DOI:10.5235/JCLS.12.2.333

THE GOVERNANCE AND PERFORMANCE OF CHINESE COMPANIES LISTED ABROAD: AN ANALYSIS OF CHINA'S MERITS REVIEW APPROACH TO OVERSEAS LISTINGS

MARK HUMPHERY-JENNER*

This paper analyses the governance and performance of Chinese companies that are listed in the United States. The analysis comes against the backdrop of increasing concern about such companies' governance practices. This concern is curious given the purported 'merits' review that Chinese regulators undertake prior to allowing a cross-listing. Thus, this paper compares Chinese companies listed in the US with other US companies and other non-US companies listed in the US. The paper indicates that Chinese companies do not have significantly worse governance or earnings-management practices. They also appear to have stronger operating performance and are less likely to delist.

A. Introduction

Chinese companies listed in the US have come under increasingly scrutiny. On 30 September 2011, the US Securities Exchange Commission (SEC) announced that it would probe the accounting practices of Chinese companies.[1] Further, 27 class actions were lodged against Chinese companies in the first half of 2011.[2] This is interesting, given (i) the power that the Chinese regulator (the Chinese Securities Regulatory Commission (CSRC)) has to conduct a merits review of all applications of Chinese companies to list in the US and (ii) the need to have audited financial statements to satisfy US listing requirements.

* Australian School of Business, University of New South Wales, and School of Law, Singapore Management University. I thank the editor (Richard Nolan) and an anonymous reviewer for their comments. This paper partially reprints, but significantly builds on, my prior work in TCLR.

1 See, eg the report at http://blogs.wsj.com/marketbeat/2011/09/29/chinese-stocks-crushed-on-report-of-doj-probe/ (all URLs last accessed on 29 August 2012).

2 E Buckberg and M Gulker, "Cross-Border Shareholder Class Actions Before and After Morrison" (NERA Economic Consulting, 2011), figure 1.

This article asks the question: has the CSRC effectively screened international listings by Chinese companies? I examine this issue by investigating the operating performance and delisting probability of Chinese companies that list in the US. I show that these companies do not have demonstrably worse governance characteristics, have lower levels of earnings management, have stronger operating results and have lower delisting likelihoods than other companies listed in the US (whether they are incorporated in the US or elsewhere). This provides some support for China's restrictions on foreign issues by Chinese companies, and for the CSRC's merits review practices.

Chinese companies can issue shares abroad only if the Chinese securities regulator, the CSRC, approves it.[3] The CSRC has broad discretion over the approval. This discretion could be detrimental if the CSRC prevents high-quality companies from issuing shares overseas, and there have been some calls for a move towards a purely "disclosure"-based system. However, the discretion could also be beneficial if it restricts overseas listings to strong and well-governed companies. This is analogous to the merits review that the CSRC imposes on companies that aim to list on a Chinese stock market.[4] The benefit arises from an improved corporate and governance reputation for Chinese companies.

China can strengthen its corporate reputation if only strong and well-governed companies list abroad. China has a comparatively large number of poorly governed companies. Companies with poor governance structures are more likely to commit accounting fraud or securities misconduct. In such companies, managers have an incentive, and the means (due to the poor governance structures), to engage in conduct such as earnings management that might create the appearance of artificially strong earnings.[5] This is a problem, because poor governance can facilitate corporate fraud[6]. For example, prior literature shows that earnings management is lower in firms that have an audit committee who is financially sophisticated[7] and independent,[8] and/

[3] Art 2 of the Special Provisions of the State Council on Issuing and Listing of Shares Abroad by Companies Limited by Shares (Decree No 160 of the State Council of the People's Republic of China, promulgated on 4 August 1994). Full text is available at http://www.csrc.gov.cn/pub/csrc_en/laws/rfdm/AdministrativeLaws/200907/t20090729_119394.htm and at http://www.asianlii.org/cn/legis/cen/laws/spotscctfalaosblsc1081/.

[4] On this see RH Huang, "The Regulation of Securities Offerings in China: Reconsidering the Merit Review Element in Light of the Global Financial Crisis" (2011) 41(1) *Hong Kong Law Journal* 261.

[5] B Xie, WN Davidson and PJ DaDalt, "Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee" (2003) 17(5) *Journal of Corporate Finance* 295.

[6] G Chen, M Firth, D Gao and OM Rui, "Ownership Structure, Corporate Governance, and Fraud: Evidence from China" (2006) 12(3) *Journal of Corporate Finance* 424; L Peng and A Röell, "Executive Pay and Shareholder Litigation" (2008) 12(1) *Review of Finance* 141; ML Humphery-Jenner, "Internal and External Discipline Following Securities Class Actions" (2012) 21(1) *Journal of Financial Intermediation* 151.

[7] Xie *et al*, *supra* n 5.

[8] A Klein, "Audit Committee, Board of Director Characteristics, and Earnings Management" (2002) 33(3) *Journal of Accounting and Economics* 375.

or who have a board with representatives from financial intermediaries or blockholders. Subsequently, Allen *et al*[9] and Chen *et al*[10] argue that poor corporate governance reduces the performance of listed Chinese companies. This is a significant issue in China because the policing and detection of fraud has received criticism.[11] Subsequently, the combination of (i) arguably lax governance laws and (ii) a lack of policing might enable poorly governed companies to commit undetected fraud. Subsequently, China might restrict foreign listings in order to protect its commercial reputation.

The securities regulations allow the CSRC to restrict overseas listings by Chinese companies. Articles 10, 12 and 13 of the PRC Securities Law allow the CSRC to formulate regulations on the issuance of shares abroad.[12] Under the law, the CSRC has promulgated regulations on the issuance of foreign shares.[13] Article 2 of these regulations states that a Chinese company can issue non-Chinese shares only if the CSRC approves the issue. The regulations do not state how the CSRC will decide whether to approve the issue. Instead, the CSRC has broad discretion over whether to allow a foreign issue.

The CSRC could use this discretion beneficially. It could use its discretion to prevent poor governance companies from listing overseas, for example, if they have a weak board, with few independent directors. Given the well-documented link between governance and performance,[14] this would have the effect of restricting overseas issuances to well-performing companies. The effect would be to improve China's commercial reputation by preventing poorly performing companies from issuing shares overseas.

This paper tests whether the CSRC has exercised its discretion effectively to restrict foreign share-issuances to well-performing companies. I do this by examining the operating performance of Chinese companies that are listed in the US between 1990 and 2009. The sample comprises 94,780 firm-year observations. Of these, 668 relate to firms that incorporate in China (and list

9 F Allen, J Qian and M Qian, "Law, Finance, and Economic Growth in China" (2005) 77(1) *Journal of Financial Economics 57*.

10 GM Chen, M Firth and OM Rui, "Have China's enterprise Reforms Led to Improved Efficiency and Profitability?" (2006) 7(1) *Emerging Markets Review* 82.

11 ML Humphery-Jenner, "Securities Fraud Compensation: A Legislative Scheme Drawing on China, the US and the UK" (2011) 38(2) *Legal Issues of Economic Integration* 143; G Chen, M Firth and DN Gao, "Is China's Securities Regulatory Agency a Toothless Tiger? Evidence from Enforcement Actions" (2005) 24(6) *Journal of Accounting and Public Policy 451*.

12 See also Art 132 of the Companies Law of the People's Republic of China 2005. Full text available at http://www.csrc.gov.cn/pub/csrc_en/laws/rfdm/statelaws/200904/t20090428_102712.htm.

13 See Decree No 160, *supra* n 3.

14 See, eg L Bebchuk, A Cohen and A Ferrell, "What Matters in Corporate Governance?" (2009) 22(2) *Review of Financial Studies* 783; P Gompers, J Ishii and A Metrick, "Corporate Governance and Equity Prices" (2003) 118(1) *Quarterly Journal of Economics* 107; RW Masulis, C Wang and F Xie, "Corporate Governance and Acquirer Returns" (2007) 62(4) *Journal of Finance* 1851; RW Masulis, C Wang and F Xie, "Agency Problems at Dual-Class Companies" (2009) 64(4) *Journal of Finance* 1697.

in the US). I compare the sample of Chinese companies to the sample of non-Chinese companies. I also compare it to a sample of other non-US companies (that also list in the US). The purpose of the comparison is to assess whether Chinese companies have a stronger operating performance than other companies, and thus to see whether the CSRC has effectively fulfilled its screening role.

I show that the Chinese companies listed in the US do not have demonstrably worse governance, have lower levels of earnings management, have higher operating results and are less likely to delist from the US stock market when compared with other companies listed on the US market (and other non-US companies that list on the US market[15]). This suggests that only relatively strong Chinese companies list in the US—which implies that the CSRC has effectively prevented weaker companies from listing there and has thus exercised its discretion effectively. This suggests that the CSRC's actions are indeed designed to strengthen China's commercial reputation.

There are a few limitations in this study that provide avenues for future analysis. For example, there are no data on the number of rejected applications to issue shares in the US. Thus, I cannot definitely reject the possibility that only strong companies apply to issue shares (and thus any conclusions about the CSRC may be spurious). However, I aim to mitigate this by comparing the Chinese companies to a sample of non-US firms that also issue shares in the US, so are thus similarly likely to suffer from self-selection issues. Further, I cannot conclude whether the CSRC has prevented any meritorious companies from issuing shares in the US. This provides a clear way for future research to extend this study.

The findings in this paper have significant policy implications. They provide some support for the existing system of merits review, whereby the CSRC can selectively decide which firms can issue shares abroad. This contrasts with a system where any company with adequate disclosure can list. The results imply that the merits review system limits foreign listings to well-governed/well-performing companies. This provides evidence in favour of the current system and implies that the current system achieves a policy benefit of strengthening China's commercial reputation.

The structure of this paper is as follows. First, I outline the legal background in China and in the US. Secondly, I provide a set of empirical predictions that should hold if China's merits review approach has been effective. Thirdly, I describe the data. Fourthly, I discuss the methodology and analysis. Fifthly,

[15] I acknowledge that performance of Chinese companies might merely reflect self-selection into listing overseas. However, I mitigate this problem by comparing Chinese companies to other non-US companies that list in the US (and thus might have the same self-selection issue). Further, this self-selection issue is arguably less severe for Chinese companies because weaker Chinese companies might also want to list in the US to gain access to capital. This means that both strong and weak Chinese companies might want to issue shares abroad.

I conclude that Chinese companies listed in the US have stronger operating results, lower delisting likelihoods and lower levels of earnings management, and do not have demonstrably worse governance (when compared with either other firms listed in the US, or the sub-sample of other non-US firms listed in the US). These results are consistent with the idea that China's merits review approach to overseas listings has been effective.

B. Legal Background

This section summarises the relevant law surrounding the issuance of shares in the US by Chinese companies. I focus on the law in China rather than on the listing requirements in the US. The aim is to show that China has the infrastructure for a fully functioning merits-based system whereby the CSRC can restrict foreign issuances to strong and well-performing companies.

1. Chinese Restrictions on Listings Abroad

The most relevant legislation is the PRC Securities Law and the PRC Companies Law. A company can issue shares only if the CSRC approves it (PRC Securities Law Article 10). Issuing shares without approval attracts criminal and civil penalties. The criminal penalties can include imprisonment (PRC Criminal Law Article 179). The civil penalties include fines (of between 1 and 5% of the amount raised) and having to refund the amount of the issuance (PRC Securities Law Article 188). These provisions apply to both domestic and foreign issuances.

The CSRC has the power to determine whether to approve the issuance of shares. The CSRC exercises this power under Securities Law Articles 12 and 13. Article 13 pertains only to initial public offerings (IPOs), although this is not restricted to IPOs in China. Importantly, a company can have an IPO only if it has a "complete and well-operated organization", has "the capability of making profits continuously" and has "no false record in its financial statements over the lasts 3 years". The company must also meet other requirements that the CSRC imposes. The discretion is broad.

The State Council has promulgated regulations on when a firm can issue shares overseas. The regulations state that a Chinese firm can list abroad only if the CSRC approves it.[16] The regulations do not state the criteria that the CSRC uses to determine whether a company can issue shares overseas. However, it is arguable that the CSRC should exercise its discretion to restrict foreign listings to companies that meet the IPO requirements stipulated in Article 13 of the Securities Law (that the company be operated well and be profitable). This is

[16] See Art 2 of Decree No 160, *supra* n 3.

because the first offering in another market is effectively an IPO, so could come within Article 13, and because the policy underlying Article 13 is to promote financial stability and confidence in the market, which might be undermined if poor-quality companies could simply issue shares overseas and circumvent domestic listing requirements.

Overall, the listing requirements suggest that the CSRC would impose a merits review on the issuance of foreign shares by Chinese companies. This merits review would restrict the issuance of securities to well-governed and profitable companies. The issue is whether the CSRC has effectively exercised this discretion.

2. US Listing Requirements

This section describes the details of the US listing requirements; the next section considers continuous disclosure and governance obligations. The Chinese system contrasts with the system in the US. The US imposes relatively few restrictions on US companies listing either at home or abroad, and imposes few restrictions on non-US companies listing in the US. The SEC has no formal listing requirements.[17]

The New York Stock Exchange (NYSE) has separate listing requirements for US companies and for non-US companies.[18] The non-US companies can choose to comply with one of two listing standards.[19] The "worldwide" standards judge the company's eligibility on its global presence and distribution of shares. The "domestic" standards judge the company on its distribution of shares in the US. Both standards have a set of baseline financial requirements. The domestic rules impose the least stringent requirements on financials. Both standards apply to initial listings and to reverse mergers (acquisitions of shell companies for the purpose of listing in the US).[20] In addition to base distribution requirements, the requirements come in two types:[21]

1. Financial requirements: the minimum requirement is either (i) an aggregate USD 10m pre-tax income for the past three years and a minimum USD 2m pre-tax income for the past two years or (ii) a USD 12m aggregate pre-tax income for the past three years, a USD 5m pre-tax income for the past year and a USD 2m pre-tax income for the next most recent

[17] The SEC states this on their website. See http://www.sec.gov/answers/listing.htm.
[18] See http://usequities.nyx.com/regulation/listed-companies-compliance/listings-standards.
[19] NYSE Listed Company Manual, s 103.00.
[20] *Ibid*, s 103.01.
[21] The discussion here presents a slightly abridged version of the NYSE listing standards. A full discussion is available at http://usequities.nyx.com/regulation/listed-companies-compliance/listings-standards/non-us.

year.[22] Both require a minimum global market capitalisation of USD 500m, revenues of the past 12-months of USD 100m.

2. Valuation/revenue requirements: here the minimum requirements are compliance with either (i) a global market capitalisation of USD 500m, revenues over the past 12 months of USD 100m and aggregate cash flow over the past 3 years of USD 25m or (ii) a global market capitalisation of USD 750m and revenues in the most recent year of USD 75m.

The general tenor of these requirements suggests that only relatively large companies can list on the NYSE. However, other than the black letter requirements, there is no merits review requirement per se.

NASDAQ's listing standards are less onerous than are NYSE's.[23] In order to list on the NASDAQ capital market, the company must comply with one of column A, B or C in Table 1. The standards are relatively less stringent than are the apparent standards that the CSRC imposes.

Overall, the listing requirements in the US are relatively stringent.[24] However, they do not incorporate a merits review process. This is an especially important difference for firms that list on NASDAQ, where there are limited requirements in terms of profitability and size. However, listing in China imposes additional requirements in terms of continuing disclosure and governance. The next section considers these requirements.

3. Post-listing Obligations

The post-listing obligations are more stringent in the US than in China. They are of two main (presently relevant) types: governance and continuous listing. The continuous listing requirements raise the potential for securities class actions.

(a) Governance Requirements

The governance requirements come in the form of (i) general legal requirements and (ii) additional requirements that the stock exchange might impose.

For non-US companies, the stock-exchange requirements are less important than are the legal requirements. NASDAQ exempts foreign issuers (ie Chinese companies listing in the US) from its governance rules (contained in NASDAQ

[22] *Ibid*.

[23] For a full description of the listing standards see NASDAQ, *Listing Standards & Fees* (NASDAQ, 2010). The document is available at https://listingcenter.nasdaqomx.com/assets/initialguide.pdf.

[24] For an evaluation of the relative strength of different exchange rules see D Cumming, S Johan and D Li, "Exchange Trading Rules and Stock Market Liquidity" (2011) 99(3) *Journal of Financial Economics* 651.

Table 1: Listing Standards for the NASDAQ Capital Market

Column	A	B	C
Standard	Equity Standard Listing Rules 5505(a) and 5505(b)(1)	Market Value of Listed Securities Standard Listing Rules 5505(a) and 5505(b)(2)	Net Income Standard Listing Rules 5505(a) and 5505(b)(3)
Stockholders' equity	USD 5m	USD 15m	USD 4m
Market value of publicly held shares	USD 15m	USD 15m	USD 5m
Operating history	2 years	N/A	N/A
Market value of listed shares	N/A	USD 50m	N/A
Net income in the latest fiscal year or two of the three past years	N/A	N/A	USD 0.75m
Bid price	USD 4	USD 4	USD 4
Publicly held shares	1m	1m	1m
Shareholders	300	300	300
Market makers	3	3	3
Needs compliance with corporate governance standards	Yes	Yes	Yes

Equity Rule 5600).[25] NYSE exempts foreign companies from most of its governance requirements;[26] however, it requires foreign companies to disclose and explain situations where their governance differs from that of other US firms that comply with the rules,[27] and to have an audit committee that complies with Rule 10A-3 of the Exchange Act.[28]

The general legal requirements vis-à-vis governance can be onerous. The more onerous governance requirements are in the Sarbanes-Oxley Act (SOX).[29] SOX applies to both US and non-US companies.[30] The requirements in SOX

[25] For a summary of the rules see NASDAQ, *Regulatory Requirements* (NASDAQ, 2010), 1–4. The summary is available at http://www.nasdaq.com/about/RegRequirements.pdf. The exemption for foreign companies is in Equity Rule 5615(c).

[26] NYSE Listed Company Manual, Rule 303A.00.

[27] *Ibid*, Rule 303A.11.

[28] This compliance requirement is in *ibid*, Rule 303A.06.

[29] The full text of SOX is available at http://www.sec.gov/about/laws/soa2002.pdf.

[30] SOX applies to "issuers" of securities as defined in s 2 of the Act, which incorporates s 3 of the Securities Exchange Act of 1934, which defines an issuer as "any person who issues or proposes to issue any security".

are onerous and potentially costly.[31] SOX contains myriad specific requirements; however, five such requirements are illustrative:

- CEOs and CFOs must certify financial reports, make more timely disclosures and provide more information about off-balance sheet items.
- SOX mandates that firms have internal control systems for financial reporting and requires managers to assess the effectiveness of these systems.
- SOX imposes stringent requirements on the audit committee, requiring all members to be "independent" and obligating firms to report if any member is a financial expert.
- SOX limits an insider's ability to earn profits from trading shares; managers must disclose trades within 2 days (rather than within 10 days under the prior requirements) and must disgorge any profits earned on such trades in the case of financial misconduct.
- SOX creates new criminal offences, including offences pertaining to the destruction of documents and knowingly certifying incorrect financial reports.

These obligations are relatively onerous. The most significant differences from the Chinese laws are in relation to the continuous disclosure requirements and the audit committee requirements. In particular, the literature reports significant evidence of earnings management amongst Chinese listed companies, some of which is motivated by the desire to meet listing requirements (such as the minimum ROE requirement for a rights issue[32] and regulations requiring IPO prices to be a function of earnings[33]). Subsequently, the cost of complying with SOX has arguably induced many companies to delist from the US (although this mainly occurred after Rule 12h-6 made it easier for firms to do so[34]).

There are significant penalties in the US if a company does not comply. Some violations are criminal offences. The SEC and Department of Justice have the power to issue enforcement orders. Karpoff *et al*[35] identified 788 enforcement actions between 1978 and 2006. They indicated that the managers responsible for the violations suffered significant reputational, employment and financial

[31] See, eg IX Zhang, "Economic Consequences of the Sarbanes-Oxley Act of 2002" (2007) 44(1–2) *Journal of Accounting and Economics* 74; E Engel, RM Hayes and X Wang, "The Sarbanes–Oxley Act and Firms' Going-Private Decisions" (2007) 44(1–2) *Journal of Accounting and Economics* 116.

[32] Q Yu, B Du and Q Sun, "Earnings Management at Rights Issues Thresholds—Evidence from China" (2006) 30(12) *Journal of Banking and Finance* 3453.

[33] JL Kao, D Wu and Z Yang, "Regulations, Earnings Management, and Post-IPO Performance: The Chinese Evidence" (2009) 33(1) *Journal of Banking and Finance* 63.

[34] C Doidge, GA Karolyi and RM Stulz, "Why Do Foreign Firms Leave US Equity Markets?" (2010) 65(4) *Journal of Finance* 1507.

[35] JM Karpoff, DS Lee and GS Martin, "The Consequences to Managers for Financial Misrepresentation" (2008) 88 *Journal of Financial Economics* 193.

penalties. Further, companies who violate governance rules suffer significant reputational penalties.[36]

The governance requirements contrast with those in China. China imposes some relatively strong governance requirements, which have strengthened over time.[37] Though relatively strong, they are poorly enforced.[38] Three key aspects of the governance reforms are illustrative:[39]

1. The adoption of the "Basic Accounting Standards for Business Enterprises" in February 2006. These apply to all listed companies and comprise a set of 38 standards that are broadly, although arguably not entirely, in line with the International Financial Reporting Standards.
2. A set of 48 auditing requirements for certified public accountants aim to align China's auditing practices with those required under the International Standards of Auditing.
3. The "Code of Corporate Governance for Listed Companies in China" was instigated in 2002. This requires companies to have independent directors, to have at least one independent director who is a professional accountant and to hold directorial elections at least every three years. These governance requirements are arguably comparable to international standards.[40] However, the requirements are less onerous (ie do not require a fully independent audit committee) and more vague (eg Section 52 of the Code of Corporate Governance for Listed Companies in China states that a company "may" establish an audit committee). Chinese companies that more fully comply with the governance standards tend to feature lower levels of earnings management,[41] and usually have better incentivised managers.

[36] J Karpoff and J Lott, "The Reputational Penalty Firms Bear from Committing Criminal Fraud" (1993) 36 *Journal of Law and Economics* 757; S Chava, K Huang and SA Johnson, "Why Won't You Forgive Me? The Dynamics of Borrower Reputation Following Financial Misreporting", working paper (2012), available at http://dx.doi.org/10.2139/ssrn.2012691.

[37] SH Goo and FX Hong, "The Curious Model of Internal Monitoring Mechanisms of Listed Corporations in China: The Sinonisation Process" (2011) 12(3) *European Business Organization Law Review* 469.

[38] CEIBS, "Towards Mature Corporate Governance Standards in China", *Forbes India*, 2 December 2011, available at http://forbesindia.com/article/ceibs/towards-mature-corpo-rate-governance-standards-in-china/30552/1.

[39] For a summary of these reforms see CFA Institute, "China Corporate Governance Survey" (2007); DC Clarke, "The Independent Director in Chinese Corporate Governance" (2006) 31(1) *Delaware Journal of Corporate Law 125*.

[40] CFA Institute, *ibid*; CEIBS, *supra* n 38; Q Liu, "Corporate Governance in China: Current Practices, Economic Effects and Institutional Determinants" (2006) 52(2) *CESifo Economic Studies* 415.

[41] Q Liu and Z Lu, "Corporate Governance and Earnings Management in the Chinese Listed Companies: A Tunneling Perspective" (2007) 13(5) *Journal of Corporate Finance* 881; AWY Lo, RMK Wong and M Firth, "Can Corporate Governance Deter Management from Manipulating Earnings? Evidence from Related-Party Sales Transactions in China" (2010) 16(2) *Journal of Corporate Finance* 225; MJ Conyon and L He, "Executive Compensation and Corporate Governance in China" (2011) 17(4) *Journal of Corporate Finance* 1158; M Firth, PMY Fung and

Subsequently, while governance standards in China have the potential to be strong, they are less onerous than the standards in the US.

The main remedy for non-compliance is an enforcement action (I discuss shareholder class actions for non-disclosures below). Anderson[42] argues that the CSRC is ineffective and has failed to detect major frauds. Other literature, however, suggests that the CSRC disciplines both companies and regulators effectivelyIn relation to the discipline of companies, Huang[43] argues that the CSRC is committed to detecting and eliminating fraud (although this may suffer impediments due to "certain path dependencies"). Chen *et al*[44] argue that the CSRC is relatively effective at detecting and sanctioning fraudulent behaviour. They also find that firms that receive sanctions from the CSRC suffer a negative market reaction, and are more likely to replace their CEO. Similarly, Liebman and Milhaupt[45] find that the CSRC can effectively discipline companies through public comments. Further, Jia *et al*[46] find that supervisory boards do respond to enforcement actions by improving their monitoring (ie by meeting more frequently), but tend not to act proactively to prevent enforcement actions or to detect fraud. Subsequently, Layton[47] argues that enhancing the CSRC's resources will render it an effective agency to detect, punish and deter fraud.

In relation to the discipline of auditors, Firth *et al*[48] analyse the penalties imposed on auditors for failing to detect disclosure-based frauds and transaction-based frauds. They find that the CSRC is less likely to impose penalties for failing to detect disclosure-based frauds (ie related party transactions) and that the CSRC focuses more on egregious frauds. They suggest that the unequal focus is because the CSRC is attempting to address emerging problem areas.

The overall tenor of this analysis is that, whilst governance in China is improving, the governance regime in the US is more stringent. This suggests that it would be logical to restrict access to US markets only to Chinese

OM Rui, "Corporate perforMance and CEO Compensation in China" (2006) 12(4) *Journal of Corporate Finance* 693.

42 DM Anderson, "Taking Stock in China: Company Disclosure and Information in China's Stock Markets" (2000) 88 *Georgetown Law Journal* 1919.

43 X Huang, "In Defence of China's Public Enforcement in Equity Market" (2010) 21(10) *International Company and Commercial Law Review* 327.

44 Chen *et al*, *supra* n 11.

45 BL Liebman and CJ Milhaupt, "Reputational Sanctions in China's Securities Market" (2008) 108 *Columbia Law Review* 928.

46 C Jia, S Ding, Y Li and Z Wu, "Fraud, Enforcement Action, and the Role of Corporate Governance: Evidence from China" (2009) 90(4) *Journal of Business Ethics* 561.

47 MA Layton, "Is Private Securities Litigation Essential for the Development of China's Stock Markets?" (2008) 83 *New York University Law Review* 1948 at 1978.

48 M Firth, PLL Mo and RMK Wong, "Financial Statement Frauds and Auditor Sanctions: An Analysis of Enforcement Actions in China" (2005) 62(4) *Journal of Business Ethics* 367.

companies which are relatively strong, and thus best suited to meet the US governance requirements.

(b) Continuous Disclosure Requirements

The continuous disclosure laws are similar in the US and in China. However, there is greater enforcement in the US.

The Chinese requirements are in Article 63 of the Chinese Securities Law. Article 63 states "The information as disclosed by issuers and listed companies according to law shall be authentic, accurate and complete and shall not have any false record, misleading statement or major omission". The Supreme People's Court has issued an interpretation of the relevant prior law.[49] The interpretation provides detailed information of when a company is liable to pay compensation for making a false statement. However, despite the detailed rules, there has been a dearth of class actions due to the restrictions on forming a class and commencing litigation.[50]

The US regulations stem from Rule 10b-5(b). The rules prohibit making an "untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading". Violation of the rules conveys a significant reputational penalty.[51] Unlike the corresponding rules in China, these rules have seen enforcement through class actions and regulatory proceedings.[52] Buckberg and Gulker[53] report data on 329 class actions issued against non-US companies. Further, of the 40 class actions filed against non-US companies in the first half of 2011, 27 were against Chinese companies.[54] While the ruling in *Morrison v National Australia Bank*[55] restricted access to such actions to shareholders who purchased securities on the US exchange (ie would exclude those who purchased their shares on a Chinese exchange), such class actions could

[49] See Some Provisions of the Supreme People's Court on Trying Cases of Civil Compensation Arising from False Statement in Securities Market (adopted at the 1261st meeting of the Judicial Committee of the Supreme People's Court on 26 December 2002; Interpretation No 2 [2003] of the Supreme People's Court).

[50] Humphery-Jenner, *supra* n 11; H Huang, "The Statutory Derivative Action in China: Critical Analysis and Recommendations for Reform" (2007) 42(1) *Berkeley Business Law Journal* 227.

[51] Karpoff and Lott, *supra* n 36.

[52] Karpoff *et al*, *supra* n 35; Karpoff and Lott, *ibid*; Humphery-Jenner, *supra* n 6; L Bai, JD Cox and RS Thomas, "Lying and Getting Caught: An Empirical Study of the Effect of Securities Class Action Settlements on Targeted Firms" (2011) 158(7) *University of Pennsylvania Law Review* 1877; A Gande and CM Lewis, "Shareholder-Initiated Class Action Lawsuits: Shareholder Wealth Effects and Industry Spillovers" (2009) 44 *Journal of Financial and Quantitative Analysis* 823.

[53] Buckberg and Gulker, *supra* n 2.

[54] Note that all of these 27 class actions were against companies which had listed via reverse merger, thereby avoiding the relevant merits review processes. Before 2010, relatively few class actions had been filed against Chinese companies.

[55] *Morrison v National Australia Bank Ltd*, 130 S Ct 2869, 2884 (2010).

still impose significant monetary and reputational costs.[56] Overall, this suggests that class actions are an effective disciplinary mechanism in the US, ensuring that Chinese companies comply with US continuing disclosure rules.

C. Empirical Predictions

The institutional background suggests that Chinese companies should have relatively strong governance characteristics. I use this to make four sets of empirical predictions.

1. Operating Performance

If the CSRC has conducted an effective merits review, then it might restrict overseas listings to companies that have strong operating performance. Of course, it is likely that cross-listed companies (ie foreign companies listed in the US) are typically larger and stronger than ordinary US companies, so all such foreign companies likely have stronger operating results. Nonetheless, I expect those of Chinese companies to be stronger than those of other non-US companies if China has conducted an effective merits review restriction on cross-listings and if Chinese governance reforms have been effective.

2. Governance Attributes

Chinese companies that list in the US should have relatively strong governance characteristics. This is for at least two reasons: (i) as indicated above, China has strengthened its governance requirements, implying that there should be a continued strengthening of corporate governance, especially compared with other non-US companies; and (ii) the CSRC imposes a merits review on all companies that aim to list in the US. If the CSRC conducts an effective merits review, then it should restrict listings abroad to relatively well governed companies.

There are several proxies for strong governance, including having a larger number of independent directors,[57] and the presence of a corporate governance

[56] For a full analysis of the economic consequences of *Morrison v National Australia Bank Ltd* see L Gagnon and GA Karolyi, "The Economic Consequences of the U.S. Supreme Court's *Morrison v National Australia Bank* Decision for Foreign Stocks Cross-Listed in US Markets", Johnson School Research Paper No 50-2011 (2011).

[57] RW Masulis and S Mobbs, "Are All Inside Directors the Same? Evidence from the External Directorship Market" (2011) 66(3) *Journal of Finance* 823; Humphery-Jenner, *supra* n 6; BD Nguyen and KM Nielsen, "The Value of Independent Directors: Evidence from Sudden Deaths" (2010) 98(3) *Journal of Fiancial Economics* 550; JF Cotter, A Shivdasani and M Zenner, "Do Independent Directors Enhance Target Shareholder Wealth during Tender Offers?" (1997) 43(2) *Journal of Financial Economics* 195. But see SP Ferris and X Yan, "Do Independent Directors

policy[58] and/or an ethics policy.[59] Additionally, higher levels of insider stock ownership might help to align shareholders' and managers' objectives. Of course, these governance attributes might be substitutes, such that companies can have strong governance by substituting different governance characteristics as is appropriate for the corporation.[60]

3. Earnings Management

I expect that Chinese companies will feature lower levels of earnings management. Earnings management involves the shifting of accounting entries in order to distort the company's profits and enable managers to meet earnings targets. It is a sign of poor corporate governance. A typical proxy for the level of earnings management is the level of discretionary accruals.[61] Subsequently, I expect that, if China's governance reforms have been effective and the CSRC has effectively performed its merits review function, then Chinese companies should feature lower levels of discretionary accruals than other companies.

4. Delisting

If Chinese companies are better governed, then they should be less likely to delist. This follows the idea that delisting is generally a sign of poor governance and/or poor performance. I exclude cases of management buyouts, leveraged buyouts or acquisitions from the causes of a firm delisting. First, a firm might delist because it goes bankrupt, reflecting poor management. Secondly, a firm might involuntarily delist because it violates listing laws or regulations. This reflects an inability to comply with the law, and thus suggests poor governance. Thirdly, a firm could voluntarily delist. It might do this if it regards the costs of complying with the corporate governance requirements in the US to be too high. However, if this is the case, then it suggests that the firm wants to worsen its corporate governance. Thus, if a firm voluntarily delists in order to avoid US disclosure and compliance requirements, then it may suggest poor

and Chairmen Matter? The Role of Boards of Directors in Mutual Fund Governance" (2007) 13(2–3) *Journal of Corporate Finance* 392.

58 This supposition underlies the adoption of a corporate governance policy at Time Warner; see Time Warner Inc, "Corporate Governance Policy" (Time Warner Inc, 2012).

59 CC Verschoor, "A Study of the Link between a Corporation's Financial Performance and its Commitment to Ethics" (1998) 17(3) *Journal of Business Ethics* 1509; JS Adams, A Tashchian and TH Shore, "Codes of Ethics as Signals for Ethical Behavior" (2001) 29(3) *Journal of Business Ethics* 199.

60 KJ Rediker and A Seth, "Boards of Directors and Substitution Effects of Alternative Governance Mechanisms" (1995) 16(2) *Strategic Management Journal* 85.

61 YV Hochberg, "Venture Capital and Corporate Governance in the Newly Public Firm" (2012) 16(2) *Review of Finance* 429; P Hribar and DW Collins, "Errors in Estimating Accruals: Implications for Empirical Research" (2002) 40(1) *Journal of Accounting Research* 105.

governance. Subsequently, I expect that, if the CSRC has properly performed a merits review, then Chinese companies should be less likely to delist from the US market.

Overall, this background yields several testable predictions: (i) Chinese companies should perform at least as well as other companies across a spectrum of governance characteristics; (ii) Chinese companies should have lower levels of earnings management, as proxied by discretionary accruals; and (iii) Chinese companies should be less likely to delist from the US market.

D. Data

This section details the methodology. I assess the governance and performance of Chinese companies that list in the US. The prediction is that, if China's governance regime and merits review are effective, then Chinese companies that list in the US should be comparative strong compared with other US companies and other non-US companies that list in the US. First, I discuss the empirical approach, then I describe the data source and finally I present the relevant variables.

I obtain the data from several sources. I start with the set of all companies that appear in the Compustat North America file (obtained from WRDSs). Next, I identify "Chinese" companies as those companies whose headquarters is in China (using the "loc" variable in Compustat). Next, I merge the Compustat database with the CRSP database to determine which companies delist in a given year. I then merge this data with the Corporate Library governance data to obtain data on executive compensation and governance arrangements (described below). This yields a firm-year panel of observations that notionally spans 1990–2009. However, because Corporate Library only contains data from 2001 on, the analysis of governance is restricted to 2001–09. In total, there are 94,780 firm-year observations; 688 are from Chinese companies and 10,431 are from non-US companies. The sample composition by year is in Table 2. It reveals an increase in the number of Chinese companies over time. There is also a general increase in the number of non-US companies listed in the US; however, the number starts to decrease in 2006.

I use these data sources to collect data on corporate governance characteristics, to calculate accruals and to determine the probability that a firm delists. I describe the variables in the context of the relevant models (see below), but summarise them in Table 3. Table 4 contains the sample statistics.

Table 2: Sample Composition by Year

Year	All	Chinese companies	Non-Chinese companies	Non-US companies
1990	4,278	6	4,272	269
1991	4,379	4	4,375	282
1992	4,683	5	4,678	315
1993	5,061	8	5,053	362
1994	5,327	11	5,316	407
1995	5,583	12	5,571	447
1996	5,963	11	5,952	552
1997	5,830	13	5,817	592
1998	5,480	16	5,464	614
1999	5,306	14	5,292	612
2000	5,164	22	5,142	671
2001	4,827	24	4,803	658
2002	4,515	24	4,491	638
2003	4,363	24	4,339	627
2004	4,273	34	4,239	601
2005	4,205	48	4,157	615
2006	4,060	55	4,005	561
2007	4,019	96	3,923	560
2008	3,843	114	3,729	536
2009	3,621	147	3,474	512
Total	94,780	688	94,092	104,31

E. Analysis

This section contains the analysis. First, I assess the governance of Chinese companies, then I assess the earnings management and finally I analyse the likelihood that a firm delists from the US market.

1. Operating Performance

(a) Methods

I examine operating performance in year $t + 1$ as a function of whether the firm is incorporated in China (and of other control variables). The model has the following form:

$$\text{Operating performance}_i\left(t\right) = \alpha + \beta I\left[\text{Chinese Co}\right]_i + \sum_{j=1}^{n} \theta^j \text{Control}_i^j + \varepsilon_i \quad (1)$$

Table 3: Variable definitions

Variable	Description
	Dependent variables
ROA(*t*)	The firm's return on assets in year *t*. This is the firm's net income (Compustat: ni) divided by its assets (Compustat: at).
IAROA(*t*)	The firm's industry adjusted return on assets. This is the firm's return on assets less the average return on assets for all firms in the company's two-digit SIC industry and year.
OP(*t*)	The firm's operating cash flows before depreciation (Compustat: oibdp) divided by its book assets (Compustat: at).
IAOP(*t*)	The firm's industry adjusted operating cash flows. This is the firm's operating performance less the mean operating performance for all companies in the firm's two-digit SIC industry and year.
I[Gov Policy]	An indicator that equals one if the firm has a governance policy, as reported in Corporate Library.
Num Directors	The number of directors, as reported in Corporate Library.
Abs[Abnormal Directors]	The absolute value of the 'abnormal' number of directors. This is the absolute value of the residual from a first-stage regression predicting the number of directors.
Prop Indep Dir	The proportion of directors who are 'independent', as indicated in Corporate Library.
Pct Insider Own	The percentage stock ownership of insiders/managers, as reported in corporate library.
I[Ethics Code]	An indicator that equals one if the firm has an ethics code.
Abs DACC/ACC (BS)	The absolute ratio of the firm's discretionary accruals to its total accruals, using the Balance Sheet method proposed in Collins and Hribar.[a]
Abs DACC/ACC (CF)	The absolute ratio of the firm's discretionary accruals to its total accruals, using the Cash Flow method.[b]
I[Delists]	An indicator that equals one if the firm delists in the given year.
	Control variables
ln(Assets)	The natural log of the firm's book assets (Compustat: at).
Debt/Assets	The firm's long term debt (Compustat: dltt) scaled by its book assets (Compustat: at).
Cash/Assets	The firm's cash holdings (Compustat: ch) scaled by its book assets (Compustat: at).
R&D/Sales	The firm's R&D expenditure (Compustat: xrd) scaled by its sales (Compustat: sale)
Advertising/Sales	The firm's advertising expenditure (Compustat: xad) scaled by its sales (Compustat: sale)

Table 3: Continued

Variable	Description
IAOP	The firm's industry adjusted operating performance. A firm's operating performance is its operating cash flow (Compustat: oibdp) scaled by its assets (Compustat: at). The industry adjusted operating performance is the firm's operating performance less the average operating performance for all companies in the firm's 4-digit SIC industry.
I[Makes Acquisition]	An indicator that equals one if the firm makes an acquisition in that year.
I[S&P Top Earnings Quality]	An indicator that equals one if S&P gives the top quality rating to the firm's earnings.
MKTCAP/Assets	The firm's market capitalisation (Compustat: prcc_f*csho) scaled by its book assets (Compustat: at).
CAPEX/Sales	The firm's CAPEX (Compustat: capx) scaled by its sales (Compustat: sale)

All variables are Winsorised at 1% to control for outliers.
[a]Proposed by Collins and Hribar, *supra* n 61.
[b]*Ibid*.

I use ordinary least squares (OLS) to estimate equation (1). The models include year dummies and industry (two-digit Standard Industrial Classification (SIC) code) dummies to control for unobserved year and industry effects, and also cluster standard errors by firm. I also run various robustness tests, which I describe when discussing the results.

I use two key earnings definitions. First, I use industry-adjusted operating performance. The operating performance for firm *i* in year *t* is the income from operations in year *t* divided by the firm's total assets in year *t*. However, operating performance can cluster by industry.[62] Thus, I use industry-adjusted operating performance (denoted IAOP), which is the issuer's operating performance less the average operating performance for all Compustat firms in that year in the firm's two-digit SIC group. Secondly, and similarly, I use the industry-adjusted return on assets (IAROA), which is the firm's return on assets (net income over total assets) less the average return on assets for all Compustat firms in that year in the firm's four-digit SIC group.

The control variables are various corporate-level variables that might influence corporate governance. These include the firm's size (proxied by the firm's log-assets: ln(Assets)), financial leverage (Debt/Assets), operating performance (IAOP), ratio of current assets to current liabilities (Current Assets/Current Liabilities), cash holdings (Cash/Assets), expenditure on R&D, advertising and

[62] RG Powell and AW Stark, "Does Operating Performance Increase Post-takeover for UK Takeovers? A Comparison of Performance Measures and Benchmarks" (2005) 11 *Journal of Corporate Finance* 293.

Table 4: Univariate Statistics

Variable	All	Chinese companies	ROW1: non-Chinese	ROW2: non-Chinese, non-US	Chinese – ROW1	Chinese – ROW2
	[1]	[2]	[3]	[4]	[5] = [2] – [3]	[6] = [2] – [4]
I[Gov Policy]	0.600	0.261	0.601	0.651	–0.340***	–0.390***
Num Directors	8.734	6.304	8.739	9.470	–2.434***	–3.165***
Prop Indep Dir	0.700	0.645	0.701	0.720	–0.056*	–0.075**
Pct Insider Own	0.160	0.459	0.159	0.136	0.300***	0.323***
I[Ethics Code]	0.869	0.957	0.869	0.859	0.087	0.097
Abs DACC/ACC (BS) (t+1)	1.340	1.178	1.341	1.417	–0.163*	–0.239**
Abs DACC/ACC (CF) (t+1)	1.560	1.298	1.561	1.613	–0.263	–0.315
I[Delists](t+1,t+2)	0.244	0.436	0.243	0.265	0.193***	0.171***
ROA(t)	–0.053	0.018	-0.053	-0.031	0.071***	0.049***
IAROA(t)	0.039	0.121	0.038	0.064	0.083***	0.057***
OP(t)	0.047	0.080	0.047	0.059	0.033***	0.021***
IAOP(t)	0.025	0.075	0.024	0.039	0.051***	0.036***
I[Makes Acquisition]	0.332	0.366	0.331	0.349	0.035*	0.017***
ln[Assets]	5.250	5.745	5.247	6.527	0.498***	–0.782***
Current Assets/Current Liabilities	3.050	4.193	3.042	2.785	1.151***	1.408***
Cash/Assets	0.136	0.274	0.135	0.134	0.140***	0.140***
R&D/Sales	0.208	0.102	0.209	0.152	–0.106***	–0.050*
Advertising/Sales	0.010	0.017	0.010	0.007	0.006***	0.009***
CAPEX/Sales	0.138	0.152	0.138	0.202	0.014	–0.050
I[S&P Top Earnings Quality]	0.009	0.000	0.010	0.003	–0.010**	–0.003
MKTCAP/Assets	1.683	1.823	1.682	1.593	0.140*	0.230***

Columns 1–4 present sample means; the column title states the sample. Columns 5 and 6 resent differences in means. ***, ** and * denote significant differences in means at 1, 5 and 10%, respectively.

capital expenditure (CAPEX; respectively, R&D/Sales, Advertising/Sales, and CAPEX/Sales), the firm's market-to-book ratio (MKTCAP/Assets), an indicator that the firm has a top earnings question (*I*[S&P Top Earnings Quality]), and

an indicator that equals one if the firm makes an acquisition in year *t* (*I*[Makes Acquisition]). I summarise the calculation of these variables in Table 3.

It is worth addressing the possibility that Chinese companies might systemically misreport earnings, thereby creating the false appearance of a strong operating performance. While this is a concern, it is unlikely to systemically undermine the results for several reasons:

1. Buckberg and Gulker[63] show that Chinese companies accounted for relatively few class actions before 2011 (a period that is outside of the sample in this paper), with Canadian companies accounting for the most class action filings against non-US companies. To the extent that class actions correlate with the presence of fraud and misrepresentation, this would suggest less systemic misrepresentation amongst Chinese companies listed in the US.
2. If there is accounting misrepresentation and the company is caught, then it would have to restate earnings and/or incorporate relevant losses into future reported results. This would reduce performance in at least one year by an amount that should equal the excess performance in the falsely reported year.
3. There is arguably a reputational penalty for companies that misreport results.[64] Firth *et al*[65] show that Chinese firms who manipulate earnings suffer wider bid-ask spreads, lower stock returns and increases in the cost of capital. This should depress future earnings as financiers restrict the firms' access to capital.
4. I analyse the likelihood of delisting. A firm that disguises negative performance with false statements will eventually have to delist from the stock market if its cash flows become insufficient to meet its financial obligations. The direct analysis of the likelihood of delisting captures this effect.

(b) Results

The operating performance results are presented in Table 5. The dependent variable is a measure of operating performance (ROA, IAROA, OP, IAOP). The key finding is that the coefficient on the indicator *I*[Chinese Co] is significant and positive in all models. This suggests that, on average, companies incorporated in China have stronger operating results than do other companies in the US and other non-US companies that cross-list in the US.

The signs on the control variables are largely consistent with expectations: strong operating performance is positively associated with corporate size, market capitalisation and earnings quality. Acquisitions appear to reduce earnings (on

[63] Buckberg and Gulker, *supra* n 2, figure 2.
[64] Karpoff and Lott, *supra* n 36; Chava *et al*, *supra* n 36.
[65] M Firth, OM Rui and W Wu, "Cooking the Books: Recipes and Costs of Falsified Financial Statements in China" (2011) 17(2) *Journal of corporate Finance* 371.

Table 5: Operating Performance Regressions

Sample	All				Non-US			
Dependent variable	ROA(t + 1)	IAROA(t + 1)	OP(t + 1)	IAOP(t + 1)	ROA(t + 1)	IAROA(t + 1)	OP(t + 1)	IAOP(t + 1)
Column	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
I[Chinese Co]	0.042***	0.041***	0.023***	0.024***	0.038***	0.037***	0.023***	0.025***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
ROA(t)	0.583***				0.504***			
	[0.000]				[0.000]			
IAROA(t)		0.536***				0.458***		
		[0.000]				[0.000]		
OP(t)			0.737***				0.675***	
			[0.000]				[0.000]	
IAOP(t)				0.711***				0.640***
				[0.000]				[0.000]
I[Makes Acquisition](t)	–0.012***	–0.012***	–0.003***	–0.002**	–0.009**	–0.004	–0.001	0.001
	[0.000]	[0.000]	[0.007]	[0.033]	[0.026]	[0.325]	[0.553]	[0.715]
ln[Assets](t)	0.014***	0.016***	0.007***	0.009***	0.016***	0.017***	0.009***	0.010***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Current Assets(t)/ Current Liabilities(t)	–0.003***	–0.002***	–0.004***	–0.004***	–0.002**	–0.001	–0.003***	–0.003***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.022]	[0.177]	[0.000]	[0.000]
Cash(t)/Assets(t)	–0.090***	–0.087***	–0.078***	–0.083***	–0.008	–0.008	–0.037**	–0.040**
	[0.000]	[0.000]	[0.000]	[0.000]	[0.758]	[0.767]	[0.022]	[0.018]
R&D(t)/Sales(t)	–0.034***	–0.039***	–0.020***	–0.023***	–0.050***	–0.053***	–0.032***	–0.036***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Advertising(t)/ Sales(t)	–0.346***	–0.357***	–0.099***	–0.112***	–0.213	–0.209	–0.098	–0.163*
	[0.000]	[0.000]	[0.000]	[0.000]	[0.130]	[0.129]	[0.278]	[0.074]
CAPEX(t)/ Sales(t)	–0.047***	–0.043***	–0.019***	–0.017***	–0.034***	–0.028***	–0.006	–0.004
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]	[0.198]	[0.412]
I[S&P Top Earnings Quality](t)	0.015***	0.014**	0.008**	0.006*	0.029***	0.021*	0.022***	0.018***
	[0.003]	[0.012]	[0.020]	[0.082]	[0.000]	[0.076]	[0.008]	[0.002]
MKTCAP(t)/ Assets(t)	0.002***	0.003***	0.002***	0.003***	0.005***	0.006***	0.003***	0.004***
	[0.009]	[0.000]	[0.000]	[0.000]	[0.010]	[0.002]	[0.006]	[0.000]

Table 5: Continued

Sample	All				Non-US			
Dependent variable	ROA(t + 1)	IAROA(t + 1)	OP(t + 1)	IAOP(t + 1)	ROA(t + 1)	IAROA(t + 1)	OP(t + 1)	IAOP(t + 1)
Column	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Constant	–0.054	–0.062	0.011	–0.043	–0.147***	–0.109***	–0.044***	–0.036***
	[1.000]	[1.000]	[1.000]	[1.000]	[0.000]	[0.000]	[0.000]	[0.007]
Observations	94,778	94,778	94,395	94,395	11,119	11,119	11,004	11,004
R^2	45.70%	37.50%	66.50%	59.80%	40.50%	36.30%	63.70%	59.20%

The column title states the dependent variable. All models are OLS models that include year dummies, SIC two-digit dummies and cluster standard errors by firm. Brackets contain *P*-values. ***, ** and * denote significance at 1, 5 and 10%, respectively.

average), as do high levels of expenses (in the form of R&D, advertising or CAPEX). Firms with a high ratio of current assets to current liabilities have lower operating results. This is an interesting result, given that high levels of current assets tend to indicate higher levels of financial stabilities. There are at least two possible explanations: (i) low levels of liabilities reduce the amount of external monitoring imposed on managers (from debt-holders), and thus might facilitate agency conflicts; and (ii) low levels of debt reduce the pressure on managers to produce high earnings in order to meet debt repayments.

2. Governance

(a) Methods

I focus on various measures of corporate governance. If the merits review process is effective, then Chinese firms that list in the US should not have demonstrably worse governance than other firms that list in the US. I examine this by analysing various corporate governance attributes. These governance mechanisms can be substitutes;[66] for example, if the managers have large stock holdings (ie have interests aligned with the shareholders), then the need for independent directors might be lower. Subsequently, it is important to look at several governance characteristics to form a holistic picture of the governance attributes of Chinese companies that list in the US. I focus on a regression equation of the following form:

$$\text{Governance}_i(t) = \alpha + \beta I\left[\text{Chinese Co}\right]_i + \sum_{j=1}^{n} \theta^j \text{Control}_i^j + \varepsilon_i \qquad (2)$$

[66] Rediker and Seth, *supra* n 60.

Here, the Governance$_i(t)$ term reflects various measures of governance. I define these measures below. The models are variously logit, tobit or OLS models, as appropriate for the dependent variable. The models include year dummies, two-digit SIC dummies, and cluster standard errors by firm.

The governance measures are designed to capture various aspects of good governance. I include six measures of corporate governance.

1. *I*[Gov Policy] is an indicator that equals one if the firm has a governance policy.
2. Num Directors is the number of directors. The goal is to capture the idea that a larger board of directors might lead to inefficiencies, and that the increased bureaucratisation might inadvertently allow managers to exercise more control over the board. [67] However, I do note that having too few directors could also be bad.[68]
3. Abs[Abnormal Directors] is the absolute value of the number of "abnormal" directors (defined as the residual from a first stage regression to predict the number of directors).
4. Prop Indep Dir is the proportion of independent directors. This captures the idea that independent directors are more likely to be more effective monitors, and should thus improve corporate governance.[69]
5. Pct Insider Own is the percentage of shares held by insiders. The idea is that stock ownership can help to align managers' and shareholders' objectives, and can thus improve corporate governance.
6. *I*[Ethics Code] is an indicator that equals one if the firm has an ethics code. This reflects the idea that a better governed firm is be more likely to have a code of corporate ethics.

(b) Results

The results suggest that Chinese companies do not have worse governance than other companies. The results in Table 6 are for the full sample of all firms listed in the US, whereas those in Table 7 are for the sub-sample of non-US firms that are listed in the US. Some important findings emerge.

First, Chinese companies have fewer directors than do other US companies (Table 6, column 2) or other non-US companies that list in the US (Table 7, column 2). This might suggest superior governance (ie by having a smaller board of directors, and thus a lower likelihood that the managers can dominate

[67] T Eisenberg, S Sundgren and MT Wells, "Larger Board Size and Decreasing Firm Value in Small Firms" (1998) 48(1) *Journal of Financial Economics* 35. For the argument that there is an optimal board size see S Beiner *et al*, "Is Board Size an Independent Corporate Governance Mechanism?" (2004) 57(3) *Kyklos* 327.

[68] RS Chaganti, V Mahajan and S Sharma, "Corporate Board Size, Composition and Corporate Failures in Retailing Industry" (1985) 22(4) *Journal of Management Studies* 400.

[69] Masulis and Mobbs, *supra* n 57.

Table 6: Governance Regressions—Full Sample

Dependent variable	I[Gov Policy]	Num directors	Num directors	Abs[Abn Dir]	Prop indep dir	Pct insider own	I[Ethics Code]
Regression type	Logit	OLS	OLS	OLS	Tobit	Tobit	Logit
Sample	All	All	All	All	All	All	Non-US
Column	[1]	[2]	[3]	[4]	[5]	[6]	[7]
I[Chinese Co]	–1.469**	–1.101**		0.477*	–0.076***	0.286***	0.128
	[0.015]	[0.018]		[0.057]	[0.006]	[0.000]	[0.898]
IAOP(*t*)	0.092	–0.698***		–0.262**	–0.001	0.004	0.304
	[0.742]	[0.000]		[0.033]	[0.943]	[0.875]	[0.456]
I[Makes Acquisition](*t*)	–0.043	–0.102*	–0.103***	–0.009	–0.002	–0.003	0.276**
	[0.553]	[0.060]	[0.006]	[0.766]	[0.545]	[0.603]	[0.044]
ln[Assets](*t*)	0.819***	0.786***	0.783***	0.079***	0.015***	–0.034***	0.328***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Current Assets(*t*)/ Current Liabilities(*t*)	–0.054***	–0.046***	–0.050***	–0.01	–0.003***	0.001	0.011
	[0.002]	[0.000]	[0.000]	[0.105]	[0.002]	[0.559]	[0.680]
Cash(*t*)/Assets(*t*)	0.457	–0.164	–0.073	–0.285**	0.062***	–0.079***	0.408
	[0.152]	[0.455]	[0.653]	[0.021]	[0.001]	[0.001]	[0.451]
R&D(*t*)/Sales(*t*)	0.124*	0.163***	0.241***	–0.055**	0.005	–0.011**	0.288**
	[0.084]	[0.000]	[0.000]	[0.038]	[0.216]	[0.019]	[0.029]
Advertising(*t*)/Sales(*t*)	1.394	2.653**	2.855***	–0.482	0.03	0.704***	0.711
	[0.402]	[0.020]	[0.000]	[0.402]	[0.754]	[0.000]	[0.767]
CAPEX(*t*)/Sales(*t*)	–0.538***	–0.244*	–0.241**	0.179**	–0.023**	0.018	–0.23
	[0.003]	[0.090]	[0.012]	[0.014]	[0.019]	[0.160]	[0.425]
I[S&P Top Earnings Quality](*t*)	–0.135	0.576**		–0.075	0.002	–0.028	2.017*
	[0.686]	[0.022]		[0.585]	[0.923]	[0.199]	[0.056]
MKTCAP(*t*)/Assets(*t*)	–0.013	0.000	–0.007	0.027*	–0.004**	–0.001	–0.086**
	[0.679]	[0.997]	[0.643]	[0.057]	[0.026]	[0.676]	[0.036]
Constant	–5.185***	1.207***	1.091	0.996***	0.626***	0.552***	0.358
	[0.000]	[0.000]	[0.288]	[0.000]	[0.000]	[0.000]	[0.519]
Observations	10,687	10,674	10,689	10,674	10,674	10,556	9,329
R^2	33.70%	39.90%	39.50%	5.00%	13.60%	16.03%	11.60%

All models contain year dummies, two-digit SIC industry dummies and cluster standard errors by firm. The column header contains the regression technique and the dependent variable. The sample contains all firms that are listed in the US. Table 3 contains the variable definitions. Brackets contain p-values. ***, ** and * denote significance at 1, 5 and 10%, respectively.

Table 7: Governance Regressions—Non-US Firms

Dependent Variable	I[Gov Policy]	Num directors	Num directors	Abs[Abn Dir]	Prop indep dir	Pct insider own	I[Ethics Code]
Regression type	Logit	OLS	OLS	OLS	Tobit	Tobit	Logit
Sample	Non-US	Non-US	Non-US	Non-US	Non-US	Non-US	Non-US
Column	[1]	[2]	[3]	[4]	[5]	[6]	[7]
I[Chinese Co]	–1.723*	–1.325*		0.842*	0.034	0.089	4.149*
	[0.095]	[0.050]		[0.091]	[0.543]	[0.343]	[0.084]
IAOP(*t*)	–3.54	1.309		0.737	–0.111	0.252	–9.596
	[0.240]	[0.513]		[0.632]	[0.523]	[0.463]	[0.341]
I[Makes Acquisition](*t*)	0.059	–0.311	–0.373	0.298	–0.012	0.105**	–3.428
	[0.913]	[0.374]	[0.267]	[0.225]	[0.709]	[0.035]	[0.293]
ln[Assets](*t*)	0.401	1.018***	1.141***	0.152	0.050***	–0.095***	0.029
	[0.108]	[0.000]	[0.000]	[0.247]	[0.000]	[0.000]	[0.970]
Current Assets(*t*)/ Current Liabilities(*t*)	0.039	0.069	0.096	–0.003	0.007	–0.007	0.364
	[0.747]	[0.452]	[0.296]	[0.980]	[0.373]	[0.429]	[0.696]
Cash(*t*)/Assets(*t*)	2.842	2.939	1.715	–1.544	0.091	0.051	–8.83
	[0.269]	[0.128]	[0.276]	[0.268]	[0.560]	[0.808]	[0.464]
R&D(*t*)/Sales(*t*)	–1.259***	–0.273	–0.095	0.366*	–0.029	–0.019	12.804
	[0.010]	[0.436]	[0.794]	[0.069]	[0.307]	[0.683]	[0.769]
Advertising(*t*)/Sales(*t*)	3.003	–6.043	–7.004	–2.69	–0.201	–0.73	–134.319
	[0.822]	[0.600]	[0.357]	[0.517]	[0.735]	[0.581]	[0.234]
CAPEX(*t*)/Sales(*t*)	1.150**	1.309**	1.266***	0.413	0.038	–0.062	5.453
	[0.045]	[0.024]	[0.006]	[0.356]	[0.502]	[0.241]	[0.126]
I[S&P Top Earnings Quality](*t*)		–3.608***		0.196	–0.252***	–1.057	
		[0.001]		[0.814]	[0.000]	[0.999]	
MKTCAP(*t*)/Assets(*t*)	0.029	–0.037	0.035	0.035	–0.011	0.016	0.48
	[0.876]	[0.779]	[0.792]	[0.673]	[0.437]	[0.416]	[0.798]
Constant	–3.730*	1.294	1.155	0.85	0.401***	0.863***	21.058**
	[0.067]	[0.434]	[0.617]	[0.443]	[0.002]	[0.000]	[0.016]
Observations	137	171	172	171	171	150	52
R^2	25.50%	76.60%	75.60%	33.20%	7.63%	16.85%	64.60%

All models contain year dummies, two-digit SIC industry dummies and cluster standard errors by firm. The column header contains the regression technique and the dependent variable. The sample contains all firms that are listed in the US. Table 3 contains the variable definitions. Brackets contain p-values. ***, ** and * denote significance at 1, 5 and 10%, respectively.

the board). However, the results in column 4 (of both Tables 6 and 7) suggest that Chinese companies have more directors than would be expected given their size and performance. However, this result is only weakly statistically significant, and in all cases the coefficient is relatively small in magnitude (<1.5). Overall, this suggests that, while Chinese companies might have marginally more directors than would an ordinary company of their size and characteristics, this difference appears not to be economically significant.

Secondly, Chinese companies appear to have fewer independent directors when compared with US companies (Table 6, column 5) but not when compared with other non-US companies (Table 7, column 5). A more worrying finding is that Chinese companies have fewer independent directors than do general US companies. There are, however, some mitigating circumstances: (i) The coefficient in Table 6, column 5 implies that, in Chinese companies, the proportion of independent directors is 7.6% lower than for non-Chinese companies. This appears to be relatively small in economic magnitude. (ii) In Chinese companies, the majority (64.5%) of the board is independent, suggesting that, even if Chinese companies have fewer independent directors, they still have a preponderance of independent directors. (iii) Not all independent directors are conflicted; it can be useful to have inside directors in order to convey information to the board.[70]

3. Discretionary Accruals

(a) Methodology

I examine earnings management. Earnings management is a proxy for the presence of managerial misfeasance.[71] A proxy for the presence of earnings management is the firm's level of discretionary accruals.[72] A firm with more discretionary accruals is more likely to have engaged in earnings management. Thus, I examine the ratio of discretionary accruals to total accruals. Since a firm can massage accounting figures in both a positive and a negative way (depending upon the manager's goal), I focus on the absolute value of the ratio of discretionary accruals to total accruals. I calculate these using both the "cash flow" method and the "balance sheet" method suggested in Collins and Hribar.[73] The model has the following general form:

[70] *Ibid.*

[71] Hochberg, *supra* n 61; Xie *et al*, *supra* n 5; Liu and Lu, *supra* n 41.

[72] See eg Hochberg, *supra* n 61; Liu and Lu, *ibid*; Klein, *supra* n 8; MM Cornett, JJ McNutt and H Tehranian, "Corporate Governance and Earnings Management at Large US Bank Holding Companies" (2009) 15(4) *Journal of Corporate Finance* 412.

[73] Hribar and Collins, *supra* n 61.

$$\text{Abs}\left(\text{DACC/ACC}\right)_i\left(t\right) = \alpha + \beta I\left[\text{Chinese Co}\right]_i + \sum_{j=1}^{n} \theta^j \text{Control}_i^j + \varepsilon_i \qquad (3)$$

Here, Abs(DACC/ACC)$_i$(t) is the absolute value of the ratio of discretionary accruals to accruals in year t. The model is a tobit model, with a lower bound of 0. The models include year dummies, two-digit SIC dummies, and cluster standard errors by firm.

I calculate the proportion of discretionary accruals to total accruals following the approach in Hribar and Collins.[74] I use data from Compustat. I calculate two types of accruals: balance sheet and cash flow. The process is similar for both, but it proceeds as follows:

1. I calculate the level of accruals (ACC) using the following equations:

$$\text{ACC(BS)} = \Delta\text{CA—}\Delta\text{CL—}\Delta\text{Cash—}\Delta\text{STDEBT—DEP}$$

$$\text{ACC(CF)} = \text{–(CHGAR(CF)} + \text{CHGINV(CF)} + \text{CHGAP(CF)} + \text{CHGTAX(CF)} + \text{CHGOTH(CF)} + \text{DE(CF)}$$

where ΔCA is the change in current assets (Compustat: act), ΔCL is the change in current liability (Compustat: lct), ΔCash is the change in cash holdings (Compustat: ch), ΔSTDEBT is the change in short term debt (Compustat: dlc) and DEP is the depreciation (Compustat: dp). For the cash flow (CF) equation, CHGAR is the change in accounts receivable, CHGINV is the change in inventories, CHGAP is the change in accounts payable, CHGTAX is the change in taxation expenditure, CHGOTH is the change in other spending and DEP is the firm's depreciation.

2. I calculate the "expected" level of accruals from a regression of ACC on the firm's change in revenues, and its level of fixed property and plant.

$$\text{ACC(BS)} = \alpha + \beta_1(\Delta\text{Rev}) + \beta_2\text{PPE} + \varepsilon$$

$$\text{ACC(CF)} = \alpha + \beta_1(\Delta\text{Rev}) + \beta_2\text{PPE} + \varepsilon$$

where ΔRev is the change in revenues (Compustat: sale) and PPE is the firm's fixed property and plant (Compustat: ppegt). I also include two-digit SIC industry dummies and year dummies, and use robust standard errors clustered by firm.

3. I calculate the level of non-discretionary accruals (NDACC) by using the coefficients estimated in above regression model:

[74] *Ibid.*

$$\text{NDACC}(\text{BS}) = \hat{\alpha}_1 + \hat{\beta}_1 (\Delta\text{Rev} - \Delta\text{AR}) + \hat{\beta}_2 \text{PPE}$$

$$\text{NDACC}(CF) = \hat{\alpha}_1 + \hat{\beta}_1 (\Delta\text{Rev} - \Delta\text{AR}) + \hat{\beta}_3 \text{PPE}$$

where ΔAR is the change in accounts receivable (Compustat: recch).

4. The discretionary accruals (DACC) are then

$$\text{DACC} = \text{ACC} - \text{NDACC}.$$

5. The ratio of discretionary accruals to total accruals is then DACC/ACC.

(b) Results

The results suggest that Chinese companies (listed in the US) have lower levels of discretionary accruals than do other companies. The results are in Table 8. Columns 1 and 2 examine the sample of all firms listed in the US, and columns 3 and 4 restrict the sample to comprise only non-US firms that are listed in the US. The key finding is that the coefficient on *I*[Chinese Co] is negative and statistically significant in three of four models. Importantly, it is statistically significant in columns 3 and 4, which focus on non-US firms listed in the US (arguably the more appropriate comparison sample).

The control variables yield some interesting results; discretionary accruals decrease with firm size (ln[Assets]) and R&D (R&D/Sales). The size-based result might be because larger firms generally have a greater reliance on fixed assets, which have more transparent earnings and might provide less scope for accounting manipulation. The R&D result might arise because firms that spend money on R&D have fewer expenses overall (being smaller companies), so have less scope to engage in earnings management.

4. Likelihood of Delisting

(a) Methods

Next, I examine the likelihood that a firm delists. A delisting event can occur for several reasons, including: (i) a firm can go bankrupt; (ii) a regulator might force a firm to delist due to governance scandals or a failure to meet listing standards;[75] and (iii) a firm might voluntarily delist. In the case of a cross-listed company, it might delist in order to avoid having to comply with the US's relatively onerous disclosure rules.[76] The first two possibilities reflect poor

[75] J Macey, M O'Hara and D Pompilio, "Down and Out in the Stock Market: The Law and Economics of the Delisting Process" (2008) 51(4) *Journal of Law and Economics* 683 at 683–84.

[76] A Marosi and N Massoud, ""You Can Enter but You Cannot Leave…': US Securities Markets and Foreign Firms" (2008) 63(5) *Journal of Finance* 2477.

Table 8: Accruals Regressions

Sample	All		Non-US	
Dependent variable	Abs DACC/ ACC (BS)	Abs DACC/ ACC (CF)	Abs DACC/ ACC (BS)	Abs DACC/ ACC (CF)
Column	[1]	[2]	[3]	[4]
I[Chinese Co]	–0.121	–0.316**	–0.275***	–0.471**
	[0.187]	[0.039]	[0.004]	[0.015]
I[Makes Acquisition](*t*)	0.002	0.068**	–0.065	0.105
	[0.919]	[0.015]	[0.279]	[0.297]
ln[Assets](*t*)	–0.018***	–0.059***	–0.031*	–0.124***
	[0.000]	[0.000]	[0.052]	[0.000]
Current Assets(*t*)/ Current Liabilities(*t*)	–0.008***	0.009**	0.023	0.025
	[0.003]	[0.047]	[0.149]	[0.266]
Cash(*t*)/Assets(*t*)	–0.082*	–0.069	–0.434**	–0.164
	[0.095]	[0.428]	[0.046]	[0.696]
R&D(*t*)/Sales(*t*)	–0.071***	–0.121***	–0.134***	–0.107
	[0.000]	[0.000]	[0.000]	[0.118]
Advertising(*t*)/Sales(*t*)	0.021	–0.586	–0.716	–3.184**
	[0.936]	[0.168]	[0.369]	[0.017]
CAPEX(*t*)/Sales(*t*)	0.033	0.08	–0.079	–0.009
	[0.294]	[0.124]	[0.457]	[0.955]
I[S&P Top Earnings Quality](*t*)	–0.099	–0.324**	0.226	–0.598***
	[0.311]	[0.026]	[0.374]	[0.005]
MKTCAP(*t*)/Assets(*t*)	0.003	0.026***	0.009	0.078***
	[0.461]	[0.000]	[0.594]	[0.008]
Constant	1.396***	1.484***	2.156***	2.440***
	[0.000]	[0.000]	[0.000]	[0.000]
Observations	75,919	55,375	6,797	4,483
Pseudo R^2	0.37%	0.38%	0.99%	1.79%

The column title states the dependent variable. All models are Tobit models with a lower bound of 0, include two-digit SIC industry dummies and year dummies, and cluster standard errors by firm. Table 3 contains the variable definitions. Brackets contain *P*-values and ***, ** and * denote significance at 1, 5 and 10%, respectively.

performance. The third possibility might signify poor governance.[77] Subsequently, I examine a model of the following form:

$$I\left[\text{Delist}\right]_i\left(t+1,t+2\right)=\alpha+\beta I\left[\text{Chinese Co}\right]_i+\sum_{j=1}^{n}\theta^j\text{Control}_i^j+\varepsilon_i \qquad (4)$$

Here, I[Delist]$_i(t + 1,t + 2)$ is an indicator that equals one if the firm delists between year $t + 1$ and year $t + 2$. I ensure that the control variables are lagged behind the dependent variable by at least one year in order to mitigate endogeneity concerns. The model is a logit mode, and includes year dummies, SIC two-digit dummies and clusters standard errors by firm. The control variables are as in the governance regression, and are largely consistent with the variables used in bankruptcy prediction models.[78]

(b) Results

The results suggest that Chinese companies are significantly less likely to delist from a US exchange than are other companies. The results are presented in Table 9. Column 1 contains the sample of all companies listed in the US; column 2 examines non-US companies that are listed in the US. In both regressions, the coefficient on I[Chinese Co] is negative and is statistically significant at 1% significance. This indicates that Chinese companies are less likely to delist. This supports the idea that Chinese companies are relatively well governed, because it indicates that: (i) Chinese companies are less likely to delist due to bankruptcy; (ii) Chinese companies are less likely to delist in order to avoid complying with stringent US disclosure laws; and/or (iii) Chinese companies are less likely to be forced to delist due to failure to comply with listing requirements.

5. Other Robustness Tests

I also ensure that the results are robust to model specification issues. First, I ensure that they are robust to the way I estimate the multivariate models. For the models that examine operating performance and return on assets (which are positive for profitable firms), the results are qualitatively the same if I use tobit models (with a lower bound of zero) instead of the reported OLS models (Table 5). They are also qualitatively the same when using robust regression and quantile regressions (which are less sensitive to outliers than are OLS regressions). For the delisting likelihood models, the results are qualitatively the same if I use probit models rather than logit models.

[77] But note the criticism of some governance rules in R Adams, "Governance and the Financial Crisis" (2012) 12(1) *International Review of Finance* 7.

[78] See, eg E Demers and P Joos, "IPO Failure Risk" (2007) 45(2) *Journal of Accounting Research* 333.

Table 9: Delisting Likelihood Regressions

Dependent variable	I[Delists](t + 1, t + 2)	
Sample	US	Non-US
Column	[1]	[2]
I[Chinese Co]	–0.721***	–0.798***
	[0.000]	[0.000]
IAOP(t)	–1.048***	–0.914***
	[0.000]	[0.000]
I[Makes Acquisition](t)	0.013	0.065
	[0.607]	[0.370]
ln[Assets](t)	–0.147***	–0.149***
	[0.000]	[0.000]
Current Assets(t)/Current Liabilities(t)	–0.026***	–0.031**
	[0.000]	[0.019]
Cash(t)/Assets(t)	0.173**	–0.306
	[0.044]	[0.258]
R&D(t)/Sales(t)	–0.078***	–0.085
	[0.000]	[0.124]
Advertising(t)/Sales(t)	1.233***	1.233
	[0.003]	[0.406]
CAPEX(t)/Sales(t)	0.242***	0.360***
	[0.000]	[0.000]
I[S&P Top Earnings Quality](t)	–2.227***	0.223
	[0.000]	[0.815]
MKTCAP(t)/Assets(t)	–0.132***	–0.138***
	[0.000]	[0.000]
Constant	0.411***	0.164
	[0.001]	[0.606]
Observations	87,129	9,733
R^2	5.60%	6.20%

This table contains logit models that examine the probability that a firm delists from the stock market between year t +1 and year t+2. All models are logit models that include year dummies, two-digit SIC industry dummies, and cluster standard errors by firm. Table 3 contains the variable definitions. Brackets contain *P*-values and ***, ** and * denote significance at 1, 5 and 10%, respectively.

Secondly, I ensure that the results are robust to the industry and year effects. Unobserved year/industry effects can bias results.[79] The reported results aim to mitigate this by including two-digit SIC dummies and year dummies, and clustering standard errors by firm. However, the results are qualitatively the same if I use three- or four-digit SIC dummies and/or cluster standard errors by three- or four-digit industry.

Thirdly, I ensure that the results are not time-period specific. The reported results mitigate time effects by including year dummies. Nonetheless, I ensure robustness by running sub-sample tests. The results still hold if I focus on the years after the Asian financial crisis (by limiting the sample to observations that occur after 2000). They also hold both before and after the imposition of SOX, and are qualitatively the same if I exclude the "outlying" financial crisis years.[80]

Fourthly, the results are not due to "outlying" observations. The reported results Winsorise variables at 1% to prevent outliers dominating the results. However, the results also hold if I remove leverage points (observations for which Cook's D value exceeds $4/n$). As indicated, the results also hold when using robust regressions or quantile regressions, which are comparatively more robust to outliers than are OLS regressions.

F. Conclusion

Chinese companies that are listed in the US have received significant scrutiny for their reportedly poor governance. However, the argument that Chinese companies are poorly governed, or feature super-normal levels of malfeasance, sits poorly with China's merits review approach to cross-listings and the significant governance reforms within China. China has pursued a programme of strengthening its commercial reputation. This might be hampered if China allows poorly governed companies to list overseas and convey a negative image of Chinese companies. However, the CSRC has broad discretion to conduct a merits review of any application by a Chinese company to issue shares overseas. Thus, the issue is whether the CSRC has effectively exercised its discretion to ensure that mainly strong companies list in the US.

I examine the performance of Chinese companies that list in the US. I compare these companies with other companies that are listed in the US, and with other non-US companies that chose to issue stocks in the US. I examine

[79] MA Petersen, "Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches" (2009) 22(1) *Review of Financial Studies* 435; SA Johnson, TC Moorman and S Sorescu, "A Reexamination of Corporate Governance and Equity Prices" (2009) 22(11) *Review of Financial Studies* 4753.

[80] This is important because the financial crisis of 2008–09 impacted China less than it impacted the rest of the world; and thus, Chinese companies would naturally perform better in 2008–2009 than would other companies.

these companies between 1990 and 2009, giving a total of 94,780 firm-year observations (of which 688 relate to Chinese companies). I show that the Chinese companies have stronger operating results and are less likely to delist than are other companies. They do not have demonstrably worse governance characteristics and have lower levels of earnings management. This suggests that it is mainly strong companies that have listed in the US. The finding that Chinese companies also outperform other non-US companies that list in the US mitigates concerns that the results might merely be due to self-selection on the part of strong companies to issue shares overseas. Further, the lower likelihood of delisting suggests that China's merits review process is sufficiently onerous that it reduces the likelihood of a Chinese firm that lists in the US voluntarily delisting (in order to avoid disclosure costs) or going bankrupt.

The results have key regulatory implications. The results suggest that the CSRC is performing its merits review role effectively (in the context of foreign issuances by Chinese companies). This suggests that substantial reforms or a movement towards a mere "disclosure" (as opposed to merits) based system is not necessary. Further studies could examine whether the CSRC is effectively undertaking merits reviews of companies that issue shares on Chinese stock markets, or whether the CSRC might be too stringent in its merits review, possibly preventing some strong and well-governed companies from listing in the US.