

Venture Capital in China: Development, Confidence, and Lessons

Mark V. Cannice^a
Cathy Goldberg
Ling Ding

Received 15/09/2012 Approved 15/11/2012

Abstract

The venture capital industry in China is in a formative stage with an evolving set of government regulations to respond to and new metrics to adopt. Through this development process, the confidence that venture capitalists possess in the high-growth entrepreneurial environment in China is critical as it provides a platform from which future fund-raising and investment decisions are made. While China's rapid economic growth is driven, in part, by its entrepreneurial expansion and the development of its venture capital industry, there has not before been a systematic study of venture capitalist (VC) confidence in China. We began tracking the confidence of venture capitalists in China each quarter in Q2 2005. In this report we explore the practical and theoretical relation that Chinese VC confidence has to other aspects of the Chinese entrepreneurial environment. We found that changes in China VC confidence tend to precede changes in the Shanghai Index in the same direction; they also tend to precede changes in the NASDAQ Index in a similar manner. Based on these discovered relationships we offer theoretical and managerial contributions to the stream of venture capital research in China and a discussion of potential lessons for the development of venture capital in other regions.

^a Mark Cannice, Ph.D. (contact author – Email: Cannice@usfca.edu) is Department Chair and Professor of Entrepreneurship and Innovation with the University of San Francisco School of Management; Cathy Goldberg, Ph.D. is Associate Professor of Finance with the University of San Francisco School of Management, and Ling Ding, MBA is a corporate financial analyst.

Key words: venture capital, China, fund raising, investment
JEL: G32, G38

1. Introduction

Venture capital is a vital source of financing for many businesses that ultimately enter the public financial markets. Venture capital is essentially risk equity capital that may be available to firms, often in technology intensive industries, with potential high-growth prospects. Gompers and Lerner (1999: page 11) define venture capital investments as “investments in equity or equity-linked securities of private firms, with active participation by the fund managers in the management or oversight of the firms.”

Venture capital firms are the subset of the private equity industry which focuses on financing private early stage (often high technology or innovation focused) firms which have high-growth potential (Hand 2007). The aim of venture capital firms is to identify, take ownership positions in, and advise high potential firms so that they may grow significantly in value; at which time venture capital firms attempt to liquidate their ownership stake in these firms and profit from the increased value of their equity holdings. Because venture capital often increases the growth potential and likelihood of success of technology focused firms, a well functioning venture capital sector can enhance the technological profile of a region and productivity and competitiveness of a nation. While the development of the venture capital industry in the United States is well documented,

less research has been completed on the still emerging venture industry in China.

As demonstrated in the 2008 banking crises, confidence remains a critical aspect of the functioning of our economic and financial systems. Those who invest in and build companies must have confidence that the financial system and broader economic environment will function and grow in order to proceed with their entrepreneurial vision. China, an economic powerhouse, boasts unlimited entrepreneurial potential in an environment of regulatory change. China’s venture capital industry is still emerging, but is an essential part of China’s internal development of a high-growth high technology business environment.

In this paper, we explore the rapidly growing China venture capital industry with a particular focus on the confidence of its venture capitalists and relate these trends to other key market metrics. We also hope to derive new insights for other countries and regions that intend to develop a venture sector to promote technological advancement and economic growth.

2. Venture Capital in China

History, Legal Framework, and Challenges of Venture Investment in China

As far back as the 1980s the China government recognized that a venture capital industry would be important for it to develop high technology ventures and enhance its current industry profile. To achieve this objective it organized the first China venture firm, China New Technology Venture Capital Investment

Corporation in 1986. One year later, the first foreign VC fund, Chinavest, entered China (Wong 2011).

According to the Asian Venture Capital Journal (AVJC) Database, venture capital investments in China grew from single digits annually in the early 1990s to hundreds annually in the 2000s, hitting their high in 2007 with 712 deals before the global financial crisis hit with a resulting decline in investments in the ensuing years. During the rise and growth of the venture industry in China, foreign capital has provided the bulk of investments with the U.S. providing roughly 2/3 of invested capital in the 1990s and about 1/3 in the 2000s as the base of investors broadened. (AVJC Database). It is worth noting for the purpose of this special issue that no country from Latin America is among the leading 30 nations that provided venture investment to China.

Li (2011) provides a comprehensive review of foreign investment laws in China. In this review, Li finds that while China does not have a comprehensive legal code on foreign direct investment, it has progressed on a number of fronts since 1979 with the Law on Sino-Foreign Equity Joint Ventures and continued through its entry to the WTO in 2001. Through these developments, China's foreign investment laws have shifted from a focus on enterprises to a focus on capital while the areas of foreign investment have been broadened and made fairer with increased protections for investors. These developments clearly support a growing and strengthening venture capital sector by facilitating international investments into the sector. However, Wong (2011), which provides a summary on

the stages of development of the venture capital industry in China dating back to the 1980s, notes that some of the challenges of venture investing in China include variance in accounting standards from more developed economies and a general lack of comprehensive and reliable financial and economic information.

Bruton and Ahlstrom (2003) offered that while venture firms in China generally try to emulate the venture firms from the West, regulatory and cultural constraints impact their actual model of business. Chen, Li and Tang (2009) find that various barriers to effective development in the venture industry persist and that facilitation by government authorities is needed. From an operations point of view, Tan, Wei and Xia (2008) indicate that foreign venture firms in China are more likely to take an active role in the management and evaluation of portfolio firms that domestic Chinese venture firms and Ahlstrom, Bruton and Yeh (2007) point to high staff turnover as an issue to contend with as long-term commitment is typically needed to ensure deal completion.

Opportunities and Disciplines for Venture Investment in China

According to the AVCJ database, 163 China venture-backed had successful IPOs in 2010, about half of which on overseas exchanges. This compares to 77 US venture-backed IPOs in the same year (National Venture Capital Association). While the number of successful venture-backed IPOs will vary from year to year, this trend points to the maturing of the China venture capital sector in terms of breadth and depth of opportunities for investment and innovation.

While the environment for venture investing has become more predictable due to progress in the legal and regulatory framework, greater experience and discipline in investing have also supported the positive trend. Kambil, Long, and Kwan (2006) provided seven rules or “disciplines” for conducting venture investment in China. They include the effective use of social capital or *guanxi* to support business growth, educating entrepreneurs about corporate governance and intellectual property, adaptation to local customs, and providing value to ventures beyond capital. In sum, it is contingent on the investor in new enterprises to complete extensive due diligence not only on the potential firm to receive the investment but also on the changing regulatory environment and economic and political landscape.

Disciplines for venture investing and guiding of entrepreneurial firms will no doubt vary by region; however, the core aspects of developing business relationships, comprehensive due diligence, efficient corporate governance, and a strategic application of intellectual property law should serve venture investors well in most regional markets.

Current Trends in Venture Capital in China

We have conducted quarterly confidence surveys of venture capitalists in China since 2005. In our surveys we ask China venture capitalists to estimate their confidence in the high-growth entrepreneurial environment in China over the ensuing 6 – 18 months and to provide analysis to support their level of confidence. In the second quarter of 2012 confidence among Chinese venture capitalists in the high-growth entrepreneurial environment

in China sunk to its lowest point in the history of our seven-year old quarterly survey. The venture capitalist respondents as a group attributed their declining confidence to worsening economic conditions in the US and Europe, slowing growth and political uncertainty in China, fewer exit opportunities, and sinking valuations. For example, in the Q2 2012 survey Tony Luh of DFJ Dragon Fund China commented that “geopolitical risk associated with the transitioning of new leaders atop the communist party is also a concern for the next 12 to 18 months.”

The slow down in the exit market for venture-financed firms also weighed on confidence. One venture capitalist respondent who requested anonymity pointed to “the bursting of the China IPO bubble” for his low confidence and Lucas Wang of TMI Holding Corp. emphasized the “slowing down of the IPO market...” For example, 21st Century Business Herald reported that 6 VC/PE backed firms had an IPO on the Hong Kong stock exchange and realized an average of 10% investment loss during the first half of 2012¹.

Overseas’ exit opportunities and investment returns have declined. In overseas markets, U.S. investors continue to downgrade the prospects of some Chinese companies due to accounting irregularities within some firms. As a result, the US exit channel is becoming less available. For example, only Vipshop went public in US stock market du-

¹ 数据图表分析：2012年上半年PE/VC谁在亏钱，Source: 21st century business herald, July 16 2012, <http://news.chinaventure.com.cn/2/20120716/91757.shtml>

ring the past six months². As US investors' confidence in Chinese companies remains low, Chinese companies listed on US stock markets demonstrated disappointing performance and further deterred other Chinese companies' IPO plans in the U.S. Chinese Stock News reported that the stock prices of most Chinese companies listed on US stock markets dropped during the past year, some of which recorded a decrease of over 50%, while NASDAQ index has increased by 7% during the same period³.

In the domestic market, the Chinese government has become stricter in approving IPO requests. Investors have begun questioning the accounting transparency of some companies listed on the domestic Growth Enterprise Market, as approximately 90% of these firms experienced deteriorating financial performance after successful IPOs⁴. In addition to difficulty in finding viable exit opportunities, many of those investors who did manage to exit through IPO reported lower investment returns.

Decreasing funding has slowed down venture capital investment. One participating venture capitalist who requested anonymity admitted that she saw "slumping in VC fund raising". According to PEdaily, venture capital only raised \$3.37 billion during the first half of 2012, a decrease by 77.15% com-

pared to same period of 2011⁵. A recent survey by ChinaVenture indicated that 47% VC/PE fund raising firms hold a pessimistic view and believed huge risks exist in the near future⁶.

While foreign capital dominated venture funds in China in the 1990s and 2000s, local RMB funds have taken the dominant role in Chinese venture capital industry since 2009⁷.

An anonymous venture capitalist shared his observation that "firms doing business in PRC face intense competition from the RMB based funds. It seems to be too much money chasing too few good deals with the resultant impact on credit quality and pricing". PEdaily's report shows that the amount of local RMB fund reached 83.2% of total venture capital fund raised during the first half of 2012⁸.

Despite the risks and uncertainties, a few venture capitalists still see the bright spots in China venture capital market. Ray Hu of GGV Capital observed that the "proliferation of smart phones is driving innovation in mobile applications (both consumer and enterprise), Internet usage and new business models (travel, O2O and etc.)." In addition, Johannes Schoeter of Victoria Capital Limited believed that "less liquidity and generally cooler environment are opening more selected opportunities."

2 数据图表分析：2012年上半年PE/VC谁在亏钱。Source: 21st century business herald, July 16 2012, <http://news.chinaventure.com.cn/2/20120716/91757.shtml>

3 中概股做空阴霾犹在：VC/PE盼“高富帅”出海。Source: China Stock News, July 14th 2012, <http://news.chinaventure.com.cn/2/20120714/91702.shtml>

4 创业板公司90%业绩变脸 券商直投“搭便车”遭质疑。By Yueping Wang, Source: Investors, September 19, 2011, <http://capital.cyzone.cn/article/216199/>

5 清科数据：上半年VC市场遇冷 募资回落至两年以来最低。 by Yu Luo, Source: PEdaily, July 2nd 2012, <http://research.pedaily.cn/201207/20120702329554.shtml>

6 投中观点：募资顾问调研报告发布 市场困境影响募资策略。 by Poddy Feng, Source: ChinaVenture, June 27th 2012, <http://report.chinaventure.com.cn/t/576.aspx>

7 清科数据：上半年VC市场遇冷 募资回落至两年以来最低。 by Yu Luo, Source: PEdaily, July 2nd 2012, <http://research.pedaily.cn/201207/20120702329554.shtml>

8 清科数据：上半年VC市场遇冷 募资回落至两年以来最低。 by Yu Luo, Source: PEdaily, July 2nd 2012, <http://research.pedaily.cn/201207/20120702329554.shtml>

The maturing venture capital industry and entrepreneurial environment in China have allowed venture investors to remain in the game even during uncertain times. Roger Hu of Matrix Partners China is “fairly confident in the overall VC environment in Greater China as both the investors and the entrepreneurs are getting more and more mature as time goes on.” A venture capitalist, who wished to remain anonymous, stated that “recent follow-on rounds and IPO events have further proven the increasing sustainability of the asset class. VC managers are stabilizing and building out their teams and track records. The space has become more competitive but far below what we are seeing in the growth capital area. The IPO window may be shut for some time but this should not affect investment activity.”

Emerging secondary markets surrounding China also help boost venture activities in China. An anonymous venture capitalist revealed that “some of the secondary markets, such as Mongolia and Cambodia, are beginning to open up and new venture funds are becoming more available to entrepreneurs. Many of these markets are linked to China as a major export market, but offer more diversity and, in some cases, more legal protection to investors.”

In summary, even as China VC confidence declined, venture capitalists appear determined to endure current market difficulties and keep focused on the long term. The economy and global stock market downturn, coupled with some Chinese firms’ disappointing performance in the global stock market, have led to exit difficulties and declining investment returns. These circumstances ne-

gatively affected the venture business model in China and resulted in a rational decline in confidence. However, after experiencing market ups and downs in recent years, venture capitalists and entrepreneurs have gained the essential experience and patience necessary for a maturing venture environment. Investors remain determined despite declining sentiment in the short term, and entrepreneurs are focusing on innovations that serve the needs of growing customer markets that will keep venture capitalists in game. As capital keeps flowing into the Chinese market, venture capitalists remain focused on the future and are using current global market uncertainty as an opportunity for long-term investment.

3. Theoretical Underpinnings

Venture Capitalists’ Confidence

As discussed in the previous section, confidence plays an important role in helping to determine how venture capitalists make investment decisions. Widely reported measures of confidence exist for certain sectors of our national economy (e.g. consumers, CEOs), with some being linked to financial markets (Fisher & Statman 2003). However, few measures of venture capitalists’ confidence exist. (Please see the *China Venture Capitalist Confidence Index* and the *Silicon Valley Venture Capitalist Confidence Index* as notable exceptions.) We offer that venture capitalists’ confidence is an important variable to understand, as it would logically impact the functioning of major swaths of entrepreneurial finance markets. For example, Zacharakis and Shepherd (2001) found that

VCs tend to be overconfident in making their investment decisions and that this overconfidence has a negative impact on their decision quality.

Asymmetric Information

This unique knowledge that VCs have of their portfolio firms and potential public market financings may be viewed from the theoretical lens of asymmetric information (Akerlof 1970; Stiglitz and Weiss 1981). The central premise of asymmetric information is that one party to a transaction has more or superior information to a potential transaction than other parties to the same transaction. This may create an imbalance of power in a transaction. For example, some investors may have unique knowledge about a firm that other investors do not have. Denis (2004) asserts that the problem of information asymmetries is even greater in entrepreneurial finance situations than in traditional corporate finance. This is because of the lack of transparency of privately held firms that are not required to make financial information publicly available. Focusing on venture-backed companies, Gompers and Lerner (2000a) indicate that the intangible nature of the technologies in technology intensive companies create large information asymmetries between these firms and their financiers.

We find that venture capitalists possess most of the vital knowledge of the managers of the firm and also retain their role as early private funders of the firm who seek potential follow on public funding and liquidity events. For example, Kaplan and Stromberg (2001) find that VCs expect to be active in “developing a business plan, and assisting

with acquisitions.” This powerful role as de facto managers and investors of their portfolio firms with intimate knowledge of their portfolio firms and early private discussions with investment bankers and potential corporate acquirers creates an asymmetric information advantage for the venture investors over public market investors. Positioned at the intersection of private and public financing decisions of their portfolio firms, VCs naturally possess an informational edge over other market actors into the timing of public financial market transactions. We assert that this informational advantage may allow VCs early insight of future public financial market activity, and this insight may be borne out in VC confidence.

Informational Advantage and Venture Capitalists' Confidence

Kaplan and Schoar (2005) offer that some private equity investors may have proprietary access to superior transactions. Given that VCs have unique knowledge or asymmetric information of potential liquidity events of the privately held firms in their portfolios, we offer that venture capitalists' confidence in the future entrepreneurial environment may be informed by this asymmetric informational advantage and lead to a temporal precedence of confidence *vis a vis* public capital markets.

Having ascertained venture capitalist confidence in the future high-growth entrepreneurial environment by a perceptual survey method, we wished to explore our supposition and confirm if VC confidence was coincident with, or a lagging or leading indicator of public financial markets. We selected the China's financial markets with the assump-

tion that as its private and public financial markets are subject to continuing regulatory reform, and, thus, may allow for a demonstration of asymmetric information.

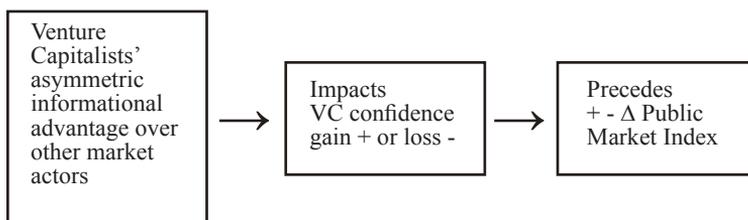
4. Conceptual Model and Hypotheses

Black and Gibson (1998) assert that the VC industry within a country is strongly associated with a country's stock market. Cochrane (2005) and Kaplan and Schoar (2005) have also found that venture capital funds appear correlated with public financial markets. We seek to find, though, if VC confidence is concurrent with, lags, or precedes market changes (positively or negatively). Arguments could be made for any of these temporal scenarios. For example, as public markets do well – there is greater interest in the issuance of new high growth firms, thus increasing the demand for the VC product and the flow of financing to their funds. This scenario would suggest that

VC confidence lags market changes as funds flow to VC portfolio after the market rises. This is the notion that is asserted by Gompers, Kovner, Lerner and Scharfstein (2005).

However, assuming that VCs understand this process, perhaps their confidence in the future is coincident with market changes. That is, as markets rise or fall, VCs understand the impact to their fund raising and thus their confidence rises or falls with the public markets. However, the third scenario we propose is possible if VCs have an informational asymmetric advantage of the financial trajectory of their portfolio firms and, therefore, their confidence increases prior to public market movements. In this case, VC confidence may precede financial public markets. We assert that the information asymmetries that VCs possess of their portfolio firms will allow their rise or fall in confidence to occur prior to public market movements. With this as our premise we offer the following conceptual model.

Figure 1



In the model above we assert that VC information asymmetries of their portfolio firms and of the likelihood and timing of their portfolio liquidity events impact a gain or loss of their confidence in the future high-growth

entrepreneurial environment which precedes the actual movements in public financial markets. We anticipate that the gain or loss in confidence will be in the same direction of the increase or decrease in public markets.

Therefore we developed our first two hypotheses based on this reasoning and in line with our arguments above.

H1: Δ Mean of China VC Confidence Index (+/-) precedes Δ Shanghai Index (+/-).

H2: Δ Mean of China VC Confidence Index (+/-) precedes Δ NASDAQ Index (+/-).

5. Methods and Data Analysis

Sample Description and Methodology

We conducted our analysis with data from two distinct sources – a primary sample of longitudinal survey data from our proprietary *China Venture Capitalist Confidence Index*TM and archival financial market data over the same time frame. We hoped to provide a clearer and deeper understanding of venture capitalists' confidence and their asymmetric knowledge advantage by measuring it against an objective measure of public market movements.

China Venture Capitalist Confidence Index (Independent Variable)

The quarterly *China Venture Capitalist Confidence Index*TM (Bloomberg ticker symbol: *CVCCI*) is based on an on-going survey of Mainland China and Hong Kong venture capitalists. The China VC Index measures and reports the opinions of China-based professional venture capitalists in their estimation of the high-growth venture entrepreneurial environment in China over the next 6 - 18 months. In publishing a recurring confidence index of China-based venture capital investors, we intend to utilize the local knowledge

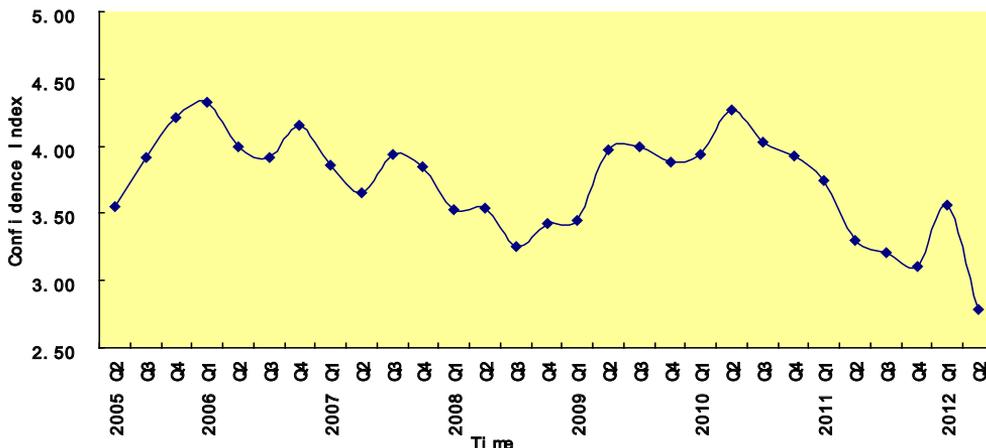
and insight of our respondents to provide an essential perspective and an on-going leading indicator of the dynamic Chinese entrepreneurial business environment. The Index is carried by Bloomberg Professional Services (ticker: CVVCI) and has been cited by international business media (e.g. Reuters, Wall Street Journal, etc.)

We collected our primary data from a quarterly survey over eight years from Q2 2005 – Q2 2012 (29 quarterly observations). Each of the 29 surveys was conducted in the two weeks following the end of each calendar quarter. Each quarter's email survey was sent to approximately 75 venture capitalists in the China and averaged about 12 respondents each quarter. Most of the responding venture capitalists agreed to allow their names and firms to be used as study participants, and they are listed in Table 3. The survey provided data on each VC's self reported perceptual rating of confidence in the future high-growth entrepreneurial environment in the Greater China Region, usually with commentary supporting that rating. VC perceptual measures of confidence were tabulated as the mean of the responses (which can take on values from 1 through 5 representing most pessimistic to most optimistic) and are calculated for each quarter. The survey results and full reports were issued in a coordinated release timed with their posting on Bloomberg Professional Service in the last week of the month following the calendar quarter. The reports were also provided to all survey participants and many other VCs for review and comment. To date, all of the comments by study participants and other venture capitalists who have read the report have been positive in nature.

The China Venture Capitalist Confidence Index for the second quarter of 2012, based on a July 2012 survey of twelve Mainland China and Hong Kong venture capitalists,

registered 2.79 on a 5-point scale (with 5 indicating high confidence and 1 indicating low confidence). Please see Graph 1 for trend data.

Graph 1
Trend Line of China Venture Capitalists Confidence over recent 29 quarters



In the graph we see that there has been variance, albeit a somewhat modest variance in venture capitalists' confidence quarter to quarter over the last eight years. Please see in Appendix 1 the total of all responding VCs who provided a perceptual measure in at least one quarter of our sample data. Unique to most survey studies, we make available the identities of the large majority of our survey participants as well as many of their direct quotes. We offer that providing our survey respondents' identities (with their permission) and including some of their direct 'on the record' commentary related to their assessment of their own confidence provides additional context, insight, and reliability to our findings.

Shanghai and NASDAQ market averages (Dependent Variable)

Monthly closing process for both the NASDAQ and Shanghai Indices were obtained from Yahoo Finance. These prices were used to calculate the percentage change in each index, used in equations 1 and 2.

6. Regression Results and Analysis

The analysis below explores the relationship of the China VC perceptual measures and public market activity as measured locally by the Shanghai Index and abroad by the NASDAQ Index. The simple regressions test for a relationship between the mean VC perceptual

measure of confidence and public market financial transactions for the following cases: (1) mean VC confidence measure versus public financial market activity for a lead of 3 months or time -1 (i.e. VC sentiment precedes market activity) (2) a contemporaneous relationship (time 0) between VC confidence and public financial market activity; and (3) mean VC confidence measure follows financial market activity for the following quarter (time +1) and (4) VC measures follows fi-

nancial market and that occurs 2 quarters out (time +2).

$$ChinaCI_{-1,0,+1,+2} = \alpha_0 + \alpha_1 SSE \quad (1)$$

$$ChinaCI_{-1,0,+1,+2} = \alpha_0 + \alpha_1 NASD \quad (2)$$

(Where NASD =% change in the NASDAQ quarterly, and SSE = % change in the Shanghai Index quarterly, and ChinaCI = average response of quarterly China VC Confidence Index)⁹

Table 1 Simple Regression Results for Time Series of China VC Confidence and SSE

Variables	Time -1 <i>China CI</i>	Time 0 <i>China CI</i>	Time +1 <i>China CI</i>	Time +2 <i>China CI</i>
Constant	3.6823***	3.6849***	3.7242***	3.7708***
SSE	0.7780***	0.7875***	0.3970	0.2571
R ²	0.2287	0.2343	0.0406	0.0254

Table 1 tests the significance of the variables in our model as outlined in equation 1. Significance levels for the results are reported as ***,** and * which indicate 1%, 5% and 10% significance levels respectively.

Table 2 Simple Regression Results for Time Series of China VC Confidence and NASD

Variables	Time -1 <i>China CI</i>	Time 0 <i>China CI</i>	Time +1 <i>China CI</i>	Time +2 <i>China CI</i>
Constant	3.6858***	3.6907***	3.7295***	3.7740***
NASD	1.1465***	0.7077	0.3823	0.2482
R ²	0.1805	0.0302	0.0101	0.0063

Table 2 tests the significance of the variables in our model as outlined in equation 1. Significance levels for the results are reported as ***,** and * which indicate 1%, 5% and 10% significance levels respectively.

⁹ Please note that the cross correlation for this data was calculated but is not presented here. In addition, we ran the Dickey-Fuller test on the sample data and found we could reject the null hypothesis of a unit root.

Tables 1 and 2 present the results for the model that estimates the China Confidence Index measure for the quarter preceding, the same quarter, the following quarter and the following two quarters relative to the market index measure (Shanghai or NASDAQ). Results indicate that movement in the China CI precedes change in the Shanghai and in the same direction. In other words, an increase in VC confidence at time 0 precedes an increase in the Shanghai Index one quarter later. There is also a significant relationship between VC confidence change and the Shanghai Index in the concurrent quarter. Numerically, the simple regression shows that a 10% increase in the Shanghai follows an approximately 8% increase in the VC confidence measure one quarter before. Looking at Table 2, a similar relationship exists with the NASDAQ. The China VC measure precedes movement in the NASDAQ by one quarter. Numerically a 10% increase in the NASDAQ implies an 11% increase in the VC confidence measure one quarter before.

These results seem to make sense from a venture capital standpoint. If VC's perceive that markets will perform favorably, facilitating a cash out either in the form of an IPO or merger and acquisition, then their confidence measure should reflect their perception as markets play out during that quarter. In addition, VC's abroad pay close attention to international markets (i.e. the NASDAQ) as a source of information and therefore finding a relationship with the NASDAQ is not surprising. US venture firms often list their portfolio companies on the NASDAQ once they IPO and so this international benchmark makes sense for Chinese Venture firms to watch.

Finally, once all information has been transmitted to the public, we should expect to find no relationship between VC measures and the Shanghai/NASDAQ as evidenced by the insignificant coefficients post 1 quarter and 2 quarters out. This would imply that markets are in effect semi strong form efficient.

7. Discussion

Venture capital markets are subject to asymmetric information (Tykova 2007), and a thorough understanding of the interplay between venture capitalists, their asymmetric knowledge of their portfolio firms and their exit alternatives, and the public financial markets remains elusive. Our research into the development and opportunities in the China venture market suggest that within a still emerging economy, venture capitalists may command significant asymmetric knowledge regarding the interplay of private and public financial markets. Thus, it may prove fruitful to track the estimations and utterances of confidence of these finance professionals.

Relevance to Latin America

We have observed and analyzed the venture capital market in China to better understand the development of this important sector of finance for China, but also to use that understanding to gain insight into how to best establish a venture capital sector in other rapidly emerging economies. In our assessment of the growth and impact of the Chinese venture sector, we offer the following points that may be applicable to the development of the venture market in other countries.

1. The development of a venture capital sector is seen as an important element that supports national innovation and the enhancement of productivity by national and regional governments. This is because the venture sector provides essential financing to high potential ventures that also often exhibit higher than average risk of failure. Without this private risk capital it is unclear whether many of these ventures would find the necessary financing to develop new products and services.
 2. National and regional governments can play a role in the development of a vibrant venture capital sector. At a minimum, governments can provide a supportive and predictable regulatory framework that incentivizes risk capital to flow into technology focused businesses. This implies that capital is welcomed from within and from without the national borders. The 2012 Latin America Venture Capital Association (LAVCA) Scorecard indicates a stable regulatory environment across Latin America. Continued stability will help ensure the continued development of a vibrant venture capital sector in the region.
 3. Venture investors should apply core disciplines for venture investing that include developing business relationships, comprehensive due diligence, efficient corporate governance, and a strategic application of intellectual property law.
 4. Venture capitalists operate at the intersection of public and private finance as well as public and private technology and as such have a knowledge advantage over most other market participants. We have found that their confidence in the high growth entrepreneurial environment in their region of investment may serve as a proxy for this knowledge asymmetry. Therefore, we offer that it may be wise to monitor the confidence of venture capitalists in their assessment of a region's entrepreneurial environment. This finding may suggest that the LAVCA may begin to track venture capitalists confidence among member firms in the region.
 5. In particular, it appears that variance in venture capitalists confidence may preceded variance in public financial markets; therefore, a close monitoring of this measure of confidence may provide an early indicator of the overall health of the public financial markets.
- ## 8. Limitations and Areas of Future Research
- While we attempted to provide a cogent review and analysis of the venture capital sector in China, we readily admit that our access to information on the Chinese VC sector is limited and therefore does not fully represent the depth and dynamism of this important sector of entrepreneurial finance. Additionally, insights and findings developed from this analysis of the Chinese VC sector will not transfer fully to other regions as cultural, regulatory and economic differences across regions will undoubtedly impact the potential applicability of our findings.

Still, we offer that this exploration into the venture sector in China may offer some important insights that with caution may be of use in planning the development of venture sectors in other regions around the world, including those of Latin America. We suggest that potential fruitful research may reside in the tracking and analysis of venture capitalists' confidence in other countries and regions.

References

- Akerlof, G. (1970). *"The Market for Lemons: Quality Uncertainty and the Market Mechanism"*. The Quarterly Journal of Economics Vol. 84, 3, 488 – 500.
- Ahlstrom, D., G Bruton, and K Yeh (2007). *"Venture Capital in China: Past, Present, and Future"*. Asia Pacific Journal of Management, Vol 24, 247 – 268.
- Asian Venture Capital Journal Data Base (2011).
- Black, B., Gibson R. (1998). *"Venture Capital and the Structure of Capital Markets: Banks versus Stock Markets."* Journal of Financial Economics, Vol. 47, 3, 243 – 27.
- Bruton, G. and D. Ahlstrom (2003). *"An Institutional View of China's Venture Capital Industry: Explaining the Differences Between China and the West"*, Journal of Business Venturing, Vol. 18, 233 – 259.
- Cannice, Mark V. (2004 – 2012). *"Silicon Valley Venture Capitalist Confidence Index, Q1 2004 – Q2 2012"*, Proquest and EBSCO.
- Cannice, Mark and L. Ding (2005 – 2012). *"China Venture Capitalist Confidence Index, Q2 2005 – Q2 2012"*, Proquest and EBSCO.
- CEO Confidence Survey (quarterly). Conference Board, New York.
- Chen, C., K Li, and Y Tang (2009). *"Venture Capital and Mobilization Efficiency in China"*. The Chinese Economy, Vol. 42 No. 6, 46 – 65.
- Cochrane, J. (2005). *"The Risk and Return of Venture Capital."* Journal of Financial Economics, Vol. 75, 3 – 52.
- Denis, D. (2004). *"Entrepreneurial Finance: An Overview of the Issues and Evidence"*. Journal of Corporate Finance, Vol. 10, 301 – 326.
- Fisher, K., Statman, M. 2003. *"Consumer Confidence and Stock Returns"*. Journal of Portfolio Management, Vol. 30, 115 – 127.
- Gompers, P., A. Kovner, J. Lerner, J., and D. Scharfstein. (2005). *"Venture Capital Investment Cycles: The Impact of Public Markets"*. Working paper, National Bureau of Economic Research.
- Gompers, P. and J. Lerner (1999). *"An Analysis of Compensation in the U.S. Venture Capital Partnership"*. Journal of Financial Economics, Vol. 51, 3 – 44.
- Gompers, P., and J. Lerner (2000a). *"Risk and Reward in Private Equity Investments: The Challenge of Performance Assessment"*. Journal of Private Equity, Vol. 1 (Winter), 2 – 12.
- Hand, J., (2007). *"Determinants of the Round-to-round Returns of pre-IPO Venture Capital Investment in U.S. Biotechnology Companies."* Journal of Business Venturing, Vol. 22, 1 – 28.

- Kaplan, S., Schoar, A. (2005). "Private Equity Performance: Returns, persistence and Capital Flows." *Journal of Finance*, Vol. 60, 4, 1791 – 1823.
- Kaplan, S., Stromberg, P. (2001). "Venture Capitalists as Principals: Contracting, Screening, and Monitoring." *American Economic Review*. Vol. 91, 2, 426 - 430.
- Kambil, A., V. Long, and C. Kwan (2006). "The Seven Disciplines for Venturing in China", MIT Sloan Management Review, Winter 2006, 85 – 89.
- Li, W. (2011). "Chinese Foreign Investment Laws: A Review from the Perspective of Policy-oriented Jurisprudence." *Asia Pacific Law Review*, Vol. 19, 1, 35 – 51.
- Stiglitz, J., Weiss, A. (1981). "Credit Rationing in Markets with Imperfect Information." *The American Economic Review*, 71, 3, 393 – 410.
- Tan, J., W. Zhang, and J. Xia (2008). "Managing Risk in a Transitional Environment: An Exploratory Study of Control and Incentive Mechanisms of Venture Capital Firm in China". *Journal of Small Business Management*, Vol. 46 No. 2, 263 – 285.
- Tykvova, T., (2007). "What do Economists Tell us about Venture Capital Contracts?" *Journal of Economic Surveys*, Vol. 21, 1, 65 – 89.
- University of Michigan: Consumer Confidence Index. (1952) – present monthly. The University of Michigan, Ann Arbor, MI.
- Wong A. (2011). "The Evolution of the Venture Capital Market in China: Current Trends in Venture Capital Financing Strategies and Investment Preferences", *The Journal of Investing*, Winter 2011, 16 – 26.
- Zacharakis, A.L., & Shepherd, D.A. (2001). "The Nature of Information and Overconfidence on Venture Capitalists' Decision Making", *Journal of Business Venturing*, Vol. 16, 311 – 332.

Annex: Participating China Venture Capitalists in the Quarterly Confidence Index Surveys

Alan Au	Jafco Asia
Alan Song	Soft Bank China Venture Capital
Albert Wong	New World TMT Limited
Alex Yu	Baring Private Equity Asia
Alicia Eastman	Asia Pacific Capital
Alvin Ho	CLSA Capital Partners
Amy Yeh	Soft Bank China Venture Capital
Anne Jiang	Shenzhen Capital Group Co. Ltd.
Bobby Chao	DFJ Dragon Fund
Cadol Cheung	Intel Capital, Asia Pacific
Chang Sun	Warburg Pincus Asia
Chauncey Shey	Soft Bank China Venture Capital
Cynthia Qiu	WI Harper Group
David Lam	WI Harper Group
David Zhang	Matrix Partners China
Duane Kuang	Qiming Venture Partners
Eric Xu	3i Asia Pacific
Felix Wong	Jafco Asia
George Li	China Merchants Group
Gojie He	Guandong Technology Venture Capital Group
Grace Zhang	Siemens Accelerations in Communications
Hongwie Zhang	Shanghai Information Investment
Harold Chan	SEAVI Advent Private Equity
Harry Man	Matrix Partners China
Helmut Struss	Siemens Accelerations in Communications
Hongbin Liu	China Merchants
Jamie Paton	3i Asia Pacific Pic
Jessica Mak	Electra Partners Asia

Jenny Lee	Granite Global Ventures
Jixun Foo	Granite Global Ventures
Jianhui Zhou	Com Ventures
Johannes Schoeter	Victoria Capital Limited
Kevin Chan	SEAVI ADVENT Private Equity
Laurence Ip	CLSA Capital Partners
Lip-Bu Tan	Walden International
Lucas Wang	WI Harper
Marc Wang	Matrix Partners China
Marvin Lai	iTM Ventures Limited
Max Burger	Golien Ltd.
Michael Scown	Intel Capital, Asia Pacific
Patrick Keen	China Vest
Peter Hua	Soft Bank China Venture Capital
Philip Zhai	Shanghai Industrial Holdings Ltd.
Ray Hsiao	Sycamore Ventures
Ray Hu	GGV Capital
Raymond Gu	Jafco Asia
Richard Roque	SA Capital Limited
Roger Hu	Matrix Partners China
Roger Zha	China Merchants
SC Mak	Asset Managers (Asia) Company Ltd.
Sebastiaan van den Berg	HarbourVest Partners (Asia) Ltd.
Steven Lin	CLSA Capital Partners
Steven Kowk	Orchid Asia
Stephen Chiao	Sycamore Ventures
Tony Luh	DFJ Dragon Fund China
Vincent Chan	Jafco Investment (Hong Kong)
Wayne Hiong	WI Harper Group
Weiping Jiang	Shenzhen Capital Group Co. Ltd.

Xuanlin Qin	China Finance United Holding Company
Yuan Fang	WI Harper Group
Yuan Wei	New Margin Ventures

The venture capitalists listed above responded to one or more surveys over the seven years of the quarterly survey and agreed to be listed as participants of the survey. Some of the venture capitalists listed above have changed firms since they initially participated in the Index surveys.