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Buy, Lie, or Die: An Investigation of Chinese ST Firms' Voluntary Interim Audit Motive and Auditor Independence

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ABSTRACT. In the Chinese stock market, special treatment (ST) firms are the firms listed as facing imminent danger of delisting, unless they return to profitability after reporting two consecutive annual losses. Some ST firms voluntarily pay substantial fees to their external auditors to conduct interim audits, which are not required by regulations. In this study, we investigate and find that ST firms that pay for voluntary interim audits report greater discretionary accrued earnings, higher non-operating earnings, and higher returns on assets in ensuing annual reports. As a result, these firms are more likely to return to profitability and reduce their delisting risk. Our results, which contribute to the current debate on auditor independence, appear to be consistent with the possibility that ST firms "buy" external auditors' cooperation to manipulate earnings when faced with the threat of delisting.

KEY WORDS: business ethics, auditor independence, voluntary interim audit, earnings manipulation, special treatment, delisting, China

ABBREVIATIONS: ST: Special treatment; NAS: Non-audit services; CSRC: China Securities Regulatory Commission; ACCR: Total accruals; DAC: Discretionary accruals; NDAC: Non-discretionary accruals; TA: Total assets; REV: Revenues; REC: Accounts receivable; PPE: Property, plants, and equipment; VIA: Voluntary interim audit; LEV: Firm leverage; ROA: Return on assets; S-TYPE: Type of controlling shareholders, state or non-state; BLOCK: Percentage of shares owned by controlling shareholder; MKT: An index of investor protection; Big-10: An auditor associated with one of the ten largest accounting firms in China; NOPEX: Non-operating earnings

Introduction

In the last decade, the world has witnessed major business scandals (e.g., the Enron and Lehman Brothers scandals) that have led not only to the massive failure of the financial services industry but also to a global economic recession and financial crisis. People rightfully question the ethical integrity of businesses and the financial services industry in particular, including investment banks, accounting firms, and rating agencies, which have been presumed to provide independent advice to investors (e.g., Moore et al., 2006). The issue of independence has also been raised with respect to the actuarial profession (Gunz et al., 2009) and management disclosure (Miller, 2009).

Despite these recent events, the issue of ethical integrity within the financial services industry has been under-represented in academic studies. One area of exception is the audit profession; accounting researchers have devoted substantial effort to understanding factors that compromise auditor independence in safeguarding the integrity of financial reporting (Antle, 1984; Chung and Kallapur, 2001; Craswell et al., 2002; DeAngelo, 1981; Frankel et al., 2002; Larcker and Richardson, 2004).

The issue of erosion of auditor independence arises from the conflict of interest inherent in the design of the audit market. For example, although external auditors are assumed to be hired by the board of directors of a company, management plays a significant role in the hiring and firing of auditors. It is also quite common for external auditors to take jobs at audited client firms. The purchase of non-audit services (NAS) is for the most part a decision of management. Thus, although external auditors are presumed to provide a fair and independent evaluation of client firms' financial reporting integrity, their financial dependence on the clients may induce the auditors to compromise their independence from company management (Moore et al., 2006).

Extant studies have examined the two major sources of auditors' financial dependence on company management and the impact of these factors on auditor independence; however, in totality, these studies produced inconclusive results on whether financial dependence on clients compromised auditor independence.

The first such source is audit fee dependence; in this area, regulators have expressed concern with the practice of "low balling" in setting initial audit fees that may influence the auditors' independence. "Low balling" refers to the practice that audit firms, in order to win clients, set initial audit fees lower. Audit firms can compensate the lower initial audit fees by raising audit fees after they become incumbent auditors, reducing audit efforts and costs, or selling clients lucrative NAS. Despite concerns from regulators, DeAngelo (1981) argues that there is no evidence that "low balling" on initial audit engagement compromises auditor independence. Using Australian audit fee data, Craswell et al. (2002) also do not find that the level of audit fee dependence affects an auditor's propensity to issue an unqualified opinion. While these studies do not find that fee dependence compromises *actual* auditor independence, Ghosh et al. (2009) find that client importance nevertheless affects *independence-in-appearance* – that is, investors perceive earnings quality to be lower when a client is more important to the audit firm.

The second source of financial dependence, the provision of NAS, is a more controversial subject. The decision to purchase and pay for NAS is at the discretion of the company management to a much larger extent than the hiring of auditors; thus, NAS are regarded as more susceptible to compromising auditor independence (Antle, 1984). Furthermore, during the last few decades, NAS have become more lucrative than traditional audit services. For example, examining companies in the Standard and Poor's 500 Index that had filed fee structure data, the *Wall Street Journal* found that 307 companies paid their audit firms for services defined as NAS by the Securities and Exchange Commission (SEC). On average, the fees for these services were nearly three times the audit fees (Gunz et al., 2009; Weil and Tannenbaum, 2001). Nevertheless, extant studies have produced mixed results regarding the impact of NAS on auditor independence, in particular, on whether NAS fees are associated with greater amount of discretionary earnings. For example, while Frankel et al. (2002) find that the ratio of NAS fees to total audit fees is positively related to the amount of total accruals (i.e., higher NAS fees are associated with larger amount of discretionary earnings), Ashbaugh et al. (2003) find no such results using a different research design. Antle et al. (2006), using the U.K. data, actually find higher NAS fees are associated with smaller amount of discretionary earnings.

The lack of conclusive evidence that NAS compromise auditor independence seemingly contradicts the views of regulators, media coverage, and the general public. Even before the Enron–Andersen saga, the SEC issued Proposed Rule File-No. S7-13-00 in 2000; this rule severely limits accounting firms from providing audit and NAS to the same client. Following the Enron scandal, the Sarbanes–Oxley Act was passed into law in the U.S. on July 30, 2002. Under this act, the provision of NAS by incumbent auditors to their clients is severely limited.[1]

In this article, we re-examine the auditor independence issue using a sample of firms currently operating in China. Despite its short history, China's stock market grew to be the second largest in the world by mid-2009, listing >1600 stocks.[2] China's Company Law and Securities Law mandate a special treatment (ST) policy that is applicable to listed firms. Under these laws, if a listed firm experiences two consecutive annual losses, the stock exchange will put its stock under ST status. ST stocks operate under various trading and financing restrictions. Further annual losses result in ST stocks being suspended from trading or even delisted. Because exchange listing is still considered a privilege and a rare opportunity for Chinese businesses, ST firms have strong incentives to manipulate earnings to avoid losses and improve listing status (Jiang and Wang, 2008).

China's listed firms rarely use NAS provided by their auditors; however, a significant number of ST firms *voluntarily* pay their auditors substantial fees to conduct an interim audit of their semi-annual financial reports.

Relative to a matched sample of ST firms that did not conduct voluntary interim audits, this article finds that ST firms that undergo voluntary interim auditing are subsequently more likely to improve their listing status (e.g., from ST status to normal

status) and that they achieve this improvement by reporting higher total earnings, higher discretionary accrued earnings,[3] and higher non-operating earnings[4] in the ensuing annual reports. These results appear to indicate that ST firms buy auditors' cooperation by paying the auditors to conduct non-compulsory interim audits to manipulate earnings and improve their listing status. Auditor independence is compromised as a result.

Compared to early studies on financial dependence and auditor independence, our study has an advantage. We are able to identify *ex ante* a strong earnings management incentive – reporting profits to avoid delisting – that would increase the power of our tests. Earlier studies generally examine a cross section of the entire market place in which earnings management by a sub-sample of firms could be averaged out, thus diminishing the powers of their tests (Chung and Kallapur, 2001; Schipper, 1989).

The remainder of this article is organized as follows. The next section reviews the literature on auditor independence, provides institutional background on China's ST policy, and develops our hypotheses. We then describe sample construction and preliminary analyses, which are followed by a section on empirical anayses, and a final section summarizing our conclusions.

Literature review, institutional background, and hypothesis development

Literature on auditor independence

Auditor independence, or the lack thereof, has been at the center stage of debate in recent years following the spectacular collapse in 2002 of Arthur Andersen, one of the Big Five accounting firms worldwide at the time, resulting in the loss of 85,000 jobs. Recently, another major accounting firm, Ernst & Young, was involved in the cover-up of true financial leverage of Lehman Brothers, an event that also generated public outrage. As the external auditor of Enron Corporation, Arthur Andersen failed to detect (or chose not to reveal) rampant earnings manipulation activities that occurred before the historic Enron scandal broke out. This negligence did not only hurt the shareholders of Enron but also severely damage investors' confidence in the integrity of American businesses and capital markets. In the case of Lehman Brothers, Ernst & Young approved Lehman's questionable Repo 105 contracts with knowledge that the purpose of these contracts was to temporarily remove low-quality assets from Lehman's balance sheet before quarter-ends (the Valukas Report on Lehman Brothers Bankruptcy). This cover-up and similar questionable accounting procedures helped sustain the subprime bubble, which ultimately led to a worldwide financial crisis.

Similar accounting scandals (and the failure of external auditors to detect or reveal them) are not limited to the U.S., as witnessed by the Parmalat scandal in Italy and many others around the world. These accounting scandals have spawned a fast-growing body of literature on auditor independence that focuses particularly on the identification of factors that might compromise auditor independence.

As early as the late 1970s, the U.S. SEC and a Commission on Auditors' Responsibilities claimed that ''low balling'' impaired auditor independence. ''Low balling'' refers to the practice that audit firms, in order to win clients, set initial audit fees lower. There are a few ways for audit firms to compensate for lower initial audit fees. Audit firms can raise audit fees after they become incumbent auditor, or they may reduce audit effort thus reducing audit cost. The audit firms may also expect to sell clients NAS and use NAS fees to compensate for the lower audit fees. Despite the regulators' concern, DeAngelo (1981) argues that ''low balling'' represents audit firms' legitimate, competitive response to the expectation of future quasi-rents of incumbent auditors (e.g., due to technological advantages of incumbency) and thus that audit fee dependence does not impair auditor independence. Using fee structure disclosure of Australian audit firms, Craswell et al. (2002) also do not find that the level of audit fee dependence affects auditors' propensity to issue unqualified opinions. While these studies do not find that fee dependence compromises actual auditor independence, Ghosh et al. (2009) find that client importance nevertheless affects independence-in-appearance – that is, that investors perceive earnings quality to be lower when a client is more important to the audit firm.

In addition to audit fees, another factor drawing substantial attention is NAS fees. As the auditing profession developed, accounting firms engaged in

providing NAS such as business consulting or tax planning, often for the same clients of their auditing services. To attract lucrative NAS, accounting firms might loosen standards on their auditing service, thus allowing more earnings manipulation activities by their audit clients.

Frankel et al. (2002) find that the ratio of NAS fees to total auditor fees from the same client is positively related to the amount of discretionary accruals (DACs) (i.e., higher earnings) and to the likelihood of clients reporting small positive earnings surprises.[5] These results are consistent with the hypothesis that the provision of NAS compromises auditor independence in conducting audit services. However, Ashbaugh et al. (2003) challenge Frankel et al. (2002)'s results. Their study indicates that Frankel et al. (2002)'s results are sensitive to research design choices; with a new research design, Ashbaugh et al. (2003) find no systematic evidence supporting Frankel et al.'s (2002) claim that auditors violate their independence as a result of clients purchasing relatively more NAS.

Recognizing that audit fees, NAS fees and DACs might be jointly determined, Antle et al. (2006) address the endogeneity problem by modeling these three variables in a system of simultaneous equations. Using U.K. data, these authors find no support for the assertion that NAS fees increase DACs and thus indicate earnings manipulation. On the contrary, NAS fees actually decrease DACs; Antle et al. (2006) interpret this as the productive effect of NAS, i.e., knowledge spillover from NAS to audit services when both are conducted by the same accounting firm. Similarly, Larcker and Richardson (2004) find a negative relation between the level of fees, both audit and NAS, and accruals (higher fees are associated with smaller accruals – thus lesser earnings manipulation). This negative relation is stronger for weaker corporate governance firms, indicating that auditors are constrained by the reputation effect associated with allowing clients to engage in unusual accrual choice.

On July 30, 2002, the Sarbanes–Oxley Act was passed into law in the U.S. Under this act, the provision of NAS by incumbent auditors to their clients is severely limited. Using post-Enron data, Lai (2003) finds that financial statements in the post-Enron era are more likely to be associated with modified audit opinion and lower DACs; this finding indicates that the Sarbanes–Oxley Act improved auditor independence. However, Ahmed et al. (2006) find that, for firms with weak governance, the Sarbanes–Oxley Act has not been successful in mitigating the adverse effects of client importance on auditor independence.

In summary, audit failures, exemplified by the cases of Enron/Andersen and Lehman Brothers/Ernst & Young, indicate the existence of a severe erosion of auditor independence. Regulators worldwide have repeatedly promulgated new rules to curb auditors' financial dependence on clients (limiting NAS fees, mandatory rotation of auditing partners, and so on). Nevertheless, academic studies have produced mixed results regarding the impact of financial dependence on auditor independence in the U.S. and other countries in both the pre- and post-Sarbanes–Oxley Act era. These mixed results are also inconsistent with some survey results. For example, Pearson's (1987) survey of auditors indicates that auditors believe independence deficiencies exist, and some even admit to personal independence impairment. Hussey and Lan (2001) survey U.K. financial directors. The results of their survey show that even audit clients, the financial directors, are concerned with the audit independence issue and these financial directors actually favor the banning of NAS and the rotation of auditors.

Given the continuing importance of auditor independence in the financial market, further studies are warranted. In this article, we take an approach that differs from those used in earlier studies. Earlier studies relate financial dependence and auditor independence in the cross section of the entire market space; however, it appears likely that the auditor independence issue could be the most severe in the sub-sample of firms that, for some reason, have stronger incentive to manage earnings with the cooperation of external auditors. Using the entire market space as a test sample could average out the independence issue in the sub-sample and thus produce mixed results (Chung and Kallapur, 2001; Schipper, 1989). In this study, we use Chinese data to examine the auditor independence issue in a sub-sample of firms whose incentive to manipulate earnings is greater than that of average firms. We ask why a group of Chinese-listed ST firms voluntarily pay a substantial amount of extra fees to their external auditors to conduct interim audits and whether

paying or not paying for voluntary interim audits has different economic consequences for ST firms (i.e., whether it increases or decreases their delisting risk).

Institutional background on ST policies in China

China's stock market began with the opening of the Shanghai Stock Exchange in 1990 and the Shenzhen Stock Exchange in 1991. Although the history of China's stock market is short, its growth has been fast-paced. According to the China Securities Regulatory Commission (CSRC), these two stock exchanges listed >1600 firms by July 2009, with a total market capitalization of 3,456.5 billion U.S. dollars. In terms of market capitalization, the Chinese stock market is the second-largest in the world, about a quarter of the size of the U.S. stock market.

The ST policy is a unique feature of China's stock market (Jiang and Wang, 2008). The main reason that a listed firm receives ST is its reporting of two consecutive annual losses.[6] Should such reporting occur, the stock exchanges automatically designate the firm as an ST firm, adding the letters ST to the stock code.

Special treatment firms face a number of restrictions. Daily stock price movements are restricted within 5% in both directions, and ST firms are not allowed to raise capital from the stock market. When stock exchanges judge that an ST firm's prospects are extremely poor, the exchanges designate the ST firm as an *ST firm, warning investors of the firm's imminent danger of suspension from trading. If the financial prospects of a firm suddenly worsen, then it can also immediately attain *ST status without first entering ST status.

If an ST or *ST firm reports one additional annual loss, then its stock is suspended from trading in the stock exchanges. A suspended stock can resume trading if the firm turns a profit in the next annual report; otherwise, the stock will be delisted. Between 1998 and 2008, 399 stocks were specially treated by the two stock exchanges. Between 1999 and 2005, 28 stocks were delisted from the Shenzhen Stock Exchange, and between 2001 and 2005, 14 stocks were delisted from the Shanghai Stock Exchange.[7]

Delisting is bad news for listed firms in any stock market. It deprives firms of an important channel for raising external capital, and the sharply reduced liquidity increases the cost investors charge on owning shares and, most likely, also increases the costs charged on borrowing from banks. Extant literature documents various efforts made by listed firms to maintain listing status. For example, Yang (2006) finds that listed firms engage in various forms of earnings manipulation to increase stock prices on the NASDAQ market and meet minimum price requirements for listing.

In the Chinese market, maintaining listing status is even more important for listed firms and their controlling shareholders.[8] First, for a new stock market in a heavily regulated economy, Chinese regulators deliberately keep the number of listed shares low. For example, before 2001, Chinese stock market regulators annually set the total amount of shares to be issued each year, and the quota was allocated to provinces and central government ministries. Each province or ministry then allocated the quota to firms within its jurisdiction. Only firms that got the quota were able to do public offerings (within the quota) and be listed on stock exchanges. Thus, public offering and listing provides capital-hungry Chinese firms a crucial channel through which to raise external capital, and obtaining such a chance is a rare privilege. Delisting deprives these firms of such a capital-raising channel. Although the quota system was abolished in 2001, public offerings must still be approved by regulators, unlike in many developed markets where public offerings need only be registered with market regulators. Occasionally, Chinese regulators have even suspended new public offerings altogether (e.g., from mid-2005 to 2006 and from 2008 to mid-2009). Second, many local government officials regard delisting firms in their own jurisdiction as damaging to their reputation; at the same time, without a public source of capital, these firms may run into financial distress that hurts local fiscal incomes and employment. For these reasons, government officials tend to put pressure on listed firms to avoid delisting.

Given the benefits associated with listing and the pressures government officials and controlling shareholders exert on listed firms, we conjecture that Chinese listed firms have stronger incentives to maintain a normal listing status. Because the delisting decision is based on accounting earnings, listed firms have strong incentives to manipulate accounting

numbers in an attempt to meet listing standards (Jiang and Wang, 2008).

Listed firms' strong incentive to manipulate earnings may not necessarily result in false accounting information. There are various corporate governance mechanisms in place to constrain fraudulent financial reporting, the first and foremost of these being the involvement of an independent external auditor whose approval of financial reports is required by securities laws around the world. Next, we discuss the current state of auditor independence in China.

The current state of auditor independence in China

The external audit profession emerged and developed with the stock market in China. The first complete set of audit standards was promulgated in 1995. Today, large international accounting firms have substantial presence in China, and domestic accounting firms have been growing at a rapid pace. However, the audit profession is subject to extensive criticism.

DeFond et al. (2000) examine whether the 1995 audit standards improved auditor independence in China. While they find the propensity to issue modified auditor opinion increased substantially after the adoption of stricter standards, larger accounting firms, which presumably were able to provide more independent audits, lost substantial market share. This "flight from audit quality" phenomenon indicates that auditor independence is a serious issue in this market.

Wang et al. (2008) document that political connections play an important role in listed firms' auditor choice decisions. Listed firms controlled by local governments tend to hire small local audit firms; in this scenario, auditor independence could be more easily compromised.

Finally, Allen et al. (2005) attribute a weak audit profession as a major factor in the sluggish progress of China's listed sector relative to its fast-growing private sector.

One important reason that auditor independence in China could be compromised is the fierce competition for clients. The Chinese audit market has a much lower concentration ratio than other markets. For example, the market share of the Big 4 in China in 2008 was only 33%; however, as Choi and Wong (2007) report, the Big 5's market share in listed firm auditing is 95.79% in the United States, 57.96% in Taiwan, 62.13% in Thailand, 79.61% in Australia, 82.05% in Finland, 87.02% in Hong Kong, and 90.98% in Denmark, to give a few examples. The Chinese audit market was much less concentrated and more competitive than those in both developed and developing countries.

Shleifer (2004) argues that competition destroys ethical behavior. Cummins and Nyman (2005) provide evidence that competitive pressure obligates investment banks to make inefficient investment decisions; in China, Cai et al. (2005) find that unlisted firms in more competitive market environments hide a larger share of their profits than those in less competitive environments. Collectively, these economic studies show that *competitive pressure induces unethical behavior in economic agents*. Thus, our research, which uses Chinese data, is more likely to detect the impact of financial dependence on auditor independence.

Hypothesis development

Given the strong pressure Chinese ST firms face to turn profit and maintain listing status, they may engage in earnings manipulation activities to inflate earnings. However, independent external auditors could constrain earnings manipulation activities. One way to attain auditors' cooperation is to increase revenues that auditors receive from the listed firms. In many capital markets, listed firms engage external auditors to conduct NAS to increase auditors' revenue. In China, NAS are rare, but we observed that many ST firms made voluntary payments to external auditors by engaging them to conduct interim audit service that regulations do not require. Although interim audit is also audit-related work, it is similar to NAS in the sense that both NAS and interim audit are at the listed firms' discretion. We thus conjecture that ST firms use voluntary interim audit service to induce the auditors to be cooperative when auditing the ensuing annual reports, on which the regulator bases its decision on whether to remove the ST status of the listed firms.

To test our conjecture, we assembled a sample of ST firms that conducted voluntary interim audits

from 2001 to 2008 and matched each sample firm with *another* ST firm that did not conduct such voluntary interim audits. The matching firm was chosen from firms of similar size in the same year and in the same industry as the voluntary interim audit firm (Barber and Lyon, 1996).

If ST firms indeed pay external auditors for voluntary interim audits to induce cooperation in preparing the next annual report with the objective of improving their own listing status (e.g., from ST status to normal status or from suspension of trading to resumption of listing), then we should observe that ST firms that undergo voluntary interim audits have a higher likelihood of subsequently improving their listing status than ST firms that do not.

In summary, Chinese ST firms have strong incentive to avoid delisting (Jiang and Wang, 2008). When the delisting decision is based on reporting profit, ST firms may inflate earnings through manipulation activities with the cooperation of external auditors. In exchange, external auditors are compensated for with extra business of voluntary interim audit. Thus, our first hypothesis is as follows:

Hypothesis 1: Special treatment firms that conduct voluntary interim audits are more likely to improve their listing status than ST firms that do not conduct voluntary interim audits.

Regulators base their decision on an ST firms' listing status on whether the firms report profit, i.e., whether annual earnings are positive. Based on our review of the cases involved, this process appears to be mechanical. Rarely does an ST firm that reports an annual profit fail to improve its listing status. We therefore hypothesize that ST firms that perform voluntary interim audits are subsequently more likely to report higher earnings in their ensuing annual reports. Thus, our second hypothesis is as follows:

Hypothesis 2: Special treatment firms that conduct voluntary interim audits report higher earnings in their ensuing annual reports than ST firms that do not conduct voluntary interim audits.

Achieving higher earnings does not automatically imply earnings manipulation. Firms may report higher earnings because of real improvements in operating performance. Therefore, we need a measure of earnings manipulation to test our conjecture that voluntary interim audit is responsible for many firms' improved accounting earnings and higher likelihood of improved listing status. Following early studies on auditor independence, we use DACs to measure earnings manipulation.

Accounting earnings are made up of two components: cash earnings and accrued earnings. Accrued earnings (accruals) are earnings that have been recognized and reported by a firm but have not been received by the firm *in cash*. A typical example would be the case in which a firm makes a sale on credit; in this case, the customer does not pay the price when receiving the goods but promises to pay on a later date. However, after subtracting costs and expenses related to the sale, the amount of the sale is included in current year earnings. Cash earnings are not easy to manipulate; however, accrued earnings are much easier to manipulate because recognition of accruals depends to a large extent on the judgment of management.

The seminal work of Jones (1991) proposes a model to separate non-discretionary (normal) accruals, the part of accrued earnings that a firm generates from normal operation, from discretionary (abnormal) accruals, the part of accrued earnings that are unexpected given the firm's normal operation and are thus susceptible to earnings manipulation. Dechow et al. (1995) propose a modified Jones model to measure DACs; this model has proven to be more powerful in detecting earnings manipulation than the original model. In this article, we use the modified Jones model in which the estimation of DACs is performed according to the following procedure.

Step 1: Total accrued earnings (deflated by total assets in year $t-1$) in a given year t, ACCR_t, equal net income minus cash flow from the operation. Net income is total earnings of the firms in year t, and cash flows from operation are cash earnings.

Step 2: The original Jones model is estimated by year-industry.[9]

$$\mathrm{ACCR}_t = \alpha_1 * (1/\mathrm{TA}_{t-1}) + \alpha_2 * (\Delta\mathrm{REV}_t/\mathrm{TA}_{t-1}) + \alpha_3 * (\mathrm{PPE}_t/\mathrm{TA}_{t-1}) + e_t \quad (1)$$

where ΔREV is the change in revenue from year $t-1$ to year t; PPE is property, plants, and

equipment in year t; and TA is total assets in year $t-1$, used to deflate other variables.

Step 3: With the estimated parameter values of same year-industry, nondiscretionary accruals (NDAC) and DAC of the ST firms are computed as follows:

$$\begin{aligned}\mathrm{NDAC}_t = {} & \alpha_1 * (1/\mathrm{TA}_{t-1}) \\ & + \alpha_2 * ((\Delta\mathrm{REV}_t - \Delta\mathrm{REC}_t)/\mathrm{TA}_{t-1}) \\ & + \alpha_3 * (\mathrm{PPE}_t/\mathrm{TA}_{t-1})\end{aligned} \tag{2}$$

$$\mathrm{DAC}_t = \mathrm{ACCR}_t - \mathrm{NDAC}_t \tag{3}$$

where ΔREC is the change in accounts receivable from year $t-1$ to year t. This amount is subtracted from the change in revenues to account for the possibility that revenues could also be manipulated (Dechow et al., 1995). By design, both NDAC and DAC are already asset deflated.

Ashbaugh et al. (2003), Chung and Kallapur (2001), DeFond and Subramanyam (1998), Frankel et al. (2002), and Larcker and Richardson (2004), among others, have used either the Jones model or the modified Jones model to estimate DACs when studying auditor independence. For the NAS studies, when larger amounts of NAS fees are associated with larger amounts of DACs, compromise of auditor independence is inferred. Thus, our third hypothesis is as follows.

Hypothesis 3: Special treatment firms that conduct voluntary interim audits report greater DACs in their ensuing annual reports than ST firms that do not conduct voluntary interim audits.

Discretionary accruals measure manipulation in reporting normal operating performance to achieve earnings targets. Because regulators use net income to determine whether ST firms return to profit, ST firms may also manipulate the non-operating component of net income to achieve earnings targets. Non-operating activities include gains or losses from restructuring, sales and swaps of equity, debts or assets with another firm, and government subsidies. Such activities are not part of the normal course of business for the listed firms.

Non-operating activities can be used to manipulate earnings because these activities are difficult to value and a ready, liquid market for the assets in question is normally absent. Thus, managerial judgment is important in the valuation process and associated recognition of non-operating earnings. Furthermore, many such transactions involve a related part of the listed firm in China; thus, the valuation of transactions and the recognition of earnings are even more arbitrary than elsewhere. However, auditors must approve the recognition of earnings; therefore, if voluntary interim auditing is used to compromise auditor independence, we should observe higher non-operating earnings for these firms. Thus, our fourth hypothesis is as follows:

Hypothesis 4: Special treatment firms that conduct voluntary interim audits report greater non-operating earnings in their ensuing annual reports than ST firms that do not conduct voluntary interim audits.

Sample

Identification of sample

Our sample consists of three sets of firms. The first set of firms is ST firms. ST firms have usually experienced two consecutive annual losses. If these firms do not show improvement in financial performance and report profit in the third year, then their stock will be suspended from trading. If they report profit in the third year, then they can apply for removal of ST status, and subject to exchange approval, their stock will return to normal trading status. In some instances, when the stock exchange judges that an ST firm has experienced a severe adverse event, the exchange can immediately put the ST firm under *ST status to signal the immediate prospect of suspension from trading. For this set of firms, we designate the date of attaining ST status as time T and the date of either removing ST (improving listing status), attaining *ST (worsening listing status), or going into suspension of trading (worsening listing status) as time $T+1$.

The second set of firms are designated *ST. Some *ST firms were ST firms earlier, and others directly attain *ST status from normal status due to an unexpected, severe adverse event. Depending on their financial performance, *ST firms are either suspended from trading (if their financial performance does not

improve) or go back to ST or to normal status. For this set of firms, we designate the date of attaining *ST status as time T and either the date of going back to ST status or normal status (improving listing status) or suspension from trading (worsening listing status) as time $T + 1$.

The third set of firms includes those firms that are suspended from trading. Depending on their financial performance, these firms either resume trading or are delisted. For this set of firms, we designate the date of trading suspension as time T and the date of trading resumption (improving listing status) or the date of formally announced delisting as time $T + 1$ (worsening listing status).

We pool the three sets of firms, aligning them by time T and $T + 1$. To avoid confusion of terms, we hereafter refer to all three sets of firms as *distressed firms*. For any distressed firm, starting from time T, there are two possible outcomes at time $T + 1$: improving listing status or worsening listing status; the final outcome depends on whether the annual report *between time T and time T* + 1 shows profit. As we argued earlier, maintaining listing status in China is important for listed firms and for their controlling shareholders and local governments, so we conjecture that firms in this sample have strong incentives to manipulate earnings to attain the better outcome at time $T + 1$. These firms may need a cooperative external auditor at annual report audit. One way to attain such cooperation may be to pay the auditors for a non-compulsory interim audit *between time T and time T* + 1. By design, the interim audit (or not) comes before the annual report that determines listing outcomes.

To perform our analysis, we first assemble a sample of distressed firms that conducted an interim audit between time T and time $T + 1$. Because our purpose is to examine the voluntary interim audit, we exclude from this sample those distressed firms whose interim audit between time T and time $T + 1$ is mandatory. According to CSRC regulations, firms that undergo restructuring, that privately place equity offerings, or whose effective controlling shareholder changes must conduct a mandatory interim audit within the next 6-month period.

After we have assembled the voluntary audit sample (hereafter referred to as VIA firms), we match each VIA sample firm with a matching firm. The matching is done on the basis of four criteria. First, the matching firm is also a distressed firm. Second, the matching firms come from the same event year. Third, the matching firm is in the same industry as the VIA firm. Finally, assets of the matching firm need to be within ±15% of those of the VIA firm. From all available matching candidates, we then choose the one whose assets are the closest to our VIA firm (Barber and Lyon, 1996; Jiang et al., 2009).[10] By definition, the matching firms did not conduct voluntary interim audits.

With the matching sample, we are able to analyze whether paying for a voluntary interim audit results in distressed firms enjoying a higher likelihood of improving listing status, reporting higher earnings, reporting greater DACs, or reporting greater non-operating earnings compared to matching firms that do not pay for the voluntary audit.

Preliminary data analyses

From 2001 to 2008, we were able to collect 52 voluntary interim audit ST (25 observations), *ST (20 observations), or suspension from trading firms (7 observations) with the necessary financial data. Of these, we were unable to find interim audit fee data for four firms. Ideally, we would like to analyze these three groups of firms separately because they are subject to a different degree of pressure to turn profit; however, the sample size issue prevents us from conducting separate analyses. However, the common and strong objective to turn profit should mitigate this problem.

Unreported analyses show that our sample firms are quite representative of distressed firms. The number of years since IPO is quite spread out, the sizes of VIA firms are similar to those of matching firms, the ST and *ST observations are not clustered in any given sample years, and no industry dominates the sample firms.

Table I reports summary statistics of the audit fees. Columns three through six report the mean and median annual audit fees for VIA firms and matching firms. The mean (median) annual audit fee (as a percentage of total assets) is 0.1253% (0.0650%) for VIA firms and 0.1133% (0.0697%) for the matching firms. A t-test for the difference in means and a z-test for the difference in median show that the mean and median differences between VIA firms

TABLE I

Summary statistics of audit fees

	# of voluntary interim audit firms	Annual report audit fees/total assets						Mean same-firm ratio of interim report audit fees to annual report audit fees (%)
		Voluntary interim audit firms (%)		Matching firms (%)		*t*-Test of difference in Mean	*z*-Test of difference in Median	
		Mean	Median	Mean	Median			
2001	4	0.0505	0.0496	0.1446	0.0981	−1.18	−1.32	30.56
2002	5	0.0976	0.0791	0.1002	0.0744	−0.06	0.60	43.29
2003	4	0.0766	0.0526	0.0432	0.0387	0.99	0.00	45.39
2004	5	0.0507	0.0526	0.0654	0.0656	−0.71	−0.60	31.90
2005	6	0.1086	0.0729	0.0810	0.0824	0.92	−0.32	56.43
2006	8	0.0894	0.0663	0.0545	0.0383	1.24	0.25	30.91
2007	10	0.2933	0.0903	0.2859	0.0848	0.03	0.49	23.61
2008	6	0.0906	0.0687	0.0898	0.0721	0.02	0.00	23.79
Total sample	48	0.1253	0.0650	0.1133	0.0697	0.24	0.00	34.15

Note: The audit fees are paid to auditors to audit domestic financial reports, excluding fees paid to audit financial reports in foreign language for cross-listing firms.

and non-interim audit matching firms are not statistically significant. In fact, they are not statistically significant for any year. These results indicate that non-interim audit matching firms did not pay higher annual audit fees than firms that also paid for interim audits; thus, we can rule out the possibility that VIA firms may pay a lower annual audit fee and use interim audit fees to make up the difference.

An interesting observation presented in Table I is that all firms paid substantially higher audit fees in 2007 than in other years. China adopted international accounting standards for the first time in 2007, and many adjustments were required to transition from the old to the new standards. Understandably, auditors charged higher fees for that year's more complex audit.

In the last column of Table I, we report the same-firm ratio of interim audit fee to annual audit fee. The mean of this ratio ranges from 23.61% in 2007 to 56.43% in 2005, with an overall average of 34.15%. Thus, the interim audit fees are substantial. This finding corroborates our conjecture and supports the idea that these firms must have some objective that they strongly wish to achieve, driving them to voluntarily pay large amounts for interim audits.

Although the VIA fees are substantial, one might be concerned that they are one-time fees and thus less important to auditors. However, as we argue above, the highly competitive nature of China's audit market puts great pressure on auditors to cater to the clients' need. Turning away a VIA request could damage client relationship and endanger routine audit engagement.

In Table II, we report comparative statistics for VIA firms and matching firms, where year t refers to the annual report year between time T and time $T + 1$.[11] At the beginning of year t, VIA firms and matching firms show no statistical differences in size (TA), leverage (LEV, total debts divided by total equity), or profitability (ROA). Thus, in terms of accounting characteristics, the two samples are similar. However, only 42.31% of VIA firms are controlled by a government agency or a state-owned entity (S-TYPE, such as a government bureau, a state-owned enterprise or a public university), relative to 65.38% of the matching firms. This difference is consistent with the popular view that state-controlled firms receive stronger government and regulator backing, thus reducing their need to pay directly for cooperation from external auditors. Also, a smaller proportion of the common shares of VIA firms are held by their controlling shareholders (BLOCK), with a mean (median) BLOCK value of 31.5% (29.0%), significantly lower than the BLOCK

TABLE II

Comparative statistics of voluntary interim audit firms and matching firms

	Voluntary interim audit firms		Matching firms		*t* Test	*z* Test
	Mean	Median	Mean	Median		
Firm characteristics						
TA_{t-1} (millions)	757.5	476.9	875.2	531.1	−0.65	−0.39
LEV_{t-1}	1.08	0.84	0.93	0.81	1.00	0.39
ROA_{t-1}	−7.3%	−7.1%	−7.0%	−6.4%	−0.09	−0.39
$S\text{-}TYPE_{t-1}$	42.31%		65.38%			
$BLOCK_{t-1}$	31.5%	29.0%	38.3%	36.6%	−2.31**	−2.56***
MKT_{t-1}	6.32	6.20	6.93	6.60	−1.72*	−1.19
$BIG\text{-}10_{t-1}$	11.54%		3.85%			
Earnings in the annual report between time T and time $T+1$						
ROA_t	6.00%	4.40%	−3.60%	2.60%	1.84*	1.95*
DAC_t	0.70%	−1.50%	−11.20%	−6.70%	2.60**	1.17
$NOPEX_t$	4.70%	0.30%	−0.30%	0.00%	2.16**	0.78
$Adj\text{-}ROA_t$	4.40%	2.20%	−4.70%	−0.60%	1.74*	1.95*
$Adj\text{-}DAC_t$	0.00%	−1.70%	−11.10%	−6.60%	2.42**	0.78
$Adj\text{-}NOPEX_t$	4.70%	0.20%	−0.22%	0.03%	2.17**	0.78

Note: Variable definitions: TA is total assets, LEV is firm leverage (total debts divided by total equity), and ROA is return on assets. S-TYPE is the controlling shareholder type, and it takes value one when the controlling shareholder is a government agency or state-owned entity, and zero otherwise. BLOCK is the percentage of common shares held by the controlling shareholder. MKT is an index that measures the overall investor protection level in the province where the listed firm is registered (and usually headquartered). BIG-10 takes value one if the external auditor is one of the ten largest accounting firms in China, and zero otherwise. DAC is discretionary accruals, and NOPEX is non-operating earnings (divided by total assets). Prefix Adj – refers to industry median adjustment.
*, **, ***$p < 0.10$, $p < 0.05$ and $p < 0.01$, respectively.

value of 38.3% for matching firms (36.6%). The more shares a controlling shareholder (either state or private) owns in the listed firms, the more likely it is to exert effort or influence to help listed firms by all means possible, thus reducing the listed firms' need to directly pay for the auditors' cooperation.

The general level of investor protection in the area in which a listed firm is registered (usually also headquartered) has been shown to be significant in constraining firm behaviors. MKT is an index compiled by Fan and Wang (2006) to measure investor protection across provinces in China. The larger the MKT value, the better the investors are protected in that province. This measure has been widely used in studies that measure the extent of investor protection in China (e.g., Jiang et al., 2009). Table II shows that it is slightly more likely for a VIA firm to be situated in a low-investor-protection region than in a region with a high MKT value.

Finally, 11.54% of voluntary interim audit firms are audited by the ten largest accounting firms in China (BIG-10), compared to 3.85% of the matching firms. In auditor independence and audit quality literature, large accounting firms are usually regarded as more independent and higher quality than smaller audit firms. Thus, this result actually works against us in finding that voluntary interim audit is used to compromise auditor independence.

Empirical analyses

Preliminary analyses

Our main tests use three earnings measures to investigate whether VIA firms engage in earnings manipulation to improve listing status: ROA (return on assets), DAC and non-operating earnings divided

by total assets (NOPEX). In Table II, we report comparative statistics of these three measures between VIA firms and matching firms. In addition to the original amounts, we also report industry median-adjusted ROA, DAC, and NOPEX.[12] The univariate comparative analyses summarized in Table II strongly support the contention that VIA firms report higher earnings than matching firms. The mean (median) ROA for voluntary interim audit firms is 6.00% (4.40%), significantly higher than that for matching firms, −3.60% (2.60%). In addition, it appears that the higher ROA of VIA firms is achieved through earnings manipulation. The mean DAC for the VIA firms is 0.70% (income-increasing), while that for the matching firms is −11.20% (income-decreasing), and the difference is statistically significant. Similarly, the VIA firms report significantly higher mean NOPEX (4.70%) than the matching firms (−0.30%). Furthermore, VIA firms also report higher ROA than their normal industry peers by 4.40%, while matching firms report lower ROA than their normal industry peers by 4.70%.

Both earnings manipulation measures (DAC and NOPEX) contribute substantially to the higher ROA of the VIA firms. In fact, the summed differences in DACs and non-operating earnings are larger than the differences in ROA, indicating that, although the normal operating earnings of the VIA firms are lower than those of the matching firms, they nevertheless managed to report higher total earnings and thus increased their likelihood of achieving improved listing status.

Such univariate comparative analyses might, of course, be misleading because we do not control for other firm characteristics that may affect firm earnings and the likelihood of improving listing status. We next turn to multivariate analyses.

Voluntary interim audit and listing status

In Table III, we report logistic regression results to test Hypothesis 1. The dependent variable takes value one if a firm improves its listing status at time $T + 1$ and zero otherwise. A firm improves its listing status at time $T + 1$ when it goes from ST status to normal status, from ⋆ST status to ST status or normal status, or from suspension of trading status to resumption of trading status. The regression is a pooled regression of VIA firms and matching firms, and *t*-values are Newey–West-adjusted. In most regressions below, we also control for year effect. Unreported analyses show that the results are robust when controlling for industry effect.

TABLE III

Logistic regression analysis of reducing delisting risk at time $T + 1$

	Parameter value	*t*-Value	*p*-Value
Constant	−0.614	−0.10	0.919
VIA_t	1.212⋆⋆	2.27	0.023
$Log(TA_{t-1})$	−0.049	−0.17	0.869
LEV_{t-1}	0.051	0.14	0.885
ROA_{t-1}	0.376	0.23	0.822
$S\text{-}TYPE_{t-1}$	0.912⋆	1.73	0.083
$BLOCK_{t-1}$	0.056⋆⋆⋆	2.77	0.006
MKT_{t-1}	0.012	0.08	0.935
$BIG\text{-}10_t$	−0.648	−0.74	0.462
Year effect	Controlled		
McFadden R^2	16.94%		
# of observations	104		

Note: Variable definition: The dependent variable takes value one if a firm improves its listing status at time $T + 1$ and zero if not. A firm improves its listing status at time $T + 1$ when it goes from ST status to normal status, from ⋆ST status to ST status or normal status, or from suspension of trading to resumption of trading status. VIA takes value one if a firm conducted voluntary interim audit between time T and time $T + 1$ and zero otherwise. Other variables are defined in Table II. All *t*-values are Newey–West adjusted.

⋆, ⋆⋆, ⋆⋆⋆$p < 0.10$, $p < 0.05$ and $p < 0.01$, respectively.

Our main variable of interest is whether a firm paid for voluntary interim audit between time T and time $T + 1$ and whether this act influences whether or not the firm improves its listing status at time $T + 1$. Thus, VIA takes value one if a firm conducted a voluntary interim audit. and value zero otherwise. We also include firm characteristics variables to control for their influence on annual earnings and listing outcomes at time $T + 1$. Specifically, we control for beginning-of-period firm size (total assets, the natural log of TA), firm leverage (LEV), and last period profitability (ROA). We further control for the type of controlling shareholders (S-TYPE; this variable takes value one if the controlling shareholder is a government

agency or a state entity, and zero otherwise), the percentage shareholding of the controlling shareholder (BLOCK), the general investor protection level of the province where the listed firm is registered (MKT), and whether the year t annual report is audited by one of the ten largest accounting firms in China (Big-10; this variable is assigned a value of one if the auditor is one of the ten largest accounting firms in China and zero otherwise).

Table III reports the regression results. The coefficient on VIA is 1.212 with a t-value of 2.27, statistically significant at the 5% level. Thus, after controlling for other firm characteristics, VIA firms are more likely to successfully improve their listing status at time $T + 1$, supporting our Hypothesis 1.

Firm size, firm leverage, and past profitability do not significantly predict improving listing status. This result is actually quite reasonable. Both VIA firms and matching firms are distressed firms due to poor operating performance. Significant restructuring is normally required to turn the firm around; thus, past accounting information tends to be less relevant to future outcomes.[13]

Firms controlled by a government agency or a state-owned entity are more likely to improve listing status than other firms (S-TYPE coefficient 0.912, significant at the 10% level), and the larger the controlling shareholder's ownership in the firm, the more likely the firm is to improve its listing status (BLOCK coefficient 0.056, significant at the 1% level). Controlling shareholders matter a great deal in China, especially when they are state shareholders or when their stake in the firm is high.

The coefficient on MKT is insignificant, indicating that the general investor protection level of the province where the listed firm is registered (usually headquartered) has no impact on changing listing status. The coefficient on BIG-10 is also insignificant. Thus, theoretically, more independent, high-quality auditors do not show a different impact on the listing outcomes of VIA firms and matching firms, contrary to our reasonable assumption that, other things being equal, they should actually limit their clients' likelihood to improve listing status. This result is consistent with the study of Allen et al. (2005), in which the authors find that the overall quality of the audit profession in China is weak.

The results in Table III support our Hypothesis 1. Distressed firms that voluntarily paid a substantial amount of fees to conduct an interim audit are more likely to subsequently improve their listing status than similar distressed firms that do not conduct voluntary interim audits.

Our main concern is whether VIA firms achieve better listing outcomes because they manipulated earnings in the annual report subsequent to the interim audit. Thus, we next turn to earnings analyses.

Voluntary interim audit and earnings manipulation

As discussed above, in determining the change of a distressed firm's listing status, China's regulators mainly consider earnings performance in the annual report between time T and time $T + 1$. Table III shows that paying for a voluntary interim audit indeed helps distressed firms to obtain better listing outcomes at time $T + 1$. Here, we examine whether VIA firms also report higher earnings, higher DACs, and higher non-operating earnings that are necessary to improve listing status.

In Table IV, we use ordinary least-squares regression (OLS) to regress annual report ROA, DAC, and NOPEX between time T and time $T + 1$ on VIA and control variables. Again, all t-values are Newey–West-adjusted.

As predicted by Hypotheses 2, 3. and 4, the dummy variable VIA is strongly related to ROA, DAC, and NOPEX in a positive way. The coefficient on VIA is 0.098 in the ROA regression, 0.104 in the DAC regression, and 0.039 in the NOPEX regression; these are statistically significant at the 1%, 5%, and 5% levels, respectively. Distressed firms that conducted voluntary interim audits thus report higher earnings, higher DACs (income-increasing), and higher non-operating earnings (income-increasing), than similar distressed firms that did not conduct voluntary interim audits.

These results support our Hypotheses 2, 3, and 4. In particular, the results are consistent with the conjecture that VIA firms manipulated earnings to a greater extent after they paid their external auditors extra fees to conduct interim audits and that, for these firms, the external auditors allowed more income-increasing discretionary accrued earnings and earnings generated from non-operating activities to pass. Apparently, the extra fees paid by VIA firms were compensated for because these firms were

TABLE IV

Regression analysis of the quality of annual earnings between time T and time $T + 1$

	Parameter value		
	ROA	DAC	NOPEX
Constant	−0.140	−1.054**	−0.124
	(0.758)	(0.041)	(0.476)
VIA_t	0.098***	0.104**	0.039**
	(0.009)	(0.013)	(0.013)
$Log(TA_{t-1})$	−0.003	0.045*	0.004
	(0.912)	(0.096)	(0.627)
LEV_{t-1}	0.132**	0.092	0.057
	(0.035)	(0.144)	(0.105)
ROA_{t-1}	0.335***	0.186	0.119*
	(0.005)	(0.145)	(0.075)
$S\text{-}TYPE_{t-1}$	0.008	−0.041	−0.017
	(0.869)	(0.357)	(0.251)
$BLOCK_{t-1}$	0.002	0.001	0.001
	(0.323)	(0.531)	(0.819)
MKT_{t-1}	0.003	−0.008	−0.002
	(0.888)	(0.629)	(0.807)
$BIG\text{-}10_t$	−0.115	−0.023	−0.015
	(0.415)	(0.868)	(0.820)
Year effect	Controlled	Controlled	Controlled
Adjusted R^2	35.48%	10.72%	40.29%
# of observations	104	104	104

Note: Variable definition: The dependent variables are return on assets (ROA), discretionary accruals (DAC), and non-operating income (NOPEX). VIA takes value one if a firm conducted voluntary interim audit between time T and time $T + 1$ and zero otherwise. Other variables are defined in Table II. The p-values are in parentheses. All p-values are Newey–West adjusted.

*, **, *** $p < 0.10$, $p < 0.05$ and $p < 0.01$, respectively.

more likely to obtain better listing outcomes after the higher earnings were reported (Table III).

Among the control variables, only past ROA shows some consistency in statistical significance in the ROA and NOPEX regressions. Past research has shown that past ROA is the single most significant factor in predicting future ROA, a phenomenon that has been termed "earnings persistence." The coefficient of regressing current ROA on last period ROA is normally above 0.5. The ROA regression in Table IV reports a coefficient of 0.335. This result indicates that even the strongest possible predictor for future earnings only shows weak power in distressed firms. The other control variables show either no significance or inconsistent significance in the three regressions.

We further conducted two robustness tests, the results of which are reported in Table V. In the first of these tests, we used industry median-adjusted ROA, DAC, and NOPEX (Model 1) instead of using ROA, DAC, and NOPEX as dependent variables. Secondly, in Model 2, we transform the dependent variables into dummy variables – that is, the dependent variables take value one if ROA, DAC, or NOPEX is greater than zero, and zero otherwise.

The ROA regressions in Table V show that VIA firms, relative to matching firms, report higher industry-adjusted ROA and are marginally more likely to be positive (p-value 11.7%). DAC regressions show that VIA firms report higher industry-adjusted DACs than the matching firms, and that the DACs are

TABLE V

Regression analysis of the quality of annual earnings between time T and time $T + 1$ (alternative measurements)

	ROA		DAC		NOPEX	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	0.073	−4.025	−1.085★★	−5.768	−0.108	−7.412
	(0.874)	(0.514)	(0.036)	(0.344)	(0.531)	(0.208)
VIA_t	0.092★★	0.845	0.096★★	1.030★★	0.038★★	0.317
	(0.014)	(0.117)	(0.022)	(0.033)	(0.013)	(0.523)
$Log(TA_{t-1})$	−0.003	0.165	0.047★	0.171	0.004	0.419
	(0.886)	(0.595)	(0.088)	(0.573)	(0.651)	(0.159)
LEV_{t-1}	0.135★★	0.313	0.093	0.315	0.056	0.199
	(0.030)	(0.467)	(0.138)	(0.338)	(0.105)	(0.595)
ROA_{t-1}	0.320★★★	3.225★	0.185	1.445	0.118★	2.944
	(0.007)	(0.072)	(0.148)	(0.368)	(0.072)	(0.103)
$S\text{-}TYPE_{t-1}$	0.009	0.538	−0.038	−0.532	−0.017	−0.317
	(0.844)	(0.326)	(0.386)	(0.304)	(0.240)	(0.540)
$BLOCK_{t-1}$	0.001	0.023	0.001	0.007	0.001	0.017
	(0.345)	(0.210)	(0.542)	(0.649)	(0.812)	(0.321)
MKT_{t-1}	0.002	−0.112	−0.008	0.081	−0.002	−0.247★
	(0.919)	(0.464)	(0.647)	(0.569)	(0.794)	(0.094)
$BIG\text{-}10_t$	−0.116	−1.341	−0.025	−0.181	−0.015	−0.142
	(0.406)	(0.149)	(0.852)	(0.843)	(0.814)	(0.881)
Year effect	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Adjusted R^2	36.62%	18.94%	9.74%	12.90%	39.56%	19.86%
# of observations	104	104	104	104	104	104

Note: Variable definition: The dependent variables are return on assets (ROA), discretionary accruals (DAC), and non-operating income (NOPEX). In Model 1, the dependent variables are industry median-adjusted; thus, in Model 1 regressions, we do not control for industry effect again. In Model 2, the dependent variable takes value one if ROA, DAC, or NOPEX is greater than zero, and zero otherwise. VIA takes value one if a firm conducted voluntary interim audit between time T and time $T + 1$, and zero otherwise. Other variables are defined in Table II. p-values are in parentheses. All p-values are Newey–West-adjusted.

★, ★★, ★★★$p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

more likely to be positive (income-increasing). NOPEX regressions show that VIA firms report higher industry-adjusted non-operating earnings, although VIA is not significantly positively related to positive non-operating earnings.

Among control variables, only past ROA shows some consistency in predicting future earnings measures (significant in the ROA regressions and one NOPEX regression). Other control variables either lack statistical significance or are not consistent.

Collectively, the data in Tables IV and V provide strong support for our hypotheses. Distressed firms that conducted voluntary interim audits appear to engage in greater earnings manipulations (DAC and NOPEX), thus reporting higher earnings (ROA) and subsequently obtaining better listing outcomes (Table III). The substantial amount of extra audit fees paid to interim auditors appears to compromise the auditors' independence, and the auditors allow more manipulated earnings to be included in the annual report on which regulators rely to change listing status of the distressed firms.

Our results seem to be very robust and significant. Among the major variables that might influence listing outcomes, ROA, DAC, and NOPEX, only VIA shows consistent statistical significance. Other variables (past accounting measures, controlling shareholder characteristics, local investor protection,

and auditor quality) do not show consistent predictive power.

Concluding remarks

The issue of financial dependence of auditors on clients and auditor independence has drawn a great deal of attention from accounting researchers. However, the empirical results presented to date have not been conclusive. While regulators and the general public hold the view that auditor independence has been compromised, the majority of academic studies have produced mixed results.

In this article, we examine a sample of distressed firms in China that voluntarily pay auditors to conduct interim audits. We conjecture that, to avoid delisting from stock exchanges, these firms voluntarily pay substantial extra audit fees to seek auditor cooperation and thus compromise auditor independence. We improve on prior studies in two respects: first, we identify a clear case of strong incentive to manage earnings (Schipper, 1989); second, we choose a country in which high competition in the audit market might be expected to erode auditor independence (Shleifer, 2004).

The empirical results of this study support our conjecture. Specifically, relative to matching distressed firms, voluntary interim audit distressed firms are more likely to achieve better listing outcomes. Further tests indicate that voluntary interim audit firms achieve the better outcomes due to earnings manipulation. Compared to other firms, these firms report higher DACs and higher non-operating earnings, two measures that have been used in accounting literature to measure earnings manipulation. Owing to the greater amount of manipulated earnings, these firms report higher earnings, on which regulators base their listing decisions.

The better earnings reported by voluntary interim audit distressed firms do not appear to be due to improved operating performance. In fact, our results (Table II) indicate that voluntary interim audit distressed firms actually experience worse operating earnings than matching firms; it is only after managed earnings (DACs and non-operating earnings) are added that they report higher earnings than the matching distressed firms that do not conduct voluntary interim audits.

This study adds new evidence to the auditor independence literature. While the overall level of earnings manipulation and erosion of auditor independence in a market may not be significant, they can be severe in sub-samples of firms. However, we cannot understate the importance of the auditor independence issue in sub-samples because it was precisely a small number of financial scandals (e.g., Enron, Lehman Brothers, and Worldcom) that severely damaged investors' confidence in the integrity of modern business and in the capital market. Following the Enron scandal, the Sarbanes–Oxley Act was enacted by the U.S. Congress with the specific objective of improving auditor independence. However, the Sarbanes–Oxley Act is not a guarantee of auditor independence. As Kaplan et al. (2007) argue, the effectiveness of the Sarbanes–Oxley Act critically depends upon the attention of the Public Companies Accounting Oversight Board (PCAOB) to assessing the ethical climates of public accounting firms and to effectively promoting and maintaining audit quality in situations in which unconscious bias and economic incentives may erode the independence of public accounting firms. Indeed, experimental studies support the idea that the quality of auditor judgment is affected by an accounting firm's ethical environment (Martinov-Bennie and Pflugrath, 2009).

Future auditor independence research would thus likely benefit from ethics studies, particularly studies of the psychological process of ethics erosion. Moore et al. (2006) offer a moral seduction theory to understand this process. Moral seduction theory explains the process of unconscious bias in auditing. For example, selective perception suggests that people are not very good at disregarding their self-interest and evaluating information impartially, even when they try to do so. Plausible deniability suggests that when it comes to biased judgments, people (auditors) are more willing to endorse a biased proposal made by someone else (the firm) than to make such a biased proposal on their own. Escalation of commitment suggests that people have a tendency to escalate their commitment to a previous course of action. The step-by-step seduction theory helps us understand that many behaviors in the realm of conflicts of interest begin as minor, questionable decisions that sometimes escalate into violations of ethical standards and the law.

This study, of course, has its limitations. In particular, we exploit an unusual regulation in China (the ST policy) to identify a group of firms that *ex ante* has strong incentive to seek a cooperative external auditor to manage earnings. In most capital markets, however, such a clear *ex ante* incentive to compromise auditor independence is hard to find, and how to design mechanisms to prevent the erosion of auditor independence is not immediately clear.

Finally, the erosion of auditor independence is part of a larger business ethics problem that has received increasing attention. Not long after the Enron scandal, which first widely exposed the issue of auditor independence, we witnessed massive failure in the financial services industry in pricing the risks of subprime mortgages, leading us into the current financial crisis. Clearly, more research is warranted in the area of the ethical behavior of financial intermediaries such as auditors, investment banks, hedge funds, and rating agencies. We believe two areas of research will prove to be fruitful. First, accounting and finance researchers can learn from ethics studies to better identify the process of ethical failures in financial service industry (e.g., Moore et al., 2006), and second, research studies that help investors predict ethical failures will be more worthwhile.

Notes

[1] The following NAS are *prohibited*: bookkeeping, financial information systems design and implementation, appraisal services and the like, actuarial services, internal audit outsourcing services, management functions or human resources, broker or dealer (including investment advisors), legal services, and any other service that the Public Company Accounting Oversight Board determines by regulation to be impermissible. One possible exception is tax services, provided that the provision is pre-approved by the audit committee (Lai, 2003).

[2] See Walter and Howie (2003) for an excellent documentation of new China's stock market.

[3] Discretionary accruals are the primary measure used by accounting researchers to indicate earnings manipulation, with larger amount of DACs implying firms artificially increased earnings. We will explain more of this measure below.

[4] Non-operating earnings are those earnings that were not generated by a firm's normal operation. They tend to be generated by restructuring and swaps of equity, debts, or assets. Highly subjective judgment is required in valuing these transactions, thus making them more susceptible to earnings manipulation.

[5] The accounting literature assumes that without managerial intervention, the distribution of earnings surprises (actually reported earnings minus earnings forecasts, stock price scaled) should be a smooth one. Thus, a kink at the small positive intervals of this distribution indicates that some originally small negative earnings surprise firms have manipulated earnings upwards to report positive earnings surprises.

[6] Listed firms could attain ST status for other reasons, such as reporting negative equity, but these cases have been rare.

[7] The ST policy first appeared in China's Company Law of 1993, and was restated in the Securities Law of 2005. However, the implementation of ST policy started in 1998.

[8] Similar to listed firms in other East Asian countries, the majority of listed firms in China have a controlling shareholder, either the government or a private entrepreneur.

[9] We exclude all ST firms in the estimation because the modified Jones model requires the estimation of parameters to be based on normal firms without earnings manipulation incentive. That is, we use non-ST firms in the market to estimate the parameter values.

[10] In some cases, industry-asset match is not available, and thus we choose a same-year ST firm with closest assets as the matching firm.

[11] The year t annual report by design comes after the voluntary interim audit. Based on earnings in the year t annual report, regulators determine the listing outcome at date $T + 1$.

[12] When we compute industry medians, we do not include ST firms, *ST firms, or suspension from trading firms that we study; that is, we use median profitability measures of the industry's normal firms. Our results remain qualitatively similar when we include ST firms, *ST firms, or suspension from trading firms in computing industry medians.

[13] In theory, firm size, firm leverage, and past profitability are more directly related to the earnings measures we examine elsewhere than to changing listing status. Even then, they do not show consistent statistical significance.

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