

Wong, Pauline W. Y.

## Article

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# Are state ownership and auditors' locality determinants of asset write-downs? Evidence from China

Pauline W.Y. Wong

Department of Accountancy, Hang Seng Management College, Hong Kong, China



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## ABSTRACT

After issuing the *1998 Accounting Standards*, Chinese regulators implemented additional regulations in 2001 governing write-downs of impaired assets and required assessment of recoverable amounts for four additional asset categories. As the recoverable value cannot be obtained objectively, management can discretionally assess the magnitude of write-downs to affect bottom-line profit. This study used 7258 firm-year observations in China from 1998 to 2005 to examine whether the percentage of asset write-downs by state-controlled firms differs from non-state-controlled firms, conditional upon more conservative financial reporting rules, and investigate whether local auditors support managerial decisions on asset write-downs. The empirical findings support the tendency of state-controlled ownerships to have lower asset write-downs. Local auditors also support managerial decisions on asset write-downs, especially when the companies are controlled by local governments.

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## 1. Introduction

Recent studies emphasize that accounting standards only partially influence accounting properties, and it is the preparer's incentives that determine the quality of accounting information (Ball et al., 2003; Ball and

*E-mail address:* [paulinewong@hsmc.edu.hk](mailto:paulinewong@hsmc.edu.hk)

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Shivakumar, 2005). In fact, institutional features of a country influence the ownership and governance of enterprises, which shape the preparer's incentives to report accounting information. Market forces and government involvement play important roles in determining the institutional features. In other words, the demand for financial reporting by the public and the government's participation in setting and enforcing the rules and standards affect the ownership structure of enterprises and in turn their incentives for reporting.

This study investigates whether different ownership structures of A-share listed companies in China will differ in the policy of impairment provision and have different levels of earnings management. I choose China to examine the write-down provisions because it provides a unique institutional setting. First, the Chinese government retains significant ownership and control of listed enterprises. Before the introduction of the shareholding system by the State Council in July 1992, China is a centrally planned economy and all enterprises are state-owned. Therefore, there is little demand for public financial information as the dominating shareholder is the state or its agents. Following the establishment of the Shanghai and Shenzhen stock exchanges in the early 1990s, the Ministry of Finance (MOF) is responsible for releasing accounting standards, and the China Securities Regulatory Commission (CSRC) is established to monitor and regulate the Chinese stock market. However, the government is still exercising significant control over listed companies by holding state shares and state-owned legal person shares. The dual roles played by the government as both investor and regulator provide a unique setting for this study. Second, with China's accession to the World Trade Organization (WTO), the MOF issued accounting standards in 1998, 1999 and 2001 and specified rules for asset write-downs. This is a unique opportunity to investigate whether ownership structure will affect the incentives of preparers of accounting information and in turn influence the write-down magnitude in response to the change in accounting standards. Third, the CSRC is monitoring the listing status of companies on the two exchanges according to the reported Return on Equity (ROE) levels. Companies continuing to report losses over a three-year period will be delisted. However, the CSRC also assesses the applications for raising additional capital with reference to the ROE levels. If an enterprise can maintain the required ROE levels over three consecutive years, it can apply for rights issues. Therefore, the reported profit levels of companies in China play extra roles as compared with other institutional settings.

To improve the quality of accounting information to attract more investors in local enterprises, Chinese authorities issue accounting regulations and accounting standards with reference to international standards. By introducing asset write-down regulations in 1998 and 2001, the Chinese government aims at enhancing the usefulness of the information reported on financial statements. However, the decision to write down the value of assets and the magnitude of the write-downs allow management of listed companies to exercise discretion in determining the recoverable value of relevant assets and provide a good chance for management to opportunistically manage the reported earnings. Li (2001) shows that when the policy of asset write-downs is compulsory, listed companies with loss aversion, rights issues and threshold motivations tend to increase (or, not to decrease) the current earnings. In China, there are three categories of ownership of A-shares, namely, state shares, legal person shares, and tradable shares.<sup>1</sup> Provincial governments are managing listed companies, whether controlled by state shares or state-owned legal person shares (China Industrial and Commercial Times, 2003) and are unwilling to have companies under their provincial supervision be delisted. If these companies suffer from continuous loss, local governments will try to adopt all administrative measures to protect their listing status (Legaldaily.com.cn., 2001). As asset write-downs will affect the reported profits and thus the listing status, the *Accounting System for Shareholding Companies of 1998* ("1998 Accounting Standards") and the *Accounting System for Business Enterprises of 2001* ("2001 Accounting Standards") provide opportunities

<sup>1</sup> State shares are held by the central government, provincial governments or wholly owned government enterprises. Legal person shares are held by domestic institutions, including securities firms and non-bank financial institutions. Most of the legal person shares are partially owned by the central or provincial governments (Jia et al., 2005). Neither state shares nor legal person shares are allowed to trade via the Shanghai and Shenzhen stock exchanges in China, and they are only transferable to domestic institutions within the same category upon the CSRC's approval (Cooper, 2003; Jiang, 2004).

to the management of listed companies to manage earnings. The objective of this study is to examine whether the companies controlled by local governments, through state shares and state-owned legal person shares, will affect the magnitude of asset write-downs.

Prior studies suggest that high-quality auditors act as one of the effective deterrents to earnings management by detecting and revealing misreporting by management (Becker et al., 1998) and that the Big Six audit clients use more conservative accounting methods (Basu et al., 2002; Chung et al., 2003). In China, the audit market is still dominated by small-scale domestic certified public accounting (CPA) firms and is not fully opened to international accounting firms. Chan et al. (2006) find that local auditors have greater economic dependence on local clients and tend to issue clean auditor opinions to companies owned by local government. Hence, I further examine whether audit firms with operations in the same provincial region as their clients will tend to follow the management decision on asset impairment to keep their listed clients.

In this study, I examine all companies listed on the Shanghai and Shenzhen stock exchanges from 1998 to 2005. From a sample of 7258 observations, I find that local government-controlled companies tend to write down fewer assets, even though more conservative financial reporting regulations are introduced. I also find that audit firms with operations in the same provincial region as their clients tend to follow management's decision on asset impairment when the clients are controlled by local governments.

The results of this study contribute to the literature in several aspects. First, this study contributes to understanding the unique characteristics of the Chinese capital market. One of the most important objectives of the management of listed firms is to maintain the required ROE level and thus to safeguard their listing status and meet the rights issue requirements. With the intention to achieve the target, companies are likely to adopt an aggressive asset write-downs policy to report the required ROE level. Second, this paper shows the impacts of ownership structures on earnings management. The Chinese government is not only the majority shareholder but also the regulator of companies listed in China. Unlike that in market-oriented economies, management of listed companies in China is not appointed by shareholders but by the central or local governments. Managers of local government-controlled companies in China are more likely to have political connections with the government (Fan et al., 2007). These managers are seldom rewarded in line with their performance as incentive-based compensation schemes are not widely launched in China. Managers do not worry about financing because the banking industry in China is not well developed, and funding is mainly provided by the government through financing from other State-Owned Enterprises (SOEs) and the raising of capital. In other words, listed companies in China are seldom monitored by financial institutions or lenders. They have fewer stakeholders than their companions in the western market. To strive for political promotion and to indicate their superior performance in the competition with managers of non-listed SOEs, managers of local government-controlled companies have strong incentives to be aggressive in reporting. Third, Chan et al. (2006) find that local auditors have greater economic dependence on local clients and tend to issue clean auditor opinions to companies owned by local governments. The present study provides further evidence that the locality of audit firms and their clients can impact the impairment decision. To build a credible independent auditing profession and to compete with international audit firms after China's accession to the WTO, Chinese regulatory bodies should evaluate the effectiveness of the policies relating to the improvement of auditor quality and independence. Fourth, Chen and Wu (2007) find that accounting standards are a necessary ingredient but are not sufficient in conservative financial reporting. The present results further show that companies controlled by local governments have fewer incentives to recognize asset impairments despite the availability of conservative rules.

The remainder of the paper is organized as follows. The next section provides an analysis of the institutional background of the study. The third section reviews previous literature and develops the hypothesis. The fourth section presents the research methodology. The fifth section discusses the empirical results. The sixth section summarizes the robustness checks, and the final section concludes the paper.

## 2. Institutional background

### 2.1. Accounting regulations on asset write-downs

In 1998, the MOF issued the *1998 Accounting Standards* and allowed companies to provide for bad and doubtful debts<sup>2</sup> according to management's judgment (Chen et al., 2004). Under the new standards, all listed companies with shares issued to investors outside China (B-shares) and shares issued on the Hong Kong Exchange (H-shares), New York Stock Exchange (N-shares) and London Stock Exchange (L-shares) were required to adopt the rules and to write down values of inventories and short- and long-term investments. However, except for the provision for bad debts, the rules on asset write-downs were not mandatory for A-share listed enterprises. In other words, A-share listed companies were only encouraged to voluntarily write down the asset value on their inventories and short- and long-term investments. Moreover, the *1998 Accounting Standards* did not specify how to take up the impairment losses and therefore, firms could have accounting choices. First, management could choose whether to adopt the write-down policy. Second, if firms adopted the policy, they could charge the impairment expenses wholly to the income statement and reduce the current year's reported income level, or they could discretionally charge the portion relating to the current reporting year to the income statement and the remainder to retained earnings if it related to operations in previous years. However, it is hard to assess, and also difficult for auditors to verify, the amount related to the current year and previous years.

As the *1998 Accounting Standards* were only optional for A-shares listed companies, these companies seldom adopted the new approach (Chen et al., 2004). The MOF then amended the regulations in 1999 by introducing *Supplementary Provisions on Accounting Treatment in the Accounting System for Shareholding Companies* ("1999 Supplementary Provisions") to compulsorily require all listed and non-listed companies to set up provisions for the write-downs of four types of their assets, namely accounts receivable, inventories, short-term investments and long-term investments. In addition, the new provisions incorporated other receivables into accounts receivable and required a corresponding provision for bad debts to be made, as the situation required. The *1999 Supplementary Provisions* also required companies to charge the unrealized loss incurred in 1999 to the income statement and record the portion related to prior years to equity (Li, 2001; Chen et al., 2004). Therefore, the impact of adopting the accounting standards would not fall wholly on net income in 1999. All asset impairment provisions made after 1999 will be reflected in the income statement of the relevant year.

In 2000, the Chinese authority issued the *2001 Accounting Standards* to enforce all listed companies to provide for impairment in value of an additional four types of assets, effective from 2001. These additional assets include intangible assets, fixed assets, construction in progress and commission loans.<sup>3</sup> Unlike the four asset categories specified in the *1998 Accounting Standards*, the market values of the four new assets are more difficult to assess objectively. Hence, the *2001 Accounting Standards* required that such assets be written down to their recoverable amounts, i.e., the higher of net selling price and the value in use. However, recoverable amounts are not easily available from the market. Furthermore, commission loans are always treated by companies as off-balance-sheet items, and it is even more difficult to provide for any impairment of an asset that is not recognized on the books (see Table 1).

<sup>2</sup> Before 1998, listed companies could only provide for bad debt allowances according to approved percentages of 0.3–0.5% on the outstanding accounts receivable balances. There were several reasons for prohibiting write-downs on other assets. First, assets in Chinese SOEs were not likely to be impaired during the central planning economy era. Second, China adopted tax-based accounting until the early 1990s, and accounting income differed little from taxable income (Chan et al., 2007). Therefore, write-downs of assets would reduce the reported income and might affect the income tax revenues of the state. Third, assessing assets for write-downs required market values. However, certain SOEs were monopolies in their industries (e.g., national defense, power generation and coal mining or oil and gas extraction), and market values of their assets were not always available in China.

<sup>3</sup> Commission loans are loans made to investment companies in return for compromised returns. This was a common practice during the period of the booming security market. However, when a bear market was experienced, the principal, together with the promised returns, might not be recoverable. Before the release of the *2001 Accounting Standards*, listed companies were not required to disclose commission loans separately. Instead, the commission loans were sometimes incorporated into short- or long-term investments.

Table 1  
Accounting treatment on asset impairment. (Source: Yang et al. (2005))

Category of Assets	Governed by Accounting Standard		Specification of Fair Value	Impairment Loss Charged to Income Statement Under
	1998	2001		
Accounts Receivable (incl. Other Accounts Receivable)	✓	✓	Recoverable Amount	Administration Expenses
Inventories	✓	✓	Net Selling Price	Administration Expenses
Short-Term Investments	✓	✓	Market Value	Gain or Loss on Investments
Long-Term Investments	✓	✓	Recoverable Amount	Gain or Loss on Investments
Intangible Assets	–	✓	Recoverable Amount	Non-Operating Expenses
Fixed Assets	–	✓	Recoverable Amount	Non-Operating Expenses
Construction in Progress	–	✓	Recoverable Amount	Non-Operating Expenses
Commission Loans	–	✓	Recoverable Amount	Gain or Loss on Investments

## 2.2. Profitability requirement for listed companies

The establishment of the Shanghai and the Shenzhen stock exchanges in 1990 and 1991, respectively, provided platforms for companies to raise capital. Initially, the People's Bank of China supervised the local governments of Shanghai and Shenzhen and other governmental bodies to monitor the capital market in China. The CSRC was established pursuant to the State Council Directive in July 1992 to monitor and regulate the Chinese stock market. In 1998, the CSRC set up the Special Treatment (ST) and Particular Treatment (PT) system to improve the quality of listed companies and to protect the rights of investors. Companies continuously suffering losses will be labeled to remind investors of the additional risks incurred when investing in their shares. When a listed company suffers losses for two consecutive years, the shares will be labeled as ST, and the CSRC will impose reporting and trading restrictions on its shares.<sup>4</sup> If the ST firm has a turnaround in the following year, the ST label will be lifted. However, if the ST company continues to incur losses in the third year, its shares will be classified as PT and can only be traded on Fridays.<sup>5</sup> If the PT company suffers further losses, its shares will be suspended from trading, and the company will be delisted from the stock exchange. By labeling the firms with ST or PT, companies with poor management can be easily identified by investors.

Local governments are unwilling to have companies under their provincial supervision be delisted. Hence, speculators push the share prices upwards as they expect the local governments to step into bail the PT companies out (*Wall Street Journal*, 2001). To convey correct information to the public, the CSRC strengthened the regulatory procedure and effective 1 January 2002, it abolished the PT category. According to the new rules, all companies suffering losses for three consecutive years are suspended from trading. If an ST company, after incurring losses for three consecutive years, continues to report losses in the following quarter, the CSRC will label it with an asterisk before ST. If an \*ST company again reports losses in the following quarter, it will be delisted from the exchange (*Hong Kong Commercial News*, 2003).

Raising equity in China, including initial public offerings (IPOs) and re-issuance of securities, also requires the CSRC's approval. According to the "Relevant Questions Concerning Rights Issue by Listed Companies" issued by the CSRC in March 1999, to qualify for rights issues for years 1999 and 2000, listed companies have to attain a minimum annual ROE of 6% for each of the previous three years and maintain an average ROE of 10% for the three years.<sup>6</sup>

<sup>4</sup> Apart from providing an audited interim report to the CSRC, the daily fluctuation of the stock price of an ST company should not exceed 5%. As the daily stock price variation for normal listed companies is restricted at 10%, the reduction in price variation on ST firms has further reduced the attractiveness to investors of trading their shares.

<sup>5</sup> The share price of a PT company can continue to fall but is not allowed to rise over 5% for any trading day to avoid any manipulation from related parties.

<sup>6</sup> "Notice about Doing Well in the Issuance of New Shares by Listed Companies" released by the CSRC on 15 March 2001 amended the requirement by allowing listed companies, from 2001 onwards, to apply for rights issues if they attained a minimum level of 6% of the weighted average yield rates of net assets, being the lower of the net income before extraordinary items and the net income, for the latest 3 years.

### 2.3. Earnings management incentives

The central regulators set up a quota system for listing Chinese companies, and each province was given a number of SOEs to be listed (Leung et al., 2002). Provincial governments can determine which firms could list. However, the best SOEs may not be able to be listed because the provincial governments would use the scarce quotas for those firms that needed money the most (Leung et al., 2002). Local governments are managing the listed companies, no matter whether they are controlled by state shares or state-owned legal person shares (China Industrial and Commercial Times, 2003). Hence, local governments are unwilling to have companies under their provincial supervision be delisted.<sup>7</sup> For those companies suffering continuous losses, local governments will adopt all available administrative measures to maintain their listing status (Legaldaily.com.cn., 2001). Therefore, as long as the companies are controlled by state shares or state-owned legal person shares, local governments can exercise control over them.

According to Becker et al. (1998), managers may be motivated to “manage” earnings by incentives such as management compensation plans, debt covenants, import relief negotiations, management buyouts and proxy contests. In China, reported earnings play an additional role of retaining listing status. As loss-producing companies will immediately attract the attention of the CSRC, one of the most important targets for management is to avoid reporting losses on the financial statements. To save from being labeled as ST, \*ST or PT, a listed company must avoid losses for two to three consecutive years. The CSRC identifies loss-producing companies irrespective of the magnitude of their loss. Thus, a company incurring a loss of RMB1 will be treated by the CSRC in the same way as those suffering a loss of RMB100 million. Hence, management may intend to adopt the “big bath” approach, i.e., making adjustments to shift losses for two consecutive years into one, or to reduce losses for three consecutive years into two. Li (2001) shows that to minimize any further negative impact, management will incorporate future expenses by writing off assets in the current period so that they can increase future earnings.

Similarly, management may intend to shift profits from one period to another to fulfill the requirement to raise additional share capital. The listing rules of both exchanges require the firm applying for rights issue to attain a minimum ROE level of 6% for each of the three years prior to offering additional capital and to maintain an average ROE level of 10% for the three years. To secure the right to raise further capital, a firm with an ROE level above 6% in the previous year will tend to want to attain an ROE level of 6% in the current year. A firm with ROE levels above 6% in each of the two previous years may be more eager to achieve a higher ROE level in the current year to maintain the average ROE level for the three years at 10% and to utilize the right to raise additional capital.

In addition, unlike the case in market-oriented economies, management of local government-controlled listed companies in China is not appointed by shareholders but by the central or local governments. Thus, it is common that senior executives of listed enterprises are seconded from local government and will return to the government after the secondment period. Hence, managers of these firms are more likely to have political connections with the government (Fan et al., 2007) and are therefore more likely to be promoted as government officers. With the higher earnings of the listed companies indicating superior performance and better administrative abilities of the management, managers of state-controlled firms have stronger incentives to be aggressive in financial reporting to secure their future political career. However, managers of listed state-controlled firms are also competing with managers of non-listed SOEs for political promotion. Non-listed SOEs are not required to adopt the accounting standards.<sup>8</sup> They are less visible to the public, and thus their accounting information is less exposed to public scrutiny. Hence, managers of listed state-controlled firms will have greater incentive to manage earnings to enhance their performance relative to managers of non-listed SOEs.

<sup>7</sup> In the context of China’s quota system, delisting means the retroactive reduction of an allotted quota, and no other company can use the quota of the delisted firm to issue its shares (Pistor and Xu, 2005).

<sup>8</sup> The 1998 Accounting Standards do not apply to non-listed SOEs. The 2001 Accounting Standards are also not mandatory for non-listed SOEs. If they decide to adopt the new standards, they are required to apply to the local Bureau of Finance for permission.

#### 2.4. Ownership structure of listed companies in China

Economic reforms have transformed China from a centrally planned economy and have brought out restructuring of the ownership structure in enterprises from contractual leasing and collectively owned Township-Village Enterprises to investor-owned public enterprises (Zhang, 2001). In July 1992, the State Council issued the *Regulations on Transforming the Management Mechanism of State-Owned Industrial Enterprises* and introduced the shareholding system. Currently, China's listed companies are classified into A-shares, B-shares, H-shares, N-shares and L-shares according to the holders' residency. A-shares are listed on the Shanghai or the Shenzhen stock exchanges, are held by domestic shareholders and are denominated in RMB.<sup>9</sup> B-shares are also listed on the two exchanges in China, but only to foreign shareholders, and are denominated in Hong Kong or US dollars.<sup>10</sup> H-shares, N-shares and L-shares are Chinese enterprises listing on the Hong Kong Exchange, New York Stock Exchange and London Stock Exchange, respectively. A-shares, B-shares and the overseas-listed shares carry the same ownership rights.

The ownership of A-shares is mainly divided into three different categories: state shares, legal person shares and tradable shares. State shares are issued to the central government, local governments or wholly owned government enterprises. Legal person shares are further divided into two categories: state-owned legal shares and ordinary legal shares. Ordinary legal shares are issued to domestic institutions such as securities companies and non-bank financial institutions.<sup>11</sup> Tradable shares, which amount to only 35% of the total shares of the enterprises, are issued to the public, and most of them are held in the hands of small individual investors (Wang, 2004).

Non-tradable shareholders control the enterprises. As shown in Panel C of Table 2, the portion of non-tradable shares was reduced from 71.9% in 1993 to 64.5% in 1995 and remained at a very steady level after that. State shares represent the largest portion within the non-tradable shares. In 1992, the total number of state shares was 2.9 billion, representing 42.0% of the total issued number of shares and 60.3% of the number of non-tradable shares. After the 15th National Congress of the China Communist Party held in September 1997, more state-owned enterprises were allowed to be listed on the exchanges. During 1998–2001, 327.5 billion additional shares were raised, a number 1.69 times that of the total number of shares listed on the exchanges at the end of 1997. With the total non-tradable shares remaining at 65% of the total issued share capital, the portion of state shares has increased from 31.5% in 1997 to 45.0% in 2005, indicating that the controlling power of state shareholders over the market is increasing.

#### 2.5. Audit quality in China

Prior studies have noted that conservatism is one of the most important characteristics of financial statements (Pope and Walker, 1999; Ball et al., 2000; Chung et al., 2003) and that the Big Six audit clients adopt more conservative accounting methods (Basu et al., 2002; Chung et al., 2003). DeAngelo (1981) finds that Big Six auditors are of higher quality than non-Big Six auditors, and Chung et al. (2002) find that when management has preferences for income-increasing accounting choices, Big Six auditors are more effective than non-Big Six auditors in monitoring and deterring opportunistic accounting choices. The audit market in China is still dominated by small-scale domestic CPA firms and is not yet fully opened to international accounting

<sup>9</sup> In 2002, Qualified Foreign Institutional Investors (QFIIs) were allowed to participate in the A-share market with the approval of the CSRC.

<sup>10</sup> Starting from June 2001 onwards, the restriction on B-shares to be traded by foreign investors using foreign currencies was lifted.

<sup>11</sup> Before 2005, both state shares and legal person shares could not be traded on the Shanghai and the Shenzhen stock exchanges but could be transferred to domestic institutions within the same category, subject to CSRC approval (Cooper, 2003; Jiang, 2004). State shares can only be transferred to another state shareholder and legal person shares are restricted to transfer to another legal person shareholder. The transfer price is set at the net assets value per share plus a margin through negotiation and is also subject to CSRC approval (Wei and Xiao, 2005). This restriction is imposed to retain significant ownership and control of the enterprises and the industries by the state and to eliminate any chance of diluting the state control over listed companies without prior approval (Walter and Howie, 2001). Under the "Administrative Measures on the Share Segregation Reform of Listed Companies" and the "Guidelines on Practice and Operation of Share Segregation Reform of Listed Companies," state and legal person shares can now be traded after the proposal for disposal of these shares are approved by the state-owned assets regulatory authorities.



Table 2

Stock market in China. (Source: CSRC, *China Securities and Futures Statistical Yearbook (2006)*)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>Panel A: Summary Statistics of the Shanghai and Shenzhen Stock Exchanges</i>														
No. of Listed Companies	53	183	291	323	530	745	851	949	1088	1160	1224	1287	1377	1381
Only A-shares <sup>a</sup>	–	–	227	242	431	627	727	822	955	1025	1085	1146	1236	1240
Amount of Capital Raised from A-shares (RMB, billion)	5.0	19.5	5.0	2.3	22.4	65.5	40.9	49.8	81.2	53.4	51.7	45.4	35.3	5.7
Market Capitalization (RMB, billion)	105	353	369	347	984	1753	1952	2647	4809	4352	3833	4246	3706	3243
No. of Investors (million)	2.2	8.4	11.1	12.9	24.2	34.8	42.60	48.1	61.2	69.0	68.4	69.8	72.2	73.4
<i>Panel B: Share Structure of China's Listed Companies (No. of Total Shares, in billions)</i>														
Non-tradable Shares														
State Shares	2.9	19.0	29.7	32.9	43.2	61.2	86.6	111.6	147.5	241.1	277.3	304.7	334.4	343.3
Domestic Legal Person's Shares	1.5	7.6	14.7	19.7	31.6	57.0	68.0	78.1	85.7	90.8	96.4	101.0	110.2	79.5
Foreign Legal Person's Shares	0.3	0.4	0.8	1.2	1.5	2.6	3.6	4.1	4.6	4.6	5.3	5.9	7.0	22.6
Employee Shares	0.1	0.9	0.5	0.3	1.5	4.0	5.2	3.7	2.4	2.4	1.6	1.1	0.9	0.4
Others	0.0	0.0	0.1	0.6	1.2	2.3	3.1	3.4	3.5	1.6	3.2	3.4	4.6	25.7
Total Non-tradable Shares	4.8	27.9	45.8	54.7	79.0	127.1	166.5	200.9	243.7	340.5	383.8	416.1	457.1	471.5
Tradable Shares														
A-shares	1.1	6.2	14.4	18.0	26.7	44.3	60.8	81.3	107.8	131.8	150.9	171.5	199.3	228.1
B-shares	1.0	2.5	4.2	5.6	7.9	11.7	13.4	14.2	15.2	16.3	16.8	17.5	19.7	21.8
H-/N-/L-shares	0.0	2.2	4.1	6.5	8.4	11.2	12.0	12.5	12.5	33.2	36.0	37.7	38.8	41.6
Total Tradable Shares	2.1	10.9	22.7	30.1	43.0	67.2	86.2	108.0	135.5	181.3	203.7	226.7	257.8	291.5
Total No. of Shares issued	6.9	38.8	68.5	84.8	122.0	194.3	252.7	308.9	379.2	521.8	587.5	642.8	714.9	763.0
<i>Panel C: Share Structure of China's Listed Companies (% of Total Shares)</i>														
Non-tradable Shares														
State Shares	42.0	49.0	43.4	38.8	35.4	31.5	34.3	36.1	38.9	46.2	47.2	47.4	46.8	45.0
Domestic Legal Person's Shares	21.7	19.6	21.5	23.2	25.9	29.3	26.9	25.3	22.6	17.4	16.4	15.7	15.4	10.4
Foreign Legal Person Shares	4.4	1.0	1.2	1.4	1.2	1.3	1.4	1.3	1.2	0.9	0.9	0.9	1.0	2.9
Employee Shares	1.5	2.4	0.7	0.4	1.2	2.1	2.1	1.2	0.6	0.5	0.3	0.2	0.1	0.1
Others	0.0	0.0	0.2	0.7	1.0	1.2	1.2	1.1	0.9	0.3	0.5	0.5	0.6	3.4
Total Non-tradable Shares	69.6	71.9	66.9	64.5	64.8	65.4	65.9	65.0	64.3	65.3	65.3	64.7	63.9	61.8
Tradable Shares														
A-shares	15.9	16.0	21.0	21.2	21.9	22.8	24.1	26.3	28.4	25.3	25.7	26.7	27.9	29.9
B-shares	14.5	6.4	6.1	6.6	6.5	6.0	5.3	4.6	4.0	3.1	2.9	2.7	2.8	2.9
H-/N-/L-shares	0.0	5.7	6.0	7.7	6.9	5.8	4.8	4.1	3.3	6.4	6.1	5.9	5.4	5.4
Total Tradable Shares	30.4	28.1	33.1	35.5	35.3	34.6	34.1	35.0	35.7	34.7	34.7	35.3	36.1	38.2
Total Shares	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

<sup>a</sup> Information is only available from 1994 onwards.

firms. [Chan et al. \(2006\)](#) find that political and economic influences from local government will outweigh the effect of high-quality auditors, and local auditors have greater economic dependence on local clients and thus are more likely to issue clean auditor opinions compared to companies owned by local governments.

The CPA profession was established in China in the 1910s along with the development of shareholding enterprises. International CPA firms began to practice in China, and by 1947, there were 3356 registered CPAs in China. The revolution in 1949 diminished the role of auditing in China. In 1962, the economy was

completely nationalized, and the majority of enterprises in China were owned and managed by the State or respective industrial ministries. SOEs operated strictly according to the State or ministerial plans. Hence, the demand for independent audits by public accountants no longer existed (Gensler and Yang, 1996). The economic reform in 1979 brought about structural changes to the economy. Restructuring of SOEs into joint stock companies and the inflows of foreign direct investment created a demand for independent external audits in China. The first Chinese CPA firm was established in Shanghai, and thereafter, thousands of new CPA firms were set up throughout the country (Tang, 2000). However, as the audit profession was being newly developed, audit firms lacked the expertise and resources to provide services to their clients. During the 1980s and early 1990s, local government agencies, universities and research institutions transferred qualified personnel to work in the audit firms and thus controlled the business operations of the firms. This affiliation of audit firms with governmental agencies resulted in a lack of independence (Chan et al., 2006). Sponsoring local government agencies often demanded that companies located within their administrative territory appoint audit firms that they sponsored (Yang et al., 2001). In return, the auditors' judgments and audit opinions were often influenced by local governments (Zhong, 1998; Tang, 1999). To prepare for China's accession to the WTO and to build a credible independent auditing profession, the Chinese regulatory authorities restructured CPA firms in 1997 and 1998 by delinking the financial ties with their sponsoring government units (Chan et al., 2006).

However, such delinking of CPA firms may not be an effective means to create an independent auditing profession. First, by retaining formerly government-affiliated auditors as their personnel, local CPA firms can maintain *guanxi*, i.e., a close relationship, with local governments and thus are able to benefit from this relationship to provide service to new clients and to retain existing clients in the same region (Chan et al., 2006). As local governments remain important in securing clientele for local audit firms, they continue to exercise strong political influence over auditor independence. Second, audit firms in China are generally small and lack the technical expertise and resources<sup>12</sup> to provide needed services to listed companies. Therefore, clients of CPA firms are mostly located within the same provincial region. According to Chan et al. (2006), the lack of mobility of audit firms reduces their ability to resist pressure from local clients.

### 3. Literature review and hypotheses

Previous studies on managerial earnings management mainly focus on income-increasing accounting choices whereas studies on the accounting treatment of asset write-downs do not provide consistent evidence on the incentives for and results of this income-decreasing accounting method (Chen et al., 2004). Aharony et al. (2000) find that Chinese SOEs manage earnings upwards before IPOs. Li (2001) examines the 1998 asset write-downs policy in China and finds that companies voluntarily writing down assets in 1998 are underestimating the asset impairments. Chen et al. (2004) show that voluntary asset write-downs in 1998 have a positive valuation effect, especially for companies with CEO changes and/or big losses. Chen and Wu (2007) find that conservative accounting rules alone are insufficient to improve the quality of financial reporting. The 1998 and the 2001 *Accounting Standards* introduced a provision for asset write-downs and provided an opportunity to study whether earnings management exists in financial reporting by way of impairment provision.

Tian (2000) shows that firms under the control of state shareholders are generally valued lower than others controlled by non-government shareholders. Chen et al. (2003) find that the local governments in China collude with SOEs in conducting earnings management to circumvent central government regulation. Local governments supervising the SOEs intend to generate target (or above target) performances, including meeting the planned ROE or maintaining listing status, by conducting earnings management transactions. As no objective guideline is released for assessing the recoverable amount of writing down impaired assets, the accounting standards launched in 1998 and 2001 provide an opportunity for controlling parties to manage the earnings of the enterprise. The present study expects A-share listed companies dominated by holders of state shares

<sup>12</sup> To qualify to audit listed companies, CPAs and CPA firms must obtain licenses from the CSRC and the MOF. Effective from July 2000, the MOF required all licensed CPA firms auditing listed companies to employ at least 60 CPAs, including 20 licensed CPAs, and to generate annual revenue of at least RMB15 million in the previous year. At the end of year 2006, 70 CPA firms were licensed to audit listed companies in China.

(including state-owned legal person's shares), as compared to those dominated by holders of non-state shares, to have higher motivation for earnings management through the policy of writing down assets impairment. Because asset write-downs will adversely affect reported profits, I expect companies controlled by local governments to manage earnings by reducing the level of asset write-downs. The first hypothesis is thus formulated as follows:

**H1.** Companies dominated by local governments (including state shares and state-owned legal person's shares) have a lower level of asset write-downs as compared with companies dominated by holders of non-state shares.

Chung et al. (2003) and Basu et al. (2002) find that the Big Six audit clients use more conservative accounting. Accounting conservatism means recognizing bad news immediately and charging all expenditures whenever there is any doubt. In other words, assets impairment should be written down immediately. Generally, high-quality auditors are assumed to be able to limit their clients' earning management activities. However, recent studies find that auditors located in the same provincial region as their clients are less independent. Chan et al. (2006) find that, based on data collected for the period from 1996 to 2002, local auditors have greater economic dependence on local clients and are subject to more political influence from local governments. If local clients are providing for a lower level of asset impairment, I expect that the auditors within the same province will be less independent and more likely to support the accounting treatment. Hence, if clients are providing for a lower level of asset impairment, auditors with the same locality will tend to support the decision. Therefore, I expect local auditors are more likely to report a lower level of asset write-downs as compared to Big-4 auditors, and amongst the local auditors, companies controlled by local governments tend to report a lower level of asset write-downs. The following hypotheses are proposed.

**H2a.** Compared to the Big-4 auditors, local auditors are more likely to report a lower level of asset write-downs.

**H2b.** Compared to companies not controlled by local governments, companies dominated by local governments and audited by local auditors tend to report a lower level of asset write-downs.

#### 4. Statistical model

Similar to Riedl (2004) and Chen et al. (2004), I estimate the following model to test the hypotheses:

$$\begin{aligned}
 WD_t = & \alpha_0 + \alpha_{01}POST_{99} + \alpha_{02}POST_{01} + \alpha_{11}SS_t + \alpha_{12}SS_t \times POST_{99} + \alpha_{13}SS_t \times POST_{01} \\
 & + \alpha_{21}RET_t + \alpha_{22}RET_t \times POST_{99} + \alpha_{23}RET_t \times POST_{01} \\
 & + \alpha_{31}SS_t \times RET_t + \alpha_{32}SS_t \times RET_t \times POST_{99} + \alpha_{33}SS_t \times RET_t \times POST_{01} \\
 & + \alpha_{41}Neg\_RET_t + \alpha_{42}Neg\_RET_t \times POST_{99} + \alpha_{43}Neg\_RET_t \times POST_{01} \\
 & + \alpha_{51}SS_t \times Neg\_RET_t + \alpha_{52}SS_t \times Neg\_RET_t \times POST_{99} + \alpha_{53}SS_t \times Neg\_RET_t \times POST_{01} \\
 & + \alpha_{61}RET_t \times Neg\_RET_t + \alpha_{62}RET_t \times Neg\_RET_t \times POST_{99} + \alpha_{63}RET_t \times Neg\_RET_t \times POST_{01} \\
 & + \alpha_{71}SS_t \times RET_t \times Neg\_RET_t + \alpha_{72}SS_t \times RET_t \times Neg\_RET_t \times POST_{99} + \alpha_{73}SS_t \times RET_t \times Neg\_RET_t \times POST_{01} \\
 & + \beta_{01}Locality_t + \beta_{02}SS_t \times Locality_t + \beta_{03}Big\_4_t + \beta_{04}SS_t \times Big\_4_t + \beta_{05}SIZE_{t-1} + \beta_{06}DR_{t-1} \\
 & + \beta_{07}\Delta Sales_t + \beta_{08}\Delta ACC_t + \beta_{09}\Delta OCF_t + \beta_{10}LOSS_t + \beta_{11}SS_t \times LOSS_t + \beta_{12}LOSS_{t-1} + \beta_{13}SS_t \times LOSS_{t-1} \\
 & + \beta_{14}LOSS_t \times LOSS_{t-1} + \beta_{15}SS_t \times LOSS_t \times LOSS_{t-1} + \beta_{16}ROE00\_01_t + \beta_{17}SS_t \times ROE00\_01_t \\
 & + \beta_{18}ROE00\_01_t \times LOSS_{t-1} + \beta_{19}SS_t \times ROE00\_01_t \times LOSS_{t-1} + \beta_{20}ROE06\_07_t + \beta_{21}SS_t \times ROE06\_07_t \\
 & + \beta_{22}ROE06\_07_{t-1} + \beta_{23}SS_t \times ROE06\_07_{t-1} + \beta_{24}ROE06\_07_t \times ROE06\_07_{t-1} \\
 & + \beta_{25}SS_t \times ROE06\_07_t \times ROE06\_07_{t-1} + Industry\ Dummies + \varepsilon_t
 \end{aligned}$$

where

$WD_t$  = write-downs on asset impairment (reflected as a positive amount) in period  $t$ , divided by corresponding assets at the end of period  $t - 1$ ; and

$POST_{99}$  = dummy variable, 1 if the observation is from the post-1999 period, 0 otherwise; and

$POST_{01}$  = dummy variable, 1 if the observation is from the post-2001 period, 0 otherwise; and  
 $SS_t$  = dummy variable, 1 if the largest shareholder holds  $\geq 20\%$  of the shares in the listed company, either in the form of state shares or state-owned legal person shares, and the holding percentage is greater than the sum of the holding percentage of the next four largest shareholders, 0 otherwise; and  
 $RET_t$  = 12-month buy-and-hold annual stock returns from May in year  $t$  to April in year  $t + 1$ ; and  
 $Neg\_RET_t$  = dummy variable, 1 if the company generated negative annual stock returns, 0 otherwise; and  
 $Locality_t$  = dummy variable, 1 if the company is audited by a local auditor, 0 otherwise; and  
 $Big\_4_t$  = dummy variable, 1 if the company is audited by a Big 4 auditor, 0 otherwise; and  
 $SIZE_{t-1}$  = natural logarithm of the beginning total assets value; and  
 $DR_{t-1}$  = beginning debt-to-asset ratio; and  
 $\Delta Sales_t$  = percentage change in sales from period  $t - 1$  to period  $t$ ; and  
 $\Delta ACC_t$  = change in total accruals between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and  
 $\Delta OCF_t$  = change in operating cash flows between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and  
 $LOSS_t$  = dummy variable, 1 for a company reporting loss after write-downs in period  $t$ , 0 otherwise; and  
 $LOSS_{t-1}$  = dummy variable, 1 for a company reporting loss after write-downs in period  $t - 1$ , 0 otherwise; and  
 $LOSS_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and in period  $t$ , 0 otherwise; and  
 $ROE00\_01_t$  = dummy variable, 1 for  $0.00 \leq ROE \leq 0.01$  after write-downs, 0 otherwise; and  
 $ROE00\_01_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and is generating  $0.00 \leq ROE \leq 0.01$  after write-downs in period  $t$ , 0 otherwise; and  
 $ROE06\_07_t$  = dummy variable, 1 for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t$ , 0 otherwise; and  
 $ROE06\_07_{t-1}$  = dummy variable, 1 for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t - 1$ , 0 otherwise; and  
 $ROE06\_07_t \times ROE06\_07_{t-1}$  = interaction variable, 1 if the company reported  $ROE \geq 0.06$  and  $\leq 0.07$  after write-downs in periods  $t - 1$  and  $t$ , 0 otherwise.

The dependent variable,  $WD_t$ , is measured as the dollar amount of the write-downs on assets impairment and reflected as a positive number, for period  $t$  in accordance with the *1998 Accounting Standards*, *1999 Supplementary Provisions* and *2001 Accounting Standards*, divided by the beginning value of the assets impaired. Similar to [Chen and Wu \(2007\)](#), I divide the sample period into three sub-periods and include  $POST_{99}$  and  $POST_{01}$  to measure the impact on asset write-downs according to changes in the increasingly conservative reporting requirements.<sup>13</sup>

$SS_t$  is a dummy variable classifying ownership of listed companies and is coded 1 for companies under local government influence, and 0 if otherwise. A listed company is controlled by local government if the largest shareholder is holding state shares or state-owned legal person shares and holds at least 20% of the shares, and its holding percentage is greater than the summation of the holding percentage of the next four largest shareholders. According to prior studies, the 20% cutoff is considered large enough to exercise effective control of a listed company ([La Porta et al., 1999](#); [Chan et al., 2006](#)). To counter the potential union formed by other large shareholders, the ownership percentage of the largest shareholder should be greater than the sum of the next four largest shareholders ([Tai et al., 2007](#)).

To estimate the extent of conservatism, I include  $RET_t$  and  $Neg\_RET_t$  into the model. Economic factors may have impacts on the magnitude of the write-downs. I introduce  $RET_t$  to capture the 12-month buy-and-hold annual stock returns from May in year  $t$  to April in year  $t + 1$ , adjusted by the value-weighted annual market returns. When the stock return is negative, a lower value of net assets of the company is reflected in the stock price, and I should observe a larger amount of write-down. In this case, the association

<sup>13</sup> As the *1998 Accounting Standards* were only optional for A-shares listed companies, most of these companies have not adopted the new approach, except for accounts receivable. The *1999 Supplementary Provisions* compulsorily require all listed and non-listed companies to set up provisions for the write-downs of four types of their assets, and therefore the hypothesized relationship between write-downs and the test variables is estimated to be more significant for the period from 1999 onwards.

between return and the write-down magnitude should be negative. When the stock return is positive, the company should not reverse the write-down provisions as accounting earnings reflect “bad news” more quickly than “good news” (Basu, 1997). In such circumstances, the association between return and the write-down magnitude should be small. Therefore, I expected  $RET_t$  to be around zero.  $Neg\_RET_t$  is a dummy variable, and is 1 if the company generated negative annual stock returns. According to Chen and Wu (2007), if companies adopt conservative accounting, economic losses proxied by negative stock returns should be mapped into accounting net income at a higher rate, and the coefficients of  $\alpha_{61}$ ,  $\alpha_{62}$  and  $\alpha_{63}$  will be positive.  $RET_t \times Neg\_RET_t$  is included in the model as an interaction variable to test if the negative annual returns are negatively associated with the write-down magnitude. I expect the impacts of economic factors on write-downs to be asymmetric and estimate  $RET_t \times Neg\_RET_t$  to be negative.  $SS_t \times RET_t$ ,  $SS_t \times Neg\_RET_t$  and  $SS_t \times RET_t \times Neg\_RET_t$  are interaction variables introduced to examine whether the company controlled by local government will behave differently in its write-down decision in response to the annual return. If local government-controlled companies are less conservative in reporting, that is, if they write down a lower asset value when the stock returns are negative,  $SS_t \times Neg\_RET_t$  will be negative.

DeAngelo (1981) finds that the Big Six auditors are of higher quality than non-Big Six auditors, and Chan et al. (2006) find that local auditors have greater economic dependence on and are subject to more political influence from the local clients than non-local auditors are.  $Big\_4_t$  measures whether the Big Four auditors are more effective than non-Big Four auditors in deterring opportunistic accounting choices. Amongst the non-Big Four auditors,  $Locality_t$  is coded as 1 if the auditor and its client are located in the same province or municipality. I expect that due to the political influence from firms controlled by local governments, local audit firms will be more likely to support management’s decision on asset write-down, and the coefficient on  $\beta_{02}$  will be negative.

$SIZE_{t-1}$  is a control variable and is measured as the natural logarithm of the total assets at the beginning of the period. Francis et al. (1996) find that larger companies are more likely to write down asset value, and thus the coefficient of this variable is expected to be positive.  $DR_{t-1}$  is another control variable and is the beginning debt-to-asset ratio. Already tied up with high borrowing cost on bank loans, high-leverage firms will be interested in raising lower-cost financing and will tend to discretionally write down asset value to increase the possibility of meeting the targets for raising additional capital in later years. Hence,  $DR_{t-1}$  is expected to be positive. Similar to Riedl (2004),  $\Delta Sales_t$  and  $\Delta OCF_t$  are included in the model as proxies for economic factors related to changes in asset value.  $\Delta Sales_t$  represents the percentage change in sales, and  $\Delta OCF_t$  represents the change in operating cash flows, scaled by total assets at the end of period  $t - 1$ .  $\Delta Sales_t$  relates to accrual-related performance attributes, whereas  $\Delta OCF_t$  captures cash-related attributes. As in previous studies,  $\Delta Sales_t$  and  $\Delta OCF_t$  are expected to be negative (Riedl, 2004). I include  $\Delta OCF_t$ , representing the percentage change in total accruals between period  $t$  and  $t - 1$ , scaled by the beginning total asset value, to measure whether a change in working capital would result in more allowance made for the working capital assets, and I expect the coefficient on  $\beta_{08}$  to be positive.

$LOSS_t$ ,  $LOSS_{t-1}$ ,  $LOSS_t \times LOSS_{t-1}$ ,  $ROE00\_01_t$ ,  $ROE00\_01_t \times LOSS_{t-1}$ ,  $ROE06\_07_t$ ,  $ROE06\_07_{t-1}$  and  $ROE06\_07_t \times ROE06\_07_{t-1}$  are included to test whether profitability and regulations governing profitability level will have any impact on the asset write-downs decisions.  $LOSS_t$  is a dummy variable equal to 1 when the firm reports a loss in period  $t$ . The CSRC’s labeling system only identifies firms with losses, without taking into account the amount of loss they report. Therefore, I expect firms reporting losses will take a “big bath” charge to take up impairment cost of future periods in the current year, and  $LOSS_t$  will be positively related to the write-down magnitude.  $LOSS_{t-1}$  is also a dummy variable and is coded 1 for firms with negative ROE after asset write-downs in period  $t - 1$ . If the firm has already suffered from loss in period  $t - 1$ , it will be more likely to take the write-down in the current year to reduce expenses in future periods.  $LOSS_t \times LOSS_{t-1}$  is an interaction dummy variable and is coded 1 if loss is incurred in both period  $t$  and period  $t - 1$ . Because the firm has suffered losses for two consecutive years, it is at high risk of being delisted. Hence, it may make more effort to minimize future expenses and to write down asset value in the current period. I expect  $LOSS_t \times LOSS_{t-1}$  to be positively related to the magnitude of write-downs in the current year.

$ROE00\_01_t$  is a dummy variable and is coded 1 for firms with non-negative ROE less than 1% ( $0 \leq ROE \leq 0.01$ ) after writing down asset value. The CSRC introduced the Special Treatment and Particular Treatment system to identify poor-quality listed companies to investors and issued rules to delist companies

reporting losses for two consecutive quarters, after suffering losses for three consecutive years. If the firm turns around in the current year, the loss reported in the previous year will not be taken into account by the CSRC in its labeling system. Hence, firms reporting loss in year  $t - 1$  will tend not to take asset write-downs in the current year to report a marginally non-negative ROE. I expect the coefficient on  $ROE00\_01_t \times LOSS_{t-1}$  to be negative.  $ROE06\_07_t$  is another dummy variable and is coded 1 for firms with ROE reported, after asset write-downs, of not less than 6%. A company preparing to issue further shares in the near future needs to maintain its ROE at a minimum level of 6%.  $ROE06\_07_t \times ROE06\_07_{t-1}$  is an interaction variable and is coded 1 when the firm reports an ROE, after asset write-downs, of not less than 6% in two consecutive years. The variable is expected to be negatively related to the write-down magnitude as the firm surviving a 6% ROE level for two years is less likely to further write down its assets in the current year and to increase the chance of meeting the target in the third year to raise additional capital.

## 5. Sample selection and empirical results

### 5.1. Source of data

The sample used in this study comprises all listed companies in the Shenzhen Stock Exchange and the Shanghai Stock Exchange in China for the years from 1998 to 2005. The 1998–2005 period was chosen because most firms in China did not make allowances before 1998, except that for accounts receivable. To prevent listed companies from opportunistically managing earnings, the MOF in China released new accounting standards in February 2006 (2006 *Accounting Standards*) to forbid any reversals of impairment provision on fixed assets and intangible assets, effective from 2007. In other words, net impairment for the year may not reflect the change in fair value of the assets. Thus, to exclude the impact from the 2006 *Accounting Standards*, the sample used in this paper covers the period up to 2005. Financial, impairment and stock return data were collected from the *CSMAR database* (2007) developed by the Shenzhen GTA Information Technology Company. The information of listed companies, including the residencies and the details of ownership—names, numbers and percentages of shares held by the top ten shareholders together with the names and residencies of auditors used in this study—were extracted manually from the annual reports of individual companies for 1998 to 2005. A listed company is classified as local government controlled if the largest shareholder is holding state shares or state-owned legal person shares and owns at least 20% of the shares, with the holding percentage being greater than the next four largest shareholders combined. Consistent with previous studies, the 20% cutoff is considered large enough to exercise effective control of a listed company (La Porta et al., 1999; Chan et al., 2006). The largest shareholder can control the company and counter the union potentially formed by other large shareholders if its ownership percentage is greater than the sum of the next four largest shareholders (Tai et al., 2007). Alternative cutoffs are used in the robustness tests.

This study only includes financial information of companies with A-shares listed on the Shanghai and Shenzhen stock exchanges. As illustrated in Panel A of Table 3, from a total of 9317 firm-year observations for the period from 1998 to 2005, I exclude 1081 firm-year observations for firms with B-shares or H-shares as they are subject to a higher level of disclosure requirement. Of the total of 8236 firm-year observations for A-share listed companies for the study period, I exclude 613 newly listed firm-year observations as no comparative data is available. I further exclude 365 firm-year observations with incomplete financial and audit information. The final sample retained in the analysis is 7258 firm-year observations, representing over 88% of the total companies with A-shares listed on the two exchanges in China during the study period.

### 5.2. Descriptive statistics

Table 4 presents the descriptive statistics of the sample firms in the analysis. I report *t*-test results on the mean difference and Wilcoxon signed-rank test results on the median difference for the sub-samples divided according to whether the firms are controlled by local government.

The return variable of local government-controlled companies,  $SS_t \times RET_t$ , is greater than the  $RET_t$  variable, indicating that local government-controlled enterprises generally report better results. Similar results are found for  $SS_t \times Neg\_RET_t$  and  $SS_t \times RET_t \times Neg\_RET_t$ . Over 68% of the A-share listed companies have

Table 3  
Descriptive information on sample selection. (Source: CSRC, China Securities and Futures Statistical Yearbook (2006))

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
<i>Panel A: Sample Selection</i>									
Total Number of Listed Companies	851	949	1088	1160	1224	1287	1377	1381	9317
Companies with B-shares and/or H-shares Listed	(124)	(127)	(133)	(135)	(139)	(141)	(141)	(141)	(1081)
Total Number of A-share Listed Companies	727	822	955	1025	1085	1146	1236	1240	8236
IPOs During the Year <sup>a</sup>	(100)	(95)	(133)	(70)	(60)	(61)	(90)	(4)	(613)
Selected Sample Companies	627	727	822	955	1025	1085	1146	1236	7623
Missing Data	(36)	(33)	(35)	(40)	(51)	(43)	(41)	(86)	(365)
Selected Sample Companies	591	694	787	915	974	1042	1105	1150	7258
Industry <sup>b</sup> :	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
<i>Panel B: Industrial Distribution of Listed Companies</i>									
Agriculture, Forestry, Animal Husbandry & Fishery	10	14	16	24	25	26	27	33	175
Mining and Quarrying and Oil and Gas Extraction	3	5	8	10	12	13	16	18	85
Manufacturing	291	365	426	503	547	591	631	664	4018
Electricity, Gas and Water Supply	27	32	34	39	42	46	48	53	321
Construction	9	11	14	15	16	17	22	24	128
Transportation and Warehousing	17	21	25	32	35	39	42	43	254
Information Technology	43	46	51	58	58	64	72	74	466
Wholesale and Retail Trade	68	70	70	79	82	85	85	83	622
Estate Development and Operation	35	35	37	39	41	43	43	42	315
Public Facilities Services and Tourism	17	19	24	31	30	33	33	34	221
Communications and Cultural Industries	8	8	9	9	10	10	9	9	72
Conglomerates	63	68	73	76	76	75	77	73	581
Selected Sample Companies	591	694	787	915	974	1042	1105	1150	7258

Notes:

<sup>a</sup> The study excludes firms with an IPO during the year as they do not provide comparative figures for the tests.

<sup>b</sup> CSRC released the “Industry Classification Guideline for Listed Companies” on 4 April 2001 and divided the listed companies into the 12 industries listed above.

their accounts audited by local audit firms, and only 3% of the listed enterprises are audited by the Big Four auditors. Therefore, the audit market is still dominated by small-scale domestic CPA firms and is not fully opened to international accounting firms. All regulatory incentives variables for companies controlled by local governments are less than the pooled observations.

### 5.3. Regression results

To reduce the effect of extreme outliers on the regression results, I truncate continuous variables of *RET*, *SIZE*, *DR*,  $\Delta Sales$ ,  $\Delta ACC$  and  $\Delta OCF$  at the bottom and top percentiles. I present the regression results based on the truncated sample in Table 5. With the introduction of the improved quality of accounting standards, the relationship between negative returns and write-down magnitude should be positive. However, the recoverable value of the four new asset categories introduced in the 2001 Accounting Standards requires management to exercise judgment in their assessment. Consistent with Hypothesis 1, the coefficient on  $SS_t \times Neg\_RET_t \times POST01$  is significantly negative. In other words, as even more conservative financial reporting is stipulated by the 2001 Accounting Standards, companies controlled by local governments are less conservative in reporting asset write-down.

To test the second hypothesis, I examine the monitoring role of the auditors by including the variables of *Big\_4* and *Locality* in the regression. Consistent with Hypothesis H2a, the positive coefficients on *Big\_4<sub>t</sub>* and *SS\_Big\_4<sub>t</sub>* show that companies audited by Big Four audit firms tend to write down more asset value, although the results are not significant. This is consistent with prior studies showing that large international audit firms are more independent, and their clients use more conservative accounting methods (Basu et al., 2002; Chung et al., 2003), even though they are controlled by local governments. The difference in coefficients

Table 4  
Descriptive statistics on client firm characteristics and auditor locality.

	Mean	Min.	Median	Max.	Std. Dev.	Skewness
$WD_t$	0.0311	-0.5566	0.0130	0.6049	0.0743	7.0580
<b>Conservatism Variables</b>						
$SS_t$	0.8328	0.0000	1.0000	1.0000	0.3732	-1.7841
$RET_t$	-0.0059	-0.6512	-0.1165	1.9244	0.4081	1.3998
$SS_t \times RET_t$	0.0012	-0.6512	-0.0024	1.9244	0.3706	1.5234
$Neg\_RET_t$	0.6098	0.0000	1.0000	1.0000	0.4878	-0.4501
$SS_t \times Neg\_RET_t$	0.5013	0.0000	1.0000	1.0000	0.5000	-0.0052
$RET_t \times Neg\_RET_t$	-0.1559	-0.6512	-0.1165	0.1251	0.1739	-0.7161
$SS_t \times RET_t \times Neg\_RET_t$	-0.1255	-0.6512	0.0000	0.1251	0.1660	-1.0284
<b>Auditor Locality Variables</b>						
$Locality_t$	0.6863	0.0000	1.0000	1.0000	0.4640	-0.8034
$SS_t \times Locality_t$	0.5779	0.0000	1.0000	1.0000	0.4939	-0.3154
$Big\_4_t$	0.0304	0.0000	0.0000	1.0000	0.1716	5.4758
$SS_t \times Big\_4_t$	0.0261	0.0000	0.0000	1.0000	0.1594	5.9478
<b>Regulatory Incentives Variables</b>						
$LOSS_t$	0.1138	0.0000	0.0000	1.0000	0.3176	2.4327
$SS_t \times LOSS_t$	0.0876	0.0000	0.0000	1.0000	0.2827	2.9189
$LOSS_{t-1}$	0.0816	0.0000	0.0000	1.0000	0.2738	3.0570
$SS_t \times LOSS_{t-1}$	0.0607	0.0000	0.0000	1.0000	0.2388	3.6798
$LOSS_t \times LOSS_{t-1}$	0.0334	0.0000	0.0000	1.0000	0.1797	5.1941
$SS_t \times LOSS_t \times LOSS_{t-1}$	0.0244	0.0000	0.0000	1.0000	0.1543	6.1653
$ROE00\_01_t$	0.0676	0.0000	0.0000	1.0000	0.2510	3.4460
$SS_t \times ROE00\_01_t$	0.0557	0.0000	0.0000	1.0000	0.2293	3.8762
$ROE00\_01_t \times LOSS_{t-1}$	0.0124	0.0000	0.0000	1.0000	0.1105	8.8303
$SS_t \times ROE00\_01_t \times LOSS_{t-1}$	0.0093	0.0000	0.0000	1.0000	0.0960	10.2233
$ROE06\_07_t$	0.1014	0.0000	0.0000	1.0000	0.3019	2.6407
$SS_t \times ROE06\_07_t$	0.0857	0.0000	0.0000	1.0000	0.2800	2.9600
$ROE06\_07_{t-1}$	0.1042	0.0000	0.0000	1.0000	0.3055	2.5917
$SS_t \times ROE06\_07_{t-1}$	0.0882	0.0000	0.0000	1.0000	0.2836	2.9054
$ROE06\_07_t \times ROE06\_07_{t-1}$	0.0270	0.0000	0.0000	1.0000	0.1621	5.8376
$SS_t \times ROE06\_07_t \times ROE06\_07_{t-1}$	0.0235	0.0000	0.0000	1.0000	0.1515	6.2934
<b>Other Control Variables</b>						
$SIZE_{t-1}$	20.8748	19.0263	20.8276	23.0173	0.7811	0.2401
$DR_{t-1}$	0.4405	0.0741	0.4360	1.0095	0.1714	0.1865
$\Delta Sales_t$	0.1889	-0.8066	0.1352	3.4441	0.4216	2.1587
$\Delta ACC_t$	0.0996	-0.3177	0.0922	0.6276	0.1291	0.3486
$\Delta OCF_t$	0.0057	-0.3905	0.0076	0.3570	0.1003	-0.2026

## Notes:

a.  $WD_t$  = write-downs on asset impairment (reflected as a positive amount) in period  $t$ , divided by total assets at the end of period  $t - 1$ ;  $SS_t = 1$  if the largest shareholder holds  $\geq 20\%$  of the shares in the listed company, either in the form of state shares or state-owned legal person shares, and the holding percentage is greater than the sum of the holding percentage of the next four largest shareholders, 0 otherwise; and

$RET_t$  = 12-month buy-and-hold annual stock returns from May in year  $t$  to April in year  $t + 1$ ; and

$Neg\_RET_t = 1$  if the company generated negative annual stock returns, 0 otherwise; and

$Locality_t = 1$  if the company is audited by a local auditor, 0 otherwise; and

$Big\_4_t = 1$  if the company is audited by a Big 4 auditor, 0 otherwise; and

$SIZE_{t-1}$  = natural logarithm of beginning total assets value; and

$DR_{t-1}$  = beginning debt-to-asset ratio; and

$\Delta Sales_t$  = percentage change in sales from period  $t - 1$  to period  $t$ ; and

$\Delta ACC_t$  = change in total accruals between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and

$\Delta OCF_t$  = change in operating cash flows between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and

$LOSS_t = 1$  for company reporting loss after write-downs in period  $t$ , 0 otherwise; and

$LOSS_{t-1} = 1$  for company reporting loss after write-downs in period  $t - 1$ , 0 otherwise; and

$LOSS_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and in period  $t$ , 0 otherwise; and

$ROE00\_01_t = 1$  for  $0.00 \leq ROE \leq 0.01$  after write-downs, 0 otherwise; and



$ROE00\_01_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and is generating  $0.00 \leq ROE \leq 0.01$  after write-downs in period  $t$ , 0 otherwise; and

$ROE06\_07_t = 1$  for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t$ , 0 otherwise; and

$ROE06\_07_{t-1} = 1$  for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t - 1$ , 0 otherwise; and

$ROE06\_07_t \times ROE06\_07_{t-1} = 1$  if the company reported  $ROE \geq 0.06$  and  $\leq 0.07$  after write-downs in periods  $t - 1$  and  $t$ , 0 otherwise.

b. The top and bottom 1% of the continuous variables of  $WD_t$ ,  $RET_t$ ,  $SIZE_{t-1}$ ,  $DR_{t-1}$ ,  $\Delta Sales_t$ ,  $\Delta ACC_t$  and  $\Delta OCF_t$ , are truncated according to annual distributions of the respective variables.

on  $Locality_t$  and  $SS\_Locality_t$  support Hypothesis 2b. The negative significant coefficient on  $SS\_Locality_t$  shows that local auditors tend to support a lower level of asset write-downs of A-share listed companies controlled by local governments.

To control for the firm size effect on the write-downs, the logarithm of total assets at the beginning of the period ( $SIZE_{t-1}$ ) is included in the model. Although previous studies find that larger companies are more likely to write down asset values (Francis et al., 1996), the results in the present analysis present a different finding. The write-down on asset impairment in China is significantly negatively associated with the size of the enterprises ( $t = -9.06$ ) at the 1% level. This may be due to the reason that larger firms in China can afford higher-quality fixed assets, and thus the values of those assets are not impaired as much as those possessed by smaller firms. I expect high-leverage firms will be more interested in raising financing with lower cost and are more likely to discretionarily write down asset values to increase the possibility of meeting the targets for raising further capital. The debt ratio ( $DR_{t-1}$ ,  $t = 9.59$ ) is significantly positive, as predicted. In addition, the asset impairment decision is significantly associated with  $\Delta Sales_t$  ( $t = -5.30$ ), which means when its income level is high, a listed company is more willing to write down asset values. The write-down magnitude is negatively associated with  $\Delta Sales_t$ , as expected, and is statistically significant. The signs of coefficients  $\Delta ACC_t$  and  $\Delta OCF_t$  are inconsistent with the expectation but are not significant.

$LOSS_t$ ,  $LOSS_{t-1}$ ,  $LOSS_t \times LOSS_{t-1}$ ,  $ROE00\_01_t$  and  $ROE00\_01_t \times LOSS_{t-1}$  are introduced into the model to test the impact of the CSRC's regulations on the write-down magnitude (Li, 2001; Chen et al., 2004). As expected,  $LOSS_t$  is significantly positively related to the magnitude of asset write-downs ( $t = 7.84$ ). Because the CSRC only identifies firms with reported loss, the amount of the loss incurred in the period is not relevant to the ST or PT labels. Therefore, firms with loss incurred in the current period will take "big bath" charges and write down assets further to reduce future expenses. Similarly, when a firm has reported losses in both the current and the previous periods, it is at a very high risk of being delisted and is more likely to write down assets further in the current year.  $LOSS_t \times LOSS_{t-1}$  is significantly positive, as predicted ( $t = 6.87$ ). Interestingly,  $SS\_LOSS_t$  and  $SS\_LOSS_t \times LOSS_{t-1}$  are negatively correlated to the write-down magnitude, and the latter is significant at the 1% level. A possible explanation may be that consistent with speculators' expectation, local governments are more likely to bail out PT companies (Wall Street Journal, 2001), and therefore management will try to save face by minimizing the amount of the loss reported. One way of reducing the loss magnitude is by making fewer allowances on asset write-down. However, if the firm has reported loss in the previous period, it will strive to reduce its expenses in the current period to save itself from being labeled as an ST firm. Hence,  $LOSS_{t-1}$  and  $SS\_LOSS_{t-1}$ , consistent with expectations, are negatively related to the write-down magnitude in the regression results.

Contrary to the expectation, the results of  $ROE00\_01_t$  and  $SS\_ROE00\_01_t$  are positive but are insignificant. The coefficients on  $ROE00\_01_t \times LOSS_{t-1}$  and  $SS\_ROE00\_01_t \times LOSS_{t-1}$  are negative as expected, although not significant. This shows that firms reporting a loss in period  $t - 1$  will tend to avoid being labeled as ST firms and are likely to avoid loss in the current year.  $ROE06\_07_{t-1}$  and  $ROE06\_07_t \times ROE06\_07_{t-1}$  are negatively correlated with the write-down magnitude, and this result is consistent with the prediction. Firms surviving the 6% ROE level in the previous year may try to reduce assets write-down to fulfill the requirement of reporting the ROE level for rights issue. However, contrary to expectation, the coefficient on  $ROE06\_07_t$  is positively related to the write-down magnitude. All of these variables, together with  $SS\_ROE06\_07_{t-1}$ ,  $SS\_ROE06\_07_{t-1}$  and  $SS\_ROE06\_07_t \times ROE06\_07_{t-1}$ , are insignificant. One possible reason is that firms are more likely to adjust their write-down magnitude when they report losses.

Table 5

Regression results on asset write-downs for years from 1998 to 2005.  $WD_t = \alpha_0 + \alpha_{01}POST_{99} + \alpha_{02}POST_{01} + \alpha_{11}SS_t + \alpha_{12}SS_t \times POST_{99} + \alpha_{13}SS_t \times POST_{01} + \alpha_{21}RET_t + \alpha_{22}RET_t \times POST_{99} + \alpha_{23}RET_t \times POST_{01} + \alpha_{31}SS_t \times RET_t + \alpha_{32}SS_t \times RET_t \times POST_{99} + \alpha_{33}SS_t \times RET_t \times POST_{01} + \alpha_{41}Neg\_RET_t + \alpha_{42}Neg\_RET_t \times POST_{99} + \alpha_{43}Neg\_RET_t \times POST_{01} + \alpha_{51}SS_t \times Neg\_RET_t + \alpha_{52}SS_t \times Neg\_RET_t \times POST_{99} + \alpha_{53}SS_t \times Neg\_RET_t \times POST_{01} + \alpha_{61}RET_t \times Neg\_RET_t + \alpha_{62}RET_t \times Neg\_RET_t \times POST_{99} + \alpha_{63}RET_t \times Neg\_RET_t \times POST_{01} + \alpha_{71}SS_t \times RET_t \times Neg\_RET_t + \alpha_{72}SS_t \times RET_t \times Neg\_RET_t \times POST_{99} + \alpha_{73}SS_t \times RET_t \times Neg\_RET_t \times POST_{01} + \beta_{01}Locality_t + \beta_{02}SS_t \times Locality_t + \beta_{03}Big\_4_t + \beta_{04}SS_t \times Big\_4_t + \beta_{05}SIZE_{t-1} + \beta_{06}DR_{t-1} + \beta_{07}\Delta Sales_t + \beta_{08}\Delta ACC_t + \beta_{09}\Delta OCF_t + \beta_{10}LOSS_t + \beta_{11}SS_t \times LOSS_t + \beta_{12}LOSS_{t-1} + \beta_{13}SS_t \times LOSS_{t-1} + \beta_{14}LOSS_t \times LOSS_{t-1} + \beta_{15}SS_t \times LOSS_t \times LOSS_{t-1} + \beta_{16}ROE00\_01_t + \beta_{17}SS_t \times ROE00\_01_t + \beta_{18}ROE00\_01_t \times LOSS_{t-1} + \beta_{19}SS_t \times ROE00\_01_t \times LOSS_{t-1} + \beta_{20}ROE06\_07_t + \beta_{21}SS_t \times ROE06\_07_t + \beta_{22}ROE06\_07_{t-1} + \beta_{23}SS_t \times ROE06\_07_{t-1} + \beta_{24}ROE06\_07_t \times ROE06\_07_{t-1} + \beta_{25}SS_t \times ROE06\_07_t \times ROE06\_07_{t-1} + Industry Dummies + \epsilon_t$ .

Variable	Predicted Sign	Coefficient	t-value	Pr >  t
Intercept	?	0.184	6.64	0.000***
<b>Test Variables</b>				
POST99	+/-	0.021	1.18	0.239
POST01	+/-	0.021	2.08	0.038**
SS <sub>t</sub>	+/-	0.012	0.71	0.476
SS <sub>t</sub> × POST99	+/-	-0.001	-0.04	0.965
SS <sub>t</sub> × POST01	+/-	-0.006	-0.56	0.577
RET <sub>t</sub>	+/-	-0.017	-0.52	0.605
RET <sub>t</sub> × POST99	+/-	0.024	0.70	0.487
RET <sub>t</sub> × POST01	+/-	-0.007	-0.36	0.719
SS <sub>t</sub> × RET <sub>t</sub>	+/-	0.015	0.40	0.686
SS <sub>t</sub> × RET <sub>t</sub> × POST99	+/-	-0.013	-0.35	0.728
SS <sub>t</sub> × RET <sub>t</sub> × POST01	+/-	-0.001	-0.05	0.959
Neg_RET <sub>t</sub>	+	0.014	0.54	0.589
Neg_RET <sub>t</sub> × POST99	+	-0.066	-1.89	0.058*
Neg_RET <sub>t</sub> × POST01	+	0.056	2.31	0.021**
SS <sub>t</sub> × Neg_RET <sub>t</sub>	-	-0.015	-0.54	0.593
SS <sub>t</sub> × Neg_RET <sub>t</sub> × POST99	-	0.067	1.79	0.073*
SS <sub>t</sub> × Neg_RET <sub>t</sub> × POST01	-	-0.063	-2.43	0.015***
RET <sub>t</sub> × Neg_RET <sub>t</sub>	-	0.057	0.67	0.500
RET <sub>t</sub> × Neg_RET <sub>t</sub> × POST99	-	-0.159	-1.32	0.187
RET <sub>t</sub> × Neg_RET <sub>t</sub> × POST01	-	0.115	1.3	0.193
SS <sub>t</sub> × RET <sub>t</sub> × Neg_RET <sub>t</sub>	+	-0.073	-0.80	0.423
SS <sub>t</sub> × RET <sub>t</sub> × Neg_RET <sub>t</sub> × POST99	+	0.219	1.65	0.099*
SS <sub>t</sub> × RET <sub>t</sub> × Neg_RET <sub>t</sub> × POST01	+	-0.191	-1.93	0.053*
<b>Auditor Locality Variables</b>				
Locality <sub>t</sub>	-	-0.006	-1.50	0.133
SS_Locality <sub>t</sub>	-	-0.009	-1.95	0.051*
Big_4 <sub>t</sub>	+	0.002	0.18	0.854
SS_Big_4 <sub>t</sub>	+	0.002	0.15	0.881
<b>Other Control Variables</b>				
SIZE <sub>t-1</sub>	+	-0.011	-9.06	0.000***
DR <sub>t-1</sub>	+	0.050	9.59	0.000***
ΔSales <sub>t</sub>	-	-0.011	-5.30	0.000***
ΔACC <sub>t</sub>	+	-0.005	-0.65	0.517
ΔOCF <sub>t</sub>	-	0.002	0.26	0.792
<b>Regulatory Incentives Variables</b>				
LOSS <sub>t</sub>	+	0.053	7.84	0.000***
SS_LOSS <sub>t</sub>	-	-0.007	-0.92	0.359
LOSS <sub>t-1</sub>	+	-0.021	-2.35	0.019**
SS_LOSS <sub>t-1</sub>	-	-0.028	-2.74	0.006***
LOSS <sub>t</sub> × LOSS <sub>t-1</sub>	+	0.094	6.87	0.000***
SS_LOSS <sub>t</sub> × LOSS <sub>t-1</sub>	-	-0.046	-2.94	0.003***
ROE00_01 <sub>t</sub>	-	0.002	0.23	0.817
SS_ROE00_01 <sub>t</sub>	-	0.003	0.36	0.721
ROE00_01 <sub>t</sub> × LOSS <sub>t-1</sub>	-	-0.004	-0.20	0.839

(continued on next page)

Table 5 (continued)

Variable	Predicted Sign	Coefficient	t-value	Pr >  t
$SS\_ROE00\_01_t \times LOSS_{t-1}$	–	–0.031	–1.44	0.150
$ROE06\_07_t$	–	0.003	0.45	0.651
$SS\_ROE06\_07_t$	–	–0.008	–0.97	0.332
$ROE06\_07_{t-1}$	–	–0.002	–0.32	0.752
$SS\_ROE06\_07_{t-1}$	–	–0.002	–0.28	0.782
$ROE06\_07_t \times ROE06\_07_{t-1}$	–	–0.008	–0.45	0.653
$SS\_ROE06\_07_t \times ROE06\_07_{t-1}$	–	0.014	0.79	0.431
Adjusted R <sup>2</sup>				0.254
N				7258

Notes:

a.  $WD_t$  = write-downs on asset impairment (reflected as a positive amount) in period  $t$ , divided by total assets at the end of period  $t - 1$ ;  $POST_{99}$  = 1 if the observation is from post-1999 period, 0 otherwise; and  $POST_{01}$  = 1 if the observation is from post-2001 period, 0 otherwise; and  $SS_t$  = 1 if the largest shareholder holds  $\geq 20\%$  of the shares in the listed company, either in the form of state shares or state-owned legal person shares, and the holding percentage is greater than the sum of the holding percentage of the next four largest shareholders, 0 otherwise; and

$RET_t$  = 12-month buy-and-hold annual stock returns from May in year  $t$  to April in year  $t + 1$ ; and

$Neg\_RET_t$  = 1 if the company generated negative annual stock returns, 0 otherwise; and

$Locality_t$  = 1 if the company is audited by a local auditor, 0 otherwise; and

$Big\_4_t$  = 1 if the company is audited by a Big 4 auditor, 0 otherwise; and

$SIZE_{t-1}$  = natural logarithm of beginning total assets value; and

$DR_{t-1}$  = beginning debt-to-asset ratio; and

$\Delta Sales_t$  = percentage change in sales from period  $t - 1$  to period  $t$ ; and

$\Delta ACC_t$  = change in total accruals between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and

$\Delta OCF_t$  = change in operating cash flows between period  $t$  and  $t - 1$ , divided by total assets at period  $t - 1$ ; and

$LOSS_t$  = 1 for company reporting loss after write-downs in period  $t$ , 0 otherwise; and

$LOSS_{t-1}$  = 1 for company reporting loss after write-downs in period  $t - 1$ , 0 otherwise; and

$LOSS_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and in period  $t$ , 0 otherwise; and

$ROE00\_01_t$  = 1 for  $0.00 \leq ROE \leq 0.01$  after write-downs, 0 otherwise; and

$ROE00\_01_t \times LOSS_{t-1}$  = interaction variable, 1 if the company reported loss after write-downs in period  $t - 1$  and is generating  $0.00 \leq ROE \leq 0.01$  after write-downs in period  $t$ , 0 otherwise; and

$ROE06\_07_t$  = 1 for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t$ , 0 otherwise; and

$ROE06\_07_{t-1}$  = 1 for  $0.06 \leq ROE \leq 0.07$  after write-downs in period  $t - 1$ , 0 otherwise; and

$ROE06\_07_t \times ROE06\_07_{t-1}$  = interaction variable, 1 if the company reported  $ROE \geq 0.06$  and  $\leq 0.07$  after write-downs in periods  $t - 1$  and  $t$ , 0 otherwise.

a. Industry dummies are not presented.

b. \*\*\*, \*\* and \* represent significance at the 1%, 5% and 10% levels, respectively.

## 6. Robustness checks

### 6.1. Alternative definition of controlling ownership

I rerun the regressions by treating the local governments as the largest shareholder when the shareholding of state shares or state-owned legal person shares reached 20% or above and the ownership percentage of the largest shareholder should be greater than the sum of the next nine largest shareholders. The results are similar to the main findings.

### 6.2. Alternative definition of local auditors

In the main findings, I define a local auditor as one located in the same province as their audit clients. I further analyze whether the results will be different if auditors are located in the same city as their clients. The results are generally consistent with the main findings.

## 7. Conclusions

To improve the quality of accounting information, Chinese regulators issue more conservative accounting standards with reference to international standards and introduce asset write-down regulations in 1998 and 2001. This study examines the impact of state ownership of A-share listed companies in China on the magnitude of asset write-downs, with respect to the more conservative financial reporting requirements. However, the write-down decision allows management to discretionally determine the recoverable value of relevant assets and to opportunistically manage reported earnings.

From a sample of 7258 observations for 1998 to 2005, the study finds that asset write-downs are affected by the nature of company ownership, especially when companies are controlled by local governments through state shares and state-owned legal person shares. Local government-controlled companies tend to write-down fewer assets, especially after the introduction of the more conservative accounting rules implemented by the *2001 Accounting Standards*. One possible reason is that the inclusion of four additional asset categories, which are generally of larger size, allows these firms to reduce the asset write-downs (or reverse previous write-downs) to meet the target ROE level and to retain their listing status. When I examine the relationship of local auditors and the magnitude of asset impairment, I find that they tend to agree with management's decision for a lower level of asset write-downs. I do not find similar results with the Big Four audit clients.

The results of this study contribute to understanding the unique characteristics of the Chinese capital market. With the intention to achieve the target ROE level to safeguard their listing status and to meet the rights issue requirements, companies tend to adopt an aggressive asset write-down policy to report the required ROE level. Second, this paper shows the impacts of ownership structures on earnings management. Managers of local government-controlled companies in China are more politically connected to the government (Fan et al., 2007), but they are seldom rewarded in line with their performance. To strive for political promotion and to indicate their superior performance in the competition with managers of non-listed SOEs, these managers have strong incentives to be aggressive in reporting. Third, prior literature finds that local auditors have greater economic dependence on local clients and tend to issue clean auditor opinions to companies owned by local government (Chan et al., 2006). The study provides further evidence that the locality of audit firms and their clients impact the impairment decision, especially when the audit clients are controlled by local governments. Policy makers should assess the effectiveness of regulations to improve the quality and independence of auditors in China. Fourth, Chen and Wu (2007) find that accounting standards alone are insufficient in conservative financial reporting. The present results further show that companies controlled by local governments have fewer incentives to recognize asset impairments despite the availability of conservative accounting rules.

This paper examines the magnitude of asset write-downs in China. In view of the unique characteristics of capital markets, future research can study the reversal of asset impairment in meeting the listing or rights issue requirements in this emerging market.

### Data availability

All data are available from public sources.

### References

- Accounting System for Business Enterprises, 2001. China Financial and Economic Publishing House. Beijing, China.
- Accounting System for Shareholding Companies, 1998. China Financial and Economic Publishing House. Beijing, China.
- Aharony, J., Lee, C.J., Wong, T.J., 2000. Financial packaging of IPO firms in China. *J. Account. Res.* 38, 103–126.
- Ball, R., Kothari, S.P., Robin, A., 2000. The effect of international institutional factors on properties of accounting earnings. *J. Account. Econ.* 29, 1–51.
- Basu, S., 1997. The conservatism principle and the asymmetric timeliness of earnings. *J. Account. Econ.* 24 (1), 3–37.
- Basu, S., Hwang, L., Jan, C.-L., 2002. Differences in Conservatism between Big Eight and non-Big Eight Auditors. Working Paper. Baruch College. City University of New York.

- Ball, R., Robin, A., Wu, J.S., 2003. Incentives versus standards: properties of accounting income in four East Asian countries. *J. Account. Econ.* 36 (1–3), 235–270.
- Ball, R., Shivakumar, L., 2005. Earnings quality in UK private firms: comparative loss recognition timeliness. *J. Account. Econ.* 39 (1), 83–128.
- Becker, C.L., Defond, M.L., Jiambalvo, J., Subramanyam, K.R., 1998. The effect of audit quality on earnings management. *Contemp. Account. Res.* 15 (Spring), 1–24.
- Chan, K.H., Lin, K., Mo, P.L.L., 2006. A political-economic analysis of auditor reporting and auditor switches. *Rev. Acc. Stud.* 11, 21–48.
- Chan, K.H., Lin, K., Mo, P.L.L., 2007. The Effect of Adopting International Accounting Standards on Tax Noncompliance. Working Paper. Lingnan University.
- Chen, C.J.P., Chen, S., Su, X., Wang, Y., 2004. Incentives for and consequences of initial voluntary asset write-downs in the emerging Chinese market. *J. Int. Account. Res.* 3 (1), 43–61.
- Chen, S., Wu, D., 2007. Accounting Conservatism in Chinese Listed Firms: The Influence of Standards, Incentives, and Monitoring. Working Paper. The Hong Kong Polytechnic University.
- Chen, X., Lee, C.W.J., Li, J., 2003. Chinese Tango: Government Assisted Earnings Management. Working Paper. Tulane University.
- China Securities and Futures Statistical Yearbook, 2006. China Securities Regulatory Commission.
- Chung, R., Firth, M., Kim, J.B., 2002. Reporting Incentive Conflicts and Audit Effectiveness Differentiation between Big Six and Non-Big Six Auditors. Working Paper. Hong Kong Polytechnic University.
- Chung, R., Firth, M., Kim, J.B., 2003. Auditor conservatism and reported earnings. *Account. Bus. Res.* 33 (1), 19–32.
- Cooper, M.C., 2003. The Politics of China's Shareholding System. Asia/Pacific Research Center. Stanford University (June).
- DeAngelo, L., 1981. Auditor size and auditor quality. *J. Account. Econ.* 3 (December), 183–199.
- Fan, P.H.J., Wong, T.J., Zhang, T., 2007. Politically Connected CEOs, Corporate Governance, and Post-IPO Performance of China's Newly Partially Privatized Firms. *J. Financ. Econ.* 84 (2), 330–357.
- Gensler, H., Yang, J., 1996. Auditing standards of the People's Republic of China. *FT Law Tax Asia Pacific*.
- Francis, J., Hanna, J.D., Vincent, L., 1996. Causes and effects of discretionary asset write-offs. *J. Account. Res.* 34 (Supplement), 117–134.
- La Porta, R., Lopez-de-Salines, F., Shleifer, A., Vishny, R., 1999. Corporate ownership around the world. *J. Financ.* 54 (2), 471–520.
- Lai, W.S., 2003. Signal of Delisting Risk Improves Transparency of the Capital Market. *Hong Kong Commercial News* (19 May 2003). <<http://www.cnwnc.com/20030519/ca331480.htm>>.
- Leung, E., Liu, L., Shen, L., Taback, K., Wang, L., 2002. Financial Reform and Corporate Governance in China. MIT Sloan School of Management (June).
- Jia, J., Sun, Q., Tong, W.H.S., 2005. Privatization via an Overseas Listing: Evidence from China's H-Share Firms. Working Paper. Hong Kong Polytechnic University.
- Jiang, P., 2004. The relationship between ownership structure and firm performance: an empirical analysis over Heilongjiang listed companies. *Nat. Sci.* 2 (4), 87–90.
- Li, Z., 2001. Empirical research on the asset write-downs in Chinese listed companies. *China Account. Financ. Rev.* 3, 70–157.
- Liu, J.P., 2003. State-owned Assets Supervision and Administration Commission of the State Council Will Change the Ownership Structure in the Capital Market. *China Industrial and Commercial Times*. (March 19, 2003). (<http://www.china.org.cn/chinese/OP-c/295960.htm>)
- Notice about Doing Well in the Issuance of New Shares by Listed Companies, 2001. China Securities Regulatory Commission.
- Pistor, K., Xu, C., 2005. Governing stock markets in transition economies: lessons from China. *Am. Law Econ. Rev.* 7 (1), 184–210.
- Pope, P., Walker, M., 1999. International differences in the timeliness, classification and conservatism of earnings. *J. Account. Res.* 37 (Supplement), 53–87.
- Regulations on Transforming the Management Mechanism of State-Owned Industrial Enterprises, 1992 (June). Ministry of Finance.
- Riedl, E.J., 2004. An examination of long-lived asset impairments. *Account. Rev.* 79, 823–852.
- Sun, D.Y., 2001. Progress and Deficiencies – A Decipherment of Withdrawal Mechanism of Listed Companies. <[http://www.legaldaily.com.cn/gb/content/2001-04/25/content\\_16851.htm](http://www.legaldaily.com.cn/gb/content/2001-04/25/content_16851.htm)>.
- Supplementary Provisions on Accounting Treatment in the Accounting System for Shareholding Companies, 1999. China Financial and Economic Publishing House. Beijing, China.
- Tai, B.Y., Liu, X., Liu, J.M., 2007. Related-Party Transactions, Corporate Performance, and the Effectiveness of Corporate Governance Mechanism: Evidence from the Chinese Stock Market. Working Paper. California State University, Fresno and Hong Kong Baptist University.
- Tang, Y., 1999. Issues in the development of the accounting profession in China. *China Account. Financ. Rev.* 1, 21–36.
- Tang, Y., 2000. Bumpy road leading to internationalization: a review of accounting development in China. *Account. Horiz.* 14, 93–102.
- Tian, G.L., 2000. Performance of Mixed Enterprises, Agency Cost and State Shareholding. Unpublished Manuscript. London Business School.
- Wall Street Journal, 2001. Chinese Market Regulators Have Strengthened Substantially the Rules for Suspending Trading in Shares of Unprofitable Companies (December 5, 2001). <[http://www.jubilee2000uk.org/media/daily/daily\\_051201.htm](http://www.jubilee2000uk.org/media/daily/daily_051201.htm)>.
- Walter, C.E., Howie, F.J.T., 2001. 'To Get Rich Is Glorious!': China's Stock Markets in the '80s and '90s. Palgrave Macmillan, New York.
- Wang, X., 2004. State-owned Enterprise Reform and Corporate Governance of China. Working Paper. Fudan University.
- Administrative Measures on the Share Segregation Reform of Listed Companies, 2005. China Securities Regulatory Commission.

- Guidelines on Practice and Operation of Share Segregation Reform of Listed Companies, 2005. China Securities Depository & Clearing Corporation Limited.
- Wei, J.G., Xiao, J.Z., 2005. Shareholder Preferences and Dividend Payment in China. Working Paper. Cardiff University.
- Yang, L., Tang, Q., Kilgore, A., Hong, J.Y., 2001. Auditor-government associations and auditor independence in China. *Br. Account. Rev.* 33, 175–189.
- Yang, Z., Rohrbach, K., Chen, S., 2005. The impact of standard setting on relevance and reliability of accounting information: lower of cost or market accounting reforms in China. *J. Int. Financ. Manage. Account.* 16, 194–228.
- Zhang, L., 2001. Ownership and Governance Issues in the Restructuring of Chinese State-Owned Enterprises. Working Paper. Yale University.
- Zhong, H., 1998. Analysis of the Answers to Survey Questions by Chinese CPAs. CPA News No. 1 (in Chinese).