

Exit as governance: Qualified foreign institutional investors, state control, and stock price crash risk

Abstract

This study investigates the impact of foreign institutional investors--qualified foreign institutional investors (QFIIs) on stock price crash risk in China through a governance channel: threat of exit. Using a sample of all Chinese A-share listed firms over the period from 2003 to 2015, we find that long-term and multiple existence of QFIIs exert credible exit threat to discipline management, and in turn, reduce stock price crash risk. In addition, the effect of exit threat is more prominent in the state-owned enterprises (SOEs), where strategic interests are highly valued. Our results further provide empirical evidence that QFIIs exerts a strong governance force through site visits. Our results are robust when controlling for possible endogeneity.

Keywords: Foreign institutional investors, stock price crash risk, China

JEL Codes: G32, G34, G38

1. Introduction

Market liberalisation and integration have played an important role in world economy development over a few decades, and the roles of foreign institutional investors have drawn increasing attention from academics and policy-makers. However, there is no consensus on whether foreign institutional investors act as effective monitors. One strand of literature argues that foreign ownership is associated with higher corporate transparency and lower information asymmetries (e.g., Kang and Stulz, 1997; Jiang and Kim, 2004; Gui et al., 2010; He et al., 2013; Kim and Yi, 2015). The other strand of literature proposes short-termism theory of foreign investors, and shows that foreign investors are indifference to domestic investors as they primarily focus on short-term performance, and in turn, reduces the extent of accrual mispricing (Ng and Wu, 2007; Kim and Yi, 2015).

In order to better understand the role of foreign institutional investors on governing portfolio firms in an emerging market, this study investigates the impact of the Qualified Foreign Institutional Investors (QFIIs) on stock price crash risk in China. It is an important research question for the following reasons. First, China is the largest developing country with the fastest economic growth. In particular, the openness of its stock markets attracts increasing attention to academics and economists. Second, despite record high levels of inward Foreign Direct Investment (FDI), until 2003 foreign investors have been restricted to only trade in B-share and H-share markets in China. The introduction of QFII scheme allows foreign institutional investors directly to trade in the Chinese domestic A-share markets, which greatly accelerates the opening up process of the Chinese capital markets. Therefore, it is of great importance to examine the impact of QFIIs. A few Chinese studies, such as Hung and Tseng (2009) and Huang and Zhu (2015) document that QFIIs can provide arm-length monitoring and improve corporate governance. Third, the importance of crash risk for portfolio management and asset pricing are well documented. Studies like Jin and Myers

(2006), Kim et al. (2011a, 2011b) state that crash risk is mainly driven by the poor corporate governance system that managers tend to withhold bad news and overinvestment because of career concern and short-term compensation. Fourth, it is argued that foreign investment would expose portfolio firms with international risk (Chen, et al., 2013), and foreign speculators are responsible for the severity of financial crises (Stiglitz, 2000). For example, the herd behaviour and imprudent competition of foreign institutional investors triggered the East Asian financial crisis in 1997 (Corsetti, et al., 1999; King, 2001). As the Chinese stock markets have often been regarded as highly speculative with general poor corporate governance and weak legal protection (Allen et al., 2005), it is of great importance to examine the role of QFIIs on stock price crash risk in China.

Using the sample of all Chinese A-share listed companies from 2003 to 2015, we find that QFIIs can reduce stock price crash risk. In addition, we content that the monitoring effect of QFIIs is mainly through the indirect mechanism: threat of exit. Theoretical studies like Shleifer and Vishny (1986) and Kahn and Winton (1998) highlight the mechanisms of how institutional investors govern portfolio firms. One is exerting minoring effort by using voting rights (voice) and the other is threat of exit (exit). In the Chinese setting, the average QFII ownership is only 1% in the A-share markets (Huang and Zhu, 2015), so it is expected that in comparison with directly engaging with management through voting, the effect of threat of exit could be weighted heavier for QFIIs who have little voting power. A survey conducted by McCahery et al. (2016) state that threat of exit can be an effective channel for institutional investors to exert monitoring efforts through large share holdings, long-term investment and existence of multiple institutional investors. Therefore, we first examine the effect of QFIIs on stock price crash risk through large shareholdings, long investment horizon, and existence of multiple QFIIs. Our evidence shows that firms with long-term and multiple QFIIs are prone to have lower stock price crash risk.

In addition, we analyse the impact of QFIIs on stock price crash risk from the perspective of the strategic interests for both QFIIs and portfolio firms. It is documented that institutional investors are inclined to have non-financial and strategic goals in counties with poor corporate governance, such as securing new markets and access to location-specific resources (Aguiera and Jackson, 2003). Furthermore, Liu et al. (2014) argue that the unique ownership characteristic drives foreign institutional investors to invest more in SOEs to get closer bonding with Chinese government, as the government policy changes may have stronger explanation power to stock price fluctuations than changes in underlying fundamentals of individual firms in China (Naughton, 2007). Similarly, the entry of QFIIs is highly valued by the Chinese government as the engine of the openness of the financial markets (CSRC, 2006). Therefore, we expect that the effectiveness of QFIIs monitoring is more prominent in the state-owned enterprises (SOEs) where strategic interests are highly valued. The results reveal that QFIIs with large holdings, long-term investment, and existence of multiple QFIIs can reduce stock price crash risk more in SOEs.

It is possible that QFII investment may be based upon a clientele preference. QFIIs may choose to invest in firms with lower stock price crash risk, and therefore, our analysis could be subject to potential endogeneity bias. We address the concern by using two econometric approaches: the Heckman sample selection model and propensity score matching model. These results are consistent with our main findings.

One challenge arises in investigating how QFIIs use exit threat as a corporate mechanism to influence manager's behaviours, as the threat of exit is unobservable. McCahery et al. (2016) state that the use of private discussions and negotiations can effectively monitor managers' behaviours. In addition, Cheng et al. (2018) and Jiang and Yuan (2018) document that corporate site visits by institutional investors boost stock return and firm innovation, respectively. In this study, we shed light on the exit threat mechanism by using corporate site

visits of QFIIs as the channel of monitoring. The results suggest that firms with QFII ownership tend to attract more QFIIs for site visiting. Further, we find that corporate site visits, as an effective monitoring channel, significantly reduce stock price crash risk. Therefore, it is suggested that QFIIs exert credible exit threat through corporate site visits, which in turn, reduce stock price crash risk.

Finally, to add more evidence of the positive role of QFIIs on effective monitoring, we further examine the impact of QFIIs on cash dividend payments, as dividend payments can significantly prevent managers from bad news hoarding and overinvestment. The results suggest that QFIIs increase dividend payments through shareholding concentration, long-term investment, and existence of multiple QFIIs.

Our study contributes to the existing literature in several ways. First, it contributes to the literature on the role of foreign institutional investors in emerging markets. In addition, prior Chinese studies mainly focus on foreign institutional and individual investors in B- or H-share markets, which are segmented from the main Chinese markets. Our study of QFII ownership in China's A-share markets provides broader implications to policy makers and investors. Second, it extends the existing literature of the impact of foreign institutional investors on stock price crash risk. Prior studies, such as He et al., 2013 and Kim and Yi, 2015, focus mainly on the effect of foreign institutional ownership on stock price informativeness and synchronicity, but little is known about the role of foreign institutional investors in influencing the negative skewness – stock price crash risk. Our study fills this gap and provide empirical evidence of the positive role of foreign institutional investors on reducing stock price crash risk. Third, this study provides empirical evidence for the theory on institutional investors exerting governance through exit threat. Specifically, we find the exit threat is implemented through large equity holdings, long-term investment, and existence of multiple QFIIs, and in firms where strategic relationship is important to institutional

investors. We also provide evidence that site visits are an important channel for institutional investors to exert threat of exit. Overall, our study provides important implications to policy makers and investors on further development of openness of stock markets and predicting stock price crash risk.

The rest of the paper is organized as follows: Section 2 reviews the related literature and develops hypotheses. Section 3 presents the sample and variables in this study. Section 4 discusses the empirical tests and results. Section 5 concludes.

2. Literature review and hypothesis development

2.1. Institutional background and related literature on foreign institutional investors

Since the early 1990s, the Chinese government founded the Shanghai and Shenzhen Stock Exchanges. In 1992, a B-share market was established, which allowed foreign investors to trade B-shares in foreign currency. Later in 1993, industry-leading firms were allowed to issue H-shares on the Hong Kong Stock Exchange, N-shares on the New York Stock Exchange, and other major exchanges in the world. After February 2001, Chinese investors were allowed to trade B-shares in foreign currency. Further, with the accession of WTO, the process of opening up the Chinese capital markets has entered a new era. On 1st December, 2002, the CSRC issued the Provisional Measures on Administration of Domestic Securities Investments of Qualified Foreign Institutional Investors (QFIIs) (the CSRC, 2002), which allow selected QFIIs to enter the Chinese A-share markets. The aim was to deepen the openness of the Chinese capital markets and enhance the management skills in the listed firms, and in turn, improve the development of legal system of the Chinese financial markets.

Under China's QFII framework, foreign financial institutions can be granted QFII status only if they meet certain requirements, including quantitative benchmarks relating to the assets

size and management experience. QFIIs were selected under a quantitative quota system where they need to apply for an approved quota in Chinese currency for developing their investment portfolio in the Chinese A-share markets. In addition, the investment of QFIIs need to be in compliance with shareholding restrictions: first, shares held by each QFII in any one listed firm cannot exceed 10 percent of total outstanding shareholding of such firm; second, total shares held by all QFIIs in one listed firms cannot exceed 20 percent of its total outstanding shares of such firm.

In 2006, the CSRC revised and issued Regulations on Administration of Domestic Securities Investments of Qualified Foreign Institutional Investors, which lowered the assets size requirements, increased the investment quota limit, and simplified the quota approval management system¹. It signals the Chinese government's intention to encourage the entry of QFII as the potential strategic investors with long-term investment perspective. By the end of 2016, there were 278 QFIIs in A-share markets with a USD 87.31 billions of total investment (the State Administration of Foreign Exchange, 2016).

Table 1 presents the details of top ten largest QFIIs by the end of 2016. The largest QFIIs is Monetary Authority of Macao with a USD 3 billions investment in the Chinese A-share markets. The top ten largest QFIIs are mainly from regions in Asia and Europe, and entered the Chinese A-share markets after 2014.

[Insert Table 1 about here]

The evidence is mixed in terms of the impact of foreign institutional ownership. One strand of literature argue that foreign institutional investors bring high standards of information disclosure, and provide better managerial and technical expertise, which in turn, improves firm performance (Ferreira and Matos, 2008; Dyck, 2001; Luong, et al., 2017). In addition,

¹ For more information, please find Regulations on Administration of Domestic Securities Investments of Qualified Foreign Institutional Investors (the CSRC, 2006).

foreign institutional investors also improve corporate governance practices, especially in countries with weak legal protection. Aggarwal et al. (2011) find foreign institutional investors can improve corporate governance in emerging markets significantly. Prior studies also state that foreign institutional investors have a positive impact on improving accounting information disclosure which improves stock price informativeness and synchronicity (He et al., 2013; Kim and Yi, 2015), which in turn, reduces agency problems such as tunnelling (Huang and Zhu, 2015; Zhang et al., 2017). As to the monitoring mechanisms, theoretical studies of Hirschman (1970) and McCahery et al. (2016) demonstrate two theories of institutional investors influencing the management: using voting right (voice) and selling and voting with their feet (exit). Studies like Douma et al. (2006), Chen et al. (2007), Ferreira et al. (2008), and McCahery et al. (2016) base on the traditional theory and find that foreign and independent institutional investors with large holdings and long-term investment are motivated to use their control rights through intervention in management decisions. Recent theory posit that institutional investors can govern firms even when they have little intervention power (Bharath et al., 2013; McCahery et al., 2016). That is, institutional investors use exit threat to pressure the management for improvement.

Another strand of literature, however, argue that foreign institutional investors represents “hot money” by pursuing short-term profits with little concern for long-term firm prospects. Ferreira et al. (2014) argue that short-termism of foreign investors may pressure the stock markets, and in turn, increase the risk exposure of listed firms. It is well evidenced that foreign speculators are responsible for the severity of financial crises (Stiglitz, 2000). In addition, Cheng et al. (2011) and Manconi et al. (2012) provide evidence that institutional investors under short-termism theory tend to focus on current earning news and short-term performance excessively.

2.2.Related literature on stock price crash risk

Stock price crash risk measures the asymmetry in risk, and defined as the negative skewness in the distribution of returns for individual stocks (Chen et al., 2001; Jin and Myers, 2006). Prior studies documented several theoretical frameworks of generating stock price crash. Cao et al. (2002) argue that traders with less information are hesitated about the trading signals by informed traders, and would delay trading until price drops, which causes stock price crash. Hong and Stein (2003) state the key determinants of the stock price crash risk is investor heterogeneity, which potentially blocks the negative information outflow to be fully incorporated into stock prices, which in turn increase stock price crash risk. More recent studies focus on the agency theory framework. Jin and Myers (2006) provide a theoretical analysis linking bad news hoarding by managers to stock price crash risk. They propose that managers tend to withhold bad news to the public due to the career concerns. Once the bad news accumulated and reached to a threshold level, stock price crashes.

Prior studies on the determinants of stock price crash risk are heavily framed from an agency perspective. For example, financial reporting can be a key determinant of crash risk. Hutton et al. (2009) and Chen et al. (2017a) find that earnings management measured by accumulated accruals is positively related to stock price crash risk. In addition, Francis et al. (2016) investigate the impact of real earnings management on stock price crash risk, and find that firms engage in real earnings management are prone to price crash. Beside accruals and real earnings management, managers also use other methods to manage earnings, such as, corporate tax avoidance. Kim et al. (2011a) find that corporate tax avoidance increases crash risk. Managers may also disclose information, such as corporate social responsibility (CSR), to conceal bad news for an extended period. Kim et al. (2014) reveal that firms with better CSR disclosures tend to have lower crash risk. In addition, Zhang et al. (2016) argue that corporate philanthropic can reduce the stock price crash risk in China. One strand of literature investigates the impacts of managerial incentives and characteristics on stock price crash risk.

CFO's equity incentive is found to have a positive relationship with crash risk (Kim et al., 2011b). Excess perks of executives in China also increases the risk of price crash (Xu et al., 2014). Further, Kim et al. (2016) reveal that firms have overconfident CEOs are more likely to have high crash risk. CEO age is also documented as one of the factors determining crash risk. Andreou et al. (2017) find that younger CEOs are more likely to experience price crashes, which indicates that CEOs have more incentives to hoard bad news in their earlier career. Moreover, effective internal and external corporate governance mechanisms are found to play an important role in reducing stock price crash risk. Chen et al. (2017b) find that high quality internal control (control environment, risk assessment, control activities, information and communication, and monitoring) mitigates crash risk. Further, Kim et al. (2018) argue that higher cash dividend payment indicates less minority shareholder expropriation, and therefore, leads lower crash risk. External monitoring such as institutional investors ownership (An and Zhang, 2013; Callen and Fang, 2013) and analyst coverage (Kothari et al., 2009) can alleviate crash risk. Finally, social norm can also influence stock price crash risk. Studies show that more intense religious environment (Callen and Fang, 2015), high social trust (Cao et al., 2016; Li et al., 2017) are negatively related to stock price crash risk.

2.3. Hypothesis development

A framework of the costs and benefits of monitoring established by Chen et al. (2007) shows that independent institutional investors face lower monitoring cost, compared to investors who have higher risk of damaging the business ties. More specifically, foreign institutional investors, in our case, QFIIs, viewed as independent investors with no potential business ties, have more incentives to monitor the management instead of trading. Further, Hung and Tseng (2009) find that QFIIs are in a better position than domestic institutional investors to monitor corporate insiders and in turn improves firm efficiency by improving information asymmetry and relaxing investment cash-flow sensitivity. Huang and Zhu (2015) also point out that

QFIIs have greater influence than domestic institutional investors over the controlling shareholders in Chinese listed firms, as they are less prone to political pressure, and therefore, more likely to provide arm-length negotiation and monitoring. As such, we expect that QFIIs can reduce stock price crash risk by providing effective monitoring.

In the Chinese setting, the blockholders are mainly the state and legal persons. The state shares are owned by both central and local governments. While legal persons are enterprises or economic entities with a legal status (Chen et al., 2009). With the late entry in 2003, on average only 1% of QFII ownership in A-share markets have voting rights (Huang and Zhu, 2015). As such, QFIIs are expected to have minor effect on prompting governance practices through voting (voice). Therefore, in this study, we examine the effect of QFIIs on stock price crash risk through a governance channel: exit threat. With the presence of threat of exit, institutional investors, especially the minority investors who have inadequate voting rights, still enable to influence and discipline management (McCahery et al., 2016). In sum, we expect that the firm with QFII ownership can be motivated to improve management, and in turn, are prone to lower stock price crash risk. We hypothesise that:

Hypothesis 1: QFII ownership are negatively related to stock price crash risk.

Prior studies argue that the beneficial effect in monitoring (either voice or exit) heavily depends on the motivations of institutional investors (Aguiera and Jackson, 2003) and benefits of invested firms from keeping such investors (McCahery et al., 2016). On one hand, Aguiera and Jackson (2003) state that the role of institutional investors is influenced by the different capital goals. Institutions with financial goals tend to exercise control via intensive trading, while institutional with non-financial and strategic goals tend to exercise control via commitment, especially in countries with weak property rights (Aguiera and Jackson, 2003). More specifically, Douma et al. (2006) state that foreign investors with non-financial goals

are more likely to use their ownership stakes as a means to foster their strategic interests, such as securing access to new markets, location-specific resources and low-cost production facilities. Given the fact that the corporate governance in China are generally poor (Allen et al., 2005) and the government has substantial control in the listed firms with more resources and soft budget constraints which provide political and financial backing and subsidies, we expect that QFIIs in China tend to have stronger strategic motivation in SOEs than in private firms. That is, the effect of the positive role of QFIIs on reducing crash risk are more pronounced in SOEs.

On the other hand, QFIIs are perceived as the important channel for the financial markets development in China (the CSRC, 2006). The report states that QFIIs has complementary effect to Foreign Direct Investment (FDI), which is expected to bring high standard corporate governance practices, and act as potential strategic investors by the Chinese government (the CSRC, 2006). It is revealed that the potential benefits QFIIs bring are highly valued by the government. Overall, we expect that both the interests between QFIIs and the government are better aligned, which in turn, crash risk mitigating effect are more pronounced. We propose that:

Hypothesis 2: The negative relation between QFII ownership and stock price crash risk are more pronounced in SOEs.

3. Sample and variables

3.1. Sample

The initial sample consists of all Chinese A share listed companies from 2003 to 2015². The data in this study is obtained from the China Securities Market and Accounting Research (CSMAR) database. We exclude (1) financial service firms, (2) firms with fewer than 30

² QFIIs are allowed to invest in A-share listed companies from 2003.

trading weeks of stock return data in a fiscal year, (3) firm-year observations with missing information to obtain the control variables. Our final sample includes 12,382 firm-year observations representing 1,944 individual firms. To mitigate the effects of outliers, we winsorize continuous variables at the 1% and 99% levels.

Panels A and B of Table 2 show the sample firm-year observations and firm with QFIIs distribution across industries and by year, respectively. The industry classification is based on the 2012 CSRC industrial classification of listed companies with 17 industries³. Panel A shows that the majority of our sample observations are in the manufacturing industry (58.65%). Similarly, the majority of the firms with QFII ownership are from the manufacturing industry (65.58%). While transport, storage and postal services industry accounts for 9.63%, and wholesale and retail accounts for 6.77%. Panel B reports the chronological distribution of our sample firms and firms with QFII ownership. There are more observations in the later period, indicating the underlying growth in China's capital markets. In terms of firms with QFIIs, it is revealed an overall increasing trend of QFIIs from 2003 to 2015, except a sharp decrease in 2007 and 2008, which could be driven by the global financial crisis, and a slightly decrease in 2012 and 2013, which could be due to the bad performance of the Chinese A-share markets in 2012.

[Insert Table 2 about here]

3.2. Measuring firm-specific crash risk

Following Chen et al. (2001), Hutton et al. (2009), and Kim et al. (2011a, 2011b), we measure firm-specific crash risk using two measures. We first estimate firm-specific weekly returns, denoted W , by using the following equation:

³ For more details, please refer to CSRC, 2012. Beijing: The Guidelines for the Industrial Classification of Listed Companies (No. 31).

$$R_{i,t} = \alpha_i + \beta_1 R_{m,t-2} + \beta_2 R_{m,t-1} + \beta_3 R_{m,t} + \beta_4 R_{m,t+1} + \beta_5 R_{m,t+2} + \varepsilon_{i,t} \quad (1)$$

where $R_{i,t}$ is the return on stock i in week t and $R_{m,t}$ is the value-weighted A-share market return on week t . The firm-specific weekly returns for firm i in week t are measured by $W_{i,t} = \ln(1 + \varepsilon_{i,t})$.

The first measure of crash risk is the negative coefficient of skewness, NCSKEW, calculated by taking the negative of the third moment of firm-specific weekly returns for each sample year and dividing it by the standard deviation of firm-specific weekly returns raised to the third power. Specifically, the equation is as follows:

$$\text{NCSKEW} = -[n(n-1)^{3/2} \sum w_{j,\tau}^3] / [(n-1)(n-2) (\sum w_{j,\tau}^2)^{3/2}] \quad (2)$$

where n is the number of trading weeks of firm i in year t . A higher the NCSKEW, a firm is more likely to crash.

The second measure is the down-to-up volatility, DUVOL, calculated as the logarithm of the ratio of the standard deviation of firm-specific weekly returns in “down” weeks to the standard deviation of firm-specific returns in “up” weeks. If a firm’s specific weekly return is higher than the mean value over year t , then the week is “up” week, otherwise “down” week. Specifically, the equation is as follows:

$$\text{DUVOL}_{j,\tau} = \log \left\{ (n_u - 1) \sum_{\text{Down}} w_{j,\tau}^2 / (n_d - 1) \sum_{\text{Up}} w_{j,\tau}^2 \right\} \quad (3)$$

where n_u and n_d are the number of “up” and “down” weeks over year t , respectively. A higher value of DUVOL, a firm is more likely to crash.

3.3. Measuring Qualified Foreign Institutional Investors

We have four measures of QFIIs in Chinese listed firms. The presence of QFII ownership, QFII, is measured as a dummy variable which equals one if a listed firm have QFII ownership, zero otherwise; QFII ownership concentration, Top10, is measured as a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; QFII investment horizon, Long, is measured as a dummy variable which equals one if a firm has QFIIs in the top ten shareholders with investment longer than six months in the observation year, zero otherwise; Existence of multiple QFIIs, MultiQFII, is measured as a dummy variable which equals to one if a firm has more than one QFII in its top ten shareholders in the observation year, zero otherwise.

3.4. Control variables

We also include a series of control variables that are known to influence stock price crash likelihood. The lagged variable of crash risk ($NCSKEW_{t-1}$ or $DUVOL_{t-1}$) is included to control the potential serial correlation. Following Chen et al. (2001), Kim et al. (2011a, 2011b), we include the following control variables that commonly used in the prior studies as the predictors of crash risk. First, we include $Dturn$, the detrended stock trading volume, a proxy of investor opinion heterogeneity. Hong and Stein (2003) state that investor opinion heterogeneity is a predictor of stock price crash risk. Second, we include $Return$ and $Sigma$, measured by the average firm-specific weekly return over the past year and the standard deviation of weekly firm-specific stock returns over the past year, respectively. Past returns and volatility are related to future crash risk as firms with higher returns and volatility are more likely to undergo a future price crash (Chen et al., 2001). Further, some firm-level accounting control variables are included: $Size$, the nature logarithm of total assets; $Leverage$, the ratio of total liabilities to total assets; ROA , return on assets; MB , market to book equity

ratio; and ABACC⁴, the absolute value of abnormal accruals, which is a proxy of earnings management (Hutton et al., 2009; Kim et al., 2011a, 2011b; Kim and Zhang, 2016). For the internal corporate governance, we include State, a dummy variable which equals one if the ultimate controller is the State; Top1, the percentage of top one shareholding; Independence, a ratio of the number of independent directors to the total number of directors on the board; and Board size, measured by the nature logarithm of the total number of directors on the board.

4. Empirical tests and results

4.1. Descriptive statistics

Table 3 displays the summary statistics of the variables in our study⁵. The detailed description of each variable is shown in the Appendix A. In our sample, the average value for NCSKEW and DUVOL are -0.262 and -0.079, respectively, which are similar to that reported in Li et al. (2017). The four measures of QFIIs have the average values of 0.101, 0.058, 0.020, and 0.009, respectively. That is, 10.1% of the sample firms have QFII ownership, and 5.8% of them have QFIIs in their top ten shareholders lists. In addition, 2% of the sample firms have long-term QFIIs (more than six months) in their top ten shareholders lists, and 0.9% of them have more than one QFII in their top ten shareholders lists.

[Insert Table 3 about here]

The effect of SOEs on QFIIs preference is depicted in Table 4 by using mean and median difference test between SOEs and non-SOEs. It provides strong evidence that QFIIs are more inclined to choose and hold large proportion of shares in SOEs than in non-SOEs. Moreover,

⁴ The construction of ABACC is detailed in Appendix B.

⁵ We test the correlation between the variables and find no significant multicollinearity problems.

QFIIs tend to have long investment horizon in SOEs, and the likelihood of existence of multiple QFIIs in SOEs is significantly higher in SOEs.

[Insert Table 4 about here]

4.2. Main regression analysis

4.2.1. QFII ownership and stock price crash risk

To investigate the impact of QFII ownership on firm-specific future stock price crash risk, we apply the following model:

$$\text{CrashRisk}_{t+1} = \alpha + \beta_1 \text{QFII}_t / \text{Top10}_t / \text{Long}_t / \text{MultiQFII}_t + \gamma \times \text{Control variables} + \text{Industry dummies} + \text{Year dummies} + \varepsilon_t \quad (4)$$

where the dependent variable, CrashRisk_{t+1} is measured by NCSKEW or DUVOL. The key independent variables, QFII_t , is a dummy variable which equals one if a firm has QFII ownership, zero otherwise; Top10_t is a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; Long_t is a dummy variable which equals one if a firm has QFIIs in the top ten shareholders with investment longer than six months in the observation year, zero otherwise; MultiQFII_t , is measured as a dummy variable which equals to one if a firm has more than one QFII in its top ten shareholders in the observation year, zero otherwise. We measure all independent variables in year t , which is a one-year lag from the dependent variable. As such, it allows us to examine the effect of QFII ownership in year t on predicting the crash risk in year $t+1$.

The Equation (4) is fixed at industry and year levels. Further, we cluster the standard errors at the firms and time level to alleviate concerns of potential cross-sectional and time-series dependence in the data.

Table 5 reports the regression results. Long and MultiQFII are both negatively and significantly related to stock price crash risk in Models (4), (7) and (8) at the 5% and 10% levels. Moreover, Long and MultiQFII are economically significant with magnitudes of 0.96%, 0.77%, and 1.50% in Model (4), Model (7), and (8), respectively. It suggests that long-term QFIIs are able to exert effective monitoring on disciplining management, which in turn, reduce stock price crash risk. The results are consistent with the findings of Douma et al. (2006), Chen et al. (2007), Ferreira et al. (2008), and McCahery et al. (2016). In addition, consistent with McCahery et al. (2016), the results reveal that the existence of multiple QFIIs strengthens the effectiveness of monitoring. However, the results show little evidence that QFII ownership (QFII and Top10) have mitigating effect on stock price crash risk.

The lagged variable of crash risk ($NCSKEW_t$ or $DUVOL_t$) is positively and significantly related to crash risk in all the models at the 1% level, indicating crash risk is persistent (Chen et al., 2001; Callen and Fang, 2013; Li et al., 2017). Consistent with the findings of Chen et al., 2001; Kim et al., 2011a, 2011b; Callen and Fang, 2013; Li et al., 2017), Return and Sigma are both positively and significantly related to crash risk, which suggests that firms with higher return and volatility are more prone to undergo a future price crash. In addition, there is a positive and significant relationship between MB and crash risk in all the models at the 1% level, which is in line with the findings of prior studies that growth stocks are more likely to crash (Harvey and Siddique, 2000; Chen et al., 2001, Callen and Fang, 2013; Xu et al, 2014; Li et al., 2017).

[Insert Table 5 about here]

4.2.2. QFII ownership and stock price crash risk: the SOEs effect

In this section, we apply the Equation (4) in the sample firms controlled by the state to test whether the crash risk mitigating effect of QFIIs through large share holdings, long-term

investment, and existence of multi QFIIs is more prominent in SOEs where strategic interests are highly valued.

Table 6 reports the regression results. Top10 is negatively and significantly related to stock price crash risk in the Models (2) and (6) at the 10% and 5% level, respectively. It reveals that the QFII can effectively influence the management through ownership concentration, and in turn, reduce stock price crash risk, which is consistent with Douma et al. (2006), Chen et al. (2007), Ferreira et al. (2008), and McCahery et al. (2016). Besides, the negative relation between Long/ MultiQFII are more pronounced as shown in the Models (3), (4), (7), and (8). It is indicated that QFIIs with large shareholding, long investment horizon, and multiple QFIIs are able to exert monitoring on disciplining management, and therefore, mitigate stock price crash risk in SOEs where strategic interests are highly valued by both parties.

[Insert Table 6 about here]

4.3. Endogeneity issue

First, we apply the Heckman (1979) two-stage approach to alleviate the potential endogeneity of QFII ownership. In the first-stage analysis, we estimate the following probit model to predict the presence of QFII ownership:

$$\begin{aligned}
 \text{QFII}_t / \text{Top10}_t / \text{Long}_t / \text{MultiQFII}_t = & \beta_0 + \beta_1 \text{Size}_t + \beta_2 \text{Leverage}_t + \beta_3 \text{ROA}_t + \beta_4 \text{MB}_t \\
 & + \beta_5 \text{ABACC}_t + \beta_6 \text{State}_t + \beta_7 \text{Top1}_t + \beta_8 \text{Independence}_t \\
 & + \beta_9 \text{Boardsize}_t + \beta_{10} \text{Return}_t + \text{Industry dummies} \\
 & + \text{Year dummies} + \varepsilon_t
 \end{aligned} \tag{5}$$

where the dependent variables, QFII_t , is a dummy variable which equals one if a firm has QFII ownership, zero otherwise; Top10_t is a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; Long_t is a dummy variable which

equals one if a firm has QFII investment longer than six months in year t , zero otherwise; MultQFII_i is a dummy variable which equals to one if a firm has more than one QFII in year t , zero otherwise. The independent variables are commonly used in the literature for controlling firm performance and corporate governance perspectives. The model is fixed at industry and year level⁶. In the second-stage regression, we obtain the inverse Mills ratio (λ) from Equation (5), and include in Equation (4) to control for self-selection effects.

Prior studies state that foreign institutional investors are inclined to invest in markets with stronger shareholder rights, and in firms with less information asymmetry. Studies based on the home bias theory argue that foreign portfolio investors exhibit a large home bias against countries with poor governance and different cultures (Ahearne et al., 2004; Kho et al., 2009; Anderson et al., 2011). Furthermore, Aggarwal et al. (2005) use the portfolio holdings of 576 US mutual funds invested in emerging markets and investigate the portfolio preferences of foreign institutional investors at both country-level and firm-level disclosure and policies. It is stated that foreign institutional investors are more likely to invest in markets with strong accounting standards and legal protection, and good corporate governance such as greater accounting transparency at firm level. Table 7.1 represents the results. In Panel A, the first stage test shows the presence of QFII ownership in the Model (1) that QFIIs are more likely to invest in large size, low leverage, good operating performance, high growth, low earnings management and the state controlled firms. Similarly, QFIIs with ownership concentration, long investment horizon and multiple QFIIs are also inclined to stay in firms with good operating performance and good corporate governance, which is consistent with Aggarwal et al. (2005), Ferreira et al. (2008), and Liu et al. (2014). It is notable that apart from the performance and corporate governance which QFIIs value, firms controlled by the state are also preferred by QFIIs. It confirms that the strategic interests of QFIIs in SOEs are more

⁶ We also test the model with firm and year fixed effect, the results are very similar.

prominent, which in turn, motivates QFII's monitoring. The inverse Mills ratio (Λ) in Panel B is insignificant in all the models, suggesting that there is no self-selection in our sample. Importantly, we continue to find that QFIIs with long-term investment and existence of multiple QFIIs are negatively and significantly associated with stock price crash risk.

[Insert Table 7.1 about here]

Table 7.2 presents the Heckman two-stage model for the sample of SOEs. We continue to find that firms with good performance and corporate governance are preferred by QFIIs. In the second stage of the model as shown in Panel B, Top10, Long and, MultiQFII are negatively and significantly related to stock price crash risk. It suggests that large shareholdings, long investment horizon, and multiple existence of QFIIs are prone to reduce the stock price crash risk in SOEs.

[Insert Table 7.2 about here]

Second, we also use propensity score matching model to address the potential endogeneity issue. The mechanism of propensity score matching is to produce two groups of firms that can be matched optimally according to the included control variables. In our case, the treatment groups are the firms with QFII ownership, QFIIs in top ten shareholders lists, QFII investment period longer than six months, or multiple QFIIs, control groups vice versa. The treatment and control groups are made to be as statistically alike as possible for the control variables. Table 8.1 presents estimates of the basic propensity score model. We first estimate probit models as shown in Panel A, to generate two groups of firms (treated group and control group). Then we use the sample and apply Equal (4) as shown in Panel B. The results show that Long and MultiQFII are negatively and significantly related to crash risk measures, which is consistent with our findings that long-term investment and multiple existence of QFIIs can reduce stock price crash risk. The results of propensity score matching model in

SOEs are shown in Table 8.2. Consistently, we find that the mitigating effect of large shareholdings, long investment horizon, and multiple existence of QFIIs on stock price crash risk is more pronounced in SOEs.

[Insert Table 8.1 about here]

[Insert Table 8.2 about here]

4.4. Corporate site visits and stock price crash risk

Corporate site visits are one of the most prevalent and important typed of information acquisition activities in the market (Brown et al., 2015; McCahery, et al., 2016). It is documented that institutional investors can acquire useful information by observing the operation of a firm or directly communicate with managers by visiting a firm's headquarter and its operation facilities (Cheng et al., 2015). In addition, through site visits, institutional investors can exert effective monitoring to disciplining managers, which in turn, increase stock returns (Cheng et al., 2018) and firm innovation (Jiang and Yuan, 2018). Therefore, we expect that corporate site visits by QFIIs can be effective channels of how QFIIs reduce stock return crash risk.

We obtain the data of corporate site visits from China Stock Market and Accounting Research (CSMAR) database. Since the site visit data only available from 2012, our sample period starts from 2012 to 2015. We use Sitevisits, a dummy variable which equals one of any QFIIs visit a firm's site in the observation year, otherwise zero.

Table 9.1 reports the results. In Panel A, we use the Probit model to examine the impact of QFIIs on corporate site visits. It shows that a firm with QFII ownership, QFIIs in top ten shareholders list, and long-term QFIIs, are more likely to attract site visits from QFIIs. Furthermore, Panel B shows that corporate site visits can significantly reduce stock price

crash risk at the 10% levels in both models. It suggests that firms with QFIIs are better monitored by QFII's site visits, which in turn, are prone to have lower stock price crash risk. Table 9.2 reports the SOEs subsample analysis, the results are consistent with the findings in Table 9.1.

[Insert Table 9.1 about here]

[Insert Table 9.2 about here]

4.5. Additional tests

4.5.1. QFII investment period and stock price crash risk

We use the alternative measure of QFII investment period, $\text{Ln}v\text{period}$, the nature logarithm of one plus the number of the quarterly investment periods of QFIIs hold the longest in a firm, to examine the impact of the QFII investment horizon on the stock price crash risk. Table 10 represents the results. The coefficients of $\text{Ln}v\text{period}$ in Panel A (full sample) are negative but insignificant. While in Panel B (SOEs), $\text{Ln}v\text{period}$ is negatively and significantly associated with stock price crash risk at the 10% level. It confirms our finding that the longer the QFII investment horizon, the lower the future stock price crash risk.

[Insert Table 10 about here]

4.5.2. The number of QFIIs and stock price crash risk

We use $\text{QFII}number$, measured by the nature logarithm of one plus the number of QFIIs in top ten shareholders, as the alternative measure of existence of multiple QFIIs. Table 11 shows the results of the impact of the number of QFIIs on stock price crash risk. Panel A shows the relation between the number of QFIIs and stock price crash risk is negative but insignificant in the full sample. While, in SOEs, as shown in Panel B, the number of QFIIs are negatively and significantly related to stock price crash risk. It suggests that the

monitoring effect of multiple existence of QFIIs is more prominent in SOEs, and in turn, reduces stock price crash risk.

[Insert Table 11 about here]

4.5.3. Political rights and stock price crash risk

We further examine the impact of country's political rights where QFIIs come from on stock price crash risk. This method is motivated by the studies of Boubakri et al. (2007, 2013), which argue that institutional investors from countries with strong political rights and low political instability, are more inclined to invest their capital strategically. Therefore, it is expected that QFIIs coming from countries with high political rights are motivated more to exert monitoring on management, and in turn, reduce stock price crash risk. We use Polirights⁷, the political rights index of the country where the QFII originally comes from, for firms with single QFII; for firms with multiple QFIIs, we use the average country's political rights index of countries where QFIIs come from. The results are displayed in Table 12. We find that the relation between political rights and stock price crash risk is insignificant in the full sample shown in Panel A. However, in SOEs, we find that political rights are negatively and significantly associated with crash risk measures in Panel B. That is, QFIIs from countries with strong political rights and low political uncertainty are more likely to invest strategically and exert effective monitoring on disciplining management behaviours in SOEs where strategic interests are highly valued.

[Insert Table 12 about here]

4.5.4. QFII ownership and dividend policy

⁷ We use Polirights derived from the Worldwide Governance Indicators (WGI). It measures perceptions of the likelihood of political instability and politically-motivated violence from approximately -2.5 (weak) to 2.5 (strong) governance performance.

Agency theory suggests that cash dividend payments reduce the free cash flow problem (Jensen, 1986), and in turn enhance minority shareholder protection. Kim et al. (2018) find that dividend payments mitigate stock price crash risk by curtailing overinvestment decisions by managers. As such, in this study, we examine the impact of QFII ownership on dividend policy. We use *Excessdiv*, measured as a firm's cash dividend payout ratio (cash dividend per share to total assets per share) minus the industry average dividend payout ratio in the same observation year. The results in Table 13 shows that the presence of QFII, QFIIs with large equity holdings, long-term investment, and existence of multiple QFIIs are positively and significantly related to dividend payments at the 1% level in the full sample. The results are consistent in SOEs that QFIIs increase dividend payments through shareholding concentration, long-term investment, and existence of multiple QFIIs.

[Insert Table 13 about here]

5. Conclusions

This study investigate the role of QFIIs in China on stock price crash risk from 2003 to 2015 through a governance channel: exit threat. We find that QFIIs play an important role of governing the management, even when the direct intervention power, by using voting rights, is little. The conditional analysis suggests that long-term investment and existence multiple of QFIIs in China can exert credible exit threat to influencing management, and in turn, reduce stock price crash risk. Further, we find that firms with large QFII holdings, long-term QFII investment, and existence of multiple QFIIs are prone to have lower stock price crash risk in SOEs. It suggests that the exit threat are more effective when strategic interests are highly valued in both QFIIs and government-controlled firms. In addition, it reveals that QFIIs exert effective monitoring through corporate site visits. That is, firms with QFIIs are better

monitored by QFIIs, which in turn, have lower stock price crash risk. Our results are robust to alternative empirical specifications and endogeneity concerns.

In summary, our study enriches the literature of the role of foreign institutional investors in emerging markets, as well as stock price crash risk. Importantly, we encompass the conditions of QFIIs for the effectiveness of crash risk mitigation. It provides important implications to policy makers on further development of openness of stock markets, and also aids investors about one strategy to help predict and eschew future stock price crash risk based on the condition of foreign institutional investors.

Appendix A. Definitions of the variables in this study

Variable	Definition
NCSKEW	The negative coefficient of skewness, calculated by taking the negative of the third moment of firm-specific weekly returns for each sample year and dividing it by the standard deviation of firm-specific weekly returns raised to the third power. See Eq. (2) for details.
DUVOL	The down-to-up volatility. For any stock i in year t , we separate all of the weeks with firm-specific weekly returns below the annual mean (down weeks) from those with firm-specific weekly returns above the annual mean (up weeks) and compute the standard deviation for each of these subsamples separately. We then take the natural logarithm of the ratio of the standard deviation of the down weeks to the standard deviation of the up weeks. See Eq. (3) for details.
QFII	A dummy variable which equals 1 if a firm has QFII ownership in year t , zero otherwise.
Top10	A dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise
Long	A dummy variable which equals one if a firm has QFIIs in the top ten shareholders with investment longer than six months in the observation year, zero otherwise; a dummy variable which equals to one if a firm has more than one QFII in its top ten shareholders in the observation year, zero otherwise.
MultiQFII	A dummy variable which equals to one if a firm has more than one QFII in its top ten shareholders in the observation year, zero otherwise.
Invperiod	The nature logarithm of one plus the number of the quarterly investment periods of QFIIs hold the longest in a firm.
QFIInumber	The nature logarithm of one plus the number of QFIIs a firm has.
Return	The mean of firm-specific weekly returns over the fiscal year.
Sigma	The standard deviation of firm-specific weekly returns over the fiscal year.
Dturn	The detrended stock trading volume, calculated as the average monthly share turnover for the current fiscal year minus the average monthly share turnover for the previous fiscal year, where the monthly share turnover is the monthly trading volume divided by the total number of floating shares on the market that month.
Size	The natural logarithm of the book value of total assets at the end of the fiscal year.
Leverage	Firm financial leverage, calculated as total liabilities divided by total assets.
ROA	Firm profitability, calculated as income before extraordinary items divided by total assets.
MB	The market-to-book ratio of firm i in year t , i.e., $(\text{market price at the end of fiscal year} \times \text{number of shares outstanding} + \text{net asset value per share} \times \text{number of non-tradable outstanding shares})/\text{book value of equity}$.
ABACC	The absolute value of discretionary accruals, where discretionary accruals are estimated from the modified Jones model (Dechow et al., 1995). See Appendix B for a detailed explanation.
State	A dummy variable which equals one if a firm's ultimate controller is the state, zero otherwise.
Top1	The percentage of the largest shareholding.
Independence	Independence of the board, measured as the ratio of the number of independent directors over the total number of directors on the board.
Boardsize	The natural logarithm of the number of directors on the board.
Polirights	The political rights country index from approximately -2.5 (weak) to 2.5 (strong) governance performance, measures perceptions of the likelihood of political instability and politically-motivated violence.
Excessdiv	A firm's cash dividend payout ratio (cash dividend per share to total assets per share) minus the industry average dividend payout ratio in the same observation year.

Appendix B. Measuring of firm-specific earnings management (ABACC)

We employ the modified Jones model (Dechow et al., 1995) to estimate discretionary accruals, which is a common measure of earning management. Specifically, we first estimate the following cross-sectional regressions for each industry for each year from 2003 to 2015:

$$\frac{TA_{i,t}}{Asset_{i,t-1}} = \alpha_0 \times \frac{1}{Asset_{i,t-1}} + \beta_1 \times \frac{\Delta Sales_{i,t}}{Asset_{i,t-1}} + \beta_2 \times \frac{PPE_{i,t}}{Asset_{i,t-1}} + \varepsilon_{i,t} \quad (B.1)$$

The estimated coefficients from Equation (B.1) are then used to calculate discretionary accruals ($DiscACC_{i,t}$) using the following equation:

$$DiscACC_{i,t} = \frac{TA_{i,t}}{Asset_{i,t-1}} - (\hat{\alpha}_0 \times \frac{1}{Asset_{i,t-1}} + \hat{\beta}_1 \times \frac{\Delta Sales_{i,t} - \Delta AR_{i,t}}{Asset_{i,t-1}} + \hat{\beta}_2 \times \frac{PPE_{i,t}}{Asset_{i,t-1}}) \quad (B.2)$$

where $TA_{i,t}$ is total accruals from firm i in year t , calculated as operating profits minus cash flow from operations; $Asset_{i,t-1}$ is the book value of total assets from firm i at the beginning of year t ; $\Delta Sales_{i,t}$ is the change in total revenue of firm i in year t ; $\Delta AR_{i,t}$ is the change in accounts receivable for firm i in year t ; and $PPE_{i,t}$ is the gross amount of fixed assets for firm i at the end of year t . The variable $ABACC_{i,t}$ is the absolute value of discretionary accruals for firm i at year t .

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Table 1. The top ten largest QFIIs

QFIIs	Origins	Trustee bank	Registration date	Investment Quota (in billions)
Monetary Authority of Macao	Macao	Bank of China	27-10-16	3.00
Norges Bank	Norway	National city Bank of New York	13-02-15	2.50
ABU Dhabi Investment Authority	United Arab Emirates	Hong Kong and Shanghai Banking Corporation	25-12-15	2.50
Hong Kong Monetary Authority	Hong Kong	National city Bank of New York	22-09-14	2.50
UBS AG	Switzerland	National city Bank of New York	28-11-16	2.19
Société Générale	France	Hong Kong and Shanghai Banking Corporation	27-10-16	1.70
JF Asset Management Limited	Hong Kong	China Construction Bank	27-07-16	1.53
Fubon Life Insurance Co. Ltd	Taiwan	National city Bank of New York	28-09-15	1.50
Kuwait Investment Authority	Kuwait	Industrial and Commercial Bank of China	22-01-14	1.50
Oppenheimer Funds, Inc.	United State	Hong Kong and Shanghai Banking Corporation	28-11-16	1.50

Table 2. Sample distribution

Panel A and B of Table 1 show the sample firm-year observations and QFIIs distribution across industries and by year, respectively.

Panel A: By industry				
Industry	Firm-year observation	Percentage (%)	Firms with QFII ownership	Percentage (%)
Agriculture, forestry	183	1.48	14	1.11
Mining	394	3.18	30	2.39
Manufacturing	7,263	58.65	783	62.58
Electric power, heat, gas and water	650	5.25	56	4.46
Construction	286	2.33	22	1.75
Wholesale and retail	699	5.64	85	6.77
Transport, storage and postal services	554	4.47	121	9.63
Accommodation	66	0.53	11	0.88
Information transmission, software and information technology services	424	3.42	25	1.99
Real estate	875	7.06	64	5.18
Leasing and commercial service	170	1.37	21	1.67
Scientific research and technical service	37	0.30	0	0.00
Water conservancy, environment and public facility management	141	1.14	7	0.56
Education	12	0.10	0	0.00
Health and social work	28	0.23	0	0.00
Culture, sports and entertainment	154	1.24	7	0.56
Others	179	1.45	6	0.48
Total	12,382	100	1,252	100
Panel B: By year				
Year	Firm-year observation	Percentage (%)	Firms with QFII ownership	Percentage (%)
2003	773	6.25	9	0.80
2004	773	6.25	35	2.87
2005	778	6.28	88	7.01
2006	858	6.93	162	12.90

2007	425	3.43	82	6.53
2008	345	2.79	67	5.33
2019	736	5.94	100	7.96
2010	900	7.27	128	10.19
2011	997	8.05	119	9.47
2012	1416	11.43	104	8.28
2013	1,455	11.75	95	7.56
2014	1,451	11.72	122	9.71
2015	1,475	11.92	141	11.39
Total	12,382	100	1,252	100

Table 3. Descriptive statistics

This table reports the summary statistics of the variables included in the analysis. The full description of all variables are summarised in the Appendix A.

Variables	Observations	Mean	Min	Max	Std. Dev.
NCSKEW_{t+1}	12,382	-0.262	-4.621	4.792	0.728
DUVOL_{t+1}	12,382	-0.079	-1.123	1.143	0.218
QFII_t	12,382	0.101	0.000	1.000	0.301
Top10_t	12,382	0.058	0.000	1.000	0.234
Long_t	12,382	0.020	0.000	1.000	0.140
MultiQFII_t	12,382	0.009	0.000	1.000	0.093
Invperiod_t	12,382	0.086	0.000	3.219	0.382
(Original)	12,382	0.271	0.000	24.000	1.568
QFIInumber_t	12,382	0.045	0.000	1.609	0.186
(Original)	12,382	0.070	0.000	4.000	0.308
Poliright_t	12,382	0.055	-0.213	1.418	0.246
NCSKEW_t	12,382	-0.235	-4.621	6.214	0.725
DUVOL_t	12,382	-0.070	-1.015	1.512	0.216
Return_t	12,382	-0.001	-0.119	0.000	0.002
Sigma_t	12,382	0.047	0.006	0.491	0.020
Dturn_t	12,382	-0.074	-1.866	1.849	0.257
Size_t	12,382	21.996	18.814	25.683	1.136
Leverage_t	12,382	0.483	0.008	0.974	0.193
ROA_t	12,382	0.040	-0.984	0.775	0.069
MB_t	12,382	2.566	0.325	10.998	1.774
ABACC_t	12,382	0.062	0.000	1.614	0.072
State_t	12,382	0.683	0.000	1.000	0.465
Top1_t	12,382	0.372	0.003	0.894	0.157
Independence_t	12,382	0.362	0.000	0.714	0.054
Boardsize_t	12,382	2.200	1.386	2.944	0.205
Excessdiv_t	12,382	-0.021	-0.270	0.760	0.117

Table 4. QFII ownership: SOEs versus non-SOEs

This table reports the mean and median difference tests of QFII ownership based on the ultimate controller identity (SOEs versus non-SOEs). QFII is a dummy variable which equals one if a firm has QFII ownership, zero otherwise; Top10 is a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; Long is a dummy variable which equals one if a firm has QFII investment longer than six months in the observation year, zero otherwise; MultiQFII is a dummy variable which equals to one if a firm has more than one QFII in the observation year, zero otherwise. The full definitions of all variables are shown in the Appendix A. “Difference” columns report both t value for T-test and Z value for Wilcoxon test of difference in mean and median. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively.

	QFII		
	Observations	Mean	Median
SOEs	8,455	0.0011	0.0000
Non-SOEs	3,927	0.0008	0.0000
Difference		0.0003***	0.0000***
(t/z-statistic)		(5.98)	(5.64)
	Top10		
	Observations	Mean	Median
SOEs	8,455	0.0619	0.0000
Non-SOEs	3,927	0.0509	0.0000
Difference		0.0110**	0.0000**
(t/z-statistic)		(2.50)	(2.41)
	Long		
	Observations	Mean	Median
SOEs	8,455	0.0222	0.0000
Non-SOEs	3,927	0.0150	0.0000
Difference		0.0072***	0.0000***
(t/z-statistic)		(2.86)	(2.67)
	MultiQFII		
	Observations	Mean	Median
SOEs	8,455	0.0099	0.0000
Non-SOEs	3,927	0.0064	0.0000
Difference		0.0035**	0.0000**
(t/z-statistic)		(2.14)	(1.98)

Table 5. QFII ownership and stock price crash risk

This table presents the results of the relationship between QFII ownership and stock price crash risk of sample from 2003 to 2015. QFII is a dummy variable which equals one if a firm has QFII ownership, zero otherwise; Top10 is a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; Long is a dummy variable which equals one if a firm has QFII investment longer than six months in the observation year, zero otherwise; MultiQFII is a dummy variable which equals to one if a firm has more than one QFII in the observation year, zero otherwise. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

	NCSKEW _{t+1}				DUVOL _{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.033 (1.21)				0.010 (1.5)			
Top10_t		-0.003 (-0.11)				-0.006 (0.81)		
Long_t			-0.046 (-0.92)				-0.031* (-1.81)	
MultiQFII_t				-0.075** (-2.24)				-0.035** (-2.41)
NCSKEW_t	0.064*** (3.93)	0.064*** (3.94)	0.064*** (3.94)	0.064*** (3.92)				
DUVOL_t					0.058*** (4.14)	0.058*** (4.14)	0.058*** (4.15)	0.058*** (4.12)
Return_t	20.170** (2.26)	19.888** (2.21)	19.867** (2.21)	19.855** (2.21)	7.589** (2.74)	7.494** (2.69)	7.494** (2.69)	7.486** (2.68)
Sigma_t	3.883** (2.82)	3.843** (2.79)	3.837** (2.79)	3.831** (2.78)	1.153*** (3.14)	1.138*** (3.1)	1.135*** (3.10)	1.135*** (3.09)
Dturn_t	-0.018 (-0.57)	-0.018 (-0.56)	-0.017 (-0.54)	-0.018 (-0.54)	0.006 (0.73)	0.006 (0.74)	0.007 (1.00)	0.006 (0.74)
Size_t	0.023 (1.69)	0.025* (1.81)	0.025* (1.80)	0.025* (1.83)	0.003 (0.52)	0.003 (0.66)	0.003 (0.68)	0.003 (0.66)

Leverage_t	-0.103 (-1.65)	-0.107 (-1.74)	-0.109 (-1.75)	-0.109 (-1.75)	-0.025* (-1.79)	-0.027* (-1.92)	-0.027 (-1.76)	-0.028* (-1.92)
ROA_t	0.143 (0.72)	0.150 (0.76)	0.154 (0.78)	0.152 (0.77)	0.024 (0.35)	0.027 (0.39)	0.025 (0.38)	0.028 (0.41)
MB_t	0.041*** (4.08)	0.041*** (4.11)	0.042*** (3.95)	0.042*** (4.10)	0.011*** (3.53)	0.011*** (3.55)	0.011*** (3.53)	0.011*** (3.32)
ABACC_t	0.044 (0.59)	0.043 (0.58)	0.043 (0.58)	0.042 (0.57)	-0.009 (-0.35)	-0.010 (-0.38)	-0.009 (-0.38)	-0.009 (-0.37)
State_t	0.003 (0.14)	0.003 (0.16)	0.004 (0.17)	0.003 (0.17)	0.003 (0.35)	0.003 (0.37)	0.003 (0.37)	0.003 (0.38)
Top1_t	0.000 (-0.08)	0.000 (-0.07)	0.000 (-0.04)	0.000 (-0.07)	0.000 (0.35)	0.000 (0.37)	0.000 (0.55)	0.000 (0.39)
Independence_t	-0.131 (-1.17)	-0.134 (-1.19)	-0.133 (-1.19)	-0.133 (-1.18)	-0.015 (-0.47)	-0.015 (-0.48)	-0.016 (-0.49)	-0.015 (-0.48)
Boardsize_t	-0.027 (-0.72)	-0.027 (-0.73)	-0.027 (-0.75)	-0.028 (-0.74)	-0.002 (-0.17)	-0.002 (-0.19)	-0.001 (-0.12)	-0.002 (-0.22)
Industry fix effect	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effect	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-square	0.0838	0.0874	0.0837	0.0838	0.0831	0.0865	0.0863	0.0833
Observations	12,382	12,382	12,382	12,382	12,382	12,382	12,382	12,382

Table 6. QFII ownership and stock price crash risk: The effect of SOEs

This table presents the results of the relationship between QFII ownership and stock price crash risk of SOEs sample from 2003 to 2015. QFII is a dummy variable which equals one if a firm has QFII ownership, zero otherwise; Top10 is a dummy variable which equals one if a firm has QFII ownership in its top ten shareholders, zero otherwise; Long is a dummy variable which equals one if a firm has QFII investment longer than six months in the observation year, zero otherwise; MultiQFII is a dummy variable which equals to one if a firm has more than one QFII in the observation year, zero otherwise. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

	NCSKEW _{t+1}				DUVOL _{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.017 (0.57)				0.000 (0.04)			
Top10_t		-0.049* (-1.76)				-0.020** (-2.37)		
Long_t			-0.076*** (-3.31)				-0.024** (-2.78)	
MultiQFII_t				-0.122*** (-3.95)				-0.051*** (-4.51)
NCSKEW_t	0.073*** (4.13)	0.073*** (4.14)	0.073*** (4.13)	0.073*** (4.11)				
DUVOL_t					0.064*** (4.12)	0.064*** (4.12)	0.064*** (4.11)	0.065*** (4.07)
Return_t	16.225** (1.04)	16.008 (1.03)	15.838 (1.02)	16.111** (1.02)	8.838* (1.92)	8.758* (1.91)	8.718* (1.91)	8.799* (1.90)
Sigma_t	2.05* (1.92)	2.853* (1.90)	2.847* (1.89)	2.870* (1.89)	1.024** (2.35)	1.008** (2.33)	1.009** (2.34)	1.015** (2.33)
Dturn_t	-0.006	-0.006	-0.006	-0.007	0.010	0.010	0.010	0.010

	(-0.13)	(-0.13)	(-0.12)	(-0.14)	(0.77)	(0.74)	(0.76)	(0.74)
Size_t	0.017	0.019	0.020	0.018	0.000	0.001	0.001	0.001
	(0.97)	(1.15)	(1.17)	(1.07)	(0.06)	(0.21)	(0.22)	(0.14)
Leverage_t	-0.112	-0.120	-0.122	-0.119	-0.026	-0.028	-0.028	-0.027
	(-1.51)	(-1.62)	(-1.64)	(-1.60)	(-1.42)	(-1.56)	(-1.54)	(-1.50)
ROA_t	0.240	0.250	0.254	0.282	0.054	0.057	0.057	0.057
	(1.15)	(1.19)	(1.21)	(1.19)	(0.70)	(0.73)	(0.73)	(0.73)
MB_t	0.050***	0.050***	0.051***	0.050***	0.013***	0.013***	0.013***	0.013***
	(4.54)	(4.56)	(4.57)	(4.55)	(4.23)	(4.23)	(4.22)	(3.78)
ABACC_t	-0.043	-0.043	-0.042	-0.043	-0.038	-0.038	-0.038	-0.038
	(-0.48)	(-0.49)	(-0.47)	(-0.48)	(-1.36)	(-1.36)	(-1.34)	(-1.34)
Top1_t	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.16)	(0.11)	(0.12)	(0.12)	(1.26)	(1.26)	(1.27)	(0.96)
Independence_t	-0.128	-0.129	-0.130	-0.128	-0.014	-0.014	-0.014	-0.014
	(-0.98)	(-1.00)	(-1.00)	(-0.99)	(-0.41)	(-0.40)	(-0.41)	(-0.39)
Boardsize_t	-0.031	-0.031	-0.30	-0.032	-0.004	-0.004	-0.004	-0.005
	(-0.72)	(-0.71)	(-0.70)	(-0.74)	(-0.31)	(-0.30)	(-0.29)	(-0.34)
Industry fix effect	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effect	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-square	0.0930	0.0932	0.0934	0.0932	0.0902	0.0907	0.0907	0.0907
Observations	8,455	8,455	8,455	8,455	8,455	8,455	8,455	8,455

Table 7.1. QFII ownership and stock price crash risk: Heckman two-stage model

This table presents the results of Heckman two-stage analysis. Panel A presents the presence of QFII ownership. Panel B presents the results of the relationship between QFII ownership and stock price crash risk with the inverse Millis ratio (Lambda) obtained from the tests in Panel A. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. The models in Panel A controlled at industry and year levels with the Huber-White standard error. The models in Panel B fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
	QFII_t	Top10_t	Long_t	MultiQFII_t
Size_t	0.298*** (14.35)	0.303*** (12.45)	0.330*** (9.31)	0.282*** (6.05)
Leverage_t	-0.844*** (-7.35)	-0.890*** (-6.54)	-1.269*** (-6.25)	-1.121*** (-3.97)
ROA_t	1.504*** (5.07)	1.623*** (4.73)	1.205** (2.38)	2.818*** (4.34)
MB_t	0.047*** (3.90)	0.045*** (3.27)	0.060*** (3.00)	0.003*** (3.27)
ABACC_t	-0.501* (-1.90)	-0.329 (-1.02)	-0.476 (-0.91)	-0.140 (-0.22)
State_t	0.113*** (2.83)	0.068* (1.91)	0.125* (1.77)	0.132 (1.33)
Top1_t	0.001 (1.08)	0.001 (1.04)	0.006*** (3.14)	0.007*** (2.66)
Independence_t	-0.458 (-1.44)	0.392 (1.01)	-0.489 (-0.87)	0.188 (0.24)
Boardsize_t	-0.137 (-1.49)	0.061 (0.56)	0.051 (0.32)	-0.330 (1.44)
Industry effects	YES	YES	YES	YES
Year effects	YES	YES	YES	YES
Log-likelihood	-3622.9444	-2471.237	-1043.8513	-512.9987
Observations	12,305	12,305	12,305	12,305

Panel B

	NCSKEW_{t+1}				DUVOL_{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.033 (1.28)				0.010 (1.62)			
Top10_t		-0.002 (-0.08)				-0.006 (-0.81)		
Long_t			-0.019** (-2.69)				-0.010** (-2.78)	
MultiQFII_t				-0.058* (-2.01)				-0.030* (-2.03)
Lambda	0.052 (0.08)	-0.150 (-0.26)	-0.482 (-0.70)	-0.706 (-1.13)	0.020 (0.10)	-0.045 (-0.40)	-0.135 (-0.58)	-0.251 (-1.00)
Control Variable	YES	YES	YES	YES	YES	YES	YES	YES
Industry fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-squared	0.0836	0.0834	0.0835	0.0795	0.0828	0.0827	0.0827	0.0766
Observations	12,305	12,305	12,305	12,305	12,305	12,305	12,305	12,305

Table 7.2. QFII ownership and stock price crash risk in SOEs: Heckman two-stage model

This table presents the results of Heckman two-stage analysis in SOEs. Panel A presents the presence of QFII ownership. Panel B presents the results of the relationship between QFII ownership and stock price crash risk with the inverse Millis ratio (Lambda) obtained from the tests in Panel A. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. The models in Panel A controlled at industry and year levels with the Huber-White standard error. The models in Panel B fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
	QFII_t	Top10_t	Long_t	MultiQFII_t
Size_t	0.170*** (11.30)	0.320*** (11.31)	0.328*** (10.45)	0.311*** (5.76)
Leverage_t	-0.793*** (-5.84)	-1.015*** (-6.29)	-0.982*** (-5.40)	-1.417*** (-4.28)
ROA_t	1.756*** (5.02)	1.074*** (2.64)	1.437*** (3.13)	2.523*** (3.24)
MB_t	0.034** (2.34)	0.056*** (3.37)	0.053*** (2.86)	0.002 (0.05)
ABACC_t	-0.165* (-0.56)	-0.189 (-0.49)	-0.132 (-0.30)	0.020 (0.03)
Top1_t	0.001 (0.66)	-0.001 (-0.04)	0.001 (0.52)	0.004 (1.32)
Independence_t	-0.606 (-1.51)	0.040 (0.08)	-0.096 (-0.18)	0.345 (0.38)
Boardsize_t	-0.029 (-0.27)	0.107 (0.86)	0.159 (1.15)	-0.265 (-1.03)
Industry effects	YES	YES	YES	YES
Year effects	YES	YES	YES	YES
Log-likelihood	-2634.6315	-1741.6829	-1362.7396	-370.1887
Observations	8,403	8,403	8,298	7,173

Panel B								
	NCSKEW_{t+1}				DUVOL_{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.016 (0.58)				0.000 (0.04)			
Top10_t		-0.046* (-1.78)				-0.019** (-2.32)		
Long_t			-0.074*** (-3.10)				-0.024** (-2.66)	
MultiQFII_t				-0.100** (-3.01)				-0.044*** (-3.46)
Lambda	0.098 (0.12)	-0.395 (-0.49)	-0.170 (-0.24)	-0.765 (-1.28)	0.030 (0.12)	-0.131 (-0.50)	-0.042 (-0.18)	-0.290 (-1.24)
Control Variable	YES	YES	YES	YES	YES	YES	YES	YES
Industry fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-squared	0.0930	0.0934	0.0934	0.0909	0.0904	0.0910	0.0908	0.0870
Observations	8,403	8,403	8,298	7,173	8,403	8,403	8,298	7,173

Table 8.1. QFII ownership and stock price crash risk: Propensity score matching model

This table presents the results of Propensity score matching. Panel A presents the presence of QFII ownership. Panel B presents the results of the relationship between QFII ownership and stock price crash risk using the match sample obtained from the tests in Panel A based on the propensity score. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. The models in Panel A controlled at industry and year levels with the Huber-White standard error. The models in Panel B fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
	QFII_t	Top10_t	Long_t	MultiQFII_t
Size_t	0.298*** (14.35)	0.303*** (12.45)	0.330*** (9.31)	0.282*** (6.05)
Leverage_t	-0.844*** (-7.35)	-0.890*** (-6.54)	-1.269*** (-6.25)	-1.121*** (-3.97)
ROA_t	1.504*** (5.07)	1.623*** (4.73)	1.205** (2.38)	2.818*** (4.34)
MB_t	0.047*** (3.90)	0.045*** (3.27)	0.060*** (3.00)	0.003*** (3.27)
ABACC_t	-0.501* (-1.90)	-0.329 (-1.02)	-0.476 (-0.91)	-0.140 (-0.22)
State_t	0.113*** (2.83)	0.068* (1.91)	0.125* (1.77)	0.132 (1.33)
Top1_t	0.001 (1.08)	0.001 (1.04)	0.006*** (3.14)	0.007*** (2.66)
Independence_t	-0.458 (-1.44)	0.392 (1.01)	-0.489 (-0.87)	0.188 (0.24)
Boardsize_t	-0.137 (-1.49)	0.061 (0.56)	0.051 (0.32)	-0.330 (1.44)
Industry effects	YES	YES	YES	YES
Year effects	YES	YES	YES	YES
Log-likelihood	-3622.9444	-2471.237	-1043.8513	-512.9987
Observations	12,305	12,305	12,305	12,305

Panel B								
	NCSKEW_{t+1}				DUVOL_{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.018 (0.60)				0.006 (0.72)			
Top10_t		0.037 (1.31)				0.001 (0.09)		
Long_t			-0.008** (-2.69)				-0.006** (-2.39)	
MultiQFII_t				-0.053 (-0.74)				-0.046* (-1.80)
Control Variable	YES	YES	YES	YES	YES	YES	YES	YES
Industry fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-squared	0.0954	0.1014	0.0902	0.0790	0.0927	0.0859	0.0822	0.0433
Observations	2,504	1,446	1,052	218	2,504	1,446	1,052	218

Table 8.2. QFII ownership and stock price crash risk in SOEs: Propensity score matching model

This table presents the results of Propensity score matching using the SOEs sample. Panel A presents the presence of QFII ownership. Panel B presents the results of the relationship between QFII ownership and stock price crash risk using the match sample obtained from the tests in Panel A based on the propensity score. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. The models in Panel A controlled at industry and year levels with the Huber-White standard error. The models in Panel B fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
	QFII_t	Top10_t	Long_t	MultiQFII_t
Size_t	0.170*** (11.30)	0.320*** (11.31)	0.328*** (10.45)	0.311*** (5.76)
Leverage_t	-0.793*** (-5.84)	-1.015*** (-6.29)	-0.982*** (-5.40)	-1.417*** (-4.28)
ROA_t	1.756*** (5.02)	1.074*** (2.64)	1.437*** (3.13)	2.523*** (3.24)
MB_t	0.034** (2.34)	0.056*** (3.37)	0.053*** (2.86)	0.002 (0.05)
ABACC_t	-0.165* (-0.56)	-0.189 (-0.49)	-0.132 (-0.30)	0.020 (0.03)
Top1_t	0.001 (0.66)	-0.001 (-0.04)	0.001 (0.52)	0.004 (1.32)
Independence_t	-0.606 (-1.51)	0.040 (0.08)	-0.096 (-0.18)	0.345 (0.38)
Boardsize_t	-0.029 (-0.27)	0.107 (0.86)	0.159 (1.15)	-0.265 (-1.03)
Industry effects	YES	YES	YES	YES
Year effects	YES	YES	YES	YES
Log-likelihood	-3622.9444	-2471.237	-1043.8513	-512.9987
Observations	8,403	8,403	8,298	7,173

Panel B								
	NCSKEW_{t+1}				DUVOL_{t+1}			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
QFII_t	0.028 (0.86)				0.007 (1.06)			
Top10_t		-0.104** (1.31)				-0.024* (-2.01)		
Long_t			-0.077* (-1.90)				-0.020 (-1.35)	
MultiQFII_t				-0.160** (-2.50)				-0.070** (-2.54)
Control Variable	YES	YES	YES	YES	YES	YES	YES	YES
Industry fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fix effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R-squared	0.0910	0.0773	0.1030	0.0752	0.0897	0.0790	0.0960	0.1022
Observations	1,886	1,046	770	165	1,886	1,046	770	165

Table 9.1. Corporate site visits and stock price crash risk

This table presents the results of how QFIIs affect stock price crash risk through corporate site visits from 2012 to 2015. Sitevisits, a dummy variable which equals one if any QFIIs visit a firm's site in the observation year, otherwise zero. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. Panel A presents the Probit model results. Models in Panel B are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
Dependent variable	Sitevisit_t			
Independent variables				
QFII_t	0.225***			
	(2.98)			
Top10_t		0.463***		
		(5.98)		
Long_t			0.235*	
			(1.84)	
MultiQFII_t				0.030
				(1.62)
Year effects	YES	YES	YES	YES
Industry effects	YES	YES	YES	YES
Log likelihood	-1,924.669	-1,912.060	-1,927.335	-1,927.708
Observations	5,797	5,797	5,797	5,797
Panel B				
	NCSKEW_{t+1}		DUVOL_{t+1}	
	(1)		(2)	
Sitevisit_t	-0.061*		-0.019*	
	(-2.95)		(-2.64)	
NCSKEW_t	0.068*			
	(2.61)			
DUVOL_t			0.061*	
			(2.70)	
Return_t	102.406		37.467	
	(1.41)		(1.78)	
Sigma_t	10.457		3.369	
	(1.90)		(2.22)	
Dturn_t	-0.057		-0.010	
	(-1.19)		(-0.59)	
Size_t	0.005		-0.004	
	(0.28)		(-0.59)	
Leverage_t	-0.006		-0.012	
	(-0.06)		(-0.63)	
ROA_t	0.167		0.0225	
	(0.72)		(0.37)	
MB_t	0.029*		0.008	
	(2.38)		(1.85)	
ABACC_t	0.128		0.018	

	(1.17)	(0.43)
State_t	0.022	0.012
	(0.78)	(0.98)
Top1_t	0.000	0.000
	(-0.21)	(0.37)
Independence_t	-0.109	-0.050
	(-0.96)	(-1.12)
Boardsize_t	-0.059*	-0.012
	(-3.09)	(-1.60)
<hr/>		
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0462	0.0403
Observations	5,794	5,794
<hr/>		

Table 9.2. Corporate site visits and stock price crash risk (SOEs)

This table presents the results of how QFIIs affect stock price crash risk through corporate site visits from 2012 to 2015 in SOEs sample. Sitevisits, a dummy variable which equals one of any QFIIs visit a firm's site in the observation year, otherwise zero. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. Panel A presents the Probit model results. Models in Panel B are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A				
Dependent variable	Sitevisit_t			
Independent variables				
QFII_t	0.278***			
	(2.87)			
Top10_t		0.540***		
		(5.45)		
Long_t			0.215	
			(1.35)	
MultiQFII_t				0.438**
				(2.10)
Year effects	YES	YES	YES	YES
Industry effects	YES	YES	YES	YES
Log likelihood	-887.145	-877.228	-890.221	-889.041
Observations	3,385	3,385	3,385	3,385
Panel B				
	NCSKEW_{t+1}		DUVOL_{t+1}	
	(1)		(2)	
Sitevisit_t	-0.115**		-0.034	
	(-3.25)		(-1.78)	
NCSKEW_t	0.076*			
	(2.48)			
DUVOL_t			0.078**	
			(3.31)	
Return_t	113.837		39.419	
	(1.29)		(1.64)	
Sigma_t	9.860		3.212	
	(1.70)		(2.14)	
Dturn_t	-0.111		-0.025	
	(-1.96)		(-1.88)	
Size_t	-0.013		-0.009	
	(-0.66)		(-1.80)	
Leverage_t	0.023		-0.003	
	(0.16)		(-0.10)	
ROA_t	0.317		0.057	
	(1.82)		(1.13)	
MB_t	0.041*		0.011	
	(2.41)		(2.24)	

ABACC_t	-0.055 (-0.29)	-0.007 (-0.06)
Top1_t	0.000 (0.24)	0.000 (0.55)
Independence_t	-0.065 (-0.29)	-0.064 (-0.89)
Boardsize_t	-0.060 (-0.83)	-0.025 (-1.12)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0699	0.0648
Observations	3,379	3,379

Table 10. The QFII investment period and stock price crash risk

This table presents the results of the relationship between the QFII investment period and stock price crash risk of sample from 2003 to 2015. $\ln v_{period}$ is measured as the natural logarithm of one plus the number of the longest quarterly investment period QFII hold in a firm. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A. Full sample		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
Invperiod_t	-0.008 (-1.01)	-0.004 (-0.98)
NCSKEW_t	0.064*** (3.93)	
DUVOL_t		0.058*** (4.13)
Return_t	19.868** (2.21)	7.490** (2.69)
Sigma_t	3.837** (2.78)	1.137*** (3.09)
Dturn_t	-0.018 (-0.55)	0.006 (0.75)
Size_t	0.025* (1.82)	0.003 (0.67)
Leverage_t	-0.109 (-1.75)	-0.027* (-1.92)
ROA_t	0.152 (0.77)	0.027 (0.40)
MB_t	0.042*** (4.09)	0.011*** (3.54)
ABACC_t	0.043 (0.57)	-0.009 (-0.38)
State_t	0.003 (0.17)	0.003 (0.37)
Top1_t	-0.000 (-0.06)	0.000 (0.38)
Independence_t	-0.027 (-0.72)	-0.002 (-0.19)
Boardsize_t	-0.133 (-1.19)	-0.015 (-0.49)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0877	0.0868
Observations	12,382	12,382

Panel B. SOEs		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
Invperiod_t	-0.035* (-2.08)	-0.012* (-1.97)
NCSKEW_t	0.073*** (4.13)	
DUVOL_t		0.064*** (4.11)
Return_t	15.959 (1.02)	8.755* (1.91)
Sigma_t	2.853* (1.89)	1.011** (2.34)
Dturn_t	-0.005 (-0.11)	0.010 (0.78)
Size_t	0.020 (1.17)	0.001 (0.21)
Leverage_t	-0.122 (-1.65)	-0.028 (-1.56)
ROA_t	0.252 (1.20)	0.057 (0.72)
MB_t	0.051*** (4.56)	0.013*** (4.22)
ABACC_t	-0.042 (-0.47)	-0.038 (-1.34)
Top1_t	0.000 (0.18)	0.000 (1.29)
Independence_t	-0.132 (-1.02)	-0.015 (-0.43)
Boardsize_t	-0.030 (-0.70)	-0.004 (-0.29)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0933	0.0907
Observations	8,455	8,455

Table 11. The number of QFIIs in top ten shareholders and stock price crash risk

This table presents the results of the relationship between the number of QFIIs in top ten shareholders and stock price crash risk of sample from 2003 to 2015. QFIInumber is measured as the nature logarithm of one plus the number of QFIIs a firm has. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A. Full sample		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
QFIInumber_t	-0.011 (-0.36)	-0.011 (-1.19)
NCSKEW_t	0.064*** (3.94)	
DUVOL_t		0.058*** (4.14)
Return_t	19.877** (2.21)	7.488** (2.69)
Sigma_t	3.838** (2.79)	1.135*** (3.09)
Dturn_t	-0.018 (-0.56)	0.006 (0.74)
Size_t	0.025 (1.82)	0.003 (0.68)
Leverage_t	-0.108 (-1.75)	-0.027* (-1.94)
ROA_t	0.151 (0.76)	0.028 (0.40)
MB_t	0.042*** (4.11)	0.011*** (3.55)
ABACC_t	0.043 (0.57)	-0.009 (-0.38)
State_t	0.003 (0.17)	0.003 (0.38)
Top1_t	-0.000 (-0.07)	0.000 (0.38)
Independence_t	-0.133 (-1.19)	-0.015 (-0.48)
Boardsize_t	-0.027 (-0.73)	-0.002 (-0.20)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0837	0.0832
Observations	12,382	12,382

Panel B. SOEs		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
QFI_t	-0.067* (-1.91)	-0.028** (-2.72)
NCSKEW_t	0.073*** (4.13)	
DUVOL_t		0.064*** (4.11)
Return_t	16.001** (1.02)	8.751* (1.91)
Sigma_t	2.849* (1.89)	1.006** (2.33)
Dturn_t	-0.007 (-0.14)	0.010 (0.74)
Size_t	0.020 (1.16)	0.001 (0.24)
Leverage_t	-0.122 (-1.64)	-0.029 (-1.59)
ROA_t	0.252 (1.20)	0.057 (0.74)
MB_t	0.050*** (4.56)	0.013*** (4.23)
ABACC_t	-0.043 (-0.48)	-0.038 (-1.35)
Top1_t	0.000 (0.11)	0.000 (1.26)
Independence_t	-0.129 (-1.00)	-0.014 (-0.40)
Boardsize_t	-0.031 (-0.72)	-0.004 (-0.31)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0933	0.0908
Observations	8,455	8,455

Table 12. Political rights and stock price crash risk

This table presents the results of the relationship between the QFII investment period and stock price crash risk of sample from 2003 to 2015. Polirights is the political rights index from approximately -2.5 (weak) to 2.5 (strong) governance performance, measures perceptions of the likelihood of political instability and politically-motivated violence. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by both firm and year.

Panel A. Full sample		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
Polirights_t	0.005 (0.19)	-0.002 (-0.32)
NCSKEW_t	0.064*** (3.94)	
DUVOL_t		0.058*** (4.14)
Return_t	19.900** (2.22)	7.500** (2.70)
Sigma_t	3.847** (2.79)	1.140*** (3.10)
Dturn_t	-0.018 (-0.56)	0.006 (0.74)
Size_t	0.025 (1.76)	0.003 (0.63)
Leverage_t	-0.107 (-1.71)	-0.027* (-1.88)
ROA_t	0.149 (0.75)	0.026 (0.39)
MB_t	0.041*** (4.07)	0.011*** (3.53)
ABACC_t	0.003 (0.16)	0.003 (0.37)
State_t	0.043 (0.58)	-0.009 (-0.38)
Top1_t	-0.000 (-0.07)	0.000 (0.37)
Independence_t	-0.134 (-1.19)	-0.015 (-0.49)
Boardsize_t	-0.027 (-0.73)	-0.002 (-0.19)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0837	0.0831
Observations	12,382	12,382

Panel B. SOEs		
	NCSKEW_{t+1}	DUVOL_{t+1}
	(1)	(2)
Polirights_t	-0.045 (1.70)	-0.017** (-2.29)
NCSKEW_t	0.073*** (4.16)	
DUVOL_t		0.064*** (4.13)
Return_t	16.056 (1.03)	8.782* (1.92)
Sigma_t	2.859* (1.90)	1.012** (2.34)
Dturn_t	-0.006 (-0.12)	0.010 (0.77)
Size_t	0.019 (1.14)	0.001 (0.19)
Leverage_t	-0.120 (-1.62)	-0.028 (-1.53)
ROA_t	0.249 (1.18)	0.056 (0.71)
MB_t	0.050*** (4.55)	0.013*** (4.23)
ABACC_t	-0.043 (-0.48)	-0.038 (-1.35)
Top1_t	0.000 (0.14)	0.000 (1.28)
Independence_t	-0.131 (-1.02)	-0.015 (-0.42)
Boardsize_t	-0.031 (-0.71)	-0.004 (-0.30)
Industry fix effects	YES	YES
Year fix effects	YES	YES
Adj R-squared	0.0932	0.0906
Observations	8,455	8,455

Table 13. QFII ownership and dividend policy

This table presents the results of the impact of QFII ownership on dividend payout ratio of sample from 2003 to 2015. Excessdiv is measured as a firm's cash dividend payout ratio (cash dividend per share to total assets per share) minus the industry average dividend payout ratio in the same observation year. The full description of all variables are summarised in the Appendix A. A superscript *, ** or *** denotes significance at the 10%, 5% or 1%, respectively. All models are fixed at industry and year levels with the Huber-White standard error clustered by firm.

	Excessdiv_t			
	(1)	(2)	(3)	(4)
QFII_t	0.022*** (4.37)			
Top10_t		0.026*** (3.57)		
Long_t			0.036*** (2.61)	
MultiQFII_t				0.061*** (3.23)
Size_t	0.024*** (10.68)	0.025*** (10.90)	0.025*** (11.05)	0.025*** (10.91)
Leverage_t	-0.086*** (-8.35)	-0.087*** (-8.44)	-0.087*** (-8.51)	-0.088*** (-8.54)
ROA_t	0.615*** (14.68)	0.616*** (14.70)	0.618*** (14.68)	0.616*** (14.67)
MB_t	0.003** (2.23)	0.003** (2.27)	0.003** (2.30)	0.003** (2.36)
State_t	-0.012*** (-2.91)	-0.012*** (-2.87)	-0.012*** (-2.87)	-0.012*** (-2.88)
Top1_t	0.001*** (4.43)	0.001*** (4.43)	0.001*** (4.35)	0.001*** (4.37)
Independence_t	-0.047* (-1.69)	-0.050* (-1.78)	-0.048* (-1.73)	-0.050* (1.76)
Boardsize_t	0.014* (1.86)	0.013* (1.76)	0.013* (1.76)	0.014* (1.84)
Industry fix effect	YES	YES	YES	YES
Year fix effect	YES	YES	YES	YES
Adj R-square	0.2556	0.2553	0.2545	0.2550
Observations	12,382	12,382	12,382	12,382

Panel B. SOEs sample

	Excessdiv_t			
	(1)	(2)	(3)	(4)
QFII_t	0.021*** (4.06)			
Top10_t		0.021*** (2.61)		
Long_t			0.025* (1.88)	
MultiQFII_t				0.067*** (3.39)
Control variables	YES	YES	YES	YES
Industry fix effect	YES	YES	YES	YES
Year fix effect	YES	YES	YES	YES
Adj R-square	0.2691	0.2676	0.2668	0.2693
Observations	8,455	8,455	8,455	8,455
