

IPO Suspensions and Venture Capital Activity

Mark Humphery-Jenner^a, Zhiyi Qiu^b and Jo-Ann Suchard^c

The potential to exit companies through Initial Public Offerings (IPOs) is argued to be critical to the existence of an active venture capital (VC) market. However, this can be difficult to test due to endogeneity concerns. We use the suspension of China's IPO market as an exogenous shock. We analyse the impact of IPO suspensions on VC investment, exit mechanisms and fundraising. We find that contemporaneous VC investment decreases during IPO suspension periods. VCs are more likely to invest in high tech and less likely to invest in late stage and syndicated deals. Companies that received investment during an IPO suspension are less likely to be exited and take longer to exit. These companies if exited, are more likely to exit via takeover and in international IPO markets. Further, during an IPO suspension period, both the number of new funds raising capital and fund target amounts decrease. The results suggest that lack of access to public markets dampens VC activity.

Keywords: Venture Capital, China, IPO

JEL Classification: G24, G34, G38

*We thank the participants at the Australasian Finance and Banking Conference (2020) and Asian Finance Association (2021). We are also grateful for comments from seminars at Tel Aviv University and UNSW Business School.

^a School of Banking and Finance, UNSW Sydney, Australia. Email: mhlj@unsw.edu.au

^b School of Economics, Changzhou University, Jiangsu.

^c School of Banking and Finance, UNSW Sydney, Australia. Tel : 612 93855876, Email: j.suchard@unsw.edu.au

1 Introduction

"Many investors in domestic venture capital funds, were reluctant to invest given the uncertain prospects for change, constraining capital available to promising firms,"

Yuan Zhide, Shanghai Venture Capital, in "Chinese venture capital wilts amid IPO drought", South China Morning Post, 18 Nov, 2013.

The primary goal of venture capital (VC) funds is to maximize their financial returns by exiting their portfolio companies. Initial Public Offerings (IPOs) are a key exit mechanism for VCs. In the US, this assumption has been implicit in legislation such as the JOBS Act of 2012 which aimed to revitalize the IPO market. This is part of an acknowledgement of the importance of VC investment and entrepreneurship in driving innovation, employment, and productivity growth in both developed and emerging economies. Indeed, Black and Gilson (1998) argue that the potential for exit through IPOs is critical to the existence of an active venture capital (VC) market (even if exit often occurs through the portfolio company's sale). It allows the venture capitalist and the entrepreneur to enter into an implicit contract over future control of the portfolio company and provides a financial incentive for equity-compensated managers to expend effort. Listing a portfolio company on the stock market provides an important avenue through which VC managers can monetize their investment and return money to investors (limited partners). Testing the importance of IPO markets to VC activity helps to provide important insight into whether, and why, regulators should encourage pro-IPO reforms, and enhance companies' access to financial markets.

The veracity of IPO markets could also more broadly impact the VC ecosystem, in addition to the impact on portfolio companies and investments. Jeng and Wells (2000) argue that IPOs should have a positive effect on both the demand and supply of VC funds. On the demand side, the existence of an exit mechanism gives entrepreneurs an additional incentive to start a company. On the supply side, large investors are more willing to supply

funds to VC firms if they feel that they can later recoup their investment. Black and Gilson (1998) find that the quantity of VC-backed IPOs in a given year, is positively correlated to VC fundraising in the following year. Further, developed stock markets have a positive effect on VC activity (Schertler and Tykvová 2011) and VC exits (Nahata et al. 2014). Thus, analyzing the impact of IPO markets on VCs can provide key policy insights for regulators who have historically been keen to encourage private sector investment in start-ups.

Previous research has indirectly tested how IPO markets impact VC investment, owing to the difficulty of ensuring causation. Often, this focuses on differences in stock market development across countries (proxied by market capitalization and IPO volume). Prior studies generally find a link between public markets and VC activity (Jeng and Wells, 2000; Gompers et al., 2008; Schertler and Tykvová, 2011; Nahata et al., 2014; Félix et al., 2013; Chaplinsky and Gupta-Mukherjee, 2016). However, there are myriad institutional differences between countries and the conditions producing a more valuable stock market are also likely to be highly correlated with the conditions encouraging start-up investment. Indeed, prior research highlights a strong correlation between private equity and market returns in general (see e.g., Phalippou, 2020). This gives rise to an identification issue when analyzing the relationship between IPO market conditions and VC investment.

We use the suspension of China's IPO market as an exogenous shock and analyze how this shock to IPO availability influences VC activity in China. China has become one of the largest VC markets in the world. Nevertheless, the insights from this market are important and generalizable. For example, it is important for regulators and exchanges to understand the factors that can influence entrepreneurship; and thus, economic development. Although IPOs are an important exit mechanism for VCs to exit their investments (Black and Gilson, 1998; Jeng and Wells, 2000; Félix et al., 2013), the use of IPOs as an exit mechanism differs across markets. Figure 1 provides the proportion of IPO exits between 1990 and 2018 across markets using data from Preqin. In developed markets such as the US, Canada and Europe,

IPOs account for 12.5% of VC exits and 9.5% in emerging markets in South America, Africa, India and parts of Asia. However, IPOs make up the majority (64%) of VC exits in Japan, Korea and China. The IPO suspensions closed the most important exit mechanism for VC investors in China and thus allows us to examine how the removal of the potential for IPO exits (for periods of time), impacts VC activity.

IPO suspensions are an extreme form of regulation that delays listing and pauses all IPO activities beyond the application submission step. Between 1994 and 2016, there have been nine major IPO suspensions lasting 3 to 15 months in China. The start and end of the suspensions were often determined at ad hoc meetings, were not announced beforehand and thus not anticipated by market participants. The suspensions create general uncertainty about the ability of firms to access public markets. An important feature of China's approval-based public listing system that enables causal identification, is that firms have little ability to time the IPO market. IPO approval takes two to three years in normal, non-suspension times. Once approved, firms take several months to complete the final steps to listing

The use of an exogenous shock in this study is related to Conti et al (2019), who use the 2008 financial crisis as a liquidity supply shock to examine variation in VC investment strategies. They find that on aggregate, funded start-ups receive no less financing during the financial crisis than in non-crisis times. However, VCs allocate relatively more resources to start-ups operating in the VCs' core sectors. The impact of IPO suspension in China has been used by Lee et al (2019) and Cong and Howell (2020). Lee et al (2019) examine the role of IPO suspensions on a Chinese firm's listing choice (IPO versus Reverse Merger decision) and Cong and Howell (2020) focus on the effect of the listing delay on a firm's innovation-related activities.

The analysis of the VC market in China also enables us to deepen our understanding of VC in an increasingly important market. China is the largest emerging market and the venture capital sector has become an important force in the country's industrial transformation. China's VC market now ranks second to the US. In 2018, over 29.4% of global VC was directed into Chinese start-ups (Preqin, 2019). China has attracted a significant amount of foreign VC capital (Suchard, 2017), with VC totalling \$70.5 billion in 2018 (KPMG, 2019). There are 7055 registered VC funds in May 2019, managing approximately 146.8 billion U.S. dollars (Asset Management Association of China). During this time, the Chinese government has instituted significant changes in the regulation of mergers and acquisitions ('M&As') and IPOs (Huang, 2008, 2010).

We analyze data on VC investments in China between 1992 and 2017. The sample includes over 30,000 investment rounds, with 2527 exits during the sample period. We examine the impact of suspensions on deal volume and investment characteristics, exits and fund raising. We start by analyzing the impact of IPO suspensions on VC activity. If the IPO suspensions generate uncertainty in the market about the future of IPOs in China, then contemporaneous VC investment would be reduced. VC returns depend on IPOs for liquidity events. During a suspension, investors who believed China's IPO market could be negatively impacted in the medium term, perhaps through a change in IPO regulations or stringent future restrictions on the number of IPOs, might be expected to reduce investment activity. Conversely, if the suspensions were perceived as short term, there may not be an effect as VC investments in privately held companies are illiquid relative to public debt and equity investments.

We show that IPO suspensions are associated with lower deal sizes, implying that an IPO suspension deters VCs from investing in start-ups, and potentially lowers investment valuations. We control for myriad deal and VC level characteristics that could otherwise influence investment size. The results are consistent with IPO suspensions generating

uncertainty about a key exit mechanism, thereby reducing the ease with which the VC investor can generate returns. These results are also economically significant, with IPO suspensions reducing investment sizes by around 9.65%, after controlling for other factors that can influence deal size.

We next examine whether IPO suspensions influence the type of firm that VCs invest in. We hypothesize that VCs will prefer to invest in high tech firms during an IPO suspension. High tech firms often feature longer investment periods. Further, high tech firms' intellectual property might also be attractive to potential acquirers, making a takeover a more viable alternative for such firms. We find that VCs are significantly more likely to invest in high tech companies, as opposed to non-high tech companies, during an IPO suspension. This is an economically sizeable effect; IPO suspensions are associated with a 33% increase in the likelihood of a deal being a high tech deal, holding all else constant.

We further find that during IPO suspension, VCs are more likely to invest in early stage companies as compared to later stage companies. This is economically significant; an IPO suspension is associated with a 46% reduction in the likelihood that a deal is a late stage deal. We argue that this is because late stage companies might be approaching exit. Thus, an IPO suspension is especially burdensome for a late stage company. By contrast, an early stage company has longer to wait out the suspension and more scope to be directed in a way to circumvent the suspension, either through an overseas listing or through developing connections with which to facilitate a takeover. Portfolio companies receiving their first investment during an IPO suspension also have more rounds of financing but receive lower total investment. This result suggest that VCs take a more conservative approach to investing during IPO suspensions to help reduce their exposure to the risk associated with exit uncertainty.

IPO suspensions also influence the likelihood and type of exit. A company that receives their first investment or a higher proportion of rounds during a suspension is less likely to be exited and takes longer to exit. Indeed, an IPO suspension in the first round reduces the likelihood of a successful exit by 27%, in our sample. A domestic IPO suspension at the time of the first deal (or for a higher proportion of deals undertaken during a suspension) significantly increases the likelihood of a M&A exit. An overseas IPO is still a potential exit mechanism even if domestic IPOs are suspended. We also show that an IPO suspension significantly increases the likelihood of an overseas exit.

We additionally analyze how IPO suspensions influence VC fund raising. We hypothesize and show that an IPO suspension is significantly and negatively associated with both the number of funds raised and the size of those funds. This is consistent with the notion that an IPO suspension raises concerns that investors might not receive their money back in a timely fashion, potentially either reducing returns and/or increasing the time it requires to receive returns. The results also have policy implications for regulators; implying that ensuring a functioning IPO market can help support a start-up ecosystem by encouraging more, and larger, investors.

We contribute to the literature in several ways. We contribute to the research on how public equity markets influence VC activity. We provide evidence in support of Black and Gilson's (1998) argument that potential for exit through IPO, is critical to the development of an active venture capital market. Our results show IPO suspensions have an impact on VC activity. Contemporaneous VC investment and new fund raising decreases and deal characteristics and exit types and locations change. The results suggest that lack of access to public markets dampens VC activity. This has policy implications for regulators, implying that regulators should encourage a well-functioning IPO market for start-ups in order to encourage VC activity. This concern is not limited to China. For example, the US has

confronted the issue of whether the Sarbanes-Oxley Act of 2002 made IPOs more inaccessible (Duarte et al., 2014), as partially reflected in the JOBS Act.

We also provide additional evidence on the VC market in China. China has become an increasingly important VC market. However, there is relatively little research on VC investment in China and the factors that influence VC activity. Our results deepen our understanding of the factors that influence VC capital raising. They also show that future research should account for IPO suspensions when examining historical VC activity as this can significantly influence VC investment and exits.

2 Institutional background

2.1 IPO Process China

China's public markets have grown dramatically and the Chinese A share market is the second largest in the world, with about 3,876 firms listed and a total market capitalization of more than 8.5 trillion USD at the end of 2019 (Cong et al, 2020). An official IPO market emerged in China with the establishment of Shanghai Stock Exchange in December 1990 and Shenzhen Stock Exchange (SZSE) in April 1991. In the decade after the establishment of these exchanges, domestic public markets primarily served SOEs (Fan et al. 2007; see Carpenter, Lu & Whitelaw 2017 for a review).

In May 2004, the SZSE established the Small and Medium Enterprises (SME) Board to list firms that were smaller than the ones listed on the existing Main Board. These two markets on the SZSE have the same listing rules. In October 2009, the Growth Enterprise Market, ChiNext, was established on the SZSE. The ChiNext Board provides an important platform, with less stringent listing criteria, for those enterprises engaged in independent innovation businesses and other growing venture enterprises to solicit public funds. China has recently introduced two additional markets- NEEQ (founded in 2012) and Science and Technology

Innovation Board (STAR) (founded in 2019). They are essentially pre-listing, or start-up exchanges, that have less stringent and lower capital threshold requirements for listing but are fairly illiquid and are often over-the-counter (OTC) based.

A firm seeking to conduct its IPO in China's domestic markets must navigate an elaborate approval process administered by the China Securities Regulatory Commission (CSRC). Firms applying for an IPO are exposed to substantial listing uncertainty as the IPO process is lengthy and is subject to extensive administrative review. Firms thus cannot time their listing as it takes multiple years for an application to be approved and firms tend to apply as soon as they meet the requirements. First, the firm hires financial professionals such as investment bankers and accountants to restructure the firm into a qualified stock share limited company and prepare the financial and compliance documentation required for an application. Preparation and actual restructuring takes one to three years (Cao et al., 2016). The firm and its underwriter file a formal application with the CSRC and the firm joins the IPO queue for compliance review. When an applicant reaches the front of the queue, the Stock Issuance Examination and Verification Committee (the "committee") of the CSRC then determines whether the applicant meets the regulator's listing criteria and is eligible to be considered for an IPO. The listing criteria include stringent historical financial performance requirements. The committee reviews the application documents and decides whether to approve the listing.

Committees usually have tenures of one year, and currently consist of 25 members. In 2004, the committee composition changed from primarily government officials to primarily private sector professionals (e.g. auditors, lawyers, bankers, and mutual fund managers). The criteria beyond the official performance requirements that the CSRC uses to select candidates are not public. Panels consisting of seven members are formed to oversee each IPO application, and approval requires five or more affirmative votes. This stage takes three to six months on average but is highly variable. The committee could meet multiple times

and require the applicants to address numerous issues before granting the final approval document. The committee typically rejects 20-30 percent of IPO applications, though the rate varies over time (Yang, 2013; Liu et al., 2013). In addition to considering applicants' quality, the CSRC also controls the aggregate approval rate based on market conditions (Guo and Zhang 2012).

After the committee grants formal approval, the firm may apply to list at one of the domestic exchanges within six months. To do so, they use the assistance from underwriters to solicit information from institutional investors, choose an exchange, and then build the book. The chosen stock exchange reviews the application to ascertain compliance with exchange rules—which is essentially a rubber stamp as the exchange rules mirror CSRC requirements. Once approved, the firm can conduct its “road show” and decide on a share subscription day. The issuer then publishes the prospectus in designated newspapers at least three days prior to the subscription day and announces the issue at least one day prior to the subscription day. Finally, it takes an average of 24 working days after the subscription day for the shares to publicly list. (See Shi et al (2018) for more details on the listing process). The interval between approval and listing is nearly always two to five months (the average is three), except during IPO suspensions. Approved firms try to list as soon as possible because after six months, they must renew approval.

2.2 IPO Suspensions

As an extreme form of regulating the IPO market, the CSRC has suspended all IPO activities beyond the application submission step. Between 1994 and 2016, there have been nine IPO suspensions (see Table 1). During the suspension period, IPO review meetings are cancelled so that no new IPO applications can be approved. There were no public warnings beforehand and the end of a suspension coincides with the announcement that it is over. Although, the incidence of historical suspensions suggests that market participants know a suspension is possible, the suspensions are not predictable. Although no official explanation

is given for these suspensions, they are broadly associated with concern over market stability or to facilitate capital market reform. In general, these suspensions reflect regulatory concerns that the arrival of new IPOs could diminish investor appetite for stocks already listed (Li et al., 2018; Shi et al., 2018). The suspensions are an exogenous administrative intervention by the government and are not related to the IPO applicant's characteristics (Shi et al., 2018; (Cong et al, 2020). As such, the suspensions create exogenous shocks to a firm's IPO process.

[Insert Table 1 here]

3 Methodology and Data

We obtain detailed VC data from 1992 – 2017 from CVSource for deals and exits and Zero2IPO for fundraising. During this period, there are nine IPO suspension periods which vary in length between 3.4 months (2001) and 15 months (2012-2014) and are detailed in Table 1. The sample includes 21,229 target start-ups receiving 30726 rounds of financing from 7,764 VCs. The sample composition by year is in Table 2. As the VC market developed, the number of deals increased, peaking in 2015. There are 2527 IPO and M&A exits (12% of sample firms) over the sample period with 1434 (57%) IPOs. Most of the IPOs were in the domestic market with 15% of IPOs listing in a foreign market. The sample includes 7201 funds raised from 1992 to 2017, with the number of funds seeking capital increasing over time.

[Insert Table 2 here]

The summary statistics are in Table 3. Panel A contains the statistics for each “deal” (i.e., investment round). 23% of deals occurred during an IPO suspension period. The mean deal amount is 316099 mCNY (44.26 mUSD). In terms of deal characteristics, 30% of deals are

syndicated, 37% of portfolio firms are high tech and 48% of deals are classified as early stage. In terms of VC characteristics, foreign VCs and government VCs invest in 14% and 13% of deals respectively. Panel B contains summary statistics for the set of successfully exited portfolio companies. Takeovers account for 43% of exits with 57% of the sample exiting via either a domestic or an offshore IPO. Hong Kong and the US are the most popular offshore IPO markets, accounting for 45% and 39% of the offshore listings. Foreign VCs invest in 16% and government VCs invest in 12% of the exited companies. Most successful exits involve VCs with significant prior deal experience and exit experience. Panel C contains summary statistics for the fund-raising sample. The data is month level (i.e., not the fund level).

[Insert Table 3 here]

We use regression analysis (OLS and logit) to examine the impact of IPO suspension on VC activity. The dependant variables for VC activity include investment, exits and fundraising. Investment includes deal size measured as the log of the amount of money invested in a round and deal characteristics- industry of the portfolio firm (high-tech), deal syndication, deal stage. Exits include type of exits (IPO, M&A) and location (foreign market). Fundraising is measured as number of new funds per month and target fund amount.

We use an indicator variable for suspension in the deal level analysis, denoting the IPO market being suspended at the time of a deal. We use two variables for suspension in the exit analysis. The first is an indicator if IPO market was suspended at the time of the first round and the second is the proportion of rounds made during an IPO suspension. Control variables include deal characteristics, VC characteristics and experience, and macro-economic indicators. The variable definitions are in Appendix A1. We control for industry and portfolio firm location fixed effects. As a robustness test, we use the provincial marketization index instead of firm location fixed effects. In China, government controlled and market oriented mechanisms have created a multi-layered institutional system and

regional disparity in institutional development (Kafouros et al, 2015), which may impact venture success (Peng, 2003). We use the National Economic Research Institute (NERI) marketization data to measure variation in institutional development across regions and time. The sub-indicators rate annual marketization progress in 31 provinces, municipalities, and autonomous regions in China (Fan et al, 2010).

4 Results

4.1 VC deal activity

We first analyse the impact of IPO suspensions on deal size. We expect that IPO suspensions will reduce deal size due to the reduced prospect of a successful exit. IPO suspension might reduce the likelihood that a fund invests and reduce the valuation of those investments. We run an OLS regression in which the dependent variable is the deal size and focus on first round investments. The main regressor of interest is an indicator that equals one if there is an IPO suspension at the time of the deal. We also control for VC and deal characteristics, macro-economic indicators and the industry and provincial location of the portfolio firm using fixed effects or the province marketization index. Here, the unit of analysis is at the deal (i.e., investment round) level.

The control variables include common factors that can influence VC investment, especially deal size. These include indicators for whether the deal is late stage or early stage (as opposed to in between). We also control for the deal experience of the VC investing in the deal, and the number of exits that the VC has completed. We further control for whether the deal is syndicated given the well-documented impact of investment syndication on VC and PE activity (Hochberg et al., 2010, 2007). Further, we include controls for VC characteristics that the literature shows can have an impact on VC investment in China, including whether the VC is overseas based (Humphery-Jenner and Suchard, 2013a, 2013b), or whether it is government connected (Humphery-Jenner et al., 2020). Finally, we control

for several macroeconomic factors including stock market returns, industry fixed effects, and company province fixed effects.

The results are in Column 1 of Table 4 and are consistent with expectations. IPO suspensions are significantly and negatively related to deal size, implying that the reduced ability to exit investments reduces VCs' propensity to invest. This result is economically meaningful, with deals being 9.65% smaller when done during an IPO suspension period.¹ The coefficients on the control variables are largely consistent with expectations. For example, deals are generally larger if they are syndicated, or involve foreign VCs.

We next explore the impact of IPO suspensions on the likelihood of investing in a high tech company. The results are in Column 2 of Table 4. We find that IPO suspensions are positively and significantly associated with the likelihood of investing in a high tech firm. This is economically significant. Deals done during an IPO suspension period are 33% more likely to be high tech deals in our sample.² This is consistent with the notion that IPO suspensions encourage VCs to choose firms that might generate valuable intellectual property, as these firms may be attractive to acquirers, thus reducing the dependency on an IPO exit. The control variables are in line with the expectation that high tech deals tend to be made by foreign and more experienced VCs.

We examine the likelihood of a deal being syndicated in Column 3 of Table 4. IPO suspensions are negatively and significantly related to deal syndication. IPO suspensions are associated with deals being 12.9% less likely to be syndicated.³ The results are consistent with Liu and Maula (2016) who find that venture-level uncertainty increases the need for

¹ We calculate this as follows: The dependent variable in Column 1 is $\ln(1+\text{Deal Size})$, the average of which is 3.212 in that specific regression sample. The coefficient on the IPO Suspension indicator is -0.31. Therefore, an IPO suspension is associated with $(0.31/3.212)\%$ smaller deals.

² We calculate this as follows: The coefficient on the IPO suspension indicator in Column 2 is 0.287. Therefore, the economic impact of an IPO suspension is $e^{0.287} - 1$ holding all else constant.

³ We calculate this as follows: The coefficient on the IPO suspension indicator in Column 3 is -0.129. Therefore, the economic impact of an IPO suspension is $e^{-0.129} - 1$ holding all else constant.

syndication but country-level uncertainty reduces syndication and Tian and Ye (2018) who find that VCs are less likely to syndicate with increased policy uncertainty. The control variables suggest that foreign VCs (consistent with Tan and Wang, 2016) are more likely to syndicate and that government VCs and VCs with more exit experience are less likely to syndicate.

Finally, we examine the likelihood of investing in late stage deal Column 4 of Table 4. IPO suspensions are significantly and negatively associated with likelihood of doing a late stage deal. The results suggest that VCs are less likely to invest in late stage deals during suspension periods. This too is economically meaningful: IPO suspensions are associated with a 46% lower chance of the deal being a late stage deal.⁴ Later stage deals have a shorter investment time to exit and thus expected to be more impacted by IPO suspension than early stage deals. Early stage deals are illiquid and typically held for longer. The control variables are generally consistent with expectations. For example, syndicated deals are more likely to be late stage (consistent with larger deals being more likely to need multiple VCs). As a robustness test, we use the percentage of VCs in a deal that are foreign or government owned and find consistent results (see Table A2). A concern is that we capture deals that were completed during the suspension period but were initiated before the suspension period. As a robustness test, we exclude deals that were completed within 1 or 2 months of the start of the suspension period and find consistent results. We also run the models using all deals (rather than just first round deals) and find consistent results (see Table A3).

[Insert Table 4 here]

⁴ We calculate this as follows: The coefficient on the IPO suspension indicator in Column 4 is -0.617. Therefore, the economic impact of an IPO suspension is $e^{-0.617} - 1$ holding all else constant.

In addition, we examine the impact of IPO suspension on the number of rounds and total amount invested. The analysis is at the portfolio company level and we use two measures of IPO suspension- an indicator if the first round was undertaken during an IPO suspension and the proportion of rounds undertaken during an IPO suspension. The control variables are measured at the time of the first round. We use a Tobit model for the number of rounds and OLS regression for the total amount invested. The results in Table 5 suggest that companies that received their first round of investment during an IPO suspension have more funding rounds and receive less total investment. The result is consistent with increased uncertainty around IPO suspensions.

[Insert Table 5 here]

4.2 VC exits

We next analyze how IPO suspensions impact VC exits. We first examine the impact of IPO suspension on the likelihood of exit in Table 6. The analysis is at the portfolio company level and we use two measures of IPO suspension- an indicator if the first round was undertaken during an IPO suspension and the proportion of rounds undertaken during an IPO suspension. The control variables are measured at the time of the first investment round in order to minimize any contamination from ex post changes in controls. However, the results are robust to using the average control variable value across rounds. We use a logit model to analyse the likelihood of exit and a hazard model for the time to exit.

The results suggest that portfolio companies that received their first round of investment or a higher proportion of rounds during an IPO suspension are less likely to exit (columns 1-2) and take longer to exit (columns 3-4). The results are economically meaningful. A company

with an IPO suspension in the first round is 27.7% less likely to obtain a successful exit.⁵ The results suggest that IPO suspension not only has a dampening effect on VC investment but also impacts exit success, supporting Black and Gilson (1998)'s assertion that the potential for exit through IPOs is critical to the existence of an active VC market. The results are consistent with Tian and Ye (2018) who find that a higher degree of policy uncertainty during the first rounds of VC investment in the US and Canada, is associated with a lower probability of exit.

[Insert Table 6 here]

We also examine the impact of IPO suspension on the type and location of exit. The exits include IPO and M&As and exits in domestic and foreign markets. We use a logit model and analyze whether an IPO suspension increases the likelihood that the investment is exited via a takeover (as opposed to an IPO either domestically or internationally). We find in Column 1 of Table 7 that IPO suspensions significantly increase the likelihood of an exit via a takeover for companies that received their first round of investment or a higher proportion of rounds during an IPO suspension. The coefficients on the control variables are mostly consistent with expectations. Interestingly, the stock index is positively associated with takeover likelihood. This might reflect the impact of stock indexes on acquirers' ability to fund deals with stock, either directly, or indirectly (i.e., by issuing equity, or by using equity on other investments and preserving cash to buy venture backed firms).

We further examine the exit location in Column 2 and 3 of Table 7. The results suggest that VCs are more likely to exit in a foreign market when the portfolio firm has a higher proportion of rounds undertaken during an IPO suspension. The closure of a significant exit channel in the domestic market increases uncertainty around exit, thereby increasing the

⁵ We obtain this number with reference to Column 1 of Table 6. Here, the coefficient on the IPO suspension variable is -0.325. This implies that the presence of an IPO suspension shifts the likelihood of a successful exit from $e^{0 \times -0.325 + \beta x}$ to $e^{1 \times -0.325 + \beta x}$. This represents a 27.8% diminution in the likelihood of an exit.

likelihood of a foreign exit. The control variables suggest that in general foreign VC and VCs with more deal experience are more likely to exit in a foreign market (consistent with Humphery-Jenner and Suchard (2013b)). Government VCs and VCs with less exit experience are less likely to exit in in a foreign market consistent with Humphery-Jenner et al (2020).

[Insert Table 7 here]

4.3 Fundraising

We examine the impact of the IPO suspensions on contemporaneous fundraising. We anticipate that IPO suspensions will significantly reduce both the number of funds raised and the amount that they raise. Thus, we examine the number of new funds seeking capital and the target amount set by each fund. This effectively provides us with a monthly time series. In this monthly time series, we include an indicator that equals one if there is an IPO suspension in that month. We also control for other macroeconomic factors that might impact fund raising. We regress the number of funds raising in that month, or the aggregate fund target amount, on whether there was an IPO suspension in that month, controlling for other factors that could impact fund raising.

There is a significant negative coefficient for the IPO suspension indicator in Table 8. The results suggest that fewer funds open to raise capital and the target amounts are lower during IPO suspension periods, consistent with expectations. The results highlight that VC funds are less able to raise capital from investors (limited partners) when there is uncertainty about their ability to exit portfolio companies. It might also reflect a general reticence from fund management families to raise new funds if existing funds are facing difficulty exiting their portfolio companies.

[Insert Table 8 here]

4.4 Robustness tests

4.4.1 Placebo test and additional causality and identification tests

We undertake placebo tests with artificial suspension periods to analyze whether the presence of the IPO suspension drives deal characteristics. We undertake the placebo tests by randomly assigning a placebo suspension to a randomly selected month. We do this 1000 times, being careful to ensure that the number of placebo suspensions reflects the number of real world suspensions, albeit at randomly chosen times. We then analyze the relationship between the placebo suspension indicator and the deal characteristics in the main results. We report the summary statistics for the coefficients on the suspension placebos in Panel A of Table 9. That is, we report the mean and median coefficient across the iterations, and the mean and median p-values. We find that the placebo suspensions are not statistically significantly related to the deal characteristics. We also undertake placebo tests with artificial suspension periods to analyze the impact of the suspension on exit outcomes. The summary statistics for the coefficients on the suspension placebos are in Panel B of Table 9. The placebo suspensions are not statistically significantly related to exit likelihood or time to exit.

[Insert Table 9 here]

Second, we also explore suspension characteristics by examining whether there is a lag-relationship with exit outcomes. Here, we construct a quasi-placebo by constructing indicators that equal one if there was an IPO suspension in the year prior to any round, or in the two years prior to any round. This is a quasi-placebo as the indicators are anchored to the investment round date. We expect that these indicators would be statistically insignificant (because the presence of a suspension before the investment should not impact the focal investment). The results are in Table 10 and the lag indicators are not significantly related to exit outcomes, consistent with expectations.

[Insert Table 10 here]

4.4.2 Suspension Anticipation

One concern is that the market might anticipate IPO suspensions and structure deals accordingly. If this merely reflects momentary “leakage” of information about suspensions, this would not adversely impact our results. Indeed, in this case, it would bias our coefficients towards zero as it would lessen the observed impact of the suspension. Nevertheless, we explore whether there is evidence of anticipation.

We graphically explore whether there is any evidence of a change in IPO applications before the IPO suspension period. Any spike in applications before the suspension begins would imply anticipation. The graph of IPOs is in Figure . The figure shows that there is no spike in IPO applications or approvals prior to the IPO suspension period. In some instances, there is a slight drop in approvals before suspensions. However, this is contrary to what would be expected if there were anticipation; a rational market participant would rush through their IPO applications if they expected a suspension, rather than defer them. This implies that the market is unlikely to anticipate IPO suspensions and act accordingly.

We analyse anticipation of a suspension using regression analysis and construct a monthly time series. We analyze the relationship between stock returns, or VC deal numbers, and whether there is an IPO suspension in the subsequent month. If there is anticipation, we would expect to find a significant relationship. We analyze whether there is any anticipation in the four months leading up to the IPO suspension. The results are in Table 11 and indicate that there is no evidence that the market anticipates suspensions. There is a statistically insignificant relationship between stock returns over the four prior months and IPO suspension. Similarly, there is no evidence of a relationship between prior aggregate deal numbers and whether there is a subsequent suspension. This suggests that anticipation of a suspension is unlikely to significantly drive our results.

[Insert Table 11 here]

4.4.3 Marketization index

We also test whether the results are robust to using a provincial marketization index rather than province fixed effects. This is to more directly capture the economic state of the portfolio company's province (per Humphery-Jenner al., 2020). The province fixed effects largely capture unobserved province-related factors that could influence IPO characteristics. However, the marketization index allows this to vary over time, and implicitly weights a province effect the level of economic development in that province. The results in Table A4 and A5 are consistent with the reported results for deal characteristics and exit outcomes, suggesting that how we capture province-based variation does not drive the results.

4.4.4 Subsamples by deal stage

We also ensure that the results are robust to restricting the sample to those firms that only obtain late stage backing, or only those firms that obtain early stage backing. This is to ensure that the IPO suspension results are not sensitive to whether the firm is early stage or late stage. In this case, we focus attention on the results analyzing exit likelihood. We report these regressions in Table A6 and Table A7. We find that IPO suspensions are negatively and significantly related to the likelihood of a successful exit, and extend the time to exit, for both the sub-sample of late stage firms and the sub-sample of early stage firms.

5 Conclusion

Venture capital investments are premised on the idea of achieving a successful exit. Black and Gilson (1998) argue that potential for exit through IPO, is critical to the development of an active venture capital market. Previous research has indirectly tested this proposition using differences in stock market development across countries (proxied by market capitalization and IPO volume). We use the suspension of China's IPO market as an exogenous shock to VC in China. IPO suspension is an extreme form of regulation that delays listing and pauses all IPO activities beyond the application submission step. Between 1994 and 2016, there have been nine major IPO suspensions lasting 3 to 15 months. If the IPO suspensions generated uncertainty in the market about the future of IPOs in China, then contemporaneous VC investment would be reduced. VC returns depend on IPOs for liquidity events. During a suspension, investors who believed China's IPO market could be negatively impacted in the medium term, perhaps through a change in IPO regulations or stringent future restrictions on the number of IPOs, might be expected to reduce investment activity. Conversely, if the suspensions were perceived as short term, there may not be an effect as VC investments in privately held companies are illiquid relative to public debt and equity investments.

We find that contemporaneous VC investment decreases. In terms of deal characteristics, VCs are more likely to invest in high tech firms and less likely to invest in late stage and syndicated deals during suspension periods. Portfolio firms that received investment during a suspension period are less likely to be exited and take longer to exit. IPO suspensions also impact the exit method as they significantly increase the likelihood of an exit via a takeover and a foreign IPO.

Fundraising is also impacted with fewer new funds raising capital and lower fund target amounts during IPO suspensions. Our results suggest that the lack of access to public markets not only dampens VC activity but also impacts exit success, supporting Black and Gilson (1998)'s assertion that that the potential for exit through IPOs is critical to the existence of an active venture capital market.

References

- Black BS. and Gilson, R.J., 1998. Venture capital and the structure of capital markets: banks versus stockmarkets. *Journal of Financial Economics* 47, 243–277.
- Braun, M. and Larrain, B., 2008. Do IPOs affect the prices of other stocks? Evidence from emerging markets. *The Review of Financial Studies* 22, 1505-1544.
- Cao, J.X., Ding, Y. and Zhang, H., 2016. Social capital, informal governance, and post-IPO firm performance: A study of Chinese entrepreneurial firms. *Journal of business ethics* 134, 529-551.
- Carpenter, J.N. and Whitelaw, R.F., 2017. The development of China's stock market and stakes for the global economy. *Annual Review of Financial Economics* 9, 233-257.
- Chaplinsky, S. and Gupta-Mukherjee, S., 2016. Investment risk allocation and the venture capital exit market: Evidence from early stage investing. *Journal of Banking & Finance* 73, 38-54.
- Cong, L.W. and Howell, S., 2020. IPO intervention and innovation: Evidence from china. *Management Science*, forthcoming.
- Cong, L.W., Lee, C., Qu, Y. and Shen, T., 2020. Financing entrepreneurship and innovation in China. *Foundations and Trends® in Entrepreneurship* 16, 1–64.
- Conti, A., Dass, N., Di Lorenzo, F. and Graham, S.J., 2019. Venture capital investment strategies under financing constraints: Evidence from the 2008 financial crisis. *Research Policy* 48, 799-812.
- Duarte, J., Kong, K., Young, L.A., Siegel, S., 2014. The Impact of the Sarbanes-Oxley Act on Shareholders and Managers of Foreign Firms. *Review of Finance* 18, 417–455.
- Fan, G., Wang, X., and Zhu, H., 2010. NERI Index of Marketization of China's Provinces 2010 Report. Beijing.
- Fan, J.P., Wong, T.J. and Zhang, T., 2007. Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of financial economics* 84, .330-357.
- Félix, E. G. S., Pires, C. P., Gulamhussen, M. A., 2013. The Determinants of Venture Capital in Europe - Evidence Across Countries. *Journal of Financial Services Research* 44, 259– 279.
- Gompers, P., Kovner, A., Lerner, J. and Scharfstein, D., 2008. Venture capital investment cycles: The impact of public markets. *Journal of Financial Economics* 87, 1-23.
- Guo, J. and Zhang, Y., 2012. Firm timing or government timing? the impact of listing timing on capital structure under china's special system of IPO'. *Journal of Financial Research* 7, 137-153.
- Hochberg, Y.V., Ljungqvist, A., Lu, Y., 2010. Networking as a Barrier to Entry and the Competitive Supply of Venture Capital. *Journal of Finance* 65, 829–859.
- Hochberg, Y.V., Ljungqvist, A., Lu, Y., 2007. Whom You Know Matters: Venture Capital Networks and Investment Performance. *Journal of Finance* 62, 251–302.
- Huang, H., 2005. China's Takeover Law: A Comparative Analysis and Proposals for Reform. *Delaware Journal of Corporate Law* 30, 145–198.
- Huang, H., 2007. The Statutory Derivative Action in China: Critical Analysis and Recommendations for Reform. *Berkeley Business Law Journal* 42, 227–250.
- Huang, H., 2008. The New Takeover Regulation in China: Evolution and Enhancement. *International Lawyer* 42, 153–175.
- Huang, H., 2010. Institutional Structure of Financial Regulation in China: Lessons from the Global Financial Crisis. *Journal of Corporate Law Studies* 10, 219–254.
- Huang, R.H., 2011. The Regulation of Securities Offerings in China: Reconsidering the Merit Review Element in Light of the Global Financial Crisis. *Hong Kong Law Journal* 41, 261–284.
- Humphery-Jenner, M., Suchard, J.-A., 2013a. Foreign VCs and Venture Success: Evidence from China. *Journal of Corporate Finance* 21, 16–35.
- Humphery-Jenner, M., Suchard, J.-A., 2013b. Foreign Venture Capitalists and the Internationalization of Entrepreneurial Companies: Evidence from China. *Journal of International Business Studies* 44, 607–621.
- Humphery-Jenner, M., Suchard, J.-A., Cao, J., 2020, Government Ownership and Venture Capital in China, working paper.

- Jeng, L. A., and Wells, P. C., 2000. The determinants of venture capital funding: Evidence across countries. *Journal of Corporate Finance* 6, 241–289.
- Kafouros, M., Wang, C., Piperopoulos, P., and Zhang, M., 2015. Academic collaborations and firm innovation performance in China: The role of region-specific institutions. *Research Policy* 44, 803–817.
- Lee, C.M., Qu, Y. and Shen, T., 2019. Going public in China: Reverse mergers versus IPOs. *Journal of Corporate Finance* 58, 92-111.
- Li, Y., Sun, Q. and Tian, S., 2018. The impact of IPO approval on the price of existing stocks: Evidence from China. *Journal of Corporate Finance* 50, 109-127.
- Nahata R, Hazarika S., Tandon K., 2014. Success in global venture capital investing: do institutional and cultural differences matter? *Journal of Financial and Quantitative Analysis* 49, 1039–1070.
- Peng, M.W., 2003. Institutional transitions and strategic choices. *Academy of Management Review* 28, 275–296.
- Phalippou, L., 2020. *An Inconvenient Fact: Private Equity Returns & The Billionaire Factory*. University of Oxford.
- Ren, D., 2013. Chinese venture capital wilts amid IPO drought, *South China Morning Post*, 18 Nov.
- Schertler A, Tykvová T., 2011. Venture capital and internationalization. *International Business Review* 20, 423–439.
- Shi, S., Sun, Q. and Zhang, X., 2018. Do IPOs affect market price? Evidence from China. *Journal of Financial and Quantitative Analysis* 53, 1391-1416.
- Tan, Y. and Wang, X., 2016. Investigating the Motivations of VC Syndication in China---Do Chinese Leading VC Firms Make a Difference in Terms of Syndication Decisions. *International Journal of Economics and Finance* 8, 78-88.
- Tian, L., 2011. Regulatory underpricing: Determinants of Chinese extreme IPO returns. *Journal of Empirical Finance* 18, 78-90.
- Tian, X. and Ye, K., 2018. How does policy uncertainty affect venture capital?. Working paper.

Tables

Table 1: IPO Suspensions

	Suspension start - end
1	July 21 1994 to Dec 7 1994
2	Jan 19 1995 to June 9 1995
3	July 5 1995 to Jan 3 1996
4	July 31 2001 to Nov 11 2001
5	Sept 9 2004 to Feb 3 2005
6	June 7 2005 to June 19 2006
7	Dec 15 2008 to July 10 2009
8	Nov 2 2012 to Jan 17 2014
9	July 4 2015 to Dec 9 2015

Sourced from <http://www.mrcjcn.com/n/49812.html>

Table 2: Number of deals, exits, fundraising by year

Year	Deals	IPO Exits	IPO Foreign Exits	M&A Exits	Num Funds	Fund Target Amount (CNY m)
1992	4	0	0	0	1	44
1993	12	0	0	0	1	484
1994	15	0	0	0	2	915
1995	18	0	0	0	2	585
1996	20	1	0	0	4	1181
1997	27	0	0	0	1	n/a
1998	29	0	0	2	5	3289
1999	83	2	1	2	17	16659
2000	191	6	4	3	26	16229
2001	198	3	1	0	27	18717
2002	183	5	4	6	22	2095
2003	208	11	6	9	13	4365
2004	316	24	13	18	28	19133
2005	395	23	20	22	29	21141
2006	629	44	29	29	55	39848
2007	1187	108	60	38	133	62923
2008	1168	37	11	25	166	71205
2009	1105	81	27	36	197	50538
2010	1953	234	66	70	492	166116
2011	2690	180	25	63	727	192166
2012	1974	101	8	128	454	123322
2013	2020	23	21	138	321	54787
2014	3166	113	37	170	558	106697
2015	6110	140	16	222	973	187782
2016	5068	134	17	69	1101	260230
2017	1957	164	8	43	1855	311225
Total	30726	1434	374	1093	7210	1731676

Table 3: Summary Statistics

Panel A : Deal (investment round) variables						
	N	mean	sd	min	max	
IPO suspension	30726	0.23	0.42	0		1
Deal size	19584	316099.13	5676099.88	0.03	599860564.81	
Syndicated	30726	0.30	0.46	0		1
Hitech industry	30719	0.37	0.48	0		1
VC deal experience	30726	48.07	87.49	0		814
VC exit experience	30722	8.38	25.83	0		274
Foreign VC	29994	0.14	0.35	0		1
Government VC	30256	0.13	0.33	0		1
Late stage deal	30726	0.21	0.41	0		1
Early stage deal	30726	0.48	0.50	0		1
Deal count	30722	361.33	231.89	1		880
Stock index	30722	0.11	0.07	0.03		1.04
M2 growth	30514	14.41	3.80	8.9		29.7
FDI growth	30514	7.04	16.30	-80.5		109.8
Fixed investment growth	30514	17.99	8.73	0.5		57.6
Marketization index	26098	8.19	1.64	-0.23		10
Panel B : Exit variables (for the sample of companies that have a successful exit)						
Proportion of Rounds during an IPO						
Suspension	2527	0.19	0.39	0		1
Exit offshore	2527	0.15	0.36	0		1
IPO exit	2527	0.57	0.50	0		1
MA exit	2527	0.43	0.50	0		1
VC deal experience	2527	40.34	69.05	0		582
VC exit experience	2527	13.56	25.49	0		231
Foreign VC	2524	0.16	0.33	0		1
Gov VC	2443	0.12	0.29	0		1
Late stage deal	2527	0.38	0.47	0		1
Early stage deal	2527	0.39	0.47	0		1
Hitech industry	2525	0.16	0.36	0		1
Deal count	2527	299.26	204.71	1		880
Syndicated	2527	0.34	0.45	0		1
Stock index	2527	0.11	0.06	0.03		0.32
M2 growth	2520	15.16	4.33	8.90		29.70
FDI growth	2520	6.82	15.82	-80.50		109.80
Fixed investment growth	2520	19.95	9.22	1.10		57.60
Panel C : Fund raising variables (for the funds for which we can obtain data in Zero2IPO)						
Number of funds per month	212	30.88	45.95	0		313
Target fundraising per month	198	7918	13116	0		100557
Stock index	212	0.1	0.06	0.03		0.32

Table 4: IPO Suspensions and deal characteristics

This table contains regressions that analyze the relationship between IPO suspensions and deal characteristics. Here, we restrict the sample to first round deals (however, we report the results for all rounds in Table A3 of the robustness appendix). The dependent variable in column 1 is the natural log of the deal size. The dependent variables in Columns 2-4 are indicators for whether the firm was a high tech firm, the deal was syndicated, or whether the deal is a late stage deal, respectively. The regressions use robust standard errors and include province and industry fixed effects. Superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively. Brackets contain p-values.

Dependent Variable	Deal size	High Tech	Syndicated	Late stage deal
Column	[1]	[2]	[3]	[4]
IPO suspension	-0.310*** [0.000]	0.287*** [0.000]	-0.129** [0.028]	-0.617*** [0.000]
Late stage deal	1.058*** [0.000]	-0.914*** [0.000]	0.567*** [0.000]	
Early stage deal	1.020*** [0.000]	-0.434*** [0.000]	0.115** [0.036]	
Deal count	0.001 [0.504]	0.001** [0.048]	0.001*** [0.000]	-0.003*** [0.000]
Syndicated	0.952*** [0.000]	0.038 [0.376]		0.461*** [0.000]
VC deal experience	0.001 [0.792]	0.001** [0.016]	-0.001 [0.898]	-0.001 [0.209]
VC exit experience	0.002 [0.151]	-0.004*** [0.000]	-0.003** [0.012]	0.004 [0.205]
Foreign VC	0.563*** [0.000]	0.198*** [0.002]	1.152*** [0.000]	0.116 [0.372]
Government VC	-0.090 [0.378]	-0.021 [0.725]	-0.672*** [0.000]	-0.131 [0.269]
Stock index	-1.934*** [0.000]	0.682** [0.015]	-1.308*** [0.001]	3.508*** [0.000]
M2 growth	0.004 [0.688]	-0.020*** [0.004]	-0.025*** [0.006]	0.104*** [0.000]
FDI growth	-0.003 [0.182]	-0.004*** [0.002]	-0.002 [0.241]	0.011*** [0.000]
Fixed investment growth	-0.001 [0.749]	0.002 [0.409]	0.010*** [0.006]	0.006 [0.249]
Industry FE	Yes	No	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	5,278	15,012	9,427	9,432
R-squared	0.139			
Pseudo R-Squared		0.071	0.043	0.232

Table 5: IPO Suspensions, number of rounds and total amount invested

This table contains regressions that analyze the relationship between IPO suspensions and deal characteristics. The dependent variable in columns 1-2 is the number of rounds and use a tobit model. The dependent variables in Columns 3-4 is the natural log of the total amount invested in the portfolio company. The regressions use robust standard errors and include province and industry fixed effects. Superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively. Brackets contain p-values.

Dependent Variable	Num rounds	Num rounds	Amount invested	Amount invested
Column	[1]	[2]	[3]	[4]
IPO suspension in First Round	0.123*** [0.007]		-0.230* [0.098]	
Proportion of Rounds during an IPO Suspension		0.008 [0.882]		0.110 [0.464]
Late stage deal	-1.052*** [0.000]	-1.061*** [0.000]	0.168 [0.331]	0.178 [0.300]
Early stage deal	-0.347*** [0.000]	-0.350*** [0.000]	0.696*** [0.000]	0.698*** [0.000]
Deal count	-0.001*** [0.000]	-0.001*** [0.000]	-0.001** [0.017]	-0.001** [0.023]
Syndicated	0.128*** [0.004]	0.125*** [0.005]	1.259*** [0.000]	1.263*** [0.000]
VC deal experience	0.003*** [0.000]	0.003*** [0.000]	0.001 [0.170]	0.001 [0.177]
VC exit experience	-0.007*** [0.000]	-0.007*** [0.000]	-0.010*** [0.000]	-0.010*** [0.000]
Foreign VC	1.209*** [0.000]	1.211*** [0.000]	3.735*** [0.000]	3.731*** [0.000]
Government VC	0.787*** [0.000]	0.787*** [0.000]	2.336*** [0.000]	2.335*** [0.000]
Stock index	1.699*** [0.000]	1.763*** [0.000]	0.248 [0.783]	0.131 [0.883]
M2 growth	0.038*** [0.000]	0.038*** [0.000]	0.021 [0.303]	0.021 [0.316]
FDI growth	0.008*** [0.000]	0.007*** [0.000]	-0.004 [0.295]	-0.003 [0.385]
Fixed investment growth	0.016*** [0.000]	0.017*** [0.000]	0.017* [0.089]	0.017* [0.091]
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	13,233	13,233	9,517	9,517
R-squared			0.128	0.128
Pseudo R-Squared	0.079	0.079		

Table 6: Probability of exit and IPO suspensions

This table contains regressions that analyze the relationship between IPO suspensions and exit outcomes. Columns 1 and 2 contain logit models that analyze the likelihood of the portfolio company having a successful exit. Columns 3 and 4 contain hazard models that analyze the time to exit. The models include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	Logit Model		Hazard Model	
	[1]	[2]	[3]	[4]
IPO suspension in First Round	-0.325*** [0.009]		-0.303*** [0.006]	
Proportion of Rounds during an IPO Suspension		-0.440*** [0.002]		-0.406*** [0.002]
Late stage deal	1.848*** [0.000]	1.849*** [0.000]	1.665*** [0.000]	1.666*** [0.000]
Early stage deal	1.129*** [0.000]	1.135*** [0.000]	1.059*** [0.000]	1.064*** [0.000]
Deal count	-0.005*** [0.000]	-0.005*** [0.000]	-0.003*** [0.000]	-0.003*** [0.000]
Syndicated	-0.531*** [0.000]	-0.535*** [0.000]	-0.561*** [0.000]	-0.564*** [0.000]
VC deal experience	-0.006*** [0.000]	-0.006*** [0.000]	-0.006*** [0.001]	-0.006*** [0.001]
VC exit experience	0.007 [0.115]	0.007 [0.116]	0.007 [0.133]	0.007 [0.135]
Foreign VC	0.349** [0.035]	0.339** [0.039]	0.266* [0.080]	0.262* [0.085]
Government VC	0.001 [0.995]	-0.006 [0.972]	-0.122 [0.412]	-0.128 [0.390]
Stock index	-2.864*** [0.009]	-2.866*** [0.010]	-3.319*** [0.001]	-3.372*** [0.001]
M2 growth	0.008 [0.631]	0.006 [0.722]	-0.003 [0.859]	-0.004 [0.790]
FDI growth	0.007*** [0.009]	0.007** [0.011]	0.003 [0.243]	0.003 [0.277]
Fixed investment growth	0.012 [0.105]	0.012* [0.090]	0.009 [0.151]	0.009 [0.136]
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Pseudo R2	0.2219	0.2224		
Observations	9,402	9,402	9,456	9,456

Table 7: IPO suspensions and exit types

This table contains logit regressions that analyze the likelihood of several exit types. Columns 1 and 2 analyze the likelihood of an IPO exit, or an offshore exit, respectively. Here, we restrict the sample to the set of firms that had a successful exit. We include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Dependent Variables	(1) IPO Exit	(2) Offshore Exit
Proportion of Rounds during an IPO Suspension	-1.789*** [0.000]	0.879*** [0.001]
Early stage deal	2.242*** [0.000]	0.065 [0.896]
Late stage deal	0.637** [0.012]	-0.399 [0.427]
Deal count	-0.002*** [0.000]	-0.002*** [0.001]
Syndicated	0.487*** [0.000]	0.081 [0.703]
VC deal experience	0.001 [0.622]	0.014*** [0.000]
VC exit experience	-0.005 [0.176]	-0.032*** [0.008]
Foreign VC	0.212 [0.325]	3.386*** [0.000]
Government VC	0.396* [0.073]	-0.580* [0.085]
Stock index	-2.355** [0.028]	5.403*** [0.001]
M2 growth	0.001 [0.966]	-0.059** [0.015]
FDI growth	-0.013*** [0.002]	0.003 [0.588]
Fixed investment growth	-0.023** [0.016]	0.057*** [0.000]
ln(Max Investment Length)	0.070 [0.112]	0.120** [0.044]
Industry FE	Yes	Yes
Province FE	Yes	Yes
Pseudo R-squared	0.3512	0.4345
Observations	2,030	1,190

Table 8: Fund raising

This table contains regressions that analyze the relationship between IPO suspensions and fundraising. The dependent variable in column 1 is the number of funds per month and in column 2 is the natural log of the fund target amount. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

	(1) Number of funds	(2) Fund target amount
IPO suspension	-0.565** (-3.04)	-1.423** (-3.07)
Stock index	1.708 (1.17)	6.606* (2.22)
M2_growth	-0.0501 (-1.66)	-0.0109 (-0.19)
M2 growth	-0.00412 (-0.73)	-0.00155 (-0.13)
FDI growth	-0.177*** (-6.58)	-0.308*** (-5.24)
Fixed investment growth	0.00510 (0.36)	0.0111 (0.34)
<i>N</i>	212	198
Adjusted <i>R</i> ²	0.301	0.196

Table 9: Placebo Test Summary Results

This table contains summary results for placebo tests that analyze the relationship between an IPO suspension placebo variable and deal characteristics. We randomly generate IPO suspension indicators and run 1000 different regressions to explore the sign and significance of those randomly generated variables with respect to our dependent variables. In this table, we report the mean and median regression coefficient for the IPO suspension variable and the mean and median p-value on that IPO suspension coefficient.

Panel A: Deal Characteristics (per Table 4)

Dependent Variable	Average Coefficient	Median Coefficient	Average p-value	Median p-value
Deal size	-0.006	-0.153	0.514	0.521
High Tech	0.011	0.087	0.504	0.506
Syndicated	-0.004	-0.088	0.502	0.512
Late stage deal	-0.032	-0.118	0.508	0.512

Panel B: Exit rates. Columns 1 and 2 are from the logit model and Columns 3 and 4 are from the Cox Hazard Regression (per Table 6)

	Logit		Hazard	
	Mean	Median	Mean	Median
Coefficient	0.009	0.185	0.005	0.169
P-Value	0.498	0.511	0.490	0.491

Table 10: Lagged suspension variables

This table contains regressions that analyze the relationship between IPO suspensions and exit outcomes. Rather than including the standard “IPO Suspension” variables (for whether there was a suspension in any round, or the proportion of rounds with suspensions), this regression includes indicators for whether there was any round in which there was a suspension 1 year of 2 years before the round in which the portfolio company receives investment. Columns 1 and 2 contain logit models that analyze the likelihood of the portfolio company having a successful exit. Columns 3 and 4 contain hazard models that analyze the time to exit. The models include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Model Column	Logit Model		Hazard Model	
	[1]	[2]	[3]	[4]
IPO Suspension 1 Year before Any Round	-0.119 [0.317]		-0.160 [0.126]	
IPO Suspension 2 Years before Any Round		-0.075 [0.575]		-0.064 [0.578]
Late stage deal	1.968*** [0.000]	1.980*** [0.000]	1.784*** [0.000]	1.786*** [0.000]
Early stage deal	1.280*** [0.000]	1.309*** [0.000]	1.211*** [0.000]	1.232*** [0.000]
Deal count	-0.004*** [0.000]	-0.003*** [0.000]	-0.002*** [0.000]	-0.002*** [0.000]
Syndicated	-0.525*** [0.000]	-0.479*** [0.000]	-0.550*** [0.000]	-0.500*** [0.000]
VC deal experience	-0.006*** [0.001]	-0.006*** [0.001]	-0.005*** [0.001]	-0.006*** [0.001]
VC exit experience	0.007 [0.119]	0.008* [0.071]	0.007 [0.135]	0.008* [0.074]
Foreign VC	0.412** [0.017]	0.464*** [0.008]	0.304* [0.053]	0.329** [0.039]
Government VC	-0.030 [0.867]	-0.143 [0.446]	-0.150 [0.342]	-0.235 [0.167]
Stock index	-2.286** [0.039]	-1.511 [0.169]	-2.750*** [0.006]	-2.074** [0.043]
M2 growth	0.010 [0.564]	0.008 [0.656]	0.002 [0.893]	-0.002 [0.908]
FDI growth	0.011*** [0.000]	0.013*** [0.000]	0.005* [0.069]	0.008*** [0.008]
Fixed investment growth	0.027*** [0.001]	0.040*** [0.000]	0.018** [0.012]	0.027*** [0.001]
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	9,295	9,198	9,348	9,251

Table 11: Analyzing conditions before suspensions

This table contains OLS regressions that analyze the relationship between market dynamics and IPO suspensions. We analyze whether market movements, or VC deal making, anticipates whether there is an IPO suspension in the following month. Here, the dependent variable is an indicator that equals one if an IPO suspension *commences* in the subsequent month. The sample is effectively a monthly time series sample. The regression uses robust standard errors, superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively, and brackets contain p values.

Column	[1]	[2]	[3]	[4]	[5]	[6]
Dependent variable	IPO Suspension Starts Next Month					
Monthly Return	-0.238 [0.121]	-0.185 [0.203]	-0.180 [0.206]			
Monthly Return (lag 1)	0.028 [0.894]	0.072 [0.737]	0.036 [0.852]			
Monthly Return (lag 2)		-0.327 [0.141]	-0.349 [0.119]			
Monthly Return (lag 3)			0.206 [0.230]			
ln(#Deals)				-0.045 [0.546]	-0.055 [0.502]	-0.067 [0.461]
ln(#Deals) (lag 1)				-0.024 [0.750]	-0.008 [0.927]	-0.030 [0.739]
ln(#Deals) (lag 2)					-0.008 [0.917]	-0.007 [0.937]
ln(#Deals) (lag 3)						0.030 [0.728]
Observations	205	205	205	211	210	209
R-squared	0.012	0.034	0.043	0.029	0.031	0.034

Figures

Figure 1a Percentage of VC IPO and M&A exits by number 1990 to 2018.



Figure 1b Percentage of VC IPO and M&A exits by dollar value 1990 to 2018.

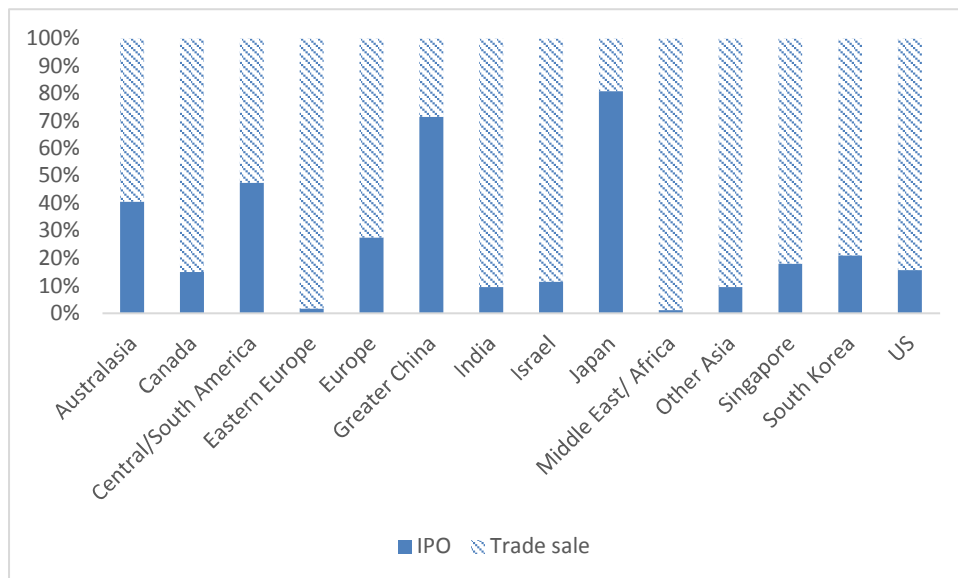
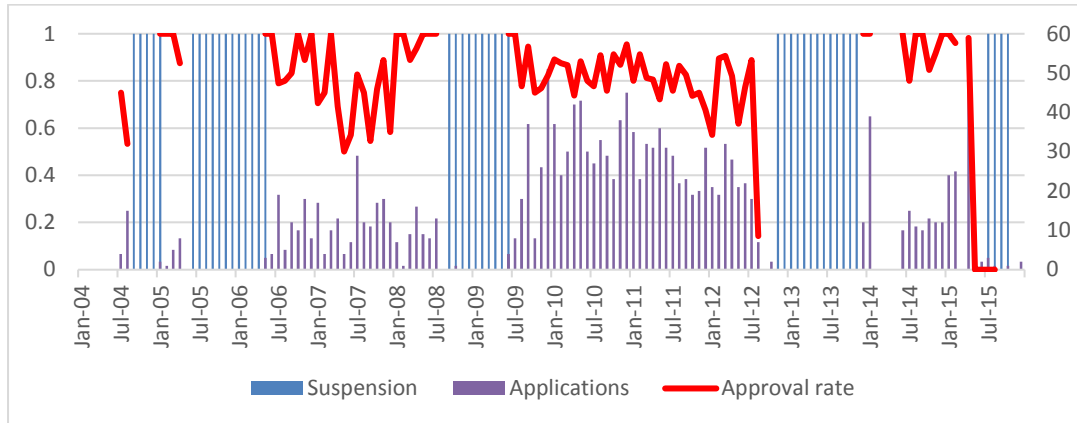


Figure 2: IPO approval rates, suspensions, and applications



Appendix: Variable Definitions

Table A1 Variable definitions

Variable	Definition
IPO suspension	A dummy variable =1 if the IPO market is suspended
IPO suspension in First Round	A dummy variable =1 if the first round of investment was undertaken during an IPO suspension
Proportion of Rounds during an IPO Suspension	The proportion of rounds invested during an IPO suspension
Deal size	Ln (Deal amount), deflated (base year=2010), million CNY
Syndicated	A dummy variable =1 if deal is syndicated
Hitech industry	A dummy variable =1 if portfolio firm is in a high-tech industry
VC deal experience	Prior VC deal experience
VC exit experience	Prior VC exit experience
Foreign VC	A dummy variable =1 if at least one VC is foreign owned
Government VC	A dummy variable =1 if VC at least one is government owned
Late stage deal	A dummy variable =1 if the deal occurs in the expansion or profit stage
Early stage deal	A dummy variable =1 if the deal occurs in the early stage
Deal count	Number of deals in the previous month
Stock index	Monthly volatility of Shanghai composite index
M2 growth	M2 growth rate
FDI growth	FDI growth rate
Fixed investment growth	Fixed investment growth rate (Infrastructure)
Marketization index	Marketization index for province where portfolio firm is located
Exit offshore	A dummy variable =1 if exit is outside China
IPO exit offshore	A dummy variable =1 if IPO exit is on a foreign market
MA exit	A dummy variable =1 if exit is an M&A
MA exit offshore	A dummy variable =1 if M&A exit is in a foreign market
VC age	VC age in months
VC size	Log of assets under management of VC
Num of Funds	Number of new VC funds that are fundraising
Fund amount	Target amount of new funds that are fundraising

Appendix: Additional tests

Table A2: Deal type regression with percentage of VCs that are foreign and government owned

This table contains regressions that analyze the relationship between IPO suspensions and deal characteristics. The dependent variable in column 1 is the natural log of the deal size. The dependent variables in Columns 2-4 are indicators for whether the firm was a high tech firm, the deal was syndicated, or whether the deal is a late stage deal, respectively. The regressions use robust standard errors and include province and industry fixed effects. Superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively. Brackets contain p-values.

Dependent Variable	Deal size	High Tech	Syndicated	Late stage deal
Column	[1]	[2]	[3]	[4]
IPO suspension	-0.281*** [0.000]	0.275*** [0.000]	-0.140** [0.015]	-0.603*** [0.000]
Late stage deal	1.034*** [0.000]	-0.920*** [0.000]	0.567*** [0.000]	
Early stage deal	1.002*** [0.000]	-0.467*** [0.000]	0.138** [0.011]	
Deal count	0.000 [0.624]	0.000* [0.074]	0.000*** [0.003]	-0.003*** [0.000]
Syndicated	0.986*** [0.000]	0.048 [0.258]		0.439*** [0.000]
VC deal experience	0.001 [0.409]	0.001* [0.090]	0.001 [0.820]	-0.001 [0.271]
VC exit experience	0.002 [0.234]	-0.003*** [0.001]	-0.001 [0.255]	0.004 [0.209]
Percentage foreign VC	0.607*** [0.000]	0.147** [0.039]	0.404*** [0.000]	0.225 [0.129]
Percentage government VC	-0.283*** [0.004]	-0.047 [0.480]	-0.226*** [0.005]	-0.259* [0.061]
Stock index	-1.787*** [0.000]	0.670** [0.015]	-0.907** [0.019]	3.313*** [0.000]
M2 growth	0.003 [0.746]	-0.016** [0.015]	-0.022** [0.013]	0.106*** [0.000]
FDI growth	-0.002 [0.240]	-0.004*** [0.002]	-0.001 [0.516]	0.011*** [0.000]
Fixed investment growth	-0.001 [0.893]	0.002 [0.559]	0.012*** [0.001]	0.005 [0.308]
Industry FE	Yes	No	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	5,518	15,713	9,872	9,877
R-squared	0.140			
Pseudo R-Squared		0.073	0.020	0.233

Table A3: Deal type regression with all deals

This table contains regressions that analyze the relationship between IPO suspensions and deal characteristics. The dependent variable in column 1 is the natural log of the deal size. The dependent variables in Columns 2-4 are indicators for whether the firm was a high tech firm, the deal was syndicated, or whether the deal is a late stage deal, respectively. The regressions use robust standard errors and include province and industry fixed effects. Superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively. Brackets contain p-values.

Dependent Variable	Deal size	High Tech	Syndicated	Late stage deal
Column	[1]	[2]	[3]	[4]
IPO suspension	-0.536*** [0.000]	0.184*** [0.000]	-0.147*** [0.000]	-0.122*** [0.007]
Late stage deal	1.776*** [0.000]	-1.000*** [0.000]	0.575*** [0.000]	
Early stage deal	1.328*** [0.000]	-0.271*** [0.000]	0.351*** [0.000]	
Deal count	0.001 [0.295]	0.001*** [0.000]	0.001*** [0.000]	-0.001 [0.948]
Syndicated	1.179*** [0.000]	0.186*** [0.000]		0.312*** [0.000]
VC deal experience	0.001*** [0.002]	0.002*** [0.000]	0.002*** [0.000]	-0.005*** [0.000]
VC exit experience	-0.002* [0.054]	-0.004*** [0.000]	-0.007*** [0.000]	0.005*** [0.002]
Foreign VC	0.877*** [0.000]	0.341*** [0.000]	1.258*** [0.000]	0.563*** [0.000]
Government VC	0.265*** [0.000]	0.001 [0.981]	0.895*** [0.000]	0.167*** [0.003]
Stock index	-4.110*** [0.000]	0.370* [0.073]	-0.990*** [0.000]	1.819*** [0.000]
M2 growth	-0.039*** [0.000]	-0.023*** [0.000]	-0.034*** [0.000]	0.080*** [0.000]
FDI growth	-0.013*** [0.000]	-0.005*** [0.000]	-0.005*** [0.000]	0.005*** [0.000]
Fixed investment growth	-0.021*** [0.000]	-0.002 [0.270]	0.005** [0.039]	0.006** [0.040]
Industry FE	Yes	No	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	14,166	29,308	21,679	21,679
R-squared	0.169			
Pseudo R-Squared		0.093	0.063	0.185

Table A4: Deal type regressions with marketization index

This table contains regressions that analyze the relationship between IPO suspensions and deal characteristics, while controlling for the marketization index of the portfolio company's province. The dependent variable in column 1 is the natural log of the deal size. The dependent variables in Columns 2-4 are indicators for whether the firm was a high tech firm, the deal was syndicated, or whether the deal is a late stage deal, respectively. The regressions use robust standard errors and include province and industry fixed effects. Superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively. Brackets contain p-values.

Dependent Variable	Deal size	High Tech	Syndicated	Late stage deal
Column	[1]	[2]	[3]	[4]
IPO suspension	-0.048*** [0.002]	0.228*** [0.000]	-0.128** [0.035]	-0.595*** [0.000]
Late stage deal	0.305*** [0.000]	-1.001*** [0.000]	0.621*** [0.000]	
Early stage deal	0.281*** [0.000]	-0.528*** [0.000]	0.136** [0.018]	
Deal count	-0.001 [0.152]	-0.001*** [0.004]	0.001*** [0.007]	-0.002*** [0.000]
Syndicated	0.218*** [0.000]	0.011 [0.799]		0.504*** [0.000]
VC deal experience	0.001** [0.014]	0.001*** [0.000]	-0.001 [0.549]	-0.002 [0.189]
VC exit experience	0.001 [0.154]	-0.006*** [0.000]	-0.003** [0.015]	0.004 [0.185]
Foreign VC	0.184*** [0.000]	0.281*** [0.000]	1.150*** [0.000]	0.062 [0.643]
Government VC	-0.034* [0.090]	-0.103* [0.088]	0.702*** [0.000]	-0.180 [0.131]
Stock index	-0.110 [0.295]	0.705** [0.015]	-0.957** [0.017]	3.324*** [0.000]
M2 growth	0.005** [0.045]	-0.026*** [0.000]	-0.014 [0.134]	0.105*** [0.000]
FDI growth	0.001** [0.038]	-0.005*** [0.001]	-0.001 [0.749]	0.011*** [0.000]
Fixed investment growth	0.001 [0.438]	-0.002 [0.453]	0.009** [0.024]	0.004 [0.401]
Province Marketization Index	-0.002 [0.766]	0.148*** [0.000]	0.125*** [0.000]	-0.064** [0.041]
Province Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	No	Yes	Yes
Observations	20,738	37,247	29,932	29,932
R-squared	0.167	0.0888	0.0363	0.167

Table A5: IPO suspensions and exits - controlling for marketization index

This table contains regressions that analyze the relationship between IPO suspensions and exit outcomes while controlling for the marketization index of the target's province. Columns 1 and 2 contain logit models that analyze the likelihood of the portfolio company having a successful exit. Columns 3 and 4 contain hazard models that analyze the time to exit. The models include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Model Column	Logit Model		Hazard Model	
	[1]	[2]	[3]	[4]
IPO suspension in First Round	-0.246*		-0.248**	
	[0.059]		[0.028]	
Proportion of Rounds during an IPO Suspension		-0.345**		-0.349**
		[0.029]		[0.012]
Late stage deal	1.921***	1.920***	1.735***	1.733***
	[0.000]	[0.000]	[0.000]	[0.000]
Early stage deal	1.304***	1.306***	1.174***	1.175***
	[0.000]	[0.000]	[0.000]	[0.000]
Deal count	-0.002***	-0.002***	-0.001**	-0.001**
	[0.000]	[0.000]	[0.023]	[0.018]
Syndicated	-0.586***	-0.591***	-0.574***	-0.576***
	[0.000]	[0.000]	[0.000]	[0.000]
VC deal experience	-0.005***	-0.005***	-0.005***	-0.005***
	[0.005]	[0.005]	[0.004]	[0.004]
VC exit experience	0.007	0.007	0.007	0.007
	[0.108]	[0.109]	[0.114]	[0.115]
Foreign VC	0.291	0.287	0.255	0.257
	[0.120]	[0.123]	[0.118]	[0.115]
Government VC	-0.215	-0.221	-0.210	-0.216
	[0.227]	[0.215]	[0.182]	[0.170]
Stock index	-3.240***	-3.240***	-3.420***	-3.475***
	[0.003]	[0.004]	[0.001]	[0.001]
M2 growth	0.004	0.002	-0.003	-0.004
	[0.845]	[0.913]	[0.828]	[0.780]
FDI growth	0.007**	0.006*	0.004	0.004
	[0.041]	[0.052]	[0.205]	[0.237]
Fixed investment growth	0.024***	0.025***	0.017***	0.017***
	[0.001]	[0.001]	[0.010]	[0.008]
Province Marketization Index	-0.485***	-0.484***	-0.238***	-0.239***
	[0.000]	[0.000]	[0.000]	[0.000]
Province FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	8,671	8,671	8,725	8,725
Pseudo R-Squared	0.240	0.240		

Table A6: Models predicting exit likelihood (for the subsample of firms only with early stage deals)

This table contains regressions that analyze the relationship between IPO suspensions and exit outcomes while controlling for the marketization index of the target's province. In this test, we restrict the sample to include only portfolio companies that only have early stage deals. Columns 1 and 2 contain logit models that analyze the likelihood of the portfolio company having a successful exit. Columns 3 and 4 contain hazard models that analyze the time to exit. The models include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Model Column	Logit Model		Hazard Model	
	[1]	[2]	[3]	[4]
IPO suspension in First Round	-0.433* [0.060]		-0.427** [0.035]	
Proportion of Rounds during an IPO Suspension		-0.404* [0.099]		-0.407* [0.062]
Deal count	-0.003*** [0.000]	-0.003*** [0.000]	-0.002*** [0.004]	-0.002*** [0.004]
Syndicated	-0.636*** [0.003]	-0.633*** [0.003]	-0.633*** [0.001]	-0.629*** [0.001]
VC deal experience	-0.002 [0.491]	-0.002 [0.479]	-0.001 [0.583]	-0.001 [0.574]
VC exit experience	-0.004 [0.525]	-0.004 [0.541]	-0.004 [0.557]	-0.004 [0.570]
Foreign VC	0.289 [0.363]	0.283 [0.372]	0.299 [0.305]	0.295 [0.312]
Government VC	-0.096 [0.690]	-0.109 [0.651]	-0.142 [0.527]	-0.153 [0.497]
Stock index	-3.490** [0.048]	-3.572** [0.043]	-3.855** [0.018]	-3.938** [0.015]
M2 growth	0.011 [0.696]	0.010 [0.725]	0.005 [0.840]	0.004 [0.869]
FDI growth	0.006 [0.176]	0.006 [0.155]	0.003 [0.531]	0.003 [0.497]
Fixed investment growth	0.011 [0.315]	0.011 [0.313]	0.004 [0.701]	0.004 [0.711]
Province Marketization Index	-0.271*** [0.006]	-0.277*** [0.004]	-0.031 [0.713]	-0.037 [0.665]
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	3,115	3,115	3,267	3,267
Pseudo R-Squared	0.180	0.180		

Table A7: Models predicting exit likelihood (for the subsample of firms only with late stage deals)

This table contains regressions that analyze the relationship between IPO suspensions and exit outcomes while controlling for the marketization index of the target's province. In this test, we restrict the sample to include only portfolio companies that only have late stage deals. Columns 1 and 2 contain logit models that analyze the likelihood of the portfolio company having a successful exit. Columns 3 and 4 contain hazard models that analyze the time to exit. The models include industry and province fixed effects. Brackets contain p-values and superscripts ***, **, and * denote significance at 1%, 5%, and 10%, respectively.

Model Column	Logit Model		Hazard Model	
	[1]	[2]	[3]	[4]
IPO suspension in First Round	-0.925** [0.046]		-0.906** [0.015]	
Proportion of Rounds during an IPO Suspension		-1.125** [0.029]		-1.100*** [0.007]
Deal count	0.002 [0.221]	0.002 [0.223]	0.002 [0.123]	0.002 [0.102]
Syndicated	-1.460*** [0.000]	-1.474*** [0.000]	-1.274*** [0.000]	-1.287*** [0.000]
VC deal experience	-0.008 [0.185]	-0.008 [0.241]	-0.007 [0.165]	-0.007 [0.198]
VC exit experience	0.013 [0.395]	0.009 [0.561]	0.011 [0.312]	0.010 [0.401]
Foreign VC	1.086** [0.035]	1.036** [0.042]	0.871** [0.036]	0.855** [0.037]
Government VC	-0.870* [0.060]	-0.827* [0.072]	-0.590 [0.203]	-0.556 [0.226]
Stock index	-4.267 [0.133]	-4.306 [0.136]	-4.062 [0.113]	-4.049 [0.115]
M2 growth	-0.026 [0.568]	-0.030 [0.504]	-0.021 [0.603]	-0.024 [0.546]
FDI growth	-0.011 [0.267]	-0.010 [0.314]	-0.011 [0.223]	-0.010 [0.268]
Fixed investment growth	0.051** [0.025]	0.054** [0.019]	0.039** [0.036]	0.043** [0.023]
Province Marketization Index	-0.805*** [0.000]	-0.816*** [0.000]	-0.516*** [0.001]	-0.541*** [0.001]
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Observations	507	507	582	582
Pseudo R-Squared	0.176	0.178		