



THE EFFECT OF IFRS, INFORMATION ASYMMETRY AND CORPORATE GOVERNANCE ON THE QUALITY OF ACCOUNTING INFORMATION

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ABSTRACT

This paper investigates the relationship between the information asymmetry, the ownership structure, the pledge of directors-supervisor, respectively, and the quality of accounting information under different accounting standards. By considering A and B stock market of China, which apply China GAAP and IFRS, we discuss whether IFRS can reduce negative effects of the information asymmetry, the ownership structure, the pledge of directors, and furthermore promote the quality of accounting information effectively. The findings provide other countries will use IFRS as a reference. First, we find that IFRS improves the predictive value and timeliness, and it can't influence representational faithfulness significantly. Second, the information asymmetry degrades the quality of accounting information. Nevertheless, IFRS can improve the information asymmetry but promote the quality of accounting information is nonsignificantly. Third, state ownership, manager ownership, blockholder and directors-supervisor ownership would affect the quality of accounting information. IFRS would restrain negative effect of state ownership, manager ownership, blockholder and directors-supervisor ownership and could enhance predictive value and timeliness. Finally, the pledge of directors-supervisor would reduce the quality of accounting information. However, IFRS can confine negative effects of the pledge of directors-supervisor but can't promote the quality of accounting information significantly. As a result, adopting IFRS could enhance the quality of accounting information significantly. Nevertheless, IFRS need to reduce information asymmetry and use corporate governance mechanism to promote the quality of accounting information. The findings of this paper can provide IFRS's institution and regulator promoting and using IFRS system as a reference.

Keywords: IFRS, Information asymmetry, Corporate governance, Accounting information quality.

1. INTRODUCTION

More and more countries will adopt International Financial Reporting Standards (IFRS) in the near future. However, there is no consistent empirical finding regarding whether the adoption of IFRS produces information quality superior to other accounting standards. Some scholars argue that there is no difference in the information quality provided by different accounting standards (Leuz and Verrecchia, 2000; Leuz, 2003; Leuz *et al.*, 2003). They do not think the selection of accounting standards matter much so there is no need for a uniform set of accounting standards. However, other scholars believe that the adoption of IFRS leads to better information quality (Ashbaugh and Olsson, 2002; Chen *et al.*, 2006). Therefore, this paper intends to explore whether the adoption of IFRS has positive effects as well as to ensure whether the adoption of IFRS produces superior accounting quality to comparing other accounting standards.

The capital market in China had a late start, with the establishment of Shanghai Stock Exchange in late 1990 and Shenzhen Stock Exchange in early 1991. During the past 20 years, the capital market in China has been attracting global capital via reformations of state-own companies. In the early days, the Chinese government divided the investment targets into A shares and B shares, in order to attract foreign capital and control its currency. A-share listed companies prepare financial accounts pursuant to Chinese Accounting Standards (CAS); whereas B-share listed companies prepare accounts according to IFRS. Companies listed as A shares and B shares at the same time must provide the financial statements of two accounting standards. Leuz *et al.* (2003) compare the earnings management and earning quality in countries of the continental law system and find that investors' protection and law reinforcement are the key determinants to reporting quality. The unique capital market in China presents an opportunity to investigate the variances of accounting information quality under the China GAAP and IFRS.

In addition to a comparison of the variances in accounting information quality under the China GAAP and IFRS, this paper also examines the influence of information asymmetry and corporate governance on accounting information quality. Assuming an efficient market and rational behaviour, the conventional theorists of financial accounting argues that full disclosure of financial information can reduce information asymmetry, i.e. the advantages of insides and disadvantages of outsiders. IFRS is principle-based and encourages the use of footnotes to enhance the transparency of financial statements. Footnotes can be divided into the basis of financial numbers, additional information and management information from the perspective of the management. It is expected that the adoption of IFRS can mitigate negative effects of information asymmetry and improve the quality of accounting information. Meanwhile, this paper explores whether the adoption of IFRS and the full disclosure of information will improve or deteriorate the equity restructure and the pledge on shares by directors and supervisors.

This paper samples the companies with both A shares and B shares listed on Shanghai Stock Exchange or Shenzhen Stock Exchange and examines their accounting information quality under the China GAAP system and the IFRS system. The purpose is to compare whether the IFRS system yields accounting information quality superior to the China GAAP system. In addition to the

measurement of relevance, this paper also investigates the reliance of accounting information quality. To sum up, this paper sets out to explore: (1) how the IFRS adoption affects accounting information quality; (2) how information asymmetry affects accounting information quality under the IFRS system; (3) how the shareholder structure affects accounting information quality under the IFRS system; (4) how the pledge of shares by directors and directors affects accounting information quality under the IFRS system.

This empirical study finds that: (1) The IFRS adoption enhances predictability and timeliness, but it does not have significant effects on faithful presentations; (2) Information asymmetry reduces accounting information quality. The IFRS adoption mitigates such negative effects of information asymmetry but it has limited effects on the improvement of accounting information quality; (3) The ownership by the State, senior managers, blockholders, directors and supervisors does lower the quality of accounting information. The IFRS adoption can undermine such negative effects, but it only enhances predictability and timeliness; finally, (4) the pledge of shares by directors and supervisors has adverse effects on accounting information quality. The IFRS adoption can reduce such negative effects but it does not have significant effects on the improvement of accounting information quality.

The remainder of this paper is organized as follows. Section 2 provides a review of the literature. Section 3 explains the research design including the data sources, sample selection, variable definition and empirical model. The empirical results and analysis are presented in Section 4. The additional analyses are demonstrated in Section 5. Finally, the conclusions and suggestions are presented in Section 6.

2. LITERATURE REVIEW

2.1. IFRS, China GAAP and Chinese Capital Market

In 1904, the first meeting of International Federation of Accountants (IFAC) was held in St. Louis and this convention marks the beginning of the IFRS establishment. In 1972, the 10th IFAC meeting was convened in Sydney, with the proposal to establish the International Accounting Standards Board (IASB). In June 1973, the IASB was founded in London, and this event was a watershed for the IFRS development. Since inception, the IASB has been dedicated to the synchronization of accounting principles by setting up accounting standards and enhancing the comparability of international standards. In 1993, the IASB proposed 40 core principles. In May 2000, International Organisation of Securities Commissions rectified and recommended 30 principles of international accounting standards, marking a milestone for the synchronization of global financial reporting (Pan, 2004). IFRS is considered a "principles based" set of standards; therefore, it takes a while to evaluate the appropriate accounting principles. The process requires extensive and professional judgement. Meanwhile, as accounting treatments are determined on the basis of the nature of transactions, they can more faithfully present the transactions. Also, IFRS pays attention to notebooks as additional disclosure to enhance the transparency and comparability of financial statements. One of the major reforms IFRS aims for is to introduce the concept of fair

values (in contrast with historical values), so that financial statements can better present the economic truth and true value of companies.

Before 1979, China implemented a centrally planned economy, with its accounting system following the Soviet Union. It was in essence a highly regulated and rigid system. The role of accountants was to assist government planning and control the production quotas of state-owned enterprises. Accountants had to determine how much information should be provided in order to reflect the conflict between investors and managers. Information disclosed depended on social costs and social benefits. In 1985, the Western accounting practices were introduced, with the establishment of Joint Venture (JV) Accounting Standards. In 1992, the Chinese government published Pilot Company Accounting System and Company Reporting Principles to set up a conceptual framework. In 1993, Deloitte ToucheTohmastus International was commissioned to draft No. 30 Accounting Principle, as the first step to link the China GAAP to IFRS. In 1998, the practice of lower of cost or market price was introduced, and it requires the provision of allowance for bad debts, inventory losses, short-term and long-term investment losses. Meanwhile, the accounting reforms in 1998 were accompanied with the release of seven accounting principles, e.g. the principle for the preparation of cash flow statements, disclosure of major events after the compilation of the balance sheet, debt restructuring and liquidation principles, income principles, investment principles, contractual principles, accounting policies and changes of accounting estimates.

In 2001, the lower of cost or market price practice was extended to non-cash assets, e.g. fixed assets, intangible assets, impairment tests of construction-in-progress and entrusted loans, in order to properly link with IFRS and mitigate the concerns of the international community over the opaqueness of market information and overestimates of earnings in the Chinese market. In 2005, China Accounting Standards Committee initiated another round of reforms, by modifying the existing 17 accounting principles and adding 21 new ones. In 2006, the Chinese government started to bring its accounting principles closer to IFRS and published new accounting and auditing principles. In 2007, the new system took effect with listed companies. The new China GAAP is known for (1) its synchronization with IFRS and the consideration of local characteristics; (2) quantitative requirements for fair values (including the impact of time value on payment extensions). Although it is in sync with IFRS, the new China GAAP has its own particularities. The Chinese practice is maintained in the reversal of asset impairments, the disclosure of affiliated party transactions and the accounting treatments of certain government subsidies (Deloitte, 2007).

To avoid the impacts of foreign capital introduction on the fledgling stock markets in Shanghai and Shenzhen, the Chinese government stipulates that A-share listed companies should prepare financial statements pursuant to China GAAP whilst B-share listed companies should prepare two sets of financial statements pursuant to China GAAP and IFRS. Originally, A shares were traded by Chinese nationals; whereas B shares were traded by foreign investors. However, the restrictions were relaxed by allowing Chinese nationals to trade B shares in 2001 and qualified foreign

institutional investors (QFIIs) to trade A shares in 2003. This paper samples the A-share and B-share listed companies on Shanghai Stock Exchange and Shenzhen Stock Exchange.

2.2. Financial Accounting Standards and Accounting Information Quality

Leuz and Verrechia (2000) suggest that most companies in Germany adopt IFRS because it improves the quality and transparency of financial reporting. Dumontier and Raffourier (1998) indicate that the early adoption of IFRS by Switzerland, as a result of political costs and external market pressures, meets with international requirements and reduces capital incentives. El-Gazzar *et al.* (1999) sample Swiss companies and find that the companies under the IFRS system enjoy more international trades and lower leverage (measured by debt/equity ratio). Street and Gray (2002) and Ball *et al.* (2003) argue that taxations limits the adoption and the validity of IFRS. Barth *et al.* (2006) examine companies in different regions and compares the adoption of IFRS and US GAAP. Their result shows that the US GAAP produces better accounting quality. However, other scholars argue that the management is given leeway to make judgments under the principle-based IFRS. Therefore, they know how to truthfully reflect operating performances with appropriate accounting treatments and provide better accounting quality.

The Chinese regulatory framework is not robust enough; therefore, the Chinese government intends to synchronize with IFRS. However, there are inconsistencies between China GAAP and IFRS in terms of accounting policies and treatments of certain economic activities. To attract foreign capital, the Chinese government stipulates the adoption of both accounting systems. Bao and Chow (1999) examine whether B-share listed companies on the IFRS system disclose more accounting information than the companies on the China GAAP system. The results show that the prices estimated with the IFRS model are more relevant to the actual prices of B shares. Therefore, IFRS has extra explanatory power compared to China GAAP. Eccher and Healy (2000) look into the two accounting systems adopted in China and explore which system can provide more useful information of economic activities. Their research delves into the following issues: (1) Assuming information is useful for investors to forecast future cash flows, which accounting standard is more relevant to the predictions of future cash flows; (2) Assuming share prices are linked with company performances during the information period, how the two accounting systems are relevant to returns to share prices. Their study suggests that China GAAP and IFRS have the same explanatory power over future cash flows. However, China GAAP is more relevant than IFRS in terms of returns to share prices.

Heibatollah and Haiyan (2004) compare A-share listed companies under the China GAAP system and B-share listed companies under the IFRS system and investigate the variances in the relevance of accounting information between these two groups. The results suggest that the relevance of accounting information of B-share listed companies is better than that of A-share listed companies. Chen *et al.* (2006) examine the information quality of different accounting standards by sampling companies with both A-shares and B-shares listed in Shenzhen or Shanghai in 2001~2003. The study finds that there is a stronger relevance of earnings to share price returns

among B-share listed companies under the IFRS system. Meanwhile, the B-share market responds to unexpected earnings information calculated by IFRS and therefore, IFRS yields better information quality. Wu (2006) examines the companies with both A-shares and B-shares listed in Shenzhen or Shanghai and explores the relevance of accounting information in the China GAAP-IFRS dual system in 1994~2005. The results suggest that earnings information disclosed under the IFRS system is more relevant compared to that under the China GAAP system. Bartov *et al.* (2002) also indicate that earnings reported under the IFRS are more relevant.

According to No. 1 of Statement of Financial Accounting Standards, relevance consists of predictability, feedback and timeliness. Therefore, this paper anticipates IFRS produces accounting quality of better relevance. Meanwhile, this paper also expects IFRS to make more faithful presentations because it is principle-based and accounting treatments are based on the nature of transaction. Therefore, this paper establishes H1:

H1 : The IFRS adoption yields better accounting information quality.

H1-1 : The IFRS adoption yields better predictability value.

H1-2 : The IFRS adoption yields better feedback value.

H1-3 : The IFRS adoption yields better timeliness.

H1-4 : The IFRS adoption yields better faithful presentation.

2.3. IFRS, Information Asymmetry and Accounting Information Quality

Information asymmetry persists in capital markets. To protect the information disadvantaged, there are many accounting standards and requirements in place. For example, the laws stipulate professional control over the quality of accounting information. The Financial Supervisory Commission in Taiwan demands public companies to disclose certain information. There are also accounting principles released by IASB and FASB. Leuz (2003) suggests that the main purpose of the securities market and accounting regulators is to mitigate information asymmetry.

La Porta *et al.* (2000) indicate that legal structures are an important factor that influences financial markets, capital market structures, dividend policies and private ownership of companies. Ball *et al.* (2000) emphasize that financial reporting quality is subject to the influence of juridical systems. They analyze seven countries of varying monitoring mechanisms and the results suggest that there are solutions to differing degrees of information asymmetry. A comparison between the countries of unwritten laws and customary laws finds that the recognition of losses is on the real-time basis in the countries of customary laws. Leuz *et al.* (2003) compare the earnings management and earnings quality in 31 countries. Their study finds that the key determinant to reporting quality is the laws to protect investors and the ability to reinforce the laws. Ball *et al.* (2003) also second this view.

Chen *et al.* (2006) examine the companies with both A shares and B shares listed, i.e. the companies reporting under the China GAAP system and the IFRS system at the same time. Their study indicates that IFRS yields better information quality. Sami and Zhou (2004) also support that B-share accounting information is more relevant than A-share accounting information. Leuz and

Verrechia (2000) believe that IFRS results in better transparency of financial reporting and reduce information asymmetry, uncertainties and estimation risks. It can further lower capital cost and enhance market liquidity.

Trueman and Titman (1988) and Dye (1988) indicate that the presumption of earnings management is information asymmetry. Richardson (2000) analyzes the variances between analysts' forecasts and the spread of share transactions as an indicator to information asymmetry. The empirical results show that there is a positive correlation between information asymmetry and earnings management. The worst the information asymmetry, the more likely earnings management is. Literature suggests that the level of transparency affects the probability of financial report users spotting the earnings manipulations by the management (Hirst and Hopkins, 1998; Maines and McDaniel, 2000). Lobo and Zhou (2001) and Hunton *et al.* (2006) think that the transparency of financial reporting and quality of information disclosure can lessen the willingness and intention to earnings management. To sum up, the better the transparency of financial reporting and the quality of information disclosure (i.e. low degrees of information asymmetry), the lower the probability of earnings management and the better the quality of accounting information.

China intends to learn from the extensive experience of the IFRS system in its adjustment of the China GAAP system. Many of its accounting principles are synchronized with IFRS. However, there are still many variances (Pan, 2004; Deloitte, 2006). As IFRS is established on the basis of accounting principles in developed countries, it is now the adopted or soon-to-be-adopted standards in most countries around the world. To China, who is still developing its accounting standards, the IFRS adoption can enhance the transparency of financial reporting, lower the level of information asymmetry and improve the quality of accounting information. Therefore, this paper establishes H2:

H2 : The IFRS adoption can undermine the negative effects of information asymmetry on accounting information quality.

H2-1 : The IFRS adoption can undermine the negative effects of information asymmetry on predictability value.

H2-2 : The IFRS adoption can undermine the negative effects of information asymmetry on feedback value.

H2-3 : The IFRS adoption can undermine the negative effects of information asymmetry on timeliness.

H2-4 : The IFRS adoption can undermine the negative effects of information asymmetry on faithful presentation.

2.4. IFRS, Corporate Governance and Accounting Information Quality

China was originally a planned economy. There has been a reformation to privatize state-owned enterprises since the 1980s. However, the Chinese government still has 1/3 stake of listed companies. Ye and Ma (1999) argue that state shareholders play a passive role in corporate governance due to the double-whammy agency problems associated with the state ownership and

the company management, as well as with the public-service function and the state ownership. A high concentration of ownership (by the Chinese government) is prone to agency problems (DeFond *et al.*, 2000; Huang, 2007), and conflicts of interest between controlling shareholders and retail investors. Controlling shareholders decide on the reporting of accounting information in the context of their own benefits. As a result, accounting information does not truthfully reflect the truth of economic transactions (Fan and Wong, 2002). Wang *et al.* (2007) explore the relationship between state ownership (i.e. the government's intervention) and accounting information quality. They find that companies of high state-ownership tend to exercise political pressures to influence auditing quality and this reduces accounting information quality. Liu and Tu (2003) suggest that when the Chinese government is the largest shareholder of a listed company, the likelihood of frauds in financial reporting is high. This paper anticipates that the IFRS adoption will enhance the transparency and information disclosure and hence, mitigate the negative effects of state ownership and improve accounting information quality. Therefore, this paper establishes H3:

H3 : The IFRS adoption can undermine the negative effects of State-ownership on accounting information quality.

H3-1 : The IFRS adoption can undermine the negative effects of State-ownership on predictability value.

H3-2 : The IFRS adoption can undermine the negative effects of State-ownership on feedback value.

H3-3 : The IFRS adoption can undermine the negative effects of State-ownership on timeliness.

H3-4 : The IFRS adoption can undermine the negative effects of State-ownership on faithful presentation.

According to Jensen and Ruback (1983), a low percentage of holdings by the management prevent the deviation of the management from the goal of maximizing the company's interests, as the management wants to secure their jobs. However, as their job security is protected with a high percentage of shareholdings, the management may walk away from the best interest of the shareholders. Yermack (1997) suggests that a high percentage of holdings by the management mean their personal wealth is subject to the share prices. In such instances, they are likely to manage earnings by manipulating financial reporting in order to enhance share prices for their personal gains. Namely, the management's ownership is positively correlated earnings management, and negatively correlated with accounting quality. Aboody and Kasznik (2000) believe that before the share subscription scheme for employees, the management will manipulate earnings downward to reduce their subscription costs. Therefore, there is a positive correlation between the management's holdings and earnings management. Yeo *et al.* (2002) argue that when the management's stake is below 25%, the management is less likely to manipulate earnings with discretionary accruals. However, if the management's stake is above 25%, the management increases their manipulation of discretionary accruals. Hence, this paper anticipates that the IFRS adoption can enhance the quality of accounting information and enhance the transparency of

financial reporting. It can mitigate the behavior of earnings management or manipulation by the management. Therefore, this paper establishes H4:

H4 : The IFRS adoption can undermine the negative effects of ownership by senior managers on accounting information quality.

H4-1 : The IFRS adoption can undermine the negative effects of ownership by senior managers on predictability value.

H4-2 : The IFRS adoption can undermine the negative effects of ownership by senior managers on feedback value.

H4-3 : The IFRS adoption can undermine the negative effects of ownership by senior managers on timeliness.

H4-4 : The IFRS adoption can undermine the negative effects of ownership by senior managers on faithful presentation.

According to Convergence-of-interest Hypothesis, the companies whose directors and supervisors have a high stake may attempt to window-dress earnings in order to lower capital costs or to meet other purposes. As a result, their accounting quality will be affected (Oswald and Jahera, 1991). Meanwhile, Entrenchment Hypothesis suggests that in the companies whose directors and supervisors have a high stake but do not have to deal with counter-balance mechanisms, the directors and supervisors are likely to embezzle company assets. They may attempt to cover up their stealing with earnings management. As a result, the quality of accounting information will deteriorate (Pound, 1988). Kuo (1996) argues that the higher the ownership by directors and supervisors, the worse the earnings management and the earnings quality. Beasley (1996) samples the companies reporting frauds in financial statements and finds that there is a positive correlation between the likelihood of unscrupulous financial reporting and the ownership by directors and supervisors. In other words, the higher the ownership by directors, the more likely the frauds in financial reporting and the lower the quality of accounting information. This paper anticipates that the IFRS adoption will enhance the transparency and disclosure of a company and diminish the negative effects of the ownership by major shareholders, directors and supervisors. As a result, accounting information quality will improve. Therefore, this paper establishes H5:

H5 : The IFRS adoption can undermine the negative effects of ownership by blockholders (major shareholders), directors and supervisors on accounting information quality.

H5-1 : The IFRS adoption can undermine the negative effects of ownership by blockholders (major shareholders), directors and supervisors on predictability value.

H5-2 : The IFRS adoption can undermine the negative effects of ownership by blockholders (major shareholders), directors and supervisors on feedback value.

H5-3 : The IFRS adoption can undermine the negative effects of ownership by blockholders (major shareholders), directors and supervisors on timeliness.

H5-4 : The IFRS adoption can undermine the negative effects of ownership by blockholders (major shareholders), directors and supervisors on faithful presentation.

Pledge on shares can access capital but maintain control; hence, it is a common practice for directors and supervisors to borrow money by using company shares as collateral. This leverage by credit expansion enhances the correlation between the personal wealth of major shareholders, directors and supervisors and the company's share prices (Shen and Huang, 2001). Once share prices drop, controlling shareholders will face the pressure of providing additional collaterals. Therefore, they have incentives to manage earnings. Kao (2002) investigates accounting information in the context of agency problems associated with pledge on shares owned by directors and supervisors and suggests that this practice worsens the agency problems between controlling shareholders and external shareholders. It deepens the influence of directors and supervisors on the management and undermines the predictability of earnings of the current period to future performances. Chang *et al.* (2007) sample listed companies in Taiwan and find that earnings management becomes more pronounced along with an increase of pledge on shares owned by directors and supervisors. However, this paper anticipates that IFRS can enhance accounting information quality because it enhances the transparency of financial reporting and mitigates the negative effects of pledge on shares owned by supervisors and directors. Hence, this paper establishes H6:

H6 : The IFRS adoption can undermine the negative effects of pledge of shares owned by directors and supervisors on accounting information quality.

H6-1 : The IFRS adoption can undermine the negative effects of pledge of shares owned by directors and supervisors on predictability value.

H6-2 : The IFRS adoption can undermine the negative effects of pledge of shares owned by directors and supervisors on feedback value.

H6-3 : The IFRS adoption can undermine the negative effects of pledge of shares owned by directors and supervisors on timeliness.

H6-4 : The IFRS adoption can undermine the negative effects of pledge of shares owned by directors and supervisors on faithful presentation.

3. RESEARCH DESIGN

3.1. Data Sources and Sample Selection

This paper examine the 42 companies issuing both A shares and B shares on Shenzhen Stock Exchange and 44 companies issuing both shares on Shanghai Stock Exchange. As each of these company provides observations of A shares and B shares, this paper samples a total of 172 company data in 1999~2009. The purpose is to examine the relationship between accounting information quality and information asymmetry, as well as with ownership structure, pledge on shares by directors and supervisors under different accounting systems. A total of 1,892 observation values are sampled. However, the research period is 2002~2009 due to the restriction of data acquisitions for the purpose of faithful presentation. In this regard, a total of 1,376 observation values are established. The empirical data is sourced from China Finance and economic database of TEJ, a database offered by Taiwan Economic Journal.

3.2. Empirical Model

This paper aims to explore the effects of information asymmetry, ownership structure and pledge on shares by directors and supervisors on the quality of accounting information under different financial reporting standards. According to literature, the factors that influence of accounting information quality include company sizes (Atiase, 1985; Chaney and Jeter, 1992), debt ratios (Dhaliwal *et al.*, 1982), book/market multiple value (Feltham and Ohlson, 1995), company losses (Hsu, 1994), sales growth (Myers, 1977), payout ratio (Kasanen *et al.*, 1996), auditing by Big 4 (Becker *et al.*, 1998; Francis and Krishan, 1999; Francis *et al.*, 1999), ownership by institutional investors (Rajgopal *et al.*, 1999) and return on equity (Freeman *et al.*, 1982). This paper attempts to ensure the robustness of model set-up and selects control variables that influence the quality of accounting information with stepwise regression. On the basis of the empirical results of stepwise regression, this paper incorporates a total of eight variables as control variables. They are company sizes, debt ratios, book/market multiples, company losses, payout ratios, auditing by Big 4, ownership by institutional investors and return on equity.

3.2.1. Financial Accounting Standards and Accounting Information Quality

First Hypothesis demonstrated the accounting information quality between China GAAP and IFRS in distinct financial accounting standards. The empirical model is as follows:

$$AIQ_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROE_{i,t} + \beta_5 BM_{i,t} + \beta_6 LOSS_{i,t} + \beta_7 DIVP_{i,t} + \beta_8 BANBA_{i,t} + \beta_9 INST_{i,t} + \varepsilon_{i,t}$$

(1)

3.2.2. IFRS, Information Asymmetry and Accounting Information Quality

The second hypothesis demonstrated if using IFRS could reduce negative effect of information asymmetry to furthermore enhance the accounting information quality. The empirical model is as follows:

$$AIQ_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 IA_{i,t} + \beta_3 IFRS_{i,t} \times IA_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 LEV_{i,t} + \beta_6 ROE_{i,t} + \beta_7 BM_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 DIVP_{i,t} + \beta_{10} BANBA_{i,t} + \beta_{11} INST_{i,t} + \varepsilon_{i,t}$$

(2)

3.2.3. IFRS, Corporate Governance and Accounting Information Quality

This paper examines ownership structures and pledge on shares by directors and supervisors as two corporate governance factors. Ownership structure issue is divided into three components, i.e. state ownership, ownership by senior managers and ownership by major shareholders, directors and supervisors. This is to validate H3, H4 and H5 by examining whether the IFRS adoption can

diminish the negative effects of state ownership, ownership by senior managers and ownership by major shareholders, directors and supervisors, so as to improve the quality of accounting information. H6 assumes the IFRS adoption can mitigate the negative effects of pledge on shares by directors and supervisors and hence enhance the quality of accounting information. The empirical model is as follows:

A. Ownership structure

$$\begin{aligned}
 AIQ_{i,t} = & \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 GOV_{i,t} + \beta_3 MANAGER_{i,t} + \beta_4 B \& D_{i,t} + \beta_5 IFRS_{i,t} \times GOV_{i,t} \\
 & + \beta_6 IFRS_{i,t} \times MANAGER_{i,t} + \beta_7 IFRS_{i,t} \times B \& D_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 LEV_{i,t} \\
 & + \beta_{10} ROE_{i,t} + \beta_{11} BM_{i,t} + \beta_{12} LOSS_{i,t} + \beta_{13} DIVP_{i,t} + \beta_{14} BANBA_{i,t} + \beta_{15} INST_{i,t} + \varepsilon_{i,t}
 \end{aligned}$$

(3)

B. The pledge of directors and supervisors

$$\begin{aligned}
 AIQ_{i,t} = & \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 PLEDGE_{i,t} + \beta_3 IFRS_{i,t} \times PLEDGE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 LEV_{i,t} \\
 & + \beta_6 ROE_{i,t} + \beta_7 BM_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 DIVP_{i,t} + \beta_{10} BANBA_{i,t} + \beta_{11} INST_{i,t} + \varepsilon_{i,t}
 \end{aligned}$$

(4)

The all variables of above models identify as next section:

3.3. Variable Measurements

3.3.1. Dependent variables: Accounting Information Quality (AIQ)

This paper evaluates the quality of accounting information (AIQ) in the context of FASB structure by examining predictability, feedback, timeliness and faithful presentation (as dependent variables) and summarizes in table 1. The measurement of dependent variables is based on the valuation of financial information quality developed by Liao (2004).

Table-1. The definition of accounting information quality

| Variables | Definition | Measurements |
|--------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Predictabilityvalue (PV) | Operating net income / Net income | One-off net incomes = gains (losses) from disposal of investments + gains (losses) from disposal of fixed assets + gains (losses) from foreign currency conversions + other gains (losses) + gains (losses) of discontinued operations + extraordinary gains (losses) + accumulated effects of accounting principle changes . Net incomes = Recurring net incomes + one-off net incomes . |
| Feedback value (FV) | $\Delta P\% / \Delta EPS\%$ | $\Delta P\% =$ Percentage of changes to share prices from April 1 of the year t to March 31 of the year t+1. $\Delta EPS\% =$ Percentage of changes to basic EPS of years t and t-1 (excluding extraordinary items). |
| Timeliness (TM) | $\beta_1 + R^2$ (Totalize the | $EARN_t = \alpha_0 + \alpha_1 NEG_t + \beta_1 RET_t + \beta_2 NEG_t * RET_t + \varepsilon_t$ EARN _t : Net incomes before extraordinary items and discontinued |

percentile of operations of the year t, deflated by the equity market value at the beginning of the year.
 β_1 and R^2)

NEG_t: dummy variable, 1 if RET < 0, 0 if otherwise.

RET_t: annualized returns on the company's shares during year t (average of the 12 months returns).

ϵ_t : residual item. R^2 : coefficient of determination.

$$CFO_t = \alpha_0 + \alpha_1 EARN_{t-1} + DA_t + \epsilon_t$$

CFO_t: operating cash flows per share of the year t.

EARN_{t-1}: Earnings/No. of shares outstanding for the year t-1.

DA_t: Discretionary accruals are measured by Modified Jones Model (Dechow *et al.*, 1995).

R^2 : coefficient of determination.

Faithful presentation
(RF) R^2

3.3.2. Independent variables: IFRS, Information Asymmetry and Corporate Governance

The independent variables of empirical model are as follows. IFRS: The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. IA: Information asymmetry is measured with (the lowest ask quote – the highest bid quote)/(the lowest ask quote + the highest ask quote)/2 as of April 30, i.e. the deadline for the publication of annual reports. The highest bid quote is based on the closing prices during the five days before April 30; whereas the lowest ask quote is based on the closing prices during the five days after April 30. GOV: State ownership is measured with (No. of shares held by the government + No. of shares held by state-owned institutional investors)/ (No. of shares outstanding). MANAGER: Ownership by senior managers is measured with (No. of shares held by senior managers)/ (No. of shares outstanding). B&D: Ownership by major shareholders, directors and supervisors is measured with (No. of shares held by major shareholders, directors and supervisors)/ (No. of shares outstanding). PLEDGE: The percentage of pledged shares is measured by (No. of pledged shares by major shareholders, directors and supervisors)/ (No. of shares outstanding).

3.3.3. Control Variables

The control variables of empirical model are as follows. SIZE: Company size is measured with the natural logarithm of total assets at the end of the period. LEV: Debt ratio is measured with total liabilities at the end of the period divided by total assets at the end of the period. ROE: Return on equity is measured with net income divided with shareholders' equity. BM: Book/market multiple is measured with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS :If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: Payout ratio is measured with the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise it is defined as 0. INST: Ownership by institutional investors is calculated as the percentage of holdings by domestic

founding institutional investors plus the holdings by institutional investors in the second market plus the holdings by foreign founding institutional investors.

4. EMPIRICAL RESULT

4.1. Descriptive Statistics and Analysis

Table 2 summarizes the descriptive statistics of different variables. The mean of Information Asymmetry (IA) of sampled companies is 0.016, and the median is 0.006. This suggests that the minimum ask prices are higher than the maximum bid prices, i.e. a slight discrepancy between buyers and sellers in terms of equity valuations. In terms of corporate governance, the mean of the percentage of government-owned shares (GOC) is 30.6% and the median is 31.5%. Despite efforts since the 1980s to privatize state-owned enterprises, the Chinese government still holds a high stake in listed companies. The mean and the median of the shareholding percentage by senior managers (MANAGER) is 0.1% and 0%, a very low level. The mean and the median of the shareholding percentage by major shareholders, directors and supervisors (B&D) is 8% and 2.4%, respectively, not a high level either. These numbers suggest that the Chinese government has a large stake in domestic listed companies. Therefore, it is not a common phenomenon in China for directors and supervisors to borrow money by setting up a pledge on their shares, as evidenced by the mean of 0.8% and the median of 0% in terms of the pledged shares owned by insiders (PLEDGE).

4.2. Pearson Correlation Coefficients

Table 3 summarizes the Pearson correlation coefficients. Single variable analysis suggests that there is a significant and positive correlation with IFRS, predictability (PV) and timeliness (TM). These numbers indicate that the IFRS adoption can enhance predictability and timeliness. There is a significant and negative correlation with information asymmetry (IA), feedback (FV), timeliness (TM) and faithful presentation (RF). The worse the information asymmetry, the lower the quality of accounting information is. State ownership (GOV) is significantly and negatively correlated with predictability (PV) and faithful presentation (RF). This implies that state ownership reduces the predictability and faithful presentation of accounting information. However, there is a significant and positive correlation with timeliness (TM). Ownership by senior managers (MANAGER) is significantly and negatively correlated with feedback (FV) and timeliness (TM). The higher the ownership by senior managers, the worse the quality of accounting information is. Ownership by major shareholders, directors and supervisors (B&D) is significantly and negatively correlated with timeliness (TM) and faithful presentation. A high percentage of holdings by major shareholders, directors and supervisors reduce the timeliness and faithful presentation of accounting information. Pledge on shares (PLEDGE) is significantly and negatively correlated with predictability (PV), timeliness (TM) and faithful presentation (RF). This means the higher the percentage of pledged shares by directors and supervisors, the worse the quality of accounting information.

4.3 Empirical Results and Analysis

4.3.1. IFRS and Accounting Information Quality

Table 4 shows how the IFRS adoption influences the quality of accounting information. According to Table 3, adjusted R^2 in respective models is 18.3%, 0.7%, 0.7% and 3.5%, respectively. Predictability (PV) reports the strongest explanatory power on independent variables. In terms of model fit, the F values are 44.856 (P-value=0), 2.250 (P-value=0.017), 2.316 (P-value=0.014) and 6.188 (P-value=0), respectively, indicating significant levels of model fit.

Table-2. Descriptive Statistics (N=1,892)

| Variables ^a | Mean | Median | Min | Max | Std. deviation |
|------------------------|--------|--------|---------|---------|----------------|
| IFRS | 0.500 | 0.500 | 0.000 | 1.000 | 0.500 |
| IA | 0.016 | 0.006 | -1.157 | 1.611 | 0.161 |
| GOV | 0.306 | 0.315 | 0.000 | 0.821 | 0.222 |
| MANAGER | 0.001 | 0.000 | 0.000 | 0.012 | 0.001 |
| B&D | 0.080 | 0.024 | 0.000 | 0.787 | 0.130 |
| PLEDGE | 0.008 | 0.000 | 0.000 | 0.228 | 0.021 |
| PV | 0.747 | 0.845 | 0.000 | 1.000 | 0.256 |
| FV | 0.240 | 0.026 | -70.428 | 64.026 | 5.867 |
| TM | 1.028 | 1.008 | 0.191 | 1.839 | 0.377 |
| RF | 0.412 | 0.356 | 0.002 | 1.000 | 0.284 |
| SIZE | 21.584 | 21.570 | 16.666 | 25.648 | 1.213 |
| LEV | 0.723 | 0.512 | 0.006 | 99.596 | 4.683 |
| ROE | 0.066 | 0.062 | -11.310 | 13.057 | 0.702 |
| BM | 5.716 | 1.122 | -74.367 | 117.593 | 11.993 |
| LOSS | 0.189 | 0.000 | 0.000 | 1.000 | 0.392 |
| DIVP | -0.327 | 0.000 | -4.127 | 13.910 | 0.690 |
| B4NB4 | 0.273 | 0.000 | 0.000 | 1.000 | 0.446 |
| INST | 0.148 | 0.062 | 0.000 | 0.873 | 0.182 |

^a Definition of variables: IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. IA: Information Asymmetry measured with $(\text{the lowest ask quote} - \text{the highest bid quote}) / (\text{the lowest ask quote} + \text{the highest ask quote}) / 2$ as of April 30. GOV: State ownership is measured with $(\text{No. of shares held by the government} + \text{No. of shares held by state-owned institutional investors}) / (\text{No. of shares outstanding})$. MANAGER: Ownership by senior managers is measured with $(\text{No. of shares held by senior managers}) / (\text{No. of shares outstanding})$. B&D: Ownership by major shareholders, directors and supervisors is measured with $(\text{No. of shares held by major shareholders, directors and supervisors}) / (\text{No. of shares outstanding})$. PLEDGE: The percentage of pledged shares is measured by $(\text{No. of pledged shares by major shareholders, directors and supervisors}) / (\text{No. of shares outstanding})$. PV: Predictability value measure with $|\text{Operating net income}| / \text{Net income}$. FV: Feedback value measure with $\Delta P\% / \Delta \text{EPS}\%$. TM: Timeliness measure with $\beta_1 + R^2$ (Totalize the percentile of β_1 and R^2). RF: Faithful presentation measure with R^2 (measured method as table 1). SIZE: take the natural logarithm of total assets at the end of the period. LEV: Total liabilities at the end of the period divided by total assets at the end of the period. ROE: Net income divided with shareholders' equity. BM: measure with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP:

take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise it is defined as 0. INST: Ownership by institutional investors is calculated as the percentage of holdings by domestic founding institutional investors plus the holdings by institutional investors in the second market plus the holdings by foreign founding institutional investors.

Table-3. Pearson correlation coefficients (N=1,892) ^b

| Variables ^a | IFRS | IA | GOV | MANAGER | B&D | PLEDGE | PV | FV | TM | RF | SIZE | LEV | ROE | BM | LOSS | DIVP | B4NB4 | INST | |
|------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|--------|-----------|-----------|-------|------|--|
| IFRS | 1 | | | | | | | | | | | | | | | | | | |
| IA | 0.091*** | 1 | | | | | | | | | | | | | | | | | |
| GOV | 0.001 | 0.041* | 1 | | | | | | | | | | | | | | | | |
| MANAGER | 0.000 | 0.038 | -0.122*** | 1 | | | | | | | | | | | | | | | |
| B&D | 0.000 | -0.095*** | -0.411*** | 0.090*** | 1 | | | | | | | | | | | | | | |
| PLEDGE | 0.000 | -0.031 | -0.176*** | -0.037 | 0.092*** | 1 | | | | | | | | | | | | | |
| PV | 0.307*** | -0.007 | -0.055** | 0.037 | -0.026 | -0.070*** | 1 | | | | | | | | | | | | |
| FV | -0.029 | -0.048** | -0.026 | -0.068*** | 0.028 | -0.016 | 0.022 | 1 | | | | | | | | | | | |
| TM | 0.064*** | -0.050** | 0.056** | -0.075*** | -0.144*** | -0.084*** | 0.091*** | 0.020 | 1 | | | | | | | | | | |
| RF | 0.005 | -0.120*** | -0.097*** | 0.018 | -0.164*** | -0.139*** | 0.151*** | -0.012 | 0.109*** | 1 | | | | | | | | | |
| SIZE | 0.004 | 0.005 | 0.015 | 0.113*** | 0.219*** | -0.163*** | 0.197*** | 0.058** | -0.009 | 0.065*** | 1 | | | | | | | | |
| LEV | -0.001 | 0.004 | 0.015 | -0.014 | -0.030 | 0.270*** | -0.045* | -0.009 | -0.021 | -0.062*** | -0.289*** | 1 | | | | | | | |
| ROE | -0.001 | 0.009 | -0.044* | 0.008 | 0.012 | -0.029 | -0.040* | 0.000 | 0.014 | -0.009 | -0.012 | -0.001 | 1 | | | | | | |
| BM | 0.421*** | 0.036 | 0.060** | -0.040* | -0.049** | -0.011 | 0.129*** | -0.025 | -0.003 | -0.087*** | 0.218*** | -0.168*** | -0.024 | 1 | | | | | |
| LOSS | 0.027 | -0.023 | 0.032 | -0.042* | -0.064*** | 0.151*** | 0.056** | -0.022 | 0.008 | -0.036 | -0.256*** | 0.123*** | -0.139*** | -0.016 | 1 | | | | |
| DIVP | 0.019 | 0.061*** | 0.059** | -0.059** | -0.083*** | 0.092*** | -0.190*** | -0.052** | -0.021 | -0.054** | -0.357*** | 0.046* | -0.044* | -0.006 | 0.238*** | 1 | | | |
| B4NB4 | 0.013 | -0.011 | -0.014 | -0.045** | 0.050** | -0.093*** | 0.148*** | 0.094*** | 0.012 | 0.068*** | 0.248*** | -0.064*** | 0.022 | 0.017 | -0.172*** | -0.199*** | 1 | | |
| INST | 0.005 | 0.042* | -0.613*** | -0.019 | -0.185*** | 0.139*** | 0.048** | 0.009 | 0.069*** | 0.063*** | -0.253*** | 0.073*** | 0.053** | -0.028 | 0.015 | 0.063*** | 0.009 | 1 | |

a Definition of variables: IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. IA: Information Asymmetry measured with (the lowest ask quote – the highest bid quote)/(the lowest ask quote + the highest ask quote)/2 as of April 30. GOV: State ownership is measured with (No. of shares held by the government + No. of shares held by state-owned institutional investors)/(No. of shares outstanding). MANAGER: Ownership by senior managers is measured with (No. of shares held by senior managers)/(No. of shares outstanding). B&D: Ownership by major shareholders, directors and supervisors is measured with (No. of shares held by major shareholders, directors and supervisors)/(No. of shares outstanding). PLEDGE: The percentage of pledged shares is measured by (No. of pledged shares by major shareholders, directors and supervisors)/(No. of shares outstanding). PV: Predictability value measure with $|\text{Operating net income}| / \text{Net income}$. FV: Feedback value measure with $\Delta P\% / \Delta \text{EPS}\%$. TM: Timeliness measure with $\beta_1 + R^2$ (Totalize the percentile of β_1 and R^2). RF: Faithful presentation measure with R^2 (measured method as table 1). SIZE: take the natural logarithm of total assets at the end of the period. LEV: Debt ratio at the end of the period. ROE: Net income divided with shareholders' equity. BM: measure with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise 0. INST: Ownership by institutional investors is calculated as the percentage of holdings

by domestic founding institutional investors plus the holdings by institutional investors in the second market plus the holdings by foreign founding institutional investors. b *** (**) (*) Indicates significance at 1% (5%) (10%).

Table 4 suggests that predictability (PV) and IFRS are significantly and positively correlated. Compared to the China GAAP system, the IFRS system can improve the predictability of accounting information. Therefore, H1-1 is supported. However, there is a negative but not significant correlation between feedback (FV) and IFRS. This is probably because Chinese investors are accustomed to the use of the financial reports in compliance with China GAAP for their investment decisions. [Eccher and Healy \(2000\)](#) point out that the China GAAP system is more relevant to share prices compared to the IFRS system. Therefore, H1-2 is not supported. However, the result is inline with [Eccher and Healy \(2000\)](#). IFRS and timeliness are significantly and positively correlated. Compared to the China GAAP system, the IFRS system can better improve the timeliness of accounting information. Therefore, H1-3 is supported. Finally, IFRS and faithful presentation (RF) is positively but not significantly correlated. This shows that the IFRS adoption improves the faithful presentation of accounting information but the benefit is limited. Therefore, H1-4 is not supported. Perhaps taxations restricted the effectiveness of the IFRS adoption ([Ball et al., 2003](#)).

In terms of control variables, company sizes (SIZE) is significantly and positively correlated with predictability (PV) and faithful presentation (RF). The larger company have better predictability and faithful presentation of its accounting information. There is a negative correlation with debt ratios (LEV). The higher the leverage, the more motives the management has to manipulate the selection of accounting methods to enhance earnings. As a result, the accounting information quality deteriorates. There is a significant and negative correlation between return on equity (ROE) and predictability (PV). That mean the lower ROE, the better predictability. There are also a negative correlation with book/market multiples (BM). The lower book/market multiple, the more conservative the accounting policies have the better accounting information quality. There is a significant and positive correlation between company losses (LOSS) and predictability (PV). Namely, when the net income during the period turns out to be negative, it can serve as a predictor to the company's future. Payout ratios (DIVP) are significantly and positively correlated with predictability (PV) and faithful presentation (RF). The low payout ratio could mean the retention of earnings to fund capital. As a result, the accounting information provides better predictability and faithful presentation. There is a positive correlation with the auditing by Big 4 (B4NB4) and the ownership by institutional investors (INST). This is inline with the expectations of this paper: both factors can enhance the quality of accounting information.

Table-4. Regressions of Accounting Information Quality on IFRS and controls (N=1,892)^b

| Variables ^a | Predict sign | PV | FV | TM | RF |
|-------------------------|--------------|----------------------|---------------------|---------------------|----------------------|
| Intercept | | -0.220** (0.034) | -4.718 (0.164) | 1.073*** (0.000) | -0.133 (0.432) |
| IFRS | + | 0.167*** (0.000) | -0.281 (0.198) | 0.055*** (0.005) | 0.009 (0.313) |
| SIZE | ? | 0.038*** (0.000) | 0.218 (0.164) | -0.005 (0.631) | 0.024*** (0.002) |
| LEV | - | -0.001 (0.122) | -0.004 (0.454) | -0.003* (0.093) | -0.004** (0.012) |
| ROE | ? | -0.018** (0.024) | -0.015 (0.945) | 0.012 (0.394) | -0.006 (0.621) |
| BM | - | -0.001** (0.025) | -0.013 (0.205) | -0.001 (0.206) | -0.001 (0.128) |
| LOSS | ? | 0.078*** (0.000) | 0.102 (0.402) | 0.028 (0.280) | 0.008 (0.701) |
| DIVP | ? | -0.055*** (0.000) | -0.199 (0.467) | -0.016 (0.270) | -0.045*** (0.000) |
| B4NB4 | + | 0.052*** (0.000) | 1.053*** (0.003) | 0.010 (0.334) | 0.000 (0.490) |
| INST | + | 0.149*** (0.000) | 0.679 (0.215) | 0.160*** (0.004) | 0.181*** (0.000) |
| Adjusted R ² | | 0.183 | 0.007 | 0.007 | 0.035 |
| F-statistic | | 44.856 | 2.250 | 2.316 | 6.188 |
| Prob(F-statistic) | | 0.000 | 0.017 | 0.014 | 0.000 |

a Definition of variables: PV: Predictability value measure with $|\text{Operating net income}| / \text{Net income}$. FV: Feedback value measure with $\Delta P\% / \Delta \text{EPS}\%$. TM: Timeliness measure with $\beta_1 + R^2$ (Totalize the percentile of β_1 and R^2). RF: Faithful presentation measure with R^2 (measured method as table 1). IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. SIZE: take the natural logarithm of total assets at the end of the period. LEV: Debt ratio at the end of the period. ROE: Net income divided with shareholders' equity. BM: measure with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise 0. INST: Ownership by institutional investors is calculated as the percentage of holdings by domestic founding institutional investors plus the holdings by institutional investors in the second market plus the holdings by foreign founding institutional investors.

b The P-value are reported in parentheses below coefficient estimates. *** (**) (*) Indicates significance at 1% (5%) (10%).

4.3.2. IFRS, Information Asymmetry and Accounting Information Quality

Table 5 indicates the effects of information asymmetry on accounting information quality under the IFRS system. The adjusted R^2 in respective models is 18.7%, 0.9%, 0.7% and 5.1%, respectively. Predictability (PV) reports the strongest explanatory power on independent variables. In terms of model fit, the F values are 37.310 (P-value=0), 2.203 (P-value=0.012), 2.287 (P-value=0.009) and 7.071 (P-value=0), respectively, indicating significant levels of model fit.

According to Table 5, information asymmetry and accounting information quality are negatively correlated. Feedback (FV) and timeliness (TM) both reach the 5% significant level. Faithful presentation (RF) reaches the 1% significant level. This shows that the worst the information asymmetry, the poorer the accounting information quality. As a result, feedback, timelines and faithful presentation are all dampened. The product of IFRS and information asymmetry (IFRS*IA) reports a positive but not significant correlation. Whilst the IFRS adoption can diminish the negative effects of information asymmetry and improve accounting information quality, the benefits are not satisfactory. Therefore, H2 is not supported. The restrictions on daily upticks and downticks on Shenzhen Stock Exchange also lessen the improvement of information asymmetry and accounting information quality under the IFRS system. This may be why H2 is not supported. This conclusion is consistent with (Chang, 2006). The results of control variables are the same as Table 4.

4.3.3. IFRS, Ownership Structure and Accounting Information Quality

According to Table 6, adjusted R^2 in respective models is 19.3%, 1.4%, 3% and 7.8%, respectively. Predictability (PV) reports the strongest explanatory power on independent variables. In terms of model fit, the F values are 27.974 (P-value=0), 2.557 (P-value=0.001), 4.297 (P-value=0) and 8.214 (P-value=0), respectively, indicating significant levels of model fit.

Table 6 shows the effects of state ownership, ownership by senior managers, and ownership by major shareholders, directors and supervisors on accounting information quality under the IFRS system. State ownership (GOV) is significantly and negatively correlated with predictability (PV) and faithful presentation (RF). This shows that the government shareholders take a positive attitude in corporate governance and monitoring. A high state ownership means poor predictability and faithful presentation of accounting information. There is a positive correlation with the product of IFRS and state ownership (IFRS*GOV). Meanwhile, feedback (FV) and timeliness (TM) reach the 5% and 10% Significance levels, respectively. The IFRS adoption can indeed lessens the negative effects of state ownership and improve the feedback and timeliness of accounting information. Therefore, H3-2 and H3-3 are supported. However, the positive benefits of the IFRS adoption on predictability and faithful presentation are not significant in the context of state ownership. Therefore, H3-1 and H3-4 are not supported.

Table-5. Regressions of Accounting Information Quality on IFRS, Information Asymmetry and controls (N=1,892) ^b

| Variables ^a | Predict sign | PV | FV | TM | RF |
|-------------------------|--------------|----------------------|---------------------|---------------------|----------------------|
| Intercept | | -0.193 (0.119) | -4.776 (0.167) | 1.085*** (0.000) | -0.134 (0.431) |
| IFRS | + | 0.170*** (0.000) | -0.269 (0.214) | 0.059** (0.003) | 0.015 (0.204) |
| IA | - | -0.064 (0.135) | -2.920** (0.033) | -0.187** (0.032) | -0.316*** (0.000) |
| IFRS *IA | + | 0.048 (0.253) | 1.992 (0.160) | 0.067 (0.292) | 0.18** (0.027) |
| SIZE | ? | 0.037*** (0.000) | 0.221 (0.166) | -0.005 (0.610) | 0.024*** (0.002) |
| LEV | - | -0.002* (0.066) | -0.003 (0.468) | -0.003* (0.084) | -0.004** (0.013) |
| ROE | ? | -0.033*** (0.000) | -0.002 (0.993) | 0.008 (0.599) | -0.004 (0.725) |
| BM | - | -0.001 (0.018) | -0.013 (0.202) | -0.001 (0.185) | -0.001 (0.108) |
| LOSS | ? | 0.077*** (0.000) | 0.053 (0.900) | 0.018 (0.245) | 0.001 (0.969) |
| DIVP | ? | -0.056*** (0.000) | -0.179 (0.520) | -0.013 (0.183) | -0.043*** (0.000) |
| B4NB4 | + | 0.052*** (0.000) | 1.055*** (0.002) | 0.009 (0.338) | 0.007 (0.355) |
| INST | + | 0.149*** (0.000) | 0.737 (0.200) | 0.161*** (0.002) | 0.194*** (0.000) |
| Adjusted R ² | | 0.187 | 0.008 | 0.009 | 0.051 |
| F-statistic | | 37.410 | 2.203 | 2.287 | 7.071 |
| Prob(F-statistic) | | 0.000 | 0.012 | 0.009 | 0.000 |

a Definition of variables: PV: Predictability value. FV: Feedback value. TM: Timeliness. RF: Faithful presentation. IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. IA: Information Asymmetry measured with (the lowest ask quote – the highest bid quote)/(the lowest ask quote + the highest ask quote)/2 as of April 30. SIZE: take the natural logarithm of total assets at the end of the period. LEV: Debt ratio at the end of the period. ROE: Net income divided with shareholders' equity. BM: measure with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise 0. INST: Ownership by institutional investors.

b The P-value are reported in parentheses below coefficient estimates. *** (**) (*) Indicates significance at 1% (5%) (10%).

Table-6. Regressions of Accounting Information Quality on IFRS, Ownership Structure and controls (N=1,892)^b

| Variables ^a | Predict sign | PV | FV | TM | RF |
|-------------------------|--------------|----------------------|------------------------|----------------------|----------------------|
| Intercept | | -0.216* (0.091) | -5.393 (0.125) | 0.797*** (0.000) | -0.402** (0.020) |
| IFRS | + | 0.169*** (0.000) | 0.664 (0.156) | 0.011 (0.398) | 0.030 (0.199) |
| GOV | - | -0.080* (0.058) | 0.714 (0.304) | 0.044 (0.309) | -0.225*** (0.001) |
| MANAGER | ? | 7.772 (0.414) | -886.427*** (0.000) | -32.378** (0.036) | -0.480 (0.967) |
| B&D | ? | -0.169** (0.022) | 1.441 (0.470) | -0.323*** (0.009) | -0.263*** (0.008) |
| IFRS * GOV | + | 0.016 (0.387) | 2.735** (0.032) | 0.139* (0.076) | 0.081 (0.104) |
| IFRS * MANAGER | + | 5.992 (0.327) | 703.090** (0.022) | 7.582 (0.364) | 10.908 (0.250) |
| IFRS * B&D | + | 0.057 (0.265) | 2.353 (0.169) | 0.084 (0.290) | 0.037 (0.375) |
| SIZE | ? | 0.040*** (0.000) | 0.242 (0.128) | 0.009 (0.368) | 0.034*** (0.000) |
| LEV | - | -0.001 (0.160) | -0.007 (0.417) | -0.003* (0.088) | -0.004*** (0.007) |
| ROE | ? | -0.018** (0.028) | -0.018 (0.934) | 0.013 (0.336) | -0.005 (0.654) |
| BM | - | -0.001** (0.015) | -0.012 (0.227) | -0.002* (0.053) | -0.002** (0.030) |
| LOSS | ? | 0.077*** (0.000) | 0.093 (0.820) | 0.024 (0.347) | 0.007 (0.748) |
| DIVP | ? | -0.053*** (0.000) | -0.201 (0.464) | -0.017 (0.233) | -0.043*** (0.000) |
| B4NB4 | + | 0.055*** (0.000) | 0.978*** (0.003) | 0.001 (0.474) | 0.003 (0.431) |
| INST | + | 0.071* (0.076) | 0.175 (0.449) | 0.224*** (0.005) | 0.287*** (0.000) |
| Adjusted R ² | | 0.193 | 0.014 | 0.030 | 0.078 |
| F-statistic | | 27.974 | 2.557 | 4.297 | 8.214 |
| Prob(F-statistic) | | 0.000 | 0.001 | 0.000 | 0.000 |

a Definition of variables: PV: Predictability value. FV: Feedback value. TM: Timeliness. RF: Faithful presentation. IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. GOV: State ownership is measured with (No. of shares held by the government + No. of shares held by state-owned institutional investors)/ (No. of shares outstanding). MANAGER: Ownership by senior managers is measured with (No. of shares held by senior managers)/ (No. of shares outstanding). B&D: Ownership by major shareholders, directors and supervisors is measured with (No. of shares held by major shareholders, directors and supervisors)/ (No. of shares outstanding). SIZE: take the natural logarithm of total assets at the end of the period. LEV: Debt ratio at the end of the period. ROE: Net income divided with shareholders' equity. BM: Book value divided by the market value of shareholders' equity at the

end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise 0. INST: Ownership by institutional investors.

b The P-value are reported in parentheses below coefficient estimates. *** (**) (*) Indicates significance at 1% (5%) (10%).

Table 6 shows that Ownership by senior managers (MANAGER) is significantly and negatively correlated with feedback (FV) and timeliness (TM). High stakes owned by senior managers increase their incentives to detriment the interest of the company. As a result, the feedback and timeliness of accounting information is dampened. The product of IFRS and ownership by senior managers (IFRS* MANAGER) shows a positive correlation but only the improvement of feedback reaches the 5% significance level. This shows that the IFRS adoption can weaken the negative effects of ownership by senior managers. However, only the effects on the improvement of feedback are significant. The benefits on timeliness and faithful presentation are not. Therefore, H4-2 is only supported.

In terms of the ownership by major shareholders, directors and supervisors (B&D), the negative correlation with predictability (PV), timeliness (TM) and faithful presentation (RF) reaching the 5% and 1% significance levels, respectively. The higher the ownership by major shareholders, directors and supervisors, the more incentives they have to detriment the quality of financial reporting. As a result, the worst the predictability, timeliness and faithful presentation of accounting information. The product of IFRS and the ownership by major shareholders, directors and supervisors (IFRS*B&D) is positively but not significantly correlated with accounting information quality. Although the IFRS adoption mitigates the negative effects of the ownership by major shareholders, directors and supervisors, the benefits in the improvement of accounting information quality are not significant. Therefore, H5 is not supported.

4.3.4. IFRS, Pledged Shares by Directors and Supervisors and Accounting Information Quality

According to Table 7, adjusted R^2 in respective models is 18.6%, 0.6%, 1.3% and 5%, respectively. Predictability (PV) reports the strongest explanatory power on independent variables. In terms of model fit, the F values are 37.6604 (P-value=0), 1.879 (P-value=0.038), 2.929 (P-value=0.001) and 7.166 (P-value=0), respectively, indicating significant levels of model fit.

Table 7 shows the effects of the pledged shares by directors and supervisors on the quality of accounting information under the IFRS system. Pledged shares (PLEDGE) is negatively correlated with accounting information quality, with predictability (PV), timeliness (TM) and faithful presentation (RF) reaching the 5% and 1% significance levels, respectively. The percentage of pledged shares has adverse effects on accounting information quality. The higher the percentage makes the worst the accounting information quality. The product of IFRS and pledged shares (IFRS* PLEDGE) is positively but not significantly correlated with accounting information quality.

This means the improvement of the IFRS adoption on the negative effects of pledged shares by directors and supervisors is not significant. Therefore, H6 is not supported.

Table-7. Regressions of Accounting Information Quality on IFRS, Pledged Shares by Directors & Supervisors and controls (N=1,892) ^b

| Variables ^a | Predict sign | PV | FV | TM | RF |
|-------------------------|--------------|----------------------|---------------------|---------------------|----------------------|
| Intercept | | -0.218* (0.074) | -4.735 (0.162) | 1.091*** (0.000) | -0.109 (0.515) |
| IFRS | + | 0.167*** (0.000) | -0.349 (0.159) | 0.054*** (0.009) | 0.011 (0.283) |
| PLEDGE | - | -0.774** (0.026) | -6.672 (0.266) | -1.514** (0.011) | -1.484*** (0.002) |
| IFRS * PLEDGE | + | 0.121 (0.411) | 8.543 (0.278) | 0.094 (0.458) | 0.362 (0.295) |
| SIZE | ? | 0.038*** (0.000) | 0.221 (0.158) | -0.005 (0.599) | 0.023*** (0.003) |
| LEV | - | -0.001 (0.317) | -0.005 (0.437) | -0.001 (0.289) | -0.002 (0.295) |
| ROE | ? | -0.019** (0.022) | -0.016 (0.939) | 0.011 (0.433) | -0.007 (0.527) |
| BM | - | -0.001** (0.029) | -0.013 (0.207) | -0.001 (0.269) | -0.001 (0.187) |
| LOSS | ? | 0.082*** (0.000) | 0.114 (0.782) | 0.035 (0.170) | 0.019 (0.391) |
| DIVP | ? | -0.054*** (0.000) | -0.191 (0.486) | -0.014 (0.340) | -0.042*** (0.000) |
| B4NB4 | + | 0.050*** (0.000) | 1.044*** (0.002) | 0.005 (0.417) | 0.007 (0.358) |
| INST | + | 0.161*** (0.000) | 0.712 (0.205) | 0.186*** (0.001) | 0.220*** (0.000) |
| Adjusted R ² | | 0.186 | 0.006 | 0.013 | 0.050 |
| F-statistic | | 37.660 | 1.879 | 2.929 | 7.166 |
| Prob(F-statistic) | | 0.000 | 0.038 | 0.001 | 0.000 |

a Definition of variables: PV: Predictability value. FV: Feedback value. TM: Timeliness. RF: Faithful presentation. IFRS: use dummy variable. The adoption of IFRS is defined as 1; the non-adoption of IFRS is defined as 0. PLEDGE: The percentage of pledged shares is measured by (No. of pledged shares by major shareholders, directors and supervisors)/ (No. of shares outstanding). SIZE: take the natural logarithm of total assets at the end of the period. LEV: Debt ratio at the end of the period. ROE: Net income divided with shareholders' equity. BM: measure with book value of shareholders' equity at the end of the period divided by the market value of one at the end of the period. LOSS: If the net income during the period is smaller than 0, the dummy variable for company losses is defined as 1; otherwise, it is defined as 0. DIVP: take the natural logarithm of (cash dividends + stock dividends)/EPS. B4NB4: The dummy variable for auditing by Big 4 is defined as 1; otherwise 0. INST: Ownership by institutional investors.

b The P-value are reported in parentheses below coefficient estimates. *** (**) (*) Indicates significance at 1% (5%) (10%).

5. ADDITIONAL ANALYSES

5.1. Ownership by Blockholders, Directors and Supervisors

The varying stances of major shareholders, directors and supervisors may have different effects on accounting information quality. Therefore, this paper divides the ownership by major shareholders, directors and supervisors into two experiment variables, i.e. ownership by major shareholders and ownership by directors and supervisors. The purpose is to see whether the results are consistent with the abovementioned empirical findings on H3.

Firstly, predictability value (PV) is significantly and negatively correlated with the ownership of major shareholders. This is consistent with previously mentioned results. It is positively but not significantly correlated with the ownership by directors and supervisors. The product (with IFRS) is also positively but not significantly correlated. This is consistent with the abovementioned conclusions. Feedback (FV), timeliness (TM) and faithful presentation (RF) report consistent results with the aforesaid experiments in terms of their correlations with ownership by major shareholders, directors and supervisors or the product (with IFRS).

5.2. Cross-Market Information Transmission: Unexpected Earnings

Considering that the same companies in different markets may experience information transmission effects (Chen *et al.*, 2006) and as a result, the relationship between accounting standards and accounting information quality may be affected, this paper tests whether there is information transmission between the A share market and the B share market. In other words, the A share market responds to the unexpected earnings on the B share market and vice versa. This means there is information transmission between the two markets. The empirical model is as follows:

$$AIQ_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROE_{i,t} + \beta_5 BM_{i,t} + \beta_6 LOSS_{i,t} + \beta_7 DIVP_{i,t} + \beta_8 B4NBA_{i,t} + \beta_9 INST_{i,t} + \beta_{10} UER_{i,t} + \varepsilon_{i,t} \quad (5)$$

$$AIQ_{i,t} = \beta_0 + \beta_1 IFRS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROE_{i,t} + \beta_5 BM_{i,t} + \beta_6 LOSS_{i,t} + \beta_7 DIVP_{i,t} + \beta_8 B4NBA_{i,t} + \beta_9 INST_{i,t} + \beta_{10} UER_{other,i,t} + \varepsilon_{i,t} \quad (6)$$

$$\text{Unexpected Earnings (UER)} = \frac{EPS_{i,t} - EPS_{i,t-1}}{P_{i,t-1}} :$$

EPSt: The earnings per share of year t.

Pt-1: Closing prices at the end of year t-1.

UER: Unexpected earnings to A shares or B shares.

UER_other: If the dependent variable is A shares, UER_other denotes the unexpected earnings of B shares of the same company. If the dependent variable is B shares, UER_other denotes the unexpected earnings of A shares of the same company.

The empirical results suggest that UER is significantly correlated with predictability (PV) and timeliness (TM). However, UER_other is not significantly correlated with either. The results suggest that the same sampled companies are not subject to the effects of market information transmission. Therefore, the abovementioned hypotheses are still accepted.

5.3. Economic Growth and Accounting Standards Reforms

To further understand the effects of economic growth and accounting standards reforms in China on the variables such as accounting information quality, information asymmetry, ownership structure and pledged shares by directors and supervisors, this paper performs t-tests and F-tests on the means of the samples before and after 2003 (with the highest economic growth) and of the samples before and after 2007 (the implantation of the new China GAAP standards).

T-tests and F-tests find that some quality characteristics of accounting information are subject to the impact of the rapid economic growth in China in 2003 and the implementation of new China GAAP principles in 2007. Therefore, this paper adds 2003 and 2007 annual dummy variables into the empirical model to control the effects of economic growth and accounting standard reforms, in order to ensure the robustness of the empirical results.

After the incorporation of economic growth and accounting standard reforms (as two annual control factors), this paper finds that H1 (effects of IFRS on accounting information quality), H2 (effects of IFRS and information asymmetry on accounting information quality), and H6 (effects of IFRS and pledge of shares by supervisors and directors) are consistent with the abovementioned experiment results. However, H3, H4 and H5 (effects of IFRS and ownership structure on accounting information quality) are largely consistent with the above experiment results. The variance is with the ownership by major shareholders, directors and supervisors. After the incorporation of economic growth and accounting standard reforms (as two annual control variables), the predictability (PV), timeliness (TM) and faithful presentation (RF) associated with the ownership of major shareholders, directors and supervisor show significant and positive correlations.

The above sensitivity analysis shows that the empirical results are robust and reliable. The research findings of this paper can serve as a reference to the regulators introducing the IFRS system.

6. CONCLUSION AND SUGGESTION

This paper sets out to explore the relationship between accounting information quality and information asymmetry, as well as with ownership structures, pledge on shares by directors and

supervisors, respectively, under the IFRS system. The unique capital market in China with the listing of A shares and B shares and the dual system of China GAAP and IFRS provide an opportunity to examine whether the IFRS adoption in the same economy can enhance accounting information quality and mitigate the negative effects of information asymmetry, ownership structures and pledge on shares by directors and supervisors.

This empirical study finds that the IFRS adoption can indeed improve the predictability and timeliness of accounting information quality, but it does not have significant effects on faithful presentation. Perhaps taxations hinder the adoption of IFRS so that accounting information cannot be faithfully presented. Meanwhile, information asymmetry does undermine the quality of accounting information. Although IFRS can lessen the negative effects of information asymmetry on accounting information quality, the result is not significant. Ownership by the Chinese government, senior managers, major shareholders, directors and supervisors has adverse effects on accounting information quality. A high percentage of holdings by major shareholders, directors and supervisors are likely to result in earnings management. The IFRS adoption can reduce the negative impacts of ownership by the Chinese government, senior managers, major shareholders, directors and supervisors and effectively improves feedback and timeliness of accounting information quality. Finally, the IFRS adoption can control the negative influence of the pledge of shares by directors and supervisors, the benefits of enhancing accounting information quality is not significant.

This paper makes its major contribution by examining reliability and relevance of accounting information at the same time. By comparing the information quality variances under the China GAAP system and the IFRS system, this paper validates whether the IFRS adoption helps to improve accounting information quality. Meanwhile, this paper examines the effects of information asymmetry, ownership structures and pledge on shares owned by directors and supervisors (as part of corporate governance) on accounting information quality under the IFRS system. The results show that IFRS is not a silver bullet. It can indeed enhance accounting information quality but it does not have significant effects on the improvement of information asymmetry and the negative influence of ownership by the Chinese government, senior managers, directors, supervisors and major shareholders, and the pledge of shares by major shareholders, directors and supervisors. Accounting information quality can only be improved with mechanisms to reduce information asymmetry and enhance corporate governance, along with the IFRS adoption.

This paper incorporates many factors relevant to accounting information quality as control variables based on literature reviews, but some elements of the model have limited explanatory power. This is a research restriction. However, some scholars believe that a good part of accounting information quality or contents depends on reporting incentives of individual companies and such incentives are a result of capital market structures, rather than the effects of accounting principles (Ball *et al.*, 2003). This is also a research restriction of this paper. It is suggested that future studies should delve into reporting incentives of individual companies, the system and structure of capital markets and the effects of different accounting standards on accounting information quality.

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