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## Improving corporate governance where the State is the controlling block holder: evidence from China

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This paper examines changes in values and returns for Chinese firms around announcements of block-share transfers among government agencies, State-owned enterprises and private investors. We find that transfers to all three types of investors result in positive abnormal returns around transfer announcements, even when the transfers do not create a new controlling block holder and when transfers are between State entities. We also find that transfers from State entities to private entities result in larger increases in value and returns than transfers between State-controlled entities – consistent with the superior incentives and expertise of private investors. We conclude that corporate governance can be improved at State-controlled firms by improving incentives and expertise of controlling block holders.

**Keywords:** block-holder identity; China; partial corporate control; partial privatization; privatization; State ownership; SOE

*JEL Classification:* G32; G34; G38

### 1. Introduction

The State usually remains the controlling block holder after a share issue privatization (SIP). In a study of 630 SIPs from 59 countries, Jones et al. (1999) found that the median ownership offering by the State was only 35%, leaving the government not only with a controlling stake, but also with majority ownership in the majority of SIPs. This raises several important questions: Who is the more effective monitor of management of a listed firm – the State or a private owner? Can the State improve its performance by making governance changes that go short of full privatization? For example, can the State improve performance by transferring ownership from bureaucrats to managers of corporatized State-owned enterprises (SOEs), who have better incentives and experience than bureaucrats? In this study, we attempt to shed new light on these important questions by examining 631 negotiated block trades among different State-controlled and private shareholders in China during 1998–2002.

Most empirical studies of privatizations find that full privatizations and, to a lesser extent, partial privatizations lead to improvements in firm performance (see the surveys by Megginson and Netter 2001; Djankov and Murrell 2002).<sup>1</sup> Our study analyzes the impact of changes in corporate governance *after* partial privatization of SOEs has been completed. Focusing on these ‘second-round’ changes in ownership, we find significant improvements in firm performance regardless of the type of investor, which is consistent with the findings of Barclay and Holderness (1991)

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for US firms. Moreover, we find that significantly larger improvements in firm performance occur when control is transferred from State entities to private owners than when control is transferred to State entities and from private investors. This finding is consistent with the literature on block-holder identity regarding the specific managerial *expertise* and *incentives* of block holders as important determinants of firm value (see the seminal article by Barclay and Holderness 1991 and a recent survey by Holderness 2003). We choose to analyze Chinese firms because intra-governmental block transfers were relatively common in China and reflected efforts by the Chinese government to improve corporate governance, while maintaining ultimate control at the country's largest firms. The Chinese government used two basic ownership structures to participate in the equity of listed companies: (1) direct control through *State Bureaucrats* (SBs) at government agencies and ministries and (2) indirect, but ultimate, control through *Market-Oriented State-Owned Enterprises* (MOSOE).

There are important differences in the *expertise* and *incentives* of these two ownership structures. First, managers of MOSOEs have superior industry expertise, as they are actively managing their corporations, which often are in the same industry as the corporations of which they are block holders, whereas SBs may have little or no experience in corporate management of any kind. Second, the incentives faced by managers of MOSOEs and SBs differ, in large part, by how they are compensated. SBs are not directly rewarded based on the financial performance of the firms they monitor (Xu and Wang 1999), whereas managers of MOSOEs are partially rewarded based on their firm's financial performance (Groves et al. 1995; Firth, Fung, and Rui 2006). In addition, MOSOEs are allowed to retain after-tax profits for internal use, providing their managers with additional incentive to maximize profits. Furthermore, as separate legal entities, MOSOEs are expected to be more focused on commercial objectives (Broadman 1997).

Our results show the importance of these differences in identity of the block holder. For example, focusing on block transfers of at least 20%, we find the excess returns surrounding the announcement of transfers from an SB to a *Private Entity* (SB2PE) average 33.6%, compared to 26.6% for block transfers between an SB and an MOSOE and 20.9% for block transfers between two SBs. These large value increases around control transfers to a Private Entity are mirrored in significant improvements in accounting performance following block transfers from an SB or MOSOE to a Private Entity. In the two years after the year in which these transfers are announced, the annual return on assets (ROA) is higher by more than 300 basis points when compared with the two years before the transfer announcement.<sup>2</sup>

Our study is similar in spirit to Chen et al. (2008), but differs in at least two important ways. First, we look at *all* block transfers greater than 5% regardless of whether they result in a new controlling block holder, whereas Chen et al. look *only* at block transfers that result in a new controlling block holder. We find that block transfers where the controlling shareholder does not change impact firm performance and value just as those where the controlling shareholder does change.

Second, our sample includes 631 block transfers, which is more than four times the number of transfers analyzed by Chen et al. Chen et al. (2008, p. 164) explicitly exclude transfers involving what we refer to as SBs from their analysis because 'they are not expected to have any significant impact on the performance of the firm'. Yet we find that transfers between SBs *are* associated with large abnormal returns and changes in firm performance, evidence that corporate governance can be, and usually is, improved by changing the identity of the State entity.

We contribute to the literature in at least three important ways. First, we extend the literature on block-holder identity and partial corporate control (Holderness and Sheehan 1985, 1990; Barclay and Holderness 1991; Bethel, Leibeskind, and Opler 1998; Franks and Mayer 2001).

We provide new evidence from Chinese markets that changes in firm value are associated with negotiated block transfers, even when these transfers *do not* create a new controlling block holder. Specifically, we find that share transfers to *private* block holders are most effective in improving corporate governance and increasing firm value (Grossman and Hart 1988; Harris and Raviv 1988; Shleifer and Vishny 1997); however, we also find that transfers between State entities can improve governance and increase firm value. Because many of the world's largest enterprises, both listed and unlisted, have the State as the controlling block holder (La Porta et al. 1999; Claessens, Djankov, and Lang 2000), we regard this as an important extension of current research that has focused exclusively on share transfers between private block holders.

Second, we contribute to the literature on how State ownership affects the performance of partially privatized firms (Kole and Mulherin 1997; Sun and Tong 2003; Boubakri, Cosset, and Guedhami 2005; D'Souza, Megginson, and Nash 2005; Gupta 2005; Chen et al. 2008). Our results show that block transfers at partially privatized State-controlled firms where the State reduces or relinquishes its ownership share are associated with increases in market values and improvements in accounting performance that are significantly greater than those associated with block transfers among other types of block holders. This is innovative because we isolate the effect of privatization, that is, change from State to private control, from the effects of issuing public equity.

Third, we contribute to the literature on *why* State-owned firms perform poorly. The 'political view' posits that politicians interfere and pursue political objectives other than profit maximization (Shleifer and Vishny 1994), whereas the 'managerial view' posits that the State is a poor monitor because there is no individual with strong incentive nor is there a public price to provide information (Laffont and Tirole 1993). It is difficult to separate both effects for SIPs. However, the firms in our sample do have public prices and managers of MOSOEs do have incentives to maximize firm value, yet we find that private monitors are superior to State monitors. Hence, our evidence is more supportive of the political view than the managerial view, and complements Fan, Wong, and Zhang (2007), which finds that politically connected Chinese firms perform more poorly than other listed Chinese firms on both a market value and accounting basis.

The remainder of this paper is organized as follows. In Section 2, we present a brief review of the literature on privatization and block-holder identity and provide institutional details about Chinese stock market and ownership structure of Chinese firms. We discuss the role of the Chinese government and develop hypotheses in Section 3. In Section 4, we describe our data and methodology. In Section 5, we present the results of our empirical analysis, and in Section 6, we provide a summary and conclusions.

## 2. Literature review and institutional background

### 2.1 Review of the privatization literature

Denis and McConnell (2003) write that 'privatization is a natural experiment allowing us to examine how corporate governance mechanisms evolve, interact and affect firm performance'. Megginson and Netter (2001) and Djankov and Murrell (2002) provide comprehensive reviews of studies published prior to 2000, which generally find that privately owned firms are more profitable and efficient than similar SOEs. In Appendix Table 1, which is available in the working paper version of this article at <http://ssrn.com/abstract=1020170>, we briefly summarize the findings of some of the most prominent multi-country privatization studies. In general, most studies find

Table 1. Share classifications for the Chinese stock market for 1993–2002 based upon NUS ownership categories.

Listed companies based upon NUS classifications										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
SB	53	77	121	166	179	160	144	153	154	155
MOSOE	46	71	141	277	462	572	681	796	836	888
Private Entity	13	12	23	35	44	63	78	103	121	155
Foreign Entity	9	10	13	18	16	13	11	15	13	13
Total	121	170	298	496	701	808	914	1067	1124	1211

Source: Authors' tabulations based upon NUS ownership categories.

Notes: SB is a dummy variable equal to 1 if the largest block holder classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is an MOSOE; Private Entity is a dummy variable equal to 1 if the largest block holder is a private entity. Foreign is a dummy variable equal to 1 if the largest block holder is a foreign entity. Because of their small number, we exclude foreign entities from the remainder of our analysis, so that we are left with only three ownership categories. Classifications are based upon 17 detailed categories of ultimate ownership established by researchers at the NUS as described in Delios, Wu, and Zhou (2006). Note that NUS researchers were unable to classify ultimate ownership for a small number of firms in some years.

that full privatizations lead to improvements in performance and that, to a lesser extent, partial privatizations lead improvements in firm performance.

## 2.2 *Partial privatization and official share classification*

The Shanghai Stock Exchange (SHSE) was established in December of 1990, followed by the Shenzhen Stock Exchange (SZSE) in April 1991. Seven SOEs went public during 1991. Also in 1991, the Chinese Securities Regulatory Commission (CSRC) – the Chinese equivalent of the US Securities and Exchange Commission – was established to monitor and regulate the two stock exchanges and their members.<sup>3</sup>

From 1992–2002, the number of listed firms rose from 53 to 1224, while the market capitalization rose from \$13 billion in 1992 to a peak of \$579 billion in 2000. Each exchange accounts for approximately half of the total number of firms in each year.

In China, there are several different ‘official’ classes of shares. Shares are classified based on the residency of their owner as *domestic* (A shares) or *foreign* (B, H and N shares). Domestic A shares are further divided into *State* shares, *Legal-Person* shares, *Tradable-A* shares and *Employee* shares, of which only *Tradable-A* shares, as the name implies, are publicly traded on one of China’s two stock exchanges. All shares of a listed company have the same voting rights and cash-flow rights, that is, one share is entitled to one vote.

## 2.3 *Alternative share classification*

There are serious shortcomings in the official share classification for any analysis of corporate governance of listed firms in China. To illustrate the confusion, we refer to Table 5 in Delios, Wu, and Zhou (2006), where the authors report the overlap between their 17 (ultimate) ownership categories and the official share classification. For example, of the 556 times a State Asset Management Bureau (SAMB) was classified as a top 10 shareholder in a listed firm in their sample, the SAMB was officially classified as the holder of *State* shares 105 times (19%), as a *Legal-Person* shareholder 221 times (40%) and in 230 cases the SAMB was classified as *Tradable-A* shareholder

or *Other*. Similarly, *Private* corporations were officially classified as holders of State shares in 7.4% of the cases, as the holder of Legal-Person shares in 59.8% of the cases, and as the holder of Tradable-A shares or other in 32.8% of the cases.

Because of these ambiguities, we adopt the classification scheme of Chinese ownership developed by the National University of Singapore (NUS) Business School and described in Delios, Wu, and Zhou (2006). The NUS classification produces 17 detailed classes of non-tradable shares, which we regroup into four groups of ultimate owners. The groups are as follows (where we refer to the Delios, Wu, and Zhou 2006 detailed classifications in parentheses). SB includes central government (1); local governments (2); government ministries (3); government bureaus (4); State asset-investment bureaus (6); State asset-management bureaus (7); State research institutes (10) and State-owned banks (16). MOSOE includes companies that formerly were government ministries (5); MOSOE (9) and infrastructure construction companies (8). Private Entity includes security companies (11); investment funds (12); private companies (13); private individuals (14) and work unions (17). *Foreign Entity* includes foreign companies and individuals (15).

The distinction between SB and MOSOE is important because the incentives (e.g. profit-sharing) and expertise (e.g. managerial and industry expertise) of managers of MOSOEs are fundamentally different from those of government bureaucrats. We return to this issue in the next section.

Table 1 shows the distribution of ownership categories of the largest block holder for listed firms by year, from 1993 to 2002, based upon our classification scheme. Beginning in 1996, MOSOEs dominate the sample. The number of SBs remains relatively constant from 1996 to 2002, while the number of *Private Entities* steadily increases from 13 in 1993 to 155 in 2002. The number of *Foreign Entities* ranges from 9 in 1993, to 18 in 1996. (The annual total numbers of firms in Table 1 does not equal the total number of firms each year because NUS was unable to classify a small number of firms.)

### 3. Ownership structures and hypotheses

#### 3.1 Government ownership structures

Because of differences in incentives and residual cash-flow rights, we expect that the two alternative government ownership structures (SBs vs. MOSOEs) have differential impacts on firm value, even though the State is the ultimate controlling shareholder in each case. An SB, such as the Bureau of State Property Management or a local finance bureau, exercises ownership rights on behalf of the Chinese State. When an SB controls the majority of a company's shares, officials of the block holder have the right to select managers and board members, and to veto business and investment plans proposed by firm management. As government officials, however, the officials are prohibited from involvement in the management of State-controlled firms.

SB officials have no residual cash-flow rights from the companies they monitor; all dividend revenues from the companies under their control are submitted to the Ministry of Finance or to local governments. Moreover, SB officials are not rewarded based on the performance of the SOEs that they monitor (Xu and Wang 1999; Lin 2000).<sup>4</sup>

SB officials typically have little or no management experience and little industry-specific knowledge (Firth, Fung, and Rui 2006). Hence, it is difficult for them to evaluate management decisions. The promotion of SB officials depends largely on how well they execute the instructions of central or local government rather than how much they contribute to creating firm value or dividend revenues. Based on these characteristics, we hypothesize that SB officials are unlikely to have profit maximization as the primary goal for SB-controlled listed firms.

In contrast to SB officials, the managers of MOSOEs typically receive explicit monetary rewards based on their firm's performance (Groves et al. 1995; Firth, Fung, and Rui 2006). This incentive compensation at MOSOEs should mitigate agency problems between the controlling block holders (the MOSOE) and minority shareholders of the listed firm. Furthermore, MOSOEs have a degree of autonomy and are allowed to retain their after-tax profits, which can be used according to their own plans. These factors provide managers of MOSOEs with a greater incentive to focus on profitability than managers of SBs.

Finally, changes in the identity of the block holder can increase firm value by improving the quality of management and/or monitoring (Barclay and Holderness 1991). Because of their managerial experience in industry, we expect that MOSOE block holders are more efficient and professional than government officials in monitoring the firms under their control. In some cases, MOSOEs contribute directly to the listed firms under their control, in the form of management, capital or new technology. According to Zou (2004), the chairman of the MOSOE-controlled listed firms is also the chairman of the parent MOSOE in more than 60% of the cases. This number is only 16% for listed companies that are controlled by SBs. Furthermore, Chen and Wang (2004) show that top-executive turnover is significantly more sensitive to firm performance at listed firms controlled by MOSOEs than at listed firms controlled by SBs.

### **3.2 Private ownership structure**

When a private entity is the controlling block holder, the incentives of the block holder are most closely aligned with those of minority shareholders. Private block holders receive 100% of the cash flows to which the block holder is entitled, in contrast to both government ownership structures. Hence, private block holders are more likely than State block holders to pursue the maximization of shareholder wealth. Also, private block holders choose managers on the basis of their ability to maximize shareholder wealth (or, at least, to maximize the controlling block holder's wealth), whereas State block holders choose managers based, often in large part, upon political considerations and the ability to meet social objectives.

However, controlling block holders also have incentives to expropriate wealth from minority shareholders, especially in countries with weak investor protection (La Porta et al. 1999; Johnson et al. 2000). Fan, Wong, and Zhang (2005) show that, across a sample of 750 State-controlled firms, the average ratio of cash flow to voting rights of the ultimate owner equals 0.96. For the 62 listed firms in their sample that are controlled by private entities, they find that the average ratio of the cash flow to voting rights is 0.54. Given the larger wedge between cash flow and control rights at listed firms with private entities as ultimate owner, we conjecture that expropriation of minority shareholder wealth is more severe after block transfers to private owners.<sup>5</sup> We provide more evidence on this issue in our results section.

### **3.3 Hypotheses**

The typical method used to transfer control at listed companies is known as a share transfer agreement. Once a share transfer agreement is reached between two parties, the listed company will apply to the CSRC and the Ministry of Finance to obtain approval. At the same time, the firm will make a public announcement regarding the proposed changes in its ownership structure.

First and foremost, we expect that negotiated block transfers are corporate control transactions in China, just as they are in the USA, and lead to positive abnormal returns – consistent with the findings of Barclay and Holderness (1991). Therefore, our first hypothesis is that we will

observe positive and significant abnormal returns around announcements of these block transfers, regardless of whether they involve SBs, MOSOEs or Private Entities.

Also consistent with Barclay and Holderness, we expect that differences in the incentives and expertise of managers at SBs, MOSOEs and Private Entities will lead to statistically significant differences in the magnitudes of abnormal returns around the announcements of these block transfers. More specifically, we hypothesize that MOSOE block holders are more likely to contribute to value creation than SB block holders, and that Private Entity block holders are more likely to contribute to value creation than either type of State block holder. This should be observable in differences in magnitudes of abnormal returns and in the subsequent accounting performance following the announcements of block-share transfers. We refer to this as the *incentive hypothesis*.

One alternative view of block transfers from SBs to MOSOEs is that such transfers introduce an additional level of bureaucracy that might oppose changes (Broadman 1997). MOSOEs are typically fully owned and controlled by the State. Their weak governance structure might simply be mapped onto the listed company as MOSOEs themselves are often owned by SBs. If so, then we should expect lower returns around the announcements of block transfers from SBs to MOSOEs, relative to transfers from SBs to SBs, and we should expect accounting performance to deteriorate in years following the announcement of transfers from SBs to MOSOEs. We refer to this as the *added-bureaucracy hypothesis*.

A third alternative explanation regarding block transfers is the *co-insurance* hypothesis. In emerging markets such as China where investor protection is weak, minority shareholders may prefer to invest in firms controlled by a business group or the State on expectations that such controlling block holders are more likely to bail out the firms when they encounter financial distress. This hypothesis predicts that the market responds positively to any news as long as the State remains in control because there is a higher likelihood of bailouts when the firms face economic turbulence.

Our final hypothesis deals with the incentive of a controlling block holder to expropriate wealth from minority shareholders. While all three types of controlling block holders face this incentive, a private block holder might be able to more easily accomplish expropriation by tunneling resources from the listed firm to a privately held company that she also controls, but where she holds all of the cash-flow rights rather than only a portion. A scandal surrounding the De Long Group is an example of this type of behavior, where a private controlling block holder – Tang Wanxin – expropriated wealth from listed companies that he controlled to a privately held parent company that he also controlled, but where he held greater cash-flow rights. We refer to this hypothesis as the *expropriation* hypothesis. This hypothesis predicts that accounting performance will deteriorate during the years subsequent to the block transfer and that this deterioration will be greatest for transfers to private block holders. To the extent that investors anticipate this expropriation, the hypothesis also predicts lower excess returns around the announcement of such block transfers, and that excess returns will be lowest for announcements of transfers to private block holders.

## 4. Data and methodology

### 4.1 Sample selection

We include in our sample all SHSE and SZSE firms that, during the five-year period from 1998 through 2002, reported share transfers that are greater than 5% of the total number of shares outstanding. The announcement dates were obtained from GTA/CSMAR, one of the largest corporate information providers in China. Our sample period starts in 1998, so that all events

in our sample were announced subsequent to the September 1997 Chinese Communist Party's 15th Congress where the Central Committee endorsed a major policy shift, committing to a large privatization program. We confirmed each block transfer using ownership data obtained from the database of Chinese ownership developed by the NUS Business School and described in Section 3. This database ends in 2002.

We begin with a sample of 1040 successful block-share transfers. We are unable to match 189 of these transfers with the NUS database, leaving 851 share transfers. Of these transfers, 171 involve more than one transaction on the same day for the same firm. We delete 36 of these transfers from our sample because the sellers or buyers involved in the multiple transfers are from different ownership categories. We combine the percentage of shares transferred for the remaining transactions if the parties involved in the multiple transfers are the same, or if the sellers involved are from the same ownership category (SB, MOSOE or Private Entity), and the buyers involved are from the same ownership category (SB, MOSOE or Private Entity). This procedure leaves us with 717 observations.

In order to have a sharp distinction between the three main ownership groups – SBs, MOSOEs and Private Entities – we exclude 50 transfers involving parties that are classified as 'companies that formerly were government ministries' (NUS category 5); State research institutes (NUS category 10); State-owned banks (NUS category 16) and work unions (NUS category 17).

We also exclude 21 transfers involving foreign entities (NUS category 15). Most of these transfers only involve transfers between two foreign entities, and only three of these transfers are larger than 20% of the shares. This leaves us with 646 transfers.

In the final step in the sample selection, we require that the firms in our sample have accounting data and stock-price data in the year prior to the transfer. This requirement reduces our final sample to 631 block transfers.

#### **4.2 Descriptive statistics**

Table 2 presents descriptive statistics regarding the pre-transfer ownership structure and firm characteristics of the sample. Panel A of Table 2 reports the results for the total sample, while Panels B–F of Table 2 report the results for the different subsamples based on the identity of the seller and buyer.

In Panel A of Table 2, we see that the average percentage of shares being transferred is 22.0 and ranges from 5.0% to 74.8%. We measure firm size by the natural logarithm of the book value of total assets. Our financial data were obtained from GTA/CSMAR. The average size of firms in our sample is RMB 800 million, and firm size ranges from RMB 73 million to RMB 21.7 billion.

We calculate the leverage ratio for each firm as its book value of total liabilities divided by its book value of total assets. The average leverage ratio is 46.8%. The high leverage ratios in our sample reflect the fact that most listed Chinese companies use bank loans as their primary source of capital. The four largest banks in China, which control the majority of banking assets in the country, are directly controlled by the Chinese government. These banks typically allocate credit to individual firms on the basis of national policy, but do not have the power to force a firm into liquidation.

We calculate peer-adjusted ROA as the firm's core EBITDA divided by the book value of total assets as of year-end less the core EBITDA divided by the book value of total assets as of year-end for a matched firm. We define core EBITDA as profit or loss from core-operating activities.<sup>6</sup> We select a matched firm for each of our sample firms based upon industry, size and performance: the matched firm is in the same industry, the absolute percentage difference in firm size as measured

Table 2. Descriptive Statistics for Negotiated Block Transfers

Panel A: Descriptive statistics				
	Mean	Standard deviation	Minimum	Maximum
Shares transferred	22.0	15.5	5.0	74.8
Size	20.5	0.8	18.1	23.8
Leverage	0.47	0.29	0.01	4.87
Peer-adjusted ROA	-0.008	0.067	-0.403	0.284
Change in EXPROP	0.009	0.141	-2.310	1.550

Panel B: Number of transfers by ownership and year							
Year	Type of buyer			Type of seller			Total
	State Bureaucrat	MOSOE	Private Entity	State Bureaucrat	MOSOE	Private Entity	
1998	12	60	29	40	44	17	101
1999	22	69	48	49	66	24	139
2000	19	66	50	33	77	25	135
2001	16	64	54	20	86	28	134
2002	16	49	57	25	67	30	122
All	85	308	238	167	340	124	631

Panel C: Transfer percentage for each seller/buyer pair						
Seller	Buyer				All	Test 1: $p$ -value = 0.01
	State Bureaucrat	MOSOE	Private Entity	All		
State Bureaucrat	28.24	31.12	17.64	26.51	Test 2: $p$ -value = 0.01	
MOSOE	22.67	25.18	16.34	22.01		
Private Entity	21.05	17.76	14.80	17.64		
All	25.01	25.73	16.12	22.01		

Panel D: Firm Size for each seller/buyer pair						
Seller	Buyer				All	Test 1: $p$ -value = 0.01
	State Bureaucrat	MOSOE	Private Entity	All		
State Bureaucrat	20.61	20.57	20.37	20.52	Test 2: $p$ -value = 0.05	
MOSOE	20.66	20.61	20.47	20.58		
Private Entity	19.92	20.09	20.21	20.09		
All	20.57	20.53	20.37	20.48		

Panel E: Leverage for each seller/buyer pair						
Seller	Buyer				All	Test 1: $p$ -value = 0.46
	State Bureaucrat	MOSOE	Private Entity	All		
State Bureaucrat	0.445	0.485	0.483	0.48	Test 2: $p$ -value = 0.87	
MOSOE	0.475	0.468	0.486	0.48		
Private Entity	0.381	0.440	0.441	0.43		
All	0.45	0.47	0.47	0.47		

(Continued)

Table 2. Continued

Panel F: Peer-adjusted ROA for each seller/buyer pair					
Seller	Buyer				
	State Bureaucrat	MOSOE	Private Entity	All	
State Bureaucrat	-0.006	-0.006	-0.018	-0.009	Test 1: $p$ -value = 0.11
MOSOE	0.003	-0.015	-0.009	-0.011	
Private Entity	0.019	0.004	0.002	0.004	
All	0.001	-0.010	-0.007	-0.008	
Test 2: $p$ -value = 0.44					
Panel G: Change in level of expropriation for each seller/buyer pair					
Seller	Buyer				
	State Bureaucrat	MOSOE	Private Entity	All	
State Bureaucrat	0.006	0.018	0.02	0.016	Test 1: $p$ -value = 0.70
MOSOE	-0.005	0.028	-0.018	0.009	
Private Entity	0.006	-0.009	0.008	0.001	Test 2: $p$ -value = 0.12
All	0.001	0.021	-0.002	0.009	

Notes: This table reports descriptive statistics for our sample of 631 observations of block-share transfers between different ownership categories during 1998-2002. Panel A presents descriptive statistics for five variables: *Shares Transferred* is the percentage of total common shares transferred in the block trade; *Size* is the natural logarithm of the book value of total assets; *Leverage* is measured by ratio of the book value of total liabilities to the book value of total assets; and peer-adjusted ROA is the firm's core EBITDA divided by the book value of total assets as of year-end less core EBITDA divided by the book value of total assets for a matched firm, where matched firms are in the same industry and have the lowest absolute value of the difference in the ratio of core EBITDA over total assets in the pre-transfer year relative to the sample firm across all firms in the same industry. EXPROP is the level of expropriation as proxied by the value of potentially harmful related-party transactions observed during the year before and during the year after the year of the block transfer and scaled by total assets, as described in Berkman, Cole, and Fu (2010). Panel B presents the number of transfers for each seller/buyer pair. Panel C presents the percentage of shares transferred for each seller/buyer pair. Panel D presents the firm size, as measured by the natural logarithm of total assets, for each seller/buyer pair. Panel E presents firm leverage for each seller/buyer pair. Panel F presents peer-adjusted ROA for each seller/buyer pair. Panel G presents the change in EXPROP for each seller/buyer pair. Seller refers to the party selling the block of shares while Buyer refers to the party purchasing the block of shares. There are three ownership categories (SB, MOSOE and Private Entity) so there are nine combinations of buyer and seller. SB is a dummy variable equal to 1 if the largest block holder is classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is classified as an MOSOE; Private Entity is a dummy variable equal to 1 if the largest block holder is classified as a private entity. Classifications are based upon 17 detailed categories of ultimate ownership established by researchers at the NUS as described in Delios, Wu, and Zhou (2006). Test 1 (Test 2) refers to the  $p$ -value from an F-test for equality of means across the three different types of sellers (buyers).

by market cap at the beginning of the transaction year is less than 50%, and the absolute percentage difference in the ratio of core EBITDA over total assets in the pre-transfer year is less than 20%. We define industry sectors at the level of two-digit SIC codes, which we obtained from the CSRC. The average peer-adjusted ROA for our sample firms in the year before the transfer is significantly negative at -0.8% ( $t$ -statistic = -3.0); in other words, firms experiencing a block transfer were, on average, underperformers.

We follow Berkman, Cole, and Fu (2010) in calculating the annual level of firm-specific expropriation as the sum of the value of potentially harmful related-party transactions in a particular year, scaled by total assets of that firm as of year-end.  $\Delta$ EXPROP is defined as the level of expropriation in the year after the block transfer less the level in the year prior to the year of the block transfer. Data on related-party transactions come from GTA/CSMAR. The average change in the level of expropriation is close to zero - 0.9% of total assets - but varies widely across firms, from -231% to 155%.

In Panels B through G of Table 2, we present the descriptive statistics for each of the nine seller–buyer pairs. Panel B shows the number of transactions by year and type of ownership for both buyer and seller. In this panel, we see that SBs were involved in 167 transfers as seller, and in 85 transfers as buyer. MOSOEs were sellers in 340 transfers and buyers in 308 transfers. Finally, Private Entities were involved as sellers in 124 transfers and as buyers in 238 transfers. These numbers reflect a clear shift in ownership from SBs to Private Entities over our five-year sample period. The transactions are distributed relatively uniformly across the five-year sample period, with more than 100 transactions in each year.

Panel C of Table 2 shows that transfers involving SBs as sellers are largest, on average, at 26.5% of the shares outstanding. When SBs are involved in the transfers as buyers, the average transfer size is 25.0%. *Test 1*, shown in the last column of the panel, reports the results of an *F*-test for equality of the mean transfer percentages across the three ownership categories, and shows the percentage of shares transferred is significantly different across the three seller categories. Similarly, *Test 2*, in the bottom row of the panel, indicates significant differences in the percentage of shares transferred across the different types of buyers.

In Panel D of Table 2, we see that transfers where SBs or MOSOEs are involved in transfers as buyers or sellers are significantly larger than transfers to, or from, private owners.

Panel E shows that average leverage is 0.47 and shows little variation across ownership structure of the buyer or seller. *F*-tests reveal no significant differences across buyers or sellers.

Panel F in Table 2 shows that the average peer-adjusted ROA is –80 basis points, but varies from –100 basis points for firms with transfers to MOSOE to –70 basis points for firms with transfers to Private Entities and +10 basis points for firms with transfers to SBs. The *F*-tests fail to find significant differences across buyers or sellers.

Panel G in Table 2 shows that the average change in the level of expropriation is 0.009, but varies from –0.0002 for transfer to Private Entities to 0.01 for transfers to SBs and to 0.021 for transfers to MOSOEs. However, the *F*-tests again fail to show statistically significant differences across buyers or sellers.

### 4.3 Methodology

The purpose of our empirical analysis is to evaluate the efficiency of alternative categories of block owners of listed firms in China. First, we analyze share-price responses around block-transfer announcement dates for the full sample, and for several portfolios, based on the ownership of the seller and the buyer. Second, we analyze the change in accounting performance in the years around the block transfer.

We use the market-adjusted return model to calculate daily abnormal returns as the difference between the realized return and the market return.<sup>7</sup> To estimate the market-adjusted model, we use as the market index either the SHSE or the SZSE composite index, depending on where the firm's stock is listed. Both composite indices are value-weighted, consisting of all listed companies on each stock exchange. Our primary event window spans day  $t - 210$  through day  $t + 40$ . We use a long event window motivated by concerns that market information leakage and insider trading are not unusual in the Chinese markets, but note that Barclay and Holderness (1991) use a similarly long window ( $t - 240$  to  $t + 40$ ) in their analysis of US firms.<sup>8</sup> For robustness, we also examine abnormal returns from a more traditional five-day event window spanning day  $t - 3$  to day  $t + 1$ . In addition, we analyze changes in peer-adjusted ROA and peer-adjusted return on equity (ROE) around ownership transfers.

Our event-study approach to analyze the impact of ownership changes might help to reduce endogeneity problems, which affect studies using cross-sectional regressions of firm value against ownership variables (see Holderness 2003). However, it is possible that both changes in ownership and changes in valuation are caused by a third factor, for example, good business prospects. In this case, the new block holders do not cause superior future performance; rather, they simply are able to identify and negotiate block transfers of shares in firms with better future prospects, or the State simply decides to order such ownership changes.

To address this possibility, we employ a two-stage sample-selection model as suggested by Heckman (1979) in our multivariate analysis of changes in ownership and firm performance/value, where, in the first stage, we estimate the probability that a firm will experience a change in ownership as a function of past firm performance and other characteristics. To account for the possibility that different types of firms were transferred to different types of buyers, we estimate three separate first-stage selection models – one for SB buyers, one for MOSOE buyers and one for Private Entity buyers. In each model, we include all firms that did not experience a negotiated block transfer, where the dependent variable is coded as zero, plus firms that experienced a negotiated block transfer to a Private buyer (model 1, where the dependent variable is coded as 1), to an MOSOE buyer (model 2, where the dependent variable is coded as 1) or to an SB buyer (model 3, where the dependent variable is coded as 1). Each of the three selection models produces an inverse Mill's ratio for the firms experiencing a negotiated block transfer to one of the three types of buyer. By combining the inverse Mill's ratio from all three selection models, we obtain an inverse Mill's ratio for each firm that experienced a negotiated block transfer to any of the three types of buyers. We then include this ratio as an explanatory variable in our second-stage regressions. We note that the results are qualitatively unchanged from estimating a single selection equation where we include block transfers to any type of buyer along with firms that did not experience a block transfer. Those results are available from the authors upon request.

## 5. Results

First, we present the results from our univariate analyses, where we focus on the relation between the variable of interest (changes in firm value and accounting performance) and the identity of the buyer and the identity of the seller. In the second part of this section, we present the results of cross-sectional regression models, where we account for characteristics of the transfer, characteristics of the listed firm whose shares are transferred, and sample selection bias.

### 5.1 *Univariate analysis*

#### 5.1.1 *Cumulative abnormal returns*

Figure 1 graphs the cumulative abnormal returns from day  $t - 240$  to day  $t + 100$  for our full sample of 631 transfers ('All') and, separately, for 38 transfers between State Bureaucrats to a State Bureaucrat (SB2SB) and for 49 transfers from SB2PEs. Clearly evident in set of cumulative average abnormal returns (CARs) is the share-price run-up from approximately day  $t - 210$  through day  $t - 1$ , suggestive of information leakage and insider trading. Somewhat surprisingly, Barclay and Holderness (1991, 865) document a similar pattern for negotiated block transfers between private US firms for day  $t - 240$  through day  $t - 1$ .

Also evident in Figure 1 is the large run-up in the share prices of 49 firms experiencing SB2PE transfers and the 28 firms experiencing SB2SB transfers, supportive of first hypothesis – that, first and foremost, block transfers are control events associated with positive abnormal returns.

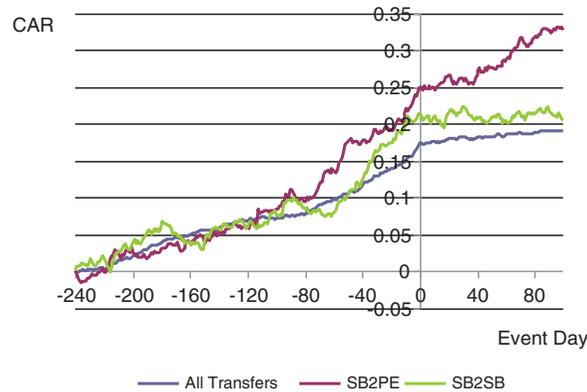


Figure 1. Cumulative abnormal returns around announcements of negotiated block transfers at Chinese firms  
 Notes: Cumulative abnormal returns are calculated as the difference between the realized return and the market return using the market-adjusted return model. To estimate the market-adjusted model, we use as the market index either the SHSE or SZSE composite index, depending on where the firm's stock is listed. The sample consists of 631 observations of block-share transfers of more than 5% of common shares between different ownership categories during 1998–2002, of which 38 involve transfers from an SB2SB and 49 involve transfers from an SB2PE. There are three ownership categories (SB, MOSOE and Private Entity) so there are nine possible buyer–seller combinations. SB is a dummy variable equal to 1 if the largest block holder is classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is classified as an MOSOE; and Private Entity is a dummy variable equal to 1 if the largest block holder is classified as a private entity. Classifications are based upon 17 detailed categories of ultimate ownership established researchers at the NUS as described in Delios, Wu, and Zhou (2006). The graph shows CARs for the full sample and separately for the SB2SB and SB2PE subgroups.

Moreover, the run-up in share prices of the 49 firms experiencing SB2PE transfers is much larger than for the 38 firms experiencing SB2SB transfers – supportive of our hypothesis regarding the superior incentives and experience of *Private* block holders relative to SB block holders. Finally, note that the gains prior to  $t-1$  are not reversed subsequent to the announcements.

Panel A of Table 3 presents descriptive statistics for the CAR for day  $t-210$  through day  $t+40$ , and day  $t-3$  through day  $t+1$ . We present these results for the full sample of 631 transfers that are larger than 5% of the shares outstanding, and for a smaller sample of 292 transfers that are larger than 20% of the shares outstanding.

As shown in Panel A, the average CAR for the full sample over the period from day  $t-210$  through day  $t+40$  is a statistically significant 17.1% ( $t$ -statistic = 11.59), which is approximately the same as the average CAR for the period from day  $t-240$  through  $t+40$  reported by Barclay and Holderness (1991) for block transfers between private US firms. The median CAR is 11.4%, indicating that the results are not driven by large outliers. In contrast, Franks and Mayer (2001) analyze a sample of block transfers at German firms and find that the benefits of control transfers do not accrue to minority shareholders. They attribute this result to the weak protection of minority shareholders in Germany. In light of their finding and given the relatively weak minority shareholder protection in China,<sup>9</sup> the large value increase around the block transfers in China is remarkable and suggestive of substantial improvement in firm performance after the block transfer.

The average CAR over the period  $t-210$  through  $t+40$  for the 292 blocks transfers greater than 20% of the shares outstanding is a statistically significant 21.0% ( $t$ -statistic = 8.91), while the median CAR is 15.5%.<sup>10</sup>

Table 3. Cumulative abnormal returns around announcements of negotiated block transfers by type of block transfer.

Panel A: Cumulative abnormal returns around transfer announcements		<i>N</i>	Median	Mean	Standard deviation	<i>t</i> -Statistics	Minimum	Maximum
Transfers	CAR(-210,40)	631	0.114	0.171***	0.370	11.59	-1.46	2.33
Greater than 5%	CAR(-3,1)	631	0.007	0.011***	0.043	6.57	-0.32	0.20
Transfers	CAR(-210,40)	292	0.155	0.210***	0.402	8.91	-1.47	1.49
Greater than 20%	CAR(-3,1)	292	0.013	0.017***	0.048	6.21	-0.10	0.20

Panel B: CARs for transfers &gt;5% of common shares by type of transfer

Seller	Buyer				Test 1: <i>p</i> -value=0.04
	State Bureaucrat	MOSOE	Private	All	
State Bureaucrat	0.172*** (38)	0.214*** (80)	0.250*** (49)	0.216*** (167)	
MOSOE	0.111*** (39)	0.185*** (187)	0.158*** (114)	0.167*** (340)	
Private	0.106 (8)	0.106 (41)	0.128*** (75)	0.119** (124)	
All	0.138*** (85)	0.181*** (308)	0.166*** (238)	0.171*** (631)	Test 2: <i>p</i> -value = 0.62

Panel C: CARs for transfers &gt;20% of common shares by type of transfer

Seller	Buyer				Test 1: <i>p</i> -value = 0.05
	State Bureaucrat	MOSOE	Private	All	
State Bureaucrat	0.209*** (27)	0.266*** (56)	0.336*** (19)	0.264*** (102)	
MOSOE	0.171 (17)	0.198*** (99)	0.246*** (33)	0.205*** (149)	
Private	-0.026 (4)	0.039 (18)	0.168** (19)	0.093 (41)	
All	0.176*** (48)	0.203*** (173)	0.249*** (71)	0.210*** (292)	Test 2: <i>p</i> -value = 0.58

Notes: Cumulative abnormal returns around announcements of block transfers are calculated as the difference between the realized return and the market return using the market-adjusted return model. To estimate the market-adjusted model, we use as the market index either the SHSE or SZSE composite index, depending on where the firm's stock is listed. Our primary event window spans day  $t - 210$  through day  $t + 40$ . We also examine abnormal returns from a shorter five-day window from day  $t - 3$  through day  $t + 1$ . The sample consists of 631 observations of block-share transfers of more than 5% of common shares between different ownership categories during 1998–2002. There are three ownership categories (SB, MOSOE and Private Entity) so there are nine combinations of buyer and seller. SB is a dummy variable equal to 1 if the largest block holder is classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is classified as an MOSOE; and Private Entity is a dummy variable equal to 1 if the largest block holder is classified as a private entity. Classifications are based upon 17 detailed categories of ultimate ownership established by researchers at the NUS as described in Delios, Wu, and Zhou (2006). Panel A presents results for the full sample of 631 transfers, while Panel B presents detailed results by ownership classification for the full sample of 631 transfers greater than 5% of shares, and Panel C presents detailed results for 292 block transfers greater than 20% of shares.

\*Statistical significance at the 10% level.

\*\*Statistical significance at the 5% level.

\*\*\*Statistical significance at the 1% level.

The average CAR over the shorter five-day window from day  $t - 3$  through day  $t + 1$  is 1.1% for the whole sample and 1.7% for the block transfers in excess of 20% of the shares outstanding.<sup>11</sup> Each of these CARs is statistically significant at better than the 1% level, with a *t*-statistic greater than 6.0.

In Panel B of Table 3, we present the average 250-day CARs for the nine different buyer/seller groups of block transfers greater than 5% of common shares. With the exception of transfers from Private Entities to SBs and to MOSOEs, the CARs in all cells are positive and significantly different from zero.

Transfers where the SBs are sellers have the largest average CAR of 21.6%. Within this group, CARs for transfers to SBs, to MOSOEs and to Private Entities are 17.2%, 21.4% and 25.0%, respectively. For transfers from MOSOEs, the average CAR is 16.7%. Within this group, CARs for transfers to SBs, to MOSOEs and to Private Entities are 11.1%, 18.5% and 15.8%, respectively. For transfers from Private Entities, the average CAR is 11.9%. Within this group, CARs for transfers to SBs, to MOSOEs and to Private Entities are 10.6%, 10.6% and 12.8%, respectively.<sup>12</sup>

The difference in CARs between different sellers is significant at the 5% level (Test 1 in the last column of Table 3, Panel B). There is no evidence that the identity of the buyer is significantly related to the CAR (Test 2 in the last row in Table 3, Panel B). For the full sample, the CAR ranges from 13.8% if an SB is the buyer to 18.1% if an MOSOE is the buyer.

The results in Panel C of Table 3, for transfers in excess of 20% of the shares, show even larger differences. The differences across the three types of sellers are significant at the 5% level (Test 1 in the last column of Table 3, Panel B). Focusing on the buyers, we see that the CARs range from 17.6% for transfers where an SB is the buyer to 24.9% for transfers where a Private Entity is the buyer. Even though these differences in CARs have the expected ordering, the differences are not statistically significant (Test 2 in the last row in Table 3, Panel C).

In general, the results in Panels B and C show that transfers from SBs to Private Entities generate the highest CARs while transfers from Private Entities to SBs generate the lowest CARs. Only transfers to Private Entities are consistently positive and significant and only transfers from SBs are consistently positive and significant. Transfers from SBs to SBs, from MOSOEs to MOSOEs and from Private Entities to Private Entities all are positive and significant, consistent with the results of Barclay and Holderness (1991), and suggestive of heterogeneity with each of these three ownership classifications, that is, there are 'better' and 'worse' monitors within each type of ownership.

Overall, the results in Table 3 are supportive of the *incentive hypothesis*, which states that block transfers from SBs result in the largest wealth gains to shareholders. The results in Table 3 are inconsistent with the *added-bureaucracy hypothesis* that a transfer from SBs to MOSOEs simply adds an additional level of bureaucracy to the governance structure, thereby reducing the quality of the government control. The results in Table 3 are also inconsistent with the idea that expropriation by private entities results in value decreases after private entities obtain control over the listed firm. Regarding the *co-insurance hypothesis*, we note that CARs are insignificant for transfers from Private Entities to State entities (either SBs or MOSOEs), when this hypothesis predicts positive CARs. We also see that CARs for Private-to-Private transfers are significantly positive, when this hypothesis predicts insignificant CARs, as one private block holder is simply substituted for another.<sup>13</sup>

### 5.1.2 Changes in accounting performance

According to the *incentive hypothesis*, we expect to find significant improvements in accounting performance following the block transfers, and we expect these improvements to be significantly related to the 250-day CAR and 5-day CAR. According to the *co-insurance hypothesis*, we expect no changes in accounting performance following the block transfers. Under the *expropriation hypothesis*, we expect negative changes in accounting performance following the block transfer to private entities.

For each firm involved in a block transfer, we collect accounting data on firm performance for two years before, and two years after, the year of the block transfer announcement (thus excluding the year of the transfer). We test two alternative measures of firm performance: peer-adjusted ROA and peer-adjusted ROE.<sup>14</sup> Peer-adjusted performance each year is calculated by subtracting the peer's performance measure for that year from the firm's performance measure for that year. We select peers based upon industry, size and pre-event performance as described earlier.

ROA is defined as core EBITDA divided by total assets, and ROE is defined as core EBITDA divided by total equity. For 106 firms, we were unable to obtain the required accounting data in the pre- or post-announcement periods and these 106 firms are omitted from this part of our analysis. For an additional 122 firms, we were unable to find a suitable matched peer, so our analysis sample is limited to 413 firms.

We average peer-adjusted performance for the two years in the pre-announcement period and for the two years in the post-announcement period. We then subtract the performance in the pre-announcement period from the performance in the post-announcement period to obtain the changes in accounting performance. Results of this analysis appear in Table 4.

From Panel A of Table 4, we see that, for the full sample, peer-adjusted ROA increased, on average, by 120 basis points and peer-adjusted ROE increased by 190 basis points – both significant at the 5% level. Corresponding medians, however, were only 20 and 80 basis points, respectively, indicating positive skewness in the distributions. Focusing on the group of block transfers in excess of 20%, the average improvement in peer-adjusted ROA is 160 basis points, and the improvement in adjusted ROE is 270 basis points – both significant at the 5% level. As with the full sample, the medians are much smaller than the means, at 80 and 50 basis points, respectively, again indicating positive skewness in the distributions.

Panel B of Table 4 reports the changes in peer-adjusted ROA for the nine different combinations of sellers and buyers of transfers greater than 5%. Among the three groups of sellers, the largest increase in peer-adjusted ROA is 190 basis point for SBs, closely followed by MOSOEs (150 basis point); for transfers where the seller is a Private Entity, peer-adjusted ROA actually *declines* by 50 basis points. However, these differences across sellers are not significant for the full sample ( $p = 0.19$ ).

The results in Panel C of Table 4, where we only examine transfers greater than 20%, the results among sellers are similar, but stronger. The changes in peer-adjusted ROA are 240 basis points, 240 basis points and -270 basis points, respectively, for SBs, MOSOEs and Private Entities. The differences among these three groups are statistically significant at the 10% level ( $p = 0.06$ ).

Among buyers, we find the opposite ordering, with the Private Entities and MOSOEs showing large increases in peer-adjusted ROA, while SBs show small declines in peer-adjusted ROA. However, among the transfers greater than 5% (Panel B) and the smaller sample of transfers greater than 20% (Panel C), the differences lack statistical significance.

In general, the results in Table 4 suggest that accounting performance improved following the block transfers, again favoring the *incentive hypothesis* over the *expropriation*, *co-insurance* and *added-bureaucracy* hypotheses. The differences in improvement based on the identity of the parties involved, suggest that SBs are less efficient monitors than Private Entities, with MOSOEs somewhere in between.

For both the long-term window CAR and the short-term window CAR, and for both peer-adjusted ROA and peer-adjusted ROE, we find significant positive correlations, ranging from 0.288 to 0.328. These highly significant correlations suggest that investors were able to successfully anticipate future improvements in operating performance subsequent to share transfers, again

Table 4. Changes in accounting performance surrounding negotiated block transfers at listed Chinese firms.

		<i>N</i>	Mean	Median	Standard deviation	<i>t</i> -Statistics	Minimum	Maximum
Panel A: Changes in ROA and changes in ROE								
Transfers >5%	Δ ROA	413	0.012	0.002	0.099	2.52	-0.397	0.375
	Δ ROE	413	0.019	0.008	0.147	2.29	-0.296	0.560
Transfers >20%	Δ ROA	184	0.016	0.008	0.108	1.99	-0.397	0.321
	Δ ROE	184	0.027	0.005	0.157	2.11	-0.287	0.527
Panel B: Changes in ROA for transfers >5% of common shares by type of transfer								
Seller		Bureaucrats	MOSOE	Private	All			
Bureaucrats		0.013 (24)	0.018 (54)	0.025* (35)	0.019** (113)			
MOSOE		-0.011 (22)	0.019** (122)	0.017 (74)	0.015** (218)			
Private		-0.034 (6)	-0.005 (26)	-0.002 (50)	-0.005 (82)	Test 1: <i>p</i> -value = 0.19		
All		-0.008 (52)	0.019** (202)	0.016* (159)	0.014 (413)			
		Test 2: <i>p</i> -value = 0.49						
Panel C: Changes in ROA for transfers >20% of common shares by type of transfer								
Seller		Bureaucrats	MOSOE	Private	All			
Bureaucrat		0.007 (17)	0.023 (39)	0.049** (12)	0.024* (68)			
MOSOE		0.006 (11)	0.019 (55)	0.046* (21)	0.024** (87)			
Private		-0.108** (3)	0.003 (12)	-0.035 (14)	-0.027 (29)	Test 1: <i>p</i> -value = 0.06		
All		0.000 (31)	0.025* (106)	0.032 (47)	0.023 (184)			
		Test 2: <i>p</i> -value = 0.50						

Notes: Changes in accounting performance are measured by the changes in peer-adjusted ROA or peer-adjusted ROE from the two years prior to the block transfer to the two years subsequent to the block transfer. The sample consists of 413 observations of block-share transfers of more than 5% of common shares between different ownership categories during 1998–2002 and for which matching peers could be selected. There are three ownership categories (SB, MOSOE and Private Entity) so there are nine combinations of buyer and seller. SB is a dummy variable equal to 1 if the largest block holder is classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is classified as an MOSOE; Private Entity is a dummy variable equal to 1 if the largest block holder is classified as a private entity. Classifications are based upon 17 detailed categories of ultimate ownership established by researchers at the NUS as described in Delios, Wu, and Zhou (2006). Panel A presents results for the full sample of 413 transfers, while Panel B presents detailed results by ownership classification for the full sample of 413 transfers greater than 5% of shares, and Panel C presents detailed results for 184 block transfers greater than 20% of shares.

\*Statistical significance at the 10% level.

\*\*Statistical significance at the 5% level.

\*\*\*Statistical significance at the 1% level.

Table 5. Probit selection equation to identify Chinese negotiated block transfers sold to different types of buyers.

Variable	State Bureaucrat		MOSOE		Private Entity	
	Marginal effect	<i>t</i> -Statistic	Marginal effect	<i>t</i> -Statistic	Marginal effect	<i>t</i> -Statistic
ROA <sub><i>i,t-1</i></sub>	-0.0001	-0.6	-0.002	-4.1***	-0.002	-4.3***
Firm Size <sub><i>i,t-1</i></sub>	-0.0041	-2.0**	-0.013	-3.5***	-0.016	-11.4***
Largest Percentage <sub><i>i,t-1</i></sub>	-0.0004	-4.2***	-0.001	-6.9***	-0.002	-4.9***

Notes: This table reports results from estimating a set of three probit selection equations to identify Chinese negotiated block transfers sold to different types of buyers during 1998–2002. The sample consists of 5679 firm-year observations on Chinese listed firms during 1998–2002 where 631 negotiated block transfers of more than 5% of common shares between firms occurred. Out of the 631 transfers, 238 were sold to Private Entities, 308 were sold to MOSOEs, and 85 were sold to SBs. The dependent variable takes on a value of 1 for the firm-years in which a negotiated block transfer to each type of buyer took place and a value of zero for all other firm-years. The explanatory variables are accounting performance measured by ROA<sub>*i,t-1*</sub>, the peer-adjusted ROA in *t* - 1, the year prior to the block transfer; FirmSize<sub>*i,t-1*</sub> as measured by the natural logarithm of a firm's total assets in year *t* - 1; and Largest Percentage<sub>*i,t-1*</sub>, the percentage of shares owned by the largest shareholder in year *t* - 1. The three ownership categories for buyers are SB, MOSOE and Private Entity. SB is a dummy variable equal to 1 if the largest block holder classified as an SB in year *t* - 1; MOSOE is a dummy variable equal to 1 if the largest block holder is an MOSOE in year *t* - 1; and Private Entity is a dummy variable equal to 1 if the largest block holder is a private entity in year *t* - 1. Classifications are based upon 17 detailed categories of ultimate ownership established by researchers at the NUS as described in Delios, Wu, and Zhou (2006).

\*Statistical significance at the 10% level.

\*\*Statistical significance at the 5% level.

\*\*\*Statistical significance at the 1% level.

favoring the *incentive hypothesis* over the *expropriation*, *co-insurance* and *added-bureaucracy* hypotheses.

## 5.2 Multivariate cross-sectional regressions

To provide additional evidence on the sources of abnormal returns and the changes in accounting performance, we also perform cross-sectional regressions. For our multivariate analysis, we utilize the two-stage methodology suggested by Heckman (1979), where we first estimate the probability that a block transfer to a particular type of borrower took place, and then estimate the relation between changes in ownership and performance, including the inverse Mills' ratio estimated from our selection equations to mitigate endogeneity concerns.

### 5.2.1 First-stage probit regression

Table 5 presents the results from our three first-stage probit regressions to explain differences in firms that did and did not experience negotiated block transfers to a particular type of buyer (SB, MOSOE or Private Entity) in each year. We have a total of 5678 firm-year observations over the 1998–2002 period, of which 631 identify firm-years in which a block transfer took place. Of the 631 transfers, 238 were sold to Private Entities, 308 were sold to MOSOEs, and 85 were sold to SBs. As explanatory variables, we focus on firm and performance characteristics. We include firm size and peer-adjusted ROA in the previous year to account for the possibility that smaller and less profitable firms were chosen for these block transfers. We include the percentage ownership of the controlling shareholder to account for the possibility that smaller controlling blocks are more likely to be involved in transfers.

As shown in Table 5, each of our explanatory variables is negative and statistically significant at better than the 1% level for both MOSOEs and for Private Entities; however, for SBs ROA lacks statistical significance and firm size is significant at only the 0.05 level. Because we estimate this equation primarily to obtain the inverse Mills' ratio for inclusion in subsequent regressions, we do not discuss these results in any more detail, other than to note that there are strong and significant differences in firms that did and did not experience block transfers to the three different types of buyers, supporting the importance of employing selection equations in our estimation.

### 5.2.2 Second-stage regressions

In our second-stage regressions, we use various performance measures as our dependent variables and use the type of seller and buyer as our explanatory variables, along with several control variables and the inverse Mills ratio  $\Lambda$  from our first-stage regression. For each of the dependent variables, we estimate the following cross-sectional regression model:

$$\begin{aligned} DV_i = & \beta_0 + \beta_1 \text{Seller Bureaucrat}_i + \beta_2 \text{Seller MOSOE}_i + \beta_3 \text{Buyer Bureaucrat}_i \\ & + \beta_4 \text{Buyer MOSOE}_i + \beta_5 \text{Related}_i + \beta_6 \text{Largest Change}_i + \beta_7 \text{PCT}_i \\ & + \beta_8 \text{Leverage Ratio}_i + \beta_9 \text{Size}_i + \beta_{10} \Delta \text{EXPROP} + \beta_{11} \Lambda_i + \varepsilon_i, \end{aligned}$$

where  $DV_i$  is, for firm  $i$ , the 250-day or 5-day cumulative abnormal return; the change in peer-adjusted ROA or peer-adjusted ROE.  $\text{Seller Bureaucrat}_i$ ,  $\text{Seller MOSOE}_i$ ,  $\text{Buyer Bureaucrat}_i$  and  $\text{Buyer MOSOE}_i$  are dummy variables indicating the type of negotiated block transfer; Seller Private and Buyer Private are the omitted categories, so the coefficient on each of the Seller and Buyer dummy variables measures the difference in the dependent variable (DV) of that category and the dependent variable of transfers involving Private Entities.  $\text{Related}_i$  is a dummy variable indicating that the buyer is a related party of the seller. Parties are related if, one party is directly or indirectly controlling or controlled by another party, or both parties are under the control of the same enterprise. We expect the benefits of block transfers to be lower when the transfer is to a related party.  $\text{Largest Change}_i$  is a dummy variable indicating that the transfer created a new controlling block holder for firm  $i$ . Because of the strong position of the controlling shareholder in China, we expect the positive effects of the block transfers to be larger when the new block holder obtains a controlling share.  $\text{Percentage Transferred}_i$  is defined as the number of shares that is transferred in the block transfer as percentage of the shares outstanding.

As general control variables, we include Leverage, Size,  $\Delta \text{EXPROP}$ , Shareholder is Buyer (indicator for transfers where the buyer was an existing shareholder),  $\Lambda$ , the inverse Mills' ratio and a set of year Fixed-Effects dummies to control for macroeconomic fluctuations during the five-year sample period. We also have estimated all models including industry dummy variables and exchange dummy variables; our results are robust to inclusion of these dummy variables.

We expect that excess returns and operating performance improvement will be larger at firms with greater informational asymmetries, as agency costs are expected to increase with the level of informational asymmetries. Because larger firms are less opaque than smaller firms, we hypothesize that excess returns will be inversely related to firm *Size*. In Western economies, firms with greater leverage are subject to more stringent monitoring by large creditors, including commercial banks, so that informational asymmetries should be smaller than at firms with greater leverage. However, in China, commercial banks are often directed by the State to make policy loans, so that banks do not serve this monitoring role in China. Instead, banks are directed by the State to make additional loans to poorly performing firms, increasing their leverage over time. Hence, we

expect that excess returns will be positively related to Leverage, as the worst performing firms have the most to gain from improved governance. We include  $\Delta\text{EXPROP}$  to control for changes in the level of expropriation of minority shareholders. We include the Shareholder is the Buyer because Chen et al. (2008) show that firm performance is affected by whether or not an existing shareholder is the buyer in the block transfer. We include Lambda to mitigate concerns about endogeneity and selection bias.

Table 6 presents the results of our cross-sectional regression models. For each dependent variable, we first present the results for the full sample of transfers greater than 5%, and then, in the next column, report the results for the subsample of transfers greater than 20%.

### 5.2.3 Cumulative abnormal returns

In Columns 2 and 3 of Table 6, we use the 250-day CAR as our dependent variable. Column 2 reports the results for the full sample, and Column 3 reports the results for the sample of transfers that are larger than 20% of the shares outstanding. Seller-SB is positive and significant at better than the 1% level, while Seller-MOSOE is positive but statistically significant at only the 10% level. These dummy variables also are economically significant. *Ceteris paribus*, transfers from SBs result in a 250-day CAR that is 12.5% larger than that for transfers from Private Entities (the omitted dummy variables) for the full sample; for the subsample of transfers greater than 20%, this difference is 23.9%. Both Buyer-SB and Buyer-MOSOE are negative, as expected, but lack statistical significance in both the 5% and 20% samples.

The results using the 5-day CARs appear in Columns 4 and 5 of Table 6, and generally are consistent with those using the 250-day CARs; both Seller-SB and Seller-MOSOE are positive, although the magnitudes are much smaller, in the range of 1–2%. Again, both Buyer-SB and Buyer-MOSOE are negative, but lack statistical significance. These results again suggest that investors perceive Private Entities to be superior monitors relative to SBs and MOSOEs.

The coefficient of *Related* is insignificant in all four models, indicating that investors do not perceive the value change resulting from transactions between related parties as different from transactions between unrelated parties.

The coefficient of the Largest Change (the indicator for transfers creating a new controlling block holder) is also insignificant in all four models. We had expected that transfers creating a new controlling block holder would be associated with greater cumulative abnormal returns, but this does not appear to be the case when we control for the type of block transfer. Similarly, the Percentage Transferred is insignificant; we had expected larger percentage transfers to be associated with larger CARs, but this is not the case.

The coefficient of Leverage is insignificant in three of the four models, but is negative and significant at the 10% level for the 20% sample/250-day CAR model. Contrary to our expectations, firms with higher Leverage experience smaller value increases over the 250-day period. Consistent with our expectations, *Size* is negative and statistically significant at better than the 1% level in all four models, indicating that firm size is negatively related to the increase in firm value. This smaller value increase for larger firms could reflect the lower information asymmetry at larger firms. The negative relation between firm size and the value change also could indicate that it is more difficult to restructure a larger firm.  $\Delta\text{EXPROP}$  is insignificant in all four models. We had expected a negative relation between the change in expropriation and abnormal returns around the announcements. *Shareholder is the Buyer* is insignificant in all four models.

In summary, the cross-sectional analysis of cumulative abnormal returns shows no consistent evidence that SBs are less effective monitors than MOSOEs. However, we do find consistent evidence that investors perceive Private Entities as the most effective monitors of listed firms.

Table 6. Cross-sectional regression results analyzing outcomes following announcements of negotiated block transfers.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Block Transfer		Block Transfer		Block Transfer		Block Transfer	
	> 5% CAR_250	> 20% CAR_250	> 5% CAR_5	> 20% CAR_5	> 5% ROA	> 20% ROA	> 5% ROE	> 20% ROE
<b>Seller</b>								
State Bureaucrat	0.125 (2.7)***	0.239 (3.1)***	0.007 (1.4)	0.017 (1.9)*	0.032 (1.3)	0.095 (2.3)**	0.025 (1.7)*	0.061 (2.5)**
MOSOE	0.072 (1.8)*	0.166 (2.3)**	0.011 (2.3)**	0.018 (2.1)**	0.034 (1.5)	0.100 (2.4)**	0.017 (1.3)	0.052 (2.2)**
<b>Buyer</b>								
State Bureaucrat	-0.045 (-0.8)	-0.121 (-1.4)	-0.009 (-1.4)	-0.010 (-1.0)	-0.046 (-1.6)	-0.058 (-1.3)	-0.010 (-0.5)	-0.021 (-0.8)
MOSOE	-0.007 (-0.2)	-0.057 (-1.0)	-0.010 (-2.5)**	-0.020 (-2.8)***	-0.001 (-0.1)	-0.066 (-2.0)**	-0.006 (-0.6)	-0.026 (-1.3)
Related	0.032 (0.7)	0.004 (0.1)	0.003 (0.5)	0.007 (0.8)	0.026 (1.1)	0.025 (0.7)	0.020 (1.3)	0.029 (1.3)
Largest Change	-0.011 (-0.3)	-0.037 (-0.6)	0.007 (1.5)	0.004 (0.5)	-0.015 (-0.6)	-0.031 (-0.8)	-0.011 (-0.7)	-0.012 (-0.5)
Percentage Transferred	0.002 (1.4)	0.000 (0.1)	0.000 (1.4)	0.000 (0.9)	0.001 (0.8)	0.002 (1.9)*	0.001 (1.7)*	0.002 (2.2)**
Leverage	-0.028 (-0.9)	-0.208 (-1.8)*	0.004 (1.2)	0.019 (1.4)	-0.035 (-0.6)	-0.042 (-0.5)	0.032 (2.2)**	0.052 (1.4)
Size	-0.093 (-4.4)***	-0.131 (-3.9)***	-0.007 (-3.0)***	-0.011 (-2.8)***	-0.017 (-1.3)	-0.032 (-1.4)	-0.006 (-0.7)	-0.024 (-1.8)*
ΔEXPROP	0.001 (0.0)	-0.040 (-0.2)	-0.014 (-0.9)	-0.011 (-0.5)	-0.028 (-0.4)	0.046 (0.4)	-0.023 (-0.5)	0.014 (0.2)

(Continued).

Table 6. Continued.

(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	
	Block Transfer		Block Transfer		Block Transfer		Block Transfer		Block Transfer		Block Transfer		Block Transfer		Block Transfer	
	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%	> 5%	> 20%
	CAR_250	CAR_250	CAR_5	CAR_5	ROA	ROA	ROA	ROA	ROE	ROE	ROE	ROE	ROE	ROE	ROE	ROE
Shareholder is Buyer	0.033	0.067	-0.006	-0.007	0.044	0.089	0.052	0.055								
	(0.5)	(0.6)	(-0.8)	(-0.5)	(1.2)	(1.4)	(2.4)**	(1.5)								
CEO Changes					0.018	0.026	0.014	0.024								
					(0.9)	(1.0)	(1.2)	(1.5)								
Lambda	-0.035	0.044	0.003	0.000	-0.062	-0.155	-0.043	-0.063								
	(-0.5)	(0.4)	(0.4)	(0.0)	(-1.6)	(-2.2)**	(-2.0)**	(-1.7)*								
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								

Notes: This table reports results from a series of cross-sectional regressions analyzing outcomes following announcements of negotiated block transfers at Chinese listed firms during 1998-2002. Column (1) identifies the independent variable being analyzed. Columns (2) and (3) present the results for analysis of the 250-day cumulative abnormal return from  $t - 210$  to  $t + 40$  around the announcement of block transfers. Columns (4) and (5) present the results for analysis of the five-day cumulative abnormal returns from  $t - 3$  to  $t + 1$  around announcements of block transfers. Columns (6) and (7) present the results for analysis of changes in profitability as measured by ROA during the two years before to the two years after the year of block transfers. Columns (8) and (9) present the results for analysis of changes in profitability as measures by ROE during the two years before to the two years after the year of block transfers. For each pair of columns, the first presents results for block transfers greater than 5% of common shares outstanding while the second presents results for block transfers greater than 20% of common shares outstanding. The sample consists of 631 observations of block-share transfers of more than 5% of common shares between different ownership categories during 1998-2002. There are three ownership categories (SB, MOSOE and Private Entity) so there are nine combinations of buyer and seller. SB is a dummy variable equal to 1 if the largest block holder is classified as an SB; MOSOE is a dummy variable equal to 1 if the largest block holder is classified as an MOSOE; Private is a dummy variable equal to 1 if the largest block holder is classified as a private entity. Classifications are based upon 17 detailed categories of ultimate ownership established researchers at the NUS as described in Delios, Wu, and Zhou (2006). Related is dummy variable indicating that the buyer is a related party of the seller. Largest Change is a dummy variable indicating that the transfer created a new controlling block holder. Percentage Transferred is size of the block transfer as a percentage of outstanding shares. Leverage is the ratio of total debt to total assets. Size is the natural logarithm of total assets.  $\Delta$ EXPROP is the change in the level of expropriation as proxied by the value of potentially harmful related-party transactions scaled by firm assets, as described in Berkman, Cole, and Fu (2010). Shareholder is Buyer is a dummy variable indicating that a pre-existing shareholder is the buyer in the negotiated block transfer. CEO Changes is a dummy variable indicating that the negotiated block transfer was followed by a change in the CEO. Lambda is the inverse Mills ratio estimated from the three first-state selection equations explaining the probability that the negotiated block was sold to a particular type of buyer, as shown in Table 5. Fixed Effects indicates that the model includes a set of year fixed-effects dummies.

\*Statistical significance at the 10% level. \*\*Statistical significance at the 5% level. \*\*\*Statistical significance at the 1% level.

#### 5.2.4 Changes in accounting performance

Columns 6–9 of Table 6 present the results for changes in peer-adjusted ROA (Columns 6–7) and peer-adjusted ROE (Columns 8–9). The evidence in these four columns generally shows that improvements in operating performance are larger and statistically significant where the seller is SB or MOSOE. All eight coefficients are positive, but the coefficients for the 5% sample lack significance. However, all four of the coefficients for the 20% sample are significant at better than the 5% level.

The coefficients of Largest Change are insignificant in all four models. As before, we had expected that transfers creating a new controlling block holder would be associated with greater improvements in accounting-based performance measures, but this does not appear to be the case.

The coefficient of Percentage Transferred is positive and significant at better than the 10% level in three of the four models. This indicates that improvements in performance are larger when a greater percentage of the firm is transferred to a new block holder.

In general, the control variables lack statistical significance. The relation between the improvement in firm performance and firm *Size* is consistently negative but significant only for ROE of the 20% sample. These results at least suggest that it is more difficult for new block holders to transform larger firms.

## 6. Summary and conclusions

In this study, we analyze share-price reactions and changes in accounting performance around the announcements of negotiated block transfers between different ownership structures, using a sample of firms that are publicly traded on Chinese stock exchanges.

First and foremost, we find positive abnormal returns around the announcements of the block transfers to all types of investors – both State-owned and private; this result is consistent with Barclay and Holderness (1991), who find that block transfers in the USA are associated with significant positive excess returns of similar magnitude to what we find.

Second, we find that both changes in firm value and accounting performance are significantly greater when ownership is transferred from SBs or MOSOEs, rather than from Private Entities. The improvements in performance following block transfers from State-controlled entities, but not from Private Entities, supports our hypothesis that the latter are better equipped and incentivized to monitor and discipline firm management than are the former. This result is consistent with superior incentives and expertise of private block holders relative to State-controlled block holders. We fail to find consistent evidence that MOSOEs are superior monitors relative to SBs. This result is important, as it suggests that the intermediate step of ‘corporatizing’ organizations that act as block holders is a relatively ineffective mechanism for dealing with the agency problems that result from State ownership.

Third, block transfers need not create a new controlling block holder in order to improve firm value and performance. Both market and accounting returns are no different for block transfers that do, and for those that do not, create a new block holder. This finding is an important new contribution to the literature on partial corporate control: changes in the identity of minority block holders affect both firm value and performance.

It is remarkable that the improvements in performance around the block transfers to private entities in our sample are substantially larger than the changes in performance observed after SIP in China (see Sun and Tong 2003). The common explanation for the limited success of the SIP process in China is that the SIPs failed to transfer true control from the State to the private sector and only helped to create many dispersed and powerless owners of Tradable-A shares. Our

evidence is consistent with this explanation and shows that substantial value increases are realized when the State relinquishes substantial control rights to private block holders. Of great interest is how further or complete privatization of listed State-controlled firms will affect firm value. Many such transfers of control are taking place in China, and we recognize this as an important and interesting avenue for future research.

## Notes

1. *Full privatization* refers to the transfer of control from the state to private owners, whereas *partial privatization* refers to the issuance of publicly traded shares by a state-owned enterprise where the state maintains majority ownership and/or control. Sun and Tong (2003) and Gupta (2005) study the impact of partial privatizations in China and India, respectively.
2. In the working paper version of this article available at <http://ssrn.com/abstract=1020170>, we also document that CEO turnover is faster when control is transferred to a *Private Entity*. Replacement of the CEO within three months of the block-transfer announcement is significantly less likely when a SB is the seller or buyer. These differences disappear when we look at replacements within 12 months of the block-transfer announcement.
3. The working paper version of this article also includes a Historical Perspective on the Chinese Privatization Experience.
4. Of course, SB officials (as well as MOSOE officials) enjoy the benefits of indirect perquisites, which can be substantial, including luxury housing, car with driver, expense accounts, etc.
5. Evidence in Berkman, Cole, and Fu (2009) is consistent with this conjecture. These authors find that Chinese firms are more likely to issue loan guarantees to their controlling block holder – a form of tunneling – when the controlling block holder is private rather than State controlled, either directly or indirectly through an SOE. Xiao and Zhao (forthcoming) report similar results.
6. China's standardized income statement separates the operating results into (1) 'profit or loss from core operating activities' and (2) 'profit or loss from non-core operating activities'. Chen and Yuan (2004) find that earnings management is more likely to involve non-operating profits.
7. Our results are robust to use of the market model for estimation of abnormal returns.
8. See, for example, the article 'Stocks, Lies and Manipulation', *Business China*, September 11, 2000, pp. 4–5, and several cases in Appendix 2, which appears in the working paper version of this article. When we use a 150-day window starting on day  $t - 125$ , we obtain similar results.
9. MacNeil (2002) estimates that the LLSV index of minority shareholder protection for China is only two out of a possible score of six compared with an average score of four for common law jurisdictions and an average of three for all countries. He also discusses the difficulties of enforcing minority shareholder rights in China.
10. The average CAR of the 339 transfers that are smaller than 20% of the shares outstanding is 13.7% and is significantly smaller than the average CAR of the large transfers at the 1% level. We have also split the sample according to whether or not the transfer resulted in a change in control (i.e., a new largest shareholder). There is no significant difference in CARs based on this classification (results are not reported).
11. Again, the average CAR around large transfers is significantly larger than the 0.6% average CAR around the transfers smaller than 20% of the shares outstanding.
12. Note that we observe positive CARs even when blocks are transferred from 'efficient' Private block holders to 'inefficient' MOSOE and SB block holders. Such transfers do not preclude value-enhancing changes in monitoring because there are good and bad monitors, be they Private, MOSOE or SB. When negotiated block transfers take place, a bad monitor usually (but not always) is replaced by a good monitor; this is the seminal finding of Barclay and Holderness (1991). Our 'incentive hypothesis' simply extends that finding to distinguish among good monitors based upon their relative experience and expertise; it does not preclude positive CARs for 'reverse transfers' from Private to State block holders.
13. As an additional test of the *co-insurance hypothesis*, we split our sample into low- and high-leverage groups at the median leverage of 0.48, where leverage proxies for financial distress. The *co-insurance hypothesis* implies that we should see the largest CARs for transfers from Private-to-State in the high-leverage group, as a firm is more likely to need a bailout when leverage is high. In fact, we find the lowest CARs for such transfers; moreover, we find that among Private-to-State transfers, CARs are much higher when leverage is lower.
14. We obtain similar results when we measure performance using industry-adjusted ROA and industry-adjusted ROE.

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