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EVIDENCE FROM CHINESE ASSET SALES

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<u>ABSTRACT</u>

We document the market response to an unexpected announcement of proposed sales of government-owned shares in China. In contrast to the "privatization premium" found in earlier work, we find a negative effect of government ownership on returns at the announcement date and a symmetric positive effect in response to the announced cancellation of the government sell-off. We argue that this results from the absence of a Chinese political transition to accompany economic reforms, so that the positive effects on profits of political ties through government ownership outweigh the potential efficiency costs of government shareholdings. Companies with former government officials in management have positive abnormal returns, suggesting that personal ties can substitute for the benefits of government ownership. The "privatization discount" is higher for firms located in Special Economic Zones, where local government discretionary authority is highest. This is consistent with the view that firms in these locations are more dependent on government connections. We also find that companies with relatively high welfare payments to employees, which presumably would fall with privatization, benefit disproportionately from the privatization announcement.

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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 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.[2]

While the theoretical literature has also often focused on the efficiency gains from privatization (see, for example, Shleifer, 1998), the net impact on profits is in fact 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 a 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 premia are generally found to be positive (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.

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[2] For cross-sectional analyses, see Ehrhich et al (1994), Dewenter and Malatesta (2001), LaPorta and López-de-Silanes (1999) among many others. For studies on post-privatization performance changes, see Gupta (2005), Meggionson et al (1994), Dewenter and Malatesta (2001), Boubakri and Cosset (1998) among many others.

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.

The Chinese government 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 percent of companies that were publicly traded at that time, and that government stake consisted of 61 percent 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 already 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**)

These results 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. Finally, in this statist system with poor private sector enforcement institutions, the long-term governance improvements from privatization might never materialize, as weak private governance is likely to lead to value loss through tunneling and expropriation, as documented in Morck et al. (2005). 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.

The events we study also allow us to compare the effects of formal, ownership-based connections with the effect of personal political ties that have been the focus of much previous research (see Faccio (2006) for a global perspective and Fan et al (2007) for work focused on China). We find that the presence of managers that had previously been 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. 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 location in a Special Economic Zone (SEZ), which we argue serves as a proxy for discretion in local economic policymaking, interacted with government ownership; this is consistent with the hypothesis that discretionary local government policy may be used to benefit government-affiliated companies. We also find that the "privatization discount" 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, as least for firms in our sample.

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.

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2. Privatization background

China embarked on ambitious economic reforms after the death of Mao in 1979.[3] As part of these reforms, thousands of SOEs have been partially privatized through 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 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 went 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.[4] As a result, at

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

the time of the announcements we consider here, legal-person shares were held primarily by quasi-government entities or 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 et.al (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 effects in our later analyses.[5]

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

Announcement of government share sales

On July 24, 2001 (**Event 1**), four public firms (FenghuoTongxun, BeishengYaoye, JiangqiGufen, HuafangGufen) 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

private firms to obtain these transfers at favorable prices.
[5] 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.

reform plans, as described in Fan (1996)[6]. 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 demonstrating the reform intentions of an earlier and highly ambiguous statement by government officials. That earlier announcement on June 14, 2001 by the Ministry of Finance 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 CSRC rather than the Ministry of Finance. Thus, investors were unsure about the credibility of the statement. We do not include this announcement in our cross-sectional regression analysis below.

The July 24 announcement was not well received by the market. [7] The China B-share index declined by 10.5 percent 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 of the announcement. The notion that this average decline reflected the effects of government involvement in these firms is confirmed by the cross-sectional effects we document in our analysis below, which show that the higher the government ownership percentage the larger the decline in value.[8]

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 percent 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.

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[6] This process is called 'Muo Zhe Shitou Guohe' in Chinese ("Wading across the stream by feeling the way"), a phrase created by Deng Xiaoping..

[7] Chinese stock market regulation limits the price change for any company in a single day to 10 percent.

[8] 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.

In the specific case of our events, the lack of prior knowledge is supported anecdotally by the huge price swings on the announcement dates.

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. By restricting our sample to firms with outstanding B shares (so-called B-share firms), and by using B share returns to measure announcement effects, we avoid this problem.

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

3. Data and Sample

Our sample consists of the 107 B-share firms[9] 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,

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[9] Two B-share firms are excluded because they were not traded in our event windows. Both pure B share firms and A/B share firms are included, wherea pure B share firm only issues B shares, and an A/B share firm issues both A shares (traded by domestic investors) and B shares (traded by foreign investors). 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).

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, p. 18) 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 percent 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 managers[10] for our 107 firms, which may be found on the website of Sina (finance.sina.com.cn), a Nasdaq-listed internet content provider that provides comprehensive financial information on Chinese listed firms.[11] These resumes provide details of career paths, and, in particular, report whether the manager has served as the "major" or "vice-major" (the equivalent of mayor or deputy mayor) in the city where the company is located. We define an indicator variable Politial_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 et.al (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

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[10] CEO, Vice-CEO, Chairman and Vice-Chairman, where Vice-CEO corresponds to CTO, CFO and other similar titles in the United States.
[11] This information is only available in Chinese on the Sina website.

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 ROE rather than ROA as a control). The data to construct these measures are obtained from Resset (www.resset.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 over book value of the firm. These were cross-checked for accuracy with those provided at the Sina website (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).

We use Leverage (defined as the ratio of long-term bank borrowing over total assets, and obtained from Resset) 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 funds such amenities as barber shops, pre-schools, 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 we have 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 Figure 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 Figures 1b and 1c we show scatterplots relating Govt_share + LP_share to CAR[-1,1] for Event 1 and Event 2 respectively. Consistent with government ownership having an opposite impact on returns in each event the correlation is negative for Event 1 (ρ=-0.20) and positive for Event 2 (ρ=0.22). This suggests the possibility of pooling data from the two events in our regression analyses, which we discuss below.

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}$$

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

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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 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 percent. 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).[12] 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≤0.50] and I[Govt_share>0.50], that denote firms with Govt_share between 0.25 and 0.50, and 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.

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[12] The coefficients are insensitive to inclusion/exclusion of controls in this pooled regression.

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.

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 related to higher government ownership may have outweighed the costs associated with 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.

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*SEZ, and also a greater influence of personal ties as a result of government divestment through the interaction term Political_Connection*SEZ. In Table 4 column (1) we report results including just the direct effect SEZ. The SEZ indicator variable takes on a coefficient of -0.018 and is significant at the 1 percent level, implying that firms located in SEZ's had returns 1.8 percentage points lower than non-SEZ firms. More interestingly, in column (2) we include the interaction terms. Govt_share*SEZ is significant at the 1 percent level and takes on a value of -0.047, implying that the impact of being located in an SEZ is much greater for firms with government ownership. In terms of magnitude, Govt_share has a standard deviation of 0.25, implying that an increase in Govt_share of one standard deviation increases the impact of being located in an SEZ by more than one percentage point.

The coefficient on Political_Connection*SEZ is positive, significant at the 1 percent level, and takes on a value of 0.057. 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 and Political_Connection equal to zero) is now indistinguishable from zero, consistent with the impact of the SEZ variable working primarily through political channels.

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).

A primary prediction of lending as 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 (3) we present a specification including only the direct effect of Leverage; its coefficient is indistinguishable from zero. We add the interaction terms in Table 4 column (4); the coefficient on Govt_share*Leverage is negative (indicating that firms with both high leverage and high government ownership experienced larger negative returns from the privatization announcement) and marginally significant (p-value = 0.12). 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 its 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 consists 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. Further investigation of the lending channel is an important avenue for further research.

Finally, 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 et.al, 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 is 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 (5) we include Welfare_rate, the ratio of firm expenditures on employee welfare to sales, as a covariate. Its coefficient is positive, though not significant. In column (6) we add the interaction terms Govt_share*Welfare_rate and Political_Connection*Welfare_rate. Consistent with the view that firms with closer government ties may be forced to provide greater worker amenities, the first of these interaction terms is positive and significant at the five percent level; the coefficient on Political_Connection*Welfare_rate is negative, but not significant at conventional levels.

Finally, in columns (7) and (8) we include Pension_burden and its interactions with Govt_share and Political_Connection. In column (7) we find that the direct effect of Pension_burden is positive though not distinguishable from zero. In column (8) we find that Pension_burden's interaction with Govt_share is close to zero, while its interaction with Political_Connection is negative and significant at the 1 percent 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.

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.

6. 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 anticipated 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. The benefits to firms from increased privatization are contingent on privatization being accompanied by broader economic liberalization. Our evidence also lends support to the general view that 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 connections 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 Enterprise 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.

Two caveats about our results bear emphasis. First, 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 government officials to attempt to control economic activity).

Second, our analysis of Chinese privatization ends with the failed attempt to sell non-tradable A shares in 2001-2002. There is some evidence that, more recently, China has combined further privatization of firms with economic liberalization, and that this may have contributed to share price increases in recent years. In 2005, the Chinese government instituted a new plan for liquidating non-tradable A shares, based upon a framework whereby tradable and non-tradable shareholders of each firm would enter into agreements on the terms for the sale of non-tradable shares. These agreements established compensation in the form of a transfer of a proportion of liquidated non-tradable A shares to existing holders of tradable A shares.

Since 2005, the Chinese stock market has appreciated dramatically, and many observers have argued that share appreciation is related to the anticipated liquidation of non-tradable shares. Consistent with our argument that privatization benefits are contingent on a liberalized economy, we note that the current liquidation of non-tradable A shares has coincided with a reduction in state control over the economy. For example, three of the "big four" state-owned banks have partially privatized since 2005, and there has been significant reform of these state-banks' operations. A wide variety of additional financial sector reforms have been announced or contemplated (see Calomiris 2007).

Unfortunately, it is not possible to perform informative event studies of the post-2005 experience comparable to those reported here for 2001-2002. When the state announced the April 29, 2005 reform, the market dropped by -0.85% on April 29, and -2.77% on the next trading day. This negative response is consistent with our findings for 2001 and 2002. But the initial announcement of reform in April 2005 was notoriously ambiguous, and the meaning of the proposal became gradually clarified over time. In particular, it was initially unclear how compensation would occur. The proposed firm-level arrangements entailed hard-to-predict compensation agreements involving transfers of value among different classes of shareholders, making it impossible to employ tradable A or B shares' announcement returns as indicators of expected changes in the profitability of firms, per se. For example, even though, in the event, B shareholders were not included in the compensation agreements (negotiated transfers are only from non-tradable A shareholders to tradabale A shareholders) that fact was not known at the time of the April announcement.

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Figure 1a
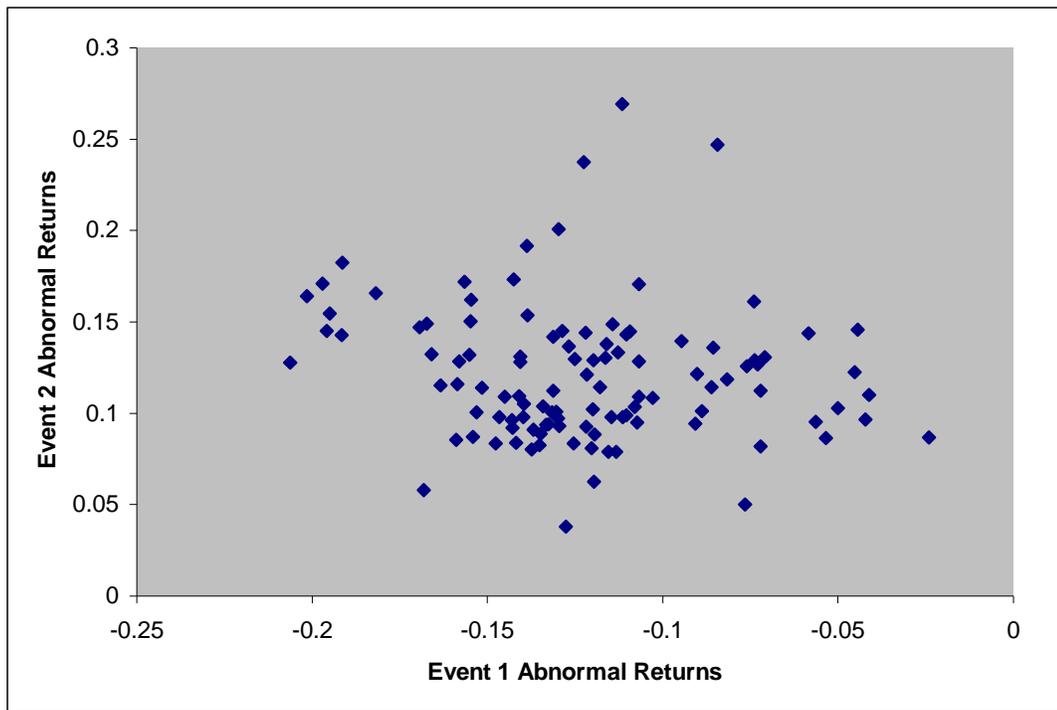
Figure 1a shows the scatterplot relating abnormal returns CAR[-1,1] for the two events.

Figure 1b
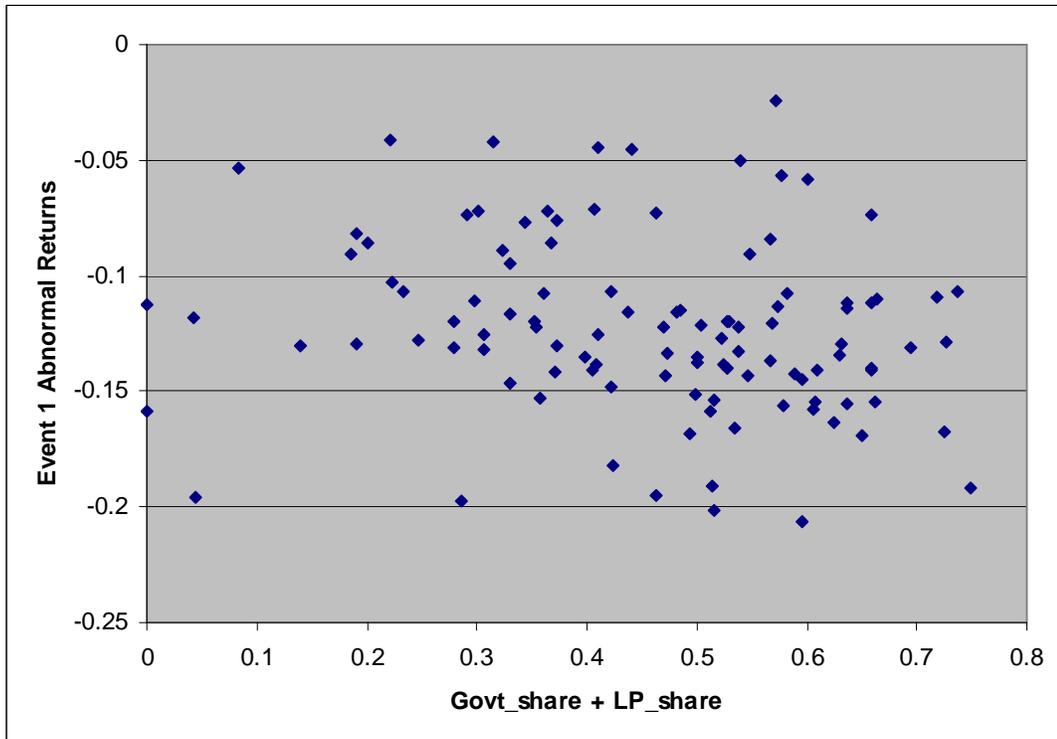
Figure 1b shows the scatterplot relating Govt_share+LP_share to CAR[-1,1] for event 1, where Govt_share is the proportion of shares held by the state and state legal person and LP_share is the proportion of shares held by private firms registered as legal persons.

Figure 1c

Figure 1c shows the scatterplot relating Govt_share+LP_share to CAR[-1,1] for event 2, where Govt_share is the proportion of shares held by the state and state legal person and LP_share is the proportion of shares held by private firms registered as legal persons.

Table 1 - Summary Statistics

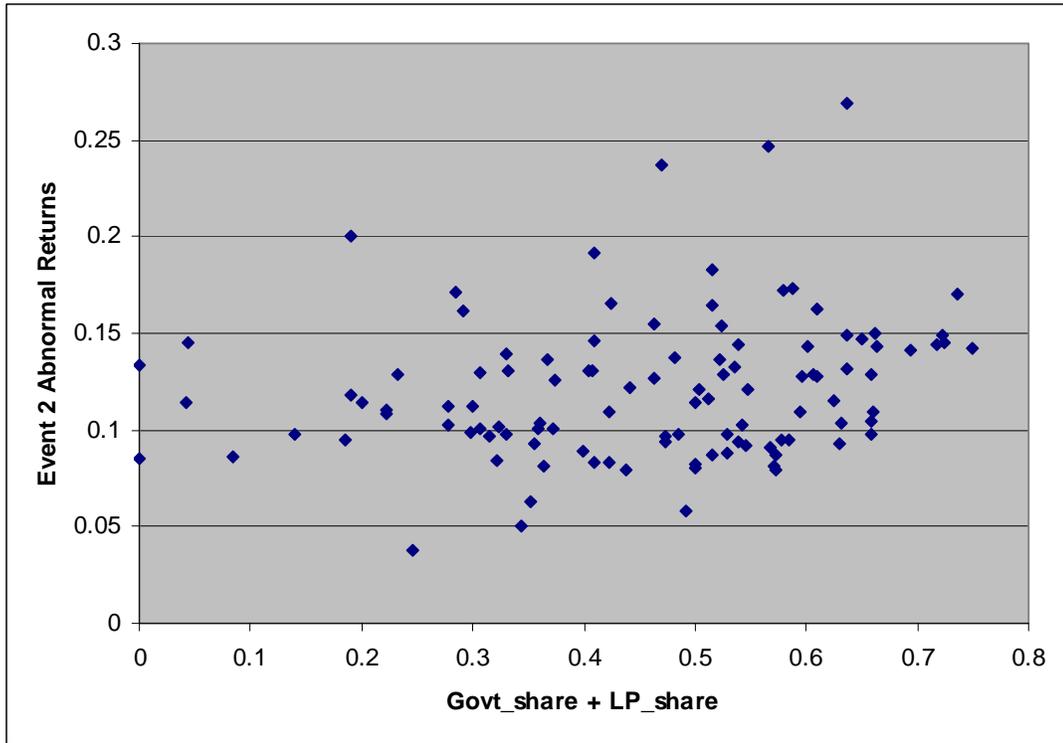| Variable	Mean	Standard deviation	Median
SEZ	0.248	0.434	0
Leverage	0.053	0.083	0.018
Welfare_rate	0.0044	0.0055	0.0026
Pension_burden	0.1457	0.3585	0.0016
Turnover	0.0189	0.0083	0.0176
Event 1: 2001 year			
Govt_share	0.341	0.249	0.377
Political_connection	0.119	0.326	0
LP_share	0.119	0.187	0.0004
ROA	0.116	0.208	0.112
Leverage	0.179	0.351	0.075
Log(Sales)	20.4	1.24	20.4
log(1+Tobin's Q)	1.269	0.4066	1.1772
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: 2002 year			
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
Leverage	0.2	0.411	0.084
Log (Sales)	20.5	1.16	20.6
log(1+Tobin's Q)	1.3203	0.3544	1.2411
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

Notes: Govt_share is the proportion of shares held by the state and state legal person, LP_share is the proportion of shares held by private firms registered as legal persons. Political_connection is an indictor variable denoting that the focal listed firm has at least one senior officer who was ever a major or vice-major 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. Turnover is the turnover of the firm's corresponding A-share in the past year before event 1. SEZ is an indicator variable denoting that the firm is located in a Special Economy Zone. Leverage is the ratio of long-term banking borrowings to assets. Welfare_rate is the ratio commonweal funds to sales. Pension_burden is the ratio of retired employees supported by the firm to its current employees. 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].

Table 2 - Regresions of abnormal event returns on state-owned shares

	(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

Notes: 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 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 person, LP_share is the proportion of shares held by by private firms registered as legal persons. Political_connection is an indictor variable denoting that the firm has at least one senior officer who was ever a major or vice major 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%

Table 3 - Regression of abnormal event returns (Pooled)

	(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<Govt_share 0.5)				-0.017*	
				(0.009)	
I(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

Notes: CAR101_pool is equal to CAR101 for Event 1 and equal to -1* 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 person, LP_share is the proportion of shares held by by private firms registered as legal persons. Political_connection is an indictor variable denoting that the firm has at least one senior officer who was ever a major or vice major 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<Govt_share 0.5) is an indicator variable denoting that 0.25<Govt_share 0.50.   IGovt_share>0.5) is an indicator variable denoting that Govt_share>0.50.   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%

Table 4 - Identifying the mechanism of beneficial government ownership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Govt_share (%)	-0.063***	-0.049**	-0.055***	-0.045**	-0.052***	-0.075***	-0.057***	-0.054***
	(0.018)	(0.020)	(0.017)	(0.019)	(0.017)	(0.018)	(0.017)	(0.018)
LP_share (%)	-0.069***	-0.070***	-0.073***	-0.070**	-0.071***	-0.077***	-0.072***	-0.072***
	(0.026)	(0.026)	(0.026)	(0.027)	(0.026)	(0.025)	(0.026)	(0.026)
Political_connection (PC)	0.010	0.009	0.013*	0.009	0.013*	0.024**	0.014*	0.021**
	(0.007)	(0.008)	(0.007)	(0.010)	(0.007)	(0.011)	(0.007)	(0.009)
SEZ	-0.018**	-0.006						
	(0.007)	(0.010)						
Govt_share*SEZ		-0.057**						
		(0.022)						
PC*SEZ		0.048***						
		(0.015)						
Leverage (Banking Borrowing)			0.011	0.034				
			(0.029)	(0.040)				
Govt_share*Leverage				-0.165				
				(0.104)				
PC*Leverage				0.063				
				(0.062)				
Welfare_rate					0.598	-0.598		
					(0.460)	(0.764)		
Govt_share*Welfare_rate						4.165**		
						(1.817)		
PC*Welfare_rate						-1.747		
						(1.361)		

Table 4 - Identifying the mechanism of beneficial government ownership (cont'd)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Pension_burden							0.006	0.021
							(0.006)	(0.025)
Govt_share*Pension_burden								-0.028
								(0.053)
PC*Pension_burden								-0.072**
								(0.028)
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	214	214	214	214	214	214	214	214
R-squared	0.25	0.28	0.23	0.23	0.23	0.25	0.23	0.24

Notes: The dependent variable in all regressions is CAR101_pool, which is equal to CAR101 for Event 1 and equal to -1* CAR101 for Event 2. See text for further details. All specifications include log(Sales), log(1 + Tobin's Q) and an Event dummy as controls (not reported for saving space). Govt_share is the proportion of shares held by the state and state legal person, LP_share is the proportion of shares held by by private firms registered as legal persons. Political_connection is an indictor variable denoting that the firm has at least one senior officer who was ever a major or vice major of a city. SEZ is an indicator variable denoting that the firm is located in a Special Economy Zone. Leverage is the ratio of long-term banking borrowings to assets. Welfare_rate is the ratio of commonweal fund expenditures to sales. Pension_burden is the ratio of retired employees supported by the firm to its current employees. Robust standard errors are in parentheses, disturbance terms clustered by firm. * significant at 10%; ** significant at 5%; *** significant at 1%