Foreign Investment, Corporate Governance & Performance in the Chinese Listed A Share Companies

Samuel A. Beatson, King's College London
Jian Chen, University of Nottingham
Contact: sam.beatson@kcl.ac.uk

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Dr Sam Beatson is a post-doctoral Teaching Fellow at the Lau China Institute, King's College London and a Visiting Fellow to St John's College, University of Hong Kong. Dr Jian Chen is Associate Professor at the Business School, University of Nottingham. *The authors express their gratitude for the funding and support of the School of Contemporary Chinese Studies and Research Centre for Applied Economics. They extend their gratitude to the Graduate School of the University of Nottingham for additional funding, the Universitas 21 Network, the School of Business at the University of Hong Kong for institutional hosting in 2011 and 2013, especially Professor Zhigang Tao for his support and the assistants for their input.*

Abstract

We present a novel lens on the presence and impact of qualified foreign institutional investors (QFII) in the top shareholdings of the non-financial domestically listed Chinese 'A' share firms. Unlike prior cross sectional studies which use only annual data, this research runs a robust panel fixed effects model employing quarterly data, thereby capturing the presence of a foreign investor in these firms for the first time and with great precision, since relying on Q4 shareholdings could be misleading due to changes in ownership configurations intra annum. The initial results suggest that the presence of a QFII as a top shareholder in these companies is associated with their better performance, using both Tobin's Q and ROA as the performance measures. We control for internal/external corporate governance mechanisms of Bai et al. (2003), ultimate ownership variables as suggested by Chen et al. (2009), foreign legal person shares, a proxy for international affiliations and a number of time variant firm characteristics (e.g. size, leverage, age etc). The exhaustive specification was reduced using principal component analysis and met with similar results.

Economically, the coefficient of impact on the market measure is the more significant, while the effect of having a QFII in top shareholdings on both performance measures is empirically significant. Previously, studies have often ignored the potential for reverse causality beyond using lagged regressors. This is problematic. Therefore, we follow up with a 2SLS instrumental variables model and system GMM to further mitigate this potential and find the empirical relationship holds. Contrary to the work on QFIIs and governance post-implementation, the findings from our models suggest that in spite of their very low percentage holdings, we can tentatively interpret the presence of a QFII top shareholder has acted to augment market performance holding equal existing corporate governance mechanisms and other controls.

1. Introduction

China adopted policy driven stock markets in the 1990s as part of the series of economic experiments that from 1978 have gradually mimicked various features of market economies, reneging on Mao's command economic state. China now offers the most highly capitalized market in East Asia and the second in the world after the US, having marginally overtaken the UK in 2006 and Japan in 2012. The relative long-term performance of the Chinese market since the financial crisis of 2008 versus developed markets has been lacklustre, yet the UK treasury and foreign and commonwealth office has been rallying for greater involvement in China for London asset managers[1], and the Chinese side has been very gradually liberalizing the Chinese market. Foreign investment in these markets is clearly of import to investors, the companies and governance proponents. This paper revisits foreign share ownership in Chinese markets. Contrary to prevailing notions that policy objectives for introducing foreign investors, specifically QFII, failed during the last decade or so, this paper demonstrates that the QFII scheme has shown hints of success and explores why this is the case in the specific Chinese context.

The key objectives for introducing foreign share ownership into Chinese listed companies has been threefold. Firstly, the Chinese listed firms want to raise foreign capital, increasing the capital available to them (Bohl, et al., 2009). Secondly, the Chinese have wanted western governance practices to be introduced into the domestically Chinese listed companies, beyond that minority of firms that had already achieved concurrent offshore/overseas listings (McGuiness & Ferguson, 2002). Thirdly, foreign investors are expected to carry out sophisticated analysis and employ investment strategies with a long-term investment horizon (Ting, Yen & Chiu, 2008). Introducing sophisticated investors can supposedly lead to fairer market valuations of firms which could offer mitigate the 'overheating' wrought from speculative rallies with little fundamental basis—both volatility and high price-earnings ratios that emerges often attributed to rampant speculation on the stock market within China.

World Bank researchers Kim, Ho & St Giles (2003, p. 43) opined that qualified foreign institutional investors (QFII) would have an impact mid-long term on Chinese capital markets development and 'eventually on the method by which PRC listed companies handle corporate governance issues'. Investors have thus had high hopes of their contribution to governance (Kang, et al., 2008). Both investors and policymakers have therefore expected that foreign investors could have a positive impact on mainland Chinese listed company performance by augmenting corporate governance mechanisms (Kang, et al., 2008; Tan, 2009). More recently in 2015 and 2016, Chinese regulators have attempted to bring in more foreign investment from launched Hong Kong and planned London to Shanghai (and Shenzhen) connect programmes. With recent developments, this is set to increase further. In late 2016, UK foreign secretary Phillip Hammond announced the success of policy negotiations with the Chinese government through the 8th UK-China Economic and Financial Dialogue, in which the London-Shanghai stock connect programme, it was announced, would advance forward as part of a long-term strategic plan. These programmes specifically seek to stimulate investment into mainland Chinese listed companies.

This paper investigates the foreign investment—performance relation in non-financial Chinese enterprises without an overseas listing, a rather under-researched sub-universe, conditioning on the internal and external governance mechanisms identified by Bai, Liu, Lu, Song & Zhang (2003), among others, which have become a staple in the analysis of Chinese corporate governance standards, see e.g. Sami, Wang & Zhou (2011).

Taking an econometric approach to a hybrid agency/resource-based governance—performance framework, our results show a positive association between QFII presence in a firm and company

[1] See Rt Hon Philip Hammond MP & HM Treasury, 10/11/2016. https://www.gov.uk/government/publications/uk-china-8th-economic-and-financial-dialogue-policy-outcomes accessed 21/4/2017.

performance, using standardized book and market measures, and we tentatively posit this relation as causal. This may seem quite surprising given QFII's sparsity and lack of formal voting rights in companies. However, we suggest that in China, foreign investors have had a form of monitoring power that is overly commensurate to their ownership stake and offer plausible reasons why this is likely to be the case.

We look exclusively at QFII positions in top shareholdings of what we term the non-financial 'A' share only companies (henceforth NASOs—see Appendix 3)[2] for the first time. More specifically, by teasing out the QFII shareholdings in a large sample of NASOs and running our models, it appears firstly, that the presence of foreign shareholders does seem to be associated with better performance and we argue that there is a causal element to this; secondly, considering they have very low voting rights in the companies, the significance of their presence in our models implies that their influence outweighs their presence in percentage terms. Thirdly, this study serves to indicate that the benefits of foreign strategic investors in the Chinese banking sector could be transliterated into the case of the non-financial listed companies by way of policies conducive to higher levels of foreign ownership and activism. Fourthly, we add to the categorization of investors as pressure-sensitive and pressure-insensitive by adding a third *passive-reactive* category, whereby indirect monitoring pressure can exist through the potential of a foreign investor in China to move markets[3], in spite of not necessarily having an active or direct interest in the company's governance or model/strategy, through the exit signal they offer to a vast retail and institutional trading market in China, or through other modes of reaction such as informing the international media of their poor experience of corporate governance with an invested company.

The rest of the paper is set out as follows:

This introduction (1) precedes an institutional setting section focused on the Chinese stock market and foreign investors (2). This is a single-country study. Therefore, a section exploring the nuances of the Chinese case is warranted.

Section (2) is followed by the literature review (3), which focuses on the corporate governance story with particular reference to agency theory and applications to the Chinese case.

The data and methodology section (4) explain how the Chinese Stock Market and Accounting Research (CSMAR) datasets were amalgamated and utilised to determine the presence of qualified foreign institutional investors (QFII) appearing in the top shareholding positions.

Moreover, this section introduces the econometrics to be employed in the subsequent sections, including the baseline OLS model, fixed effects model and variables.

Descriptive statistics and regression results (5) follow on from this part. A discussion and analysis (6) puts forward interpretations of the research and the paper is then rounded off with the conclusion and suggestions for further research (7).

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[2] In other words, it neither includes financial firms in the analysis, nor excludes the domestically listed companies which have successfully attracted foreign investment. This is also contrary to banking efficiency studies, e.g. Lu, Shen, Wu M. and Wu Z. (2010), who focus exclusively on the financial sector[2].

[3] i.e. Generate a herd response advertently or inadvertently, through producing a signal by their exit.

2. Institutional Setting

Foreign investors have been granted access to the tradable A shares in China since the introduction of the QFII scheme in February 2002, with its practical instigation on 23 May, 2003 (Young, et al., 2011). This officially introduced the possibility of foreign institutional investor ownership in the 'A' shares of domestically listed Chinese firms (Yeo, 2003; Hu, 2001). One of the aims of QFII was to introduce foreign investors who could improve Chinese markets through their investment and management skills in addition to testing out relaxation of foreign exchange controls on the capital account (Tam, et al., 2008).

The 'Provisions on Issues Concerning the Implementation of "the Administrative Measures for Domestic Securities Investment by Qualified Foreign Institutional Investors"' were issued on 27 July, 2012 by the CSRC. These new rules have reduced the assets under management (AUM) requirement for QFII scheme applicants from $5 billion US to $50 million US for asset management, insurance and 'other' institutions, requiring them to have only two years of operating experience versus the five previously required, while commercial banks require only half the previous requirement of $10 billion US in AUM and no longer require to be global top 100 banks. The aggregate holdings of 20% in a single Chinese company has risen to a ceiling of 30% and holdings by a single QFII in a single company may be 10% rather than only 5% as previously[4]. The applications process has been streamlined, no longer requiring a face-to-face meeting (Leckie & Xiao, 2012; Robinson, et al., 2013). Moreover, these are provisions, suggesting flexibility in future.

QFII seems to have accelerated rapidly, from 169 in number in 2012 to 237 at year-end 2013 (Shih, 2013)[5]. Their timing and performance in late 2008 and Q1-Q2 2009 were impressive, particularly their having skin in the game when domestic investors were not invested in Chinese equities (Guilloux, 2011). The regulators thus steadily increased QFII quotas and reduced approval requirements, continuing in their affirmative stance as regards the positive effect of their presence.

> …[Chinese capital markets] showing significant potentials for attracting foreign investors compared with the proportion of shares held by foreign capital in overseas markets. In the next phase, the CSRC will further speed up the development of QFIIs and RQFIIs, enhance coordination with relevant authorities and improve the capital inflow and outflow procedures and income tax policy in respect of foreign investors, with a view to attracting more long-term foreign capital, promoting the reform and development of capital markets, and better facilitating the adjustment, transformation and upgrade of China's economic structure.
>
> (China Securities Regulatory Commission, 2013)

The progression of QFII from inception to 2012 is highlighted in Appendix 2. Approved QFIIs cover the range of institutional investors – pension funds, insurance companies, corporates, private banks, banking trusts, asset management companies, sovereign wealth funds and endowment funds – all of whom seek to invest in Chinese securities. According to Leckie & Xiao (2012), QFII quotas are 70-90% invested into A shares within the first six months of license and foreign exchange approval, with the value of all QFII investments being estimated at USD40 billion and the process accelerating of late.

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[4] http://www.gov.cn/gongbao/content/2012/content_2266933.htm accessed 2 February, 2014

[5] Shih, Toh Han, for South China Morning Post, 12 November 2013, 'QFII quota tipped to make up 10pc of Chinese market' – accessed 28-4-14 from http://www.scmp.com/business/banking-finance/article/1353320/qfii-quota-tipped-make-10-pc-chinese-market

In June 2013, the CSRC announced it would increase aggregate QFII quotas to $150 billion US. This was affirmed in January 2014 at the Asia Financial Forum in Hong Kong, by the head of the CSRC[6], Guo Shuqing (Tan & Chen, 2013) and confirmed to be the case by the vice-chief of the State Administration of Foreign Exchange (SAFE), Xianghong Deng[7].

While announcing the increase in foreign quotas might be aimed at facilitating market buoyancy, it nevertheless points to the long-term trajectory of encouraging higher levels of participation in listed company share ownership by QFII and development of Chinese capital markets, even if the analysis from the inside appears somewhat vague:

> Since its implementation in 2002, the pilot for QFII arrangements have been enjoying sound and steady operation, playing a positive role in expanding institutional investor base and sources for long-term funds, introducing long-term investment and value investment concepts as well as further opening up capital markets…
>
> (China Securities Regulatory Commission, 2013)

Due to the combination firstly of ownership level and eligibility restrictions, secondly, overseas availability of some companies' shares in markets with better investor protection and thirdly, a lack of investable firms either through poor quality, or poor analyst coverage, QFIIs' appearance has been sparse on aggregate as QFII has a very small proportion of holdings relative to market capitalization, a little over 1.3% of negotiable shares are held by QFII and just under a little over 0.8% if all shares (tradable and so-called non-tradable[8]) are considered. However, a small percentage of a Chinese company's shares can be substantial in dollar terms, given the size and capitalization of many of China's listed companies.

Moreover, there could be a dramatic acceleration on the cards/etched on the tortoise's shell. In June 2013, the Chinese Securities Regulatory Commission (CSRC) announced it would increase the QFII quotas to $150 billion US. This was affirmed in January 2014 at the Asia Financial Forum in Hong Kong, by the head of the CSRC, Guo Shuqing (Tan and Chen, 2013[9]).

Thus, examining the QFII is a matter of great interest. Appendix 3 shows the illustrates QFII investments over the years and by industry in 2012. Appendix 3 gives an eclectic perspective on foreign investment into Chinese stocks more broadly, covering the range of opportunities foreign investors have for exposure and the ways in which they show up in company shareholding configurations.

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[6] The CSRC is a ministry level organization jointly responsible for capital markets regulation alongside the twin sharer of capital markets regulation with the Chinese Banking Regulatory Commission (CBRC)

[7] Mr Deng was on record at a conference held on 8-9 May, 2014 at the London Metropolitan University in saying that this quota is now available but is not yet being used up by foreign investors.

[8] Prior to non-tradable share reform in China (2005-2007) only roughly one third of shares were officially 'tradable', the rest being non-tradable shares by official status, such as state-owned legal person shares, employee shares, and a myriad of other types of share.

[9] Tan, Clement and Chen, Michelle, 13 January, 2013 for Reuters: 'China can increase 10 times the level of RQFII, QFII quotas -CSRC head' Accessed 22/4/2014 from http://www.reuters.com/article/2013/01/14/china-rqfii-idUSH9N09R00Y20130114

3 Literature Review

Corporate Governance and Agency Theory

In the absence of mechanisms to direct their behaviour towards the maximization of firm value for shareholders, managers are by default economically self-interested and thus veer towards asset expropriation for personal gain if unmonitored (Jensen, 1986). This can take the form of empire building, direct expropriation of cash and sanctioning favourable transactions to related parties at the expense of the shareholder, for example. Managers have their own objectives, such as maximizing their income and enjoying perquisites (Grossman & Hart, 1982). Firm behaviour is predicted through this model. Agency problems can be reduced by good corporate governance mechanisms (Shleifer & Vishny, 1997).

Principally, agency theory proposes that (1) ownership concentration, (2) board representation, (3) board leadership, and (4) CEO incentives have roles in mitigating the agency problem. Research has found it difficult to come to a conclusion about 'one size fits all' good governance mechanisms though, especially with regard to applying 'western' corporate governance mechanisms, i.e. the 'Anglo-American' or 'Germanic' models, to emerging markets. For example, Leng (2009) praises China's *dynamic adaptive* approach to reforming corporate governance, rejecting the notion of universal good corporate governance.

Nevertheless, the CSRC has pushed for corporate governance improvement, especially since 1998 with attempts to separate management in listed companies from their SOE parents, followed by the 2001 adoption of OECD recommendations in the Chinese Code of Conduct for good governance, revisions to the Company and Securities Laws of China in 2006 and the non-tradable share reform of 2005-2007, in addition to the gradual approach to welcoming foreign portfolio and strategic investors into the ownership mix. Foreign investors have been attributed with the wherewithal to assist in meeting such policy objectives. For example: '…to bring in foreign advanced managerial experience, technology and capital, to improve the corporate governance standard of listed companies, and to protect the interests of listed companies and the shareholders' (CSRC, 2005b: Article 1).

Foreign Investors, Corporate Governance and Performance

Other economies studied in the corporate governance and ownership vein include emerging economies such as Russia (Blasi & Shleifer, 1996); India (Douma, et al., 2006); Thailand (Wiwattanakantang, 2001) and Eastern European transition countries (Claessens, et al., 2000), South Korea (Campbell & Keys, 2002; Baek, et al., 2004; Kim & Lee, 2003; Goyal & Bae, 2010) and Malaysia (Ibrahim & Samad, 2011). A study by Mitton (2002) looks at South Korea plus several ASEAN countries during the Asian financial crisis.

Many studies support the notion that allowing shares to be bought by foreign institutional investment serves to improve the performance of listed firms in developing economies. This can take place by way of their monitoring capability and to a degree, transfer of experience, along with a reduction in state ownership having a positive effect, e.g. Xu and Wang, (1997), Shleifer (1998); Qi et al., (2000). It has thus been suggested that corporate governance may be able to 'travel around the world' (Arggawal, et al., 2011) and that foreign investors may act as a positive governance and performance improving mechanism, e.g. Meginson and Netter, (2001); Bai, et al., (2003) and Arggarwal, et al., (2011).

Moroever, Tóth and Zemčík (2006) found that in the long term, Czechoslovakian enterprises that had transitioned from state to private ownership structures performed better given the presence of foreign owners. Sabirianova-Peter, Švejnar, and Terrell (2005) demonstrated that firms in Russia exhibited high efficiency when they were foreign owned and Makhija and Spiro (2000) concluded that ownership stakes of foreigners are positively related to share values.

Bai, et al. (2003) found a positive performance association with Chinese companies having either a B or H share listing. Thus, issuing shares to foreign investors was considered a significantly positive corporate governance mechanism, increasing market performance of firms. They highlighted that China has a preponderance of corporate governance concerns, particularly relating to corrupt activities; that the SOEs in China were 1/3 'marginally' profit-making and 2/3 loss-making at the time and that poor performance is intrinsically linked with corporate governance problems.

However, Qi et al. (2000) found exclusive foreign share proportion having a negative or insignificant impact on return on equity (ROE) and Sun & Tong (2002) found a foreign shareholder proxy insignificant in their analysis of the Chinese case.

Foreign investors as a corporate governance mechanism

On the one hand, much of the aforementioned research into single economies suggests a causal relation between foreign investment, corporate governance and company performance. Moreover, Gillan & Starks (2003) suggest that foreign institutional investors are active proponents of corporate governance. There is the question of foreign investors' potential passivity with regard to promoting governance though, particularly among portfolio investors. Qualitative research such as Michael Tan's (see below) have supported this. Kaur and Gill (2008) argue that foreign institutional investors tend to operate on the principle of portfolio diversification with typically no other relation to the company except for their financial investment. Thus, foreign portfolio investors have been regarded to lack both sufficient incentive and ownership power to actively contribute to corporate governance directly.

Moreover, foreign investors' governance approach could be dampened due to the *pressure sensitive* combination of high monitoring costs and business ties (Almazan, et al., 2005). They face a free-rider problem when acting individually in active monitoring (Keasey & Short, 2005). On the other hand, foreign owners may be active monitors as institutional investors or 'pressure insensitive' (Gillan & Starks, 2003; Arggarwal, et al., 2011) and thus active in governance promotion.

Arggarwal et al. (2011), found from a multi-country study that foreign investment seems to play a crucial role in promoting corporate governance outside the US, especially in countries with weaker shareholder protection. In support of this notion, better governance and performance of Chinese companies has been implied for those Chinese companies with simultaneous onshore and offshore/overseas and domestic listings (henceforth OODL firms) and thus having shares available exclusively for foreign purchase[10] (Bai, et al., 2003; Zhou, et al., 2011)

On the other hand, Sun & Tong (2002) found their lack of uniform evidence in this direction a surprising feature of the Chinese case. Others have either found an overseas listing negligible or negatively associated with performance (Qi, et al., 2000), did not include it in their analysis (Xu & Wang, 1997), or did not find much qualitative evidence from interviews to support foreign investors (as QFII) having a uniform active interest in corporate governance of Chinese listed companies (Tan, 2009). In the Indian case, Balasubramanian, et al. (2008, p. 19) found foreign ownership in Indian listed firms sparse and insignificant, with median and mean foreign ownership 2.9% and 8% respectively in Indian firms. Therefore, China is not necessarily unique among emerging economies if indeed there has been a failure to benefit from the expected corporate governance magic of foreign investors.

However, many of the Chinese studies have been too early to assess QFII investment into the domestic Chinese 'A' shares. For example, Zhou, et al. (2011) seem to ignore entirely the foreign investment that has been allowed into domestic Chinese shares. Mcguiness and Ferguson (2005) take a more holistic approach, but their focus is only on mainland assets listed in Hong Kong.

[10] NB That doesn't mean that a share purchaser is not simply an ethnic Chinese or a mainland Chinese person living outside of the geographic jurisdiction of the People's Republic with access to offshore/overseas shareholdings. It includes Hong Kongers also as foreign investors.

The only exception seems to have been Michael Tan (2009), who conducted a telephone interview study of QFIIs during 2006-2008. Although he found some mechanisms of engagement, for example, 'training and advisory sessions' offered by QFII (Tan, 2009; Tan, 2013), he failed to find uniform interest in corporate governance issues by QFII qualitatively. His conclusion is essentially therefore that QFII's impact on corporate governance has been limited. Thus, the twin regulators, the China Banking Regulatory Commission (CBRC) and CSRC were prompted to work on the foreign strategic investor (FSI) program and to try to fix the Chinese banks first by utilizing foreign partners. FSI would be allowed concurrently into approved SOEs, while continuing to tentatively enhance QFII (see *ibid*: 2013).

However, Tan's conclusions with reference to his own research were based only on nine respondents out of a possible fifty nine QFII in 2007, interviewed by telephone. Therefore, it may have been somewhat premature to reject these smaller foreign investors as a governance mechanism in China without empirical investigation. On the one hand, it is not unreasonable to hypothesize that foreign investors have been too small to be effective in promoting or specifically improving standards of corporate governance, especially given the Balasubramanian, et al. (2008) findings on India. However, without further researching the academic question, Tan's could also be a *post hoc ergo propter hoc*[11] argument.

There are three issues which arise from the above. The first is that foreign investment is deemed insignificant in earlier studies or has not been used at all as a variable, sometimes due to very sparse participation. The second concerns data for use. B shares may no longer function as an appropriate variable proxying for foreign ownership because since 2001 they have been tradable for domestic investors. H shares are specifically for foreign investors, but few firms issue them. Therefore we focus on the companies without these shares – domestically listed A share only companies. The third issue is a need to deal with biasedness and inconsistency in simply pooling the data together in addition to the potential for bi-directional causality in the foreign investment—performance relationship. We begin to address this through a number of robustness steps.

The study therefore contributes to the line of research exploring the notion that foreign shareholders are associated with augmenting governance and thence, performance, e.g. Meginson & Netter (2001); Tóth & Zemčík (2006) and Arggarwal, Erel & Ferreira (2011). It is particularly indebted to the corporate governance model of Bai, et al. (2003). Moreover, it builds on earlier work tackling corporate governance and performance in the Chinese domestically listed companies, e.g. Xu & Wang (1997), Qi, Wu & Zhang (2000), Wei & Varela (2003) and Chen, Firth & Xu (2009). It identifies high QFII positions in firms and uses both their presence and percentage holdings for the first time.

4. Data & Methodology

Data

The dataset employed is novel in that firstly, QFII in the shareholding configurations of Chinese NASOs have not been looked at empirically before. Secondly, taking only year-end data (like Arggarwal, et al., 2011) ignores that shareholders of interest might be present in Q1-Q3 in each year, but sell before the start of Q4. Thirdly, short panels have precluded the meaningful use of fixed effects models previously (e.g. Bai, et al, 2003 used T=3 annual data and random effects).

Our focus in this paper is therefore exclusive of both the finance sector in China and the firm's that have achieved segmented or overseas/offshore listings. There are three good reasons for this. Firstly, bear in mind the latter two categories of company are a vast minority in number and by no means

[11] Latin—'after this, therefore because of this'

mutually exclusive either. Xu and Wang (1997) took this approach. Secondly, the focus of this paper is on the *non-financial* listed companies, since *financial* firms are likely to have fundamentally different cash-flow and accrual processes (Mashayekhi & Bazaz, 2008). Moreover, domestically listed A share only companies attracting foreign investment tend not to be in the financial sector, but in industry (see table 2).

Thus, exploring the ramifications of foreign investment into *the complement* of Chinese listed firms seems to be a particularly pertinent line of enquiry. Such A share only (henceforth ASO) Chinese companies do not have a B share, nor offshore/overseas listing (H share, S share, etc). In other words, they are not OODL. Yet they are the largest subset of companies issuing shares that offer a claim to mainland Chinese productive assets. We call non-financial ASOs, 'NASOs'. Appendix 5 gives some examples of each company under this method of categorization, for clarification.

The dataset offers a sample of approximately 32,000 observations across a quarterly time dimension from 2003 to 2012, with coverage of over 1100 Chinese firms listed in Shanghai or Shenzhen, and was derived from a number of Chinese Stock Market and Accounting Research (CSMAR) datasets, themselves compiled from annual reports and securities data.

In order to tease out the QFII investors' presence vs. other investors, a list of all QFII companies from the outset of the QFII scheme onward was compiled from Z-Ben Investors data cross-referenced with CSRC and Global Times announcements. The final list was cross-checked again with the list in Leckie & Xiao (2012). Each company for each firm quarter was then scrutinized for the presence of any of the 169 QFII granted a license by the end of 2012 in the top ten shareholdings.

Hypothesis development

We therefore provide a detailed table of expectations for all variables in Appendix 6 from which hypotheses could be explicitly stated. For the purpose of this paper though, we are interested specifically in QFII and focus on the following hypotheses in the models presented, stated below in their null form.

Hypothesis 1a: QFII are not associated with better performing Chinese companies in terms of their accounting performance.

Hypothesis 1b: QFII are not associated with better performing Chinese companies in terms of their market performance.

Hypothesis 2a: QFII do not have an association with Chinese company accounting performance dependent on the extent of their presence in the ownership configuration of the company

Hypothesis 2b: QFII do not have an association with Chinese company market performance dependent on the extent of their presence in the ownership configuration of the company

Hypothesis 3: QFII do not *impact* Chinese company performance, conditioning on existing corporate governance measures.

Empirical Model

There are two main baseline theoretical models for studies considering firm performance as a function of corporate governance mechanisms. They have generally been formulated in terms of ownership structure, e.g. Chen (2005) and Chen, et al. (2009), or a set of corporate governance variables or indices, which can also include ownership structure, e.g. Bai, et al. (2003).

The generic specification below gives the pooled OLS model:

$$P_{it} = \alpha_{it} + \beta G_{it} + \varepsilon_{it} \qquad (1)$$

Where Performance (P) of individual firm *i* at time *t* is modelled as a function of Governance related variables and controls (G) and epsilon represents stochastic error.

Variables

Dependent Variable

Xu and Wang (1997), Qi, et al. (2000) and Wei, Hassan & Varela (2003) all use return on assets (ROA) as a profitability measure in one way or another. Both Bai et al (2003) and Chen (2005) use Chung and Pruitt's (1994) take on Tobin's Q by taking current assets from the sum of the market value of a firm's stock, the book value of long-term debt, the book value of inventories and the book value of current liabilities, and dividing by the book value of total assets. We use each of these two measures as dependent variables, ROA (net profit divided by total assets[12]) as a direct measure of accounting profitability and Tobin's Q (TOB) as a market measure of raised capital value scaled by firm asset replacement costs, although we use total book value of debt as the market measure of debt due to the absence of a market measure for corporate debt in the vast majority of Chinese firms.

Tobin's Q = (market cap + book value of long term debt + book value of inventories + current liabilities) / book value of total assets

ROA = net profit / total assets

Independent Variables

We want to condition on corporate governance mechanisms that the literature has identified for better or for worse, in order to avoid omitted variable bias in the estimate of our coefficient on QFII presence. Thus, an adaptation of the Bai, et al. (2003) framework which seems to be becoming a standard for the Chinese case, see, for example, Shuhua Yao (2010) and Zhou, et al. (2009). We also draw on suggestions to address ultimate ownership in Chinese listed enterprises (e.g. Chen et al., 2009) and extend the model to include other internal and external governance-related proxies and firm characteristic controls. Our variable of interest is the presence of a QFII in the top shareholdings (QFI/QFH), a binary variable. The details of all variables are set out in appendix 7.

Robustification

Foreign investors might choose to invest in companies with either existing good governance or a good performance trajectory. Their experience and resources could afford them the desirable traits of being both good at picking stocks and good at timing the market, or at least able to sort the wheat from amongst the chaff between Chinese listed stocks. This of course assumes a degree of market inefficiency and thus professional investor arbitrage opportunities given their specialised knowledge, research capability, sophistication, conventionally accepted.

[12] Since net profit is more likely to be manipulated for reporting purposes (Boubakri, et al., 2012), we also use alternatives, such as total profit and EBIT a numerator to provide alternative measures, but they make little material difference to the results and thus are unreported. Similarly Market-to-book ratio was used in place of Tobin's Q as an alternative market measure.

If foreign investors choose the best performing firms, there could be an issue of reverse causality to address. We firstly apply fixed effects and lags of the explanatory variables which will reduce the endogeneity bias. Thus the model becomes:

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$$P_{it} = \alpha_{it} + \beta_1 G^*_{it} + \beta_2 Q^*_{it} + a_i + t^* + u_{it}$$

Where G* is simply the independent variable matrix without the endogenous variable Q and *a* represents individual/industry effects and *t*, time effects.

Adding appropriate instrumental variables to the model can lead to obtaining an unbiased estimate of the effect of the explanatory variable(s) on the dependent variable using two-stage least squares (Antonakis, et al., 2010; Wooldridge, 2010). We further resort to instrumental specifications using the market measure dependent variable (Tobin's Q) to address this.

Instrument choices

QFI and MFJ need to be instrumented for. Since foreign investors possess 'depth [to] their fundamental research and relatively sophisticated approach to risk management and selection' (Leckie & Xiao, 2012, p. 17), it is likely they will price net profit in their investment decisions, whereas the market is unlikely to reflect it. This may extend to foreign joint venture mutual funds. We therefore use the log of net profit as one instrument. On the same basis that foreign investors are good forecasters, but that the Chinese market is not good at pricing future firm growth, we use the projected sales in the next quarter as a second instrument.

The fourth lag of the QFII variable is considered valid theoretically, since a QFII four periods prior is unlikely to be correlated with the current quarter's market performance and QFII can (and do) relatively easily hop in and out of their positions in China. In other words, QFII four periods in the past reflect QFII interest in the company, not necessary by the same QFII investor though—it is an instrument for current QFII investment. The QFII ownership several periods earlier ought to already be reflected in the price by this time, so should be uncorrelated with current Tobin's Q. The market has had substantial time to reflect the QFII investment in the price of the stock.

However, QFII are likely to have a limited number of stocks they will select as investable for three reasons: a lack of research into the A share stock universe, a lack of quality companies to invest in and familiarity with a specific rotation of shares. Therefore, a prior QFII presence may be correlated with present QFII.

The third lag of QFII presence could be correlated with the presence of a sino-foreign mutual fund, due either to a tendency to follow QFII portfolios, or in that such institutions are identifying similarly investable stocks, but again this is less likely to show correlation with 'today's' Tobin's Q. This follows the same reasoning in terms of the unlikelihood of QFII at t-4 being correlated with the current market performance measure.

At least one more instrument than endogenous regressor is therefore used satisfying the overidentification requirements of the IV and GMM models below. These instruments are tested for empirical validity, including endogeneity in the structural equation, overidentification and goodness of fit of the first stage model.

5. Descriptive Statistics & Regression Results

Table 1 shows pairwise correlation coefficients for the pooled data. Even the higher correlations are not particularly high, generally being under |0.39| with most well below a |0.1| product moment correlation coefficient, i.e. very weak. The gross correlations indicate that multicollinearity seems not to be a severe issue. Size and capital structure are the most correlated against the dependent variables so we would expect them to be significant, possibly with higher t-statistics and lower standard errors accordingly in the regressions. Profit-to-sales ratio is not included in the ROA regressions as the variables are too closely related and liquidity is considered irrelevant in the ROA regressions—there is little intuition for why share liquidity would causally effect book sales per assets.

Table 2 shows summary statistics. There is variation both between and within individuals (reported for key variables), supporting the use of panel methods, with Tobins Q varying between 0.382 and 7.752 and ROA ranging -2.652 to 2.81 with means of 1.8 and 0.02 and standard deviations of 1.2 and 0.06 respectively. Tobin's Q varies more within an individual firm than between firms and ROA varies about as much between firms as it does within firms over time.

Regression results are presented in tables 3 and 4 (expansion of table 3 in appendix 7) and are discussed in the following section.

Table 1: Gross (pooled) Pearson Correlation Matrix of Selected Variables

	TOB	ROA	QFI	QF5	MFJ	FLP	FRE	FUC	CEN	LOC	PRI	OTU	SHC	SHQ	MFC	BSH	IND	CEO	NNP	OCH	RCV	SIZ	DAR	AGE	LIQ	CAP	RCV	PRO
TOB	1.00																											
ROA	0.13	1.00																										
QFI	0.04	0.08	1.00																									
QF5	0.02	0.05	0.39	1.00																								
MFJ	0.10	0.19	0.16	0.09	1.00																							
FLP	0.01	0.02	0.02	-0.01	0.01	1.00																						
FRE	0.00	0.01	0.04	0.01	0.02	0.31	1.00																					
FUC	0.01	-0.02	-0.01	-0.01	-0.04	0.17	0.24	1.00																				
CEN	-0.08	-0.05	0.01	-0.01	0.01	-0.05	0.01	-0.19	1.00																			
LOC	-0.08	0.03	0.04	0.03	0.08	-0.06	-0.02	-0.11	-0.41	1.00																		
PRI	0.14	0.05	-0.05	-0.02	-0.05	0.02	-0.10	-0.16	-0.58	-0.35	1.00																	
OTU	0.00	-0.03	0.00	0.02	-0.02	0.00	0.00	-0.03	-0.12	-0.07	-0.11	1.00																
SHC	-0.08	0.09	0.05	-0.04	0.11	0.00	0.07	-0.03	0.14	0.13	-0.23	-0.07	1.00															
SHQ	-0.08	0.09	0.05	-0.04	0.11	-0.02	0.06	-0.03	0.14	0.12	-0.22	-0.06	0.98	1.00														
MFC	0.13	0.00	-0.02	0.03	-0.03	0.14	0.01	0.04	-0.16	-0.17	0.28	0.04	-0.73	-0.72	1.00													
BSH	0.10	0.09	-0.02	-0.01	0.01	0.01	-0.06	-0.06	-0.23	-0.15	0.40	-0.04	-0.09	-0.09	0.23	1.00												
IND	0.07	0.01	0.00	-0.01	0.03	-0.02	-0.03	0.01	-0.08	-0.01	0.09	-0.01	-0.01	-0.01	0.00	0.08	1.00											
CEO	0.03	0.02	0.00	0.00	0.00	0.04	-0.01	-0.01	-0.08	-0.02	0.11	0.00	-0.07	-0.07	0.07	0.13	0.05	1.00										
NNP	0.00	0.07	-0.02	-0.05	-0.05	0.18	0.06	0.02	0.04	-0.08	0.02	-0.02	0.37	0.39	-0.02	0.18	-0.06	0.02	1.00									
OCH	0.01	0.02	0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.07	0.01	0.13	-0.17	-0.01	-0.02	0.00	0.05	0.00	-0.02	-0.06	1.00								
RCV	-0.01	-0.12	-0.04	-0.02	-0.12	-0.02	-0.01	0.00	-0.01	-0.08	0.07	0.04	-0.07	-0.08	0.07	-0.03	-0.03	0.00	0.04	0.03	1.00							
SIZ	-0.33	0.13	0.16	0.10	0.36	-0.03	0.04	-0.06	0.03	0.23	-0.20	-0.01	0.23	0.24	-0.22	-0.12	0.05	-0.04	-0.08	0.01	-0.15	1.00						
DAR	-0.13	-0.33	-0.03	0.01	-0.07	-0.08	0.00	0.00	0.03	0.03	-0.07	0.05	-0.08	-0.08	0.00	-0.19	-0.01	-0.04	-0.12	-0.01	0.13	0.14	1.00					
AGE	0.10	-0.03	0.02	0.04	0.05	-0.12	0.02	-0.01	-0.10	0.12	-0.01	0.02	-0.18	-0.16	-0.03	-0.25	0.10	-0.02	-0.38	0.07	-0.04	0.25	0.17	1.00				
LIQ	0.34	0.15	0.04	0.01	0.12	0.06	-0.01	-0.03	-0.11	-0.02	0.15	-0.03	-0.01	-0.02	0.07	0.24	0.04	0.05	0.13	0.05	-0.02	-0.06	-0.12	0.04	1.00			
CAP	0.06	-0.19	-0.05	-0.03	-0.09	-0.01	-0.02	0.04	-0.05	-0.08	0.08	0.05	-0.08	-0.07	0.06	0.00	0.04	0.00	0.02	-0.03	0.05	-0.12	0.04	0.00	-0.05	1.00		
RCV	-0.01	-0.12	-0.04	-0.02	-0.12	-0.02	-0.01	0.00	-0.01	-0.08	0.07	0.04	-0.07	-0.08	0.07	-0.03	-0.03	0.00	0.04	0.03	1.00	-0.15	0.13	-0.04	-0.02	0.05	1.00	
PRO	0.11	0.69	0.10	0.04	0.20	0.01	0.03	-0.01	-0.01	0.06	-0.04	0.00	0.14	0.14	-0.03	0.03	-0.01	-0.01	0.09	-0.01	-0.11	0.17	-0.32	-0.03	0.09	-0.17	-0.11	1.00

Table Note: Numbers in the matrix denote correlation coefficients. T-statistics are omitted since it is a very large sample and thus these are naturally quite high in most cases. More intuitive understanding from the matrix can be gained from observation of the correlation coefficient and higher absolute value coefficients are discussed above. Associated p-values available on request.

Table 2: Panel variables descriptive statistics

VARIABLE	SD TYPE	MEAN	SD	MIN	MAX	OBS
TOB	Overall	1.830	1.232	0.382	7.752	44165
TOB	Between		0.877	0.435	6.222	1907
TOB	Within		0.944	-1.551	7.994	46
ROA	Overall	0.021	0.061	-2.652	2.810	44627
ROA	Between		0.038	-0.399	0.199	1964
ROA	Within		0.053	-2.419	2.742	46
QFI	Overall	0.063	0.243	0	1	42850
QF5	Overall	0.002	0.018	0	0.788	42712
QF10	Overall	0.002	0.016	0	0.702	42712
MFJ	Overall	0.338	0.473	0	1	42850
FUC	Overall	0.050	0.217	0	1	45832
FRE	Overall	0.075	0.263	0	1	45832
FLP	Overall	0.052	0.223	0	1	45832
SHC	Overall	0.380	0.162	0.008	0.894	45791
SHQ	Overall	0.170	0.137	0.000	0.799	45791
MFC	Overall	-10.420	1.304	-15.120	-7.851	45789
BSH	Overall	0.038	0.124	0	3.857	42689
IND	Overall	0.358	0.053	0	0.800	42380
CEO	Overall	0.328	0.469	0	1	45725
NNP	Overall	1.066	1.155	0	38.920	45694
OCH	Overall	0.938	0.241	0	1	45832
CEN	Overall	0.403	0.491	0	1	45832
LOC	Overall	0.196	0.397	0	1	45832
PRI	Overall	0.329	0.470	0	1	45832
FUC	Overall	0.050	0.217	0	1	45832
OTU	Overall	0.022	0.147	0	1	45832
SIZ	Overall	1.073	0.052	0.954	1.269	44832
DAR	Overall	0.504	0.262	0.008	7.914	44586
AGE	Overall	7.991	0.642	0.000	8.994	38130
LIQ	Overall	15.029	21.392	0.017	613.781	45151
CAP	Overall	2.653	2.813	0.165	10.654	45832
PRO	Overall	0.050	0.132	-0.490	0.635	45832
RCV	Overall	0.077	0.267	0	1	45832

Table Note: As this is panel data, it is important that there is variation both within (individuals across time) and between (individuals over time). These types of variation are shown in the dependent variables to keep the table a reasonable size. For panel data studies, this is important to show (Katchova, 2014), although often omitted in journal studies.

Table 3: Pooled OLS, FE and RE signs and significance[13]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	OLS	FE	RE	OLS	FE	RE	OLS	FE	RE	OLS	FE	RE
VARIABLES	**TOB**	**TOB**	**TOB**	**TOB**	**TOB**	**TOB**	**ROA**	**ROA**	**ROA**	**ROA**	**ROA**	**ROA**
L.TOB				+***	+***	+***						
L.ROA										+***	+	+***
QFI	+***	+**	+***	+***	+	+***	+***	+***	+***	+***	+*	+***
MFJ	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***
FUC		+	+	-*		+	+*	+	+		+*	+**
FRE	+	+	+**	+	+	+	-	-	-	+	-	+
FLP	+	-	-	+	-	-*	-***	-	-**	-*	-	-**
SHC	-**	-	-**	-*	+	-***	+***	+***	+***	+**	+***	+***
SHQ	+***	+***	+***	+***	+***	+***	+	-*	-	+	-	+
MFC	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***	+***
BSH	+	+	+	+***	+	+**	+**	+***	+***	+	+	+
IND	+***	+	+	+	-	+	+	+	+	+	+	-
CEO	+	+	+	+***	+	+***	-	-	-	-	-	-
NNP	-***	+***	+***	-***	+	-	+	+***	+***	+	+*	+*
OCH	-	-	-	+	-**	-	+	-	-	+	-	+
CEN	-	+	+	-**	+	-	-	+	+	-***	+	+
LOC	-	+	+	-	+	-	+	+	+	-**	+*	+**
PRI	+	+	+	-	+	+	+***	+***	+***	+	+***	+***
SIZ	-***	-***	-***	-***	-***	-***	+***	+***	+***	+***	+***	+***
DAR	+	+***	+***	+	+***	+	-***	-***	-***	-***	-***	-***
AGE	+***	+***	+***	+***	+***	+***	+	-*	-***	+	-	-
LIQ	+***	+***	+***	+***	+***	+***						
CAP	+	-***	-***	+***	-***	-***	-***	-***	-***	-***	-**	-***
RCV	-***	-***	-***	-***	-***	-***	-**	-***	-***	-**	-***	-***
PRO	+***	+***	+***	-	-	-						
OTU	+				-					-**		
Constant	+***	+***	+***	+***	+***	+***	-**	-	-***	-*	-	-***
Observations	33129	33129	33129	27294	27294	27294	33919	33919	33919	27897	27897	27897
R-squared	0.356			0.777			0.177			0.220		
Number of stkcd		1181	1181		1180	1180		1181	1181		1178	1178
Adjusted R-squared		0.514			0.759			0.133			0.140	

[13] This regression table summarizes the signs (+/-) and significance (***, ** and * represent *p-values* below 0.01, 0.05 and 0.1, respectively) on all variables introduced in the data section. The full table including coefficients and standard errors for each variable is included in Appendix 7.

Table 4: Instrumental Variables Regressions (Second Stages) and GMM (Second Stages)

IV Second Stage

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	IV-OLS	FE	RE	IV-OLS	FE	RE	IV-OLS	FE	RE
VARIABLE	TOB/I	TOB/I	TOB/I	TOB/H	TOB/H	TOB/H	TOB/5	TOB/5	TOB/5
QFI/H/5	0.128	0.036	0.121	1.776***	2.509***	2.194***	3.296*	6.704**	4.811***
	(0.149)	(0.313)	(0.170)	(0.584)	(0.919)	(0.426)	(1.875)	(3.254)	(1.427)
Hansen's J P val	0.193	0.199		0.147	0.0241		0.204	0.180	
Shea QF	0.085	0.022		0.170	0.070		0.184	0.083	
Shea MF	0.014	0.002		0.016	0.002		0.015	0.002	
Robust Endogeneity Test		0.000	0.000		0.000	0.000		0.000	0.000
Number of firms		1146	1164		1154	1171		1146	1164

Table Note: The tables show IV specifications using different QFII variable versions. TOB/I indicates QFI used; TOB/H indicates QFH used—in this case QFH=1 only if percentage held by QFII in firm is ≥5%. TOB/5 indicates QF5 used—only considering the top 5 shareholder, the percentage held by QFII. All variables from the previous specifications are not reported but were included as controls. Principal Component regressions are not reported, but yielded similar results. First stage results are not reported. Hausman test p-value (H_0: Fixed effects preferred model): 0.000 consistently.

GMM Second Stage

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLE	TOB/I	TOB/I	TOB/H	TOB/H	TOB/5	TOB/5
L.TOB		0.320***		0.322***		0.322***
		(0.0282)		(0.0295)		(0.0297)
QFI/H/5 (A)	0.133**	0.0985*	0.597*	0.654**	1.762	1.653*
QFI/H/5 (B)	0.288***	0.291***	0.729*	0.707***	2.427*	1.978**
	(0.0712)	(0.0553)	(0.392)	(0.216)	(1.474)	(0.972)
Hansen's J: P value (A)	0.803	0.900	0.862	0.996	0.848	0.900
Hansen's J: P value (B)	0.698	0.888	0.168	0.987	0.716	0.900

Table note: Number of lags used were 16 for levels and differences. TOB/I indicates QFI used; TOB/H indicates QFH used TOB/5 indicates QF5 used. All variables are not reported but were included as controls in regression (A). Coefficients on QFI/H/5 after principal component analysis reducing all remaining variables to orthogonal components of which the 3 capturing most variability were used are reported as (B).

6. Discussion & Analysis

Discussion of Regression Results

In terms of the first set of regression results, at first glance (pooled OLS using cluster robust standard errors—see table 3 and appendix 7), there is a significant association between QFII presence and performance. This generally holds in a cluster robust fixed effects (FE) model, in addition to a random effects specification. The former—FE—was preferred from Hausman tests and makes sense intuitively—there are likely to be unobserved firm characteristics that hold over time. The results go for both of the two measures of performance as dependent variables. We can certainly reject the statement made in hypotheses 1 and accept that there *is* an association between QFII presence and performance using both measures.

The R^2 / adjusted R^2 are well in excess of one third for the OLS and fixed effects regressions on the TOB variable, the former suggesting variability in the explanatory variables explain about 36% of the variability in the regressands in the pooled model (table 11 of appendix 7). Of particular interest are the empirical and economic significance of the presence of the QFII investor in top shareholdings.

The 0.1 QFI coefficient in the fixed effects specification on Tobin's Q can be interpreted as QFII being positively associated with Tobin's Q. If we infer causality, the *ceteris paribus* interpretation is that a QFII being present is associated with a 0.1 increase in Tobin's Q, which is about 7% of one overall standard deviation (across time and individuals) and 10% of the standard deviation from the average Tobin's Q for an individual firm across time (i.e. the within firm standard deviation – see table 2). The economic significance in these initial models are not enormous, but the empirical significance is substantial. The pooled model coefficient shows both empirical and economic significance.

Even though the association between QFII and ROA is significant empirically, it is less economically significant than the Tobin's Q association. From the dynamic fixed effects model, the where a QFI is present, associated firm ROA is 0.003 higher, *ceteris paribus*—only around 1% of a standard deviation of ROA either overall or within a firm.

Readers will also note that there are a lot of explanatory variables. We do this so as to avoid omitted variable bias. However, too many variables can also be problematic. Therefore, in addition to the specification below, we also ran an (unreported) principal component analysis based model with three principal components accounting for substantial variation in the explanatory variables as a whole, finding similar results for the separated QFII presence variable.

The significance of other foreign related variables and both firm characteristic controls and corporate governance variables are of further note. We are hard-pressed to offer a detailed analysis of these due to spacing and staying on topic. However, their significance in several instances, along with the significance of time dummies and industry dummies (unreported) confirm that they should indeed have been included in the regressions.

Sensitivity and Robustness

The relations above hold similarly using the QFH[igh] variable—whereby only firms with ≥5% held by QFII were considered are (Table 12 of appendix 7). Using the pooled/panel OLS/FE/RE approach, we compared firms with a combined QFII investment equal to or greater than 5% (QFH) with those with less than or equal to 1% and found the aforementioned relationships held convincingly for the higher proportion, but not for the lower proportion. We did this also using the percentage of shares held by QFII among the top 5 (QF5) shareholders and top 10 shareholders (QF10), with similar results (tables unreported). Since there was evidence of serial correlation of errors and a higher stake held is indicative of greater incentives, we suggest this second set of tables in Appendix 7 ought to provide more valid OLS, FE and RE estimates of parameters. We reject the statements of hypotheses 2a and 2b, and accept that the extent of QFII ownership is relevant to the association between QFII and Chinese firm performance.

In spite of using lags, we are still left with a reverse causality concern and seek to address this in a number of ways.

The empirical significance of QFII in the first regressions could still be considered an issue of reverse causality—foreign investors, having foresight, could be selective about the firms they invest in and thus choose better performing companies. The potential for endogeneity in the model also seemed to be indicated by a significant robust endogeneity test.

The first stage results of straightforward 2SLS (unreported) required predicting a binary variable without a non-linear (i.e. logit) transformation. This may have caused undue magnification in some of our stage two coefficients for instrumental variables.

Running the system GMM on the specification of the equation (above), which we did also using principal components (unreported) seems to show a positive and significant result on QFI, QFH and QF5. A high Hansen's J statistic was produced (Sargan, 1958; Hansen, 1982), accepting the null hypothesis for the test that the instruments as a group were exogenous. Tables 3 and 4 provide interesting back up in the causality question.

Shea's partial R^2 values were slightly low which can suggest instrument weakness, but still higher than 0.1 for the QFI instrument in several cases. The p-value on QFII variables is <0.01 (highly significant) when considering only firms with a ≥5% QFII stake. Most exogenous instruments were significant. The overidentification statistics demonstrate instrument validity in the model in addition to the F-statistic (first stage) being well above 10, which is desirable.

The GMM (4) results can be interpreted as the model that is most robust to endogeneity and thus deals most effectively with possible biasedness in the parameter estimates. The resultant parameters can be interpreted as marginal effects just as with OLS regression. Therefore, the model suggests that in the presence of a QFII stake held of greater than 5% (singly or jointly), an associated Tobin's Q increase of 0.65 is to be expected on average from the model's prediction in 95% of repeated samples, all other things being equal. This finding is highly significant both empirically *and* economically, since it is about half of one standard deviation of Tobin's Q over the entire dataset. Results using principal components were slightly higher, but rounded also to 0.7. For any amount of QFII in the holdings, 0.1 remains the average effect on Tobin's Q *ceteris paribus* on the unit change in QFII presence (from 0 to 1), the same as the fixed effect result. We therefore reject the statement of hypothesis 3 and accept the conjecture that QFII presence positively impacts Tobin's Q.

Analysis and Intepretation

QFII presence seems to be positively associated with Tobin's Q in a way which is both empirically and economically significant.

While significantly associated with book performance under OLS and fixed effects empirically, the model shows they are unlikely to have had a substantial economic impact on ROA, according to the magnitude of the coefficients. In other words, although the association of QFII and ROA is significant empirically, it is less economically significant than the Tobin's Q association.

We interpret this as the QFII presence acting as an indirect monitoring mechanism, both as a signal to the market primarily and in their presence, exerting monitoring pressure on Chinese management, whose firms and reputations could suffer were QFII to sell, and/or go to press if unhappy with managerial and hence, company and market performance. This section explores some of the mechanisms by which either the causal process or a positive feedback loop might occur.

In addition to the pressure-sensitive and pressure-insensitive governance stances identified in the literature review, we suggest from this paper, that foreign portfolio investors could also exhibit a *passive-reactive* tendency, whereby they possess no particularly active stance on corporate governance, except for say, exercising their voting rights (being passive), but they can take positive action in response to the failure of a company to fulfill their return expectations, i.e. by liquidating their position (reacting). This could act as an indirect governance mechanism. As Douma, et al. (2002) point out:

> It is in the fund manager's interest to outperform this [composite benchmark] index and the competitors. To do this, he/she is constantly on the look out for stocks, which will enable his/her portfolio to do that. A fund manager is therefore far more likely to use the exit option rather than the voice option in relation to an under performing stock.
>
> (Douma, et al., 2006, p. 31)

If foreign investors also provide a signal to the market, this would explain a significant association with a better measure that takes market performance into consideration. Provided this is not due to endogeneity bias, it can be interpreted as having a causal element, and our robustness exercises suggest this to be the case. Conventional wisdom suggests that QFIIs are sophisticated institutional investors, who are good at selecting good stocks. Therefore, the firms that attract QFIIs should be those who have better performance compared with other A-share companies. Empirically, these firms will have better accounting profits and better stock market performance. QFII's typically small stakes of ownership make them less likely to have a significant impact on invested companies.

Our findings therefore support the following conjecture: in the Chinese case, QFII have had the potential to offer a leveraged form of monitoring power in China—and their presence is likely to augment market perception of firm value. The potential for an exit signal and the implications in the Chinese market with its herding tendencies, and less so, the concomitant pressure on company management and shareholders to 'save face'—i.e. not lose their foreign investor—could be considered to form an indirect governance mechanism.

That this could be occurring *in spite of* their voting power being incommensurate to decision making within the firm, or control of the firm. This could be a plausible argument in the Chinese context, but it is difficult to model empirically due to the low percentages held by QFII. In practical terms, foreign investors could go to the international media and mar the investment profile of the Chinese company and manager as well as using the 'exit option'. Neither the companies, nor the Chinese government want this, lending powerful away-from (poor performance, corruption) motivation. Foreign institutional investors can also interact directly with senior management, for example, demanding specific questions around accounting irregularities do not go unanswered, from which managers themselves can learn. Combined with their providing a signaling effect to a market notorious for herding and casino-like speculation, their presence is likely to weigh importantly on the minds of management and other significant shareholders, including state actors. As consultants Leckie and Xiao (2012) pointed out:

> Though QFII holdings still only account for less than 1% of total stock market holdings, their influence far outweighs their relative size. They are watched closely by many domestic investors due to the depth of their fundamental research and relatively sophisticated approach to risk management and selection.
>
> Leckie & Xiao (2012: 17)

The policy expectation for foreign investors to act as a governance mechanism in China and to have an influence outweighing their ownership stakes (Leckie & Xiao, 2012) seems to be supported by the results of our models. This goes against the orthodox intuition that small voting proportion necessitates little influence. However, from the statistical models, it is clear that the effect is one which is manifested with greater economic significance taking into account the secondary share market's valuation rather than within the company's inner workings as reflected by profitability.

The findings of this paper provide evidence to support the policy decisions of the regulators on increasing QFII allowances. This process should be further incentivized and promoted, while QFII can afford to be more demanding of their invested firms given a leveraged form of monitoring power. Promoting QFII as a method to raise capital from foreign investors seems to have improved both the finances and corporate governance oversights of public Chinese firms. Policymakers should be opening

their domestic security markets for greater participation by foreigners. However, they must be pressing in their demands for higher standards of governance and integrity themselves and see foreign investors as supplementary rather than a driving force in governance reform in China, nevertheless increasing their incentives by allowing greater levels of ownership to try to change that.

7. Conclusion

Foreign investors have been considered desirable for their experience and sophistication, their capital and their potential to influence corporate governance positively. In the Chinese listed companies, they have therefore been allowed increasingly by regulators to take up substantial positions/holdings in Chinese shares.

What we have seen since 2002 is the introduction of foreign investment directly into the domestic Chinese stock market via A shares, and this has the potential for rapid and prolific expansion. For example, in 2013, the QFII quotas have been said to have increased from around $30 billion USD in 2012 to $150 billion USD (Tan and Chen, 2013[14]), coupled with lower restrictions on entry requirements, the most profound shift since inception of the program.

More recently, policymakers have been demanding a shift away from reliance on bank debt financing, calling for structural change and improvements in efficiency (Ruan, 2013)[15]. Expedition of financial liberalization has thus become more important for the Chinese government and regulators, particularly in light of the *de facto* liberalization spurred by off-balance sheet banking practices in addition to China's shadow banking sector (trusts, leasing companies, credit-guarantee outfits and money-market funds that often borrow from regulated banks, and relend at higher rates). This has become a major concern for the Chinese government.

The interest of this paper has been those firms that *have* managed to attract or be approved for internal investment from foreign investors, especially QFII, but are not listed abroad, nor are in the financial industry. Such firms have the potential to be the role models for listed firms in China desiring to attract foreign investment, and to benefit from the potential impact of foreign investment on their governance and performance. These have been overlooked firms in terms of foreign investment in listed companies in China. A pooled OLS approach was taken to a panel of firms obtained from the Chinese Stock Market and Accounting Research (CSMAR) databases. The time series spanned quarterly from 2003 to 2012. We resorted to fixed effects to firstly address the bias and inconsistency wrought by unobserved heterogeneity and to secondly mitigate partially the potential for reverse causality in the model. For robusticity, the 2SLS instrumental variables and GMM approaches were used.

A positive association was found between the presence of a QFII and a company's market performance and book performance, the former being both empirically and economically significant, the latter, being empirically significant, offering a revision to Tan's (2009; 2013) theses.

Shen, Lu & Wu (2009), Tan, (2013) and Luo, et al., (2014)[16] all document foreign investor contributions to governance and efficiency in Chinese banks. With respect to foreign investors more widely into listed companies, we interpret allowing greater portfolio investment into China as a regulatory desire for a convergence in the governance benefits foreign investors can bring, i.e. between what they have produced for the banking system with what they could do for domestic NASOs – firms outside of OODL and financial-ASO (FASO) categories. Specifically, we found a non-financial,

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[14] Tan, Clement and Chen, Michelle, 13 January, 2013 for Reuters: 'China can increase 10 times the level of RQFII, QFII quotas -CSRC head' Accessed 22/4/2014 from http://www.reuters.com/article/2013/01/14/china-rqfii-idUSH9N09R00Y20130114

[15] Ruan, Victoria in the South China Morning Post, 11/9/2013, 'Li Keqiang stresses China need for structural reforms'

[16] Forthcoming paper

domestic Chinese listed firm with 5% or more QFII share ownership offers a 0.7 higher Tobin's Q on average than a firm without, all other things held equal, and with any amount of QFII investment among the top ten shareholders, a Tobin's Q of 0.1 higher.

Foreign investors could contribute towards the mitigation of agency problems in non-financial Chinese listed companies. One interpretation is that the effect of a QFII in top shareholdings augments herding behaviour by the market more broadly. However, there may also be a managerial impact or influence, both subjects for further research. If it is the case that QFII have possessed such an influence, they may possess a form of leverage within their shareholdings born of the signalling effect their exit would have on firm value. We therefore suggest an indirect governance mechanism by which even passive foreign investors could pressure Chinese management who do not want to see their share price and reputation erode, i.e. by their exiting the trade in addition to having the ability to spread the bad news about, e.g. the company's governance issues—thus adding to pressure-sensitive and insensitive/resistant categories of institutional investors with a third *passive-reactive* category.

We suggest further work into the mechanisms through which foreign investors and institutions engage with the Chinese listed companies in addition to addressing further the reverse causality issue. We also suggest research into the determinants of QFII presence to explore, for example, the extent to which measures of risk, such as CAPM beta, or standard deviation of past returns and/or firm characteristics contribute to the likelihood of a QFII stake, often amounting to substantial dollar amounts held in firm shares held by foreign investors. Furthermore, tests need to be designed in order to substantiate or refute the argument that foreign investors during this period in China's listed company and stock market development, have had an influence that outweighs their commensurate ownership stakes held.

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Appendix 1

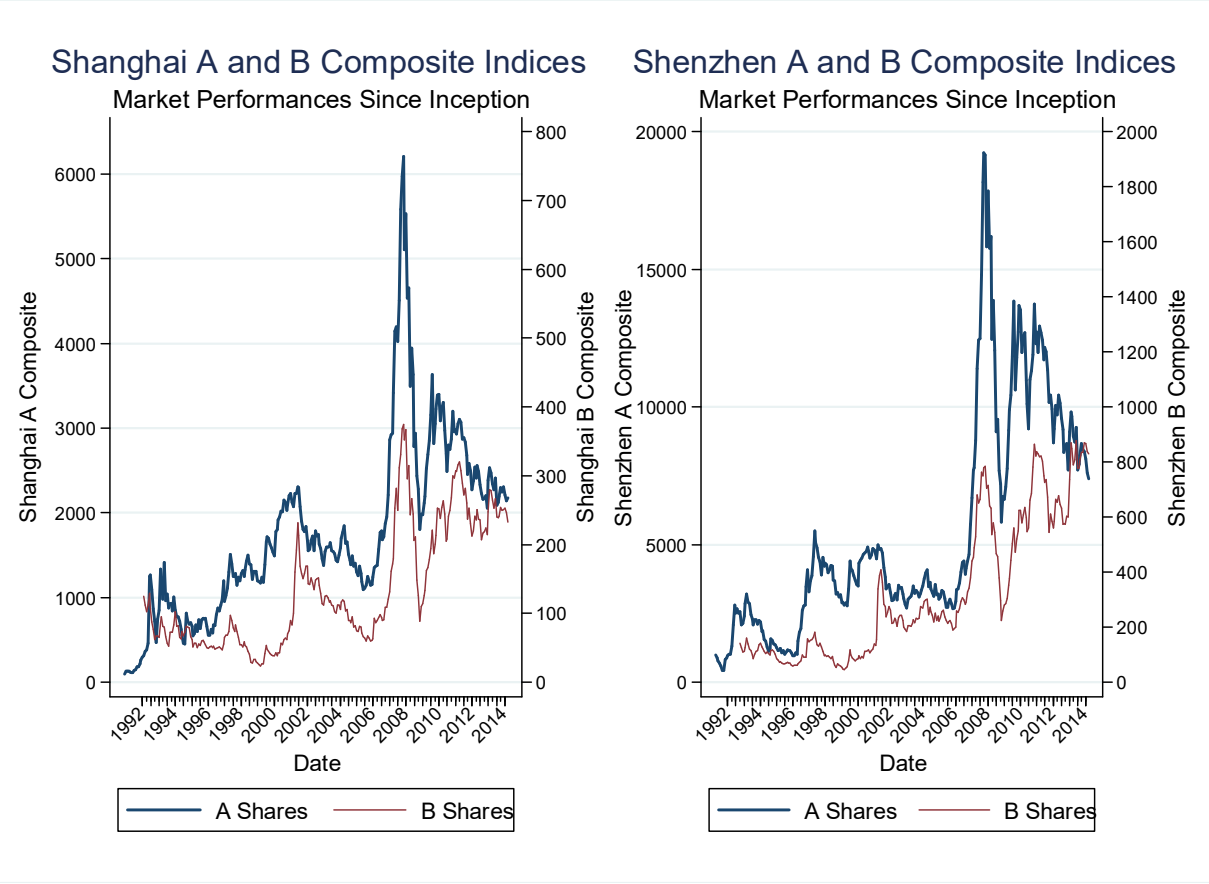
Table 5: Companies, capitalization and market performance in China (Selected Years 2004-2012)

Year	*2006*	*2008*	*2010*	*2012*
Number of firms				
A Share	1296	1308	1328	1393
B shares	109	109	107	107
H SEHK	95	110	128	148
Market Cap	**89404**	**121366**	**265423**	.
A Share	88114	120567	263221	.
B shares	1290	800	2202	.
All H Shares	3375	2395	4420	3931
Turnover	**90469**	**267113**	**545634**	.
A Share	89217	265890	563466	.
B shares	1252	1222	2168	.
All H shares	2531	5397	3987	2959
Volume Traded	**16145**	**24131**	**42152**	.
A Share	15809	23913	41806	.
B shares	337	219	346	.
All H shares	248	874	849	634
Index Close Price				
Shanghai A	2675	1821	2808	2269
ShenzhenA	5510	5530	12910	8810
Shanghai B	130	111	304	245
ShenzhenB	433	271	825	711
HSCEI	5413	16007	12751	10235

Table Note: "." – data not available

Source: Shanghai and Shenzhen Statistical Yearbooks (2004-2012). Full table containing all years and expansions (e.g. high, low, open prices) is available on request

Figure 1: Market Index Performances of Shanghai and Shenzhen A and B shares



Source: CSMAR Data

Appendix 2

Figure 2: Cumulative QFII Quotas and Licences

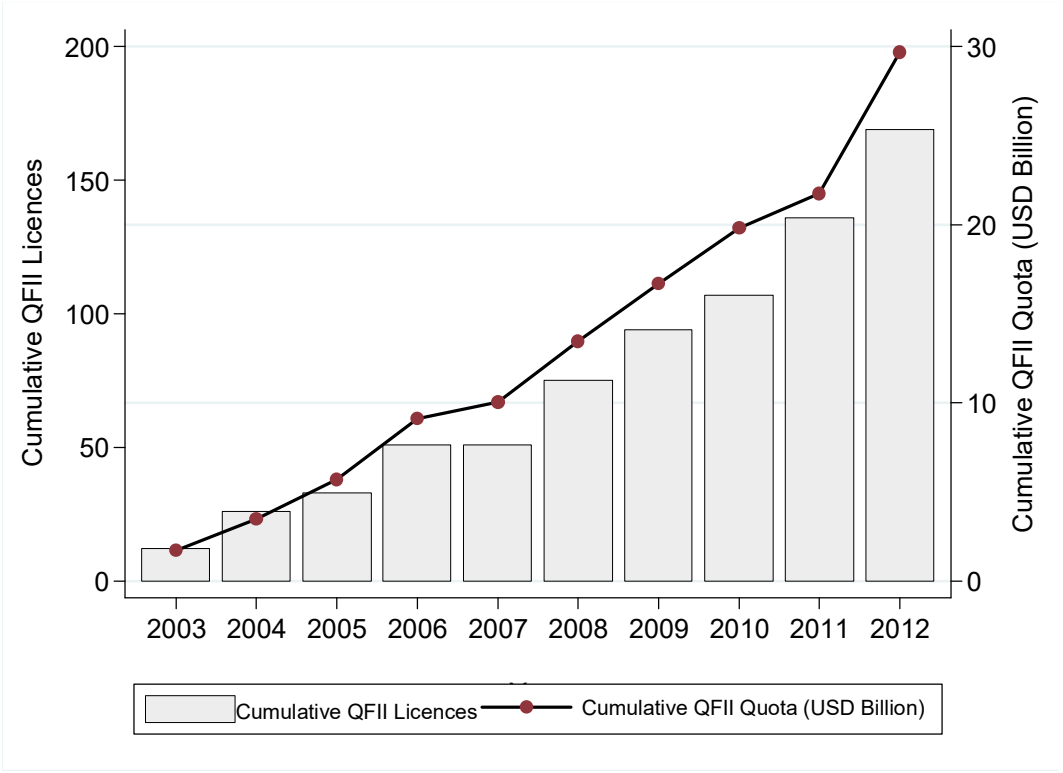
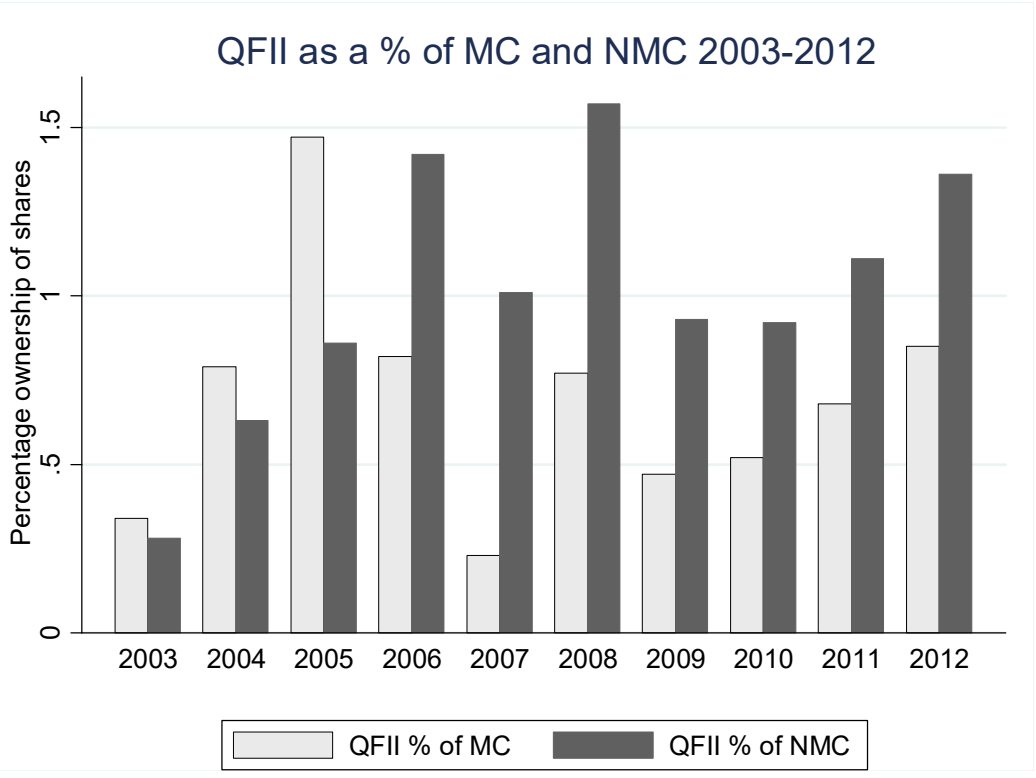


Figure 3: QFII As a % of Total Market Cap (MC) and Negotiable [Tradable] Market Cap (NMC)



Source: Z-Ben Advisors (2003-2011); Global Times (2012 licenses); Bloomberg (2012 quota); CSMAR (annual market capitalization, FX rates for 2003-2012).

Appendix 3

Table 6: Examples of routes/modes of share ownership for foreign investors/institutions in China

Company Name	Foreign investment type/information	Shareholding information
Guangdong Midea Electric Appliances (GD Midea)	QFIIs were the second (Q2), third (Q4) and ninth (Q4) largest shareholder in 2008	Morgan-Stanley International held 4.29%, Credit Suisse (Hong Kong) Limited owned 3.24% while Nomura Securities held 1.09%, respectively.
Western Mining Co	Second Largest shareholder is a foreign strategic investment stake with 10% in 2007 sold down to 5.01% by end of 2008	The company had 10% of its shares held by Goldman Sach's strategic investment (Delaware) at end of Q2 2007 sold down to 5.01% by end of Q4 2008 and 4.8% in 2009.
Tonling Nonferrous Metal Group	0.85% of all the company's shares, the tenth largest shareholder in the company is held by a sino-foreign mutual fund joint-venture	Agricultural Bank of China - Invesco Great Wall Domestic Demand Growth No.2 Stock Type Securities Investment Fund
Zhuhai Zhongfu Enterprises	Largest shareholder was Asia Bottles (HK) Company Limited	Ownership of 29% of shares designated as the foreign legal person share type.
Sichuan Hongda Chemical Industry	Industrial Commercial Bank of China – Lombarda was the sixth largest shareholder	0.46% of the company's A share securities owned by the ICBC-Lombarda sino-foreign mutual fund - China New Trend Stock Fund
PetroChina	PetroChina has 11.4% of its company's shares registered with the Hong Kong Securities Clearing Company Ltd at the end of Q4 2008	Top negotiable shareholders were Templeton, JPMorgan and BlackRock, respectively owning 6.02%, 5.66%, 5.01% of the H shares[i].
Zhejiang Geely Holding	Company is listed on the Stock Exchange of Hong Kong, while productive assets headquartered from Hangzhou, China	From the 2011 Annual Report: Goldman Sachs has a 17.41% stake in the company, while Delaware registered company Gehicle Investment Holdings / Parallel Holdings (Mauritius) own 15.35% and 2.05% respectively. Not listed in China.

Appendix 4

Table 7: QFII present in companies over the years during any quarter (from sample)

Year	Number of firms in Sample	Firms with a QFII in top shareholdings	%
2003	1,116	6	1
2004	1,169	55	5
2005	1,147	89	8
2006	1,123	177	16
2007	1,025	208	20
2008	1,109	174	16
2009	1,087	191	18
2010	1,089	208	19
2011	1,141	158	14
2012	1,157	133	11

Table 8: QFII distribution by industry in 2009 (from sample)

CSRC Letter[17]/Industry	Number of firms in sample	Firms with a QFII in top shareholdings	% of firms with a top QFII holding
A: Agriculture	26	2	7.7
B: Mining	38	2	5.3
C: Manufacturing	613	84	13.7
D: Power	61	6	9.8
E: Construction	26	4	15.4
F: Retail	48	8	16.7
G: Transport	52	5	9.6
H:Accommodation	91	13	14.3
J: Telecoms	106	4	3.8
K: Real Estate	32	3	9.4
L: Leasing	17	1	5.9
M: Research	47	1	2.1
Total	1,157.00	133	11.5

Source: CSMAR data cross-checked with Leckie & Xiao (2012) QFII list

[17] New CSRC codes begin with these identifying letters and further subdivide, generally into 3 digit codes. Old codes simply categorized into 6 sectors – Industry, Public Utilities, Commerce, Conglomerates and Finance.

Appendix 5

Table 9: Discriminating between non-ASOs, the ASO sample set and the FASO and NASO subsets

	Description	**Company Examples**[18]	**Information**
Non-ASO Companies	Firms with an offshore/overseas or B share listing	SHSE[19]: 601336 (SEHK): 1336 New China Xinhua Life Insurance Company Ltd. SHSE: 601899 (SEHK: 2899) Zijin Mining Group Company Limited	These companies are in financial or related to strategic sectors, i.e. Insurance; Mining and Dressing of Non-ferrous Metals; respectively. Each have a Shanghai listed A share and an additional H share listing on the Stock Exchange of Hong Kong (SEHK). They are examples of what are described above as Non-ASO companies.
ASO Companies	Any A share only company		
FASO Companies	Financial A share only companies **FASO** $\in$ ASO	SZSE: 783 Changjiang Securities Company Limited SHSE: 600015 Hua Xia Bank	A securities and a banking institution both of which have A shares, but do not have concurrent segmented listings, hence illustrative of the FASO designation above.
NASO companies	Non-financial A share only companies **NASO** $\in$ ASO $\underline{\text{NASOs}} = \underline{\text{ASOs}} - \underline{\text{FASOs}}$	SZSE: 1896 Henan Yuneng Holdings Co., Ltd. SHSE: 600255 Anhui Xinke New Materials Co., Ltd.	These two companies, in production of electricity and copper processing, respectively, are examples of the companies of interest here. They are the much larger subset of ASOs, which are themselves a substantial subset of all firms (see Tables 2-3)

[18] Two companies in from are taken arbitrarily to provide illustration for non-ASO and FASO companies.
[19] Codes for the company on the respective exchange

Appendix 6

Table 10: Independent variables summary & ex-ante predictions

Variable	Represents or is a proxy for	Previous Findings	Ex-ante prediction	Calculation and unit of variable	Expected Sign
Foreign Investor Variables:					
QFI/QFH/QF5	QFII presence in top 10 shareholders; QFII presence >5% in top 10; QFI percentage among top 5 shareholders; QFI percentage among top 10 shareholders	Several studies have found foreign ownership beneficial to company performance, generally at higher levels than exist on the whole in China. For example, in a case where no evidence in that regard was found (the case of India as studied by Balasubramanian, et al. (2008), foreign ownership stakes were very small indeed.	We make no *ex-ante* predictions on the variables of interest in this paper, given the conflicting nature of previous results and the lack of previous research in the Chinese case, matters which have already been discussed at length. Especially, the issue of causality warrants caution in the interpretations.	List of QFII made, ownership configurations explored for existence of shareholder name in top shareholdings. Dummy variable.	+/-
MFJ	Presence of a sino-foreign mutual fund in top ownership			As above, but for list of sino-foreign mutual funds. Dummy variable.	+/-
FLP	Company has foreign legal person shares in issue			Check share types in each quarter in top ten shareholdings for foreign legal person shares. Dummy variable	+/-
FRE	Company reports related party transactions with a foreign entity			Accounting dataset specifies whether or not there is a foreign related party among top ten transactions going in/out of the company. Dummy variable.	+/-
FUC	Ultimate controller of the company is a foreign citizen			Ultimate ownership dataset is examined for foreign ultimate owner (see tables in section 2.3.6)	+/-
Corporate governance and other control variables					
No. 1 shareholder concentration and its square (SHC, SHQ)	Ownership concentration	Support for a 'U' shaped (non-linear) hypothesis (Bai, et al., 2003), whereby very low or very high concentrations are more desirable since low concentration reduces power to expropriate whereas very high concentration is	Relationship between shareholder concentration squared and performance will be positive.	Derived variable from number one shareholder concentration. Continuous percentage variable.	+

		synonymous with cash-flow incentives.			
Ratio of independent to dependent directors on the board (IND)	Board Independence	Very mixed. It is difficult to have a truly independent board. Enron, the classic corporate governance disaster case had excellent board independence.	A higher ratio of independent board members is conducive of better performance. Alternatively, just window dressing.	Derived from number of independent directors and total directors Continuous percentgae variable.	+
CEO is chairman or vice-chairman of the board of directors (CEO)	Agency conflict in control of company policy	Mixed evidence, but agency theory suggests CEO as chair is dangerous to board independency (see chapter 3).	A CEO chairman or vice-chairman is negatively associated with performance.	Derived from board structure and executive datasets. Dummy variable.	-
Percentage of shares held by top executives (BSH)	Managerial incentive	Corporate governance principles and agency theory suggest that aligning corporate insider interests with shareholder wealth maximization facilitates that. On the other hand, executives can maniplulate stock prices, e.g. to coincide with option expiration.	Higher percentage of shares held by executives is conducive of better performance.	Derived from executive shareholding dataset. Continuous percentage variable.	+
Natural log of the sum of squared concentration of shares held by the second to tenth shareholder (MFC)	Market for corporate control	2-10 shareholders – it has been argued that takeover threats are an important form of managerial discipline Cunat, Gine & Guadalupe, (2012).	The higher the ratio (higher the natural log), the greater the ability of the other top shareholders to lobby together against the number one shareholder in decisions detrimental to their interests, thus positive effect on performance.	From ownership dataset. Herfindahl index. Log is taken following Bai, et al. (2003) as relationship is linear when logged.	+
(CAP)	Capital to sales ratio	Proxy for the efficiency with which the firm is utilizing its capital to produce new revenue	No ex-ante prediction	Derived from accounting and financial data. Fixed Capital / Operating Revenuue	+
(PRO)	Operating income to sales ratio	Proxy for profit margin	No ex-ante predictions.	Derived from accounting and financial dataset. Operating income / Operating Revenue.	+
Ultimate ownership STA (CEN / LOC) PRI [FUC] OUT	Central/Local/Private ultimate owner	General view is that the state a shareholder is unfavourable, however, in China, firstly, the state has an interest in upholding the credibility of 'flagship' Chinese companies and	Consensus seems to dictate that the state is not a good shareholder, and that privately controlled companies seem to perform better. However, Chen, et al's (2009) findings	Derived from ultimate ownership dataset (see tables in section 2.3.6). Dummy variables.	**STA – PRI +**

		secondly, the findings of Chen et al. (2009)	contradict this, so a similar disaggregation is used, but no ex-ante prediction.		
Ownership chain (OCH)	The degree of separation between ownership/control and cash-flow rights	Separation of control and cash-flow rights/ownership chains give rise to firms with higher likelihood/ease of expropriation by insiders, see e.g. Morck, et al. (2005)	Companies with an ownership chain structure are more vulnerable to expropriation since the control of the company can lie outside the hands of those with cash-flow rights interests.	Variable provided as a discrepancy between annual report and researched ultimate ownership.	-
CSRC reprimand dummy (RCV)	CSRC has made a ruling and taking action against that company, e.g. fining, reprimanding or issuing a warning	Indicates the company has issues with the standard of accounting and checks and balances on management.	Likely to have a negative impact on market value.	Any ruling I the quarter converted to a binary variable	-

Appendix 7

Table 11: Full regression output tables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	OLS	FE	RE	OLS	FE	RE	OLS	FE	RE	OLS	FE	RE
VARIABLES	**TOB**	**TOB**	**TOB**	**TOB**	**TOB**	**TOB**	**ROA**	**ROA**	**ROA**	**ROA**	**ROA**	**ROA**
Y_{t-1}				0.8161***	0.7298***	0.8612***				0.2223***	0.1007	0.2298***
				(0.0098)	(0.0096)	(0.0123)				(0.0707)	(0.0679)	(0.0747)
QFI	0.2563***	0.0454**	0.0699***	0.0695***	0.0044	0.0346***	0.0089***	0.0022***	0.0037***	0.0061***	0.0012*	0.0051***
	(0.0292)	(0.0176)	(0.0164)	(0.0142)	(0.0127)	(0.0111)	(0.0009)	(0.0005)	(0.0006)	(0.0010)	(0.0007)	(0.0010)
MFJ	0.4080***	0.1863***	0.2090***	0.1128***	0.0745***	0.0915***	0.0129***	0.0054***	0.0072***	0.0089***	0.0050***	0.0091***
	(0.0310)	(0.0143)	(0.0151)	(0.0103)	(0.0069)	(0.0100)	(0.0022)	(0.0008)	(0.0012)	(0.0012)	(0.0007)	(0.0011)
FUC		0.0742	0.0600	-0.0396*		0.0095	0.0053*	0.0036	0.0032		0.0087*	0.0068**
		(0.0433)	(0.0377)	(0.0182)		(0.0174)	(0.0029)	(0.0040)	(0.0035)		(0.0041)	(0.0028)
FRE	0.0648	0.0630	0.0767**	0.0136	0.0269	0.0020	-0.0001	-0.0027	-0.0005	0.0003	-0.0022	0.0007
	(0.0459)	(0.0360)	(0.0377)	(0.0146)	(0.0546)	(0.0121)	(0.0011)	(0.0034)	(0.0012)	(0.0011)	(0.0044)	(0.0011)
FLP	0.0306	-0.0280	-0.0269	0.0157	-0.0157	-0.0142*	-0.0064***	-0.0007	-0.0027**	-0.0037*	-0.0000	-0.0038**
	(0.0314)	(0.0499)	(0.0475)	(0.0099)	(0.0183)	(0.0086)	(0.0017)	(0.0009)	(0.0011)	(0.0017)	(0.0013)	(0.0018)
SHC	-1.4577**	-0.5243	-0.8524**	-0.2792*	0.0648	-0.2511***	0.0361***	0.0741***	0.0516***	0.0233**	0.0576***	0.0252***
	(0.5026)	(0.4347)	(0.4143)	(0.1363)	(0.1457)	(0.0839)	(0.0103)	(0.0134)	(0.0078)	(0.0100)	(0.0130)	(0.0095)
SHQ	3.3573***	2.2156***	2.4497***	0.8561***	0.7495***	0.6303***	0.0049	-0.0268*	-0.0083	0.0069	-0.0174	0.0036
	(0.7272)	(0.5248)	(0.5113)	(0.2076)	(0.1895)	(0.1250)	(0.0134)	(0.0133)	(0.0096)	(0.0089)	(0.0167)	(0.0103)
MFC	0.1321***	0.1190***	0.1073***	0.0426***	0.0544***	0.0264***	0.0047***	0.0041***	0.0041***	0.0032***	0.0032***	0.0031***
	(0.0186)	(0.0122)	(0.0116)	(0.0054)	(0.0046)	(0.0046)	(0.0004)	(0.0004)	(0.0004)	(0.0003)	(0.0004)	(0.0004)
BSH	0.3708	0.2517	0.2606	0.1891***	0.1882	0.1303**	0.0139**	0.0321***	0.0224***	0.0008	0.0070	0.0029
	(0.2262)	(0.3583)	(0.2528)	(0.0418)	(0.1824)	(0.0536)	(0.0057)	(0.0095)	(0.0053)	(0.0031)	(0.0114)	(0.0024)
IND	0.9028***	0.1153	0.1356	0.1220	-0.0338	0.0569	0.0011	0.0110	0.0051	0.0012	0.0112	-0.0041
	(0.2390)	(0.1559)	(0.1576)	(0.0765)	(0.0410)	(0.0421)	(0.0051)	(0.0151)	(0.0116)	(0.0050)	(0.0137)	(0.0052)
CEO	0.0297	0.0160	0.0175	0.0196***	0.0115	0.0145***	-0.0003	-0.0017	-0.0013	-0.0004	-0.0015	-0.0006
	(0.0211)	(0.0191)	(0.0191)	(0.0063)	(0.0073)	(0.0052)	(0.0007)	(0.0012)	(0.0010)	(0.0009)	(0.0012)	(0.0007)
NNP	-0.1024***	0.0576***	0.0491***	-0.0451***	0.0016	-0.0070	0.0005	0.0023***	0.0020***	0.0002	0.0017*	0.0009*
	(0.0162)	(0.0115)	(0.0101)	(0.0074)	(0.0083)	(0.0047)	(0.0005)	(0.0007)	(0.0007)	(0.0006)	(0.0008)	(0.0005)
OCH	-0.0079	-0.0227	-0.0172	0.0103	-0.0320**	-0.0059	0.0012	-0.0008	-0.0005	0.0013	-0.0005	0.0012
	(0.0419)	(0.0283)	(0.0261)	(0.0124)	(0.0132)	(0.0099)	(0.0012)	(0.0019)	(0.0014)	(0.0010)	(0.0016)	(0.0008)
CEN	-0.0298	0.0341	0.0260	-0.0279**	0.0179	-0.0041	-0.0008	0.0001	0.0001	-0.0054***	0.0057	0.0028
	(0.0461)	(0.0677)	(0.0562)	(0.0118)	(0.0162)	(0.0136)	(0.0018)	(0.0032)	(0.0027)	(0.0010)	(0.0038)	(0.0019)
LOC	-0.0578	0.0322	0.0276	-0.0334	0.0039	-0.0148	0.0023	0.0015	0.0020	-0.0035**	0.0070*	0.0043**
	(0.0396)	(0.0571)	(0.0451)	(0.0199)	(0.0148)	(0.0160)	(0.0019)	(0.0025)	(0.0022)	(0.0015)	(0.0032)	(0.0018)
PRI	0.0528	0.0783	0.0656	-0.0082	0.0117	0.0186	0.0085***	0.0117***	0.0095***	0.0009	0.0140***	0.0080***
	(0.0413)	(0.0711)	(0.0609)	(0.0195)	(0.0177)	(0.0180)	(0.0018)	(0.0030)	(0.0025)	(0.0015)	(0.0034)	(0.0017)
SIZ	-10.5671***	-17.4934***	-15.5626***	-2.3578***	-6.6119***	-2.0123***	0.1389***	0.0994***	0.1346***	0.1076***	0.1187***	0.1019***
	(0.5152)	(0.4498)	(0.4628)	(0.1551)	(0.1976)	(0.1042)	(0.0120)	(0.0266)	(0.0123)	(0.0217)	(0.0346)	(0.0179)
DAR	0.0168	0.2819***	0.2544***	0.0247	0.1351***	0.0355	-0.0691***	-0.0938***	-0.0846***	-0.0543***	-0.0869***	-0.0546***
	(0.1068)	(0.0757)	(0.0791)	(0.0374)	(0.0402)	(0.0309)	(0.0036)	(0.0099)	(0.0067)	(0.0094)	(0.0182)	(0.0100)
AGE	0.3989***	0.2541***	0.2301***	0.0428***	0.0716***	0.0227***	0.0002	-0.0021*	-0.0021***	0.0011	-0.0025	-0.0007
	(0.0482)	(0.0301)	(0.0288)	(0.0082)	(0.0136)	(0.0048)	(0.0014)	(0.0011)	(0.0006)	(0.0011)	(0.0017)	(0.0006)
LIQ	0.0258***	0.0164***	0.0161***	0.0103***	0.0075***	0.0046***						
	(0.0006)	(0.0007)	(0.0007)	(0.0005)	(0.0004)	(0.0004)						

CAP	0.0156	-0.0245***	-0.0270***	0.0198***	-0.0058***	-0.0034***	-0.0030***	-0.0016***	-0.0019***	-0.0026***	-0.0013**	-0.0016***
	(0.0089)	(0.0036)	(0.0039)	(0.0056)	(0.0018)	(0.0012)	(0.0005)	(0.0005)	(0.0004)	(0.0004)	(0.0005)	(0.0002)
RCV	-0.1768***	-0.2124***	-0.2179***	-0.0500***	-0.0893***	-0.0259***	-0.0109**	-0.0135***	-0.0138***	-0.0099**	-0.0127***	-0.0114***
	(0.0285)	(0.0259)	(0.0229)	(0.0049)	(0.0194)	(0.0053)	(0.0035)	(0.0020)	(0.0024)	(0.0044)	(0.0027)	(0.0041)
PRO	1.1655***	0.7674***	0.8284***	-0.0798	-0.0584	-0.0526						
	(0.1303)	(0.0939)	(0.0966)	(0.0865)	(0.0662)	(0.0591)						
OUT	0.0273				-0.0103					-0.0076**		
	(0.0645)				(0.0381)					(0.0025)		
Constant	10.4650***	18.5880***	16.9004***	2.7182***	7.0061***	2.2403***	-0.0618**	-0.0132	-0.0454***	-0.0531*	-0.0466	-0.0445***
	(0.4611)	(0.5571)	(0.5087)	(0.1900)	(0.2336)	(0.1033)	(0.0240)	(0.0289)	(0.0162)	(0.0252)	(0.0323)	(0.0155)
Observations	33129	33129	33129	27294	27294	27294	33919	33919	33919	27897	27897	27897
R-squared	0.3564			0.7771			0.1769			0.2201		
Number of stkcd		1181	1181		1180	1180		1181	1181		1178	1178
Adjusted R-squared		0.5144			0.7587			0.1331			0.1400	

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FE	RE	FE	RE	FE	RE	FE	RE
VARIABLES	**TOB**	**TOB**	**ROA**	**ROA**	**TOB**	**TOB**	**ROA**	**ROA**
Y_{t-1}					0.7147***	0.7707***	0.0817***	0.1481***
					(0.0044)	(0.0039)	(0.0058)	(0.0057)
QFH	0.1583**	0.1766**	0.0016	0.0047	0.1713***	0.2066***	0.0008	0.0052
	(0.0710)	(0.0695)	(0.0049)	(0.0049)	(0.0611)	(0.0577)	(0.0055)	(0.0053)
MFJ	0.1248***	0.1631***	0.0050***	0.0067***	0.0756***	0.1134***	0.0051***	0.0071***
	(0.0099)	(0.0095)	(0.0007)	(0.0007)	(0.0088)	(0.0082)	(0.0008)	(0.0007)
FUC	0.1618***	-0.0054	0.0029	0.0029	0.0047	-0.0414	0.0102***	0.0075**
	(0.0495)	(0.0457)	(0.0033)	(0.0030)	(0.0390)	(0.0315)	(0.0035)	(0.0030)
FRE	0.1008*	0.0609	-0.0047	-0.0005	0.0604	0.0193	-0.0020	0.0004
	(0.0550)	(0.0430)	(0.0049)	(0.0022)	(0.0645)	(0.0180)	(0.0058)	(0.0019)
FLP	0.0970**	-0.0107	-0.0005	-0.0030	0.0433*	0.0282	0.0011	-0.0019
	(0.0429)	(0.0384)	(0.0021)	(0.0020)	(0.0251)	(0.0203)	(0.0022)	(0.0019)
SHC	0.8046**	-1.8691***	0.0481***	0.0380***	-0.0935	-0.3741***	0.0495***	0.0257**
	(0.3150)	(0.2681)	(0.0157)	(0.0127)	(0.1798)	(0.1215)	(0.0160)	(0.0118)
SHQ	-0.6436*	3.1167***	-0.0101	-0.0028	0.5937***	1.0684***	-0.0264	0.0055
	(0.3464)	(0.3044)	(0.0172)	(0.0147)	(0.2004)	(0.1437)	(0.0180)	(0.0138)
MFC	-0.0384***	0.0743***	0.0040***	0.0040***	0.0317***	0.0487***	0.0023***	0.0032***
	(0.0101)	(0.0094)	(0.0005)	(0.0005)	(0.0064)	(0.0049)	(0.0006)	(0.0005)
BSH	0.5427**	0.5066***	0.0388***	0.0280***	0.2035	0.2423***	0.0084	0.0097
	(0.2523)	(0.1940)	(0.0141)	(0.0091)	(0.1729)	(0.0828)	(0.0152)	(0.0082)
IND	0.9419***	0.5872***	0.0194**	0.0157**	0.2445***	0.1433**	0.0146*	0.0072
	(0.1377)	(0.1233)	(0.0077)	(0.0069)	(0.0885)	(0.0711)	(0.0079)	(0.0067)
CEO	0.0296*	0.0112	-0.0010	-0.0011	0.0124	0.0178**	-0.0009	-0.0009
	(0.0177)	(0.0158)	(0.0010)	(0.0008)	(0.0112)	(0.0083)	(0.0010)	(0.0008)
NNP	0.0633***	-0.0800***	0.0013***	0.0013***	-0.0433***	-0.0604***	0.0008	0.0004
	(0.0081)	(0.0078)	(0.0004)	(0.0004)	(0.0062)	(0.0050)	(0.0005)	(0.0005)
OCH	0.2894***	0.0048	-0.0041*	-0.0001	0.0193	0.0024	-0.0023	0.0006
	(0.0331)	(0.0255)	(0.0022)	(0.0016)	(0.0250)	(0.0170)	(0.0023)	(0.0016)
CEN	0.1294***	-0.0484	-0.0011	-0.0004	0.0286	-0.0296	0.0071**	0.0036
	(0.0479)	(0.0430)	(0.0030)	(0.0027)	(0.0360)	(0.0275)	(0.0032)	(0.0026)
LOC	0.1559***	0.0436	0.0006	0.0017	0.0282	-0.0282	0.0087**	0.0051*
	(0.0517)	(0.0457)	(0.0032)	(0.0028)	(0.0380)	(0.0283)	(0.0034)	(0.0027)
PRI	0.2095***	0.0607	0.0090***	0.0099***	0.0321	-0.0036	0.0145***	0.0106***
	(0.0457)	(0.0420)	(0.0030)	(0.0027)	(0.0355)	(0.0278)	(0.0032)	(0.0027)
SIZ	-10.5667***	-12.8683***	0.1250***	0.1699***	-5.3330***	-3.1952***	0.1828***	0.1350***
	(0.2310)	(0.2256)	(0.0113)	(0.0101)	(0.1660)	(0.1023)	(0.0152)	(0.0094)
DAR	0.1318***	0.0947***	-0.0958***	-0.0876***	0.0953***	0.0527***	-0.0876***	-0.0693***
	(0.0385)	(0.0338)	(0.0019)	(0.0016)	(0.0244)	(0.0173)	(0.0021)	(0.0017)
AGE	1.3914***	0.5800***	0.0045***	0.0016**	0.2535***	0.0667***	0.0016	0.0012
	(0.0284)	(0.0173)	(0.0012)	(0.0008)	(0.0155)	(0.0083)	(0.0013)	(0.0008)
LIQ	0.0187***	0.0196***			0.0142***	0.0120***		
	(0.0003)	(0.0003)			(0.0003)	(0.0003)		
CAP	0.0418***	0.0345***	-0.0032***	-0.0034***	0.0334***	0.0276***	-0.0032***	-0.0031***

	(0.0016)	(0.0015)	(0.0001)	(0.0001)	(0.0016)	(0.0014)	(0.0001)	(0.0001)
RCV	-0.1868***	-0.2915***	-0.0144***	-0.0127***	-0.1200***	-0.0898***	-0.0133***	-0.0116***
	(0.0214)	(0.0204)	(0.0014)	(0.0013)	(0.0166)	(0.0139)	(0.0015)	(0.0013)
PRO	0.0197	0.1325***			-0.1470***	-0.1023***		
	(0.0400)	(0.0384)			(0.0373)	(0.0337)		
Constant	-0.0098	11.2567***	-0.0754***	-0.1037***	4.0704***	3.5267***	-0.1425***	-0.0823***
	(0.0214)	(0.2642)	(0.0054)	(0.0125)	(0.1517)	(0.1308)	(0.0158)	(0.0122)
Observations	31948	33129	32738	33919	26114	27294	26719	27897
Number of stkcd	1180	1181	1180	1181	1178	1180	1178	1178
Adjusted R-squared	0.2308		0.0772		0.6563		0.0767	

Standard errors in parentheses
***** p<0.01, ** p<0.05, * p<0.1**

Table Note: QFH (QFII High) is same as QFI binary variable except that QFH=1 only if percentage of entire firm held by QFII≥5%. Table note: Hausman test p-value (H0: Fixed effects preferred model): 0.000 consistently.