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Profiting from government stakes in a command economy: Evidence from Chinese asset sales[☆]

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ABSTRACT

We examine the market response to an unexpected announcement of the sale of government-owned shares in China. In contrast to earlier work, we find a negative effect of government ownership on returns at the announcement date and a symmetric positive effect from the policy's cancellation. We suggest that this results from the absence of a Chinese political transition to accompany economic reforms, so that the benefits of political ties outweigh the efficiency costs of government shareholdings. Companies managed by former government officials have positive abnormal returns, suggesting that personal ties can substitute for government ownership as a source of connections.

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1. Introduction

We study the effects on the market returns of partially privatized Chinese firms of announcements of proposed

sales of remaining government shares. There is a vast empirical and theoretical literature on the political economy of privatization (see Megginson and Netter, 2001 for a recent survey). The empirical work in this area has emphasized the efficiency gains that come from privatization; almost uniformly, researchers have found that privately owned firms have higher measured profits and efficiency than government-run firms, both in the cross-section and also as a result of performance changes following public share offerings of government companies.¹

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¹ For cross-sectional analyses, see Ehrlich, Gallais-Hamonno, Liu and Lutter (1994), Dewenter and Malatesta (2001), and LaPorta and López-de-Silanes (1999), among many others. For studies on post-privatization performance changes, see Gupta (2005), Megginson, Nash, and Van Randenborgh (1994), Dewenter and Malatesta (2001), and Boubakri and Cosset (1998), among many others.

While the theoretical literature has also often focused on the efficiency gains from privatization (see, for example, Shleifer and Vishny, 1998), the net impact on profits is ambiguous. In particular, managers in firms with government ties may use those connections to boost profits.

These benefits could, in theory, outweigh the positive effects on profits from private control, which may be associated with improved governance, productive efficiency, and greater single-minded pursuit of profit (rather than social ends). That is, in the terminology of Shleifer and Vishny (1998), there are the offsetting effects of the “helping hand” and “grabbing hand” of government on firms’ profits (while we use their terminology, we note that our focus is narrowly confined to firms’ profits, in contrast to the broader view of social benefits and costs that they consider).

In general, governments that implement privatization programs also embark on a simultaneous set of economic and political liberalizations intended to improve privatized firms’ prospects. Thus, it is not surprising that privatization is generally correlated with higher profits (i.e., that the grabbing hand effect on profits dominates) since privatization tends to coincide with changes in the broader economic and political environment that enhance firms’ performance by reducing government dominance over the economy.

The Chinese privatization experience, however, is unusual from that perspective. China’s approach to privatization and liberalization has been piecemeal and gradual, and state dominance over economic affairs remained largely intact during the process of privatization. During the 2001 episode that we study here, when the government contemplated the sale of remaining state shares in partly privatized firms, the Chinese government’s proposed sale of its shares did not coincide with a broad economic liberalization. Thus, actual and prospective privatization in China occurred within an unusual economic and political environment, in which the government maintained substantial control over the economy.

At the time of the 2001 announcement, the Chinese government still maintained substantial stakes in many publicly traded firms, which were partially privatized during the 1990s through share issue privatizations (SIPs). In 2000, the government held on average 32% of companies that were publicly traded at that time, and that government stake consisted of 61% of non-tradable shares. On July 24, 2001, the government announced that it would sell some fraction of its remaining shares to ordinary investors, suddenly giving credibility and clarity to an ambiguously worded prior statement on future privatization. As we have discussed, based on prior research one might expect this announcement to generate a positive response from investors in firms where the government had retained substantial stakes. However, we find that government ownership has a negative effect on returns in response to this announcement (henceforth **Event 1**), and a symmetric positive effect when the government suddenly announced the cancellation of its plans to sell state-owned shares on June 23, 2002 (henceforth **Event 2**).

Our event studies employ B-share prices, which are traded primarily by foreigners. We show that the B-share market is segmented from the tradable A-share market (where the non-tradable A shares would appear upon privatization). B shares trade at huge discounts relative to A shares partly because B shares are purchasable only on a very limited basis by Chinese residents due to tight capital account controls in China. Because the quantity of B shares available for sale is unaffected by the potential sale of non-tradable shares, and because the A- and B- share markets are segmented, our results cannot be attributed to dilution effects in the tradable A- share market. We also show that liquidity measures have no impact on abnormal event returns, further bolstering our interpretation of the results.

Our findings may be attributed to the peculiar trajectory of Chinese political and economic development, where political control over the economy has remained widespread despite economic reforms. Political rule remains firmly authoritarian, as indicated by its Polity IV democracy rating of -7 on a scale from -10 to 10 , which has remained unchanged since 1976.

Further, while allowing private ownership, the government has not been shy about interfering in commerce and the economy, and this type of interventionist government may be more willing to “grab” profits from private rather than state-owned firms. One recent, very evocative example occurred on December 23, 2003, when the central government announced new regulations aimed at cooling off explosive growth in the steel industry. These rules forbade new investment in steel plants; when a private company, Tieben Steel, was found to be in violation, the project was terminated and its chief executive officer sent to prison. By contrast, companies where the government held a stake—Bao Steel Company, Wuhan Steel Group, and others—installed new steel production facilities but were not punished for flouting the new regulations.² Similarly, connected companies may receive favorable tax treatment, preferential loan access, and industrial licenses as a result of their government ties (see Wu, 2008; Zhang and Ming, 1999–2003 for descriptions of such benefits).

Finally, in this statist system with poor private-sector enforcement institutions, the long-term governance improvements from privatization might never materialize (see Deng, Gan, and He, 2008, on the concentration discount in China specifically). The perception that weak private governance is likely to lead to value loss through tunneling and expropriation, as shown in Morck, Wolfenzon, and Yeung (2005), may itself contribute to the desire to preserve state involvement. The market’s negative response to further privatization is consistent with these arguments, and suggests that a more careful consideration of the institutional environment is important in evaluating the relative effects on corporate profits of helpful government connections and costly government mandates, both of which may be related to the extent of public ownership.

² See Wu (2008) for a detailed description.

The events we study also allow us to compare the effects of formal, ownership-based connections with the effects of personal political ties that have been the focus of much previous research (see Faccio, 2006 for a global perspective and Fan, Wong, and Zhang, 2007 for work focused on China). We find that the presence of managers previously employed in the local government bureaucracy has a positive effect on the announcement of the government sell-off and a symmetric negative effect in response to the policy's cancellation.³ We argue that this is consistent with investor belief of an increased importance of personal ties to government, given the expected end to institutional connections.

Finally, we provide some tentative evidence on the channels through which connections add value by looking at how the impact of government ownership on event returns differs by firm characteristics. We find a strong negative effect of government ownership interacted with location in a Special Economic Zone (SEZ), which serves as a proxy for discretion in local economic policymaking; this is consistent with the hypothesis that discretionary local government policy may be used to benefit government-affiliated companies. We also find that the impact of government ownership on returns is lower for firms with generous spending on non-wage worker amenities, as indicated by a positive interaction with government ownership. This is consistent with viewing these obligations as more likely to persist under government ownership. Finally, we find little impact of the interaction between leverage and government ownership, suggesting that in China in 2001, variation in government lending was not a primary source of variation in favor provision, at least for firms in our sample.

Some prior work has also examined the impact of government ownership on the performance of Chinese firms. Consistent with our findings, this body of research suggests that there may be some significant costs to private ownership—as in the study of Deng, Gan, and He (2008) noted above—but also argues for some potential benefits of government ownership. In particular, several studies found that in the cross-section, government ownership (or disinvestment) is not associated with lower (higher) profits or other measures of reduced (increased) performance. Wang (2005) makes this observation with respect to the impact of government ownership on post-initial public offering performance (IPO), while Sun and

Tong (2003) find that changes in government ownership resulting from share issue privatizations are uncorrelated with profits. Tian (2000), in fact, finds a U-shaped relationship, so that at higher levels of government ownership there is a positive correlation with profits. Cull and Xu (2005) also provide a link to potential benefits of government ties in their study of firm reinvestment decisions, where they show that risk of government expropriation is an important explanatory variable. Finally, Allen, Qian, and Qian (2005) allude to the peculiarities of Chinese law and finance in explaining some of these relationships, and also discuss some of the potential costs and benefits of government ties.

Our approach provides a more credible identification of the impact of government ownership on profitability. Because the announcements we identify affect all firms with government ownership stakes, interpretation of our results is not complicated by the question of which firms self-select into further privatization. Additionally, several of the studies cited above rely on cross-sectional comparisons of firms based on their levels of privatization, which raises concerns over unobserved differences across firms with different levels of government ownership. Our event study design, while not obviating this concern entirely, provides a more convincing identification. Finally, because of our rich set of covariates, we are able to examine how the value of government connections through ownership interacts with personal political ties.

The rest of this paper is organized as follows: In Section 2, we provide the institutional background on Chinese public firms and the government ownership of those firms, and present our main hypotheses. In Section 3, we describe the two policy experiments and our sample of firms in greater detail. Section 4 presents our main results on event returns and also a range of robustness checks. Section 5 concludes.

2. Privatization background

China embarked on ambitious economic reforms after the death of Mao in 1976.⁴ As part of these reforms, thousands of state-owned enterprises (SOEs) have been partially privatized through share issue privatizations (SIPs). The number of IPOs in China, most of which are SIPs, rose from eight in 1990 to 1,483 in 2006, while the number and value of shares issued soared from 0.048 billion shares valued at 0.081 billion RMB (*renminbi*) in 1990 to 130.1 billion shares valued at 681.4 billion RMB in 2006 (GTA, 2007). As a result, there are now many publicly traded companies in China with varying degrees of government ownership and control. However, the government's shares in these publicly traded companies cannot be freely traded.

Two elements of this “partial privatization” are of note in considering managerial incentives in these firms. First, given the partial private ownership, it is natural to expect

³ Fan, Wong, and Zhang (2007) find that political connections of management are associated with negative long-run stock performance, which they interpret as reflecting value destruction from political connections. That interpretation of their results is at odds with our findings, both in this paper and in Fisman and Wang (2008). Importantly, Fan, Wong, and Zhang's (2007) results are based on cross-sectional differences, while our results reflect reactions to events. Their cross-sectional findings could reflect unobserved cross-sectional heterogeneity of firms. For example, if weaker firms are more likely to try to obtain political influence, that could lead to an observed connection between political connections and low returns. Our results examine contingent effects of government connections, depending on the news announced, and thus, should be unrelated to such unobserved cross-sectional heterogeneity.

⁴ See Naughton (2007) and Branstetter (2007) for detailed descriptions of the reform process in China.

that in order to satisfy private-sector owners, management will use available resources to promote profitability. Second, the government itself would be interested in promoting the profitability of these firms. Most obviously, higher profits may serve as a source of government revenues. Further, the government intended to sell off stakes in these firms in the future, and increasing profitability would be central to that agenda. Empirically, there is a link between firm profitability and managerial turnover at partially privatized firms (Bai and Xu, 2005), implying the presence of profit-based incentives for managers. And given these incentives, it is natural to expect that government ownership ties would be exploited to serve this end.

In addition to non-tradable government shares, there are three other types of ownership of publicly traded Chinese firms. Legal-person shares (*faren gu*) are partially negotiable, dividend-earning shares offered to domestic (mainland Chinese) institutions such as other joint-stock companies and non-bank financial institutions. These shares were, for the most part, obtained at the time of the IPO, and as such, government ties were crucial in obtaining them. As a result, they were almost exclusively offered to government-related entities, and in some cases, also to institutions owned by former government officials. Until December 11, 2001, trading in these shares was limited to purchases by state-owned or state-controlled institutions through negotiation or auction upon approval from the provincial government.⁵ As a result, at the time of the announcements we consider here, legal-person shares were held primarily by quasi-government entities or at the very least, firms with strong government affiliations. Hence, these non-tradable shares handed out by the Chinese government may be considered to serve a similar governance function as government shares themselves—to provide government connections—and may cause the same governance problems as government stakes. See Sun, Tong, and Tong (2002) for a further discussion of legal-person shares.

Individual shares (*geren gu*), sold to domestic (mainland Chinese) investors, represent a third type of ownership. These were held mostly by individuals and a few domestic institutions, and were dividend-earning and fully tradable. Until May 2005, these were the only shares that were allowed to trade on the Shanghai and Shenzhen stock exchanges. Collectively, state shares, institutional shares, and individual shares are termed “A” shares.

Finally, foreign shares have been offered since late 1991 as a way to attract indirect foreign investment. These “B” shares are sold to foreign individuals and institutions. They are traded on the mainland Chinese stock exchanges in a market that is separate from A shares—this market segmentation will be important for

distinguishing government ownership effects from share supply or liquidity effects in our later analyses.^{6,7}

Given the importance of this segmentation for our identification, we provide several analyses of the extent to which the two share markets are segmented. Foreign-owned B shares trade at huge discounts relative to A shares, which shows that legally mandated market segmentation is not easily circumvented by illegal arbitrage. Daily stock prices for the 90 firms with both A and B shares trading continuously from 1994 through 2007 display an average discount for B shares over the period of 56%. Over that time period, the firm with the lowest median daily discount for the trading period had a median daily discount of 44.7%, and the firm with the highest median daily discount had a median daily discount of 73.6%. Moreover, the range over which this discount varies is very wide. Limiting our sample to trading data from 2001, the year when our first event takes place, we look at the ratio of the highest to lowest B-share discount for each firm. For the median firm this discount range is 1.84. This is not simply the result of very occasional extreme values: If we define this range instead using the ratio of the 90th percentile discount to the 10th percentile, we still observe a median range of 1.47. We also employ the method of Morck, Yu, and Yeung (2000)⁸ for analyzing the comovement between A and B shares. In their paper, the extent to which any two assets move together is captured in the fraction of dates where the two assets' prices move in the same direction. Using data for 1994–2007, we find that the comovement of a firm's A and B shares is lower than the comovement among different firms' B shares (0.60 and 0.67, respectively).

Clearly, the boundaries within which A and B shares moved independently were very large, providing very compelling evidence that these markets effectively segmented, even in the face of very large shocks to prices (that is, shocks producing price changes even in the 30% range).

In accordance with the gradual pace of China's economic transition, the state has often required that the majority of shares in SOEs be held by state institutions; by

⁶ Until recently, it was illegal for non-Chinese (non-mainlanders) to buy and sell A shares; in December 2002, foreign investors were given limited rights to trade in A shares under the Qualified Foreign Institutional Investor system. And until recently, mainland Chinese could not invest in B shares or trade in international markets; as of March 2001, they could buy and sell B shares, but only using legal foreign-currency accounts.

⁷ We note that the impact of the government sale of A shares is theoretically ambiguous. On the one hand, increased supply of A shares could put downward pressure on prices. On the other hand, because a greater number of shares could increase liquidity, the opposite effect is also possible. Additionally, the Chinese pension fund (called the Social Security Fund, and controlled by the Ministry of Finance; see www.SSF.gov.cn) announced on July 23, 2001 that it would enter into the A-share market for the first time. These factors may account for the relatively small drop in the A-share market during our first event, and the relatively low correlation between government ownership and returns during our event windows. Results available from the authors upon request.

⁸ This measure is now widely used in finance research; see Khanna and Thomas (2009) for one recent example.

⁵ Although private companies formally have the right to buy those non-tradable shares, there are no such cases in our sample. Also the provincial government has the last say in approving any transfer. In practice, it has generally not been possible for private firms to obtain these transfers at favorable prices.

the end of 2000, non-tradable shares still constituted about two-thirds of shares outstanding. All the firms with B shares also had outstanding non-tradable A shares, while almost all of the firms with outstanding tradable A shares (all but eight firms) also had non-tradable A shares.

2.1. Announcement of government share sales

On July 24, 2001 (**Event 1**), four public firms (FenghuoTongxun, BeishengYaoye, JiangqiGufen, Hua-fangGufen) announced that their government-owned shares would be sold in the A-share stock market; investors inferred that legal person shares would also be allowed to trade as a result of this announcement. This was typical of Chinese reforms, where government policy is revealed through the actions of ‘model’ firms that effectively provide the details of proposed reform plans, as described in Fan (1996).⁹ As implied by the structure of the plans announced by these four firms, both legal-person and explicitly state-owned shares would be sold.

In this case, these four firms were a demonstration of the reform intentions of an earlier and extremely vague statement by government officials. That earlier announcement on June 14, 2001 by the State Council had disclosed a temporary act enabling the sale of state-owned equities. This was a very ambiguously worded statement, the meaning of which was unclear for several reasons: first, it was announced as a temporary measure with no clear deadline; second, there were no details on how the program would be carried out; third, important policies about public firms typically are announced by the China Securities Regulatory Commission (CSRC) rather than the State Council. Thus, investors questioned the statement’s credibility. We do not include this announcement in our cross-sectional regression analysis below (the market overall was barely moved by it, and in fact, market indexes move slightly upward over the $[-1,1]$ event window around that event day).¹⁰

The July 24 announcement was not well received by the market.¹¹ The China B-share index declined by 10.5% during the three-day window around the announcement, indicating on average a perception of declining future profits in firms owned partly by the government as a result. The notion that this average decline reflected the effects of government involvement in these firms is confirmed by the cross-sectional effects we report in our analysis below, which show that the higher

the government ownership percentage the larger the decline in value.¹²

Over the course of the next year the government reconsidered its position. On the evening of June 23, 2002, the government cancelled its plans for the sale of government-owned shares. The market responded positively to this announcement (**Event 2**), and the B-share index increased by 12.7% during the three-day window surrounding the announcement date.

Several key features of Chinese policy statements, in general, and these announcements specifically, make them particularly well-suited to event study analysis. First, in China important regulatory changes are typically announced without any prior discussion among interested groups. This sharply contrasts with policy events in the United States and other democratic countries, where information leakage related to lobbying and public debate is a serious concern. In the specific case of our events, the lack of prior knowledge is supported anecdotally by the huge price swings on the announcement dates, and the absence of related pre-event price changes.

The unique structure of the Chinese stock market (the segmentation of tradable A, non-tradable A, and B shares), and the availability of B-share prices, allows us to avoid complications relating to government sales announcements (especially changes in the expected supply of tradable A shares attendant to the expected sale of non-tradable A shares) that would otherwise blur the interpretation of our results. If demand for stocks slopes downward, then adverse effects on A-share returns associated with government announcements of sales could result simply from an expected increase in tradable shares, which would be proportional to government ownership. We have already shown that there is compelling evidence that the A- and B-share markets were effectively segmented; by restricting our sample to firms with outstanding B shares (so-called B-share firms), and using B-share returns to measure announcement effects, we avoid this problem.

Several other aspects of these two announcements are worth mentioning. Many Chinese government proclamations are riddled with ambiguity, thereby clouding any interpretation of investor response. In contrast, our events are uncharacteristically clear and direct in their content, allowing for a relatively clear interpretation of the market response. Furthermore, the specific content of the two events we analyze implies a unique advantage in our study. The announcements of the plan and its cancellation are symmetric and opposite in effect, which permits us to test twice for any hypothesized effects in two separate episodes. In particular, this helps to allay concerns that observed results are driven by other market events that might be present on one or the other of the event

⁹ This process is called ‘Muozhe Shituo Guohe’ in Chinese (“Wading across the stream by feeling the way”), a phrase created by Deng Xiaoping.

¹⁰ We similarly exclude the October 23, 2001 cancellation of the fifth article of the June 14, 2001 announcement. As already noted, the market hardly responded to this initial announcement. Additionally, interpretation of this announcement is clouded by several major macro announcements—an increase of 10% in retail sales, an increase of 15.8% in fixed assets investment, and the World Trade Organization’s (WTO) disclosure of new trade negotiations—that came at the same time.

¹¹ Chinese stock market regulation limits the price change for any company in a single day to 10%.

¹² Recall that we focus on B shares as the key indicator of market perceptions of firm profits. Because B shares are all tradable and are segmented from A shares in the market, their returns offer a clearer indicator of changes in expected future profitability than the returns of tradable A shares, which may reflect effects unrelated to future profits but related to anticipated changes in the supply of tradable A shares resulting from sales of government A shares.

dates. We will present our results separately, but will also provide results where we pool data from both events.

Finally, we note that more recently China has, in fact, been successful in laying the groundwork for further privatizations. In particular, in 2005 the Chinese government instituted a new plan for liquidating non-tradable shares. See Beltratti, Bortolotti, and Caccavaio (2008), for an econometric analysis of these reforms. However, these agreements required the compensation of tradable shareholders by non-tradable shareholders, and at the time that these reforms were under development, it was expected that B-share investors would receive compensation. Thus, interpreting market reaction is complicated by investor expectations about firm-specific compensation of tradable shareholders. In the Appendix A, we describe these additional privatization reforms in detail (and their applicability to our paper), and provide an analysis of market reaction to these 2005 reform events.

3. Data and sample

Our sample consists of the 107 B-share firms¹³ traded on the Shanghai and Shenzhen Stock Exchanges that have transaction price data for the two policy experiments as well as basic financial information. We obtained adjusted closing price data for these firms from Datastream. In our main regressions, we report risk-adjusted returns. In order to construct the market model, we obtain data on the Chinese stock market index (which includes both A and B shares) from the China Stock Market Trading Database (CSMAR). A standard market model (MacKinlay, 1997) is used to calculate the benchmark return and the abnormal return over the -1 to 1 event window. Throughout, our primary outcome measure is the three-day cumulative abnormal return over the window $[-1, +1]$, which we denote by $CAR[-1, 1]$. Due to the 10% price movement limit on single-day returns, it is essential to include $Date = +1$ in our window, and we further include $Date = -1$ in order to allow for some information leakage prior to the announcement. We will also report results based on raw returns, $CR[-1, 1]$, and returns over a shorter two-day window, $CAR[0, 1]$.

To construct our measure of personal political ties, we manually collected the resumes of senior managers¹⁴ for our 107 firms, which may be found on the Web site of Sina (finance.sina.com.cn), a Nasdaq-listed internet content provider that provides comprehensive financial information on Chinese listed firms.¹⁵ These resumes provide details of career paths, and, in particular, report whether the manager has served as the “mayor” or “vice-mayor” (the equivalent of mayor or deputy mayor) in the city

where the company is located. We define an indicator variable, *Political_connection*, that denotes companies that employ at least one such individual in senior management. As indicated in the summary statistics below, 13 of our 109 firms are connected by this definition at the time of Event 1, and 11 were connected at the time of Event 2. Broadening our definition to include direct ties to the provincial or national government (as in Faccio, 2006) makes no difference in practice in our context, as these connections are very rare in China (there are none in our sample). We avoid extending our definition of connections to town governments, since these are not very influential administrative units. City-level officials have discretion over local economic policies, while town-level officials do not enjoy such rights (Wei, 2002).

Ownership structure data are derived from CSMAR. Of particular interest for our analyses is the fraction of A shares that consist of non-tradable government shares. We denote this by *Govt_share*. We denote the fraction of A shares owned by legal-persons as *LP_share*. As explained in the preceding section, these legal-person, non-tradable A shares were affected in the same way as government shares by the events we study here, and ownership of legal-person shares can generally be traced back to governmental or quasi-governmental entities.

We include various controls. *Log(Sales)* serves as a basic control for size. While there is no clear theoretical rationale for controlling for measures of existing profitability, we include ROA and Tobin's *Q* to check the robustness of our results (our results are virtually identical if we use Return on Equity (ROE) rather than ROA as a control). The data to construct these measures are obtained from Rasset (www.rasset.cn), a widely used provider of data on the China stock market. ROA is the net return on net assets, and Tobin's *Q* is the ratio of market value to book value of the firm. These were cross-checked for accuracy with figures provided at the Sina Web site (finance.sina.com.cn).

For our analyses of the potential channels through which political ties affect firm value, we generate a number of additional covariates.

First, we define SEZ, an indicator variable denoting whether the firm is based in a city that is a Special Economic Zone (Shenzhen, Zhuhai, Xiamen, Shantou, and Hainan) as a measure of local government discretion in economic policymaking. Generally speaking, SEZ cities' governments have more autonomy than other local governments in setting local economic policies, particularly for those firms that have foreign ownership (see Xiong, 2006 for an extended discussion). Foreign ownership is a key feature of virtually all the firms in our sample, since our sample consists of firms with outstanding B shares. Non-SEZ local governments typically require approval from the central government in order to provide preferential treatment of a local firm; by contrast, the SEZ governments enjoy considerable freedom in this regard. Xiong (2006) provides an illustration of this point in its description of economic policy discretion exercised by the Zhuhai government. An alternative interpretation of the SEZ indicator is that it serves as a proxy for export intensity. To avoid potential confusion regarding the

¹³ Two B-share firms are excluded because they were not traded in our event windows. We also exclude two “ST” firms; these are companies that had earned negative net profits for two consecutive years, and for which no financial data are available; both of these firms have subsequently been delisted (Chinese firms are delisted after three consecutive years of negative profits).

¹⁴ CEO, Vice-CEO, Chairman, and Vice-Chairman, where Vice-CEO corresponds to Chief Technical Officer (CTO), Chief Financial Officer (CFO), and other similar titles in the United States.

¹⁵ This information is only available in Chinese on the Sina Web site.

interpretation of the SEZ indicator, we include a firm-level control for the ratio of exports to total sales (Export_intensity), where the export data were obtained from China Trade Database provided by a consulting firm, Fuaohuamei, in Beijing.

We use Leverage (defined as the ratio of long-term bank borrowing over total assets, and obtained from Rasset) to assess the extent to which political ties may have generated preferential loan access. Finally, as possible measures of “social goods” provided by firms that may result from political pressures, we generate two regressors. The first is the ratio of retired employees that are supported by the firm as a fraction of the number of current employees. We obtain these data from the firms’ 2001 annual reports, and define this ratio as Pension_burden. As a measure of benefits provided by the firm to its workers, we use the firm’s Commonweal fund, which finances such amenities as barber shops, preschools, and hospitals. We define Welfare_rate as these Commonweal expenditures deflated by sales. Again, these data are obtained from companies’ annual reports in 2001.

As already noted, due to the separation of A- and B-share markets, the selling of government stakes should have no expected supply effect on B-share market prices. As an additional check, we include a variable, Turnover, which denotes average share turnover in the A-share market in the year prior to Event 1. If liquidity were an important part of the explanation for price declines in Event 1, then higher turnover should have a positive effect on Event 1 returns.

Summary statistics are presented in Table 1. One noteworthy pattern is the near equality of the magnitude of average returns for the two events. In Fig. 1a, we show the scatterplot relating abnormal returns $CAR[-1,1]$ for the two events. There is a weak negative correlation between the two. In Figs. 1b and c we show scatterplots relating $Govt_share+LP_share$ to $CAR[-1,1]$ for Events 1 and 2, respectively. Consistent with government ownership having an opposite impact on returns in each event, the correlation is negative for Event 1 ($\rho = -0.20$) and positive for Event 2 ($\rho = 0.22$). This suggests the possibility of pooling data from the two events in our regression analyses, which we discuss below.

Table 1

Summary statistics.

This table gives summary statistics for 107 Chinese listed firms. Govt_share is the proportion of state shares and state legal-person shares, LP_share is the proportion of general legal-person shares which held by private firms. Political_connection is an indicator variable denoting that the firm has at least one senior officer who was ever a (vice) mayor of a city. SEZ is an indicator variable denoting that the firm is located in a Special Economic Zone. Export_intensity is the ratio of total export value to sales. Leverage is the ratio of long-term bank borrowing to assets. Welfare_rate is the ratio of Commonweal fund of the firm to sales in 2001. Pension_burden is the ratio of retired employees that are supported by the firm to its current employees in 2001. CR101 is the cumulative event return over the window of $[-1, 1]$, CAR101 is the cumulative abnormal event return over the window of $[-1, 1]$, CAR01 is the cumulative abnormal event return over the window of $[0, 1]$. On July 24, 2001 (Event 1) the Chinese government announced it would sell its stakes in publicly traded firms. The government retracted this policy on June 23, 2002 (Event 2).

Variable	Mean value	Standard deviation	Median value
SEZ	0.248	0.434	0
Welfare_rate	0.0044	0.0055	0.0026
Pension_burden	0.1457	0.3585	0.0016
Event 1: July 24, 2001			
Govt_share	0.341	0.249	0.377
Political_connection	0.119	0.326	0
LP_share	0.119	0.187	0.0004
ROA	0.116	0.208	0.112
Log(1+Tobin's Q)	1.269	.407	1.177
Leverage	.048	.082	.017
Log(Sales)	20.4	1.24	20.4
Export_intensity	0.041	0.146	0
CR101 (day -1 to day 1)	-10.49	3.66	-10.96
CAR101 (day -1 to day 1)	-12.24	3.79	-12.55
CAR01 (day 0 to day 1)	-9.43	3.33	-9.02
Event 2: June 23, 2002			
Govt_share	0.34	0.249	0.378
Political_connection	0.101	0.303	0
LP_share	0.119	0.187	0
ROA	0.124	0.34	0.099
Log(1+Tobin's Q)	1.320	.354	1.241
Leverage	.053	.083	.018
Log(Sales)	20.5	1.16	20.6
Export_intensity	0.054	0.182	0
CR101 (day -1 to day 1)	12.68	3.7	12.14
CAR101 (day -1 to day 1)	12.11	3.75	11.42
CAR01 (day 0 to day 1)	8.32	2.62	8.1

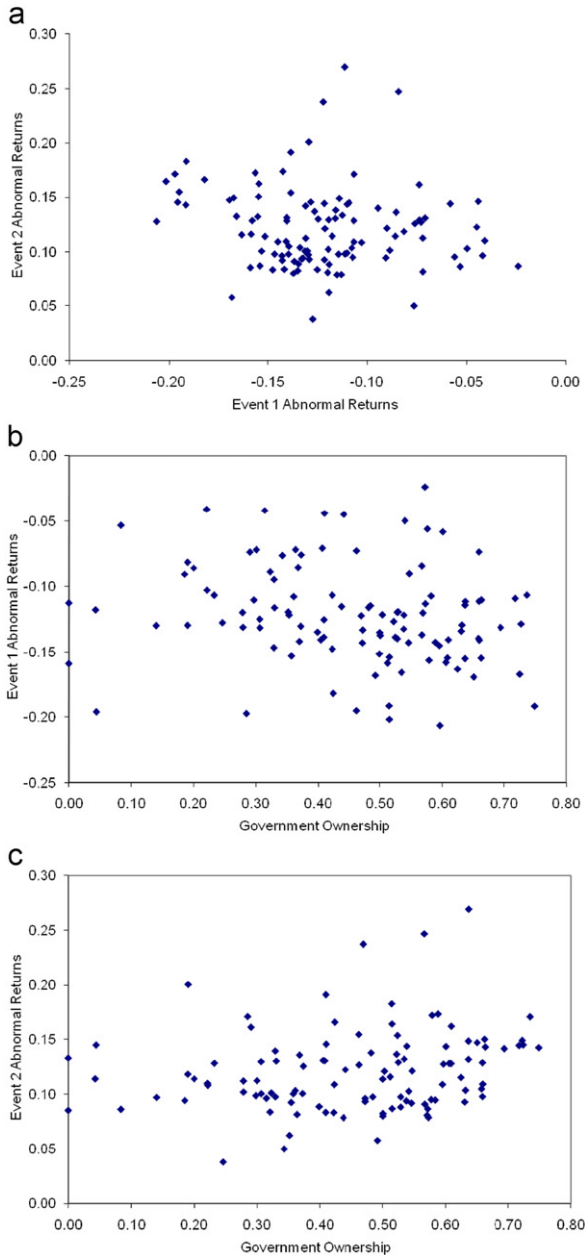


Fig. 1. (a) Scatterplot relating abnormal returns $CAR[-1,1]$ for two events. Event 1 denotes the announcement on July 24, 2001 that the Chinese government would sell its stakes in publicly traded firms. Event 2 denotes the retraction of this policy on June 23, 2002. See text for further details. (b) Scatterplot relating $Govt_share+LP_share$ to $CAR[-1,1]$ around the government announcement on July 24, 2001 that state-owned shares would be sold (Event 1) in China. $Govt_share$ is the proportion of shares held by the state and state legal persons and LP_share is the proportion of shares held by private firms registered as legal persons. (c) Scatterplot relating $Govt_share+LP_share$ to $CAR[-1,1]$ around the government's cancellation on June 23, 2002 of announced state share sales (Event 2) in China. $Govt_share$ is the proportion of shares held by the state and state legal persons and LP_share is the proportion of shares held by private firms registered as legal persons.

4. Results

We begin with analyses for the two events separately. Our main specification is as follows:

$$CAR_{ei}[-1, 1] = \alpha + \beta_1 * Govt_share_{ei} + \beta_2 * LP_share_{ei} + \beta_3 * Political_connection_{ei} + Controls_{ei} + \varepsilon_{ei}, \quad (1)$$

where e is the event number, i indexes the firm, and ε is a disturbance term. We allow for robust standard errors throughout.

Results for Event 1 are reported in Table 2, columns 1–4. In column 1 we show the specification with only $Govt_share$ and LP_share as regressors. Only $Govt_share$ is significant at conventional levels, though the coefficients are both negative and very similar in magnitude, implying a negative effect of government ownership on announcement returns. This is consistent with a “helping hand” view of the government impact on profits. The coefficient of 0.04 implies a one percentage point negative return for a one standard deviation (0.25) increase in $Govt_share$. We use $Political_connection$ as a covariate in column 2; its coefficient is positive, though not significant at conventional levels (p -value=0.14). In column 3 we include $Govt_share$, LP_share , and $Political_connection$ together as regressors, and add Standard Industrial Classification (SIC) one-digit industry fixed effects and $\log(Assets)$ to control for size. The coefficients on both $Govt_share$ and LP_share increase, though the coefficient on $Political_connection$ falls by about 20%. In column 4 we add profitability controls; the coefficients on both $Govt_share$ and LP_share increase once again.

In columns 5–8 of Table 2 we report the results of these specifications for Event 2. For this cancellation event, we find that the coefficients of interest are of opposite signs to those of Event 1 and comparable in magnitudes.

In Table 3 we present the results pooling data from both events, but using negative $CAR[-1,1]$ for the cancellation event (Event 2) and including an Event 2 indicator variable. All regressions allow for clustering of standard errors at the level of the firm. We present the basic result in column 1.¹⁶ Given the preceding results, it is not surprising that we generate estimated coefficients that are similar in magnitude to those presented in Table 2, but of somewhat higher levels of statistical significance. The coefficient on $Political_connection$ is now marginally significant at conventional levels (p -value=0.08). In columns 2 and 3 we present results using raw returns $CR[-1,1]$ and two-day returns $CAR[0,1]$, respectively. Again, the results are qualitatively unaffected. Finally, we present the results of a specification that gives greater flexibility to the relationship between government ownership and returns. We define two indicator variables, $I[0.25 < Govt_share \leq 0.50]$ and $I[Govt_share > 0.50]$, that denote firms with $Govt_share$ between 0.25 and 0.50, and

¹⁶ The coefficients are insensitive to inclusion/exclusion of controls in this pooled regression. We also considered specifications that weighted observations by firm sales; this weakened our results slightly.

Table 2

Regressions of abnormal event returns on state-owned shares.

The dependent variable in all specifications is CAR101, the cumulative abnormal even+return over the window $[-1,1]$. Event 1 denotes the announcement on July 24, 2001 that the Chinese government would sell its stakes in publicly traded firms. Event 2 denotes the retraction of this policy on June 23, 2002. Govt_share is the proportion of shares held by the state and state legal persons, LP_share is the proportion of shares held by private firms registered as legal persons. Political_connection is an indicator variable denoting that the firm has at least one senior officer who was ever a mayor or vice mayor of a city. ROA is the net return on total assets in the past year. Tobin's Q is the ratio of market value over book value of the firm. Robust standard errors are in parentheses. *significant at 10%; **significant at 5%; ***significant at 1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Govt_share (%)	-0.044*		-0.052*	-0.061**	0.046**		0.037*	0.048**
	(0.023)		(0.026)	(0.025)	(0.019)		(0.020)	(0.021)
LP_share (%)	-0.050		-0.055	-0.077**	0.060**		0.044	0.063**
	(0.036)		(0.038)	(0.035)	(0.029)		(0.028)	(0.028)
Political_connection		0.015	0.014	0.013		-0.015**	-0.017*	-0.016*
		(0.010)	(0.011)	(0.011)		(0.007)	(0.009)	(0.009)
Log(Sales)			0.006*	0.011***			-0.008**	-0.013***
			(0.004)	(0.004)			(0.004)	(0.005)
ROA				-0.057				-0.021
				(0.100)				(0.019)
log(1+Tobin's Q))				0.034***				-0.028**
				(0.011)				(0.013)
Event	1	1	1	1	2	2	2	2
Industry fixed effects	No	No	Yes	Yes	No	No	Yes	Yes
Observations	107	107	107	107	107	107	107	107
R-squared	0.04	0.02	0.21	0.31	0.05	0.02	0.19	0.22

Table 3

Regression of abnormal event returns (pooled).

CAR101_pool is equal to CAR101 for Event 1 and equal to $-1 \times \text{CAR101}$ for Event 2; CR101_pool and CAR01_pool are similarly defined. See the text for further details. Govt_share is the proportion of shares held by the state and state legal persons, LP_share is the proportion of shares held by private firms registered as legal persons. Political_connection is an indicator variable denoting that the firm has at least one senior officer who was ever a mayor or vice mayor of a city. ROA is the net return on total assets in the past year. Tobin's Q is the ratio of market value over book value of the firm. $I(0.25 < \text{Govt_share} \leq 0.5)$ is an indicator variable denoting that $0.25 < \text{Govt_share} \leq 0.5$. $I(\text{Govt_share} > 0.5)$ is an indicator variable denoting that $\text{Govt_share} > 0.5$. Turnover is the turnover of the firm's corresponding A-share in the past year before Event 1. Robust standard errors are in parentheses, disturbance terms clustered by firm. *significant at 10%; **significant at 5%; ***significant at 1%

	(1)	(2)	(3)	(4)	(5)
Govt_share (%)	-0.055***	-0.053***	-0.031**		-0.072***
	(0.017)	(0.017)	(0.016)		(0.021)
LP_share (%)	-0.074***	-0.072***	-0.046**	-0.063**	-0.073**
	(0.026)	(0.025)	(0.022)	(0.024)	(0.028)
Political_connection	0.014*	0.014**	0.012**	0.015*	0.013*
	(0.007)	(0.007)	(0.006)	(0.008)	(0.007)
Log(Sales)	0.012***	0.011***	0.010***	0.012***	0.012***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.004)
log(1+Tobin's Q))	0.035***	0.034***	0.026***	0.033***	0.028*
	(0.009)	(0.009)	(0.007)	(0.009)	(0.014)
ROA	0.021	0.022	0.005	0.021	0.026
	(0.015)	(0.014)	(0.012)	(0.016)	(0.016)
Event dummy	-0.000	-0.023***	0.009**	-0.000	-0.003
	(0.005)	(0.005)	(0.004)	(0.005)	(0.006)
$I(0.25 < \text{Govt_share} \leq 0.5)$				-0.017*	
				(0.009)	
$I(\text{Govt_share} > 0.5)$				-0.028***	
				(0.009)	
Turnover					0.251
					(0.385)
Dependent variable	CAR101_pool	CR101_pool	CAR01_pool	CAR101_pool	CAR101_pool
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	214	214	214	214	164
R-squared	0.22	0.28	0.24	0.22	0.18

Govt_share greater than 0.50, respectively. The results, reported in column 4, do not reject a monotonic negative relationship between Govt_share and returns. Finally, in column 5 we include Turnover as a control. If our results were driven largely by concerns over changes in the expected supply of tradable A shares, then turnover should be a strong predictor of event returns. The coefficient on turnover is indistinguishable from zero, however, and its inclusion does not affect the coefficients on our variables of interest.

We also repeated our analyses using A-share returns as the dependent variable, and obtain results that are virtually identical to those we report for B shares above. The announcement of non-tradable share sales should affect both types of shareholders similarly, aside from any effect relating to a reduction in the scarcity of shares in the domestic market, which would affect only A shares. Given this, it is interesting to note that the one difference between the determinants of returns in the two markets is that turnover is a significant predictor of returns for the A-share market, consistent with the presence of a (limited) supply effect in the A-share market, but not the B-share market.

Finally, we note that there are concerns regarding the endogeneity of government ownership. The direction of a potential bias is unclear. On the one hand, the government may have chosen to maintain ownership in the firms where there is the greatest impact on profits from government ties. In this case, we are likely overestimating the net benefits from government ties. Alternatively, the government may have maintained high ownership stakes in companies that could be used to further social objectives, in which case the bias could be in the opposite direction.

4.1. Identifying the costs and benefits of government ownership

Our results above indicate that, in the Chinese context, the positive effects on profits from government connections from higher government ownership may have outweighed the costs of government ownership. By exploiting additional cross-sectional variation in firm attributes, we now investigate the possible sources of government-related benefits. If our results were driven by preferential local government policy, we would expect our results to vary according to the extent of discretion in the economic policymaking of local governing bodies. Our best proxy for the extent of policy discretion is whether the firm is located in a Special Economic Zone, a designation that is associated with greater economic autonomy of local governments (Zhou, 1984; Wei, 2002).

It is important to note that SEZs have a reputation in the U.S. for having minimal government involvement, and effective contract enforcement. However, this perception stems from the treatment of foreign companies resulting from the Chinese government's attempts to attract Foreign Direct Investment (FDI) to SEZs; these foreign firms are, in fact, unusually insulated from the vagaries of

government intervention, and they are not a part of our sample here. For our purposes, the critical point is that local governments in SEZs are given greater policymaking discretion which potentially amplifies the benefits of government ties for domestic firms. And local governments in Special Economic Zones have not been shy in exercising these powers (see, for example, Wang, Huang, and Liu, 1998).

In our econometric specification, we allow for a greater impact of government ownership in SEZ's through the inclusion of the interaction term (Govt_share+LP_share)*SEZ, and also a greater influence of personal ties as a result of government divestment through the interaction term Political_connection*SEZ. (In all that follows, we use the sum, Govt_share+LP_share, rather than allowing for the separate interactions, in order to conserve space. When the ownership shares enter separately, we find that the results are being driven primarily by variation in Govt_share.) In Table 4 column 1 we report results including just the direct effect of SEZ. The SEZ indicator variable takes on a coefficient of -0.019 and is significant at the 1% level, implying that firms located in SEZs had event returns 1.9 percentage points lower than non-SEZ firms. More interestingly, in column 2 we include the interaction terms. (Govt_share+LP_share)*SEZ is significant at the 1% level and takes on a value of -0.069 while the direct effect of (Govt_share+LP_share) is -0.044 , implying that the effect of government ownership is nearly twice as large for SEZ firms.

The coefficient on Political_connection*SEZ is positive, significant at the 1% level, and takes on a value of 0.045. This is consistent with the view that investors expect personal ties to be more valuable in the wake of government divestment. Note finally that the coefficient on the direct effect of SEZ (i.e., a firm with both Govt_share+LP_share and Political_connection equal to zero) is now indistinguishable from zero, consistent with the impact of the SEZ variable working primarily through political channels.

One potential concern about our interpretation of the SEZ interaction coefficients is that SEZ status may reflect other attributes of firms not already controlled for. For example, firms operating in SEZ areas may have a higher proportion of exports, which may affect their announcement returns. Therefore, we add the variable Export_intensity and its interactions with Govt_share+LP_share and Political_connection, to our specification (reported in column 4). We find that the additional of these three variables has little effect on the SEZ interactions. In fact, the export intensity interactions are of opposite signs to that of the SEZ interactions. This is consistent with the view that domestically focused firms are more dependent on political ties.

In the early stage of China's economic transition, government banks were described by the Chinese as being an "ATM for the mayor of the local government." (called 'Shizhang Pitiao' in Chinese). In a similar vein, prior research has focused on the lending channel, or "soft budget constraint," as a source of government handouts (see, in particular, Khwaja and Mian, 2005; Berglof and Roland, 1998).

Table 4

Identifying the mechanism of beneficial government ownership.

Notes: CAR101_pool is the dependent variable in all regressions, and is equal to CAR101 in event 1 and equal to -1^* CAR101 in event 2. CAR101, the cumulative abnormal even return over the window $[-1,1]$. Govt_share is the proportion of shares held by the state and state legal persons, LP_share is the proportion of shares held by private firms registered as legal persons. Political_connection is an indicator variable denoting that the firm has at least one senior officer who was ever a (vice) mayor of a city. SEZ is an indicator variable denoting that the firm is located in a Special Economy Zone. Export_intensity is the ratio of total export value to sales. Leverage is the ratio of long-term banking borrowings to assets. Welfare_rate is the ratio of the firm's commonweal fund to sales. Pension_burden is the ratio of retired employees that are supported by the firm to its current employees. All specifications include controls for log(Sales), Tobin's Q, ROA and event dummy (not reported to saving space). Robust standard errors are in parentheses, disturbance terms clustered by firm. *significant at 10%; **significant at 5%; ***significant at 1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Govt_share+LP_share (%)	-0.053*** (0.017)	-0.063*** (0.018)	-0.044** (0.022)	-.048** (0.023)	-0.044** (0.019)	-0.069*** (0.020)	-0.051*** (0.017)	-.036 (.037)
Political_connection (PC)	0.014** (0.007)	0.010 (0.007)	0.010 (0.008)	0.0132* (0.007)	0.009 (0.010)	0.021* (0.011)	0.021** (0.009)	.027 (.020)
SEZ		-0.019*** (0.006)	0.009 (0.017)	0.013 (0.014)				.020 (.017)
(Govt_share+LP_share)*SEZ			-0.069** (0.034)	-.079*** (0.030)				-.089*** (.034)
Political_connection*SEZ			0.045*** (0.014)	0.046*** (0.013)				.040** (.018)
Export_intensity				-0.216 (0.163)				-.198 (.170)
(Govt_share+LP_share) *Export_intensity				0.203 (0.398)				.266 (.486)
Political_connection *Export_intensity				-1.286*** (0.489)				-1.164*** (.421)
Leverage					0.037 (0.049)			.049 (.053)
(Govt_share+LP_share)*Leverage					-0.131 (0.125)			-.167 (.129)
Political_connection*Leverage					0.055 (0.057)			.021 (.071)
Welfare_rate						-0.650 (1.253)		.175 (1.520)
(Govt_share+LP_share)*Welfare_rate						3.083 (2.478)		1.392 (2.956)
Political_connection*Welfare_rate						-1.279 (1.383)		-1.695 (1.369)
Pension_burden							0.039 (0.025)	.037 (.025)
(Govt_share+LP_share)*Pension_burden							-0.057 (0.047)	-.063 (.048)
Political_connection*Pension_burden							-0.072*** (0.027)	-.064 (.035)
Industry effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	214	214	214	214	214	214	214	214
R-squared	0.22	0.25	0.27	0.28	0.22	0.23	0.23	0.31

A primary prediction of the view that lending is a channel of favors would be a higher leverage ratio for firms with stronger government connections. However, we do not find any such relationship in our sample (results not reported here). Additionally, if the lending channel were an important source of government favors, we would expect leverage to enter significantly in our regressions, as an indicator of reliance on government favors. In Table 4 column 5 we present a specification including both the direct effect of Leverage and its interactions; the coefficient on (Govt_share+LP_share)*Leverage is negative (indicating that firms with both high leverage and high government ownership experienced larger negative returns from the privatization announcement) though not significantly different from zero. The weak effects related to leverage may reflect market-oriented banking reforms that had already taken

place prior to our events. In particular, the Central Bank of China adopted many measures during the 1990s to make local banks independent of local governments in business operation. See Brandt and Zhu (2007); for a more detailed treatment in Chinese, see Wang (2005). Alternatively, it may simply be the result of the characteristics of our sample, which consist only of B-share firms, all of which had at least some access to alternative (foreign) sources of funds in addition to local bank financing.

Next, we consider potential heterogeneity in benefits that firms might receive from reduced government ownership. In the absence of a well-developed social security system, SOEs in China have traditionally served a welfare function for their employees (Bai, Lu, and Tao, 2006). As a result, state-owned firms fulfill this social role, providing workers with non-wage amenities and also providing pension benefits to retired workers. If reduced

government ownership was expected to reduce these obligations, then share prices for firms with greater non-wage or pension burdens may react relatively positively to the news of privatization, and this effect may be concentrated in firms with high government ownership. In Table 4 column 6 we include *Welfare_rate*, the ratio of firm expenditures on employee welfare to sales, and the interaction terms, $(\text{Govt_share} + \text{LP_share}) * \text{Welfare_rate}$ and $\text{Political_connection} * \text{Welfare_rate}$, as covariates. Consistent with the view that firms with closer government ties may be forced to provide greater worker amenities, the coefficient on $\text{Political_connection} * \text{Welfare_rate}$ is negative. Neither coefficient is significant at conventional levels.

In column 7 we include *Pension_burden* and its interactions with $(\text{Govt_share} + \text{LP_share})$ and *Political_connection*. We find that *Pension_burden*'s interaction with $\text{Govt_share} + \text{LP_share}$ is positive and marginally significant (p -value=0.12), while its interaction with *Political_connection* is negative and significant at the 1% level. This implies that firms with high pension obligations and personal political ties may be more likely to continue to pay retired workers, perhaps for political reasons. However, given the relatively small number of connected firms, these results should be interpreted with some caution.

Finally, in column 8 we include all regressors in a single specification. The results are largely consistent with the set of earlier regressions.

In summary, our results provide some evidence on the channels through which firm value may be affected by government ownership in China. Statistically, our most robust results relate to city-level autonomy in economic policymaking, as proxied by SEZ status.

4.2. Robustness checks

A primary alternative explanation for our findings is the possibility that government ownership is simply an important risk factor for Chinese stocks. If our market model failed to account properly for this factor, then firms with higher government ownership may increase (decrease) more when there is a sharp increase (decrease) in the market index. To examine this possibility, we also perform a pair of placebo tests. Specifically, we look at the two trading days that occur during the 12 months between our events where the Shanghai Composite Index dropped by more than 4%. First, on January 23, 2002, the index increased by 6.44%, for no apparent reason.¹⁷ In this case, the coefficients on both *Govt_share* and *LP_share* were indistinguishable from zero (t -statistics of -0.13 , 1.11 , respectively) in predicting returns. The second placebo date is Nov 7, 2002, when the Shanghai Composite Index decreased by 4.6%; once again, the estimated effects of *Govt_share* and *LP_share* on returns were close to zero.

¹⁷ We checked main financial newspapers of that day, and have not found any significant macro-economy or policy news that could have affected the stock market so much.

A second concern is information leakage. We have already argued that the Chinese government was famously tight-lipped in the period leading up to its policy announcements. But we further assess the extent of leakage by calculating abnormal returns for the window of $[-30, -2]$ and using this as a dependent variable. Neither government ownership nor legal-person ownership significantly affected returns for either event.

5. Conclusions

In this paper, we analyze two opposite policy announcements in China relating to the sale of government-owned shares. We find that the stock market responds negatively to unanticipated further privatization and positively to the cancellation of this proposed policy. We also find that, cross-sectionally, higher government ownership has a negative effect on firm returns during the privatization announcement, and a positive effect during the cancellation announcement. Our regression results suggest that government ownership is associated with benefits to government-connected firms in an economy like China's where government continues to exercise substantial control over the economy. Our results indicate that, at least from the perspective of firm profitability, reduced government ownership is not always favorable.¹⁸ The benefits to firms from increased privatization are contingent on government asset sales being accompanied by broader economic liberalization. Our evidence also lends support to the general view that the broader constellation of economic and political institutions matters for economic performance and growth.

Government ownership of firms is not the sole determinant of the extent to which firms gain or lose from government connections. Personal ties between firms and local governments can substitute for institutional connections related to government ownership. And the extent to which local Chinese government connections affect firm profitability varies with the extent of local government discretion, as proxied by the location of the firm in a Special Economic Zone. Finally, firms with higher existing burdens relating to their government connections (higher welfare payments for employees) benefit the most from privatization, since they stand to gain the most from eliminating their institutional connections to government.

We conclude with an important caveat: our analysis of returns measures expected gains to stockholders from privatization announcements, not net social gains. It is possible that privatization could reduce the expected profits of publicly traded firms with government connections, but still increase net social benefits through a variety of channels (including the reduced incentives for

¹⁸ Fisman and Wang (2008) also find significantly negative abnormal event returns on the announcement of the sale of non-tradable state-owned shares (through private negotiations, and subject to state review and permission). In that paper, the announcement reflects decisions of the owners and buyers of non-tradable A shares. Hence, the announced share sales in this paper are a more plausibly exogenous source of variation in explaining returns.

government officials to attempt to control economic activity).

Appendix A. Description of 2005 reforms for conversion of non-tradable shares

Our event analysis does not include the events related to the 2005 reforms, which ultimately established a framework for the sale of non-tradable shares. These reforms are described in greater depth in [Beltratti, Bortolotti, and Caccavaio \(2008\)](#), and we refer the interested reader to that paper for further details on the reforms. We provide a sketch of the reforms in this appendix, as well as a synopsis of our analysis of event returns on the relevant dates in 2005, and a further explanation of the factors that led us to exclude these events from our analysis above.

On April 29, 2005 the government announced a pilot program, inviting four companies to develop plans to allow non-tradable A shareholders (including the state) to sell their shares, subject to negotiation with other shareholders about an appropriate level of compensation. According to [Beltratti, Bortolotti, and Caccavaio \(2008\)](#), this announcement was met with skepticism by investors, and consistent with this, the market was more or less flat on that date (the Shanghai Index dropped by less than 1%). Less than two months later, on June 20, the government announced a second wave of compensation negotiations involving 42 companies that accounted for over 10% of market capitalization. By August 19, all of these companies had reached a compensation agreement, and on August 24, the government issued guidelines to extend this compensation plan to the rest of the market. We refer to these three announcement dates—April 29, June 20, and August 24—as Events A1–A3, respectively.

Up to the date of the A3 event, no firm that had issued B shares had participated in these reforms, and much ambiguity remained as to whether B-share investors would receive compensation similar to that received by tradable A shareholders. On the one hand, B shareholders are supposed to have identical rights to those of A shareholders according to corporate law in China, hence, it was argued that any compensation should accrue to tradable A and B shareholders equally. On the other hand, since the presumed adverse supply effect of new tradable shares in the domestic market would not affect the B-share market, it was argued that B-share investors should not be compensated. See [Chen \(2005\)](#) and [Xie \(2005\)](#) for detailed discussions on this topic. Furthermore, the policy rules issued on August 24, 2005 (Event A3) made no clear reference to the question of B-share compensation.

The first instance of a B-share firm implementing a reform occurred in October, 2005 and B-share investors were not compensated. This surprised some participants and opened a heated debate in response to the proposed plan. Some in the investment banking community claimed that many non-tradable shareholders themselves had expected to be required to compensate B shareholders (see [Li, 2005](#)). UBS China argued for B-share

compensation and threatened a class-action lawsuit against non-tradable shareholders. See [Chen \(2005\)](#) and [Xie \(2005\)](#) for detailed discussions on this topic. In the reforms that followed, B-share investors were never compensated, but the controversy surrounding early reforms highlights the ambiguity surrounding the earlier announcements.

Collectively, these facts point to an expectation of B-share compensation among investors, and this presents a significant complication for including these events in our analysis. The complication is as follows: Given that many non-tradable shares were held by the government, and given that a larger fraction of non-tradable shares translates into higher compensation levels for classes of shares receiving compensation, it was likely expected prior to October 25, 2005 that compensation levels would be increasing in government ownership for both B shareholders and tradable A shareholders. This compensation effect potentially confounds identification of the government-connection effect of ownership on abnormal returns (note that this complication does not arise in the 2001–2002 events we focus on above).

The possibility that B shares would receive compensation has several empirical implications relating to coefficient bias on the government ownership variable. First, most obviously, the effect of government ownership on abnormal returns should be more positive for the A1–A3 events than in our analysis of the 2001–2002 events. Second, if expected compensation increases the positivity of the government share coefficient, then inclusion of a control for expected compensation should reduce that measured bias. Third, the bias on government ownership in abnormal returns regressions could be declining over time (and after October 2005 it should be largely absent).

In empirical analysis not reported here, we provide some empirical support for all three of these hypotheses. That analysis begins by documenting a positive relationship between government ownership and subsequent compensation levels (significant at the 1% level), and finds a similar pattern for legal-person ownership. We then examine returns of B-share firms around each of the three announcement dates. Consistent with an expectation of B-share compensation, we find that eventual compensation of A-share investors (recall that B shares received no compensation, so we use A-share compensation as a proxy for cross-sectional variation in expected compensation) is highly significant in predicting announcement returns for Events A2 and A3; given the lack of market response to Event A1, it is perhaps unsurprising that no covariate predicts returns on that day. Both government ownership and legal-person ownership are positive predictors of event returns, but our analysis suggests that this could be the result of these ownership variables being used as markers of likely high future compensation (given the high correlation between compensation and non-tradable ownership, when both ownership and compensation variables are included, the significance of each is substantially diminished).

We also examine B-share returns around firm-specific events (as opposed to the macro events, A1–A3) associated with the completion of actual compensation agreements

for B-share firms. It was becoming increasingly clear that B-share investors would not receive compensation, and given that actually negotiated compensation agreements typically occurred much later than Events A1–A3, it is not surprising that (actual) A-share compensation does not predict returns in our analysis of the (later) firm-specific events. For short event windows around firm-specific events, we do not find any significant relationship between event returns and government ownership variables. However, given that these firm-specific announcements were the outcomes of negotiations among shareholders, investment bankers, and regulators, some amount of information leakage is likely. When we look at longer event windows—15 or 30 days—we find a negative impact of government and legal-person ownership on returns, consistent with the results we report from the more cleanly identified events in 2001–2002 that we examine in the body of the paper.

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