed by VCs, they qualify for the high standard and requirement by these markets. Since the two groups of companies are very similar, the value-added services by VC firms are less observable. And because the overseas markets are better developed and the information there is more transparent, the degree of investors' uncertainty and information asymmetry is also reduced, which further decreases the activities of VC firms seeking to reduce information asymmetry and strengthen investors' confidence.

With regard to post-IPO performance, VC backed companies generally outperform non-VC backed companies. This is consistent with my first hypothesis: the participation of VC firms increases both stock excess return and the ROA ratios. This finding is consistent with those in the study of Sun and Fang (2009) and proves again the arguments by Jain and Kini (1995) and Brav and Gompers (1997) that the influence from VC firms improves companies' operating performance and appears to be recognized by investors in the stock market. It is also worth noting that differences of performance between VC backed and non-VC backed companies are generally significant one year after the IPO.

This implies that VC firms need time to adjust themselves into their portfolio companies. It also takes time for market investors to recognize the value VC firms bring into their investment (Tykvova and Walz, 2006).

With respect to the control variables, offer size and firm size are negatively and significantly related with underpricing in the whole sample and is consistent with previous findings that IPOs with larger issue amount and company size are less underpriced (Ritter, 1984; Chalk and Peavy, 1990, Ljungqvist, 1999). The BTM ratio is also negatively related with underpricing in overall results, which indicates that the companies with higher growth experience a higher degree of underpricing. Finally, VC backed companies are found to have more prestigious underwriters, which is in line of Megginson and Weiss (1991) argument that they are able to attract higher quality underwriters.

### **5.3 Further analysis of VC backed Companies**

VC firms are categorized into different groups: VC institutional types, VC origins and stock markets where VC backed IPOs are listed. The influence of VC reputation in guiding their portfolio companies is also studied in each test. As in Barry et al. (1990) and Gompers (1996), I use three proxies to measure the reputation of VC firms: the age of VC firms at IPO date of their portfolio companies, the number of portfolio companies VC firms invested in China and the total amount that the VC firms had invested in China. Since there is a strong correlation among these reputation-related variables (see Table 9), the older VC firms at IPO also have more investments in China and the VC firm that has invested in many companies has a higher level of investment; therefore, only one proxy

for VC reputation is used each time in the regression. In the view of Brander et al. (2002) and Tian (2009), syndication among VC firms could add more value into their portfolio company. The number of VC firms in each company before IPO is used as proxy for VC syndication. Since the sample is based on one company to one lead VC firm, the number of VC firms is also used as a control variable to test the influence of lead VC firm in the regression.

### **5.3.1 VC Institutional Affiliation**

VC institution is classified into four types according to SDC VentureXpert: independent, financial, Government and Corporate VC firms. Table 10 presents the means and medians of the main variables for each type. Government backed companies have an average 105% initial return which is much higher than the rest of the groups, with average initial return below 60%. As for stock returns, companies backed by independent VC firms have gradually increasing excess returns after the IPO and, financial VC backed companies don't perform well in the short term but the performance picks up two years after the IPO. As opposed to financial VC backed companies, government VC backed companies have higher market return after the listing but their performance starts to deteriorate three years after the IPO. The performance of corporate backed company is more volatile. Overall, companies backed by different VC types have a relatively stable operating performance.

In the regressions, dummy variables are employed to represent different VC institutions. The regression equation is as follows: *Number* represents number of VC firms in one company, *Age* is VC firm's age at IPO, *#Companies* and *Total Amount*

represents VC firm's total invested companies and amount in China and the intercept reflects the influence of corporate VC firms.

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{Number} + \beta_6 * \text{Independent} + \beta_7 * \text{Financial} + \beta_8 * \text{Government} + \beta_9 * \text{Age}/\text{\#Companies/Total Amount} + \epsilon \quad (3)$$

Table 11 reports the results from the cross-sectional regressions. As expected, the coefficient of the variable *Independent* is negatively related with initial returns, so as the variable *Financial*, indicating their influence on the control of underpricing, and the coefficients of *Government* and *Corporate* are positively related with initial returns. However neither of the results is significant. After the IPO, the result of stock return is mainly consistent with the t-test. The coefficients of the variable *Independent* are positively related with excess return from three-month up to two-year after the IPO, and the result is significant at year one, when the excess returns are increased by almost 100 % with the participation of an lead independent VC firm in the company. As for financial VC firms, the coefficient of variable *Financial* is negatively related with three- and six- month excess return. While the performance is improved one year after the IPO, and the improvement increases significantly at year-two after the IPO (the companies' stock return is increased by at least 85% with the presence of financial VC firms). A possible explanation is that investors need more time to recognize the value of financial institutions in their investment companies. Moreover, all coefficients of the variables *Independent*, *Financial* and *Government* are negatively related with excess returns three years after the IPO.

As for operating performance, the existence of difference type of VCs in general have positive influence on companies' three-year average ROA (Avg. ROA3, Industry Adj. Avg. ROA3), despite the statistical insignificance of the results.

Overall, the effect of VC reputation on a company's performance is found to be insignificant, and does not support my last hypothesis that IPOs backed by higher reputation VC firm perform better. In the short run, the coefficients of the variable *Age*, *#Companies* and *Total Amount* are positively related with the three- month and six-month excess stock returns. In the long-run, reputable VC firms tend to impede stock performance; the coefficient of *Total Amount* is negatively related with the two-year excess returns and the coefficient of *Company* is negatively related with three-year excess return; both results are significant at 5% level. In terms of operating performance, the results are generally not significant.

By looking at the overall results, no statistically strong conclusions can be drawn for the different VC institutions. Therefore, the second hypothesis that independent VC firms are expected to outperform other types of VC firms is not supported.

Another important observation is that many coefficients of VC related variables such as VC types, number of VC in a company and the three proxies for VC reputation are negatively related with the companies' performance three years after the IPO. Since VC firms need to exit from their investment to cash out, it is reasonable to assume that VC firms prepare to exit or have already sold most of their shares two to three years after the IPO. As their interest and benefits associated with the company is largely reduced, their value-added services and monitoring activities will be greatly reduced as well, which can

potentially affect the portfolio companies' performance. As well, it is possible that VC firms' reputation has negative effect on their invested companies (De Clerq et al., 2008). When a reputable VC firm has more and more companies added into their portfolio, due to the time and resource constraints, reputable VC firms tend to take advantage of their high reputation as a certification signal to the market rather than really provide value-added services to the company. They use their reputation as a substitute of the service and value they are supposed to offer to the companies. This, of course, holds assuming that their established reputation is good enough to be accepted by the market (De Clerq et al., 2008). However, many coefficients of the variable *Reputation* are negatively related with company performance two or three years after the IPO, which indicates that VC firms' strategy of taking advantage of their reputation without providing proper service or control might not be effective or beneficial for shareholders of the portfolio companies.

### **5.3.2 VC National Origin**

When national origin is taken into account, the VC-sample is divided in three groups: companies backed by Mainland China VC firms, foreign VC (United States mostly) firms and overseas Chinese VC firms (Singapore, Hong Kong and Taiwan). Table 12 displays the means and medians of the main variables by VC national origin. Compared to foreign and overseas VC firms, Mainland Chinese VC firms are partnered with less reputable underwriters and the companies they invest in are smaller than the other two groups.

With regard to underpricing, companies backed by Mainland Chinese VC firm have much higher underpricing than their counterparts; the mean initial return of companies backed by Mainland Chinese VC firm is 121.4%, while the initial returns of foreign VC



backed and overseas Chinese VC backed companies are only 39.4% and 26.9%, respectively.

For the short-term stock return after the IPO, companies backed by foreign and overseas Chinese VC firms perform better than the Mainland Chinese VC backed companies. The mean excess returns of companies backed by Mainland Chinese VC firms are below the market index for the period three-months, six-months and one-year after the IPO, while the stock returns of the other two groups are always higher than the market index and the return rate is gradually increasing.

Since the initial return and post-IPO performance of companies backed by Mainland Chinese VC firms are very different from the other two groups, I separate the VC-sample into two groups: the companies backed by local VC firms (Mainland Chinese VC firms) and the ones backed by non-local VC firms (foreign and overseas Chinese VC firms) and use the paired t-test and median test to see if the differences between the two groups are significant (Table 13). The results in Table 13 show that IPOs backed by local Chinese VC experience much higher underpricing than the ones backed by foreign VC firms with the difference significant at the 1% level. The result makes sense if we look at the different reputation of lead underwriters (value of average issue amount) in each group. The lead underwriters in foreign VC backed companies have an average issue value \$238.19 million higher than the lead underwriters partnered with Mainland Chinese VC firms, and the difference is very significant. It indicates that non-local VC firms are able to attract more prestigious underwriters than local-VC firms. The involvement of more reputable lead underwriters in companies backed by foreign VC firms could send a

positive signal to the capital market and strengthen investors' confidence, which will help to reduce the cost of underpricing accrued to issuers due to information asymmetry (Megginson and Weiss, 1991). In terms of post-IPO performance, companies backed by non-local VC firms achieve higher stock returns and higher ROA than companies backed by local VC firms, although the overall differences between the two groups are not significant.

Table 14 reports the result of cross-sectional regression by VC national origin, where *Chinese* and *Foreign* are dummy variables for Mainland Chinese VC firms and Foreign VC firms, and the effect of overseas Chinese VC are reflected in the intercept. The equation of the regression is as follows:

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{Number} + \beta_6 * \text{Chinese} + \beta_7 * \text{Foreign} + \beta_8 * \text{Age}/\# \text{Companies}/\text{Total Amount} + \epsilon. \quad (4)$$

The coefficients of variable *Chinese* reveal a significant and positive relation between local VC firms and the degree of underpricing. The intercepts are negatively related with underpricing at the 1% significance level. Since the effect of overseas Chinese VC firms (mostly from Hong Kong and Singapore) is included in the intercept, this result might indicate these firms control the level of IPO underpricing.

In terms of post-IPO performance, most results are not significant. At year one after the IPO, the coefficients of the variable *Chinese* is negatively and significantly related with stock returns; the excess returns are reduced by more than 80 percentage points from the existence of Chinese lead VC in the company. As for long-run return, foreign VC firms show positive influence on the companies' stock performances for the two-year

period and three-year period after the IPO. The coefficients of both variables *Chinese* and *Foreign*, for operating performance, are positively related with the three-year average industry-adjusted ROA, suggesting that both local and foreign VC investors help to improve their companies' operating performance. However, the improvement disappears in the long-term with most of the coefficients of the variables *Chinese* or *Foreign* being negatively related with two-year or three-year ROA.

As for VC cooperation, syndicated VC investment seems to be recognized by capital market investors in the short-run after the IPO; the coefficients of the variable *Number* (number of VC in one company) are found to be negatively related with underpricing and positively related with the three-month up to two-year stock returns after the IPO. For instance, at the three-month period after the IPO, one more VC firm's participation in the company will increase their excess return by 8 percentage points. At year three after the IPO, the coefficient of variable *Number* however becomes negative. The same applies to the proxies for VC reputation. Some of the variables are found to have negative and significant relation with companies' performance two or three years after the IPO. These results prove again that the influence of VC firm largely decreases when venture capitalists withdraw their funds for new investments or high reputable VC firms use their reputation as a substitution for their value-added services.

The regressions based on local VC versus non-local VC are also studied and reported in

Table 15:

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{Number} + \beta_6 * \text{Chinese} + \beta_7 * \text{Age}/\# \text{Companies/Total Amount} + \epsilon \quad (5)$$

The results are consistent with the previous findings that the existence of local VC firms leads companies to have a higher level of underpricing; the involvement of Chinese VC firms increases the initial return by more than 101.2%. For other VC related variables (Number, proxies for VC reputation), their coefficients are also negatively related with long-term excess return or the ROA, even though most results are not statistically significant.

By comparing the impact of VC firms in terms of their national origin, the overall picture regarding underpricing is quite clear: IPOs backed by lead Mainland Chinese VC firms experience higher degree of underpricing than IPOs funded by lead foreign VC firms. This supports my third hypothesis that local VC firms underperform their counterparties reflecting their lack of ability to reduce or control the degree of underpricing. As reported by Zhang and Jiang (2002), managers in Mainland Chinese VC firms have 2.1 years of relevant experience on average, while it is 11.9 years for managers in foreign VC firms. Due to lack of investing experience and expertise to direct and monitor their investee companies, Mainland Chinese VC firms are not able to attract prestigious underwriters like the foreign VC firms (as shown in Tables 12 and 13), so the effect of certification role as a VC firm in controlling underpricing is largely reduced. Assuming market investors are also knowledgeable of the fact that local VC firms are less experienced, their uncertainty regarding the companies backed by local VC firms will also be increased, leading to an increase in the level of underpricing.

The institutional character of local VC firm could also be a factor causing higher underpricing. Out of 70 local VC firms, 32 of them are government owned institutions. Although it is easier for them to access investment information and obtain more help

from the government, the local government's projects and control could limit their selection of investments for maximum profit and cause them to be less attractive to financial experts and market investors (Gao and Zhang, 2002). Since government institutions take an active role in local VC firms, higher underpricing from local VC could reflect the doubt and uncertainty investors have about this group and could sense the fact that managerial performance of local VC firms isn't as efficient as it would be due to local authorities' intervention.

For post-IPO performance, no remarkable differences are found among the three VC types. Yet Chinese VC firms still show their negative impact on the portfolio companies' stock return. It could also be considered a consequence of the local VC firms' lack of experience in providing monitoring and value-added services to their portfolio companies (Tan et al., 2008). They are not experienced enough to direct and govern their investment companies compared to foreign VC firms.

Lastly, the overall results reveal once again that the influence of VC firm and their value-added service are largely reduced in the long term after the IPO. In addition, VC reputation by and large has no significant impact on company's performance, not as expected in my last hypothesis.

#### **5.4 Listing Stock Market**

Whether or not different stock markets affect the performance of IPOs in China is also studied in this paper. In the VC-sample, companies are mainly and evenly listed in the Mainland Chinese, Hong Kong and US market, and a small number of companies are listed in the Singapore market. Table 16 displays the means and medians of the main

variables for each market. By comparing initial returns, IPOs listed in the Mainland Chinese market experience much higher underpricing than the rest of the IPOs. Their average initial return is 151.5% compared to Hong Kong market at 23.1% and US market at 34.8%. In the short-run after the IPO, companies listed in the Mainland Chinese market also underperform their counterparts with negative mean excess returns for the three-month and six-month periods, while the other three groups have their stock return higher than the market index.

The paired t-test and Kruskal-Wallis test (Table 17) are also conducted to check if the differences shown in Table 16 between IPOs in the Mainland Chinese market and overseas markets are significant. Table 17 reveals that the lead underwriters in companies listed in the Mainland Chinese market are not as reputable as the ones in companies in the other markets. Moreover, the average initial IPO returns in the Chinese market are 151.5% while they are only 27.4% for the non-Chinese markets; the differences are very significant for both the mean and median. Therefore, IPOs in the Mainland Chinese market experience a much higher level of underpricing than IPOs in foreign markets. As mentioned earlier, overseas stock exchanges are more liquid and tend to be less volatile, and companies that are selected in these markets have already qualified for a certain minimum standard and requirements, so investors' risk is relatively lower (Chapman and Xu, 2008). Mainland Chinese stock market on the other side is still less matured and developed, and the monitoring and control mechanism of the market to protect the interests of investors aren't well established yet. Therefore, the higher degree of underpricing for IPOs in Mainland Chinese markets could reflect the uncertainty and concerns investors have about the companies.

Table 18 reports the cross-sectional regressions by different stock markets where VC backed IPOs are listed. *CH*, *HK*, *US* are dummy variables for Mainland Chinese, Hong Kong and US stock markets, and the effect of Singapore market is reflected in the intercept. The equation is:

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{Number} + \beta_6 * \text{CH} + \beta_7 * \text{HK} + \beta_8 * \text{US} + \beta_9 * \text{Age}/\# \text{Companies}/\text{Total Amount} + \epsilon \quad (6)$$

In terms of underpricing, variable *CH* is found to be positively and very significantly related with initial return; for IPOs listed in the Chinese market, their underpricing is increased by more than 160 %. The Hong Kong market is also found to have a positive effect on the level of underpricing, but the initial returns are only increased by 34%, which is much smaller than the ones in the Chinese market. On the other hand, the coefficients of *US* are negatively related with the initial returns, which could indicate that US markets have relatively better market conditions for newly listed companies. However, the results are not significant.

As for post-IPO performance, companies listed in the Mainland Chinese markets have a statistically significant reduction of excess return by 107% one year after the IPO. Mainland Chinese market is less liquid but more volatile, and it is also difficult for investors to access investment information. As reported by Livett (2005), the low yields of dividend payment, inefficient corporate performance, non-transparent and unreliable company record contribute to the loss of confidence among investors and impede the development of Mainland Chinese markets. The stock return is also affected for companies listed in the Hong Kong market. Since the Hong Kong stock market is more mature and more standardized than Mainland China, I would consider the result as the

consequence that VC firms withdraw their shares and exit from the portfolio companies six months or one year after the IPO; for VC backed companies listed in Hong Kong market, there are about 50% of the companies whose lead VC firms already sold at least 25% of their shares at the moment of IPO.

Table 19 presents the cross-sectional regressions between the Mainland market and non-Mainland market, where *CH* is the dummy variable for the Mainland market.

$$\text{Company performance} = \beta_0 + \beta_1 * \text{Underwriter} + \beta_2 * \text{Offer Size} + \beta_3 * \text{BTM} + \beta_4 * \text{Firm Size} + \beta_5 * \text{Number} + \beta_6 * CH + \beta_7 * \text{Age}/\#\text{Companies}/\text{Total Amount} + \epsilon \quad (7)$$

Again, the coefficients of the variable *CH* are positively related with initial returns, at the 1% significance level. The initial returns for IPOs listed in the Mainland Chinese market are increased by 140%. This result indicates again that the Mainland Chinese markets are less developed, the issues such as the legal constraints, government intervention and the loss of investors' confidence contribute to the increase of underpricing. In terms of post-IPO performance, the results in general are not significant.

The results reported in this section support my fourth hypothesis that IPOs listed in the Mainland Chinese stock market experience higher levels of underpricing. As the stock markets in Mainland China are less developed and information is less transparent, investors in these markets have more concern and uncertainty about the companies' value, leading the IPOs listed in Mainland Chinese market to be more underpriced than IPOs in the US and Hong Kong markets. The low yields of dividend payment, inefficient corporate performance, non-transparent and unreliable company record (Livett, 2005) also affect companies' post-IPO performance in the Mainland Chinese market.



With respect to control variables, *Offer Size* displays a consistently negative relation with the initial return (Tables 16 and 18), which is consistent with the hypothesis that larger offer size is negatively related with the level of underpricing (Ljungqvist, 1999). The coefficient of the BTM ratio is also negatively related with underpricing at the 1% significance level (Tables 16 and 18). This result supports the previous findings that companies with a higher growth potential tend to experience more underpricing. In addition, underwriters are found to have a strong positive impact on the level of underpricing, explained as the premium VC firms offer to underwriter. Moreover, VC syndication helps companies to achieve higher gains from the short-term stock returns, especially for the three-month period after the IPO. Finally, VC reputation has no remarkable impact on the companies' performance.

## **6. Conclusions**

With extensive studies on venture capital firms in developed markets but limited research on the Chinese VC industry, this study sheds some light on the environment of the Chinese VC market and the effect of venture capital firms on the performance of their portfolio companies in Mainland China. Besides a comparison between VC backed and non-VC backed IPOs, the paper also looks further on the performance of companies backed by different types of VC firms, which few empirical studies have done in the past. This paper is the first one to focus exclusively on the Chinese market. The analyses are mainly focused on the extent of underpricing and post-IPO performance (excess stock returns and operating performance).

Previous scholars argue that VC backed companies perform statistically better than non-VC backed ones both prior to and after the IPO. I find that VC backed companies' experience a higher level of underpricing compared to non-VC backed ones in the Chinese stock market. The participation of VC firms does help their portfolio companies improve their post-IPO performance.

As for overall findings regarding the performance of different VC types, no significant difference is found among different VC institutions. Because of government control and lack of efficient market mechanisms, local Chinese VC firms with less investing experience underperform foreign VC firms as shown by their much higher level of underpricing. As such, firms that make their IPO in the Chinese market experience significantly more underpricing than if it was listed in the US and Hong Kong markets. Lastly, VC reputation does not seem to be recognized as value-adding by the investors

and the influence of VC firms on their portfolio companies' declines substantially in the two to three years after the IPO, when VC firms generally exit from their investment.

On the whole, the results in the Chinese VC market are mixed. Some are in line with previous studies reflecting the positive impact VC firms have on the post-IPO performance of their portfolio companies. Some results are most likely driven by the unique characteristics of the Chinese market such as bureaucratic system and controls from government authorities that differentiate them from previous studies on the subject. As such, foreign venture capitalists cannot simply bring their initial investment strategies or models in the Chinese capital market without making significant adjustments to its market system and business culture. As syndication among VC firms is proved to have positive effect on the performance of portfolio companies, local Chinese VC firm could also consider cooperating with international VC firms to enhance their managerial skills and gain more experiences. Since the Chinese VC market is composed of local and multinational VC firms, it would be very interesting to look into the cooperation among different VC firms and test whether the syndication between local and foreign VC firms are successful in creating a service with higher added value to their portfolio companies and whether their reputation and certification role could be recognized by investors in the capital markets. Furthermore, the negative effect from VC firms for the long-term period after the IPO is explained as the consequences of VC exit. This explanation will need to be further tested when detailed information about VC ownership in Chinese companies is easier to obtain.

## Reference

- Allen, F., Qian, J. & Qian, M. (2002). Law, finance, and economic growth in China. Working paper.
- Allen, Franklin & Gerald Faulhaber, 1989, Signaling by underpricing in the IPO market, *Journal of Financial Economics*. 23, 303-323.
- Alok Pande & R. Vaidyanathan (2008). Determinants of IPO Underpricing in the National Stock Exchange of India. *ICFAI Journal of Applied Finance*, Forthcoming
- Audretsch, D. B., & Lehmann, E. (2002). Does the new economy need new governance? Ownership, knowledge, and performance. CEPR Discussion Papers, 3626.
- Barry, C. B., Muscarella, C. J., Peavy, J. W., & Vesuypens, M. R. (1990). The role of venture capital in the creation of public companies. *Journal of Financial Economics*, 27: 447-471.
- Boisot, M. & Child, J. (1988). The iron law of fiefs: bureaucratic failure and the problem of governance in the Chinese economic reforms. *Administrative Science Quarterly*, Vol. 33 No. 12: 507-27.
- Booth James R. & Richard L, II Smith (1986). Capital raising, underwriting and the certification hypothesis Article provided by Elsevier in its journal. *Journal of Financial Economics*. Volume (Year): 15 (1986) Issue (Month): 1-2 Pages: 261-281
- Brander James A., Raphael Amit & Werner Antweiler (2002). Venture-capital syndication: improved venture selection vs. the value-added hypothesis. *Journal of Economics & Management Strategy* Volume 11 Issue 3: 423 – 452.
- Brau, J. & Brown, R., Osteryoung, J. (2004). Do venture capitalists add value to small manufacturing firms? An empirical analysis of venture and nonventure capital-backed initial public offerings. *Journal of Small Business Management* 42: 78-92.
- Brav, A., & Gompers, P. A. (1997). Myth or reality? The long-run underperformance of initial public offerings: Evidence from venture and nonventure capital-backed companies. *Journal of Finance*, 52: 1791-1821.
- Bruton, G., Fried, V., Manigart, S. & Sapienza, H. (2002b). Venture capitalists in Asia: a comparison with the US and Europe. Working paper.
- Carter R. & S. Manaster (1990). Initial public offerings and underwriter reputation. *Journal of Finance*, 45 (4): 1045-1067.

- Chalk, Andrew & John Peavy III (1990). Understanding the pricing of initial public offerings. Research in finance (JAI Press, Greenwich, CT).
- Chang, Eddy, Chao Chen, Jing Chi & Martin Young(2008). IPO underpricing in China: new evidence from the primary and secondary markets. *Emerging Markets Review*, 2008, V9 (1): 1-16.
- Chan, Kalok, Junbo Wang & K. C. John Wei 92004). Underpricing and long-term performance of IPOs in China. *Journal of Corporate Finance*, 2004, V10 (3, June): 409-329.
- Chapman James C & Wanli Xu (2008). China IPOs – the era of transition. Nixon Peabody. MAY 2008 27.
- Chen, G., Firth, M. & Kim, J. B. (2004). IPO underpricing in China's new stock market. *Journal of Multinational Financial Management*, 14: 283– 302.
- Chen, Gongmeng, Michael Firth & Jeong-Bon Kim (2004). IPO underpricing in China's new stock markets. *Journal of Multinational Financial Managemett*, 2004, V14 (3, July): 283-302.
- Chevalier, Judy & Glenn Ellison (1995). Risk taking by mutual funds as a response to incentives. Working paper (University of Chicago, Chicago, IL: Massachusetts Institute of Technology, Cambridge, MA).
- Diamond, Doug (1989). Reputation acquisition in debt markets. *Journal of Political Economy*, Vol. 97, No. 4, (August 1989): 828-862.
- Dirk De Clercq, Harry J. Sapienza & Akbar Zaheer (2008). Firm and group influences on venture capital firms' involvement in new ventures. *Journal of Management Studies* (November 2008), Vol. 45, Issue 7: 1169-1194.
- Doukas John A. & Halit Gonenc (2003). Long-term performance of new equity issuers, venture capital and reputation of investmetn bankers. Working paper.
- Faff, Robert & Shiguang Ma (2007). Market conditions and The optimal IPO allocation mechanism In China. *Pacific-Basin Finance Journal*, 2007, V15 (2, April): 121-139.
- Francis, B. Bill & Iftekhar Hasan (2001). The underpricing of venture and nonventure Capital IPOs: an empirical investigation. *Journal of Financial Services Research*, Vol. 19, No. 2/3: 93-113.
- Franzke Stefanie A. (2004). Underpricing of Venture-backed and Non Venture-backed IPOs: Germany's Neuer. *Advances in Financial Economics*.

Gao Jian & Wei Zhang (2002). China's venture capital industry: Institutional trajectories and system structure. The International Conference on Financial Systems, *Corporate Investment in Innovation and Venture Capital*. Brussels, 7 and 8 November 2002.

Giancarlo Giudici & Peter Roosenboom (2004). Pricing initial public offerings on Europe's New stock Markets. The Rise and Fall of Europe's New Stock Markets (Advances in Financial Economics, Volume 10), Emerald Group Publishing Limited, pp.25-59.

Gompers, P. A. (1996). Grandstanding in the venture capital industry. *Journal of Financial Economics*, 42: 133–156.

Grinblatt, M. & Hwang, C. Y. (1989). Signaling and the pricing of new issues. *Journal of Finance*, 44: 393– 420.

Hoberg, G., & Seyhun, H. N. (2006). Do underwriters collaborate with venture capitalists in IPOs? Implications and evidence. AFA 2006 Boston Meetings Paper.

Hofstede Geert (1993). Cultural constraints in management theories. *Academy of Management Executive*, 1993 Vol. 7 No. 1.

Hsu, D.,2004.What do entrepreneurs pay for venture capital affiliation? *Journal of Finance* 59,1805–1844.

Jain B.A. & Omesh Kini (1995). Does the presence of venture capitalists improve the survival profile of IPO firms? *Journal of Business Finance & Accounting*, Volume 27 issue9: 1139-1183.

Brander, James A., Raphael Amit & Werner Antweiler (2002). Venture-capital syndication: improved venture selection vs. the value-added hypothesis. *Journal of Economics & Management Strategy* Volume 11 Issue 3: 423 – 452.

Jenkinson, T. & Ljungqvist, A. (2001). Going public: The theory and evidence on how companies raise equity finance (Second edition).

Kraus Tilo & Hans-Peter Burghof (2003). Post-IPO performance and the exit of venture capitalists. EFMA 2003 Helsinki Meetings, January 2003.

Krishnan C. N. V. , Vladimir I. Ivanov , Ronald W. Masulis & Ajai K. Singh (2008). Venture capital reputation, Post-IPO Performance and Corporate Governance. Working Paper.

Lee, P.M. & Wahal, S. (2004). Grandstanding, certification and underpricing of venture backed IPOs. *Journal of Financial Economics* Volume 73, Issue 2, August 2004.

- Lerner, Josh. (1995). Venture capitalists and the oversight of private firms. *Journal of Finance* 50: 301-18.
- Levis M. (1993). The long-term performance of initial public offerings: the UK experience 1980-1988. *Financial Management*, (Spring): 28-41.
- Linton (2006). Access to Capital in China: Competitive Conditions for Foreign and Domestic Firms. Working paper.
- Livett, Barry (2005). Securities industry faces challenge. China Daily (North American Ed). November 25, 2005.
- Ljungqvist, Alexander P. (1999). IPO underpricing, wealth loss and the curious role of venture capitalists in the creation of public companies. Working Paper.
- Loughran, T., & Ritter, J. R. (2004). Why has IPO underpricing changed over time? *Financial Management*, 33: 5-37.
- Meggison, W. & Weiss, K. (1991). Venture capitalist certification in initial public offerings. *Journal of Finance*, Vol. 46 No. 3: 879-903.
- Meindl, J. R., Hunt, R. G., & Lee, W. (1989). Individualism-collectivism and work values: data from the United States, China, Korea and Hong Kong. *Research in personnel and human resources management* (Suppl. 1): 59-77.
- Michaely, Roni, & Wayne H. Shaw (1994). The pricing of initial public offerings: Tests of adverse selection and signaling theories. *Review of Financial Studies* 7, 279-319.
- Nahata, R. (2008). Venture Capital Reputation and Investment Performance. *Journal of Financial Economics* (November 2008), Volume 90, Issue 2: 127-151
- Pande Alok & Vaidyanathan R. (2008). Determinants of IPO Underpricing in the National Stock Exchange of India. *ICFAI Journal of Applied Finance*, Forthcoming.
- Pukthuanthong Kuntara & Thomas Walker (2007). Venture capital in China: a culture shock for Western investors. *Management Decision*, Volume 45, Number 4, pp. 708-731(24).
- Ritter J.R. (1984). The 'Hot Issue' market of 1980. *Journal of Business*, 57: 215-240.
- Rock, Kevin (1986). Why new issues are underpriced. *Journal of Financial Economics*, Vol. 15: 187-212.
- Schenone, Carola (2004). The Effect of Banking Relationships on the Firm's IPO Underpricing. *Journal of Finance*, Vol. 59, No. 6, pp. 2903-2958, December 2004

- Soufani Khaled, Terence Tse & Qian Chen (2008). Performance of venture backed and non venture backed IPO: evidence from Canada and the UK. *Journal of International Finance & Economics*, March 20, 2008.
- Spindler, James C. (2009). IPO Underpricing, Disclosure, and Litigation Risk USC CLEO Research Paper No. C09-9 CELS 2009 4th Annual Conference on Empirical Legal Studies Paper USC Law Legal Studies Paper No. 09-10
- Sun Ming & Sihai Fang (2009). The Role of venture capital in Listed Companies: evidence from Mainland China. Working Paper.
- Takeshi Jingu & Tetsuya Kamiyama (2008). China's Private Equity Market. *Nomura Capital Market Review*, Vol. 11, No. 3, 2008
- Tan Justin, Wei Zhang & Jun Xia (2008). Managing risk in a transitional environment: an exploratory study of control and incentive mechanisms of venture capital firms in China. *Journal of Small Business Management* (2008), Vol. 46, No. 2: 263-285.
- Tian Xuan (2009). The Role of Venture capital syndication in value creation forentrepreneurial firms. Working paper, May 1, 2009.
- Tinic, Seha (1988). Anatomy of initial public offerings of common stock, *Journal of Finance* 43, 789-822.
- Tykvova T. & Walz U. (2007). How important is participation of different venture capitalists in German IPOs? *Global Finance Journal*, 17 (2007): 350-378.
- Wang, Changyun (2005). Ownership and Operating Performance of Chinese IPOs. *Journal of Banking and Finance*, 2005, V29 (7, July): 1835-1856.
- Wang Kangmao, Clement K. Wang & Qing Lu (2002). Differences in performance of independent and finance-affiliated venture capital firms. *The Journal of Financial Research* (2002), Vol. XXV, No. 1: 59–80.
- Welch, I. (1989). Seasoned offerings, imitation costs, and the underpricing of initial public offerings. *Journal of Finance*, 44: 421–449.
- Xiao, W. (2002). The new economy and venture capital in China. *Perspectives*, Vol. 3, No. 6.
- Yu, Ting & Y. K. Tse (2006). An empirical examination of IPO underpricing in the Chinese A-share Market. *China Economic Review*, 2006, V17 (4): 363-382.



Zhang, Wei & Jiang, Yanfu. 2002. The relationship between venture capitalists' experience and their involvement in the VC-backed companies. Paper presented at the Global Finance Conference; Guanghai School of Management, Beijing University. Beijing, May 27-29, 2002.

**Table 1****Distribution of Round Deals by VC Fund and Deal Amount, 2000 -2007**

This table displays the VC development in China in terms of the number of deals (financial rounds), the number of deals with disclosed investment amount and the amount of deal investment, from 2000 to 2007. Source: Zero2IPO database.

Year	No. of VC Deals	No. of VC Deals with disclosed amount	Amount Invested (US \$ M)	Average Amount per Deal (US \$ M)
2000	106	59	416.64	7.06
2001	87	46	1637.83	35.61
2002	78	49	445.94	9.10
2003	154	124	1411.26	11.38
2004	180	142	1441.89	10.15
2005	239	193	2523.40	13.07
2006	452	364	13151.23	36.13
2007	444	322	11650.69	36.18

**Table 2**

**IPO Development in Mainland China, 2000-2007**

This table displays the number of IPOs backed by VC firms and non-VC firms, the total offer amount, and average offer amount per IPO from 2000 to 2007. Source: Zero2IPO database.

Year	Number of IPOs				Offer Amount (US \$Million)				Average Offer Amount (US \$Million)	
	VC Backed	Non-VC Backed	Total IPO Events	VC IPOs as percentage of Total IPOs	VC Backed	Non-VC Backed	Total Offer Amount	VC IPOs as percentage of Total Offer Amount	VC Backed	Non-VC Backed
	2000	6	23	29	26.09%	531.61	5085.19	5085.19	10.45%	88.60
2001	4	6	10	40.00%	1282.73	2490.49	3773.22	34.00%	213.79	415.08
2002	6	9	15	40.00%	461.41	4815.80	5277.21	8.74%	51.27	535.09
2003	18	10	28	64.29%	6844.61	435.91	7280.52	94.01%	380.26	43.59
2004	38	72	110	34.55%	7930.27	6042.67	13972.94	56.75%	110.14	83.93
2005	38	54	92	41.30%	11386.48	10009.32	21395.80	53.22%	210.86	185.36
2006	50	101	151	33.11%	57313.27	17269.52	74582.79	76.85%	567.46	170.99
2007	109	111	220	49.55%	48605.20	47273.88	95879.08	50.69%	437.88	425.89

**Table 3**

**Distribution of IPOs by Industry and Market in the Whole Sample, 2000- 2007**

This table displays the distribution of IPOs by industry (panel A) and stock market (panel B) based on the whole sample, from 2000 to 2007. The definition of industry is from SDC Venture Expert. Manufacturing/Mining includes machinery manufacturing, real estate, automobiles, costume, real estate, construction, transportation, logistics, mineral materials, mining process and energy; Technology includes hardware, software, IT services, internet, telecommunication, other electronic, information technology, and other hi-tech/clean technologies; Service includes financial services, media, tourism, restaurant & hotel, consulting, and entertainment & advertising; Bio/Health includes health services, pharmaceuticals/health products, biotechnology, medical dices and equipment. The markets include exchange market in Mainland, Hong Kong, US, and Singapore.

**Panel A. Distribution of IPOs by Industry, 2000- 2007**

Industry	Number of IPOs (VC/Non-VC)										
	2000	2001	2002	2003	2004	2005	2006	2007	Total		
Manufacturing/Mining	0/93	1/60	2/47	4/53	7/82	7/22	14/57	36/72	71/486		
Technology	5/17	3/9	0/20	4/13	14/17	11/6	10/11	27/25	74/118		
Service	0/18	0/9	1/9	1/11	3/5	2/3	6/7	13/13	26/75		
Bio/Health	0/16	0/11	2/8	2/4	3/13	0/5	2/1	6/8	15/66		
Total	5/144	4/89	5/84	11/81	27/117	20/36	32/76	82/118	186/745		

**Panel B. Distribution of IPOs by Market, 2000- 2007**

Market	Number of IPOs (VC/Non-VC)										
	2000	2001	2002	2003	2004	2005	2006	2007	Sum		
Mainland	0/131	1/77	4/67	4/63	7/91	/14	13/51	31/86	60/580		
Hong Kong	0/10	3/9	1/16	5/15	10/15	8/12	7/16	21/10	55/103		
US	5/3	0/2	0/1	1/0	9/0	7/1	7/1	25/6	54/14		
Singapore	0/0	0/1	0/0	1/3	1/11	5/9	5/8	5/16	17/48		
Sum	5/144	4/89	5/84	11/81	27/117	20/36	32/76	82/118	186/745		

**Table 4**

**Distribution of VC Backed IPOs by VC Types, 2000-2007**

This table displays the distribution of IPOs backed by VC firms by VC institutional types (panel A), by VC origin (panel B), and by exchange market (panel C), from 2000 to 2007.

**Panel A. Distribution of VC Backed IPOs by VC Institution, 2000-2007**

Year	2000	2001	2002	2003	2004	2005	2006	2007	Total
Independent VC	2	1	2	6	16	10	13	41	91
Financial Institution VC	1	0	0	0	3	5	7	23	39
Government VC	0	3	3	4	4	3	9	14	40
Corporate VC	2	0	0	1	4	2	3	4	16
Total	5	4	5	11	27	20	32	82	186

**Panel B. Distribution of VC Backed IPOs by VC Origin, 2000-2007**

Year	2000	2001	2002	2003	2004	2005	2006	2007	Total
Chinese VC	0	3	4	7	12	5	13	26	70
Foreign VC	4	1	0	2	11	11	13	32	74
Overseas VC	1	0	1	2	4	4	6	24	42
Total	5	4	5	11	27	20	32	82	186

**Table 4**

**Panel C. Distribution of VC Backed IPOs by Stock Market, 2000-2007**

Year	2000	2001	2002	2003	2004	2005	2006	2007	Total
Mainland Market	0	1	4	4	7	0	13	31	60
HK Market	0	3	1	5	10	8	7	21	55
US Market	5	0	0	1	9	7	7	25	54
SP Market	0	0	0	1	1	5	5	5	17
Total	5	4	5	11	27	20	32	82	186

**Table 5**

**Test of Differences between VC Backed and Non-VC backed IPOs, Non-Matched Sample**

This table compares the difference of main variables between VC backed and Non-VC backed IPOs in whole sample (panel A), Mainland market (panel B), Hong Kong market (panel C), US market (panel D), and in Singapore market (panel E), using paired t-test for mean differences and Kruskal-Wallis test for median differences, from 2000 to 2007. Underwriter = Total issue volume/ number of issues, Offer size = offer price\*offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price(t+i) - Adjusted closing price(t)) / Adjusted closing price(t), Excess Return= Stock return- Market Index return, ROA= Operating income/Total Asset, Industry Adj. ROA= ROA - Industry Average ROA, 4-Year Avg. ROA = (ROA0+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

**Table 5**

**Panel A. whole Sample**

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	673/185	141.428	298.273	-156.800	-7.99***	60.153	279.712	45.94***	
Offer Price	743/186	7.234	9.366	-2.132	-3.80***	6.690	8.525	10.87***	
Offer Size	738/186	1325.180	2180.560	-855.400	-1.59	335.050	222.715	7.34***	
BV	742/186	5938.520	11592.950	-5654.000	-1.27	570.209	518.987	1.18	
Firm Size	743/185	17684.870	13992.430	3692.400	0.54	931.876	1458.400	41.87***	
BTM	739/186	0.871	1.169	-0.298	-0.78	0.290	0.339	4.58***	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	742/186	1.037	0.674	0.362	4.20***	0.842	0.310	35.60***	
3-Month Excess Return	704/151	-0.035	0.011	-0.047	-0.30	-0.046	-0.034	2.04	
6-Month Excess Return	678/134	-0.065	-0.093	0.028	0.12	-0.073	-0.068	1.22	
1-Year Excess Return	627/105	-0.084	0.200	-0.283	-1.90**	-0.084	-0.045	2.57*	
2-Year Excess Return	549/74	-0.046	0.450	-0.497	-2.59***	-0.148	-0.063	2.83*	
3-Year Excess Return	496/57	-0.136	1.083	-1.219	-2.46***	-0.259	-0.127	2.73*	
4-Year Excess Return	393/25	-0.086	0.983	-1.068	-1.82*	-0.281	0.139	2.48*	
5-Year Excess Return	284/16	-0.165	0.997	-1.162	-1.61*	-0.262	0.369	2.96*	

Table 5

Panel A. whole Sample- Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	743/184	0.083	0.131	-0.048	-1.01	0.069	0.178	172.77***	
ROA 1	626/101	0.064	0.065	-0.001	-0.01	0.061	0.137	72.62***	
ROA 2	548/70	0.057	0.122	-0.065	-3.73***	0.054	0.098	19.16***	
ROA 3	511/49	0.051	0.123	-0.072	-2.44***	0.051	0.103	17.76***	
ROA 4	395/24	0.053	0.144	-0.091	-3.02***	0.050	0.113	9.49***	
ROA 5	312/12	0.089	0.101	-0.012	-0.16	0.046	0.063	0.12	
4-Year Avg. ROA	743/183	0.071	0.156	-0.084	-3.34***	0.064	0.161	144.95***	
3-Year Avg. ROA	627/101	0.061	0.122	-0.061	-1.87**	0.057	0.125	53.43***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	743/184	-0.011	0.043	-0.054	-1.14	-0.024	0.090	174.66***	
Industry Adj. ROA 1	626/101	0.003	0.026	-0.023	-0.25	-0.007	0.099	84.85***	
Industry Adj. ROA 2	548/70	-0.003	0.067	-0.071	-4.06***	-0.007	0.044	21.97***	
Industry Adj. ROA 3	511/49	-0.002	0.069	-0.071	-2.42***	-0.008	0.058	19.60***	
Industry Adj. ROA 4	395/24	-0.003	0.093	-0.096	-3.16***	-0.005	0.054	11.72***	
Industry Adj. ROA 5	312/12	0.008	0.078	-0.069	-0.90	-0.041	-0.039	2.13	
Industry Adj. Avg.ROA4	743/182	0.061	0.082	-0.083	-3.30***	-0.009	0.087	147.63***	
Industry Adj. Avg.ROA3	627/101	-0.001	0.073	-0.071	-8.85***	-0.004	0.081	64.67***	



Table 5

## Panel B. Mainland Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	521/60	117.691	208.857	-91.166	-2.68***	60.153	65.369	2.53	
Offer Price	580/60	8.386	12.050	-3.664	-3.9***	7.430	10.485	19.76***	
Offer Size	575/60	986.518	4476.600	-3490.000	-2.35***	348.000	284.990	1.49	
BV	580/60	3884.090	30516.160	-26632.100	-2.07***	585.898	516.792	0.69	
Firm Size	580/60	8815.200	22395.230	-13580.000	-1.52	950.075	509.089	15.01***	
BTM	580/60	0.314	1.342	-1.028	-1.00	0.258	0.218	7.67***	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	579/60	1.270	1.515	-0.244	-1.47	1.021	1.121	1.26	
3-Month Excess Return	553/50	-0.050	-0.289	0.239	0.53	-0.044	-0.136	2.05	
6-Month Excess Return	528/38	-0.086	-0.633	0.547	0.69	-0.071	-0.212	2.23	
1-Year Excess Return	490/29	-0.124	-0.102	-0.022	-0.05	-0.097	-0.126	0.54	
2-Year Excess Return	435/16	-0.115	0.693	-0.808	-1.47	-0.146	0.058	3.23*	
3-Year Excess Return	405/16	-0.198	1.480	-1.679	-1.17	-0.257	-0.068	1.94	
4-Year Excess Return	326/7	-0.218	1.398	-1.616	-1.26	-0.281	0.344	3.81*	
5-Year Excess Return	240/5	-0.267	0.017	-0.284	-0.48	-0.267	0.024	0.68	

Table 5

## Panel B. Mainland Market - Continued

Operating Performance									
Variable	Sample Size (Non-VC/VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	580/60	0.070	0.187	-0.116	-7.78***	0.065	0.159	87.36***	
ROA 1	493/29	0.058	0.138	-0.081	-4.16***	0.055	0.105	25.05***	
ROA 2	442/16	0.053	0.119	-0.066	-2.47***	0.051	0.094	9.94***	
ROA 3	429/16	0.049	0.146	-0.098	-2.78***	0.048	0.097	13.56***	
ROA 4	336/9	0.052	0.099	-0.048	-1.310	0.048	0.066	1.96	
ROA 5	271/4	0.039	0.057	-0.018	-0.210	0.044	0.063	0.23	
4-Year Avg. ROA	580/60	0.063	0.178	-0.115	-8.09***	0.061	0.147	79.72***	
3-Year Avg. ROA	494/29	0.056	0.141	-0.085	-4.51***	0.053	0.119	27.12***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	580/60	-0.023	0.098	-0.121	-7.93***	-0.029	0.076	84.47***	
Industry Adj. ROA 1	493/29	-0.004	0.086	-0.090	-4.32***	-0.012	0.053	24.10***	
Industry Adj. ROA 2	442/16	-0.008	0.058	-0.066	-2.31***	-0.009	0.035	8.85***	
Industry Adj. ROA 3	429/16	-0.004	0.089	-0.093	-2.63***	-0.009	0.034	13.83***	
Industry Adj. ROA 4	336/9	-0.005	0.048	-0.052	-1.440	-0.007	0.003	2.39	
Industry Adj. ROA 5	271/4	-0.045	-0.015	-0.030	-0.350	-0.050	-0.059	0.06	
Industry Adj. Avg.ROA4	580/58	-0.008	0.102	-0.111	-7.44***	-0.013	0.079	68.73***	
Industry Adj. Avg.ROA3	494/29	-0.003	0.090	-0.093	-4.51***	-0.008	0.053	27.14***	

Table 5

## Panel C. Hong Kong Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	94/55	295.357	304.976	-9.619	-0.22	151.835	330.251	0.04	
Offer Price	101/55	3.034	4.010	-0.976	-1.49*	1.870	2.350	3.52**	
Offer Size	101/55	3932.340	2257.770	1674.600	1.95**	762.426	937.236	0.62	
BV	103/55	14182.300	4017.890	10164.000	2.66***	1337.200	1538.400	0.23	
Firm Size	103/55	65236.510	5738.790	59498.000	2.81***	2774.930	1711.020	2.32	
BTM	103/55	2.211	0.901	1.311	3.42***	1.632	0.527	24.22***	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	101/55	0.264	0.231	0.033	0.42	0.125	0.093	1E-03	
3-Month Excess Return	96/45	0.026	0.068	-0.042	-0.51	-0.024	-0.063	1E-03	
6-Month Excess Return	96/43	0.031	0.123	-0.092	-0.96	-0.049	0.000	0.72	
1-Year Excess Return	92/34	0.154	0.295	-0.141	-0.80	0.037	0.074	0.21	
2-Year Excess Return	77/26	0.377	0.592	-0.215	-0.50	-0.042	-0.105	0.45	
3-Year Excess Return	65/19	0.211	0.926	-0.715	-1.26	-0.321	-0.393	0.75	
4-Year Excess Return	51/10	0.707	-0.110	0.817	1.32	-0.101	-0.550	0.57	
5-Year Excess Return	35/5	0.323	1.562	-1.239	-0.55	0.091	-0.981	0.05	

Table 5

## Panel C. Hong Kong Market – Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	103/55	0.091	0.219	-0.128	-5.62***	0.089	0.201	30.31***	
ROA 1	93/33	0.065	0.175	-0.110	-4.38***	0.075	0.153	14.97***	
ROA 2	76/26	0.065	0.136	-0.072	-2.04**	0.057	0.107	5.92***	
ROA 3	62/18	0.051	0.059	-0.008	-0.14	0.061	0.090	1.38	
ROA 4	49/8	0.055	0.101	-0.046	-1.18	0.055	0.134	1.59	
ROA 5	34/3	0.060	0.018	0.042	0.64	0.060	-0.038	0.61	
4-Year Avg. ROA	103/55	0.071	0.191	-0.120	-5.46***	0.071	0.155	26.92***	
3-Year Avg. ROA	93/33	0.063	0.153	-0.090	-3.06***	0.064	0.125	9.95***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	103/55	-0.002	0.128	-0.130	-5.96***	0.001	0.092	32.98***	
Industry Adj. ROA 1	93/33	0.011	0.132	-0.121	-4.70***	0.008	0.089	20.72***	
Industry Adj. ROA 2	76/26	0.009	0.083	-0.075	-2.07**	-0.002	0.055	6.03***	
Industry Adj. ROA 3	62/18	-0.004	0.006	-0.009	-0.16	0.002	0.053	1.75	
Industry Adj. ROA 4	49/8	0.002	0.047	-0.046	-1.22	0.003	0.083	1.83	
Industry Adj. ROA 5	34/3	0.008	0.019	-0.011	-0.19	0.013	-0.037	0.07	
Industry Adj. Avg.ROA4	103/55	0.000	0.117	-0.117	-5.62***	0.000	0.088	28.14***	
Industry Adj. Avg.ROA3	93/33	0.006	0.102	-0.096	-3.40***	0.002	0.083	13.96***	

Table 5

Panel D. US Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	12/54	413.807	461.530	-47.720	-0.52	502.235	514.620	0.45	
Offer Price	14/54	13.423	14.624	-1.201	-0.71	15.200	14.750	0.01	
Offer Size	14/54	855.692	195.750	659.940	1.73*	217.813	121.016	1.29	
BV	12/54	56954.970	1641.520	55313.000	2.1**	1546.900	226.066	2.04	
Firm Size	13/53	98662.430	17205.540	81457.000	2.02**	3994.100	119.675	12.07***	
BTM	9/54	18.179	0.965	17.215	1.37	0.482	0.302	1.66	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	14/54	0.105	0.348	-0.243	-2.14**	0.003	0.154	2.31	
3-Month Excess Return	12/41	0.098	0.234	-0.136	-0.96	0.161	0.015	1E-03	
6-Month Excess Return	11/38	0.137	0.104	0.033	0.16	0.001	-0.109	0.58	
1-Year Excess Return	8/29	0.022	0.224	-0.202	-0.92	-0.034	-0.185	0.01	
2-Year Excess Return	7/22	0.510	0.044	0.466	1.15	0.409	-0.262	4.15**	
3-Year Excess Return	6/16	0.831	0.342	0.489	0.71	0.577	-0.126	1.96	
4-Year Excess Return	6/7	1.150	2.067	-0.917	-0.58	1.368	0.714	0.02	
5-Year Excess Return	6/5	1.475	0.947	0.527	0.59	1.562	0.713	0.83	

Table 5

## Panel D. US Market – Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	13/52	0.229	-0.061	0.291	1.45	0.106	0.199	2.531	
ROA 1	8/27	0.101	-0.244	0.345	0.99	0.082	0.130	0.965	
ROA 2	7/21	0.126	0.085	0.041	0.99	0.145	0.065	0.676	
ROA 3	6/14	0.145	0.175	-0.030	-0.46	0.140	0.177	0.027	
ROA 4	6/6	0.174	0.265	-0.091	-1.03	0.170	0.333	0.923	
ROA 5	6/5	2.532	0.186	2.345	0.98	0.172	0.214	0.033	
4-Year Avg. ROA	13/52	0.148	0.070	0.078	0.86	0.119	0.167	0.905	
3-Year Avg. ROA	8/27	0.119	0.003	0.115	1.02	0.104	0.119	0.076	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	13/52	0.142	-0.143	0.285	1.43	0.024	0.090	2.47	
Industry Adj. ROA 1	8/27	0.050	-0.256	0.306	0.89	0.039	0.139	1.68	
Industry Adj. ROA 2	7/21	0.064	0.035	0.029	0.72	0.072	0.022	0.51	
Industry Adj. ROA 3	6/14	0.087	0.123	-0.036	-0.54	0.080	0.132	0.17	
Industry Adj. ROA 4	6/6	0.120	0.220	-0.100	-1.18	0.108	0.288	0.92	
Industry Adj. ROA 5	6/5	2.450	0.188	2.263	0.95	0.092	0.215	1E-04	
Industry Adj. Avg.ROA4	13/52	0.072	-0.002	0.074	0.82	0.035	0.086	1.76	
Industry Adj. Avg.ROA3	8/27	0.060	-0.036	0.096	0.86	0.051	0.081	0.05	

Table 5

## Panel E. Singapore Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	46/16	24.676	59.542	-34.870	-1.92*	24.173	30.025	3.59**	
Offer Price	48/17	0.343	0.518	-0.175	-3.20***	0.313	0.470	11.14***	
Offer Size	48/17	33.163	131.841	-98.680	-1.83*	28.130	60.952	7.30***	
BV	47/17	199.444	923.130	-723.700	-2.88***	155.869	526.640	18.76***	
Firm Size	47/17	533.441	1021.090	-487.600	-1.84*	408.172	633.236	1.89	
BTM	47/17	1.494	2.076	-0.581	-2.27***	1.256	2.296	5.33***	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	48/17	0.117	0.181	-0.064	-0.62	0.000	0.150	6.56***	
3-Month Excess Return	43/15	-0.019	0.235	-0.254	-2.15**	-0.151	0.143	6.81***	
6-Month Excess Return	43/15	-0.076	0.156	-0.232	-1.97**	-0.190	0.061	6.67***	
1-Year Excess Return	37/13	-0.158	0.571	-0.729	-2.77***	-0.286	0.121	8.58***	
2-Year Excess Return	30/10	-0.271	0.589	-0.860	-2.35***	-0.443	0.484	4.37***	
3-Year Excess Return	20/6	-0.304	2.497	-2.800	-1.50	-0.632	0.772	4.80***	
4-Year Excess Return	10/1	-0.561	1.406	-1.967	-2.16**	-0.772	1.406	2.50*	
5-Year Excess Return	3/1	-0.934	3.321	-4.255	-3.40***	-1.488	3.321	1.80	

Table 5

## Panel E. Singapore Market – Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	47/17	0.177	0.241	-0.064	-1.61	0.177	0.199	1.61	
ROA 1	32/12	0.144	0.279	-0.135	-2.35***	0.148	0.204	5.37***	
ROA 2	23/7	0.095	0.189	-0.094	-1.61	0.096	0.131	2.09	
ROA 3	14/1	0.076	0.179	-0.104	-1.12	0.084	0.179	1.92	
ROA 4	4/1	-0.035	0.175	-0.210	-0.95	0.035	0.175	2.00	
4-Year Avg. ROA	47/16	0.151	0.230	-0.140	-1.97*	0.146	0.184	2.59*	
3-Year Avg. ROA	32/12	0.120	0.257	-0.137	-2.81***	0.122	0.206	7.51***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	47/17	0.084	0.149	-0.065	-1.630	0.091	0.116	1.68	
Industry Adj. ROA 1	32/12	0.080	0.224	-0.144	-2.36***	0.087	0.138	5.62***	
Industry Adj. ROA 2	23/7	0.027	0.130	-0.103	-1.80*	0.035	0.067	2.69*	
Industry Adj. ROA 3	14/1	0.016	0.119	-0.103	-1.13	0.024	0.119	1.92	
Industry Adj. ROA 4	4/1	-0.089	0.112	-0.201	-0.99	-0.027	0.112	2.00	
Industry Adj. Avg.ROA4	47/17	0.070	0.155	-0.085	-2.20**	0.073	0.116	4.05***	
Industry Adj. Avg.ROA3	32/12	0.053	0.194	-0.141	-2.89***	0.057	0.135	8.55***	



**Table 6**

**Cross-Sectional Regression based on entire sample of VC backed and Non-VC backed Companies**

This table reports the result of cross-sectional regressions of performance of VC backed and non-VC backed companies, from 2000-2007. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. The last two lines represent the total number of observations and the value of R<sup>2</sup> in each regression, respectively. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

**Panel A Whole Sample**

Whole Sample Variable	1	2	3	4	5	6
Intercept	1.301*** (4.99)	-0.090 (-0.40)	-0.370 (-1.56)	-0.094 (-1.97)	-0.738*** (-2.41)	-1.271*** (-2.72)
Underwriter	-0.017 (-0.41)	0.023 (0.63)	0.055 (1.08)	0.040 (1.15)	-0.040 (-0.72)	0.009 (0.12)
Offer Size	0.053 (0.93)	-0.049 (-0.89)	-0.034 (-0.51)	0.020 (0.55)	0.019 (0.31)	-0.004 (-0.03)
BTM	-0.034 (-1.60)	-0.015** (-2.00)	-0.013 (-1.36)	-0.015** (-2.01)	0.009 (0.82)	0.007 (0.51)
Firm Size	-0.113*** (-2.93)	0.077* (1.78)	0.081 (1.46)	0.077* (1.90)	0.078 (1.55)	0.135 (1.27)
VC	-0.394*** (-3.85)	0.032 (0.17)	-0.036 (-0.12)	0.032*** (2.02)	0.698*** (3.35)	1.567*** (2.81)
# of obs.	852	782	740	665	564	499
R <sup>2</sup>	0.059	0.004	0.004	0.059	0.037	0.048

Table 6

## Panel A Whole Sample –Continued 1

Whole Sample	7	8	9	10	11	12
Variable	ROA IPO year	ROA 1	ROA 2	ROA 3	4-Year Avg.ROA	3-Year Avg.ROA
Intercept	0.014 (0.18)	-0.039 (-0.3)	0.083** (1.89)	0.013 (0.24)	0.040 (0.78)	0.034 (0.67)
Underwriter	-0.034 (-1.56)	-0.034 (-1.11)	-0.001 (-0.14)	0.021*** (2.35)	-0.010 (-0.97)	-0.008 (-0.71)
Offer Size	-0.036 (-1.34)	-0.067 (-1.28)	0.003 (0.33)	0.016** (1.87)	-0.016 (-1.02)	-0.022 (-1.28)
BTM	-0.007 (-1.05)	-0.013 (-1.07)	0.002 (1.21)	0.003*** (2.46)	-0.002 (-0.61)	-0.003 (-0.78)
Firm Size	0.066 (1.42)	0.100 (1.23)	0.003 (0.36)	-0.015* (-1.70)	0.029 (1.15)	0.035 (1.33)
VC	0.132*** (7.39)	1.567*** (5.16)	0.081*** (4.45)	0.064** (2.15)	0.119*** (8.86)	0.098*** (6.01)
# of obs.	851	660	559	505	850	661
R <sup>2</sup>	0.044	0.043	0.062	0.070	0.067	0.069

**Table 6**

**Panel A Whole Sample –Continued 2**

Whole Variable	13	14	15	16	17	18
	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	-0.140* (-1.76)	-0.179 (-1.39)	-0.042 (-0.94)	-0.088* (-1.70)	-0.089* (-1.74)	-0.096** (-1.92)
Underwriter	-0.034 (-1.56)	-0.035 (-1.13)	-0.001 (-0.17)	0.019*** (2.27)	-0.012 (-1.11)	-0.009 (-0.79)
Offer Size	-0.036 (-1.34)	-0.067 (-1.28)	0.003 (0.34)	0.017** (1.94)	-0.014 (-0.91)	-0.021 (-1.23)
BTM	-0.007 (-1.05)	-0.013 (-1.07)	0.002 (1.22)	0.002*** (2.42)	-0.002 (-0.47)	-0.003 (-0.80)
Firm Size	0.066 (1.42)	0.100 (1.22)	0.002 (0.34)	-0.015* (-1.70)	0.027 (1.07)	0.034 (1.30)
VC	0.132*** (7.39)	0.106*** (5.12)	0.081*** (4.42)	0.061** (2.04)	0.109*** (8.37)	0.096*** (5.92)
# of obs.	851	660	559	505	849	661
R <sup>2</sup>	0.046	0.048	0.086	0.112	0.055	0.061

Table 6

## Panel B Mainland Market

Mainland Market Variable	1	2	3	4	5	6
	<b>Underpricing</b>	<b>3-Month Excess Return</b>	<b>6-Month Excess Return</b>	<b>1-Year Excess Return</b>	<b>2-Year Excess Return</b>	<b>3-Year Excess Return</b>
Intercept	4.011*** (10.34)	-0.992** (-1.86)	0.593*** (-2.42)	-1.963*** (-2.53)	-0.860*** (-3.32)	-1.209*** (-2.93)
Underwriter	0.157*** (2.83)	-0.012 (-0.43)	0.029 (1.05)	1E-06 (2E-06)	0.003 (0.07)	0.008 (0.12)
Offer Size	-0.528*** (-5.77)	0.035 (0.21)	0.150 (1.08)	0.247** (2.17)	0.112 (1.25)	0.195 (0.96)
BTM	-0.133*** (-5.24)	-0.003 (-0.09)	0.022 (0.89)	0.019 (0.81)	-0.081 (-0.60)	0.274 (0.51)
Firm Size	0.062 (0.99)	0.117 (0.87)	0.054 (0.36)	0.048 (0.44)	-0.012 (-0.12)	-0.041 (-0.18)
VC	0.430*** (2.53)	-0.234 (-0.55)	-0.588 (-0.75)	0.137 (0.29)	0.861* (1.60)	1.771 (1.28)
# of obs.	581	548	512	469	405	377
R <sup>2</sup>	0.157	0.016	0.020	0.066	0.029	0.029

**Table 6**

**Panel B Mainland Market –Continued 1**

Mainland Market Variable	7	8	9	10	11	12
	ROA IPO year	ROA 1	ROA 2	ROA 3	4-Year Avg.ROA	3-Year Avg.ROA
Intercept	-0.012 (-0.47)	-0.050 (-1.38)	-0.052 (-1.16)	0.071 (0.94)	0.218*** (2.33)	0.110 (0.84)
Underwriter	0.003 (0.98)	0.003 (0.87)	0.002 (0.45)	0.008 (1.28)	0.009* (1.83)	0.007 (1.21)
Offer Size	0.043*** (5.44)	0.025*** (2.53)	0.031*** (2.70)	0.065** (2.02)	0.093*** (3.31)	0.069* (1.68)
BTM	0.011*** (6.76)	0.007*** (4.09)	0.025*** (2.52)	-0.076 (-1.24)	0.016*** (3.84)	0.013** (2.11)
Firm Size	-0.031*** (-5.19)	-0.011 (-1.55)	-0.014** (-1.93)	-0.055* (-1.72)	-0.097*** (-2.9)	-0.065 (-1.33)
VC	0.088*** (8.35)	0.069*** (4.10)	0.057*** (2.53)	0.094*** (2.84)	0.132*** (6.59)	0.084*** (4.22)
# of obs.	581	472	412	400	581	473
R <sup>2</sup>	0.427	0.151	0.075	-0.002	-0.366	-0.089

Table 6

## Panel B Mainland Market –Continued 2

Mainland Market Variable	13	14	15	16	17	18
	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	0.153 (1.49)	-0.030 (-0.22)	-0.068 (-0.88)	-0.690 (-5.2E-03)	0.144 (1.51)	0.006 (0.04)
Underwriter	0.012** (2.00)	0.008 (1.28)	0.005 (0.89)	0.990 (0.55)	0.011** (1.93)	0.007 (1.19)
Offer Size	0.111*** (3.43)	0.066 (1.54)	0.059** (2.00)	0.063* (1.81)	0.105*** (3.60)	0.071* (1.69)
BTM	0.018*** (3.84)	0.013** (1.98)	-0.067 (-1.21)	-1.120 (-0.04)	0.017*** (4.08)	0.013** (2.05)
Firm Size	-0.122*** (-3.20)	-0.063 (-1.24)	-0.047 (-1.57)	0.084 (-1.49)	-0.114*** (-3.3)	-0.068 (-1.39)
VC	0.141*** (6.30)	0.078*** (3.73)	0.062*** (2.53)	2.620*** (2.65)	0.126*** (6.09)	0.086*** (4.15)
# of obs.	581	472	412	400	579	473
R <sup>2</sup>	-0.528	0.161	0.040	0.070	-0.480	-0.065

Table 6

## Panel C Hong Kong Market

Hong Kong Market Variable	1	2	3	4	5	6
Intercept	0.494*** (2.30)	0.226 (0.93)	-0.209 (-1.35)	-0.473 (-1.23)	0.733 (0.64)	-0.475 (-0.30)
Underpricing	-0.045 (-0.78)	0.004 (0.09)	0.017 (0.41)	0.046 (0.83)	0.010 (0.07)	0.139 (0.82)
Offer Size	0.083 (1.06)	-0.053 (-0.81)	-0.041 (-0.55)	0.080 (0.59)	-0.317 (-0.82)	-0.201 (-0.43)
BTM	-0.021* (-1.75)	-0.006 (-1.46)	-0.001 (-0.10)	-0.014 (-1.40)	-0.001 (-0.10)	-0.024 (-0.58)
Firm Size	-0.072 (-1.30)	0.047 (1.20)	0.053 (1.10)	-0.005 (-0.06)	0.368 (1.08)	0.319 (0.75)
VC	-0.133 (-1.37)	0.048 (0.45)	0.152 (1.33)	0.182 (1.05)	0.555 (1.44)	1.107* (1.69)
# of obs.	149	133	131	118	97	80
R <sup>2</sup>	0.006	-0.018	-0.023	0.022	0.006	-0.011

Table 6

## Panel C Hong Kong Market –Continued 1

Hong Kong Market Variable	7	8	9	10	11	12
	<b>ROA IPO year</b>	<b>ROA 1</b>	<b>ROA 2</b>	<b>ROA 3</b>	<b>4-Year Avg.ROA</b>	<b>3-Year Avg.ROA</b>
Intercept	0.139*** (4.31)	0.115*** (2.87)	0.091 (0.70)	-0.118 (-1.34)	0.016 (0.37)	-0.019 (-0.33)
Underwriter	0.013*** (1.22)	0.002 (0.12)	-0.001 (-0.05)	0.048** (2.12)	0.011 (1.10)	0.009 (0.72)
Offer Size	0.037*** (2.11)	0.044** (1.93)	0.033 (1.09)	0.030 (1.10)	0.049*** (3.27)	0.045** (2.20)
BTM	0.003 (0.78)	1E-05 (0.16)	0.001 (0.37)	0.004** (2.25)	0.002 (0.84)	0.002 (0.76)
Firm Size	-0.042*** (-3.49)	-0.038** (-2.19)	-0.025 (-1.06)	-0.037 (-1.45)	-0.045*** (-3.89)	-0.037** (-2.22)
VC	0.091*** (4.01)	0.076*** (2.48)	0.061 (1.20)	0.044 (0.68)	0.077*** (3.39)	0.069** (2.15)
# of obs.	149	117	96	76	149	117
R <sup>2</sup>	0.305	0.170	-0.005	0.164	0.330	0.153



**Table 6**

**Panel C Hong Kong Market –Continued 2**

Hong Kong Market Variable	13	14	15	16	17	18
		<b>Industry Adj.ROA</b>	<b>Industry Adj.ROA 2</b>	<b>Industry Adj.ROA 3</b>	<b>Industry Adj.ROA 4</b>	<b>Industry Adj.ROA3</b>
Intercept	-0.015 (-0.46)	-0.020 (-0.44)	0.060 (0.44)	-0.174** (-1.98)	-0.012 (-0.29)	-0.049 (-0.86)
Underwriter	0.014 (1.22)	-0.001 (-0.05)	-0.001 (-0.06)	0.049** (2.15)	0.013*** (1.35)	0.011 (0.82)
Offer Size	0.037**	0.045**	0.034	0.031	0.042***	0.043**
BTM	(2.11)	(1.97)	(1.10)	(1.12)	(2.87)	(2.17)
	0.003 (0.78)	2E-05 (0.04)	0.001 (0.30)	0.004** (2.24)	0.003 (0.99)	0.002 (0.75)
Firm Size	-0.042*** (-3.49)	-0.039** (-2.21)	-0.025 (-1.06)	-0.038 (-1.47)	-0.042*** (-3.68)	-0.036** (-2.23)
VC	0.091*** (4.01)	0.072** (2.02)	0.056 (1.08)	0.041 (0.65)	0.072*** (3.20)	0.066** (2.08)
# of obs.	149	117	96	76	149	117
R <sup>2</sup>	0.349	0.218	0.092	0.239	0.292	0.141

Table 6

## Panel D US Market

US Market	1	2	3	4	5	6
Variable	Underpricing	3-Month Excess Return	6-Month Excess Return	1-Year Excess Return	2-Year Excess Return	3-Year Excess Return
Intercept	-0.259 (-0.48)	-0.009 (-0.01)	-0.923 (-0.70)	-2.137 (-1.18)	-4.566 (-1.29)	-6.408 (-0.85)
Underwriter	0.103 (0.94)	-0.003 (-0.02)	0.091 (0.42)	0.807** (2.03)	0.662 (1.27)	1.688 (1.39)
Offer Size	-0.244 (-1.59)	-0.005 (-0.04)	0.017 (0.14)	-0.034 (-1.26)	0.074 (0.19)	-0.040 (-0.05)
BTM	-0.036 (-1.64)	-0.020 (-1.30)	-0.019 (-1.24)	0.152 (0.75)	-0.032 (-0.95)	0.460 (1.04)
Firm Size	0.127 (1.44)	0.045 (0.86)	0.050 (1.05)	-0.210 (-1.22)	-0.009 (-0.08)	-0.376 (-0.87)
VC	0.271 (1.20)	0.174 (0.64)	0.334 (1.48)	-1.000 (-1.14)	0.048 (0.06)	-2.634 (-0.93)
# of obs.	60	46	42	31	24	18
R <sup>2</sup>	-0.064	0.089	-0.059	0.495	0.085	0.219

Table 6

## Panel D US Market—Continued 1

US Market	7	8	9	10	11	12
Variable	ROA IPO year	ROA 1	ROA 2	ROA 3	4-Year Avg.ROA	3-Year Avg.ROA
Intercept	-1.179 (-1.02)	0.168 (0.04)	-0.019 (-0.03)	-1.058 (-0.67)	-0.685 (-1.09)	-0.045 (-0.03)
Underwriter	-0.207 (-1.07)	-0.562 (-0.58)	0.046 (0.30)	0.309 (1.24)	-0.044 (-0.64)	-0.112 (-0.30)
Offer Size	-0.166 (-0.7)	-0.914 (-1.49)	-0.077 (-1.62)	0.084 (0.67)	-0.129 (-1.02)	-0.329* (-1.69)
BTM	-0.052 (-1.47)	-0.087 (-1.06)	-0.008 (-1.21)	0.107 (0.61)	-0.029 (-1.41)	-0.032 (-1.22)
Firm Size	0.433* (1.68)	0.949*** (2.67)	0.042 (1.08)	-0.116 (-1.72)	0.223 (1.49)	0.311 (2.75)
VC	1.073** (1.87)	3.209 (1.32)	0.013 (0.05)	-0.546 (-1.18)	0.532* (1.78)	0.918 (1.19)
# of obs.	59	30	23	16	59	30
R <sup>2</sup>	0.118	0.248	-0.320	0.100	0.086	0.310

**Table 6**

**Panel D US Market --Continued 2**

US Market	13	14	15	16	17	18
Variable	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	-1.333 (-1.15)	0.050 (0.01)	-0.071 (-0.10)	-1.094 (-0.69)	-0.841 (-1.34)	-0.146 (-0.10)
Underwriter	-0.207 (-1.07)	-0.571 (-0.59)	0.046 (0.30)	0.309 (1.24)	-0.042 (-0.61)	-0.125 (-0.41)
Offer Size	-0.166 (-0.7)	-0.914 (-1.49)	-0.077 (-1.62)	0.084 (0.67)	-0.130 (-1.03)	-0.331* (-1.70)
BTM	-0.052 (-1.47)	-0.087 (-1.06)	-0.008 (-1.21)	0.107 (0.61)	-0.028 (-1.39)	-0.031 (-1.20)
Firm Size	0.433* (1.68)	0.951*** (2.68)	0.042 (1.08)	-0.116 (-1.72)	0.222 (1.48)	0.113*** (2.78)
VC	1.073** (1.87)	3.228 (1.33)	0.013 (0.05)	-0.546 (-1.18)	0.531* (1.78)	0.770 (1.24)
# of obs.	59	30	23	16	59	30
R <sup>2</sup>	0.246	0.110	0.106	0.395	0.066	0.225

Table 6

## Panel E Singapore Market

Singapore Market Variable	1	2	3	4	5	6
Intercept	0.185 (0.42)	-0.075 (-0.18)	-0.202 (-0.48)	-0.035 (-0.05)	-1.489 (-1.29)	-2.058 (-0.55)
Underwriter	0.292 (1.12)	0.191 (1.52)	0.161 (1.38)	-0.003 (-0.02)	-0.019 (-0.06)	-0.419 (-0.37)
Offer Size	-0.237 (-1.13)	0.056 (0.46)	0.057 (0.48)	0.193 (1.10)	0.169 (0.72)	1.650 (1.25)
BTM	-0.124** (-1.99)	-0.017 (-0.33)	-0.007 (-0.14)	3E-06 (-0.01)	0.056 (0.54)	-0.118 (-0.18)
Firm Size	0.029 (0.33)	-0.079 (-0.89)	-0.059 (-0.65)	-0.119 (-0.82)	0.125 (0.58)	-0.293 (-0.30)
VC	0.152 (1.34)	0.183 (1.34)	0.166 (1.22)	0.730*** (2.36)	0.760** (1.91)	2.527 (1.48)
# of obs.	62	55	55	47	38	24
R <sup>2</sup>	-0.016	0.040	0.003	0.202	0.129	0.035

**Table 6**

**Panel E Singapore Market –Continued 1**

Singapore Market Variable	7	8	9	10	11	12
	<b>ROA IPO year</b>	<b>ROA 1</b>	<b>ROA 2</b>	<b>ROA 3</b>	<b>4-Year Avg.ROA</b>	<b>3-Year Avg.ROA</b>
Intercept	0.367*** (3.4)	0.436*** (3.47)	-0.008 (-0.03)	0.394 (0.88)	0.352*** (3.08)	0.337*** (2.91)
Underwriter	-0.007 (-0.24)	-0.024 (-0.74)	0.011 (0.14)	-0.124 (-1.02)	-0.017 (-0.55)	-0.027 (-0.92)
Offer Size	0.066*** (2.24)	0.107*** (2.87)	0.143*** (2.76)	-0.049 (-0.43)	0.074*** (2.61)	0.097*** (3.50)
BTM	0.016 (1.13)	0.013 (1.01)	0.018 (0.70)	0.022 (0.41)	0.009 (0.85)	0.014 (1.36)
Firm Size	-0.073*** (-2.57)	-0.089*** (-3.07)	-0.068*** (-2.43)	0.045 (0.53)	-0.067*** (-2.70)	-0.077*** (-3.45)
VC	0.041 (1.26)	0.102*** (2.30)	0.077 (1.32)	0.106 (0.89)	0.059* (1.65)	0.116*** (2.64)
# of obs.	62	41	28	13	61	41
R <sup>2</sup>	0.174	0.428	0.398	0.455	0.229	0.460

Table 6

## Panel E Singapore Market –Continued 2

Singapore Market Variable	13	14	15	16	17	18	
	Industry IPO Year	Industry Adj.ROA	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	
	0.212**	(1.97)	(1.35)	(-0.57)	(0.74)	(2.04)	
Intercept			0.187	-0.135	0.331	0.201**	0.111
			(1.35)	(-0.57)	(0.74)	(2.04)	(0.92)
Underwriter	-0.007	-0.031	0.011	0.011	-0.124	-0.014	-0.031
	(-0.24)	(-0.78)	(0.14)	(0.14)	(-1.02)	(-0.47)	(-0.90)
Offer Size	0.066***	0.115***	0.143***	0.143***	-0.049	0.073***	0.103***
	(2.24)	(4.08)	(2.76)	(2.76)	(-0.43)	(2.51)	(4.23)
BTM	0.016	0.012	0.018	0.018	0.022	0.014	0.011
	(1.13)	(0.82)	(0.70)	(0.70)	(0.41)	(1.16)	(0.89)
Firm Size	-0.073***	-0.081***	-0.068***	-0.068***	0.045	-0.069***	-0.062***
	(-2.57)	(-3.46)	(-2.43)	(-2.43)	(0.53)	(-2.70)	(-3.09)
VC	0.041	0.07987*	0.077	0.077	0.106	0.058**	0.084*
	(1.26)	(1.83)	(1.32)	(1.32)	(0.89)	(1.87)	(2.22)
# of obs.	62	41	28	28	13	62	41
R <sup>2</sup>	0.315	0.628	0.589	0.589	0.447	0.225	0.618

Table 7

## Test of Differences between VC Backed and Non-VC backed IPOs, Matched Sample

This table compares the difference of main variables between 144 VC backed and a control group 144 matched Non-VC backed IPOs in whole sample (panel A), Mainland market (panel B), Hong Kong market (panel C), US market (panel D), and in Singapore market (panel E), using paired t-test and Kruskal-Wallis test for mean and median differences respectively, from 2000 to 2007. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Table 7

## Panel A Whole Sample

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	133/143	229.053	266.952	-37.900	-1.26	87.482	151.835	1.47	
Offer Price	143/144	7.089	8.730	-1.641	-2.18**	6.500	7.040	1.91	
Offer Size	143/144	2522.870	2753.790	-230.900	-0.29	342.000	292.590	0.15	
BV	144/144	8071.980	14380.310	-6308.000	-1.12	897.949	640.023	0.81	
Firm Size	144/144	50746.960	11649.970	39097.000	2.32**	1581.780	634.786	16.63***	
BTM	144/144	1.004	1.144	-0.140	-0.31	0.405	0.328	2.41*	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	143/144	0.772	0.796	-0.024	-0.20	0.554	0.368	0.06	
3-Month Excess Return	123/114	-0.102	-0.077	-0.025	-0.12	-0.126	-0.049	6.60**	
6-Month Excess Return	113/99	-0.217	-0.176	-0.041	-0.13	-0.245	-0.065	10.33***	
1-Year Excess Return	75/75	-0.184	0.118	-0.302	-1.36*	-0.220	-0.082	2.91*	
2-Year Excess Return	54/52	-0.192	0.565	-0.757	-2.81***	-0.331	-0.018	7.18**	
3-Year Excess Return	42/44	-0.259	1.384	-1.644	-2.59***	-0.504	-0.030	7.41**	
4-Year Excess Return	20/21	-0.004	0.625	-0.628	-0.91	-0.513	0.139	2.61*	
5-Year Excess Return	13/15	-0.907	0.390	-1.298	-2.84***	-0.697	0.024	5.01**	



Table 7

## Panel A Whole Sample –Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	144/144	0.098	0.100	-0.002	-0.03	0.095	0.165	45.85***	
ROA 1	74/73	0.073	0.013	0.059	0.46	0.074	0.125	17.96***	
ROA 2	51/50	0.070	0.121	-0.051	-1.67***	0.054	0.096	6.38**	
ROA 3	38/38	0.030	0.120	-0.089	-2.05**	0.065	0.097	5.71**	
ROA 4	21/21	0.049	0.131	-0.082	-2.29**	0.054	0.066	2.47*	
ROA 5	13/12	0.057	0.101	-0.044	-0.74	0.057	0.063	0.02	
4-Year Avg. ROA	144/143	0.090	0.142	-0.052	-1.63*	0.093	0.149	38.64***	
3-Year Avg. ROA	74/73	0.064	0.102	-0.037	-0.84	0.067	0.123	15.86***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	144/144	0.013	0.014	-0.002	-0.03	0.012	0.082	40.15***	
Industry Adj. ROA 1	74/73	0.032	-0.029	0.062	0.48	0.032	0.084	13.51***	
Industry Adj. ROA 2	51/50	0.016	0.066	-0.050	-1.59*	0.001	0.044	5.14**	
Industry Adj. ROA 3	38/38	-0.023	0.066	-0.090	-2.07***	0.011	0.044	5.86**	
Industry Adj. ROA 4	21/21	0.000	0.081	-0.081	-2.24***	0.009	0.034	1.43	
Industry Adj. ROA 5	13/12	0.042	0.078	-0.036	-0.57	0.058	-0.039	0.36	
Industry Adj. Avg. ROA4	144/142	0.018	0.071	-0.052	-1.65*	0.024	0.078	36.10***	
Industry Adj. Avg. ROA3	74/73	0.016	0.053	-0.036	-0.82	0.024	0.060	13.71***	

Table 7

## Panel B Mainland Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	57/60	96.877	208.857	-112.000	-2.97***	56.149	65.369	4.10**	
Offer Price	60/60	9.014	12.050	-3.036	-2.89***	8.355	10.485	5.51***	
Offer Size	60/60	580.841	4476.600	-3896.000	-2.63***	310.200	284.990	3E-03	
BV	60/60	1713.910	30516.160	-28802.000	-2.25***	559.075	516.792	0.25	
Firm Size	60/60	4543.390	22395.230	-17852.000	-2.00**	940.214	509.089	0.00	
BTM	60/60	0.294	1.342	-1.048	-1.02	0.264	0.218	2.16	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	60/60	1.414	1.515	-0.100	-0.50	0.989	1.121	0.01	
3-Month Excess Return	55/50	-0.195	-0.289	0.094	0.21	-0.197	-0.136	2.53	
6-Month Excess Return	46/38	-0.380	-0.633	0.253	0.32	-0.369	-0.212	1.99	
1-Year Excess Return	28/29	-0.611	-0.102	-0.508	-1.01	-0.337	-0.126	1.84	
2-Year Excess Return	16/16	-0.398	0.693	-1.091	-1.89**	-0.213	0.058	3.13*	
3-Year Excess Return	13/16	-0.290	1.480	-1.770	-1.23	-0.378	-0.068	1.11	
4-Year Excess Return	8/7	-0.862	1.398	-2.261	-1.69**	-0.440	0.344	4.83***	
5-Year Excess Return	4/5	-1.304	0.017	-1.321	-2.23***	-1.270	0.024	2.94	

Table 7

## Panel B Mainland Market –Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	60/60	0.081	0.187	-0.106	-6.78***	0.078	0.159	37.38***	
ROA 1	29/29	0.069	0.138	-0.069	-3.06***	0.074	0.151	7.44***	
ROA 2	16/16	0.083	0.119	-0.036	-1.16	0.078	0.094	0.46	
ROA 3	16/16	0.066	0.146	-0.081	-1.69*	0.084	0.097	0.81	
ROA 4	8/9	0.084	0.099	-0.015	-0.38	0.099	0.065	0.45	
ROA 5	4/4	0.075	0.057	0.018	0.40	0.065	0.063	0.08	
4-Year Avg. ROA	60/60	0.079	0.178	-0.099	-6.53***	0.078	0.147	29.56***	
3-Year Avg. ROA	29/29	0.068	0.141	-0.073	-3.34***	0.070	0.119	7.96***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	60/60	-0.008	0.098	-0.106	-6.42***	0.052	0.076	32.55***	
Industry Adj. ROA 1	29/29	0.017	0.086	-0.069	-2.93***	0.014	0.053	5.55***	
Industry Adj. ROA 2	16/16	0.022	0.058	-0.036	-1.12	0.018	0.035	0.32	
Industry Adj. ROA 3	16/16	0.008	0.089	-0.081	-1.68*	0.032	0.034	0.88	
Industry Adj. ROA 4	8/9	0.033	0.048	-0.014	-0.36	0.031	0.034	0.45	
Industry Adj. ROA 5	4/4	0.022	-0.015	0.037	0.62	0.011	-0.059	1.33	
Industry Adj. Avg.ROA4	60/58	0.002	0.102	-0.100	-6.08***	0.010	0.079	26.21***	
Industry Adj. Avg.ROA3	29/29	0.017	0.090	-0.073	-3.03***	0.023	0.053	5.04***	

Table 7

## Panel C Hong Kong Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	42/49	430.865	318.735	112.130	2.10**	562.913	339.612	5.40***	
Offer Price	48/49	4.305	4.330	-0.024	-0.03	3.885	3.280	1.08	
Offer Size	48/49	6222.470	6380.310	3728.200	3.08***	3551.300	1031.400	5.63***	
BV	49/49	15161.980	4434.330	10728.000	3.03***	4391.000	2297.870	3.37**	
Firm Size	49/49	131210.500	2494.310	124830.000	2.70***	5311.230	1878.100	9.80***	
BTM	49/49	1.258	0.883	0.375	1.88**	0.793	0.498	3.56**	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	48/49	0.362	0.243	0.119	1.37*	0.249	0.093	2.36	
3-Month Excess Return	37/39	0.019	0.090	-0.071	-0.68	-0.049	0.025	0.13	
6-Month Excess Return	37/37	-0.077	0.157	-0.234	-1.85**	-0.166	0.066	4.11**	
1-Year Excess Return	29/29	0.253	0.326	-0.073	-0.31	-0.047	0.117	0.19	
2-Year Excess Return	23/22	0.065	0.679	-0.614	-1.35	-0.233	0.045	0.63	
3-Year Excess Return	18/17	0.000	1.111	-1.111	-1.59	-0.378	-0.384	1.57	
4-Year Excess Return	7/8	1.388	-0.395	1.783	1.38	0.445	-0.677	1.62	
5-Year Excess Return	4/4	-0.774	-0.572	-0.202	-0.22	-0.992	-1.156	0.08	

Table 7

## Panel C Hong Kong Market – Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	49/49	0.090	0.207	-0.117	-4.77***	0.126	0.177	16.61***	
ROA 1	29/28	0.056	0.169	-0.112	-2.86***	0.064	0.117	10.29***	
ROA 2	23/22	0.057	0.129	-0.072	-1.19	0.039	0.100	5.15***	
ROA 3	16/16	-0.019	0.034	-0.052	-0.65	0.036	0.072	1.64	
ROA 4	7/6	0.014	0.073	-0.058	-0.96	0.042	0.076	0.51	
ROA 5	4/3	0.041	0.018	0.023	0.27	0.043	-0.038	0.12	
4-Year Avg. ROA	49/49	0.072	0.183	-0.111	-4.51***	0.071	0.136	14.97***	
3-Year Avg. ROA	29/28	0.039	0.144	-0.105	-2.80***	0.040	0.116	7.71***	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	49/49	0.000	0.117	-0.117	-4.72***	0.029	0.081	14.70***	
Industry Adj. ROA 1	29/28	0.020	0.128	-0.108	-2.67***	0.048	0.095	9.79***	
Industry Adj. ROA 2	23/22	0.010	0.080	-0.070	-1.13	0.099	0.048	4.55**	
Industry Adj. ROA 3	16/16	-0.069	-0.016	-0.053	-0.66	0.099	0.025	1.54	
Industry Adj. ROA 4	7/6	-0.033	0.022	-0.055	-0.93	0.084	0.025	0.51	
Industry Adj. ROA 5	4/3	0.043	0.019	0.024	0.28	0.046	-0.037	0.12	
Industry Adj. Avg.ROA4	49/49	0.000	0.110	-0.109	-4.64***	0.012	0.081	13.84***	
Industry Adj. Avg.ROA3	29/28	-0.007	0.095	-0.103	-2.80***	-0.016	0.069	8.53***	

Table 7

## Panel D US market

Company Characteristics									
Variable	Sample Size(Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	19/20	342.199	456.287	-114.100	-2.13**	244.342	473.742	3.40*	
Offer Price	20/20	13.062	15.710	-2.649	-1.82*	12.000	15.750	3.17*	
Offer Size	20/20	1340.760	178.195	1162.600	2.45***	160.000	158.930	1.06	
BV	20/20	15700.600	384.599	15316.000	2.72***	2748.780	243.375	8.46***	
Firm Size	20/20	29960.910	222.893	29738.000	2.71***	3994.100	116.837	19.88***	
BTM	20/20	2.369	0.533	1.836	4.28***	2.131	0.298	9.10***	
Stock Performance									
Variable	Sample Size(Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	20/20	0.074	0.448	-0.374	-1.83*	0.000	0.156	4.58***	
3-Month Excess Return	16/12	-0.123	-0.011	-0.113	-0.79	-0.166	-0.199	0.02	
6-Month Excess Return	15/11	-0.176	-0.058	-0.118	-0.59	-0.132	-0.418	3.51**	
1-Year Excess Return	6/6	-0.325	-0.372	0.048	0.58	-0.263	-0.371	1.35	
2-Year Excess Return	5/5	-0.473	-0.254	-0.219	-3.20***	-0.473	-0.274	7.75***	
3-Year Excess Return	5/5	-0.518	0.672	-1.189	-2.60***	-0.518	0.052	7.75***	
4-Year Excess Return	5/5	-0.579	1.016	-1.595	-2.64***	-0.579	0.714	7.75***	
5-Year Excess Return	5/5	-0.697	0.947	-1.644	-2.27***	-0.697	0.713	7.75***	

Table 7

## Panel D US Market –Continued

Operating Performance									
Variable	Sample Size (Non-VC/VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	20/20	0.125	-0.511	0.636	1.55	0.125	0.132	0.03	
ROA 1	6/6	0.053	-1.709	1.761	1.18	0.047	0.024	0.02	
ROA 2	5/5	0.053	-0.001	0.055	0.88	0.053	0.027	2.79	
ROA 3	5/5	0.065	0.298	-0.233	-2.3**	0.065	0.332	2.79	
ROA 4	5/5	0.054	0.250	-0.196	-2.06**	0.054	0.329	0.31	
ROA 5	5/5	0.057	0.186	-0.130	-1.04	0.057	0.214	0.31	
4-Year Avg. ROA	20/20	0.125	-0.106	0.231	1.10	0.125	0.132	0.06	
3-Year Avg. ROA	6/6	0.060	-0.488	0.547	1.19	0.055	0.016	0.99	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	20/20	0.059	-0.576	0.636	1.55	0.030	0.071	0.29	
Industry Adj. ROA 1	6/6	0.058	-1.710	1.768	1.19	0.067	-0.002	1E-04	
Industry Adj. ROA 2	5/5	0.001	-0.053	0.055	0.88	0.001	-0.024	2.79	
Industry Adj. ROA 3	5/5	0.011	0.245	-0.233	-2.30***	0.011	0.278	2.79	
Industry Adj. ROA 4	5/5	0.009	0.205	-0.196	-2.06**	0.008	0.284	0.31	
Industry Adj. ROA 5	5/5	0.058	0.188	-0.130	-1.04	0.058	0.215	0.31	
Industry Adj. Avg.ROA4	20/20	0.064	-0.167	0.231	1.12	0.030	0.071	0.32	
Industry Adj. Avg.ROA3	6/6	0.024	-0.526	0.550	1.20	0.026	-0.034	0.99	

Table 7

## Panel E Singapore Market

Company Characteristics									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	15/14	22.928	64.209	-41.280	-2.00**	21.025	31.794	4.23***	
Offer Price	15/15	0.339	0.520	-0.182	-2.75***	0.345	0.470	5.30***	
Offer Size	15/15	28.394	144.309	-115.900	-1.92*	21.700	60.952	7.27***	
BV	15/15	172.077	988.046	-816.000	-2.90***	107.370	526.640	12.14***	
Firm Size	15/15	428.320	1119.250	-690.900	-2.37**	509.715	680.124	3.72**	
BTM	15/15	1.195	2.016	-0.820	-2.43***	0.794	2.246	5.78***	
Stock Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	15/15	0.442	0.189	0.253	0.99	0.000	0.174	0.101	
3-Month Excess Return	15/13	-0.031	0.178	-0.209	-1.30	-0.243	0.125	3.4806**	
6-Month Excess Return	15/13	-0.102	0.110	-0.213	-1.38	-0.346	0.066	3.6546**	
1-Year Excess Return	12/11	-0.171	0.420	-0.590	-2.02**	-0.276	0.085	3.4091**	
2-Year Excess Return	10/9	-0.315	0.514	-0.829	-2.04**	-0.434	0.169	2.407	
3-Year Excess Return	6/6	-0.756	2.497	-3.252	-1.75*	-0.774	0.772	6.5641***	



Table 7

## Panel E Singapore Market – Continued

Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	15/15	0.161	0.219	-0.058	-1.41	0.177	0.175	0.723	
ROA 1	10/10	0.143	0.251	-0.108	-1.68*	0.137	0.194	1.651	
ROA 2	7/7	0.098	0.189	-0.092	-1.75*	0.085	0.131	2.159	
4-Year Avg. ROA	15/14	0.152	0.204	-0.052	-1.33	0.139	0.166	0.551	
3-Year Avg. ROA	10/10	0.130	0.224	-0.094	-1.85*	0.113	0.185	3.02*	
Industry Adjusted Operating Performance									
Variable	Sample Size (Non-VC/ VC)	Non-VC backed IPOs Mean	VC backed IPOs Mean	Mean Difference (Non-VC - VC)	Difference in Means t-value	Non-VC backed IPOs Median	VC backed IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	15/15	0.076	0.133	-0.058	-1.35	0.097	0.133	0.87	
Industry Adj. ROA 1	10/10	0.099	0.206	-0.108	-1.54	0.123	0.132	1.12	
Industry Adj. ROA 2	7/7	0.038	0.130	-0.092	-1.78*	0.033	0.067	2.55	
Industry Adj. Avg.ROA4	15/15	0.078	0.137	-0.060	-1.52	0.082	0.115	1.49	
Industry Adj. Avg.ROA3	10/10	0.077	0.171	-0.094	-1.82*	0.073	0.127	2.52	

**Table 8**

**Cross-sectional Regression based on Matched sample of VC backed and Non-VC backed Companies**

This table reports the results of cross-sectional regressions of performance of companies backed by VC firms and non-VC firms, from 2000-2007, based on matched sample. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. The last two lines represent the total number of observations and the value of R<sup>2</sup> in each regression, respectively. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

**Panel A Whole Sample**

Whole	1	2	3	4	5	6
Variable	Underpricing	3-Month Excess Return	6-Month Excess Return	1-Year Excess Return	2-Year Excess Return	3-Year Excess Return
Intercept	1.405*** (4.95)	-1.121** (-2.09)	-26.608 (-0.51)	-1.868*** (-2.96)	-0.945* (-1.79)	0.356 (0.30)
Underwriter	-0.090** (-1.30)	0.020 (0.28)	0.429 (0.40)	0.015 (0.16)	0.106 (0.91)	0.080 (0.38)
Offer Size	0.041 (0.53)	-0.205 (-1.32)	-9.582 (-0.48)	-0.121 (-0.77)	0.083 (0.40)	0.533 (0.86)
BTM	-0.022** (-0.65)	-0.063* (-1.72)	-1.421 (0.48)	-0.065* (1.68)	0.025 (0.20)	0.054 (0.22)
Firm Size	-0.064** (-1.21)	0.259** (1.94)	11.003 (0.49)	0.287** (2.18)	1E-04 (2E-07)	-0.298 (-0.74)
VC	-0.009 (-0.09)	0.283** (1.97)	-0.628 (-0.32)	0.702*** (2.65)	0.836*** (3.22)	1.381*** (2.79)
# of obs.	276	227	202	141	102	83
R <sup>2</sup>	0.023	0.002	-18.607	0.085	0.048	0.092

Table 8

## Panel A Whole Sample –Continued 1

Whole Variable	7	8	9	10	11	12
	ROA IPO year	ROA 1	ROA 2	ROA 3	4-Year Avg.ROA	3-Year Avg.ROA
Intercept	-0.242 (-1.11)	-0.277 (-0.88)	0.077 (0.54)	-0.311** (-1.96)	-0.081 (-0.64)	-0.091 (-0.79)
Underwriter	-0.090* (-1.71)	-0.142 (-1.31)	-0.012 (-0.52)	0.071*** (3.01)	-0.027 (-1.11)	-0.036 (-1.00)
Offer Size	-0.042 (-0.78)	-0.208 (-1.19)	0.020 (1.12)	0.074** (1.90)	-0.013 (-0.39)	-0.059 (-1.03)
BTM	-0.015 (-0.88)	-0.058 (-1.19)	0.016 (1.18)	0.005 (0.23)	-0.004 (-0.39)	-0.015 (-0.96)
Firm Size	0.131 (1.40)	0.290 (-1.28)	-0.018 (-1.16)	-0.061*** (-2.46)	0.048 (-0.89)	0.084 (-1.16)
VC	0.145*** (2.55)	0.233* (1.63)	0.032 (0.74)	0.051 (0.90)	0.099*** (2.90)	0.115*** (2.32)
# of obs.	276	138	97	73	275	138
R <sup>2</sup>	0.092	0.127	0.015	0.353	0.045	0.099

**Table 8**

**Panel A Whole Sample –Continued 2**

Whole Variable	13	14	15	16	17	18
	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	-0.290 (-1.33)	-0.243 (-0.77)	0.033 (0.22)	-0.365** (-2.30)	-0.108 (-0.84)	-0.095 (-0.81)
Underwriter	-0.090* (-1.71)	-0.145 (-1.34)	-0.013 (-0.55)	0.071*** (3.01)	-0.030 (-1.22)	-0.039 (-1.06)
Offer Size	-0.042 (-0.78)	-0.207 (-1.19)	0.021 (1.14)	0.074** (1.90)	-0.014 (-0.42)	-0.058 (-1.01)
BTM	-0.015 (-0.88)	-0.058 (-1.19)	0.016 (1.14)	0.005 (0.23)	-0.004 (-0.40)	-0.015 (-0.97)
Firm Size	0.131 (1.40)	0.289 (1.27)	-0.019 (-1.18)	-0.061*** (-2.46)	0.049 (0.90)	0.084 (-1.15)
VC	0.145*** (2.55)	0.231 (1.60)	0.030 (0.67)	0.051 (0.90)	0.101*** (2.99)	0.112** (2.24)
# of obs.	276	138	97	73	274	138
R <sup>2</sup>	0.108	0.167	0.112	0.417	0.033	0.076

Table 8

## Panel B Mainland Market

Mainland Market Variable	1	2	3	4	5	6
Intercept	2.293*** (3.69)	-3.530*** (-2.18)	-5.283*** (-2.58)	-6.560*** (-2.79)	1.036 (0.27)	6.894 (0.78)
Underpricing	0.222* (1.67)	-0.018 (-0.12)	0.231 (0.74)	-0.256 (-1.16)	0.262 (1.08)	-0.323 (-0.54)
Offer Size	-0.167 (-0.96)	-0.719 (-0.93)	-1.432 (-0.81)	-0.049 (-0.05)	1.313 (1.00)	4.236 (1.22)
BTM	-0.040 (-0.94)	-0.206 (-1.13)	-0.387 (-0.91)	-0.108 (-0.49)	4.548 (1.64)	10.367 (1.31)
Firm Size	-0.146 (-1.41)	1.020 (-1.45)	1.661 (-1.11)	0.990 (-1.24)	-1.613 (-1.37)	-4.507 (-1.21)
VC	0.342* (1.72)	0.551* (1.70)	0.681* (1.64)	1.259** (1.90)	0.027 (0.04)	-1.746 (-0.96)
# of obs.	117	103	82	56	32	29
R <sup>2</sup>	0.149	0.032	0.019	0.272	0.026	-0.012

Table 8

## Panel B Mainland Market –Continued 1

Mainland Market Variable	7	8	9	10	11	12
	<b>ROA IPO year</b>	<b>ROA 1</b>	<b>ROA 2</b>	<b>ROA 3</b>	<b>4-Year Avg.ROA</b>	<b>3-Year Avg.ROA</b>
Intercept	0.021 (1.22)	-0.116* (-1.91)	-0.105 (-0.25)	0.031 (0.20)	-0.009 (-0.48)	-0.083 (-0.49)
Underwriter	0.012 (1.26)	0.010 (0.82)	0.003 (0.19)	-0.023 (-0.65)	0.009 (0.96)	0.003 (0.24)
Offer Size	0.112*** (5.27)	0.109*** (2.43)	0.162*** (3.80)	0.168 (2.18)	0.103*** (-5.63)	0.112*** (-2.67)
BTM	0.027*** (5.65)	0.026*** (2.56)	-0.194 (1.32)	-0.094 (0.33)	0.025*** (5.98)	0.027*** (2.82)
Firm Size	-0.090*** (-5.02)	-0.070** (-2.20)	-0.099*** (-2.71)	-0.120*** (-2.28)	-0.081*** (-5.31)	-0.074*** (-2.39)
VC	0.020 (1.38)	0.002 (0.08)	-0.045 (-1.46)	-0.022 (-0.43)	0.022 (1.52)	0.005 (0.20)
# of obs.	117	57	32	32	117	57
R <sup>2</sup>	0.578	0.387	0.417	0.064	0.547	0.386

**Table 8**

**Panel B Mainland Market –Continued 2**

Mainland Market Variable	13	14	15	16	17	18
	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	-0.106** (-0.21)	-0.188*** (-3.15)	-0.170 (-2.71)	-0.029 (-0.67)	-0.082** (-0.04)	-0.155*** (-1.05)
Underwriter	0.012 (1.26)	0.010 (0.82)	0.003 (0.19)	-0.023 (-0.65)	0.008 (0.87)	0.004 (0.36)
Offer Size	0.112***	0.109***	0.163	0.168**	0.104***	0.112***
BTM	(5.27)	(2.43)	(3.80)	(2.18)	(5.50)	(2.51)
	0.027*** (5.65)	0.026*** (2.56)	-0.194 (-1.32)	-0.094 (-0.33)	0.026*** (5.94)	0.026*** (2.63)
Firm Size	-0.090*** (-5.02)	-0.070*** (-2.20)	-0.099*** (-2.71)	-0.120*** (-2.28)	-0.082*** (-5.11)	-0.075*** (-2.28)
VC	0.020 (1.38)	0.002 (0.08)	-0.045 (1.46)	-0.022 (0.43)	0.022 (1.44)	0.004 (0.16)
# of obs.	117	57	32	32	115	57
R <sup>2</sup>	0.634	0.510	0.600	0.315	0.564	0.404

Table 8

## Panel C Hong Kong Market

Hong Kong Market Variable	1	2	3	4	5	6
	<b>Underpricing</b>	<b>3-Month Excess Return</b>	<b>6-Month Excess Return</b>	<b>1-Year Excess Return</b>	<b>2-Year Excess Return</b>	<b>3-Year Excess Return</b>
Intercept	0.081 (0.35)	0.163 (0.41)	-0.371 (-1.17)	-0.589 (-1.35)	-1.924*** (-2.39)	-1.805 (-1.37)
Underwriter	0.006 (0.12)	0.054 (0.72)	0.068 (0.94)	0.070 (0.70)	0.215 (1.14)	0.347 (-1.25)
Offer Size	0.152** (1.94)	-0.177 (-1.56)	-0.191* (-1.66)	0.178 (0.70)	0.073 (0.17)	-0.544 (-0.71)
BTM	-0.090*** (-3.19)	0.034 (0.55)	0.014 (0.18)	-0.168* (-1.81)	-0.116 (-0.48)	-0.625*** (-2.38)
Firm Size	-0.078 (-1.52)	0.099** (2.02)	0.144*** (2.29)	-0.037 (-0.28)	0.047 (0.18)	0.643 (1.00)
VC	-0.172** (-1.90)	0.155 (1.15)	0.396*** (2.87)	0.156 (0.54)	0.768 (1.36)	1.653** (1.84)
# of obs.	91	69	67	51	41	31
R <sup>2</sup>	0.162	-0.018	0.052	0.047	-0.063	0.180



**Table 8**

**Panel C Hong Kong Market –Continued 1**

Hong Kong Market Variable	7	8	9	10	11	12
	<b>ROA IPO year</b>	<b>ROA 1</b>	<b>ROA 2</b>	<b>ROA 3</b>	<b>4-Year Avg.ROA</b>	<b>3-Year Avg.ROA</b>
Intercept	-0.028 (-0.31)	0.184 (1.01)	0.151 (0.37)	-0.240 (-1.15)	-0.083 (-0.97)	-0.135 (-0.94)
Underwriter	0.039*** (2.53)	0.011 (0.47)	0.005 (0.13)	0.109*** (3.25)	0.033*** (2.40)	0.022* (1.70)
Offer Size	0.050*** (2.19)	0.083 (2.89)	0.079 (1.59)	0.087 (1.09)	0.066*** (3.61)	0.029*** (3.33)
BTM	0.002 (0.13)	-0.016 (-1.24)	0.001 (0.03)	0.005 (0.15)	-0.003 (-0.24)	-0.007 (-0.53)
Firm Size	-0.058*** (-3.95)	-0.076*** (-3.52)	-0.071* (-1.82)	-0.083 (-1.36)	-0.062*** (-4.70)	0.024*** (3.46)
VC	0.084*** (3.56)	0.025 (0.55)	0.017 (0.14)	0.096 (1.06)	0.076*** (3.28)	0.042 (0.91)
# of obs.	91	50	41	29	91	50
R <sup>2</sup>	0.457	0.283	-0.097	0.573	0.482	0.316

Table 8

## Panel C Hong Kong Market –Continued 2

Hong Kong Market Variable	13	14	15	16	17	18
	Industry Adj.ROA IPO Year	Industry Adj.ROA 1	Industry Adj.ROA 2	Industry Adj.ROA 3	Industry Adj.ROA 4	Industry Adj.ROA 3
Intercept	-0.123 (-1.39)	0.160 (0.72)	0.144 (0.34)	-0.303 (-1.45)	-0.093 (-1.03)	-0.141 (-0.92)
Underwriter	0.039***	0.006	0.003	0.109***	0.033***	0.035
	(2.53)	(0.21)	(0.07)	(3.25)	(2.33)	(1.48)
Offer Size	0.050***	0.082***	0.080	0.087	0.060***	0.094***
	(2.19)	(2.84)	(1.58)	(1.09)	(3.35)	(3.33)
BTM	0.002	-0.018	3E-06	-0.005	0.002	-0.008
	(0.13)	(-1.25)	(0.01)	(-0.15)	(0.18)	(-0.58)
Firm Size	-0.058***	-0.076***	-0.072**	-0.083	-0.060***	-0.081***
	(-3.95)	(-3.49)	(-1.81)	(-1.36)	(-4.64)	(-3.50)
VC	0.084***	0.014	0.011	0.096	0.073***	0.036
	(3.56)	(0.27)	(0.09)	(1.06)	(3.09)	(0.73)
# of obs.	91	50	41	29	91	50
R <sup>2</sup>	0.503	0.319	0.134	0.569	0.441	0.254

**Table 9**

**Correlation among three proxies for VC reputation**

Table 9 displays the correlation among three proxies for VC reputation: Number of VC represents the number of VC firms in each portfolio company; VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China. P-value is in parentheses. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

	VC Age at IPO	# Companies	Total Amount
VC Age at IPO	1	0.184** (0.0119)	0.837*** (<0.0001)
# Companies	0.184** (0.012)	1	0.301*** (<0.0001)
Total Amount Invested by VC	0.837*** (<0.0001)	0.301*** (<0.0001)	1

**Table 10**

**Mean and Median of Main variables by VC institutions**

This table displays mean and median of main variables of VC backed companies by VC institutions: independent, financial, government and corporate VC firms. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China, Underwriter = Total issue volume/ number of issues, Offer size = offer price \* offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price (t+1) - Adjusted closing price (t)) / Adjusted closing price (t), Excess Return= Stock return- Market Index return, ROA = Operating income/Total Asset, Industry Adj. ROA = ROA - Industry Average ROA, 4-Year Avg. ROA = (ROA0+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3.

Company Characteristics												
Variable	Independent VC			Financial VC			Government VC			Corporate VC		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
Underwriter	91	315.44	362.73	38	346.46	351.17	40	204.21	62.76	16	321.32	396.94
Offer Price	91	9.49	8.66	39	8.72	7.69	40	9.16	8.35	16	10.75	10.55
Offer Size	91	2526.56	202.50	39	2471.84	332.00	40	1514.66	219.57	16	1167.48	190.28
BV	91	19311.30	526.64	39	4428.63	999.50	40	3428.51	389.41	16	5568.98	414.03
Firm Size	90	14478.71	514.78	39	6228.10	678.58	40	3246.29	388.45	16	57048.02	293.75
BTM	90	1.53	0.35	39	0.73	0.30	40	0.83	0.37	16	1.12	0.33
Number of VC	91	3.10	2.00	39	2.33	2.00	40	1.93	1.00	16	2.75	2.50
VC Reputation												
Variable	Independent VC			Financial VC			Government VC			Corporate VC		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
VC Age at IPO	91	18.55	8.00	39	19.31	14.00	40	25.25	11.50	16	15.63	12.50
# Companies	91	25.82	20.00	39	27.87	19.00	40	20.08	12.00	16	29.81	14.50
Total Amount	90	502.03	91.86	39	558.13	337.17	40	644.36	154.66	16	325.94	143.59

Table 10 – Continued 1

Stock Performance												
Variable	Independent VC			Financial VC			Government VC			Corporate VC		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
Underpricing	91	0.56	0.22	39	0.60	0.36	40	1.05	0.39	16	0.59	0.29
3-Month Excess Return	75	0.14	-0.05	32	-0.40	-0.03	34	0.05	-0.03	10	0.23	0.23
6-Month Excess Return	68	0.16	-0.08	29	-0.87	-0.06	27	0.09	0.00	10	-0.03	-0.13
1-Year Excess Return	51	0.38	-0.13	24	-0.05	-0.06	22	0.11	0.06	8	0.00	0.12
2-Year Excess Return	37	0.38	-0.14	16	0.88	0.02	15	0.42	-0.21	6	-0.17	-0.29
3-Year Excess Return	29	1.29	-0.04	13	1.81	-0.02	10	-0.09	-0.45	5	0.32	-0.38
4-Year Excess Return	13	2.17	1.06	4	-0.22	-0.38	7	-0.19	-0.47	0	.	.
5-Year Excess Return	7	2.53	0.84	3	0.50	0.75	6	-0.54	-0.97	0	.	.
Operating Performance												
Variable	Independent VC			Financial VC			Government VC			Corporate VC		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
ROA IPO year	90	0.04	0.17	39	0.21	0.15	40	0.21	0.19	15	0.26	0.25
ROA 1	48	-0.05	0.16	24	0.15	0.10	22	0.18	0.15	7	0.18	0.15
ROA 2	34	0.11	0.10	16	0.15	0.11	15	0.13	0.08	5	0.08	0.10
ROA 3	26	0.12	0.11	11	0.18	0.20	8	0.09	0.06	4	0.05	-0.02
ROA 4	12	0.20	0.19	5	0.12	0.06	6	0.09	0.09	0	.	.
ROA 5	5	0.22	0.21	2	-0.05	-0.05	5	0.05	0.04	0	.	.
4-Year Avg. ROA	90	0.11	0.16	39	0.19	0.12	40	0.20	0.18	14	0.23	0.22
3-Year Avg. ROA	48	0.08	0.13	24	0.14	0.10	22	0.17	0.13	7	0.15	0.24

Table 10 – Continued 2

Industry Adjusted Operating Performance												
Variable	Independent VC			Financial VC			Government VC			Corporate VC		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
Industry Adj. ROA 0	90	-0.05	0.08	39	0.12	0.09	40	0.13	0.10	15	0.17	0.16
Industry Adj. ROA 1	48	-0.08	0.11	24	0.11	0.08	22	0.14	0.10	7	0.13	0.11
Industry Adj. ROA 2	34	0.06	0.05	16	0.09	0.05	15	0.07	0.04	5	0.04	0.05
Industry Adj. ROA 3	26	0.06	0.07	11	0.13	0.14	8	0.04	0.00	4	0.00	-0.05
Industry Adj. ROA 4	12	0.15	0.11	5	0.07	0.03	6	0.05	0.04	0	.	.
Industry Adj. ROA 5	5	0.19	0.22	2	-0.07	-0.07	5	0.02	-0.04	0	.	.
Industry Adj. Avg. ROA4	89	0.03	0.08	39	0.12	0.07	40	0.13	0.09	14	0.16	0.16
Industry Adj. Avg. ROA3	48	0.03	0.08	24	0.10	0.06	22	0.12	0.07	7	0.11	0.16

Table 11

## Cross-Sectional Regressions by VC Institutions

This table reports the result of cross-section regressions of companies' performance backed by different VC institutions, from 2000-2007. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Independent, Financial, and Government are dummy variables: 1 for specified VC institution, 0 otherwise. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China. Industry dummies are used as control variables, but are omitted from the table. The last two lines represent the total number of observations and the value of R<sup>2</sup> in each regression, respectively. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Table 11

Variable	Underpricing		3-Month Excess Return			6-Month Excess Return			1-Year Excess Return			
Intercept	0.270 (1.00)	0.304 (1.14)	0.294 (1.17)	-0.939 (-1.01)	-0.992 (-1.15)	-0.947 (-1.13)	-1.995 (-1.09)	-1.975 (-1.19)	-1.937 (-1.18)	-1.415 (-1.04)	-1.207 (-1.22)	-1.384 (-1.19)
Underwriter	0.004 (0.07)	-0.002 (0.02)	0.004 (0.05)	0.081 (0.57)	0.082 (0.57)	0.085 (0.59)	0.204 (0.93)	0.203 (0.90)	0.202 (0.92)	0.047 (0.34)	0.035 (0.26)	0.042 (0.31)
Offer Size	-0.030 (-0.30)	-0.031 (-0.28)	-0.030 (-0.27)	-0.257 (-1.12)	-0.257 (-1.12)	-0.266 (-1.14)	-0.368 (-1.02)	-0.372 (-1.02)	-0.372 (-1.03)	-0.234 (-1.16)	-0.240 (-1.21)	-0.235 (-1.17)
BTM	-0.020 (-0.77)	-0.024 (-0.77)	-0.023 (-0.75)	-0.088 (-1.60)	-0.089 (-1.60)	-0.090 (-1.60)	-0.126 (-1.36)	-0.128 (-1.34)	-0.127 (-1.36)	-0.120*** (-2.6)	-0.120*** (-2.64)	-0.120*** (-2.63)
Firm Size	0.040 (0.57)	0.041 (0.56)	0.038 (0.51)	0.330* (1.73)	0.341* (1.74)	0.341* (1.73)	0.465 (1.50)	0.466 (1.47)	0.466 (1.49)	0.390*** (2.58)	0.391*** (2.52)	0.390*** (2.55)
Number of VC	-0.020 (-0.87)	-0.026 (-0.91)	-0.024 (-0.88)	0.080* (1.75)	0.077* (1.64)	0.08* (1.75)	0.036 (0.97)	0.031 (0.80)	0.035 (0.93)	0.063 (1.00)	0.063 (1.04)	0.062 (0.97)
Independent	-0.080 (-0.31)	-0.073 (-0.30)	-0.076 (-0.31)	0.028 (0.08)	0.052 (0.16)	0.019 (0.06)	0.516 (1.28)	0.538 (1.27)	0.511 (1.27)	0.980** (1.99)	0.954** (1.87)	0.993** (2.06)
Financial	-0.060 (-0.23)	-0.057 (-0.22)	-0.067 (-0.26)	-0.467 (-0.75)	-0.444 (-0.73)	-0.475 (-0.75)	-0.639 (-0.66)	-0.632 (-0.67)	-0.652 (-0.67)	0.424 (0.87)	0.400 (0.82)	0.433 (0.88)
Government	0.380 (1.23)	0.402 (1.32)	0.388 (1.26)	-0.017 (0.06)	0.028 (0.10)	-0.022 (-0.07)	0.305 (0.88)	0.325 (0.89)	0.296 (0.86)	0.431 (1.04)	0.395 (0.93)	0.436 (1.06)
VC Age at IPO	0.002 (0.75)			0.002 (1.07)			0.004 (1.23)			0.001 (0.08)		
# Companies		0.001 (0.26)		0.003 (1.07)			0.002 (0.44)			-0.003 (-0.80)		
Total Amount			3.6E-05 (0.41)			9E-05 (1.01)			5.8E-05 (0.61)			-3E-05 (-0.15)
# of obs.	184	185	183	149	149	149	132	132	132	103	103	184
R <sup>2</sup>	0.020	0.017	0.017	3E-04	0.001	0.001	4E-04	-9E-04	-9E-04	0.107	0.111	0.107

Table 11- Continued 1

Variable	2-Year Excess Return			3-Year Excess Return			ROA IPO year			ROA 1		
Intercept	-0.983 (-1.18)	-0.634 (-0.35)	-0.807 (-0.14)	3.873 (0.17)	4.234 (1.19)	3.792 (1.04)	0.349* (1.05)	0.273 (0.89)	0.334* (0.80)	0.128 (0.79)	-0.065 (-0.34)	0.110 (0.20)
Underwriter	0.024 (0.15)	0.011 (0.07)	-0.028 (-0.18)	0.080 (0.27)	0.148 (0.55)	0.058 (0.21)	-0.020 (-0.73)	-0.013 (-0.54)	-0.019 (-0.71)	-0.051 (-0.92)	-0.037 (-0.77)	-0.053 (-0.93)
Offer Size	0.126 (0.48)	0.113 (0.45)	0.104 (0.41)	0.476 (0.66)	0.530 (0.72)	0.487 (0.67)	-0.097 (-0.96)	-0.095 (-0.94)	-0.105 (-1.01)	-0.333 (-1.17)	-0.323 (-1.15)	-0.329 (-1.17)
BTM	0.046 (0.30)	0.074 (0.44)	0.089 (0.53)	0.115 (0.32)	0.205 (0.56)	0.193 (0.52)	-0.029 (-0.99)	-0.029 (-0.99)	-0.031 (-1.04)	-0.089 (-1.18)	-0.087 (-1.17)	-0.088 (-1.18)
Firm Size	0.007 (0.04)	-0.014 (-0.07)	-0.010 (-0.05)	-0.246 (-0.52)	-0.342 (-0.69)	-0.289 (-0.61)	0.152 (1.21)	0.151 (1.21)	0.161 (1.26)	0.354 (1.20)	0.354 (1.20)	0.350 (1.20)
Number of VC	0.024 (0.38)	0.023 (0.38)	0.016 (0.27)	-0.125 (-1.31)	-0.103 (-1.15)	-0.122 (-1.30)	-0.040 (-0.95)	-0.043 (-1.00)	-0.039 (-0.93)	0.046 (1.11)	0.047 (1.08)	0.046 (1.11)
Independent	0.590 (1.09)	0.575 (1.03)	0.801 (1.38)	-0.608 (-0.41)	-0.828 (-0.57)	-0.283 (-0.17)	-0.221* (-1.65)	-0.209 (-1.54)	-0.231* (-1.69)	-0.145 (-0.69)	-0.133 (-0.63)	-0.130 (-0.64)
Financial	0.899* (1.73)	0.854* (1.63)	1.082** (1.98)	-0.376 (-0.35)	-0.594 (-0.54)	-0.078 (-0.08)	-0.100 (-1.16)	-0.092 (-1.05)	-0.100 (-1.16)	0.049 (0.31)	0.066 (0.42)	0.061 (0.38)
Government	0.722 (0.91)	0.645 (0.84)	0.755 (0.95)	-1.959 (-1.46)	-2.046 (-1.50)	-1.706 (-1.22)	-0.135 (-1.45)	-0.114 (-1.20)	-0.146 (-1.51)	-0.080 (-0.48)	-0.054 (-0.34)	-0.074 (-0.45)
VC Age at IPO	0.001 (0.17)			-0.015 (-1.08)			-0.001 (-0.77)			-0.002 (-1.09)		
# Companies		-0.005 (-1.02)			-0.018** (-1.97)			0.002* (1.65)			0.003 (0.87)	
Total Amount			-0.001** (-2.03)			-0.001 (-1.12)			6E-06 (0.28)			-6E-05 (-1.02)
# of obs.	74	74	74	57	57	57	183	183	182	100	100	100
R <sup>2</sup>	-0.103	-0.096	-0.083	0.013	0.022	0.020	0.079	0.086	0.085	0.043	0.043	0.042



Table11- Continued 2

Variable	ROA 2			ROA 3			4-Year Avg.ROA			3-Year Avg.ROA		
Intercept	-0.004 (-0.14)	-0.081 (-0.70)	-0.013 (-0.79)	-0.123 (-0.75)	-0.140 (-1.09)	-0.166 (-1.20)	0.058 (0.55)	0.006 (0.05)	0.049 (0.45)	0.037 (0.26)	-0.087 (-0.58)	0.025 (0.17)
Underwriter	0.018 (1.09)	0.022 (1.28)	0.018 (1.06)	0.062** (2.13)	0.070** (2.10)	0.063** (2.14)	-0.003 (-0.21)	0.000 (0.02)	-0.004 (-0.22)	-0.007 (-0.29)	4E-06 (0.01)	-0.008 (-0.34)
Offer Size	0.004 (0.17)	0.008 (0.31)	0.005 (0.21)	0.048 (0.78)	0.073 (1.42)	0.055 (0.92)	-0.032 (-0.52)	-0.031 (-0.52)	-0.036 (-0.59)	-0.110 (-1.20)	-0.105 (-1.15)	-0.108 (-1.18)
BTM	0.039 (1.61)	0.034 (1.37)	0.041* (1.67)	0.036 (0.92)	0.028 (0.70)	0.034 (0.80)	-0.010 (-0.56)	-0.010 (-0.56)	-0.011 (-0.62)	-0.029 (-1.18)	-0.028 (-1.16)	-0.028 (-1.17)
Firm Size	-0.005 (-0.24)	-0.003 (-0.15)	-0.007 (-0.34)	-0.056 (-1.5)	-0.072*** (-2.28)	-0.061* (-1.77)	0.064 (0.87)	0.063 (0.87)	0.069 (0.93)	0.115 (1.23)	0.115 (1.23)	0.113 (1.21)
Number of VC	-0.011** (-1.90)	-0.011* (-1.74)	-0.011** (-1.89)	-0.010 (-1.04)	-0.009 (-1.09)	-0.010 (-0.99)	-0.008 (-0.67)	-0.009 (-0.74)	-0.008 (-0.64)	0.011 (0.81)	0.012 (0.81)	0.011 (0.82)
Independent	0.059 (0.94)	0.056 (0.88)	0.069 (1.07)	-0.019 (-0.13)	-0.062 (-0.42)	-0.005 (-0.03)	-0.114 (-1.29)	-0.106 (-1.18)	-0.118 (-1.32)	-0.001 (-0.01)	0.006 (0.07)	0.009 (0.10)
Financial	0.057 (0.84)	0.060 (0.88)	0.071 (1.03)	-0.001 (1E-07)	-0.051 (-0.34)	0.012 (0.08)	-0.057 (-0.90)	-0.052 (-0.81)	-0.056 (-0.87)	0.049 (0.53)	0.058 (0.64)	0.057 (0.61)
Government	0.027 (0.41)	0.042 (0.64)	0.036 (0.54)	-0.041 (-0.26)	-0.073 (-0.47)	-0.019 (-0.12)	-0.056 (-0.82)	-0.048 (-0.68)	-0.061 (-0.88)	0.018 (0.20)	0.032 (0.36)	0.023 (0.25)
VC Age at IPO	-0.001 (-1.43)			-0.001 (-0.66)			-0.001 (-1.03)			-0.001 (-1.41)		
# Companies		0.001 (0.65)			-0.002 (-1.50)			0.001 (1.35)			0.001 (1.04)	
Total Amount			-3E-05 (-1.56)			-3E-05 (-0.47)			-5E-06 (-0.35)			-4E-05 (-1.51)
# of obs.	70	70	70	49	49	49	182	182	181	100	100	100
R <sup>2</sup>	-0.010	-0.029	-0.006	0.136	0.167	0.120	0.039	0.041	0.045	0.058	0.056	0.057

Table11- Continued 3

Variable	Industry Adj.ROA IPO Year		Industry Adj.ROA 1			Industry Adj.ROA 2			
Intercept	0.195 (0.98)	0.119 (0.62)	0.180 (0.90)	-0.14 (-0.06)	-0.208 (-0.71)	-0.033 (-0.13)	-0.065 (-0.57)	-0.141 (-1.25)	-0.072 (-0.62)
Underwriter	-0.020 (-0.73)	-0.013 (-0.54)	-0.019 (-0.71)	-0.051 (-0.92)	-0.037 (-0.77)	-0.052 (-0.93)	0.020 (1.29)	0.024 (1.47)	0.020 (1.24)
Offer Size	-0.097 (-0.96)	-0.095 (-0.94)	-0.105 (-1.01)	-0.334 (-1.17)	-0.324 (-1.15)	-0.329 (-1.17)	0.003 (0.13)	0.006 (0.27)	0.004 (0.16)
BTM	-0.029 (-0.99)	-0.029 (-0.99)	-0.031 (-1.04)	-0.089 (-1.18)	-0.088 (-1.17)	-0.088 (-1.18)	0.038 (1.54)	0.032 (1.31)	0.040 (1.61)
Firm Size	0.152 (1.21)	0.151 (1.21)	0.161 (1.26)	0.354 (1.20)	0.354 (1.20)	0.351 (1.20)	-0.004 (-0.20)	-0.002 (-0.11)	-0.006 (-0.31)
Number of VC	-0.040 (-0.95)	-0.043 (-1.00)	-0.039 (-0.93)	0.045 (1.10)	0.046 (1.07)	0.046 (1.10)	-0.012** (-2.00)	-0.011** (-1.85)	-0.012 (-1.99)
Independent	-0.221* (-1.65)	-0.209 (-1.54)	-0.231* (-1.69)	-0.144 (-0.69)	-0.132 (-0.62)	-0.129 (-0.63)	0.057 (0.91)	0.055 (0.87)	0.068 (1.05)
Financial	-0.100 (-1.16)	-0.092 (-1.05)	-0.100 (-1.16)	0.050 (0.32)	0.066 (0.43)	0.061 (0.38)	0.055 (0.83)	0.059 (0.87)	0.070 (1.02)
Government	-0.135 (-1.45)	-0.114 (-1.20)	-0.146 (-1.51)	-0.080 (-0.48)	-0.054 (-0.34)	-0.074 (-0.45)	0.029 (0.44)	0.044 (0.68)	0.038 (0.57)
VC Age at IPO	-0.001 (-0.77)			-0.003 (-1.09)			-0.001 (-1.38)		
# Companies		0.002* (1.65)			0.003 (0.87)			0.001 (0.68)	
Total Amount			1E-05 (0.28)			-6E-05 (-1.02)			-3E-05 (-1.55)
# of obs.	183	183	183	100	100	100	70	70	70
R <sup>2</sup>	0.132	0.139	0.139	0.158	0.158	0.158	0.180	0.168	0.184

Table11- Continued 4

Variable	Industry Adj.ROA 3		Industry Adj.-Avg.ROA4		Industry Adj.Avg.ROA3				
Intercept	-0.190 (-1.08)	-0.200 (-1.19)	-0.230 (-1.40)	0.048 (0.43)	-0.005 (-0.05)	0.036 (0.32)	0.017 (0.12)	-0.116 (-0.78)	0.005 (0.03)
Underwriter	0.065*** (2.24)	0.071*** (2.19)	0.065*** (2.26)	-0.007 (-0.41)	-0.003 (-0.18)	-0.007 (-0.40)	-0.006 (-0.26)	0.001 (0.06)	-0.007 (-0.31)
Offer Size	0.050 (0.82)	0.073 (1.41)	0.057 (0.95)	-0.031 (-0.51)	-0.031 (-0.51)	-0.035 (-0.58)	-0.108 (-1.18)	-0.103 (-1.13)	-0.106 (-1.17)
BTM	0.033 (0.87)	0.025 (0.66)	0.031 (0.76)	-0.009 (-0.54)	-0.009 (-0.55)	-0.010 (-0.60)	-0.028 (-1.17)	-0.028 (-1.15)	-0.028 (-1.16)
Firm Size	-0.057 (-1.53)	-0.073*** (-2.28)	-0.061* (-1.78)	0.062 (0.86)	0.062 (0.86)	0.067 (0.92)	0.114 (1.22)	0.114 (1.22)	0.112 (1.21)
Number of VC	-0.011 (-1.09)	-0.009 (-1.16)	-0.010 (-1.04)	-0.008 (-0.67)	-0.009 (-0.73)	-0.008 (-0.63)	0.010 (0.74)	0.011 (0.73)	0.010 (0.75)
Independent	-0.022 (-0.15)	-0.064 (-0.44)	-0.010 (-0.07)	-0.134* (-1.63)	-0.129 (-1.54)	-0.138* (-1.65)	-0.016 (-0.16)	-0.007 (-0.07)	-0.006 (-0.06)
Financial	-0.004 (-0.03)	-0.054 (-0.36)	0.007 (0.05)	-0.067 (-1.12)	-0.064 (-1.06)	-0.065 (-1.07)	0.044 (0.47)	0.055 (0.60)	0.052 (0.55)
Government	-0.040 (-0.25)	-0.073 (-0.47)	-0.020 (-0.12)	-0.071 (-1.12)	-0.064 (-0.99)	-0.075 (-1.16)	0.007 (0.08)	0.022 (0.25)	0.011 (0.12)
VC Age at IPO	-0.001 (-0.61)			-0.001 (-1.09)			-0.001 (-1.41)		
# Companies		-0.002 (-1.52)			0.001 (1.45)			0.001 (1.17)	
Total Amount			-3E-05 (-0.43)			-4E-06 (-0.32)			-4E-05 (-1.48)
# of obs.	49	49	49	181	181	180	100	100	100
R <sup>2</sup>	0.358	0.386	0.348	0.023	0.025	0.029	0.041	0.041	0.040

**Table 12**

**Mean and Median of Main variables by VC Origin: Chinese (Mainland), Foreign and Overseas Chinese VC firms**

This table displays mean and median of main variables of VC backed companies by VC origin: Chinese (Mainland), Foreign, Overseas Chinese VC firms. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China, Underwriter = Total issue volume/ number of issues, Offer size = offer price \*offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price (t+1) -Adjusted closing price(t)) / Adjusted closing price(t), Excess Return= Stock return- Market Index return, ROA= Operating income/Total Asset, Industry Adj. ROA= ROA - Industry Average ROA, 4-Year Avg. ROA = (ROA+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3.

Company Characteristics											
Variable	Chinese			Foreign			Overseas Chinese				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
Underwriter	70	150.206	55.738	74	414.197	472.881	41	341.840	330.251		
Offer Price	70	9.604	8.820	74	10.449	10.000	42	7.062	3.340		
Offer Size	70	417.769	223.496	74	3662.900	208.500	42	2506.820	215.757		
BV	70	826.019	396.812	74	17804.080	629.970	42	18594.430	1182.110		
Firm Size	69	951.824	363.942	74	24865.920	361.438	42	16258.230	743.079		
BTM	69	0.540	0.276	74	1.018	0.363	42	2.498	0.533		
Number of VC	70	2.086	1.000	74	3.162	2.000	42	2.714	2.000		
VC reputation											
Variable	Chinese			Foreign			Overseas Chinese				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
VC Age at IPO	70	28.243	12.500	74	12.905	8.000	42	18.310	14.500		
# Companies	70	24.571	16.000	74	26.432	13.500	42	24.786	18.000		
Total Amount	70	781.776	257.335	73	277.416	92.730	42	546.745	157.355		

**Table 12- Continued 1**

<b>Stock Performance</b>											
Variable	Chinese			Foreign			Overseas Chinese				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
Underpricing	70	1.214	0.842	74	0.394	0.135	42	0.269	0.241		
3-Month Excess Return	62	-0.296	-0.104	57	0.239	0.044	32	0.202	0.130		
6-Month Excess Return	53	-0.601	-0.132	52	0.194	-0.062	29	0.321	0.075		
1-Year Excess Return	44	-0.091	-0.109	42	0.382	-0.007	19	0.470	0.103		
2-Year Excess Return	31	0.417	-0.228	29	0.497	-0.013	14	0.427	0.024		
3-Year Excess Return	27	0.678	-0.417	20	1.080	-0.084	10	2.181	0.577		
4-Year Excess Return	13	0.512	-0.470	8	1.594	0.426	4	1.289	0.909		
5-Year Excess Return	8	0.635	-0.912	5	0.547	0.713	3	2.713	3.321		
<b>Operating Performance</b>											
Variable	Chinese			Foreign			Overseas Chinese				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
ROA IPO year	69	0.174	0.148	73	0.131	0.215	42	0.060	0.193		
ROA 1	43	0.132	0.106	40	0.145	0.171	18	-0.273	0.184		
ROA 2	31	0.109	0.083	27	0.103	0.096	12	0.202	0.206		
ROA 3	25	0.079	0.085	16	0.126	0.139	8	0.255	0.189		
ROA 4	13	0.081	0.065	7	0.159	0.151	4	0.324	0.305		
ROA 5	6	0.016	0.005	5	0.102	0.186	1	0.606	0.606		
4-Year Avg. ROA	69	0.152	0.131	73	0.180	0.212	41	0.120	0.176		
3-Year Avg. ROA	43	0.118	0.108	40	0.150	0.164	18	0.068	0.201		

Table 12- Continued 2

Industry Adjusted Operating Performance										
Variable	Chinese			Foreign			Overseas Chinese			
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	
Industry Adj. ROA 0	69	0.090	0.057	73	0.044	0.119	42	-0.036	0.098	
Industry Adj. ROA 1	43	0.086	0.062	40	0.117	0.145	18	-0.321	0.132	
Industry Adj. ROA 2	31	0.049	0.034	27	0.053	0.031	12	0.148	0.149	
Industry Adj. ROA 3	25	0.022	0.031	16	0.075	0.085	8	0.204	0.132	
Industry Adj. ROA 4	13	0.029	0.003	7	0.112	0.106	4	0.269	0.248	
Industry Adj. ROA 5	6	-0.032	-0.059	5	0.103	0.187	1	0.607	0.607	
Industry Adj. Avg. ROA4	67	0.083	0.051	73	0.106	0.122	42	0.038	0.106	
Industry Adj. Avg. ROA3	43	0.067	0.050	40	0.106	0.126	18	0.012	0.136	

Table 13

**Test of Differences between Local VC and non- local VC firms**

This table compares the difference of main variables between 70 companies backed by local (Mainland) VC firms and 116 companies backed by non-local VC firms, using paired t-test and Kruskal-Wallis test for mean and median differences respectively, from 2000 to 2007. CH represents IPOs backed by local VC firms, and non-CH represent IPOs backed by non-local VC firms. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, #Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China, Underwriter = Total issue volume/ number of issues, Offer size = offer price \*offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price (t+1) -Adjusted closing price(t)) / Adjusted closing price(t), Excess Return= Stock return- Market Index return, ROA= Operating income/Total Asset, Industry Adj. ROA = ROA - Industry Average ROA, 4-Year Avg. ROA = (ROA0+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Table 13

Company Characteristics									
Variable	Sample Size	CH IPOs Mean	Non-CH IPOs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH IPOs Median	Non-CH IPOs Median	Kruskal-Wallis Test Chi-Square	
Underwriter	70/115	150.206	388.400	238.190	7.59***	55.738	431.142	36.81***	
Offer Price	70/116	9.604	9.223	-0.381	-0.35	8.820	8.260	0.11	
Offer Size	70/116	417.769	3244.320	2826.600	3.52***	223.496	215.757	3.34**	
BV	70/116	826.019	18090.240	17264.000	2.57***	396.812	918.871	6.35***	
Firm Size	69/116	951.824	21749.350	20798.000	2.32***	363.942	578.862	2.22	
BTM	69/116	0.540	1.553	1.014	1.87**	0.276	0.414	13.01***	
Number of VC	70/116	2.086	3.000	0.914	2.79***	1.000	2.000	7.44***	
VC Reputation									
Variable	Sample Size	CH IPOs Mean	Non-CH IPOs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH IPOs Median	Non-CH IPOs Median	Kruskal-Wallis Test Chi-Square	
VC Age at IPO	70/116	28.243	14.862	-13.380	-2.67***	12.500	9.000	3.45**	
# Companies	70/116	24.571	25.836	1.265	0.33	16.000	15.500	0.01	
Total Amount	70/115	781.776	375.779	-406.000	-2.47***	257.335	104.030	5.77***	
Stock Performance									
Variable	Sample Size	CH IPOs Mean	Non-CH IPOs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH IPOs Median	Non-CH IPOs Median	Kruskal-Wallis Test Chi-Square	
Underpricing	70/116	1.214	0.349	-0.865	-5.29***	0.842	0.173	28.86***	
3-Month Excess Return	62/89	-0.296	0.226	0.521	1.49	-0.104	0.055	7.85***	
6-Month Excess Return	53/81	-0.601	0.239	0.841	1.49	-0.132	0.046	4.82***	
1-Year Excess Return	44/61	-0.091	0.410	0.501	1.70*	-0.109	0.031	3.07**	
2-Year Excess Return	31/43	0.417	0.475	0.058	0.14	-0.228	-0.013	1.02	
3-Year Excess Return	27/30	0.678	1.447	0.770	0.78	-0.417	0.105	5.37***	
4-Year Excess Return	13/12	0.512	1.492	0.980	0.840	-0.470	0.563	3.02**	
5-Year Excess Return	8/8	0.635	1.359	0.724	0.490	-0.912	0.986	3.98**	

Table 13- Continued

Operating Performance									
Variable	Sample Size	CH IPOs Mean	Non-CH IPOs Mean	Mean Difference (non-CH - CH)	Difference in Means t-value	CH IPOs Median	Non-CH IPOs Median	Kruskal-Wallis Test Chi-Square	
ROA IPO year	69/115	0.174	0.105	-0.069	-0.89	0.148	0.212	5.82***	
ROA 1	43/58	0.132	0.015	-0.117	-0.71	0.106	0.172	5.29***	
ROA 2	31/39	0.109	0.133	0.025	0.75	0.083	0.125	0.67	
ROA 3	25/24	0.079	0.169	0.089	1.54	0.085	0.158	2.13**	
ROA 4	13/11	0.081	0.219	0.138	2.38***	0.065	0.237	4.23***	
ROA 5	6/6	0.016	0.186	0.171	1.58	0.005	0.200	1.64	
4-Year Avg. ROA	69/114	0.152	0.158	0.007	0.16	0.131	0.198	6.24***	
3-Year Avg. ROA	43/58	0.118	0.124	0.006	0.10	0.108	0.170	4.04**	
Industry Adjusted Operating Performance									
Variable	Sample Size	CH IPOs Mean	Non-CH IPOs Mean	Mean Difference (non-CH - CH)	Difference in Means t-value	CH IPOs Median	Non-CH IPOs Median	Kruskal-Wallis Test Chi-Square	
Industry Adj. ROA 0	69/115	0.090	0.015	-0.075	-0.98	0.057	0.113	4.90***	
Industry Adj. ROA 1	43/58	0.086	-0.019	-0.105	-0.64	0.062	0.139	6.88***	
Industry Adj. ROA 2	31/39	0.049	0.082	0.033	1.03	0.034	0.062	0.91	
Industry Adj. ROA 3	25/24	0.022	0.118	0.096	1.68*	0.031	0.103	2.68*	
Industry Adj. ROA 4	13/11	0.029	0.169	0.140	2.40***	0.003	0.180	3.99***	
Industry Adj. ROA 5	6/6	-0.032	0.187	0.219	2.03**	-0.059	0.201	3.69***	
Industry Adj. Avg. ROA4	67/115	0.083	0.081	-0.002	-0.05	0.051	0.113	5.74***	
Industry Adj. Avg. ROA3	43/58	0.067	0.077	0.010	0.15	0.050	0.134	4.13**	



**Table 14 Cross-Sectional Regressions by VC Origin: Chinese (Mainland), Foreign and Overseas Chinese VC firms**

This table reports the result of cross-sectional regressions of companies' performance by VC origin, from 2000-2007. Chinese and foreign are dummy variables: 1 for specified VC origin, 0 otherwise. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Variable	Underpricing			3-Month Excess Return			6-Month Excess Return			1-Year Excess Return		
Intercept	-0.869** (-2.06)	-0.869** (-2.01)	-0.849** (-2.01)	-0.302 (-0.47)	-0.314 (-0.50)	-0.311 (-0.48)	-0.450 (-0.64)	-0.391 (-0.55)	-0.411 (-0.59)	0.503 (0.49)	0.808 (0.78)	0.514 (0.48)
Underwriter	0.139* (1.74)	0.138* (1.70)	0.137* (1.73)	-0.002 (-0.02)	0.001 (0.01)	0.001 (0.01)	0.043 (0.36)	0.051 (0.38)	0.048 (0.39)	-0.045 (-0.31)	-0.069 (-0.48)	-0.044 (-0.31)
Offer Size	-0.085 (-0.83)	-0.085 (-0.82)	-0.080 (-0.78)	-0.231 (-1.04)	-0.231 (-1.04)	-0.243 (-1.07)	-0.229 (-0.82)	-0.239 (-0.83)	-0.241 (-0.84)	-0.139 (-0.66)	-0.147 (-0.72)	-0.142 (-0.68)
BTM	-0.031 (-1.15)	-0.031 (-1.15)	-0.029 (-1.11)	-0.083 (-1.57)	-0.084 (-1.57)	-0.086 (-1.57)	-0.094 (-1.30)	-0.097 (-1.29)	-0.097 (-1.31)	-0.095*** (-2.17)	-0.095*** (-2.22)	-0.096*** (-2.21)
Firm Size	0.077 (1.11)	0.077 (1.11)	0.071 (1.03)	0.316* (1.72)	0.317* (1.72)	0.326* (1.72)	0.368 (1.46)	0.368 (1.44)	0.374 (1.45)	0.317*** (2.20)	0.310*** (2.13)	0.319*** (2.18)
Number of VC	-0.024 (-0.97)	-0.025 (-0.98)	-0.025 (-0.99)	0.085** (1.80)	0.079* (1.69)	0.085** (1.80)	0.050 (1.21)	0.046 (1.13)	0.049 (1.19)	0.083 (1.09)	0.083 (1.13)	0.082 (1.08)
Chinese	1.067*** (5.14)	1.070*** (5.34)	1.078*** (5.26)	-0.482 (-1.41)	-0.466 (-1.4)	-0.479 (-1.42)	-0.911 (-1.45)	-0.871 (-1.42)	-0.907 (-1.43)	-0.815** (-1.93)	-0.830** (-1.99)	-0.816** (-1.94)
Foreign	0.092 (0.87)	0.090 (0.84)	0.092 (0.86)	-0.037 (-0.15)	-0.073 (-0.28)	-0.020 (-0.08)	-0.235 (-0.80)	-0.281 (-0.86)	-0.243 (-0.82)	-0.373 (-0.92)	-0.358 (-0.94)	-0.377 (-0.92)
VC Age at IPO	1E-04 (0.12)			0.003 (1.31)			0.007 (1.37)			0.002 (0.26)		
# Companies		2E-04 (0.11)			0.003 (0.94)			0.002 (0.37)			-0.005 (-1.23)	
Total Amount			-3E-05 (-0.31)			1.2E-04 (1.34)			1.5E-04 (1.04)			3.3E-05 (0.17)
# of obs.	184	184	183	149	149	149	132	132	132	103	103	103
R <sup>2</sup>	0.179	0.179	0.178	0.008	0.007	0.009	-0.005	-0.009	-0.007	0.110	0.115	0.110

Table 14- Continued 1

Variable	2-Year Excess Return		3-Year Excess Return		ROA IPO year			ROA 1				
Intercept	-1.042 (-0.80)	-0.497 (-0.47)	-0.612 (-0.54)	3.866 (1.40)	4.665** (1.81)	3.847 (1.41)	-0.130 (-0.41)	-0.222 (-0.68)	-0.173 (-0.53)	-0.624 (-0.8)	-0.836 (-0.99)	-0.633 (-0.8)
Underwriter	0.033 (0.23)	-0.005 (-0.03)	0.005 (0.03)	-0.107 (-0.38)	-0.148 (-0.58)	-0.092 (-0.34)	-0.022 (-0.78)	-0.017 (-0.62)	-0.021 (-0.75)	-0.044 (-0.8)	-0.034 (-0.66)	-0.046 (-0.82)
Offer Size	0.243 (0.88)	0.226 (0.88)	0.218 (0.8)	0.622 (0.87)	0.734 (1.07)	0.631 (0.89)	-0.108 (-0.97)	-0.107 (-0.96)	-0.114 (-1.02)	-0.323 (-1.21)	-0.315 (-1.19)	-0.319 (-1.2)
BTM	0.087 (0.48)	0.123 (0.62)	0.114 (0.6)	0.011 (0.04)	0.156 (0.49)	0.057 (0.18)	-0.030 (-1.02)	-0.030 (-1.02)	-0.032 (-1.06)	-0.080 (-1.24)	-0.079 (-1.23)	-0.079 (-1.24)
Firm Size	-0.061 (-0.35)	-0.092 (-0.49)	-0.079 (-0.44)	-0.248 (-0.54)	-0.389 (-0.83)	-0.280 (-0.62)	0.158 (1.20)	0.157 (1.19)	0.165 (1.24)	0.360 (1.26)	0.360 (1.26)	0.357 (1.25)
Number of VC	0.017 (0.29)	0.018 (0.32)	0.012 (0.22)	-0.108 (-1.11)	-0.091 (-1.02)	-0.105 (-1.08)	-0.042 (-0.98)	-0.043 (-1.02)	-0.041 (-0.96)	0.043 (1.15)	0.045 (1.15)	0.044 (1.16)
Chinese	0.372 (0.57)	0.318 (0.51)	0.325 (0.52)	-1.404 (-0.81)	-1.463 (-0.87)	-1.301 (-0.77)	0.144 (0.75)	0.135 (0.71)	0.136 (0.72)	0.528 (0.94)	0.540 (0.95)	0.529 (0.94)
Foreign	0.495 (0.89)	0.519 (0.99)	0.356 (0.72)	0.269 (0.19)	0.685 (0.52)	0.255 (0.18)	0.178 (0.79)	0.171 (0.75)	0.172 (0.77)	0.599 (0.96)	0.607 (0.96)	0.602 (0.96)
VC Age at IPO	0.003 (0.41)			-0.009 (-0.58)			-0.001 (-0.93)			-0.002 (-1.18)		
# Companies		-0.008 (-1.22)			-0.023*** (-2.30)			0.002 (1.53)			0.002 (0.89)	
Total Amount			2E-04 (-1.44)			-3E-04 (-0.64)			4E-06 (0.18)			-4E-05 (-0.98)
# of obs.	74	74	74	57	57	57	183	183	182	100	100	100
R <sup>2</sup>	-0.093	-0.082	-0.083	0.038	0.062	0.039	0.087	0.092	0.090	0.108	0.109	0.107

Table 14- Continued 2

Variable	ROA 2		ROA 3			4-Year Avg.ROA			3-Year Avg.ROA			
Intercept	0.156 (1.12)	0.054 (0.41)	0.138 (1.03)	0.229 (1.15)	0.162 (1.07)	0.164 (0.90)	-0.044 (-0.23)	-0.089 (-0.45)	-0.068 (-0.34)	-0.042 (-0.15)	-0.157 (-0.54)	-0.042 (-0.15)
Underwriter	0.016 (0.79)	0.021 (1.08)	0.018 (0.91)	0.056* (1.74)	0.060* (1.70)	0.061* (1.75)	-0.009 (-0.52)	-0.006 (-0.37)	-0.009 (-0.50)	-0.010 (-0.37)	-0.004 (-0.17)	-0.011 (-0.41)
Offer Size	0.004 (0.17)	0.008 (0.34)	0.006 (0.25)	0.038 (0.68)	0.070 (1.50)	0.047 (0.82)	-0.033 (-0.51)	-0.033 (-0.5)	-0.037 (-0.56)	-0.101 (-1.13)	-0.096 (-1.1)	-0.098 (-1.12)
BTM	0.030 (1.13)	0.027 (1.02)	0.034 (1.23)	0.003 (0.09)	-0.003 (-0.09)	0.006 (0.19)	-0.010 (-0.56)	-0.010 (-0.56)	-0.011 (-0.61)	-0.025 (-1.18)	-0.024 (-1.15)	-0.025 (-1.16)
Firm Size	-0.007 (-0.36)	-0.005 (-0.27)	-0.009 (-0.50)	-0.052* (-1.73)	-0.074*** (-2.72)	-0.060** (-2.06)	0.064 (0.83)	0.063 (0.83)	0.068 (0.88)	0.111 (1.20)	0.111 (1.20)	0.109 (1.18)
Number of VC	-0.011** (-1.80)	-0.010 (-1.60)	-0.011** (-1.80)	-0.012 (-1.10)	-0.011 (-1.27)	-0.011 (-1.07)	-0.010 (-0.88)	-0.011 (-0.92)	-0.009 (-0.84)	0.011 (0.85)	0.012 (0.88)	0.011 (0.88)
Chinese	-0.087 (-1.65)	-0.077 (-1.5)	-0.078 (-1.49)	-0.153* (-1.68)	-0.137* (-1.64)	-0.131 (-1.49)	0.060 (0.52)	0.055 (0.49)	0.056 (0.49)	0.080 (0.43)	0.087 (0.46)	0.081 (0.43)
Foreign	-0.092** (-1.79)	-0.083 (-1.57)	-0.088* (-1.73)	-0.153* (-1.74)	-0.107 (-1.47)	-0.141 (-1.61)	-0.001 (-0.96)	0.001 (1.32)	0.000 (-0.25)	-0.001 (-1.35)	0.001 (0.97)	0.000 (-1.42)
VC Age at IPO	-0.001*** (-2.29)			-0.002 (-1.01)			0.099 (0.73)			0.122 (0.59)		
# Companies		0.001 (0.63)			-0.002* (-1.64)			0.097 (0.71)			0.129 (0.61)	
Total Amount			-3E-05 (-1.92)			-3E-05 (-0.67)			0.094 (0.71)			0.122 (0.59)
# of obs.	70	70	70	49	49	49	182	182	182	149	149	149
R <sup>2</sup>	0.054	0.027	0.048	0.274	0.298	0.254	0.045	0.047	0.048	0.080	0.079	0.080

Table 14-Continued 3

Variable	Industry Adj.ROA IPO Year			Industry Adj.ROA 1			Industry Adj.ROA 2		
Intercept	-0.234 (-0.74)	-0.326 (-0.99)	-0.277 (-0.84)	-0.710 (-0.90)	-0.923 (-1.09)	-0.718 (-0.91)	0.082 (0.60)	-0.019 (-0.15)	0.066 (0.49)
Underwriter	-0.022 (-0.79)	-0.017 (-0.62)	-0.021 (-0.76)	-0.043 (-0.78)	-0.032 (-0.64)	-0.044 (-0.8)	0.017 (0.85)	0.022 (1.14)	0.019 (0.97)
Offer Size	-0.107 (-0.96)	-0.106 (-0.95)	-0.113 (-1.01)	-0.322 (-1.21)	-0.315 (-1.19)	-0.319 (-1.20)	0.003 (0.13)	0.007 (0.30)	0.005 (0.20)
BTM	-0.030 (-1.02)	-0.030 (-1.02)	-0.032 (-1.06)	-0.080 (-1.24)	-0.079 (-1.24)	-0.079 (-1.24)	0.028 (1.07)	0.025 (0.96)	0.032 (1.18)
Firm Size	0.158 (1.20)	0.157 (1.19)	0.165 (1.24)	0.361 (1.26)	0.361 (1.26)	0.358 (1.25)	-0.005 (-0.29)	-0.003 (-0.19)	-0.008 (-0.43)
Number of VC	-0.042 (-0.99)	-0.044 (-1.03)	-0.041 (-0.97)	0.042 (1.12)	0.043 (1.12)	0.043 (1.13)	-0.011** (-1.90)	-0.011* (-1.70)	-0.011** (-1.91)
Chinese	0.143 (0.74)	0.133 (0.71)	0.135 (0.71)	0.523 (0.93)	0.536 (0.94)	0.524 (0.93)	-0.089* (-1.73)	-0.080 (-1.60)	-0.081 (-1.58)
Foreign	0.177 (0.78)	0.169 (0.74)	0.171 (0.77)	0.594 (0.95)	0.601 (0.95)	0.597 (0.95)	-0.093** (-1.83)	-0.084* (-1.63)	-0.089* (-1.77)
VC Age at IPO	-0.001 (-0.88)			-0.002 (-1.15)			-0.001*** (-2.24)		
# Companies		0.002 (1.56)			0.002 (0.92)			0.001 (0.67)	
Total Amount			4.6E-06 (0.22)			-4E-05 (-0.95)			3E-05** (1.89)
# of obs.	183	183	183	100	100	100	70	70	70
R <sup>2</sup>	0.131	0.136	0.134	0.196	0.197	0.196	0.219	0.199	0.215

Table 14- Continued 4

Variable	Industry Adj.ROA 3			Industry Adj.-Avg.ROA4			Industry Adj.-Avg.ROA3		
Intercept	0.156 (0.80)	0.097 (0.64)	-0.030 (-0.18)	-0.115 (-0.60)	-0.161 (-0.81)	-0.140 (-0.70)	-0.128 (-0.47)	-0.254 (-0.87)	-0.129 (-0.47)
Underwriter	0.057* (1.77)	0.061* (1.72)	0.058* (1.79)	-0.012 (-0.68)	-0.009 (-0.55)	-0.012 (-0.66)	-0.009 (-0.33)	-0.002 (-0.10)	-0.010 (-0.36)
Offer Size	0.039 (0.69)	0.070 (1.48)	0.066 (1.20)	-0.035 (-0.54)	-0.035 (-0.53)	-0.039 (-0.59)	-0.102 (-1.14)	-0.097 (-1.10)	-0.099 (-1.12)
BTM	-0.001 (-0.02)	-0.006 (-0.18)	0.021 (0.82)	-0.010 (-0.58)	-0.010 (-0.58)	-0.011 (-0.63)	-0.026 (-1.20)	-0.025 (-1.18)	-0.025 (-1.19)
Firm Size	-0.052* (-1.72)	-0.073*** (-2.68)	-0.065** (-1.90)	0.065 (0.85)	0.064 (0.84)	0.069 (0.90)	0.114 (1.22)	0.114 (1.22)	0.111 (1.20)
Number of VC	-0.012 (-1.13)	-0.011 (-1.33)	-0.012 (-1.33)	-0.010 (-0.86)	-0.011 (-0.91)	-0.009 (-0.82)	0.009 (0.74)	0.010 (0.77)	0.010 (0.77)
Chinese	-0.154* (-1.71)	-0.140* (-1.68)	-0.064 (-0.80)	0.060 (0.52)	0.054 (0.48)	0.055 (0.49)	0.081 (0.43)	0.088 (0.47)	0.082 (0.44)
Foreign	-0.154* (-1.76)	-0.109 (-1.53)		-0.001 (-0.97)	0.096 (0.71)	0.094 (0.70)	0.117 (0.56)	0.123 (0.59)	0.118 (0.57)
VC Age at IPO	-0.002 (-0.96)			0.099 (0.73)			-0.001 (-1.34)		
# Companies		-0.002* (-1.64)			0.001 (1.4)			0.001 (1.14)	
Total Amount			-0.001 (-0.56)			-3E-06 (-0.22)			-3E-05 (-1.37)
# of obs.	49	49	49	182	182	182	149	149	149
R <sup>2</sup>	0.442	0.463	0.396	0.087	0.088	0.073	0.165	0.166	0.165

**Table 15**

**Cross-Sectional Regressions by VC Origin: Local VC firm and non-Local VC firm**

This table reports the result of cross-sectional regressions of VC backed companies' performance by VC origin: local (mainland) VC firms and non-local VC firm, from 2000-2000. Chinese is dummy variables: 1 for Chinese (Mainland) VC firm, 0 otherwise. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Variable	Underpricing			3-Month Excess Return			6-Month Excess Return			1-Year Excess Return		
Intercept	-0.827** (-1.99)	-0.831** (-1.94)	-0.807** (-1.94)	-0.319 (-0.51)	-0.344 (-0.55)	-0.321 (-0.51)	-0.564 (-0.84)	-0.511 (-0.73)	-0.528 (-0.80)	0.223 (0.25)	0.575 (0.60)	0.232 (0.25)
Underwriter	0.142* (1.77)	0.142* (1.74)	0.140* (1.76)	-0.003 (-0.03)	1E-5 (1E-06)	0.001 (0.01)	0.035 (0.31)	0.039 (0.32)	0.039 (0.34)	-0.062 (-0.43)	-0.088 (-0.65)	-0.061 (-0.44)
Offer Size	-0.081 (-0.80)	-0.081 (-0.79)	-0.076 (-0.75)	-0.232 (-1.03)	-0.234 (-1.03)	-0.244 (-1.05)	-0.234 (-0.83)	-0.245 (-0.84)	-0.247 (-0.85)	-0.118 (-0.57)	-0.129 (-0.64)	-0.122 (-0.60)
BTM	-0.030 (-1.15)	-0.030 (-1.15)	-0.029 (-1.11)	-0.083 (-1.57)	-0.084 (-1.57)	-0.086 (-1.58)	-0.093 (-1.30)	-0.096 (-1.28)	-0.096 (-1.30)	-0.086** (-2.00)	-0.086** (-2.07)	-0.087** (-2.03)
Firm Size	0.074 (1.09)	0.074 (1.09)	0.068 (1.01)	0.317* (1.71)	0.319* (1.71)	0.327 (1.71)	0.375 (1.47)	0.376 (1.44)	0.382 (1.46)	0.306** (2.07)	0.299** (2.01)	0.309** (2.05)
Number of VC	-0.024 (-0.96)	-0.025 (-0.98)	-0.025 (-0.99)	0.085** (1.81)	0.079* (1.71)	0.085** (1.82)	0.051 (1.28)	0.048 (1.23)	0.050 (1.25)	0.085 (1.17)	0.085 (1.21)	0.084 (1.16)
Chinese	1.012*** (4.89)	1.015*** (5.09)	1.023*** (4.96)	-0.459 (-1.58)	-0.421 (-1.54)	-0.466* (-1.63)	-0.767 (-1.49)	-0.696 (-1.49)	-0.757 (-1.47)	-0.571* (-1.87)	-0.596 (-1.91)	-0.571* (-1.80)
VC Age at IPO	1E-05 (0.11)			0.003 (1.29)			0.007 (1.39)			0.002 (0.37)		
# Companies		0.000 (0.14)		0.003 (0.97)				0.001 (0.3)			-0.006 (-1.37)	
Total Amount			-3E-05 (-0.35)			1.2E-04 (1.34)			1.5-E04 (1.08)			5E-05 (0.27)
# of obs.	184	184	183	149	149	149	132	132	132	103	103	103
R <sup>2</sup>	0.183	0.183	0.182	0.015	0.014	0.017	0.003	-0.002	0.001	0.113	0.119	0.112

Table 15-Continued 1

Variable	2-Year Excess Return		3-Year Excess Return		ROA IPO year					ROA 1		
Intercept	-0.535 (-0.54)	-0.087 (-0.09)	-0.252 (-0.28)	4.095** (1.86)	5.018*** (2.12)	4.049** (1.86)	-0.059 (-0.24)	-0.162 (-0.6)	-0.103 (-0.39)	-0.258 (-0.56)	-0.543 (-0.94)	-0.265 (-0.57)
Underwriter	0.043 (0.30)	0.018 (0.13)	0.015 (0.10)	-0.104 (-0.36)	-0.125 (-0.48)	-0.087 (-0.32)	-0.017 (-0.67)	-0.011 (-0.48)	-0.016 (-0.66)	-0.023 (-0.51)	-0.008 (-0.21)	-0.025 (-0.56)
Offer Size	0.197 (0.76)	0.183 (0.75)	0.186 (0.73)	0.575 (1.08)	0.626 (1.14)	0.588 (1.10)	-0.098 (-0.96)	-0.098 (-0.96)	-0.105 (-1.01)	-0.344 (-1.16)	-0.334 (-1.14)	-0.338 (-1.16)
BTM	0.057 (0.35)	0.084 (0.47)	0.095 (0.54)	-0.013 (-0.04)	0.087 (0.28)	0.038 (0.12)	-0.029 (-1.01)	-0.030 (-1.01)	-0.031 (-1.05)	-0.093 (-1.18)	-0.091 (-1.17)	-0.091 (-1.17)
Firm Size	-0.035 (-0.21)	-0.060 (-0.34)	-0.063 (-0.37)	-0.222 (-0.59)	-0.320 (-0.83)	-0.258 (-0.67)	0.149 (1.20)	0.149 (1.20)	0.157 (1.24)	0.364 (1.20)	0.364 (1.20)	0.359 (1.20)
Number of VC	0.016 (0.25)	0.017 (0.28)	0.011 (0.19)	-0.108 (-1.09)	-0.091 (-0.99)	-0.105 (-1.07)	-0.042 (-1.01)	-0.044 (-1.05)	-0.041 (-0.99)	0.041 (1.12)	0.043 (1.10)	0.042 (1.13)
Chinese	0.057 (0.11)	-0.004 (-0.01)	0.105 (0.19)	-1.552 (-1.37)	-1.831* (-1.66)	-1.431 (-1.27)	0.037 (0.48)	0.031 (0.44)	0.033 (0.43)	0.135 (0.73)	0.141 (0.80)	0.136 (0.73)
VC Age at IPO	0.001 (0.19)			-0.010 (-0.71)			-0.001 (-0.92)			-0.003 (-1.17)		
# Companies		-0.007 (-1.17)			-0.021*** (-2.38)			0.002 (1.68)			0.003 (0.99)	
Total Amount			-2.3E-04 (-1.34)			-3.3E-04 (-0.77)			-1.9E-06 (-0.08)			-8E-05 (-1.13)
# of obs.	74	74	74	57	57	57	183	183	182	100	100	100
R <sup>2</sup>	-0.087	-0.078	-0.072	0.058	0.078	0.060	0.082	0.088	0.085	0.073	0.072	0.072

Table 15- Continued 2

Variable	ROA 2			ROA 3			4-Year Avg.ROA			3-Year Avg.ROA		
Intercept	0.067 (0.48)	-0.001 (-0.01)	0.058 (0.42)	0.044 (0.26)	0.069 (0.47)	0.004 (0.02)	-0.002 (-0.01)	-0.052 (-0.33)	-0.027 (-0.17)	0.033 (0.18)	-0.095 (-0.46)	0.033 (0.18)
Underwriter	0.016 (0.80)	0.020 (1.02)	0.018 (0.89)	0.057* (1.76)	0.059* (1.70)	0.061* (1.75)	-0.006 (-0.42)	-0.004 (-0.24)	-0.007 (-0.42)	-0.006 (-0.24)	0.001 (0.05)	-0.007 (-0.28)
Offer Size	0.011 (0.48)	0.014 (0.58)	0.012 (0.52)	0.065 (1.18)	0.084* (1.77)	0.071 (1.30)	-0.028 (-0.47)	-0.028 (-0.46)	-0.032 (-0.52)	-0.105 (-1.09)	-0.100 (-1.06)	-0.102 (-1.08)
BTM	0.039* (1.63)	0.037 (1.53)	0.042* (1.69)	0.025 (0.89)	0.016 (0.48)	0.024 (0.77)	-0.009 (-0.54)	-0.009 (-0.55)	-0.010 (-0.60)	-0.028 (-1.10)	-0.027 (-1.08)	-0.027 (-1.08)
Firm Size	-0.010 (-0.53)	-0.008 (-0.46)	-0.012 (-0.62)	-0.065** (-1.90)	-0.081*** (-2.72)	-0.069*** (-2.15)	0.059 (0.82)	0.059 (0.82)	0.063 (0.87)	0.112 (1.16)	0.112 (1.16)	0.110 (1.15)
Number of VC	-0.011** (-1.82)	-0.010* (-1.69)	-0.011** (-1.82)	-0.012 (-1.28)	-0.010 (-1.46)	-0.011 (-1.25)	-0.010 (-0.89)	-0.011 (-0.95)	-0.009 (-0.85)	0.010 (0.82)	0.011 (0.83)	0.011 (0.85)
Chinese	-0.024 (-0.56)	-0.022 (-0.53)	-0.019 (-0.45)	-0.063 (-0.78)	-0.076 (-0.91)	-0.054 (-0.63)	0.000 (-0.01)	-0.005 (-0.12)	-0.001 (-0.01)	1E-04 (0.01)	0.002 (0.04)	0.001 (0.02)
VC Age at IPO	-0.001 (-1.48)			-0.001 (-0.61)			-0.001 (-0.96)			-0.001 (-1.38)		
# Companies		0.000 (0.44)			-0.002* (-1.74)			0.001 (1.47)			0.001 (1.02)	
Total Amount			-2E-05 (-1.37)			-2E-05 (-0.38)			-1E-05 (-0.42)			-1E-05 (-1.46)
# of obs.	70	70	70	49	49	49	182	182	182	100	100	100
R <sup>2</sup>	0.020	0.003	0.018	0.236	0.286	0.225	0.039	0.041	0.043	0.075	0.071	0.074



Table 15- Continued 3

Variable	Industry Adj.ROA IPO Year			Industry Adj.ROA 1			Industry Adj.ROA 2		
Intercept	-0.164 (-0.65)	-0.267 (-0.98)	-0.208 (-0.78)	-0.347 (-0.75)	-0.634 (-1.10)	-0.354 (-0.76)	-0.008 (-0.06)	-0.075 (-0.55)	-0.015 (-0.11)
Underwriter	-0.017 (-0.68)	-0.011 (-0.49)	-0.016 (-0.67)	-0.022 (-0.49)	-0.007 (-0.18)	-0.024 (-0.54)	0.017 (0.86)	0.021 (1.07)	0.019 (0.94)
Offer Size	-0.097 (-0.95)	-0.097 (-0.95)	-0.104 (-1.00)	-0.344 (-1.16)	-0.333 (-1.14)	-0.338 (-1.16)	0.011 (0.45)	0.013 (0.54)	0.012 (0.49)
BTM	-0.029 (-1.00)	-0.029 (-1.01)	-0.031 (-1.05)	-0.093 (-1.18)	-0.091 (-1.17)	-0.091 (-1.17)	0.038 (1.57)	0.035 (1.48)	0.041* (1.63)
Firm Size	0.149 (1.19)	0.149 (1.20)	0.157 (1.24)	0.365 (1.20)	0.365 (1.20)	0.360 (1.20)	-0.009 (-0.46)	-0.007 (-0.39)	-0.011 (-0.56)
Number of VC	-0.042 (-1.02)	-0.044 (-1.07)	-0.041 (-1.00)	0.040 (1.09)	0.042 (1.08)	0.041 (1.10)	-0.011** (-1.92)	-0.011 (-1.79)	-0.011** (-1.92)
Chinese	0.036 (0.47)	0.031 (0.44)	0.033 (0.43)	0.134 (0.72)	0.140 (0.79)	0.134 (0.72)	-0.026 (-0.62)	-0.024 (-0.58)	-0.021 (-0.50)
VC Age at IPO	-0.001 (-0.88)			-0.003 (-1.15)			-0.001 (-1.41)		
# Companies		0.002* (1.72)			0.003 (1.01)			0.001 (0.48)	
Total Amount			-9.36E-07 (-0.04)			-8E-05 (-1.11)			-2E-05 (-1.33)
# of obs.	183	183	183	100	100	100	70	70	70
R <sup>2</sup>	0.121	0.127	0.124	0.156	0.155	0.155	0.175	0.163	0.174

Table 15 -Continued 4

Variable	Industry Adj.ROA 3		Industry Adj.-Avg.ROA4		Industry Adj.-Avg.ROA3				
Intercept	0.002 (0.01)	-0.068 (-0.45)	-0.115 (-0.60)	-0.076 (-0.51)	-0.127 (-0.80)	-0.102 (-0.65)	-0.057 (-0.32)	-0.195 (-0.94)	-0.058 (-0.32)
Underwriter	0.059* (1.72)	0.061* (1.77)	-0.012 (-0.68)	-0.009 (-0.59)	-0.006 (-0.42)	-0.009 (-0.58)	-0.005 (-0.19)	0.003 (0.13)	-0.006 (-0.24)
Offer Size	0.083* (1.75)	0.072 (1.32)	-0.035 (-0.54)	-0.029 (-0.49)	-0.029 (-0.49)	-0.033 (-0.56)	-0.106 (-1.10)	-0.101 (-1.06)	-0.103 (-1.08)
BTM	0.014 (0.42)	0.020 (0.70)	-0.010 (-0.58)	-0.010 (-0.57)	-0.010 (-0.57)	-0.011 (-0.62)	-0.028 (-1.12)	-0.027 (-1.10)	-0.028 (-1.11)
Firm Size	-0.080*** (-2.68)	-0.069** (-2.13)	0.065 (0.85)	0.060 (0.84)	0.060 (0.83)	0.065 (0.89)	0.114 (1.18)	0.114 (1.19)	0.112 (1.17)
Number of VC	-0.011 (-1.53)	-0.012 (-1.30)	-0.010 (-0.86)	-0.010 (-0.90)	-0.011 (-0.95)	-0.009 (-0.85)	0.009 (0.71)	0.010 (0.73)	0.009 (0.74)
Chinese	-0.077 (-0.92)	-0.056 (-0.66)	0.060 (0.52)	02E-05 (1E-04)	-0.005 (-0.12)	-0.001 (-0.02)	0.004 (0.06)	0.007 (0.11)	0.005 (0.07)
VC Age at IPO	-0.002* (-1.74)			-0.001 (-0.98)			-0.001 (-1.37)		
# Companies		-2E-05 (-0.34)			0.001 (1.55)			0.001 (1.17)	
Total Amount			0.099 (0.73)			6E-06 (-0.38)			0.000 (-1.42)
# of obs.	49	49	49	182	182	182	149	149	149
R <sup>2</sup>	0.438	0.389	0.084	0.073	0.076	0.077	0.152	0.151	0.151

**Table 16**

**Mean and Median of Main variables by stock market: Chinese (Mainland), Hong Kong, US, and Singapore Markets**

This table displays mean and median of main variables by stock market: Chinese (Mainland), Hong Kong, US and Singapore Markets. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China, Underwriter = Total issue volume/ number of issues, Offer size = offer price \*offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price(t+1) - Adjusted closing price(t)) / Adjusted closing price(t), Excess Return= Stock return- Market Index return, ROA= Operating income/Total Asset, IndustryAdj. ROA= ROA - Industry Average ROA, 4- Year Avg. ROA = (ROA0+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3.

Company Characteristics														
Variable	Chinese Market			Hong Kong Market			US Market			Singapore Market				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
Underwriter	60	208.857	65.369	55	304.976	330.251	54	461.530	514.620	16	59.542	30.025		
Offer Price	60	4476.600	284.990	55	4.010	2.350	54	14.624	14.750	17	0.518	0.470		
Offer Size	60	32636.590	1046.470	55	2257.770	937.236	54	195.750	119.675	17	131.841	60.952		
BV	60	30516.160	516.792	55	4017.890	1538.440	54	1641.520	226.066	17	923.130	526.640		
Firm Size	60	22395.230	509.089	55	5738.790	1711.020	53	17205.540	121.016	17	1021.090	633.236		
BTM	60	1.342	0.218	55	0.901	0.527	54	0.965	0.302	17	2.076	2.296		
Number of VC	60	1.967	1.500	55	2.000	1.000	54	4.259	3.000	17	2.118	2.000		
VC Reputation														
Variable	Chinese Market			Hong Kong Market			US Market			Singapore Market				
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median		
VC Age at IPO	60	23.833	11.500	55	23.364	10.000	54	10.667	8.000	17	24.118	14.000		
# Companies	60	26.400	18.000	55	21.509	14.000	54	22.556	12.000	17	43.059	41.000		
Total Amount	60	610.548	184.250	55	695.689	154.240	53	240.225	92.730	17	606.538	202.490		

Table 16- Continued 1

Stock Performance												
Variable	Chinese Market			Hong Kong Market			US Market			Singapore Market		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
Underpricing	60	1.515	1.121	55	0.231	0.093	54	0.348	0.154	17	0.181	0.150
3-Month Excess Return	50	-0.289	-0.136	45	0.068	-0.063	41	0.234	0.015	15	0.235	0.143
6-Month Excess Return	38	-0.633	-0.210	43	0.123	0.000	38	0.104	-0.109	15	0.156	0.061
1-Year Excess Return	29	-0.102	-0.126	34	0.295	0.074	29	0.224	-0.185	13	0.571	0.121
2-Year Excess Return	16	0.693	0.058	26	0.592	-0.105	22	0.044	-0.262	10	0.589	0.484
3-Year Excess Return	16	1.480	-0.068	19	0.926	-0.393	16	0.342	-0.126	6	2.497	0.772
4-Year Excess Return	7	1.398	0.344	10	-0.110	-0.550	7	2.067	0.714	1	1.406	1.406
5-Year Excess Return	5	0.017	0.024	5	1.562	-0.981	5	0.947	0.713	1	3.321	3.321
Operating Performance												
Variable	Chinese Market			Hong Kong Market			US Market			Singapore Market		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
ROA IPO year	60	0.187	0.159	55	0.219	0.201	52	-0.061	0.199	17	0.241	0.199
ROA 1	29	0.138	0.105	33	0.175	0.153	27	-0.244	0.130	12	0.279	0.204
ROA 2	16	0.119	0.094	26	0.136	0.107	21	0.085	0.065	7	0.189	0.131
ROA 3	16	0.146	0.097	18	0.059	0.090	14	0.175	0.177	1	0.179	0.179
ROA 4	9	0.099	0.065	8	0.101	0.134	6	0.265	0.333	1	0.175	0.175
ROA 5	4	0.057	0.063	3	0.018	-0.038	5	0.186	0.214	0	.	.
4-Year Avg. ROA	60	0.178	0.147	55	0.191	0.155	52	0.070	0.167	16	0.230	0.184
3-Year Avg. ROA	29	0.141	0.119	33	0.153	0.125	27	0.003	0.119	12	0.257	0.206

Table 16- Continued 2

Industry Adjusted Operating Performance												
Variable	Chinese Market			Hong Kong Market			US Market			Singapore Market		
	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median	Size	Mean	Median
Industry Adj. ROA 0	60	0.098	0.076	55	0.128	0.092	52	-0.143	0.090	17	0.149	0.116
Industry Adj. ROA 1	29	0.086	0.053	33	0.132	0.089	27	-0.256	0.139	12	0.224	0.138
Industry Adj. ROA 2	16	0.058	0.035	26	0.083	0.055	21	0.035	0.022	7	0.130	0.067
Industry Adj. ROA 3	16	0.089	0.034	18	0.006	0.053	14	0.123	0.132	1	0.119	0.119
Industry Adj. ROA 4	9	0.048	0.003	8	0.047	0.083	6	0.220	0.288	1	0.112	0.112
Industry Adj. ROA 5	4	-0.015	-0.059	3	0.019	-0.037	5	0.188	0.215	0	.	.
Industry Adj. Avg. ROA4	58	0.102	0.079	55	0.117	0.088	52	-0.002	0.086	17	0.155	0.116
Industry Adj. Avg. ROA3	29	0.090	0.053	33	0.102	0.083	27	-0.036	0.081	12	0.194	0.135

Table 17

### Test of Differences between IPO listed in Chinese stock market and non-Chinese stock market

This table compares the difference of main variables between 60 companies listed in Chinese(Mainland) stock market and 126 companies listed in non-Chinese stock market, using paired t-test and Kruskal-Wallis test for mean and median differences respectively, from 2000 to 2007. CH represents IPOs listed in Chinese (Mainland) market, and non-CH represent IPOs listed in non-Chinese (Mainland) market. Number of VC represents the number of VC firms in each portfolio company, VC Age at IPO is the age of VC firms at IPO date of their portfolio company, # Companies is number of portfolio companies VC firm invested in China, Total Amount is the total investment VC firm had invested in China, Underwriter = Total issue volume/ number of issues, Offer size = offer price \*offer amount, Firm Size is represented by the company's total assets at IPO year. Underpricing= (closing price - offer price) / offer price, Stock return = (Adjusted closing price (t+1) -Adjusted closing price(t)) / Adjusted closing price(t), Excess Return= Stock return- Market Index return, ROA= Operating income/Total Asset, Industry Adj. ROA= ROA - Industry Average ROA, 4-Year Avg. ROA = (ROA0+ ROA1 + ROA2 + ROA4) / 4, 3-Year Avg. ROA = (ROA1 + ROA2 + ROA4) / 3. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Table 17

Company Characteristics									
Variable	Size (CH/Non-CH)	CH IPOs Mean	Non CH I POs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH Median	Non CH Median	Kruskal-Wallis Test Chi-Square	
Underwriter	60/125	208.857	341.192	132.330	3.55***	65.369	431.142	8.08***	
Offer Price	60/126	4476.600	8.088	-3.962	-3.59***	284.990	6.225	11.70***	
Offer Size	60/126	32636.590	1087.210	-28918.000	-2.27***	1046.470	181.302	10.17***	
BV	60/126	30516.160	2581.900	-27934.000	-2.18***	516.792	523.265	2.86*	
Firm Size	60/125	22395.230	9959.090	-12436.000	-1.03	509.089	492.635	9.88***	
BTM	60/125	1.342	1.087	-0.255	-0.25	0.218	0.481	41.34***	
Number of VC	60/126	1.967	2.984	1.018	3.39***	1.500	2.000	5.91***	
VC Reputation									
Variable	Size (CH/Non-CH)	CH IPOs Mean	Non CH I POs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH Median	Non CH Median	Kruskal-Wallis Test Chi-Square	
VC Age at IPO	60/126	23.833	18.024	-5.810	-1.29	11.500	9.000	1.04	
# Companies	60/126	26.400	24.865	-1.535	-0.37	18.000	14.500	0.79	
Total Amount	60/125	610.548	490.448	-120.100	-0.80	184.250	120.190	1.86	
Stock Performance									
Variable	Size (CH/Non-CH)	CH IPOs Mean	Non CH I POs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH Median	Non CH Median	Kruskal-Wallis Test Chi-Square	
Underpricing	60/126	1.515	0.274	-1.240	-7.52***	1.121	0.127	79.22***	
3-Month Excess Return	50/101	-0.289	0.160	0.449	0.99	-0.136	0.025	4.88***	
6-Month Excess Return	38/96	-0.633	0.120	0.753	0.95	-0.210	0.004	4.23***	
1-Year Excess Return	29/76	-0.102	0.315	0.417	0.87	-0.126	-0.007	4.40***	
2-Year Excess Return	16/58	0.693	0.384	-0.309	-0.53	0.058	-0.117	0.62	
3-Year Excess Return	16/41	1.480	0.928	-0.552	-0.37	-0.068	-0.212	0.01	
4-Year Excess Return	7/18	1.398	0.821	-0.577	-0.44	0.344	-0.101	0.52	
5-Year Excess Return	5/11	0.017	1.443	1.426	1.30	0.024	0.713	0.15	

Table 17- Continued

Operating Performance										
Variable	Size (CH/Non-CH)	CH IPOs Mean	Non CH IPOs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH Median	Non CH Median	Kruskal-Wallis Test Chi-Square		
ROA IPO year	60/124	0.187	0.104	-0.083	-1.14	0.159	0.199	1.48		
ROA 1	29/72	0.138	0.035	-0.103	-0.77	0.105	0.160	2.77		
ROA 2	16/54	0.119	0.123	0.004	0.11	0.094	0.107	0.07		
ROA 3	16/33	0.146	0.112	-0.034	-0.65	0.097	0.139	0.01		
ROA 4	9/15	0.099	0.171	0.072	1.17	0.065	0.163	1.08		
ROA 5	4/8	0.057	0.123	0.067	0.72	0.063	0.074	0.00		
4-Year Avg. ROA	60/123	0.178	0.145	-0.033	-0.84	0.147	0.167	0.18		
3-Year Avg. ROA	29/72	0.141	0.114	-0.027	-0.55	0.119	0.144	0.49		
Industry Adjusted Operating Performance										
Variable	Size (CH/Non-CH)	CH IPOs Mean	Non CH IPOs Mean	Mean Difference (non-CH -CH)	Difference in Means t-value	CH Median	Non CH Median	Kruskal-Wallis Test Chi-Square		
Industry Adj. ROA 0	60/124	0.098	0.017	-0.081	-1.13	0.076	0.094	1.59		
Industry Adj. ROA 1	29/72	0.086	0.002	-0.084	-0.63	0.053	0.118	4.44***		
Industry Adj. ROA 2	16/54	0.058	0.070	0.013	0.32	0.035	0.055	0.34		
Industry Adj. ROA 3	16/33	0.089	0.059	-0.030	-0.56	0.034	0.085	0.01		
Industry Adj. ROA 4	9/15	0.048	0.121	0.073	1.18	0.003	0.112	1.21		
Industry Adj. ROA 5	4/8	-0.015	0.124	0.140	1.08	-0.059	0.075	1.41		
Industry Adj. Avg. ROA4	58/124	0.102	0.072	-0.030	-0.77	0.079	0.089	0.61		
Industry Adj. Avg. ROA3	29/72	0.090	0.066	-0.025	-0.50	0.053	0.106	0.54		

**Table 18**

**Cross-Sectional Regressions by Stock Market: Chinese (Mainland), Hong Kong, US and Singapore Markets**

This table reports the result of cross-sectional regressions of VC backed companies' performance by stock market: IPOs listed in Chinese (Mainland), Hong Kong, US and Singapore stock markets, from 2000-2007. CH, HK, US are dummy variables: 1 for specified stock market, 0 otherwise. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Variable	Underpricing		3-Month Excess Return			6-Month Excess Return		
Intercept	-0.057 (-0.22)	3.3E-04 (0.02)	-0.638 (-0.95)	-0.650 (-0.96)	-0.646 (-0.95)	-1.080 (-1.35)	-0.964 (-1.13)	-1.027 (-1.29)
Underwriter	0.224*** (2.57)	0.219*** (2.52)	0.014 (0.10)	0.014 (0.09)	0.016 (0.11)	0.058 (0.31)	0.067 (0.34)	0.065 (0.34)
Offer Size	-0.282*** (-2.49)	-0.283*** (-2.52)	-0.135 (-0.56)	-0.147 (-0.59)	-0.144 (-0.59)	-0.060 (-0.25)	-0.081 (-0.30)	-0.072 (-0.29)
BTM	-0.078*** (-2.98)	-0.078*** (-3.03)	-0.059 (-1.16)	-0.063 (-1.17)	-0.062 (-1.18)	-0.050 (-0.88)	-0.055 (-0.86)	-0.053 (-0.91)
Firm Size	0.087 (1.37)	0.086 (1.35)	0.288 (1.60)	0.294 (1.59)	0.296 (1.60)	0.320 (1.39)	0.318 (1.31)	0.323 (1.38)
Number of VC	0.003 (0.13)	0.003 (0.13)	0.078* (1.63)	0.074 (1.57)	0.077* (1.64)	0.037 (0.89)	0.037 (0.91)	0.037 (0.89)
CH	1.633*** (6.69)	1.640*** (6.91)	-0.710 (-1.35)	-0.645 (-1.27)	-0.701 (-1.34)	-1.291 (-1.33)	-1.249 (-1.42)	-1.288 (-1.33)
HK	0.344** (1.89)	0.352** (1.97)	-0.439 (-1.07)	-0.368 (-0.83)	-0.440 (-1.08)	-0.740** (-1.95)	-0.699*** (-2.2)	-0.745** (-1.93)
US	-0.061 (-0.25)	-0.071 (-0.29)	-0.268 (-0.53)	-0.223 (-0.44)	-0.256 (-0.50)	-0.461 (-0.66)	-0.501 (-0.77)	-0.489 (-0.69)
VC Age at IPO	0.002 (0.79)		0.003 (1.19)			0.006 (1.34)		
# Companies		3.2E-04 (-0.16)		0.002 (0.77)			0.001 (0.14)	
Total Amount					1E-04 (1.13)			1.1E-04 (0.94)
# of obs.	184	184	149	149	149	132	132	132
R <sup>2</sup>	0.382	0.379	0.000	-0.001	0.000	-0.013	0.090	-0.015



Table 18-Continued

Variable	1-Year Excess Return		2-Year Excess Return		3-Year Excess Return				
Intercept	-0.187 (-0.23)	0.376 (0.48)	-0.173 (-0.2)	-0.631 (-0.59)	-0.071 (-0.08)	-0.288 (-0.31)	2.534 (1.01)	3.850 (1.30)	2.813 (1.15)
Underwriter	-0.066 (-0.35)	-0.087 (-0.47)	-0.066 (-0.35)	0.381* (1.65)	0.351 (1.60)	0.371* (1.64)	0.764 (1.81)	0.629 (1.51)	0.802** (1.93)
Offer Size	0.091 (0.38)	0.128 (0.56)	0.089 (0.37)	0.021 (0.08)	0.073 (0.29)	-0.005 (-0.02)	0.096 (0.19)	0.409 (0.69)	0.052 (0.10)
BTM	-0.040 (-0.85)	-0.030 (-0.67)	-0.041 (-0.87)	0.162 (0.74)	0.184 (0.81)	0.214 (0.93)	0.105 (0.21)	0.106 (0.21)	0.221 (0.43)
Firm Size	0.246 (1.46)	0.206 (1.24)	0.247 (1.43)	-0.138 (-0.81)	-0.185 (-0.98)	-0.179 (-0.99)	-0.287 (-0.67)	-0.419 (-0.92)	-0.357 (-0.82)
Number of VC	0.058 (0.88)	0.056 (0.90)	0.057 (0.88)	0.065 (1.01)	0.062 (0.99)	0.064 (1.03)	-0.046 (-0.54)	-0.047 (-0.52)	-0.038 (-0.42)
CH	-1.070** (-2.04)	-1.311*** (-2.52)	-1.070** (-2.04)	0.468 (0.37)	0.151 (0.12)	0.542 (0.43)	0.065 (0.02)	-1.476 (-0.37)	0.398 (0.11)
HK	-1.029** (-1.98)	-1.375*** (-2.63)	-1.032** (-2.01)	0.052 (0.07)	-0.337 (-0.46)	0.080 (0.11)	-0.016 (-0.01)	-1.625 (-0.58)	0.224 (0.10)
US	-0.431 (-0.65)	-0.732 (-1.12)	-0.438 (-0.66)	-1.487** (-2.01)	-1.737** (-2.15)	-1.588** (-2.12)	-2.579 (-1.26)	-3.427 (-1.44)	-2.639 (-1.31)
VC Age at IPO	0.001 (0.25)			3.1E-04 (0.06)			-0.011 (-0.74)		
# Companies		-0.009 (-2.46)			-0.009 (-1.36)			-0.024 (-1.44)	
Total Amount			2.4E-05 (0.14)			-0.001* (-1.81)			-0.001 (-1.28)
# of obs.	103	103	103	74	74	74	57	57	57
R <sup>2</sup>	0.103	0.121	0.103	-0.072	-0.059	-0.049	0.011	0.026	0.022

**Table 19**

**Cross-Sectional Regressions by Stock Market: Chinese and Non-Chinese Stock Market**

This table reports the result of cross-sectional regressions of VC backed companies' performance by stock market: IPOs listed in Chinese (Mainland) and non-Chinese stock markets, from 2000-2007. CH is dummy variables: 1 for Mainland stock market, 0 otherwise. T-statistics (corrected for heteroscedasticity using GMM) are in parentheses. Industry dummies are used as control variables, but are omitted from the table. One, two, and three asterisks point to significance at 10%, 5% and 1% levels, respectively.

Variable	Underpricing		3-Month Excess Return			6-Month Excess Return			
Intercept	0.003 (0.01)	0.077 (0.27)	0.018 (0.07)	-0.786 (-1.06)	-0.794 (-1.10)	-0.793 (-1.07)	-1.301 (-1.45)	-1.228 (-1.33)	-1.249 (-1.40)
Underwriter	0.158*** (2.41)	0.148*** (2.27)	0.158*** (2.41)	0.024 (0.27)	0.024 (0.28)	0.028 (0.32)	0.082 (0.75)	0.080 (0.71)	0.083 (0.75)
Offer Size	-0.195** (-2.04)	-0.194** (-2.02)	-0.196** (-2.05)	-0.211 (-1.11)	-0.211 (-1.11)	-0.222 (-1.13)	-0.218 (-0.91)	-0.223 (-0.92)	-0.227 (-0.93)
BTM	-0.062*** (-2.65)	-0.062*** (-2.66)	-0.062*** (-2.67)	-0.074* (-1.69)	-0.075* (-1.68)	-0.077* (-1.68)	-0.082 (-1.42)	-0.085 (-1.41)	-0.085 (-1.42)
Firm Size	0.074 (1.27)	0.073 (1.25)	0.074 (1.25)	0.321612** (1.78)	0.323* (1.78)	0.329* (1.77)	0.389 (1.53)	0.389 (1.51)	0.393 (1.52)
Number of VC	-0.011 (-0.48)	-0.011 (-0.48)	-0.011 (-0.48)	0.085555* (1.75)	0.079* (1.64)	0.085* (1.75)	0.050 (1.23)	0.044 (1.12)	0.049 (1.21)
CH	1.403*** (8.10)	1.408*** (8.16)	1.407*** (8.15)	-0.366 (-0.96)	-0.356 (-0.95)	-0.357 (-0.96)	-0.698 (-0.98)	-0.685 (-0.96)	-0.688 (-0.97)
VC Age at IPO	0.002 (1.01)			0.003 (1.08)			0.005 (1.23)		
# Companies		-0.001 (-0.34)			0.003 (1.05)			0.002 (0.42)	
Total Amount			5.2E-05 (0.82)			9.6E-05 (1.05)			1E-04 (0.82)
# of obs.	184	184	183	149	149	149	132	132	132
R <sup>2</sup>	0.376	0.372	0.374	0.011	0.011	0.012	0.000	-0.003	-0.002

Table 19-Continued 1

Variable	1-Year Excess Return			2-Year Excess Return			3-Year Excess Return		
Intercept	-0.409 (-0.42)	-0.191 (-0.19)	-0.392 (-0.38)	-0.490 (-0.47)	-0.081 (-0.08)	-0.174 (-0.19)	2.920 (1.19)	3.263 (1.31)	3.177 (1.33)
Underwriter	0.006 (0.05)	-0.007 (-0.06)	0.005 (0.05)	0.051 (0.39)	0.044 (0.35)	0.016 (0.12)	0.180 (0.76)	0.222 (1.03)	0.159 (0.69)
Offer Size	-0.142 (-0.78)	-0.154 (-0.86)	-0.145 (-0.79)	0.179 (0.73)	0.153 (0.67)	0.170 (0.71)	0.351 (0.66)	0.366 (0.68)	0.376 (0.71)
BTM	-0.085** (-1.93)	-0.086** (-1.99)	-0.085** (-1.94)	0.080 (0.42)	0.120 (0.56)	0.118 (0.58)	0.017 (0.04)	0.107 (0.24)	0.092 (0.22)
Firm Size	0.322** (1.98)	0.320** (1.95)	0.323** (1.94)	-0.039 (-0.23)	-0.065 (-0.36)	-0.067 (-0.38)	-0.171 (-0.39)	-0.243 (-0.52)	-0.227 (-0.51)
Number of VC	0.085 (1.12)	0.085 (1.16)	0.084 (1.11)	0.017 (0.28)	0.018 (0.32)	0.013 (0.22)	-0.104 (-1.11)	-0.087 (-0.96)	-0.102 (-1.11)
CH	-0.301 (-0.65)	-0.284 (-0.60)	-0.298 (-0.65)	0.227 (0.29)	0.282 (0.36)	0.256 (0.33)	-0.077 (-0.04)	-0.027 (-0.01)	-0.027 (-0.02)
VC Age at IPO	0.001 (0.23)			0.001 (0.16)			-0.011 (-0.83)		
# Companies		-0.004 (-0.93)			-0.007 (-1.17)			-0.017 (-1.52)	
Total Amount			2.1E-05 (0.11)			-2.3E-04* (-1.63)			-4.6E-04 (-1.17)
# of obs.	103	103	103	74	74	74	57	57	57
R <sup>2</sup>	0.091	0.094	0.091	-0.085	-0.074	-0.070	0.029	0.038	0.035

Firm Size	0.074 (1.27)	0.073 (1.25)	0.074 (1.25)	0.321612** (1.78)	0.323* (1.78)	0.329* (1.77)	0.389 (1.53)	0.389 (1.51)	0.393 (1.52)
Number of VC	-0.011 (-0.48)	-0.011 (-0.48)	-0.011 (-0.48)	0.085555* (1.75)	0.079* (1.64)	0.085* (1.75)	0.050 (1.23)	0.044 (1.12)	0.049 (1.21)
CH	1.403*** (8.10)	1.408*** (8.16)	1.407*** (8.15)	-0.366 (-0.96)	-0.356 (-0.95)	-0.357 (-0.96)	-0.698 (-0.98)	-0.685 (-0.96)	-0.688 (-0.97)
VC Age at IPO	0.002 (1.01)			0.003 (1.08)			0.005 (1.23)		
# Companies		-0.001 (-0.34)			0.003 (1.05)		0.002 (0.42)		
Total Amount			5.2E-05 (0.82)			9.6E-05 (1.05)			1E-04 (0.82)
# of obs.	184	184	183	149	149	149	132	132	132
R <sup>2</sup>	0.376	0.372	0.374	0.011	0.011	0.012	0.000	-0.003	-0.002

Table 19-Continued 1

Variable	1-Year Excess Return		2-Year Excess Return		3-Year Excess Return				
Intercept	-0.409 (-0.42)	-0.191 (-0.19)	-0.392 (-0.38)	-0.490 (-0.47)	-0.081 (-0.08)	-0.174 (-0.19)	2.920 (1.19)	3.263 (1.31)	3.177 (1.33)
Underwriter	0.006 (0.05)	-0.007 (-0.06)	0.005 (0.05)	0.051 (0.39)	0.044 (0.35)	0.016 (0.12)	0.180 (0.76)	0.222 (1.03)	0.159 (0.69)
Offer Size	-0.142 (-0.78)	-0.154 (-0.86)	-0.145 (-0.79)	0.179 (0.73)	0.153 (0.67)	0.170 (0.71)	0.351 (0.66)	0.366 (0.68)	0.376 (0.71)
BTM	-0.085** (-1.93)	-0.086** (-1.99)	-0.085** (-1.94)	0.080 (0.42)	0.120 (0.56)	0.118 (0.58)	0.017 (0.04)	0.107 (0.24)	0.092 (0.22)
Firm Size	0.322** (1.98)	0.320** (1.95)	0.323** (1.94)	-0.039 (-0.23)	-0.065 (-0.36)	-0.067 (-0.38)	-0.171 (-0.39)	-0.243 (-0.52)	-0.227 (-0.51)
Number of VC	0.085 (1.12)	0.085 (1.16)	0.084 (1.11)	0.017 (0.28)	0.018 (0.32)	0.013 (0.22)	-0.104 (-1.11)	-0.087 (-0.96)	-0.102 (-1.11)

CH	-0.301	-0.284	-0.298	0.227	0.282	0.256	-0.077	-0.027	-0.027
	(-0.65)	(-0.60)	(-0.65)	(0.29)	(0.36)	(0.33)	(-0.04)	(-0.01)	(-0.02)
VC Age at IPO	0.001			0.001			-0.011		
	(0.23)			(0.16)			(-0.83)		
# Companies		-0.004			-0.007			-0.017	
		(-0.93)			(-1.17)			(-1.52)	
Total Amount			2.1E-05			-2.3E-04*			-4.6E-04
			(0.11)			(-1.63)			(-1.17)
# of obs.	103	103	103	74	74	74	57	57	57
R <sup>2</sup>	0.091	0.094	0.091	-0.085	-0.074	-0.070	0.029	0.038	0.035