

The background of the cover is a complex, light-colored line drawing on a dark blue background. It features a mix of architectural elements, including floor plans, structural frames, and curved, organic shapes. There are also circular patterns and a section filled with a hexagonal grid. The overall style is technical and abstract, resembling a blueprint or a conceptual architectural drawing.

# THE CHINESE CAPITAL MARKETS

Edited by  
Chris Adcock, Douglas Cumming,  
Alessandra Guariglia and Wenxuan Hou



# The Chinese Capital Markets

In the past China's capital market featured prevalent state ownership and a weak legal environment. It has, however, achieved very substantial development in the past two decades. China has surpassed Japan as the world's second-largest stock market and has also emerged as a leading player in green bonds and Fintech markets. The chapters in this book provide insights on Chinese listed firms and advance the understanding of China's unique institutions. Some important questions are covered including the governance role of foreign investors in partially privatized firms, the financial implications of political connections, the "Chinese model" of commercial banks and regulatory reforms that promote the marketization of the stock markets, among others. These studies have important implications for other emerging economies, on the recent China-US trade conflicts and about the Trump administration's complaints about the role of the Chinese government in capital markets.

This book selectively includes the most influential articles from two special issues of *The European Journal of Finance*, which were based on selections of papers presented at a series of conferences on the Chinese Capital Markets.

**Chris Adcock** is Professor of Quantitative Finance at SOAS – University of London, England. He was previously Professor at the University of Sheffield, England, and visiting Professor at the Universities of Durham and Southampton, England. His research interests include portfolio selection, asset pricing theory, and quantitative techniques for portfolio management. He is the Founding Editor of *The European Journal of Finance*.

**Douglas Cumming** is the DeSantis Distinguished Professor of Finance and Entrepreneurship at the College of Business, Florida Atlantic University and a Visiting Professor of Finance at University of Birmingham. He has published over 175 articles in leading refereed academic journals in entrepreneurship, finance, and management.

**Alessandra Guariglia** is Professor of Financial Economics at the University of Birmingham, UK. Her research focuses on the link between macroeconomic activity and finance and the economics of transition in China, and her research has been published in journals such as the *Review of Finance*, the *Journal of International Economics*, and the *Journal of Corporate Finance*.

**Wenxuan Hou** is a Chair in Corporate Finance at the University of Edinburgh Business School, Special-term Professor at Shanghai Lixin University of Accounting and Finance and Co-chair of RSE Young Academy of Scotland. His research covers corporate and legal institutions of emerging economies and he has published 40 articles in various international journals.



**Taylor & Francis**

Taylor & Francis Group  
<http://taylorandfrancis.com>

# **The Chinese Capital Markets**

*Edited by*

**Chris Adcock, Douglas Cumming,  
Alessandra Guariglia and Wenxuan Hou**

First published 2021  
by Routledge  
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

and by Routledge  
52 Vanderbilt Avenue, New York, NY 10017

*Routledge is an imprint of the Taylor & Francis Group, an informa business*

© 2021 Taylor & Francis

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

*Trademark notice:* Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

*British Library Cataloguing-in-Publication Data*

A catalogue record for this book is available from the British Library

ISBN13: 978-0-367-47343-3

Typeset in Times New Roman  
by codeMantra

#### **Publisher's Note**

The publisher accepts responsibility for any inconsistencies that may have arisen during the conversion of this book from journal articles to book chapters, namely the inclusion of journal terminology.

#### **Disclaimer**

Every effort has been made to contact copyright holders for their permission to reprint material in this book. The publishers would be grateful to hear from any copyright holder who is not here acknowledged and will undertake to rectify any errors or omissions in future editions of this book.

# Contents

<i>Citation Information</i>	vii
<i>Notes on Contributors</i>	ix
 Introduction	 1
<i>Douglas Cumming, Alessandra Guariglia, Wenxuan Hou and Chris Adcock</i>	
1 Domestic and foreign institutional investors' behavior in China	5
<i>Ningyue Liu, Don Bredin, Liming Wang and Zhihong Yi</i>	
2 The more the better? Foreign ownership and corporate performance in China	29
<i>David Greenaway, Alessandra Guariglia and Zhihong Yu</i>	
3 The IPO of Industrial and Commercial Bank of China and the 'Chinese Model' of privatizing large financial institutions	51
<i>Franklin Allen, Jun 'QJ' Qian, Susan Chenyu Shan and Mengxin Zhao</i>	
4 CEO turnover in China: the role of market-based and accounting performance measures	77
<i>Martin J. Conyon and Lerong He</i>	
5 How do agency problems affect firm value? – Evidence from China	101
<i>Sheng Xiao and Shan Zhao</i>	
6 Split Share Structure Reform, corporate governance, and the foreign share discount puzzle in China	127
<i>Wenxuan Hou and Edward Lee</i>	
7 Sources of the stock price fluctuations in Chinese equity market	152
<i>Zhenhua Su, Jun Ma and Mark E. Wohar</i>	
8 Valuation of restricted shares by conflicting shareholders in the Split Share Structure Reform	170
<i>Douglas Cumming and Wenxuan Hou</i>	

9	The growth, determinants, and profitability of nontraditional activities of Chinese commercial banks <i>Michael Firth, Wei Li and Steven Shuye Wang</i>	195
10	Executive compensation and the split share structure reform in China <i>Wenxuan Hou, Edward Lee, Konstantinos Stathopoulos and Zhenxu Tong</i>	224
11	Political connections and tax-induced earnings management: evidence from China <i>Chen Li, Yaping Wang, Liansheng Wu and Jason Zezhong Xiao</i>	247
12	External finance and trade credit extension in China: does political affiliation make a difference? <i>Alessandra Guariglia and Simona Mateut</i>	266
13	Are Chinese stock and property markets integrated or segmented? <i>Chris Adcock, Xiuping Hua and Yiping Huang</i>	292
	<i>Index</i>	319

# Citation Information

The chapters in this book were originally published in *The European Journal of Finance*, volume 20, issue 7–9 and volume 22, issue 4–6. When citing this material, please use the original page numbering for each article, as follows:

## Chapter 1

*Domestic and foreign institutional investors' behavior in China*

Ningyue Liu, Don Bredin, Liming Wang and Zhihong Yi

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 728–751

## Chapter 2

*The more the better? Foreign ownership and corporate performance in China*

David Greenaway, Alessandra Guariglia and Zhihong Yu

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 681–702

## Chapter 3

*The IPO of Industrial and Commercial Bank of China and the 'Chinese Model' of privatizing large financial institutions*

Franklin Allen, Jun 'QJ' Qian, Qian, Susan Chenyu Shan and Mengxin Zhao

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 599–624

## Chapter 4

*CEO turnover in China: the role of market-based and accounting performance measures*

Martin J. Conyon and Lerong He

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 657–680

## Chapter 5

*How do agency problems affect firm value? – Evidence from China*

Sheng Xiao and Shan Zhao

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 803–828

## Chapter 6

*Split Share Structure Reform, corporate governance, and the foreign share discount puzzle in China*

Wenxuan Hou and Edward Lee

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 703–727



**Chapter 7**

*Sources of the stock price fluctuations in Chinese equity market*

Zhenhua Su, Jun Ma and Mark E. Wohar

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 829–846

**Chapter 8**

*Valuation of restricted shares by conflicting shareholders in the Split Share Structure Reform*

Douglas Cumming and Wenxuan Hou

*The European Journal of Finance*, volume 20, issue 7–9 (2014) pp. 778–802

**Chapter 9**

*The growth, determinants, and profitability of nontraditional activities of Chinese commercial banks*

Michael Firth, Wei Li and Steven Shuye Wang

*The European Journal of Finance*, volume 22, issue 4–6 (2016) pp. 259–287

**Chapter 10**

*Executive compensation and the split share structure reform in China*

Wenxuan Hou, Edward Lee, Konstantinos Stathopoulos and Zhenxu Tong

*The European Journal of Finance*, volume 22, issue 4–6 (2016) pp. 506–528

**Chapter 11**

*Political connections and tax-induced earnings management: evidence from China*

Chen Li, Yaping Wang, Liansheng Wu and Jason Zezhong Xiao

*The European Journal of Finance*, volume 22, issue 4–6 (2016) pp. 413–431

**Chapter 12**

*External finance and trade credit extension in China: does political affiliation make a difference?*

Alessandra Guariglia and Simona Mateut

*The European Journal of Finance*, volume 22, issue 4–6 (2016) pp. 319–344

**Chapter 13**

*Are Chinese stock and property markets integrated or segmented?*

Chris Adcock, Xiuping Hua and Yiping Huang

*The European Journal of Finance*, volume 22, issue 4–6 (2016) pp. 345–370

For any permission-related enquiries please visit:

<http://www.tandfonline.com/page/help/permissions>

# Contributors

**Chris Adcock** SOAS – University of London, UK.

**Franklin Allen** The Wharton School, University of Pennsylvania, Philadelphia, USA.

**Don Bredin** Michael Smurfit Graduate Business School, University College Dublin, Blackrock, Ireland.

**Martin J. Conyon** Lancaster University Management School, Bailrigg, UK. The Wharton School, University of Pennsylvania, Philadelphia, USA.

**Douglas Cumming** College of Business, Florida Atlantic University, Boca Raton, USA. Birmingham Business School, University of Birmingham, UK.

**Michael Firth** Department of Finance, Lingnan University, Tuen Mun, Hong Kong, China.

**David Greenaway** School of Economics, University of Nottingham, UK.

**Alessandra Guariglia** Birmingham Business School, University of Birmingham, UK.

**Lerong He** School of Business Administration and Economics, College at Brockport, State University of New York, USA.

**Wenxuan Hou** Accounting & Finance Group, University of Edinburgh Business School, UK.

**Xiuping Hua** Nottingham University Business School China, University of Nottingham Ningbo China, China.

**Yiping Huang** National School of Development, Peking University, Beijing, China.

**Edward Lee** Manchester Business School, University of Manchester, UK.

**Wei Li** School of Accounting and Finance, The Hong Kong Polytechnic University, Kowloon, China.

**Chen Li** Zicklin School of Business, Baruch College of the City University of New York, USA.

**Ningyue Liu** Michael Smurfit Graduate Business School, University College Dublin, Blackrock, Ireland.

**Jun Ma** Department of Economics, Finance, and Legal Studies, Culverhouse College of Commerce & Business Administration, University of Alabama, Tuscaloosa, USA.

**Simona Mateut** Nottingham University Business School, University of Nottingham, Jubilee Campus, UK.

**Jun ‘QJ’ Qian** Carroll School of Management, Boston College, WFIC and CAFR, Chestnut Hill, USA.

**Susan Chenyu Shan** School of Economics and Finance, The University of Hong Kong, People’s Republic of China.

**Konstantinos Stathopoulos** Manchester Business School, University of Manchester, UK.

**Zhenhua Su** School of Public Administration, Zhejiang University, China. Department of Political Science, University of Chicago, USA.

**Zhenxu Tong** Xfi Centre for Finance and Investment, University of Exeter, UK.

**Liming Wang** Irish Institute for Chinese Studies, University College Dublin, Belfield, Ireland.

**Steven Shuye Wang** School of Business, Renmin University of China, Beijing, China.

**Yaping Wang** Guanghua School of Management, Peking University, Beijing, China.

**Mark E. Wohar** Department of Economics, University of Nebraska at Omaha, USA.

**Liansheng Wu** Management, Peking University, Beijing, China.

**Jason Zezhong Xiao** Cardiff Business School, Cardiff University, UK.

**Sheng Xiao** Social Science Division, University of Minnesota, Morris, USA.

**Zhihong Yi** School of Business, Renmin University of China, Beijing, China.

**Zhihong Yu** School of Economics, University of Nottingham, UK.

**Mengxin Zhao** School of Business, University of Alberta, Edmonton, Canada.

**Shan Zhao** School of Economics, Shanghai University of Finance and Economics, China.

## Introduction

Douglas Cumming, Alessandra Guariglia, Wenxuan Hou, and Chris Adcock

As one of the leading academic finance journals based in Europe, *The European Journal of Finance* published five special issues on the Chinese capital market, based on a series of conferences which began in 2009 at the University of Durham. The conferences brought together academics from all over the world to discuss the experiences and challenges characterizing the development of China's capital market. Given that the global economic growth and competitiveness are shifting increasingly towards emerging economies, each conference attracted more than 60 submissions by researchers based in a wide variety of countries such as Australia, China, France, Germany, Ireland, Italy, Japan, Sweden, the UK and the US among others, indicating a surge of academic interest throughout the world on the development and growth of China as an increasingly influential emerging economy.

Following a rigorous blind refereeing process, a selection of papers was accepted for publication in each Special Issue. This book includes the most influential articles from the first two special issues that shed light on the insights of Chinese listed firms and advance the understanding of its unique institutions. Important topics are covered including the governance role of foreign investors in partially privatized firms, the financial implications of political connections, the "Chinese model" of commercial banks and regulatory reforms that promote the marketization of the stock markets, among others. These studies also have important implications for other emerging economies and more recent development and challenges faced by the Chinese capital market.

Liu, Bredin, Wang, and Yi (2014) compare the characteristics of firms invested by Qualified Foreign Institutional Investor (QFII) against those invested by domestic Chinese funds. Their objective is to identify the similarities and differences between the investment preference of foreign and domestic funds. The empirical findings from China provided by this paper could have useful implications to foreign equity investment in other emerging countries. For instance, establishing a suitable balance between foreign and domestic ownership may improve firm performance, and enacting institutional reforms to modernize the capital market may facilitate the attraction of foreign equity capital.

Greenaway, Guariglia, and Yu (2014) find that joint-ventures outperform wholly domestic or fully foreign owned firms. They also show an inverted "U-shaped" relationship between foreign ownership and firm performance. The authors argue that these findings reflect that both foreign and domestic ownerships are necessary for optimal performance. The former provides modern technologies, capital, governance, managerial skills, and international networking. The latter contributes vital knowledge of Chinese markets and legal environment, as well as political connections with the local governments.

Allen, Qian, Shan, and Zhao (2014) demonstrate how emerging economies can generate viable solutions that fit their institutional settings. The authors argue that large Chinese state-owned banks can reduce agency costs by listing in exchanges outside mainland China because this exposes such banks to capital markets with stronger minority shareholder protection. They show that such Chinese banks outperformed their counterparts from other emerging and developed countries both before and during the 2007–2009 financial crisis. The authors interpret this as evidence that the “Chinese model” of partially privatizing and managing large state-owned financial institutions provides a balance between effective monitoring and maintaining competitiveness.

Canyon and He (2014) show that executive turnover in Chinese listed firms is more sensitive to accounting than stock market performance. They also show that state-controlled listed firms are more likely to use accounting performance in executive turnover decisions and that a corporate governance reform makes privately-controlled listed firms more likely to discipline executives for poor stock market performance. The authors argue that less noisy and more informative performance evaluation metrics are more effective in disciplining executives. Their results also suggest that this effect in China is conditional on the ownership structure of the listed firms. The consistent finding of both papers is that the executives of Chinese state-controlled listed firms are less accountable to outside investors in the stock market. These findings may affect the equity investments in such Chinese firms by foreign investors from market-based economies in Western developed countries.

Xiao and Zhao (2014) show that greater excess control rights are associated with more related-party loan guarantees, worse stock market reactions to the announcement of such guarantees, and more severe legal violations, and that these outcomes are concentrated among non-state firms instead of state-controlled firms. According to the authors, these findings suggest that ultimate controlling shareholders of non-state firms may have higher incentives to expropriate minority shareholders because this enhances their private benefits of control. This paper highlights that the influence of ownership structure can exacerbate agency problems in different ways in emerging economies such as China where investor protection is relatively weak.

Focusing on Chinese listed firms, Hou and Lee (2014) show a reduction in B-share discount following the elimination of trading constraints to restricted shares, which are largely held by state shareholders. They show that this effect is more pronounced among firms with more state ownership or restricted shares, which are more sensitive to the impact of this reform. They interpret this as evidence that this important stock market reform in China improved corporate governance, which in turn benefitted foreign equity investors.

Stock market volatility in China is examined in Su, Ma, and Wohar (2014). This paper shows that the expected return is the primary driving force to the price fluctuations in the Chinese stock market. The authors argue that this finding is consistent with the Chinese stock market being heavily influenced by investors’ time-varying expectation of future returns. Furthermore, they also find that the signal-to-noise ratio is low and suggest that this could contribute to the uncertainty of their stock price variance decomposition. The evidence provided by this paper may offer insights to the link between stock price fluctuations and firm fundamentals in other emerging markets.

Cumming and Hou (2014) examine the consideration paid out by restricted shareholders to freely-traded shareholders following the reform which terminated trading constraints of restricted shares. They show that the reform is fair at the market level. At the firm level, however, state shareholders offer less consideration when freely-traded shareholders have weaker

bargaining power. The authors conclude that greater bargaining power of outside investors is necessary to strengthen corporate governance and the protection of minority investors' interest.

Firth, Li, and Wang (2016) examine non-traditional activities of Chinese banks, such as insurance services, investment fund operations, wealth management, and investment banking services. They find that these non-traditional activities tend to expand when traditional business suffers from low profit margins. Non-traditional activities also increased when China entered the World Trade Organization (WTO). Furthermore, banks owned by different agents tend to have different degrees of non-traditional activities. In particular, city commercial banks tend to conduct more non-traditional activities than the big-four state-owned banks. Finally, the authors show that non-traditional income, which accounted for 19.1% of total income between 1998 and 2007, failed to promote banks' profitability.

Hou, Lee, Stathopoulos, and Tong (2016) evaluate the impact of a major institutional reform on executive contracting in China. They show an increased association between CEO pay and firm performance following the Split Share Structure Reform, especially among state-controlled listed firms that are more sensitive to the impact of the reform. This implies that the reform increased the incentive alignment between these firms' controlling state shareholders and private minority shareholders to monitor executives. As such, the authors provide empirical evidence consistent with this reform delivering corporate governance benefits to China.

Li, Wang, Wu and Xiao (2016) use occasional changes in tax policy that raised the tax rate for many Chinese firms to examine tax induced earnings management. They show that earnings management associated with tax increases occur mainly in politically connected firms. The authors suggest that this finding improves our understanding of how political connections affect firm value in China.

Guariglia and Mateut (2016) investigate how political affiliation influences firms' access to external finance. Their paper shows that firms with political connections have easier access to external finance and extend more trade credit. It also reveals that the sensitivity of trade credit extension to short-term liabilities among firms decreases with the degree of political affiliation. Overall, these findings imply that acquiring such affiliation in China could reduce financing constraints in the economy.

Adcock, Hua, Huang, and Zhang (2016) examine whether Chinese stock and property markets are integrated or segmented. They show that the investment returns of the two markets are co-integrated in the long run, that this linkage varies significantly and is associated with significant variation across regions. The authors suggest that these findings have implications on current policies seeking to hold down property prices and boost stock prices.

The thirteen chapters included in this book suggest that the financial issues characterizing Chinese firms cannot be well-understood without considering the unique institutional environment to which these firms are exposed. Existing Chinese-style capitalism as we know it incorporates the influence of these institutional factors as well as market demand/supply mechanisms. As China ascends towards becoming one of the largest economies in the world, the challenges it experiences and the solutions it adopts can provide useful policy implications for other emerging countries.

We encourage future studies to continue to explore how China's economy evolves. This book provides substantial foundation for future research. First, further work could examine in more detail corporate governance and ethical decisions among family firms, private versus public firms, state-owned versus non-state-owned firms and politically-affiliated firms in China. In particular, the causes and consequences of various types of governance would provide much

insight into capital markets in China and implications for other emerging economies. The impact of regulatory, demographic, and other changes over time could be further examined along these lines. Second, further work could examine the history and evolution of financial intermediation in China, and the importance of financial intermediaries in the growth of emerging economies like China. Third, further work could examine in greater detail entrepreneurial finance in China. We hope these topics, among others, will inspire scholars for years to come so that practitioners, policy makers and academics alike are inspired to study and learn from the evolution of one of the fastest growing and most interesting markets in history.

## References

- Adcock, C., Hua, X., & Huang, Y. (2016). Are Chinese stock and property markets integrated or segmented? *The European Journal of Finance*, 22(4–6), 345–370.
- Allen, F., Qian, J. Q., Shan, S. C., & Zhao, M. (2014). The IPO of Industrial and Commercial Bank of China and the ‘Chinese Model’ of privatizing large financial institutions. *The European Journal of Finance*, 20(7–9), 599–624.
- Cumming, D., & Hou, W. (2014). Valuation of restricted shares by conflicting shareholders in the Split Share Structure Reform. *The European Journal of Finance*, 20(7–9), 778–802.
- Conyon, M. J., & He, L. (2014). CEO turnover in China: The role of market-based and accounting performance measures. *The European Journal of Finance*, 20(7–9), 657–680.
- Firth, M., Li, W., & Shuye Wang, S. (2016). The growth, determinants, and profitability of nontraditional activities of Chinese commercial banks. *The European Journal of Finance*, 22(4–6), 259–287.
- Greenaway, D., Guariglia, A., & Yu, Z. (2014). The more the better? Foreign ownership and corporate performance in China. *The European Journal of Finance*, 20(7–9), 681–702.
- Guariglia, A., & Mateut, S. (2016). External finance and trade credit extension in China: does political affiliation make a difference?. *The European Journal of Finance*, 22(4–6), 319–344.
- Hou, W., & Lee, E. (2014). Split Share Structure Reform, corporate governance, and the foreign share discount puzzle in China. *The European Journal of Finance*, 20(7–9), 703–727.
- Hou, W., Lee, E., Stathopoulos, K., & Tong, Z. (2016). Executive compensation and the split share structure reform in China. *The European Journal of Finance*, 22(4–6), 506–528.
- Li, C., Wang, Y., Wu, L., & Xiao, J. Z. (2016). Political connections and tax-induced earnings management: evidence from China. *The European Journal of Finance*, 22(4–6), 413–431.
- Liu, N., Bredin, D., Wang, L., & Yi, Z. (2014). Domestic and foreign institutional investors’ behavior in China. *The European Journal of Finance*, 20(7–9), 728–751.
- Su, Z., Ma, J., & Wohar, M. E. (2014). Sources of the stock price fluctuations in Chinese equity market. *The European Journal of Finance*, 20(7–9), 829–846.
- Xiao, S., & Zhao, S. (2014). How do agency problems affect firm value? Evidence from China. *The European Journal of Finance*, 20(7–9), 803–828.

# Domestic and foreign institutional investors' behavior in China

Ningyue Liu, Don Bredin, Liming Wang and Zhihong Yi

This paper compares the investment characteristics between foreign funds operating under Qualified Foreign Institutional Investors (QFIIs) in China and domestic Chinese funds and analyzes the firm-level drivers that influence their allocation choices. The analysis reveals that foreign funds have a preference for a range of sectors such as transportation, metals and non-metals, and machinery, as opposed to industries with a requirement for local knowledge. The portfolios of domestic Chinese funds are distributed more evenly than those of the foreign funds. The comparative analysis indicates that foreign funds invest in firms that are significantly different from those favored by domestic funds in terms of size, profit, and compensation of management. Finally, we find that when making investment decisions, foreign funds tend to rely on some corporate governance indicators, which is not consistent with the results obtained from previous studies examining developed markets. In particular, foreign funds have a preference for firms with a high percentage of state-owned shares, while the reverse is the case for domestic funds. These empirical findings highlight the differences between QFII and domestic fund investment preferences and will be of value to policy-makers in emerging markets, and China, in particular, in gauging the important drivers of foreign investment.

## 1. Introduction

Although foreign direct investment has had a dramatic impact on economic development in China, it is only since 2003 that the Chinese government has permitted foreign institutional investors (FIIs) to directly invest in Chinese securities market (Zhang 2001; Greenaway, Guariglia, and Yu 2011). Since China became a member of the World Trade Organization in December 2001, it has implemented numerous measures to liberalize its economy and improve its investment environment. One of the most significant measures has been the Qualified Foreign Institutional Investor (QFII) scheme, which is designed to allow the largest overseas institutions access to China's stock markets. The QFII scheme represents a significant departure from China's traditional approach of strict capital controls. As of 30 September 2010, 93 QFIIs had been approved by the China Securities Regulatory Commission (CSRC).<sup>1</sup> The total investment quota of QFIIs has grown from US\$ 425 million at the beginning of the scheme in 2003 to US\$ 19 billion by the end of September 2010. In spite of the exceptional growth, there is limited research on how QFIIs determine the allocations across different listed companies and the factors influencing their investment behavior.



In this paper, we provide an introduction to the QFII scheme in China, examine the firm-level characteristics of stocks that fund managers invest in, and also investigate whether such stock preferences vary across foreign and domestic fund managers. Specifically, we aim to address three questions. First, what are foreign funds' industrial preferences? Second, how do firm-level characteristics compare to domestic funds? Finally, we examine what firm attributes impact the security holdings of foreign and domestic funds.

All previous research to date examining the preference of foreign investors has focused on either macro-level analysis or firm-level analysis for developed markets. For example, La Porta et al. (1997, 1998, 2000) found that stronger investor protection laws, high enforcement, and high-quality accounting disclosures have a positive impact on market development. Chan, Covrig, and Ng (2005) concluded that economic development, capital controls, and withholding tax variables have significant effects on foreign investors' investment allocation. Falkenstein (1996), Kang and Stulz (1997), and Dahlquist and Robertsson (2001) investigated the preference of FIIs in a firm-level analysis using US, Japanese, and Swedish market data, respectively. Given the short history of institutional investors in emerging stock markets and the difficulty in obtaining data, there is a considerable dearth of empirical evidence with regard to emerging markets. Moreover, Sercu and Vanpée (2007) found that the equity home bias is lower in developed markets and higher in emerging markets. Since developed markets have higher standards of information disclosure, we would expect that the information asymmetry between foreign and domestic investors in these markets would be less severe. However, foreign investors may face more severe information asymmetry in developing markets due to imperfect market, cultural, and political differences. It is, therefore, important to examine whether foreign funds exhibit a different preference compared with domestic investors in emerging markets. Our study sheds lights on the stock preference of foreign investors in emerging markets with information asymmetry and imperfect market.

The rate of economic growth in China in recent years has been dramatic, with an average annual growth rate of around 10% from 1978 to 2010.<sup>2</sup> China's gross domestic product reached US\$ 5.7 trillion in 2009. Thus, China has become the world's third largest economy, only second to the Eurozone and the USA.<sup>3</sup> The size and growth of Chinese equity markets are equally dramatic, growing from 104 billion Chinese yuan (CNY) in 1992 to more than 26 trillion CNY by the end of 2009.<sup>4</sup> The number of listed companies has grown from 14 in 1991 to 2063 by the end of 2010, while the number of trading accounts stands at 133 million.<sup>5</sup>

Given the major differences between Chinese and other developed markets, for example, in terms of culture and language, we would expect significant information asymmetries to exist. Grinblatt and Keloharju (2000) cited this type of asymmetries as having implications for portfolio decisions. Turning to the specific case of foreign investment behavior in China, Naughton (2007) concluded that insider control and manipulation are particular characteristics of the Chinese stock market. In addition to insider control, weak disclosure and regulation, along with continued policy-driven government investment, are further characteristics of the Chinese stock market (Naughton 2007). These aspects of the Chinese market stand in stark contrast to the case of developed markets. However, these considerations appear to count very little when we view the dramatic growth in foreign institutional investment in China.<sup>6</sup> Clearly, investors continue to see potential for further economic growth in China.

Given the dramatic growth and the specific features of the Chinese market outlined in the previous paragraph, we examine the impact of a comprehensive range of firm-level characteristics, financial and corporate governance indicators, on the investment decisions of foreign funds, with a comparative analysis of domestic funds. Although financial characteristics have been investigated by previous studies examining developed markets, our comprehensive range of indicators offers

a more robust analysis of the Chinese market. In particular, a number of additional financial aspects are included, such as operating ability, which is an important indicator used to evaluate the financial condition of a company. The role of corporate governance in the investment decisions of foreign (and domestic) funds is also examined. McKinsey and Company (2002) highlighted the importance of governance to the investment decisions in the global market. This study also highlights that corporate governance considerations dominate any other issues when it comes to investment decisions in East Asia.

Our results will be of value to policy-makers in both developed and developing markets in gauging the important drivers of foreign investment. Given the increasing significance of foreign financing and the fact that access to foreign capital is uneven across firms, it is important to fully understand the factors that influence investors' behavior. Moreover, Huang and Shiu (2006) found that stocks with high foreign ownership outperform stocks with low foreign ownership. Our findings will be particularly relevant to policy-makers and firms in creating an environment conducive to foreign investment.

This paper adopts the annual Chinese stock market data for the period 2003–2009 for both foreign and domestic funds. Our results indicate that FIIs prefer sectors such as transportation, metals and non-metals, and machinery as opposed to industries requiring local knowledge, for example, real estate, construction, and media and culture. The portfolios of domestic funds are distributed more evenly across sectors than those of foreign funds. This paper examines the impact of a comprehensive range of firm-level characteristics, financial and corporate governance indicators, on the investment of foreign and domestic funds. Although some characteristics have been investigated by previous studies, our comprehensive range of indicators offers a more robust analysis. In particular, a number of new financial measures are included, such as operating ability and compensation of management, which are important indicators used to evaluate the financial condition of a company. We find some characteristics of the companies that foreign investors invest in, such as size, profit, and compensation of management, are significantly different from those of the companies preferred by domestic funds.

Finally, we find that when making investment decisions, foreign funds tend to have a preference for certain corporate governance indicators, for example, ownership structure and concentration, which is inconsistent with prior research in developed markets (Kang and Stulz 1997; Dahlquist and Robertsson 2001; Aggarwal, Klapper, and Wysocki 2005). In particular, foreign funds prefer firms with a high percentage of state-owned shares, which is one of the characteristics of Chinese companies. In contrast, however, domestic funds place considerable emphasis on financial characteristics, for example, size and return on shareholders as well as corporate governance when they make investment decisions. Although ownership structure is one of the strongest determinants of the investment decisions of both foreign and domestic funds, their preferences represent investment strategies that represent two very different requirements. While foreign investors want to access priority industries such as manufacturing, with the implications of high state ownership, domestic investors have a preference for investing in industries that have lower state involvement and greater potential for external investment-derived growth. These empirical findings highlight the differences between foreign and domestic fund investment preferences. In particular, our results have important implications for policy-makers aiming to attract foreign investors to invest in emerging markets.

The outline of the rest of the paper is as follows. In Section 2, we briefly review the literature on FIIs' investment behavior, before introducing the case of China and the related research and research hypothesis development. In Section 3, we discuss the data and indicators used in this paper. In Section 4, we present the empirical results including industrial distribution and

comparative analysis of financial and corporate governance indicators as well as the factors having an impact on the investment decisions of foreign and domestic funds. Finally, in Section 5, we provide some concluding remarks.

## **2. Literature review and research hypotheses**

### **2.1 *Preference of foreign investors***

Frenkel and Poterba (1991), Cooper and Kaplanis (1994), and Tesar and Werner (1995) documented that although the barriers to international investment have declined dramatically, foreign ownership of shares is still extremely limited and much smaller than one would expect. A large number of papers have examined the home bias issue and several explanations have been given. Typically, researchers compare the aggregated holdings of investors in foreign markets with their domestic holdings (Lewis 1999). Kang and Stulz (1997) analyzed this issue from a different perspective and studied the shareholdings of foreigners in individual firms in a specific market. They adopted data for Japan from 1975 to 1991 and found that foreign investors disproportionately hold more shares of firms in manufacturing industries, large firms, and firms with good accounting performance, low unsystematic risk, and low leverage.

Dahlquist and Robertsson (2001) analyzed the determinants of foreign ownership in Swedish firms and found that foreigners have a preference for large firms, firms paying low dividends, and firms with large cash positions on their balance sheets. Foreign investors also tend to underweight firms with a dominant owner.<sup>7</sup> Covrig, Lau, and Ng (2006) investigated a range of stock preferences of domestic and foreign fund managers from 11 developed countries and concluded that foreign fund managers have less information about the domestic stocks than their domestic counterparts. They found that ownership by foreign funds is related to the size of foreign sales, index membership, and stocks with foreign listing. Jiang and Kim (2004) found that foreign investors in Japan tend to avoid stocks with high cross-corporate holdings. The authors suggest that FIIs are likely to be efficient processors of public information and are attracted to Japanese firms with low information asymmetry.

Fast-growing emerging markets are attractive to FIIs, and portfolio investments by FIIs were the most important source of capital for emerging markets, in particular, during the 1990s (Frenkel and Menkhoff 2004). Aggarwal, Klapper, and Wysocki (2005) looked at the portfolio holdings of 576 US mutual funds invested in emerging markets as of February 2002 and analyzed both country-level and firm-level disclosure and institutional policies that influence mutual funds' allocation choices. At the firm level, US funds have a preference for firms that adopt discretionary policies such as greater accounting transparency and the issuance of an American depositary receipt. Vo (2010) employed the data from Vietnam stock markets and found that FIIs avoid firms with dominant shareholders and favor investing in firms where they have less information asymmetry.

### **2.2 *QFII: a formal classification and recent developments***

QFII is defined as 'overseas fund management institutions, insurance companies, securities companies, and other asset management institutions which have been approved by CSRC to invest in China's securities market and granted investment quota by SAFE'.<sup>8</sup> Term 18 of the Provisional Measure states that QFIIs can invest in A shares, treasuries, convertible bonds, and corporate bonds listed in China's stock exchanges and other financial instruments as approved by CSRC.<sup>9</sup> The requirement for QFII's qualification states that fund managers must hold assets in excess of

US\$ 10 billion during the latest accounting year and have operated for over 5 years.<sup>10</sup> Hence, only large FIIs are qualified to apply as QFIIs. Two important conditions of the regulations influencing the investment of QFIIs arise from Term 20 (1), which states that ‘shares held by each QFII in any one listed company should not exceed 10% of the total outstanding shares of the company’, and Term 20 (2), which further states that ‘total shares held by all QFIIs in one listed company should not exceed 20% of the total outstanding shares of the company’.<sup>11</sup> The first three QFIIs approved in June 2003 were UBS, Nomura Securities, and Citigroup Global Markets. They were soon followed by Morgan Stanley International and Goldman Sachs. QFIIs are all large international institutions from major developed countries, for example, the USA, the UK, Germany, France, Japan, Canada, the Netherlands, and Switzerland.

CSRC, People’s Bank of China, and SAFE jointly issued new regulations, entitled ‘Measures for the Administration of Investment in Domestic Securities by Qualified Foreign Institutional Investors’ (the ‘new QFII rules’) on 24 August 2006. The new QFII rules supersede the original ones that were in place since 2002 and took effect from 1 September 2006. The qualifying criteria in terms of assets under management for QFII applicants that are fund management institutions have been reduced from US\$ 10 billion to US\$ 5 billion during the latest accounting year. This will enable more fund management companies to apply for QFII approval.<sup>12</sup> In addition, while the old rules did not specifically cater for other categories of institutional investor, it is now stated that they are subject to the qualifying criteria of having been established for at least 5 years and having assets under management of at least US\$ 5 billion in the most recent accounting year.<sup>13</sup> Furthermore, on 29 September 2009, SAFE released ‘the Provisions on Foreign Exchange Administration of Domestic Securities Investment by Qualified Foreign Institutional Investors’. The maximum accumulated investment quota of one single QFII has been increased to US\$ 1 billion from US\$ 800 million. The new QFII rules contain significant improvements from the original rules, particularly for fund management companies wishing to invest in the Chinese domestic securities market through the QFII scheme. The positive changes under the new QFII rules open the way for further development of investment fund products in China.

### **2.3 Empirical evidence on QFIIs**

The QFII system was introduced in Taiwan in the late 1980s and begun in 1991, when Taiwan’s stock market was particularly popular with foreign investors (Dean 2003). Research on QFIIs in Taiwan is divided into two main categories. One area of research has examined the impact of QFIIs on Taiwan’s stock market and local companies’ performance (Huang and Shiu 2006; Lin and Chen 2006). The other has investigated the behavior of QFIIs, for example, the extent of momentum and herd behavior, in Taiwan (Lin and Swanson 2003; Lai, Lou, and Shiu 2008; Lu et al. 2009). Lin and Shiu (2003) investigated foreign ownership in Taiwan stock market from 1996 to 2000 and found that foreign investors appear to favor large firms and low book-to-market stocks. The analytical results show that foreign investors have a preference for firms with high export ratios. Furthermore, Korea announced guidelines for the limited opening up of its equity market to foreign investment in 1991. Using Korean data, Choe, Kho, and Stulz (2005) showed that FIIs pay more than their domestic counterparts when they buy and receive less when they sell for medium and large trades, which indicates that domestic individual investors have an edge over foreign investors.

The extent of research on QFIIs in China is limited given the difficulties in accessing data and the short time period of the QFII scheme. Most of the research to date provides an introductory analysis; for example, Yeo (2003) introduced the QFII scheme in China and compared it with other

Asian QFII markets. Ting, Yen, and Chiu (2008) examined the relationships between audit opinions and the default probability within the Chinese stock market and found that audit opinions begin providing signals of potential default risk only after QFIIs entered the market. Chan and Yu (2003) investigated market reactions on the announcement of the QFII scheme and found no significant abnormal returns in market indices in the short term leading up to the announcement, negative abnormal returns in short term following the announcement, and no significant abnormal returns in the long term. Most recently, Huang and Zhu (2011) used the data on QFIIs in China around the split-share structure reform to investigate the different roles of QFIIs and domestic funds in the firms' voting process. They concluded that FIIs are subject to less political pressure than domestic counterparts. They also found that foreign and domestic funds differ in portfolio selection.

## 2.4 Research hypotheses

*Hypothesis 1:* FIIs have a preference for manufacturing industry in China.

First, what are foreign funds' industrial preferences? Merton (1987) argued that investors prefer securities that they know about. In other words, foreign investors invest less in the industry requiring local knowledge, for example, real estate. Furthermore, is it the case that foreign funds have a preference for manufacturing industries, which is consistent with the preference of FIIs in developed markets (see Kang and Stulz 1997), or are there special features associated with the Chinese market? Accordingly, we propose Hypothesis 1.

*Hypothesis 2:* Differences exist between the firms favored by foreign and domestic institutional investors in relation to financial and corporate governance characteristics.

Second, how do firm-level characteristics of foreign firms compare to domestic funds? The question of whether foreign and domestic institutional investors have the same investment behavior is increasingly controversial. One argument is that FIIs are more sophisticated investors than their domestic counterparts (Grinblatt and Keloharju 2000). An alternative is that they are regarded as equally sophisticated but not as well informed (Covrig, Lau, and Ng 2006). Therefore, they will invest in companies with different characteristics compared with those that domestic funds invest in. Conversely, Chang (2010) highlighted that foreign investors in emerging markets might be expected to suffer from an informational disadvantage given a lack of local knowledge and contacts. For example, foreign investors need to take account of China's unique characteristics, such as insider control and the influential role of government policy (Naughton 2007).<sup>14</sup> This information asymmetry, combined with China's unique characteristics, may motivate FIIs to choose the 'free rider strategy' and follow the investment decisions of domestic funds. Formal empirical evidence on this issue is also mixed. Grinblatt and Keloharju (2000), using Finnish data; Choe, Kho, and Stulz (2005), using Korean data; and Covrig, Lau, and Ng (2006), using a data set of 11 developed countries, found significant differences in the investment behavior of foreign and domestic investors. Kang and Stulz (1997), using Japanese data, found no difference in the performance of foreign and domestic investors. Chang (2010), using data from Taiwan Stock Exchange, found that foreign and local institutional traders herd around expatriates for information reasons. Is it the case that foreign funds follow the investment decisions of domestic funds because of information asymmetry and China's unique characteristics or do they invest in companies with different characteristics compared with those that domestic funds invest in because of more sophisticated investment skills? Thus, we propose Hypothesis 2.



In order to compare the different firm-level characteristics of firms that QFIIs invest in and those favored by domestic funds, we divide the whole sample into two groups: one group includes the firms that have at least one QFII holding their equity and the other group includes the firms without QFII presence. Then, we compare the firm-level characteristics between these two groups. Additionally, the firm-level characteristics are divided into two groups: financial indicators and corporate governance indicators, which will be discussed detailedly in Section 3. According to the above analysis, we could expect that there are significant differences regarding both financial and corporate governance indicators between the two groups if foreign funds do not follow the investment decisions of domestic funds even though they have to face information asymmetry and are not familiar with the unique features of Chinese stock markets.

*Hypothesis 3:* Corporate governance (financial characteristics) has a significant impact on the investment of foreign (domestic) institutional investors.

Finally, we examine what firm attributes impact the security holdings of foreign and domestic funds. Most of the previous studies emphasize the impact of financial characteristics, for example, size, on the share holdings of institutional investors (Dahlquist and Robertsson 2001). However, Leuz, Lins, and Warnock (2009) believe that corporate governance, for example, ownership structure, belong to another group of factors that are considered when investment decisions are made. We examine whether this is also the case for FIIs in China. Given the potential long-term investment benefits, we would expect to find that foreign investors (representing sophisticated investors) are more likely to consider the corporate governance characteristics of firms. Given the short history of the local markets, the trading experiences and investment sophistication of the Chinese investors are unlikely to be comparable with those of investors from developed markets (Ng and Wu 2007). We could expect that Chinese domestic institutional investors (representing relatively less sophisticated investors) might have a preference for financial characteristics, given the short-term capital gain. Specifically, domestic fund managers may put more emphasis on a firm's financial characteristics, for example, return on shareholders, which is measured by earning per share and price-to-earning (P/E) ratio in this paper. For these reasons, we propose Hypothesis 3.

Hypothesis 3 predicts the differences in the firm characteristics that explain the 'abnormal' holdings between foreign and domestic investors. 'Abnormal' holdings are measured by the percentage relative spread, which measures the over- and under-investment of funds by calculating the difference between the firms' allocated weight and the Chinese market weight for each firm in this paper. According to the above analysis, we could expect that corporate governance (financial) indicators significantly explain the 'abnormal' holdings of foreign (domestic) funds in Chinese stock markets.

### **3. Data issues and key characteristics**

#### **3.1 Data description**

The shareholder data of foreign and domestic funds are all sourced from the Wind database, while financial and corporate governance data are from the China Stock Market Accounting Research at GTA Research Service Center.<sup>15</sup> The data are annual and cover the period 2003–2009. In order to investigate the behavior of foreign and domestic funds, our sample includes only those companies whose stocks are held by foreign funds, domestic funds, or both. Table 1 presents the breakdown of both foreign and domestic funds for individual years. Over this period, the number of foreign

Table 1. Distribution of funds by year.

Year	QFII		Domestic fund	
	No. of QFIIs	No. of firms that QFIIs invest in	No. of domestic funds	No. of firms that domestic funds invest in
2003	10	17	110	516
2004	24	35	161	1049
2005	31	122	218	1062
2006	44	196	301	1113
2007	49	154	346	893
2008	66	124	439	887
2009	85	210	557	1273
Mean	44	123	305	970

Notes: This table presents the distribution of QFIIs and domestic funds in terms of year. The information on the amounts of QFIIs and domestic funds is obtained from the Investment Quota Approval Form of QFIIs issued by SAFE, 14 July 2010, and the monthly report issued by CSRC, respectively. Following the global economic downturn, the number of firms whose shares are partially held by foreign institutional investors fell in 2007 and 2008. Shanghai Stock Exchange Composite Index fell from the peak of 6092 points on 16 October 2007 to the bottom of 1719 on 3 November 2008.

and domestic funds grew dramatically. The average numbers of firms that foreign and domestic funds invest in each year are 123 and 970, respectively.

### 3.2 Industry characteristics

Firms are classified in 13 industrial sectors using codes provided by CSRC. Given that foreign investors traditionally hold more shares of firms in manufacturing industries (Kang and Stulz 1997) and the large number of manufacturing companies in China, we subdivide the manufacturing industry with CSRC industrial code C into 10 sublevel industries. There are 22 sectors in total. Dummy variables are employed to capture the industrial effect. For instance, the dummy variable for the agriculture, forestry, and animal husbandry and fishery (A) industry will be assigned a value of one if a company belongs to that specific industry and a zero otherwise.

### 3.3 Financial characteristics

The firm-level characteristics are divided into two groups: financial indicator group and corporate governance indicator group. In each group, we choose a range of indicators to measure the firm-level characteristics according to the previous literature and the characteristics of Chinese capital market. We explain the detailed financial indicators' definition in Table 2. The first column presents the classification of the financial characteristics. The second column presents the indicators used to measure the characteristics. For example, total assets and capitalization are adopted to indicate company size. In the last column, the formula is stated for each indicator.

Drawing on existing studies, we use total assets and capitalization to measure size, current ratio and quick ratio to measure short-term liabilities-paying capability, asset liabilities ratio and long-term liabilities ratio to measure long-term liabilities-paying capability, earnings per share and P/E ratio to measure return on shareholders, and return on assets (ROA) and return on equity (ROE) to measure company profit. In addition to these five firm-level characteristics, our analysis also includes four additional characteristics, namely financial risk, cash flow, growth, and operating capability. In order to investigate a comprehensive range of firm-level characteristics, we also add

Table 2. Financial indicator definition.

Classification	Indicator	Symbol	Formula
Size	Total assets	LNTA	$\ln(\text{total assets})$
	Capitalization	LNC	$\ln(\text{capitalization})$
Short-term liabilities-paying capability	Current ratio	CR	Current assets/current liabilities
	Quick ratio	QR	$(\text{Current assets} - \text{inventory})/\text{current liabilities}$
Long-term liabilities-paying capability	Assets–liabilities ratio	ALR	Total liabilities/total assets
	Long-term liabilities ratio	LDR	Long-term liabilities/total liabilities
Financial risk	Degree of financial leverage	DFL	$\text{Earnings before interest and taxes (EBIT)}/(\text{EBIT}-\text{financial cost})$
	Degree of operating leverage	DOL	$\% \text{ change in operating income}/\% \text{ change in sales}$
Return on shareholders	Earnings per share	EPS	Net profit /total shares outstanding
	Price-to-earning ratio	P/E	Price per share/earnings per share
Profit	Return on assets	ROA	Net profit /average total assets
	Return on equity	ROE	Net profit /average total equity
Cash flow	Free cash flow	FCF	Net profit + amortization/depreciation-changes in working capital – capital expenditures
	Net cash flow per share	NCFPS	Net increase in cash and cash equivalents/total shares outstanding
Growth	Growth rate of fixed assets	GRFA	$(\text{Ending fixed assets} - \text{beginning fixed assets})/\text{beginning fixed assets}$
	Growth rate of total assets	GRTA	$(\text{Ending total assets}-\text{beginning total assets})/\text{beginning total assets}$
Operating capability	Turnover rate of receivables	TRR	Operating income/average receivables
	Turnover rate of inventory	TRI	Operating cost/average inventory

Notes: In this table, we explain the financial indicators employed in the paper. We divide the comprehensive range of financial characteristics into nine subgroups, namely size, short-term liabilities-paying capability, long-term liabilities paying capability, financial risk, return on shareholders, profit, cash flow, growth, and operating capability. In each subgroup, two indicators are used to measure this classification for robustness. In the last column, we also introduce the way to calculate the indicator.

cash flow and operating capability, which are important characteristics for a company, but omitted by previous studies.

### 3.4 Corporate governance characteristics

Table 3 reports the definition of the corporate governance indicators. Since the late 1980s, shareholder activism has played a predominant role in improving corporate governance structures (Karpoff, Malatesta, and Walkling 1996; Gillan and Starks 2000). However, there is an endogeneity problem, suggesting that institutions are good at investing in the firms with better corporate governance structure, leading to the observed relationship between institutional presence and better-governed firms without any active participation (Chen, Harford, and Li 2007). The studies



Table 3. Corporate governance definition.

Classification	Indicator	Symbol	Formula
Ownership structure	Percentage of state-owned shares	PSOS	Number of state-owned shares/number of total shares
	Percentage of circulating shares	PCS	Number of circulating shares/number of total shares
Ownership concentration	Ownership percentage of the largest circulating shareholder	OPLCS	Number of shares held by the largest circulating shareholder/number of total shares
	Z index	Z	Number of shares held by the largest circulating shareholder/number of shares held by the second largest circulating shareholder
Management structure	Number of directors	ND	Number of directors
	Number of supervisors	NS	Number of supervisors
	Duality of chairman and CEO	DCEO	A dummy variable equals 1 if the chairman and the CEO is one person and 2 otherwise
Compensation of management	Percentage of independent directors	PID	Number of independent directors/number of directors
	ln of sum of top three compensation of directors	LNSD3	ln of sum of top three compensations of directors
	ln of sum of top three compensation of senior executives	LNSSE3	ln of sum of top three compensations of senior executives

Notes: In this table, we explain the corporate governance indicators employed in the paper. We divide the comprehensive range of corporate governance characteristics into four subgroups, including ownership structure, ownership concentration, management structure, and compensation of management. In each subgroup, some indicators are used to measure this classification for robustness. In the last column, we also introduce the way to calculate the indicator.

focused on independent long-term institutions and found that the corporate governance index (G-score) (Gompers, Ishii, and Metrick 2003) has no effect on institutions' shareholding decisions. On the other side, Leuz, Lins, and Warnock (2009) studied 4409 firms from 29 countries and found that foreigners invest less in firms due to governance problems.

For ease of comparison, we first choose the same attributes, ownership concentration as Dahlquist and Robertsson (2001) and management structure as Bushee, Carter, and Gerakos (2009). In addition to these two classifications, our analysis also includes two more measures, namely ownership structure and compensation of management. Naughton (2007) indicated that circulating and non-circulating shares are notable characteristics of the Chinese equity market. Therefore, we employ the percentage of state-owned shares and the percentage of circulating shares in the ownership structure subgroup. Finally, compensation of management is also an important characteristic of a company and is also included here.

#### 4. Empirical results

In this section, we present evidence of foreign and domestic ownership in China. We begin by showing the industrial distribution of foreign and domestic funds. Next, we compare the

firm-level investment preferences between foreign and domestic funds in relation to the financial characteristics and corporate governance. We then extend our examination of the determinants of foreign ownership by analyzing the firm-level drivers of FIIs. Finally, we consider the different drivers of foreign and domestic funds.

#### 4.1 Industrial distribution

Table 4 reports the relative importance of foreign over domestic fund ownership and the industry weights in the Chinese market for a total of 22 industries. The numbers are in percentage terms, 1% means that FIIs invest 1% more of their Chinese A-share portfolio in an industry than they would if their investment weights were those of the Chinese market portfolio. The first column

Table 4. Industry allocations of foreign and domestic funds in China.

Industry	Firm number (Panel A)		Shareholding number (Panel B)		Market value (Panel C)	
	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic
Agriculture (A)	0.29 (21)	-0.08 (142)	-0.01	-0.26	0.65	0.19
Mining (B)	1.80 (36)	0.18 (172)	-4.26	-0.85	-3.44	0.38
Food and beverage (C0)	1.46 (48)	0.39 (304)	2.38	1.23	3.13	5.18
Textiles and apparel (C1)	-1.22 (25)	-0.44 (252)	-0.61	-0.74	0.02	-0.01
Timber and furnishings (C2)	-0.01 (3)	-0.07 (20)	-0.01	0.04	0.07	0.07
Paper and printing (C3)	-0.30 (15)	-0.20 (125)	0.30	0.13	0.56	0.33
Petrochemicals (C4)	-3.04 (64)	-0.16 (705)	-0.95	0.57	1.15	3.41
Electronics C5	-1.52 (25)	-0.37 (277)	-0.51	-0.52	0.44	0.34
Metals and non-Metals (C6)	3.47 (105)	0.56 (628)	14.02	6.11	9.72	6.56
Machinery (C7)	0.02 (140)	-0.93 (1040)	5.10	2.71	10.85	6.81
Pharmaceutical (C8)	0.35 (58)	0.27 (452)	-0.10	1.46	1.38	3.48
Other manufacturing (C9)	-0.15 (7)	-0.17 (54)	-0.04	-0.05	0.07	0.07
Utilities (D)	1.86 (50)	0.71 (315)	2.24	0.41	1.07	0.81
Construction (E)	-0.37 (17)	-0.04 (157)	-1.39	0.12	-0.93	-0.52
Transportation (F)	4.82 (78)	0.99 (351)	4.17	0.38	5.11	3.41
Information technology (G)	-2.75 (37)	-1.05 (410)	-0.85	2.15	2.15	3.07
Wholesale and retail (H)	-0.19 (47)	0.68 (431)	0.35	2.36	1.58	4.71
Finance and insurance (I)	0.39 (19)	0.14 (132)	-19.44	-17.81	-35.63	-44.79
Real estate (J)	-2.76 (25)	0.19 (402)	-0.23	2.94	0.86	4.41
Social services (K)	1.37 (40)	-0.20 (207)	1.03	0.55	1.02	1.23
Media and culture (L)	-0.84 (0)	-0.03 (55)	-0.23	0.40	-0.11	0.61
Conglomerates (M)	-2.68 (17)	-0.37 (293)	-0.96	-1.33	0.28	0.25
Total	(877)	(6925)				

Notes: This table presents the statistics of industry allocations by foreign and domestic funds. The first column lists the industries in China according to the classification of CSRC. The second and third columns (Panel A) report the deviation in percentage of each industry's weight in the portfolio held by foreign and domestic funds from its weight in the Chinese market portfolio in terms of the number of firms. For example, the first row shows that 0.29% means that foreign funds invest 0.29% more of their portfolio in the agriculture industry than they would if their investment weights were those of the Chinese market portfolio. It indicates the fund's over under-investment in an industry relative to the Chinese market portfolio. Within the parentheses, the numbers of firms for each industry are reported. The fourth and fifth columns (Panel B) report the deviation in terms of the number of shares. The Sixth and Seventh columns (Panel C) present it in terms of the number of market value. The percentage of each industry's weight in the Chinese market portfolio is the value by the end of 2009. The full name of industry A is agriculture, forestry, animal husbandry and fishery and that of industry F is communication, transportation and storage.

lists the industry sector. The second and third columns (Panel A) report the number of firms (in %) broken down by industry. Within the parentheses, the numbers of firm-year observations for each industry are reported. The fourth and fifth columns (Panel B) present the number of shares (in %) and the sixth and seventh columns (Panel C) present the market value (in %) for each industry from 2003 to 2009.<sup>16</sup>

The second, fourth, and sixth columns report FIIs' ownership, and the domestic institutional investors' ownership is presented by the third, fifth, and seventh columns. FIIs disproportionately hold more investments in the transportation sector with 4.82%, 4.17%, and 5.11% being overweighted in these portfolios in Panels A, B, and C respectively. The ownership of domestic institutional investors in the transportation sector is similar to the Chinese market portfolio (0.99% and 0.38% weight in their portfolio in Panels A and B, respectively). FIIs are also overweighted in metals and non-metals (3.47%, 14.02%, and 9.72% overweight in their portfolio in three panels, respectively), which are part of the manufacturing industry. This finding is consistent with that of Kang and Stulz (1997). It is also clear that FIIs disproportionately hold more investments in the machinery industry. Therefore, Hypothesis 1, FIIs have a preference for manufacturing industry in China, is supported. In Panel A, FIIs' allocations in the finance and insurance sector (0.39%) are generally consistent with the Chinese market portfolio, which means that FIIs invest in most firms in this industry. However, FIIs disproportionately hold less in the finance and insurance sector and the deviation for it is extremely large in Panels B and C.<sup>17</sup> Between 2003 and 2009, FIIs invested 19.44% and 35.63% less of their Chinese portfolio in the finance and insurance sector than in the market portfolio in Panels B and C, respectively. One possible reason for this phenomenon could be that some QFIIs are also strategic investors in Chinese banks.<sup>18</sup> Strategic investor is an alternative facility to invest in the finance and insurance sector for QFIIs.<sup>19</sup> Therefore, foreign investors are more likely to invest more in the finance and insurance sector as a strategic investor in order to play a dominant role as a big shareholder rather than invest in this sector as a QFII.

Our results indicate that foreign investors have little preference for real estate, in particular, relative to domestic investors. The lower levels of investment in real estate by FIIs are consistent with empirical evidence from developed markets that found a considerably larger role played by domestic investors given the requirement of local knowledge (Dahlquist and Robertsson 2001). FIIs also hold fewer allocations of construction, media and culture, other manufacturing, and conglomerates. The portfolio of domestic funds is distributed more evenly across sectors than that of foreign funds. Domestic funds invest 0.56%, 6.11%, and 6.56% more in metals and non-metals in the three panels, respectively, which is consistent with the industrial preferences of FIIs. However, they disproportionately hold more investments in the wholesale and retail and real-estate sectors, which is inconsistent with FIIs. The requirement for local knowledge is again a likely explanation for such a finding. Finally, domestic funds also disproportionately hold lower levels in the finance and insurance sector with a portfolio underweighting of 17.81% and 44.79% in Panels B and C, respectively.

## 4.2 *Foreign and domestic funds: an empirical comparison*

In this section, we present evidence of different investment characteristics between foreign and domestic funds. In order to take account of outliers, we winsorize the data before computing the statistics.<sup>20</sup> We use the *t*-test and the median test to compare the mean and median between the two groups of non-financial firms. Although the extent of foreign investment has grown dramatically, the portfolio holding remains relatively small compared with the domestic counterparts. Foreign and domestic funds' portfolio holdings consist of 858 and 6793 firm-year observations,

respectively. The sample size of domestic funds' portfolio holdings is almost eight times that of foreign funds' portfolio holdings.

The comparative results of the financial characteristics are reported in Table 5. The two groups are statistically different in terms of both size and profit. Consistent with prior research (see Dahlquist and Robertsson 2001; Aggarwal, Klapper, and Waddock 2005), we find that the size of the firms in foreign funds' portfolios is larger than that of those in domestic funds' portfolios. We use current ratio and quick ratio as a proxy for short-term liabilities-paying capability. The means of both the current ratio and quick ratio in the two groups are not significantly different, which is consistent with the findings of Kang and Stulz (1997).<sup>21</sup> A higher P/E ratio indicates that investors are paying more for each unit of net income, with the ratio in China being several times higher than that in many countries.<sup>22</sup> Therefore, it is not a surprise that the P/E ratio of the firms in foreign funds' portfolios is higher than that of those in domestic funds' portfolios according to the median test. Another notable difference is that both ROA and ROE in the foreign funds' group are larger than those in the domestic funds' group, which is consistent with the result reported by Kang and Stulz (1997) using ROA, although inconsistent with the findings reported by Dahlquist and Robertsson (2001) and Aggarwal, Klapper, and Waddock (2005) using ROE.

The comparative results of the corporate governance characteristics are reported in Table 6. The two groups are statistically different in terms of both the percentage of circulating shares and compensation of management. We find that the percentage of circulating shares of the firms in foreign funds' portfolios is larger than that of those in domestic funds' portfolios. This is a significant issue in China. Policy-makers' aversion to the loss of state-owned assets in China means that there are a large percentage of non-tradable shares in Chinese stock markets. The implications of greater levels of circulating shares is that FIIs have more freedom to trade the shares. In contrast, however, there are no significant differences between the two groups with regard to most of the indicators in the management structure aspect except for the number of directors. Another notable difference is the compensation of the management group. Both indicators are significantly different between the two groups (at the 1% level of significance).

Our findings highlight a number of distinct issues between foreign and domestic funds, in particular, in relation to the financial and corporate governance characteristics. Although commonalities exist, foreign and domestic institutional investors differ significantly in portfolio selection in terms of size and profit of firms. In addition, there is also a considerable difference between the companies in the two groups in relation to the aspect of corporate governance, for example, management compensation. Our results indicate that FIIs do not follow the 'free rider strategy' even though they are not familiar with the Chinese market. Therefore, Hypothesis 2, differences exist between the firms favored by foreign and domestic institutional investors in relation to financial and corporate governance characteristics, is supported.

### 4.3 *Preferences of foreign and domestic funds*

In this section, we focus on analyzing the firm-level drivers that influence foreign and domestic investors' allocation choices.<sup>23</sup> Both fixed-effects models (FEMs) and random-effects models (REMs) are used in this paper to examine the relationships (Greene 2002).<sup>24</sup> Due to the high correlation between the indicators in several classifications, we adopt a modified step-wise regression approach (see Ghosh, Harding, and Phani 2008, for a recent empirical example) to indicate the appropriate proxy for each case. We regress the ownership of foreign funds in each company against the industry and each of the individual indicators to identify the appropriate determining variable, using the  $R^2$  of each regression.<sup>25</sup> Finally, we estimate a combined model by selecting the

Table 5. Financial indicator comparison.

Classification	Indicator	Test	QFII	Domestic fund	<i>p</i> -value
Size	In of total assets	Mean	22.05	21.65	0.000***
		Median	21.87	21.51	0.000***
	In of capitalization	Mean	22.52	22.04	0.000***
		Median	22.44	21.90	0.000***
Short-term liabilities-paying capability	Current ratio	Mean	1.69	1.82	0.161
		Median	1.20	1.27	0.014**
	Quick ratio	Mean	1.27	1.36	0.294
		Median	0.78	0.84	0.009***
Long-term liabilities-paying capability	Assets–liabilities ratio	Mean	0.47	0.48	0.305
		Median	0.48	0.49	0.060*
	Long-term liabilities ratio	Mean	0.19	0.16	0.000***
		Median	0.12	0.09	0.002***
Financial risk	Degree of financial leverage	Mean	1.20	1.31	0.033**
		Median	1.13	1.14	0.129
	Degree of operating leverage	Mean	1.76	1.98	0.008***
		Median	1.64	1.78	0.001***
Return on shareholders	Earnings per share	Mean	0.49	0.33	0.000***
		Median	0.39	0.26	0.000***
	Price-to-earning ratio	Mean	65.76	68.24	0.689
		Median	29.53	32.27	0.002***
Profit	Return on assets	Mean	0.07	0.05	0.000***
		Median	0.06	0.04	0.000***
	Return on equity	Mean	0.14	0.09	0.000***
		Median	0.12	0.09	0.000***
Cash flow	Free cash flow	Mean	8.94	4.86	0.005***
		Median	2.09	1.09	0.000***
	Net cash flow per share	Mean	0.34	0.29	0.245
		Median	0.09	0.07	0.081*
Growth	Growth rate of fixed assets	Mean	0.29	0.31	0.756
		Median	0.08	0.06	0.020**
	Growth rate of total assets	Mean	0.24	0.23	0.557
		Median	0.15	0.12	0.002***
Operating capability	Turnover rate of receivables	Mean	125.79	86.79	0.303
		Median	9.20	7.74	0.000***
	Turnover rate of inventory	Mean	31.89	17.75	0.089*
		Median	4.85	4.22	0.001***

Note: In order to compare the different firm-level characteristics of firms that QFIIs invest in and those favored by domestic funds, we divide the whole sample into two groups: one group includes the firms that have at least one QFII holding their equity and the other group includes the firms without QFII presence. In this table, we compare a range of financial indicators between companies in two groups. The first column presents the classification of financial characteristics. The second column presents some indicators used to measure these characteristics. *t*-test and median test are employed to compare the difference between these two groups. The mean and median of each indicator of these two groups are given in the fourth and fifth columns respectively. *p*-value of the test is given in the last column. The unit of total assets, capitalization, earnings per share, and net cash flow per share is CNY, while the unit of free cash flow is 100 million CNY.

\*Significant at 10% level.

\*\*Significant at 5% level.

\*\*\*Significant at 1% level.

Table 6. Corporate governance comparison.

Classification	Indicator	Test	QFII	Domestic fund	<i>p</i> -value
Ownership structure	Percentage of state-owned shares	Mean	0.29	0.28	0.645
		Median	0.30	0.28	0.308
	Percentage of circulating shares	Mean	0.54	0.51	0.000***
		Median	0.50	0.46	0.000***
Ownership concentration	Ownership percentage of the largest circulating shareholder	Mean	8.72	6.23	0.000***
		Median	3.11	1.95	0.000***
	Z index	Mean	9.25	6.18	0.014**
		Median	1.60	1.57	0.554
Management structure	Number of directors	Mean	9.74	9.48	0.002***
		Median	9.00	9.00	0.011**
	Number of supervisors	Mean	4.16	4.11	0.469
		Median	3.00	3.00	0.493
	Duality of chairman and CEO	Mean	1.85	1.85	0.903
		Median	2.00	2.00	0.900
	Percentage of independent directors	Mean	0.35	0.35	0.565
		Median	0.33	0.33	0.450
Compensation of management	ln of sum of top three compensations of directors	Mean	13.49	13.26	0.000***
		Median	13.52	13.30	0.000***
	ln of sum of top three compensations of senior executives	Mean	13.71	13.43	0.000***
		Median	13.73	13.46	0.000***

Note: In order to compare the different firm-level characteristics of firms that QFIIs invest in and those favored by domestic funds, we divide the whole sample into two groups: one group includes the firms that have at least one QFII holding their equity and the other group includes the firms without QFII presence. In this table, we compare some corporate governance indicators between the companies in two groups. The first column presents the classification of corporate governance characteristics. The second column presents some indicators used to measure these characteristics. *t*-test and median test are employed to compare the difference between these two groups. The mean and median of each indicator of these two groups are given in the fourth and fifth columns respectively. *p*-value of test is given in the last column. The unit of compensation is CNY.

\*Significant at 10% level.

\*\*Significant at 5% level.

\*\*\*Significant at 1% level.

most statistically significant measure for each characteristic to examine the drivers of institutional investors. Consistent with previous studies in the literature, we track funds' portfolio holdings using the percentage relative spread (see Kang and Stulz 1997; Dahlquist and Robertsson 2001).<sup>26</sup> The percentage relative spread captures funds' deviations from investment allocations predicted by the Chinese market portfolio.<sup>27</sup>

Table 7 presents the selection process. Model 1 reports the results of the regression of foreign funds' percentage relative spread on size indicators and industrial dummy variables.<sup>28</sup> For each explanatory variable, the table reports the parameter coefficient on the left and the overall  $R^2$  within the parentheses on the right. The superscripts of coefficients denote the significance of the individual coefficient and the superscripts of the overall  $R^2$  denote the model used to estimate. Overall  $R^2$  of the natural logarithm of the total assets (0.0527) is smaller than that of the natural logarithm of capitalization (0.0547), thus we choose the latter indicator in the final model. The selecting processes of other financial subgroups are reported from Model 2 to Model 13, which are

Table 7. Test for firm-level characteristics in explaining investment allocation of foreign funds.

Model	Classification	Indicator	
Model 1	Size	ln of total assets	−0.5801 (0.0527) <sup>F</sup>
		ln of capitalization	− <b>0.1247 (0.0547)<sup>F</sup></b>
Model 2	Short-term liabilities-paying capability	Current ratio	− <b>0.0242 (0.0226)<sup>R</sup></b>
		Quick ratio	−0.0283 (0.0225) <sup>R</sup>
Model 3	Long-term liabilities-paying capability	Assets–liabilities ratio	0.0798 (0.0224) <sup>R</sup>
		Long-term liabilities ratio	<b>0.7683 (0.0249)<sup>R</sup></b>
Model 4	Risk	Degree of financial leverage	− <b>0.0586 (0.0227)<sup>R</sup></b>
		Degree of operating leverage	−0.1227 (0.0040) <sup>F</sup>
Model 5	Return on shareholders	Earnings per share	<b>0.8455*** (0.0429)<sup>R</sup></b>
		Price-to-earning ratio	−0.0008 (0.0238) <sup>R</sup>
Model 6	Profit	ROA	4.6722*** (0.0308) <sup>R</sup>
		ROE	<b>2.4670*** (0.0345)<sup>R</sup></b>
Model 7	Cash flow	Free cash flow	− <b>0.0169** (0.0371)<sup>F</sup></b>
		Net cash flow per share	0.4592*** (0.0025) <sup>F</sup>
Model 8	Growth	Growth rate of fixed assets	−0.0126 (0.0223) <sup>R</sup>
		Growth rate of total assets	<b>0.1894 (0.0229)<sup>R</sup></b>
Model 9	Operating capability	Turnover rate of receivables	− <b>0.0001 (0.0224)<sup>R</sup></b>
		Turnover rate of inventory	−0.0001 (0.0223) <sup>R</sup>
Model 10	Ownership structure	Percentage of state-owned shares	<b>2.7856*** (0.0043)<sup>F</sup></b>
		Percentage of circulating shares	−2.1622** (0.0013) <sup>F</sup>
Model 11	Ownership concentration	Ownership percentage of the largest circulating shareholder	−0.0260** (0.0007) <sup>F</sup>
		Z index	− <b>0.0323*** (0.0036)<sup>F</sup></b>
Model 12	Structure of management	Number of directors	<b>0.1222*** (0.0330)<sup>R</sup></b>
		Number of supervisors	1.0175*** (0.0149) <sup>F</sup>
Model 13	Compensation of management	ln of sum of top three compensations of directors	0.5083*** (0.0522) <sup>R</sup>
		ln of sum of top three compensations of senior executives	<b>0.6159*** (0.0544)<sup>R</sup></b>

Notes: Panel regression estimates the % relative spread of foreign institutional investors in each company on financial and corporate governance firm-level characteristics. Both fixed-effects model and random-effects model are used to explain the factors that have an impact on the investment of foreign institutional investors in China's stock market. We also include the industrial dummy variables in each regression to control the industrial effect. For each explanatory variable, the table reports the coefficient on the left and the overall  $R^2$  within the parentheses on the right. The superscripts of the coefficient denote the significance of the coefficient and the superscripts of the overall  $R^2$  suggest the model used to estimate (F and R represent fixed-effects model and random-effects model, respectively). In the last column, we report the indicators which are selected in final model in bold. The specification test devised by Hausman (1978) tests the null hypothesis that the coefficients estimated by the efficient random-effects estimator are the same as the ones estimated by the consistent fixed-effects estimator. If they are insignificant, it is safe to use random effects. If it is a significant p-value, however, fixed effects should be used.

\*Significant at 10% level.

\*\*Significant at 5% level.

\*\*\*Significant at 1% level.

similar to the format of Model 1. Duality of chairman and CEO and percentage of independent directors are not included in M12 because they are not highly correlated with the other two variables and they are included in the final model directly.<sup>29</sup>



The third column of Table 8 reports the results for the overall model where the percentage relative spread of foreign funds is regressed on the representative financial indicators and the representative corporate governance indicators. We also control for industry and year effects by adding industry and yearly dummy variables into the final model. In order to take account of the introduction of new regulations on QFIIs in 2006, a dummy variable is included in the final empirical model. The dummy variable, year 2006, is assigned a value of one if the year is after 2006 and a zero otherwise. Table 8 reveals several findings on FIIs' preferences. Inconsistent with prior research in developed markets (see Kang and Stulz 1997; Dahlquist and Robertsson 2001; Aggarwal, Klapper, and Wysocki 2005), we find that firm size as measured by the natural logarithm of capitalization is not one of the strongest determinants of FIIs' investment decisions in China. Furthermore, the insignificant relation between FIIs' ownership and firms' profit is inconsistent with the finding reported by Kang and Stulz (1997) employing the data of Japanese market. There is no significant relation between FIIs' ownership and firms' liabilities-paying capability no matter short term or long term. Finally, free cash flow reports a negative relationship and is statistically significant at the 1% level. This result indicates that FIIs prefer the firms with less free cash flow, which is not consistent with the findings of Dahlquist and Robertsson (2001).

Regarding corporate governance, the percentage of state-owned shares and Z index are statistically significant with the ownership of FIIs. The results indicate that FIIs have a preference for the firms with larger percentage of state-owned shares. The influential role of government policy is a feature of the Chinese market. Naughton (2007) believes that Chinese market fluctuations are better explained as reactions to government policy changes rather than as reactions to changes in underlying fundamentals of individual companies. This unique characteristic of China drives foreign funds to invest more in firms with larger percentage of state-owned shares because the higher percentage of state-owned shares in one company indicates the closer relation with Chinese government. Consistent with the study of Dahlquist and Robertsson (2001) and Huang and Zhu (2011), there is a negative relationship between foreign institutional ownership and firms' ownership concentration measured by Z index, implying that foreigners avoid companies with a dominant owner.<sup>30</sup> Another notable significant finding is the year 2006 dummy variable. The statistically significant coefficient with a negative sign for the 2006 dummy variable indicates that the investment of QFIIs declined after 2006, although CSRC issued the new regulation to increase the investment quota of QFIIs in China. However, it is more likely that this dummy variable is taking account of the substantial volatility in Chinese stock markets after 2006. Following the global economic downturn, the Shanghai Stock Exchange Composite Index fell from a peak of 6092 points on 16 October 2007 to a trough of 1719 on 3 November 2008. In particular, Kaminsky, Lyons, and Schmukler (2001) concluded that although international mutual funds are one of the main sources of capital flows to emerging economies, withdrawals from emerging markets during crisis are large. Our results provide further indications of the sensitivity of institutional investment to downturns in the market.

The last column of Table 8 presents the factors that have an impact on domestic funds' investment behavior. In order to compare with the preference of foreign funds, we employ indicators that are the same as those given in the third column of Table 8 to analyze the preference of domestic funds. Several notable observations emerge from Table 8. Firm size has a significant explanatory power, indicating that domestic funds prefer large firms, which is consistent with the finding of Huang and Zhu (2011). Although not a critical indicator for foreign funds, earnings per share is a significant financial factor influencing domestic funds' investment behavior. For both foreign and domestic funds, ownership structure is a dominant factor influencing their investment behavior but for different reasons. While foreign investors want to access priority industries such as manufacturing,



Table 8. Preference of QFIIs and domestic funds.

Classification	Indicator	QFIIs	Domestic funds
Size	ln of capitalization	0.5155 (1.11)	0.0396*** (3.57)
Short-term liabilities-paying capability	Current ratio	-0.2216 (-0.92)	0.007* (1.73)
Long-term liabilities-paying capability	Long-term liabilities ratio	1.2435 (0.99)	-0.0212 (-0.63)
Risk	Degree of financial leverage	0.0250 (0.11)	-0.0039 (-1.01)
Return on shareholders	Earnings per share	-0.9645 (-1.31)	0.0740*** (3.23)
Profit	ROE	4.6125* (1.85)	-0.0248 (-0.38)
Cash flow	Free cash flow	-0.0194*** (-2.56)	0.0002 (0.51)
Growth	Growth rate of total assets	-1.0335* (-0.92)	-0.0058 (-0.48)
Operating capability	Turnover rate of receivables	-0.0001 (-0.01)	0.0001 (0.78)
Ownership structure	Percentage of state-owned shares	2.1179** (2.27)	-0.0769*** (-2.80)
Ownership concentration	Z-index	-0.0296*** (-3.27)	-0.0024*** (-6.93)
Structure of management	Number of directors	0.0124 (0.10)	0.0068** (2.04)
	Duality of chairman and CEO	-0.0312 (-0.04)	0.0065 (0.50)
	Percentage of independent directors	-1.8448 (-0.40)	0.1969*** (2.11)
Compensation of management	ln of sum of top three compensations of senior executives	0.8696* (1.91)	-0.0043 (-0.45)
Dummy variable	Year 2006	-5.3861*** (-4.42)	
Industry		Control	Control
Year		Control	Control
Intercept		-17.2309 (-1.64)	-0.9145*** (-3.33)
Model		Fixed	Fixed
Hausman		50.37	116.96
p-value of Hausman		0.00	0.00
Overall $R^2$ (%)		11.01%	5.32%
F-test		4.18	7.81
p-value of F-test		0.0000	0.0000
N		858	6793

(Continued)

Table 8. Continued

Note: In this table, the fixed-effects model is used to explain the factors that have an impact on the investment of foreign and domestic institutional investors in China's stock market. The results of foreign and domestic funds are reported in the third column and the last column, respectively. The dependent variable is the % relative spread of institutional investors in each company. The independent variables are financial and corporate governance firm-level characteristics selected from Table 7. We also include the industrial and year dummy variables to control the industrial and year effects respectively. For each independent variable, the table reports the coefficient above and the *t*-statistic within the parenthesis below. The superscripts of the coefficient denote the significance of the coefficient respectively. We report the intercept, *t*-statistics of the intercept within the parentheses below, the model type in the table, the Hausman test value, *p*-value of the Hausman test, and the number of observations at the end of Table 8.

\*Significant at 10% level.

\*\*Significant at 5% level.

\*\*\*Significant at 1% level.

with the implications of high state ownership, domestic investors have a preference for investing in industries that have lower state involvement and greater potential for external investment-derived growth. Clearly, the investment preferences of foreign and domestic funds differ substantially.

The conventional view is that government intervention has a negative impact on firm performance. However, Cao et al. (2011) highlighted the potential of political promotion providing incentives for managers in Chinese state-owned enterprises (SOEs) to maximize firm value, which has a positive impact on corporate performance. Our findings in relation to the behavior of foreign investors are consistent with this literature on political connections. On the other hand, Firth, Lin, and Zou (2010) found that the government exerts political pressure on domestic mutual funds to accept the compensation package to complete the split-share structure reform quickly. Specifically, the negative and significant relationship between mutual fund ownership and the final compensation ratio indicates that mutual funds help SOE firms to complete the reform at a lower cost, which actually damages their own benefits. Research also indicates that FIIs tend to gain superior bargaining power in China, while local funds yield to political pressure from governments (Huang and Zhu 2011). Inferior bargaining power coupled with adverse political pressure from governments, compared with FIIs, has the implication that domestic funds in China invest less in firms with a high percentage of state-owned shares. Finally, FIIs require approval by stock market authorities, for example, CSRC and SAFE, under the QFII scheme, which further underlines the political influence.

We conclude that the drivers of foreign funds in emerging markets are not consistent with those in developed markets, for example, size, liabilities-paying capability, and profit (see Kang and Stulz 1997; Dahlquist and Robertsson 2001). Foreign investors in China place more emphasis on the corporate governance characteristics. In particular, they have a preference for firms with a high percentage of state-owned shares, which indicates more political connections. Consistent with the finding of Leuz, Lins, and Warnock (2009), corporate governance is indeed an important factor influencing the investment decisions of FIIs. In contrast, however, domestic funds place greater emphasis on financial characteristics, for example, size and return on shareholders as well as corporate governance structure. Therefore, Hypothesis 3, corporate governance (financial characteristics) has a significant impact on the investment of foreign (domestic) institutional investors, is supported. We conclude that the investment preferences of foreign and domestic funds differ substantially.

## 5. Conclusions

This paper employed a unique data set to analyze the key firm-level drivers of FIIs, including financial and corporate governance indicators, and identified the similarities and differences between