РАЗДЕЛ 1
НАУЧНЫЕ ИССЛЕДОВАНИЯ
И КОНЦЕПЦИИ

SECTION 1
ACADEMIC
INVESTIGATIONS
& CONCEPTS

GOVERNMENT CONTROL AND THE HIGHER COSTS OF GOING PUBLIC: EVIDENCE FROM A NEW STOCK MARKET IN CHINA

Nobuyuki Teshima*, Katsushi Suzuki*

Abstract

IPO underpricing or the *indirect* cost of going public is extremely high in China. We hypothesize that government control over the corporate economy underlies this puzzle. Specifically, bureaucratic managers in state-owned firms as well as regulatory authorities have incentives to underprice. Using a sample of a new stock market in China, we find evidence supporting this hypothesis. Underpricing is higher for state-owned firms and for IPOs before the reform making IPO prices less affected by the regulator. Furthermore, we find that the reduction in underpricing or indirect cost by the reform more than offsets the increase in *direct* costs for compensating underwriters' higher efforts. Overall, the reform making IPO process more market-oriented is beneficial to Chinese firms going public.

Keywords: IPO underpricing; Government control; State ownership; Underwriting fee; Shenzhen SME Board

**Nobuyuki Teshima (teshima@isc.senshu-u.ac.jp) is with School of Commerce, Senshu University, Japan, and Katsushi Suzuki (kasuzuki@ms.kuki.tus.ac.jp) is with School of Management, Tokyo University of Science, Japan.* *We are grateful to the participants of the 4th SMEs in a Global Economy Conference in Shah Alam, Malaysia for their helpful comments. We acknowledge financial support by "Open Research Center" Project for Private Universities: matching fund subsidy from MEXT (Japanese Ministry of Education, Culture, Sports, Science and Technology), 2004-2008.*
Corresponding author: Nobuyuki Teshima
Address: Senshu University, School of Commerce, 2-1-1, Higashimita, Tamaku, Kawasaki, Kanagawa, 214-8580, Japan.
Tel: +81-44-900-7937
Fax: +81-44-900-7849
Email address: teshima@isc.senshu-u.ac.jp

1. Introduction

The large IPO underpricing in Chinese IPO market presents us with a puzzle. In Ritter's (2003) list of 38 countries, average underpricing in China for 1990–2000 is by far the largest at 256.9%, followed by Malaysia at 104.1%.[1] IPO underpricing guarantees a handsome return to investors who have been allocated IPO shares, while creating an *indirect* cost to the firms going public, since they issue shares at prices

[1] More recently, Chen et al. (2007) indicate average underpricing of 213.4% for 1,213 IPOs of state-owned firms in China during1993–2006.

that are lower than what investors in the market are willing to pay.

The attempts to explain this large underpricing by traditional and mostly U.S. IPO literature are not sufficient, since, in the literature, the government plays no material part, which is obviously not the case in China. We argue that government control over the corporate economy underlies the large underpricing in China. In typical Chinese IPOs, the issuers and the regulator are the government, and the managers of issuing firms and the underwriters have close ties with the government. Those parties share incentives to underprice IPO shares in pursuit of their respective interests.[2] In particular, we focus on the incentives of managers and regulators, and hypothesize that the incentives of both parties cause the large IPO underpricing in China.

First, managers in state-owned firms are appointed by the government and have no significant shareholdings in their firms. It is quite common that the government appoints government officials as managers of state-owned firms or, conversely, appoints managers as government officials (Chen et al., 2007). In such circumstances, managers are likely to attach more importance to their bureaucratic careers than to value maximization of the firms they manage. In the case of IPOs, they have incentives to underprice the firms' shares in order not to be penalized for putting the stock market in disarray.[3] Our hypothesis implies that underpricing is higher for state-owned firms, which can explain the large average IPO underpricing in China, where state-owned firms are predominant.[4]

Second, the China Securities Regulatory Commission (CSRC), which is the regulatory authority of the stock market, also has incentives to underprice IPO shares. The CSRC or Chinese government deliberately underprices so as not to upset IPO investors. Once investors suffer a loss in IPOs, they turn away from the stock market and the subsequent IPOs of state-owned firms are jeopardized. Since the reopening of the Chinese stock market in 1990, the CSRC has strictly controlled or greatly affected IPO share prices. In the beginning of 2005, however, the IPO process was changed to a new one in which share prices are determined through bookbuilding. Under bookbuilding, IPO share prices are determined after solicitation to institutional investors, including qualified foreign institutional investors (QFIIs) presumably skilled in IPO investment. Since IPO prices after the 2005 reform reflect more investor demand and less government intention, our hypothesis implies that IPO underpricing in China is reduced after the 2005 reform.[5]

This study is related to those of Datar and Mao (2006) and Chen et al. (2004), which associate Chinese IPO underpricing with the nation's institutional features. Using a sample of IPOs for 1990–1996, Datar and Mao (2006) find evidence indicating that the Chinese government deliberately underprices IPO shares. Chen et al. (2004) find that state-ownership is positively correlated with IPO underpricing during 1992–1997. These two studies suggest that government control affects underpricing in China. However, the fact that virtually all the sample firms in these studies are state-owned makes it difficult to detect the impact, if any, of government control on large underpricing. Besides, the IPO prices were determined by the CSRC in terms of P/E multiples until March 2001. Thus, it is not certain if the managerial incentives of state-owned firms had any effect on underpricing before 2001. Finally, also until March 2001, the Chinese regulatory authority imposed stiff quotas on the issuance of IPO shares. Thus, large underpricing in the previous studies is possibly attributable to the quota system.

Since the restart of the Chinese stock exchanges in the early 1990s, most firms listed on them have been large state-owned firms, and it is no exaggeration to say that these stock exchanges have served as places for state-owned firms to raise capital. In June 2004, the Shenzhen Stock Exchange launched the SME Board to deal exclusively in securities of small and medium enterprises (SMEs). Our sample is from this new market, where the level of underpricing is yet to be examined. Moreover, due to its SME-oriented nature, almost equal number of state-owned firms and privately owned firms are listed on this market, which is advantageous in studying the effect of state ownership. Using this market, we detect how underpricing has been affected by state ownership and the 2005 reform.[6]

It should be noted that if the indirect cost of IPOs (i.e., underpricing) is reduced by the 2005 reform, as we expect, this does not mean that the *total* costs of

[2] We do not explicitly consider the incentives of underwriters. Presumably, however, the interests of the managers of state-owned underwriters are in line with those of the managers of state-owned issuing firms.

[3] Chen et al. (2007) further speculate that managers of state-owned firms pursue promotion in the bureaucratic hierarchy by allocating underpriced shares to parties that are important to their careers.

[4] Dewenter and Malatesta (1997) compare the underpricing between state-owned firms and privately owned firms. They find that underpricing for state-owned firms is higher in France and in the U.K., but lower in Canada and in Malaysia. Their sample does not include IPOs in China, where state-owned firms are predominant.

[5] The theoretical model of Benveniste and Spindt (1989) as well as empirical findings by Ljungqvist et al. (2003) suggest that bookbuilding method *per se* does not necessarily reduce IPO underpricing.

[6] Prior to the opening of the SME Board, regulatory reforms enhancing transparency in IPOs were implemented in December 2003 and February 2004. Our sample starting from June 2004 has the merit of being unaffected by these reforms. Since in China IPOs were suspended in June 2005 for another reform aiming at the elimination of nontradable shares, we set our test period from June 2004 (the opening of the SME Board) to June 2005 (IPO suspension).

going public are reduced by the reform. Since the new procedure requires more effort on the part of underwriters, they presumably charge higher underwriting fees to issuers, which is a major component of *direct* IPO costs. We examine this issue after testing our hypothesis above.

In the empirical analysis, we find that underpricing is significantly higher for state-owned firms and it is significantly reduced by the 2005 reform. The results support our hypothesis that government control over the corporate economy underlies the large underpricing in China. Finally, we examine how the total costs of going public are affected by the 2005 reform. We find that the direct IPO costs are raised significantly, which suggests that underwriters charge higher fees compensating for their greater effort. However, the reduction in underpricing more than offsets the increase in direct costs. Overall, we conclude that the reform making the IPO procedure more market-oriented is beneficial to Chinese firms going public.

The rest of the paper is organized as follows. In section 2, we develop the hypothesis regarding government control and IPO underpricing. Section 3 describes our sample and data. Regression results on underpricing and total costs are presented in section 4. Section 5 concludes.

2. Hypothesis

IPO underpricing in China is the highest among major stock markets. The attempts to explain this large underpricing by traditional and mostly U.S. IPO literature are not sufficient, because in this literature the government plays no material part, which is obviously not the case in China.

We focus on the relation between government control over the corporate economy and IPO underpricing. In particular, we hypothesize that managers of state-owned firms as well as regulatory authorities have incentives to underprice IPO shares. First, managers in state-owned firms are appointed by the government and have no significant shareholdings in their firms. It is quite common that the government appoints government officials as managers of state-owned firms, or conversely, appoints managers as government officials (Chen et al., 2007). In such circumstances, managers are likely to attach more importance to their bureaucratic careers than to value maximization of the firms they manage. In the case of IPOs, they are concerned more about a personal penalty for putting the stock market in disarray than they are about underpricing, which creates indirect cost for the firms. Consequently, we expect that underpricing is larger for state-owned firms than for privately owned firms in China.

Second, the CSRC, which is the regulatory authority of the stock market, also has incentives to underprice IPO shares. The authority or Chinese government deliberately underprices so as not to upset investors. Once investors suffer a loss in IPOs, they turn away from the stock market, which could jeopardize subsequent IPOs of state-owned firms. Since the reopening of the Chinese stock market in 1990, the CSRC has determined or greatly affected IPO prices. In the beginning of 2005, however, the IPO process was reformed, in order to make it more market–oriented. In the new procedure, issuers and underwriters commence sales promotion and bookbuilding, once IPO applications have been approved by the CSRC. Bookbuilding is divided into two stages. Issuers and underwriters set a price range through preliminary bookbuilding, and actual issuing prices are determined through formal accumulative bookbuilding. Moreover, the bookbuilding process is conducted with institutional investors including qualified foreign institutional investors (QFIIs), who are presumably skilled in IPO investment. As a result, IPO prices after this reform reflect more investor demand and much less governmental intention than before. Thus, we expect that IPO underpricing in China is reduced by the reform in 2005.

3. Sample and data

China reopened its stock exchanges in the early 1990s in Shanghai and Shenzhen. Most firms listed on these stock exchanges are large state-owned firms, and it is no exaggeration to say that they have served as places for state-owned corporate groups to raise capital. In June 2004, the Shenzhen Stock Exchange launched its SME Board to deal exclusively in SME securities. Our sample is from this new market, where the level of underpricing has not been explored.

Moreover, our sample has the following advantages as a laboratory of exploring the effects of government control. First, preceding Chinese IPO studies use samples consisting predominately of state-owned firms, and this makes it difficult to abstract the effects of state ownership. On the SME Board, however, almost equal number of state-owned firms and privately owned firms are listed due to its SME-oriented nature. Second, since the Chinese IPOs were conducted under a stiff quota for 1990–2001, underpricing during this period was more or less affected by the quota. Finally, Chinese IPOs underwent material reforms in December 2003 and February 2004. The SME Board, opened after these reforms, arguably makes a good IPO laboratory.

Our sample consists of 50 firms that were listed on the SME Board from its opening in June 2004 to June 2005 when IPOs were suspended in China. All data used in our analysis are obtained from prospectuses available on the Shenzhen Stock Exchange website. Table 1 shows the summary statistics for our full sample as well as for subsamples of 24 state-owned firms and 26 privately owned firms. Firms are classified as state-owned if they have the government or another state-owned entity as shareholders.

[Insert Table 1 about here]

Underpricing or the indirect cost of an IPO is measured as the initial return, using the offer price and the aftermarket price (the closing price of the first trading day). The mean (median) underpricing is 60.7% (48.6%) for our full sample, which is smaller than the levels previously reported for Chinese IPOs but is still larger than other major markets. The mean (median) is 76.9% (55.1%) for state-owned firms and 45.9% (28.4%) for privately owned firms. The difference in mean is statistically significant at the 10% level.[7] The mean gross proceeds (the issue price multiplied by the number of new shares) are significantly smaller for state-owned firms. Interestingly, however, the average number of new shares (in 10 millions) is almost identical between state-owned firms and privately owned firms (2,735 and 2,767 respectively, with a *t*-value of −0.134), while the average issuing price is lower for state-owned firms than for privately owned firms (RMB8.47 and RMB9.83 respectively, with a *t*-value of −1.425). Thus, the smaller gross proceeds for state-owned firms are possibly a result of larger underpricing.

We measure firm size by total assets and sales revenues in the year preceding the IPOs. Total assets are not significantly different, while the sales revenues are larger for privately owned firms at the 10% significance level. Finally, about three quarters of the sample firms conducted IPOs before the 2005 reform, and the ratio is almost identical between the two subsamples.

4. Regression analyses

4.1 Underpricing

In order to test our hypothesis that large underpricing in China is associated with government control over the corporate economy, we regress underpricing on dummy variables for state-owned firms (STATE-OWNED) and for IPOs conducted before the 2005 reform (PRE-REFORM). We expect the coefficients of the two dummy variables to be positive, which indicates that underpricing or the indirect IPO cost is higher for state-owned firms and for IPOs before the 2005 reform.

Control variables are included in the regressions based on previous IPO literature. Both issue size and firm size are expected to be negatively related to underpricing, since the larger an IPO, the smaller the informational asymmetry and uncertainty (Beatty and Ritter, 1986). We use the natural logarithm of the gross proceeds (LN (proceeds)) to control issue size effect. The natural logarithm of total assets (LN (assts)) and sales revenue (LN (sales)) are used to control firm size effect.

As Ritter and Welch (2002) suggest, market conditions are also associated with underpricing. Traditional IPO literature documents that higher market returns are associated with larger underpricing (e.g., Derrien and Womack, 2003). However, under our hypothesis that bureaucratic managers and the government put a higher priority on their own interests than on the firm's value, they may well underprice more when the market is moving downward and difficult IPOs are expected. We use the buy-and-hold return of the Shenzhen Stock Exchange A-Share Index for the 15 days before listing (MARKET) as the proxy for market conditions.[8]

Table 2 shows regression results. The coefficients of STATE-OWNED and PRE-REFORM are positive, and they are significant at the 10% and 1% level, respectively. These results support our hypothesis. In addition, the negative (not statistically significant) coefficients of MARKET, which are unusual in IPO studies, suggest that underpricing in China is caused by the incentives of bureaucratic managers and regulators to avoid unpopular IPOs. The insignificance of the size variables suggests that for Chinese underpricing, informational asymmetry is less relevant than institutional features.

[Insert Table 2 about here]

4.2 Direct and total IPO costs

The results in the previous section show that the indirect IPO cost (i.e., underpricing) for Chinese firms is reduced by the reform in 2005. The results support our hypothesis that large underpricing in China is associated with government control, and thus, it is reduced by the reform making IPO process more market-oriented.

Now, we turn to the issue of total IPO costs for Chinese firms going public. Other than the indirect cost of underpricing, firms assume direct costs in IPOs (Ritter, 1987). Direct costs include underwriting, auditing, and reviewing fees. In particular, underwriting fees paid to investment banks make up a substantial portion of the direct costs.[9] The new IPO process introduced by the 2005 reform requires more effort on the part of underwriters who are supposed to conduct deliberate bookbuilding. Thus, it is quite natural if the underwriters charge higher fees to issuers (Ljungqvist et al., 2003).

We collect the data of direct costs (in RMB 10,000) for the 50 IPOs from the prospectuses and calculate the ratio of the direct costs to the gross proceeds (direct cost ratio). The results are summarized in Table 3. The mean of the ratio is

[7] Hereunder we use a *t*-test assuming unequal variance in comparing state-owned firms and privately owned firms.

[8] Ma and Faff (2007) document that underpricing in China is influenced much more by market conditions before the listing than those before offering.

[9] Chen and Ritter (2000) report that underwriting fees cluster around 7% of gross proceeds in the U.S., where bookbuilt IPOs are predominant.

significantly higher for IPOs after the reform, supporting our conjecture that Chinese underwriters are charging higher fees.

[Insert Table 3 about here]

Next, we examine the change in total IPO costs caused by the reform. In the regressions, the dependent variable is defined as the sum of underpricing and the direct cost ratio. The variable indicates the ratio of total costs to gross proceeds or funds raised by the firms. We use the same independent variables as in the regressions of underpricing. Table 4 shows the results. The coefficients of PRE-REFORM are positive and statistically significant, which suggests that the total costs of going public in China are reduced by the reform. Overall, the move to the more market-oriented IPO process is beneficial to Chinese firms going public.

[Insert Table 4 about here]

5. Conclusion

The Chinese IPO market has exhibited large IPO underpricing. We argue that government control is behind this puzzle. First, in China, most listed firms are large state-owned firms and managerial shareholdings are insignificant. The managers attach more importance to their bureaucratic careers than to value maximization of the firms they manage. In such circumstances, managers have incentives to underprice IPO shares, in order to avoid being penalized for conducting unpopular IPOs, which will stand in the way of successive IPOs. Second, the CSRC, the regulatory authority of the stock market, also has incentives to underprice IPO shares. The CSRC or Chinese government deliberately underprices so as not to upset investors. If investors suffer a loss in IPOs, they turn away from the stock market and subsequent IPOs of state-owned firms are jeopardized. Using a sample from a new stock market in China, we find evidence supporting this hypothesis. Underpricing is higher for state-owned firms and for IPOs before the reform which made IPO prices less affected by the regulator. Furthermore, the reduction in underpricing by the reform more than offsets the increase in direct costs involved in compensating the increased efforts of underwriters.

In sum, we find evidence showing that government control over the corporate economy raises the cost of going public. We expect that in the future, IPO underpricing as well as the cost of going public in China will decline further as the liberalization of the corporate economy proceeds.

References

1. Beatty, R. P., and Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics* 15, 213–232.
2. Benveniste, L. M., and Spindt, P. A. (1989). How investment bankers determine the offer price and allocation of new issues. *Journal of Financial Economics* 24, 343–361.
3. Chen, G., Firth, M., and Kim, J. -B. (2004). IPO underpricing in China's new stock markets. *Journal of Multinational Financial Management* 14, 283–302.
4. Chen, H. -C., and Ritter, J. R. (2000). The seven percent solution. *Journal of Finance* 55, 1105–1131.
5. Chen, Z., Choi, J. J., and Jiang, C. (2007). Private benefits in IPOs: evidence from state-owned firms. Working Paper, Temple University.
6. Datar, V., and Mao, D. Z. (2006). Deep underpricing of China's IPOs: sources and implications. *International Journal of Financial Services Management* 1, 345–362.
7. Dewenter, K. L., and Malatesta, P. H. (1997). Public offering of state-owned and privately-owned enterprises: an international comparison. *Journal of Finance* 52, 1659–1679.
8. Derrien, F., and Womack, K. L. (2003). Auctions vs. bookbuilding and the control of underpricing in hot IPO markets. *Review of Financial Studies* 16, 31–61.
9. Ljungqvist, A., Jenkinson, T., and Wilhelm, W. (2003). Global integration in primary equity markets: the role of U.S. banks and U.S. investors. *Review of Financial Studies* 16, 63–99.
10. Ma, S., and Faff, R. (2007). Market conditions and the optimal IPO allocation mechanism in China. *Pacific-Basin Finance Journal* 15, 121–139.
11. Ritter, J. R. (1987). The costs of going public. *Journal of Financial Economics* 19, 269–281.
12. Ritter, J. R. (2003). Investment banking and securities issuance. In G. Constantinides, M. Harris, and R. Stulz (eds.), *Handbook of the Economics of Finance, Vol. 1A, Corporate Finance*. Amsterdam: North-Holland, pp. 255–306.
13. Ritter, J. R., and Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance* 57, 1795–1828.

Appendices

Table 1. Descriptive Statistics

		Full sample	State-owned firms	Privately owned firms	*t* -value	
Underpricing	mean	60.7%	76.9%	45.9%	1.956	*
	median	48.6%	55.1%	28.4%		
	st. dev.	56.8%	63.0%	44.3%		
Gross proceeds (RMB 10,000)	mean	23,945	21,419	26,276	-2.106	**
	median	21,105	20,007	24,489		
	st. dev.	8,577	5,892	9,761		
Assets (RMB 1)	mean	386,483,261	357,651,087	413,097,575	-0.460	
	median	282,728,029	242,675,443	342,293,190		
	st. dev.	410,762,607	537,454,326	223,316,865		
Sales (RMB 1)	mean	479,537,595	254,469,966	687,292,330	-1.880	*
	median	263,536,736	216,122,546	327,406,568		
	st. dev.	865,239,854	151,194,657	1,140,121,133		
Pre-reform dummy	mean	0.760	0.750	0.769	-0.156	
	median	1.000	1.000	1.000		
	st. dev.	0.427	0.433	0.421		
Observations		50	24	26		

The full sample consists of all 50 firms that conducted IPOs on the Shenzhen SME Board during 2004–2005. Sample firms with government and/or state-owned entity shareholders are classified as state-owned firms.
Underpricing = (closing price of the listing day – offer price) / offer price.
Gross proceeds = offer price multiplied by the number of shares offered in the IPO.
Assets = total assets at the end of the fiscal year before listing.
Sales = sales during the fiscal year before listing.
Pre-reform dummy = a dummy variable taking the value of one for the IPOs before the 2005 reform.
**, * denote statistical significance of the difference at the 5% and 10% levels, respectively, for two-tailed tests assuming unequal variance.

Table 2. Regression Results of Underpricing

	Model 1		Model 2	
Constant	542.84 (2.11)	**	402.62 (1.30)	
STATE-OWNED	30.08 (1.67)	*	33.52 (1.93)	*
PRE-REFORM	36.56 (2.72)	***	44.73 (3.17)	***
LN (proceeds)	-19.01 (-0.86)		-36.99 (-1.19)	
MARKET	-349.79 (-1.39)		-358.34 (-1.31)	
LN (assets)			14.86 (0.89)	
LN (sales)			1.55 (0.89)	
Adjusted R^2	0.12		0.10	
Observations	50		50	

The dependent variable is underpricing [(closing price of the listing day – offer price) / offer price].
STATE-OWNED = a dummy variable taking the value of one for the firms with the government and/or state-owned entity shareholders.

PRE-REFORM = a dummy variable taking the value of one for the IPOs before the 2005 reform.
LN (proceeds) = natural logarithm of the gross proceeds (offer price multiplied by the number of shares offered in the IPO).
MARKET = buy-and-hold return of the Shenzhen Stock Exchange A-Share Index for the 15 days before listing.
LN (assets) = natural logarithm of total assets at the end of the fiscal year before listing.
LN (sales) = natural logarithm of sales during the fiscal year before listing.
White heteroskedasticity consistent *t*-values are in parentheses.
***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Table 3. Direct IPO Costs

		Full sample	Before reform	After reform	*t* -value	
Direct cost ratio	mean	6.43%	6.01%	7.79%	-2.672	***
	median	6.13%	6.01%	7.37%		
	st. dev.	2.14%	1.46%	3.24%		
Observations		50	38	12		

The full sample consists of all 50 firms that conducted IPOs on the Shenzhen SME Board during 2004–2005. Sample firms are divided into those that used the IPO procedure before the 2005 reform and those that used the procedure after the reform.
Direct cost ratio = the ratio of direct IPO costs to gross proceeds. The direct IPO costs include underwriting, auditing, and reviewing fees.
*** denotes statistical significance at the 1% level, for two-tailed test.

Table 4. Regression Results of Total IPO Costs

	Model 1		Model 2	
Constant	549.82 (2.21)	**	397.57 (1.34)	
STATE-OWNED	27.99 (1.55)		31.12 (1.79)	*
PRE-REFORM	34.86 (2.47)	**	45.17 (3.24)	***
LN (proceeds)	-14.97 (-0.69)		-34.07 (-1.13)	
MARKET	-392.14 (-1.52)		-417.86 (-1.56)	
LN (assets)			20.20 1.20	
LN (sales)			-1.84 (-0.14)	
Adjusted R^2	0.11		0.09	
Observations	50		50	

The dependent variable is total IPO costs (underpricing + direct cost ratio), where underpricing is (closing price of the listing day – offer price) / offer price, and direct cost ratio is the ratio of direct IPO costs to gross proceeds.
STATE-OWNED = a dummy variable taking the value of one for the firms with the government and/or state-owned entity shareholders.
PRE-REFORM = a dummy variable taking the value of one for the IPOs before the 2005 reform.
LN (proceeds) = natural logarithm of the gross proceeds (offer price multiplied by the number of shares offered in the IPO).
MARKET = buy-and-hold return of the Shenzhen Stock Exchange A-Share Index for the 15 days before listing.
LN (assets) = natural logarithm of total assets at the end of the fiscal year before listing.
LN (sales) = natural logarithm of sales during the fiscal year before listing.
White heteroskedasticity consistent *t*-values are in parentheses.
***, **, * denote statistical significance at 1%, 5%, and 10% levels, respectively, for two-tailed tests.