# DOES IFRS CONVERGENCE IMPROVE QUALITY OF ACCOUNTING INFORMATION? - EVIDENCE FROM THE CHINESE STOCK MARKET

## Wen Qu*, Michelle Fong**, Judy Oliver***

## Abstract

This paper aims to examine whether the 2007 IFRS converged Chinese GAAP has improved the quality of accounting information for investors in the A-share market in China. We analyse investor's reaction to financial information released pre and post IFRS convergence in China. Multiple regression analysis was employed using data from 309 listed Chinese companies. The findings of this study show that earnings per share, relative to book value of equity, is a stronger explanatory factor of market return in both the pre- and post IFRS convergence periods, suggesting that investors rely heavily upon earnings released by listed companies when making security price decisions in the Chinese stock market. The results also suggest that investors' reliance on the income statement information for investment decisions becomes greater in the post IFRS convergence period.

**Keywords:** IFRS Convergence, Accounting Information, Chinese Stock Market

* Corresponding author, Deakin Graduate School of Business, Faculty of Business and Law, Deakin University, 70 Elgar Road, Burwood, Victoria, 3125, Australia
Tel.: 61 3 9244 5440
Fax: 61 3 9244 5533
E-mail: wen.qu@deakin.edu.au
** Victoria University, Australia
*** Swinburne University, Australia

## Introduction

To facilitate its "Open Door" policy and its transition from a centrally planned economy to a market oriented one, China has been implementing significant reforms to its accounting practices. In February 2006, the Chinese Ministry of Finance (MOF) formally announced the convergence of Chinese accounting standards (Chinese GAAP) with the *International Financial Reporting Standards* (IFRS) through the issuance of the *Accounting Standards for Business Enterprises* (ABSE 2007). It is expected that the IFRS convergence will increase disclosure and adoption of more internationally accepted accounting practices, assist in reducing a significant amount of risk in foreign investment and eliminating a major source of uncertainty associated with the comparison of financial statements from China and other countries (Ryan, 2008). Since 1st January 2007 the IFRS converged ABSE has become mandatory for all companies listed on the Chinese stock exchanges. Prior to this only companies offering shares to international investors (known as B-shares) were required to report using IFRS, in contrast to companies only offering shares to domestic investors (known as A- shares) that were required to only report using Chinese GAAP. Therefore, the 2007

changes to financial reporting will have more impact on companies that issue A-shares only.

The aim of this study is to investigate whether investors trading in A-shares consider the information usefulness of accounting information (the value relevance) supplied by listed Chinese companies has improved under the IFRS converged ABSE 2007 accounting standards. Prior studies have focused on the value relevance of accounting information in China prior to 2007 IFRS convergence and generally resulted in inconclusive findings (Bao and Chow, 1999; Haw *et al.*, 1999; Chen *et al.*, 2002; Sami and Zhou, 2004; Chalmers *et al.*, 2010). Since 2007, there has only been one study undertaken (Liu *et al.*, 2011) to investigate the quality of financial information for companies that issue A-shares. In this study data was examined for only one year before and after the IFRS convergence and as such the findings show only the immediate reaction of investors to the IFRS convergence. This study will further contribute to the literature by testing investors' reaction to IFRS convergence over a longer timeframe and thereby show more accumulated effects of the IFRS convergence in China. The testing period will include 2004 to 2006 as the pre IFRS period and 2008 to 2010 as the post IFRS period, with 2007 considered a transition period. This methodology is consistent with

other value relevance studies (see Chalmers *et al.*, 2010).

The findings of this study show that earnings per share, relative to book value of equity, is a stronger explanatory factor of market return in both the pre- and post- IFRS convergence periods, suggesting that investors rely heavily upon earnings released by listed companies when making security price decisions in the Chinese stock market. The results also suggest that investors' reliance on the income statement information for investment decisions becomes greater in the post-IFRS convergence period.

The remainder of this paper is organized as follows. The second section reviews extant literature of investors' reaction to the quality of financial information based on the IFRS converged accounting standards in international jurisdictions. This is followed by a discussion of the IFRS convergence process in China and consideration of research design and methodology. Results are then discussed, followed by concluding remarks.

## *Prior studies on value relevance of IFRS convergence*

Over the past three decades, there has been a fervent interest worldwide among policymakers, regulators, standard-setters, professional accountancy organizations, academia and other stakeholders in improving the comparability and reliability of corporate reports. The adoption of/or convergence with IFRS is seen as the mechanism to achieve this objective. The IFRS is a set of principles-based and high-quality financial reporting standards issued by the International Accounting Standards Board (IASB). The standards are widely recognised for producing more accurate, comprehensive and timely financial accounting information leading to more informed valuation in the equity markets and hence lower risk for investors (Barth *et al.*, 2008, Cheong *et al.*, 2010). The adoption of a standardised set of international accounting standards promotes consistency in reporting format across countries which should reduce the cost to investors in processing financial information, and may result in improving capital market efficiency. Sound and internationally comparable corporate financial reporting that meets the requirements of financial markets improves investor confidence, facilitates risk assessment in making investment decisions, and helps to reduce cost of capital (UNCTAD, 2006). The elimination of international differences in global financial reporting may encourage the mobilisation and efficient allocation of financial resources, particularly investment resources, needed for economic development.

The IFRS convergence in European countries and Australia has provided research opportunities to investigate whether the IFRS convergence can lead to an improvement in the quality of financial

information consistently across different countries. The research findings provide valuable insights and references for countries that are still debating the benefits of IFRS convergence. However, the findings from these studies give inconclusive results as to the improved quality in accounting information available by adopting IFRS when compared with the domestic GAAP. For example, there have been a number of studies concentrating on Europe that show strong evidence of an improvement in the quality of financial accounting information following IFRS convergence (Barth *et al.*,2008; Lourenco and Curto, 2008; Devalle et al., 2010; Aharony *et al.*, 2010). Significant improvements have been seen via less earnings management, more timely loss recognition and more value relevant accounting information of specific accounting items such as goodwill, research and development expenses, and asset revaluation. However, other studies such as Bartov *et al.* (2005), Paananen and Lin (2009), Karampinis and Hevas (2011) report a decreased value relevance of both book value of equity and earnings in the IFRS regime. Also Hung and Subramanyam (2007) find no evidence of improved value relevance of IFRS over German GAAP.

In regards to studies comparing accounting information prepared under Australian GAAP and IFRS by companies listed on the Australian capital market during the periods before and after the adoption of IFRS, Chalmers *et al.* (2008), Goodwin *et al.* (2008) and Clarkson *et al.* (2011) report that IFRS adoption does not enhance the quality of financial information and firm value. Chalmers *et al.* (2011) later extend their investigation by adopting a longitudinal study that differentiates pre-IFRS, transition and IFRS periods to track changes in value relevance of accounting information as a result of IFRS adoption between 1990 and 2008. The findings suggest that earnings become more value-relevant at the adoption of IFRS and suggest that even for a country characterised by strong investor protection, high-quality financial reporting and strict regulatory enforcement regime such as Australia, IFRS adoption affects the relationship between accounting information and market value.

It is suggested that the inconclusive findings in the prior studies may relate to country-specific differences such as: the business and financial culture; accounting culture; auditing culture; regulatory culture; level of shareholder protection; jurisdictional settings across countries; and conflict between information preparers' incentives and standards. Such differences may affect the implementation and effectiveness of the IFRS convergence (Zeff, 2007; Lourenco and Curto, 2008). Due to the conflicting findings of IFRS implementation in developed countries, the prior studies do not provide valuable reference as to whether improved quality of information is achievable for developing countries still debating or considering the adoption of IFRS.

Therefore, more evidence needs to be provided from developing countries as to investor reaction to the IFRS converged standards. There is a view that accounting standards developed by the IASB are primarily for countries with highly developed capital markets, such as UK and US, and it is questionable whether such standards are also optimal for developing and transitional economies that lack the infrastructure for monitoring managers' financial reporting decisions (Eccher and Healy, 2000). This study will further examine this issue in China.

## IFRS convergence in China

The IFRS convergence in China has been driven by the Chinese government in facilitation of its "Open Door" policy and the rapid growth of the Chinese stock market. One of the most distinguishing features of the IFRS implementation in China is the strong leadership provided by the MOF. Since early 1980s, a series of accounting reforms have been launched by the MOF in an attempt to align China's financial accounting practices with internationally accepted practices, notably the *Accounting System for Sino-Foreign Joint Venture Enterprises* (1985), the *Accounting System for Experimental Listed Companies* (1992), the *Accounting Standards for Business Enterprises* (1993), the *Accounting Regulation for Listed Companies* (1998) and the *Accounting System for Business Enterprises* (2001). Peng *et al.* (2008) examined the compliance, consistency and comparability of listed companies' financial statements and concluded that China has been successful due to the unfaltering efforts of all parties in converging Chinese accounting standards with IFRS. Peng and Smith (2010) consider the convergence of China GAAP with IFRS has been practical and effective through a combination of staged implementations and direct import. They attribute this success to the gradual and deliberate convergence of China GAAP with IFRS since 2001.

The implementation of the 2007 ASBE is being monitored by the MOF through several groups of individual experts in both ASBE and IFRS selected from regulatory bodies, state-owned companies, tax-authorities, companies, and professional accountancy bodies. Through the monitoring process these groups will provide clarification and also report to the IASB on the process and important issues in relation to the IFRS implementation. In August 2006, the MOF issued the Exposure Draft (ED) on the interpretations of the new ASBE as a means of providing guidance on the application of ASBE.

The other effort in embracing international accounting practices into the Chinese business environment was the required preparation of IFRS based financial statements by listed Chinese companies that involved foreign ownership. When the stock market was first established in early 1990s, there were two types of tradeable shares on the

Chinese stock market: A-shares and B-shares. The differences are that A-shares are denominated in Yuan (Chinese currency, also known as Renminbi) and were originally issued exclusively for Chinese citizens, however more recently these shares can be traded by qualified international institutional investors (KPMG, 2012). Whereas B-Shares were issued in US dollars for external investors, and since 2001 these shares can also be issued to domestic investors provided the investor has a US dollar account. Until the IFRS converged ABSE standards were issued in 2007, companies issuing A-Shares were required to prepare the accounting reports under China GAAP only, whereas companies issuing both A- and/or B-shares were required by the Chinese Security Regulatory Commission (CSRC)[1] to prepare and submit financial statements based on both China GAAP and IFRS. The changed reporting requirements for companies issuing A-shares provides a unique research opportunity to compare investors' reactions to the value relevance of financial information prepared under the China GAAP prior to 2007 and under IFRS converged standards post 2007.

The new 2007 ASBE based on IFRS is constituted by one basic standard which is equivalent to IFRS' framework and 38 specific standards. It significantly broadens the presentation and disclosure requirements with the introduction of new standards[2] and changes to recognition and measurement requirements (Ng and Lau, 2006). Fundamental recognition and measurement changes include:

- reclassifying off-balance sheet items such as share-based payments to employees for services and accounting for financial derivatives to balance sheet;
- greater use of fair value[3] for measuring non-monetary exchange of assets, financial

---

1 The China Securities Regulatory Commission (CSRC) is the national enforcer in China and supervises the financial statements of all Chinese listed companies. In cases where an infringement is identified, the CSRC has the statutory power to compel a company to resubmit its financial statements prepared according to appropriate standards.

2 New Standards introduced include ASBE 3 "Investment Property", ASBE 5 "Biological Assets", ASBE 8 "Impairment of Assets", ASBE 9 "Employee benefits", ASBE 11 "Share-based Payment", ASBE 16 "Government Grant", ASBE 18 "Income Taxes", ASBE 19 "Foreign Currency Translation", ASBE 20 "Business Combinations" and ASBE 22 "Recognition and Measurement of Financial Instruments", ASBE 24 "Hedging", ASBE 30 "Presentation of Financial Statements" and ASBE 33 "Consolidated Financial Statements".

3 The use of "fair value" is more restricted under ASBEs than it is under IFRS in accounting for investment properties, biological assets, non-monetary asset exchanges and debt restructurings where ASBEs stipulate that only where there is an active market and where a fair value is available and can be reliably measured, can a fair value

instruments, investment properties, biological assets, debt restricting, revenue recognition and finance lease agreement;

- goodwill and indefinite life intangible assets not being amortized but subject to impairment tests;
- the requirement for development costs and borrowing costs to be capitalized if certain criteria are met ;
- removal of the last-in-first-out (LIFO) inventory measurement approach as this measurement approach has been long criticized for profit manipulation;
- recognition of gains or losses in profit or loss rather than as equity;
- share-based payments to be expensed at fair value;
- fair value adjustments, discount on acquisition arising from business combinations, non-monetary asset-related grant recognized as income and gains on debt restructuring; and
- That listed companies disclose and present more information in respect of financial instruments and risk management policies.

Although some differences still exist between IFRS and ASBE[4], the new standards are expected to have a significant impact on financial information provided to the Chinese stock market via enhanced quality of accounting information (Ng and Lau, 2006). For the China market the implementation and enforcement environment for IFRS converged accounting standards is characterised by strong regulatory representation in the capital market, majority state ownership and low public minority shareholder protection (Ding and Su, 2008). However, there is also a major concern whether accountants and auditors are capable of exercising professional judgements when assets are subject to fair value

---

measurement be adopted. The MOF explains this difference as due to China being an emerging market economy where many assets do not have an actively trading market yet. The MOF accepts that accounting information needs to be recent in nature but believes reliability should not be sacrificed as a result. If the use of "fair value" were to be introduced into China without any restrictions, artificial manipulation of profit would be likely to arise (CESR, 2007).

4 According to the MOF, the two main differences between IFRS and ASBEs include, first, the prohibition of reversing an asset impairment decision and second, under ASBEs state-controlled entities are "related parties" only if the two companies have common business transactions or investment transactions, with the consequence that the results of the one company directly affect the result of the other. Other minor differences between the two sets of standards arise from the difference in institutional arrangements and these differences are not regarded as departures from the IFRS (Ding and Su, 2008).

measurements rather than historical costs (KPMG, 2009). These characteristics and concern have been associated with having a dampening effect on any favourable impact from the implementation of IFRS based standards (Lourenco and Curto, 2008; Karampinis and Hevas, 2011).

Like studies in Europe and Australia studies undertaken in China on the quality of financial reporting also show conflicting results. Eccher and Healy (2000) examine the usefulness of IFRS in China between 1992 and 1997 for companies issuing B-shares and conclude that information produced using IFRS is no more useful than that prepared using China GAAP. They argue that the failure of IFRS accounting information is due to the absence of effective controls and infrastructure in China for monitoring the additional reporting judgment available to managers under IFRS. Contrary to the results from Eccher and Healy (2000), the findings of Peng *et al.* (2008) suggest a much improved picture by using 1999-2002 data. The difference between the two studies could be explained by the improved understanding via training, increased awareness and understanding and the efforts by the government for the implementation. Chalmers *et al.* (2010) found that Chinese GAAP issued by the MOF in 2001 improved the value relevance of financial information in the Chinese stock market on an overall basis. Bao and Chow (1999), Sami and Zhou (2004) and Liu and Liu (2007) investigated whether there was higher value relevant accounting information in the B-share market due to the requirement to report using IFRS than in the A-share market which required reporting using Chinese GAAP. The results indicate that higher value relevance was found in the B-share market. However, the empirical results of Haw *et al.* (1999) and Lin and Chen (2005) suggest otherwise as they find that earnings reported in China GAAP are more value relevant to A-share. Liu *et al.*, (2011) examined companies issuing A-shares to examine investor's reactions to reporting using the IFRS-converged standards. The findings show that financial information is more value relevant immediately after the IFRS convergence with the need for less earnings management. The objective of this study is to provide further insight into A-share investors' reaction to the 2007 IFRS-converged standards to determine whether the financial statements provide more quality information. The following research question will be used to inform the study:

*"Do A-share investors consider the quality of accounting information (value relevance) has improved since the IFRS converged accounting standards became mandatory in 2007?"*

## Research method

The main research question, therefore, is whether the IFRS convergence, implemented by the Chinese government in 2007, has significantly improved the

quality of accounting information in the A-share market. More specifically, whether earnings and book value of equity of listed Chinese companies are more value-relevant in the post IFRS convergence periods than in the pre-IFRS periods.

The pre-IFRS is the time period between 2004 and 2006 representing the period prior to the application of the IFRS, during which China GAAP was the adopted accounting standard amongst A-share companies listed on the Shenzhen Stock Exchange and the Shanghai Stock Exchange. The post-IFRS is the time period between 2008 and 2010 representing the period subsequent to the implementation of IFRS in 2007. To provide a consistent platform for assessing the impact from the harmonisation of Chinese accounting practices, this study examines A-share companies that were listed on the Chinese stock markets between 2004 and 2010. A-share companies are required to prepare their financial statements in accordance with the requirements of China GAAP prior to 2007 IFRS convergence. The rationale behind focusing on companies issuing A-share only instead of companies issuing both A- and B-share in this study is to avoid potential cross influence between IFRS and China GAAP when two sets of financial statements are being prepared within the same company for both international and domestic investors. This focus will allow a reliable comparison for determining the value relevance effect of IFRS convergence between the pre- and post-IFRS periods. Financial accounting information on all A-share companies listed on the Shenzhen Stock Exchange and the Shanghai Stock Exchange is downloaded from the Chinese Stock Market Accounting Research database (CSMAR)[5] and complete data between 2004 and 2010 is available from 309 A-share companies. There is missing information which may be explained by several possible reasons such as late publication of financial statements particularly the 2010 financial reporting, suspended trading, delay in business investiture and demise of businesses. The financial data extracted for the sample companies includes the amended version of their financial statements. The variables used in this research to determine whether there has been an improvement in quality of accounting information are: market value per share (MV), earning per share (EPS), book value of equity per share (BVE), leverage which is ratio of debt to equity (LEV), and operating cash flow per share (CF). MV uses the comparable closing price (with cash dividend reinvested) on the day when the annual financial statements were officially released to the public which is usually in early May of each year. This price should incorporate market reaction towards

the newly released financial information from sample companies.

The descriptive statistics of these 309 A-share companies in the pre- and post-IFRS periods is first produced in order to examine the data distribution for the purpose of determining whether data transformation is required for subsequent multiple regression analysis. Wilcoxon signed ranks test which is a non-parametric test that is not constrained by abnormality in data distribution is used to determine whether there is any significant difference between the coefficients of the variables between the pre- and post-IFRS periods. This helps to assess whether the differences or similarities identified by this test are sufficiently significant for us to proceed to the next stage of analysis which is using multiple regression technique to determine whether there is value relevance in the information after the IFRS convergence process in the Chinese context. The Wilcoxon signed ranks test in this study actually indicates that the differences in MV, EPS, LEV, and CF for these 309 A-share companies between the pre- and post-IFRS periods are statistically significant but not for BVE. The fact that BVE is not statistically significant helps set a baseline for determining whether there is value relevance in this variable in the post-IFRS period. Descriptive statistics for MV, EPS, LEV, and CF show deviations from normal distribution and these four variables are transformed into natural logarithm to treat these deviations before running the multiple regression analysis. BVE is not subjected to this transformation because it does not have a linearity issue. There are negative coefficients in EPS and CF, and as a result, an appropriate constant was added to each of their scores to prepare them for logarithm transformation. The transformed variables in natural logarithm for MV, EPS, LEV and CF are represented by LnMV, LnEPS, LnLEV and LnCF respectively. They are used in the multiple regression model illustrated below to test the value relevance of accounting information for listed companies in China in the pre- and post-IFRS periods. This step involves a longitudinal examination of the relationship between the independent variables (LnEPS, BVE, LnLEV and LnCF) and the dependent variable (LnMV) in each individual years of both the pre- and post-IFRS periods.

---

[5] Developed by GTA IT Co., Ltd in Shenzhen PR China, the Chinese Stock Market Accounting Research (CSMAR) database is a professional database system specially designed to facilitate the Chinese stock market related academic research.

$$LnMV_{it} = \alpha + \beta_1 LnEPS_{it} + \beta_2 BVE_{it} + \beta_3 LnLEV_{it} + \beta_4 LnCF_{it} + \varepsilon$$

Where:

$Ln MV_{it}$ = comparable closing price (with cash dividend reinvested) for company *i* on the day *t* when the annual financial statements were officially released to the public;

$Ln EPS_{it}$ = earnings per share for company *i* in time *t;*

$BVE_{it}$ = book value of equity per share for company *i* at time *t*;

$Ln LEV_{it}$ = a ratio of debt to equity (leverage) for company *i* at time *t*;

$Ln CF_{it}$ = operating cash flow scaled by market capitalization for company *i* in time *t*.

LnLEV and LnCF are employed as control variables in the model.

The threshold for p-value in the hypothesis tests in Wilcoxon signed ranks test and multiple regression test in this study is 0.05. However, this decision rule 'p-value<0.01' instead of 'p-value<0.05' has been used in this paper for some of the tests to illustrate the strong statistical significance outcome from these tests.

## Results and discussion

**Table 1.** Statistical profile of A-share companies in the pre- and post-IFRS periods
Panel A: Descriptive statistics on A-share companies

| Variable | Pre-IFRS | | | | Post-IFRS | | | |
|---|---|---|---|---|---|---|---|---|
| | **Mean** | **Median** | **Std Dev** | **N** | **Mean** | **Median** | **Std Dev** | **N** |
| MV | 28.9082 | 18.2103 | 37.0176 | 309 | 59.7025 | 39.2895 | 64.8908 | 309 |
| EPS | 0.2110 | 0.1836 | 0.2580 | 309 | 0.3232 | 0.2750 | 0.3155 | 309 |
| BVE | 3.5705 | 3.3394 | 1.5934 | 309 | 3.6133 | 3.4076 | 1.6002 | 309 |
| LEV | 1.1312 | 0.9717 | 0.7952 | 309 | 1.2876 | 1.0666 | 0.8715 | 309 |
| CF | 0.3846 | 0.3429 | 0.3414 | 309 | 0.4605 | 0.3842 | 0.4808 | 309 |

**Panel B**: Wilcoxon signed ranks test on the pre- and post-IFRS of A- share companies

| Variable | p-value |
|---|---|
| MV | 0.0000 |
| EPS | 0.0000 |
| BVE | 0.8280 |
| LEV | 0.0000 |
| CF | 0.0000 |

Panel A in Table 1 shows the descriptive statistics of A-share companies in the pre- and post-IFRS periods, which reveals a heavily positively skewed distribution for MV in both these periods. LEV exhibits a positively skewed distribution although it is not as significant as MV. EPS and CF also show signs of abnormality in data distribution. Although the patterns of these distributions are treated prior to running multiple regression analysis, this treatment is not undertaken for Wilcoxon signed ranks test because, as mentioned earlier, it is not constrained by abnormality in data distribution.

The pooled results of this matched sample from Wilcoxon signed ranks test in Panel B of Table 1 shows that there are significant differences (p-value <0.01) between the pre- and post-IFRS periods for market value per share (MV), earning per share (EPS), leverage ratio (LEV), and operating cash flow per share (CF) but not for book value of equity per share (BVE). This test identifies that BVE does not have a significant difference (p-value>0.01) between the pre- and post-IFRS. Overall, these pooled results warrant further statistical analysis to track the value relevance of accounting information for listed companies in China between these two periods and

over the different years. The multiple regression technique is used to determine whether the differences (MV, EPS, LEV, and CF) or similarity (BVE)

identified by the Wilcoxon signed ranks test are associated with the convergence of IFRS.

**Table 2 .** Results from Year-by-Year Regressions of Market Return on Characteristics for A-Share Companies

**Panel A:** Year-by-Year Regression Results

| | | LnEPS Unstandardized coefficient | Standardized coefficient | p-value | be Unstandardized coefficient | Standardized coefficient | p-value | N |
|---|---|---|---|---|---|---|---|---|
| | Constant | | | | | | | |
| 2004 | 0.1812 | 1.7715 | 0.3007 | 0.0000 | -0.0484 | -0.0887 | 0.1418 | 309 |
| 2005 | 0.8529 | 1.7369 | 0.3263 | 0.0000 | -0.0548 | -0.0847 | 0.1872 | 309 |
| 2006 | 2.0291 | 1.8101 | 0.3081 | 0.0000 | -0.0813 | -0.1407 | 0.0315 | 309 |
| 2008 | 1.3445 | 3.0554 | 0.5023 | 0.0000 | -0.0650 | -0.1352 | 0.0364 | 309 |
| 2009 | 1.5242 | 2.3695 | 0.4124 | 0.0000 | -0.0814 | -0.1760 | 0.0052 | 309 |
| 2010 | 2.0617 | 2.5131 | 0.4020 | 0.0000 | -0.0727 | -0.1647 | 0.0200 | 309 |

| | LnLEV Unstandardized coefficient | Standardized coefficient | p-value | LnCF Unstandardized coefficient | Standardized coefficient | p-value | N |
|---|---|---|---|---|---|---|---|
| 2004 | 0.0127 | 0.0134 | 0.8129 | 0.3912 | 0.0861 | 0.1358 | 309 |
| 2005 | 0.0343 | 0.0342 | 0.5566 | 0.1622 | 0.0277 | 0.6517 | 309 |
| 2006 | 0.0546 | 0.0580 | 0.3104 | 0.1374 | 0.0264 | 0.6725 | 309 |
| 2008 | 0.0555 | 0.0537 | 0.3058 | -0.6075 | -0.1527 | 0.0054 | 309 |
| 2009 | -0.0032 | -0.0032 | 0.9524 | 0.1599 | 0.0404 | 0.4701 | 309 |
| 2010 | -0.0145 | -0.0142 | 0.7945 | -0.3841 | -0.1028 | 0.0745 | 309 |

**Panel B:** Regression Model Summary

| | Model summary R Squared | Model significance | N |
|---|---|---|---|
| 2004 | 0.0977 | 0.0000 | 309 |
| 2005 | 0.0915 | 0.0000 | 309 |
| 2006 | 0.0782 | 0.0000 | 309 |
| 2008 | 0.1765 | 0.0000 | 309 |
| 2009 | 0.1347 | 0.0000 | 309 |
| 2010 | 0.0997 | 0.0000 | 309 |

**Panel C:** Comparison of R-squared Coefficient and Coefficient of Variation between The pre- and Post-IFRS periods

| | R Squared | Coefficient of variation | N |
|---|---|---|---|
| 2004 to 2006 (average) | 0.0891 | 0.2713 | 309 |
| 2008 to 2010 (average) | 0.1369 | 0.2014 | 309 |

The year-by-year regression results in Panel A in Table 2 identified earning per share (LnEPS) as a consistently significant predictor (p-value < 0.01) for MV in all the years throughout the pre-IFRS and post-IFRS periods. This significance is also illustrated in the standardized coefficients of LnEPS which have higher values than the standardized coefficients of the other variables (BVE, LnLEV and LnCF) across all the years. This suggests that the earning indicator has a relatively stronger influence on market value of share as compared to book value of equity per share, leverage ratio, and operating cash flow per share in

the Chinese stock market. The un-standardized and standardized coefficients of LnEPS show this financial indicator carries higher regression weights between 2008 and 2010 (post-IFRS) as compared to the weights between 2004 and 2006 (pre-IFRS). This suggests an improvement in quality of accounting information in this variable between the pre- and post-IFRS periods as a result of IFRS convergence. Although BVE is a significant predictor of MV (p<0.05) in the post-IFRS period, it is also a significant predictor (p<0.05) in 2006 during the pre-IFRS period. It may be due to favourable anticipation

of IFRS by investors when the Chinese government announced the move towards IFRS convergence for the country's financial accounting system in 2006.

The result of Wilcoxon signed ranks test for BVE in Panel B of Table 1 shows that there is no statistically significant difference in the book value of equity per share between the pre- and post-IFRS periods and this set a baseline for validating the value relevance of this variable in the multiple regression analysis. While BVE remains similar in these periods, it has however become a significant predictor when the IFRS was formally announced by the MOF and after it was implemented. In other words, if there is no value relevance in the accounting information of BVE, this variable will not be a significant predictor in this multiple regression model. This suggests that investors valued BVE for its relevant information content for valuation of companies in the IFRS convergence process. LnLEV and LCF are the control variables in this multiple regression model. They are not significant predictors in this model and do not show a discernable relationship with MV.

Panel B in Table 2 shows there are improvements in R-squared coefficients in the post-IFRS years (2008 to 2010) as compared to the pre-IFRS years (2004 to 2006). This suggests that there has been an improvement in the aggregate ability of the independent variables (particularly LnEPS and BVE because they are significant predictors) in accounting for the total variation in the dependent variable (LnMV). Panel C in Table 2 shows the pooled results of the R-squared coefficients and coefficients of variation from the multiple regression models. Data in this panel indicates a stronger relationship between market value per share (LnMV) and earning per share (LnEPS), book value of equity per share (BVE), leverage ratio (LnLEV), and operating cash flow per share (LnCF) in the post-IFRS period. Based on the average R-squared coefficient, this relationship has strengthened by 53.7% in the post-IFRS period over the pre-IFRS period. The coefficient of variation which measures the size of the standard error of estimation as a proportion of the dependent variable (which is LnMV) suggests that the average error (error of accountability between the dependent and all independent variables) has decreased by 25.8% in the post-IFRS period over the pre-IFRS period. These coefficients appear to indicate an improvement in the quality of accounting information between the pre- and post-IFRS periods as a result of convergence with IFRS.

The data from the Wilcoxon signed ranks test and multiple regression analysis supports our expectation that the financial information exhibit higher value relevance of earnings and book value of equity in the post-IFRS period than in the pre-IFRS period. However, the authors wish to advise that the data must be interpreted with caution and further research is warranted into these relationships because the absolute values of the R-squared is considered very small and the Coefficient of Variation is large on their terms. In addition, the data in Panel A of Table 2 indicates that there is still a large ambit (probability between 0.8631 and 0.9109) for other influencing factors to explain the relationships between market value per share and earning per share, book value of equity per share, leverage ratio, and operating cash flow per share. This large variance should be investigated as it may be associated with the unique contextual characteristics of the Chinese implementation and enforcement environment that may influence the full harnessing of benefits from IFRS convergence as a result of strong regulatory representation in the capital market, majority state ownership, low public minority shareholder protection, and a lack of local competency in exercising professional judgements.

## Conclusion

As an important participant in the global economy, China has devoted itself for a considerable period of time to harmonizing its accounting practices and reporting system with internationally accepted norms. This study investigates the quality of financial accounting information in the period subsequent to IFRS convergence in China. More specifically, it compares the value relevance of earnings and book value of equity for listed Chinese companies between the pre-IFRS convergence period (2004-2006) and the post-IFRS convergence period (2008-2010). We aim to determine whether financial accounting information becomes more value relevant as a result of IFRS convergence initiated by the Chinese government. This study focuses on A-share companies instead of companies issuing both A- and B-shares for the purpose of removing any potential cross influence between IAS and China GAAP when such companies prepare financial statements for both international and domestic investors.

Using a sample of 309 A-share companies, we find that earnings per share, relative to book value of equity, is a stronger explanatory factor of market return in both the pre- and post- IFRS convergence periods, suggesting that investors rely heavily upon earnings released by listed companies when making security price decisions in the Chinese stock market. The results also suggest that investors' reliance on the income statement information for investment decisions becomes greater in the post-IFRS convergence period. This finding is consistent with the findings of Bartov *et al.* (2005), *Barth et al.* (2008) and Chalmers *et al.* (2011) who find that IFRS adoption and convergence increases the information usefulness of earnings. On the other hand, book value of equity is found not to possess significant explanatory power of market return during 2004 and 2005 reporting periods. It is worthwhile to note that book value of equity is statistically significant in

explaining market return in 2006 of the pre-IFRS period. A possible rationale for this significance is 2006 is the reporting period during which the MOF officially announced the IFRS convergence and the effective date (1 January 2007) of the implementation of the IFRS based new accounting standards. As shown in the regression weights of the earnings per share variable in the regression analysis in the post-IFRS period, the Chinese investors perceived IFRS to be of higher quality standards than China GAAP. As a result, the statistical significance of the book value of equity is likely to be a positive reaction from investors towards the impending IFRS convergence. This rationale has been supported by a study undertaken by Barth *et al.* (2006) who find European equity investors responded positively to the forthcoming adoption of IFRS. While Chalmers *et al.* (2011) do not find book value of equity possesses any explanatory power of market return in the post-IFRS period in Australia, our results indicate that in the post-IFRS convergence China, investors exhibit heavier reliance on the book value of equity when using it to value firms as compared to the pre-IFRS period. This level of reliance suggests the quality of book value of equity in terms of value relevance has been enhanced by IFRS convergence process.

The findings of our study have several implications. Firstly, our research findings contribute to the growing literature on investigating the effectiveness of IFRS adoption and convergence. They provide timely empirical evidences on the value relevance of accounting information post IFRS convergence in the important Chinese emerging market economy. Secondly, both earnings and book value of equity appear to be more value relevant for listed Chinese companies issuing A-shares in the post-IFRS convergence period, suggesting that investors of emerging capital markets, such as the Chinese stock market may benefit from improved quality of accounting information prepared under IFRS based accounting standards. These findings provide a valuable reference for the Chinese policy makers and regulator as the results suggest that the MOF's decisions on the IFRS convergence have provided decision-useful accounting information to investors and enhanced the value relevance of accounting information in the Chinese stock market. Domestic Chinese investors will gain the most benefits from the our research findings as our research informs them that the IFRS convergence have led to higher quality financial information which enables investors to make more efficient decision marking in respect of financial resources allocation. In addition, this study will lend strong support to IASB in its effort in encouraging developing countries to adopt IFRS or converge their national accounting standards with IFRS.

It is worthwhile noting that there have been concerns over whether IFRS based accounting standards have been implemented effectively in the Chinese environment to achieve it purported benefits

(Ding and Su, 2008; Baker *et al.*, 2010; Chen and Zhang, 2010). One of the concerns has been that IFRS allows a wider scope for judgement in the preparation of financial statements and the use of fair value under IFRS may open the door for profit manipulation (Ding and Su, 2008). Hence, further research in these areas should be considered to enhance understanding in how fair value method affects the quality of financial information that was prepared in the post-IFRS convergence period in China.

## References

1. Aharony, J., Barniv, R. and Haim, F. H. (2010), "The Impact of mandatory IFRS adoption on equity valuation of accounting numbers for security investors in the EU", *European Accounting Review*, Vol. 19, pp. 535-578.
2. Baker, C. R., Biondi, Y. and Zhang, Q. S. (2010), "Disharmony in international accounting standards setting: The Chinese approach to accounting for business combinations", *Critical Perspectives on Accounting*, Vol. 21, pp. 107-117.
3. Bao, B. and Chow, L. (1999), "The usefulness of earnings and book value for equity valuation in emerging capital market: evidence from listed companies in the People's Republic of China", *Journal of International Financial Management and Accounting,* Vol. 10, pp. 85 – 104.
4. Barth, M. E., Jagolinzer, A. and Riedl, E. J. (2006), "Market reaction to events surrounding the adoption of IFRS in Europe", Research paper No. 1937, Stanford Graduate School of Business.
5. Barth, M., Landsman, W. and Lang, M. (2008), "International Accounting Standards and Accounting Quality", *Journal of Accounting and Research*, Vol. 46, pp. 467-498.
6. Bartov, E., Goldberg, S. and Kim, M. (2005), "Comparative value relevance among German, U.S, and International Accounting Standards: A German stock market perspective", *Journal of Accounting, Auditing and Finance,* Vol. 20, pp. 95-119.
7. Chalmers, K., Clinch, G. and Godfrey, J. M. (2008), "Adoption of International Financial Reporting Standards: Impact on the value relevance of intangible assets", *Australian Accounting Review*, Vol. 18, pp. 237-247.
8. Chalmers, K., Clinch, G. and Godfrey, J. M. (2011), "Changes in value relevance of accounting information upon IFRS adoption: Evidence from Australia", *Australian Journal of Management*, Vol. 36, pp. 151-173.
9. Chalmers, K., Navissi, F. and Qu, W. (2010), "Value Relevance of Accounting Information in China pre- and post-2001 Accounting Reforms", *Managerial Auditing Journal*, Vol. 25, pp. 792-813.
10. Chen, G., Firth, M. and Kim, J. (2002), "The use of accounting information for the valuation of dual-class shares listed on China's stock markets", *Accounting and Business Research,* Vol. 32, pp. 123-131.
11. Chen, J. J. and Zhang, H. T. (2010), "The impact of regulatory enforcement and audit upon IFRS compliance – Evidence from China", *European Accounting Review*, Vol.19, pp. 665-692.
12. Cheong, C.S., Kim, S. and Zurbruegg, R. (2010), "The Impact of IFRS on financial analysts' forecast accuracy

in the Asia-Pacific region: The case of Australia, Hong Kong and New Zealand", *Pacific Accounting Review*, Vol. 22, pp. 124-146.

13. Clarkson, P., Hanna, J. D., Richardson, G. and Thompson, R. (2011), "The impact of IFRS adoption on the value relevance of book value and earnings", *Journal of Contemporary Accounting & Economics*, Vol. 7, pp. 1-17.

14. Devalle, A., Onali, E. and Magarini, R. (2010), "Assessing the Value Relevance of Accounting Data after the Introduction of IFRS in Europe", *Journal of International Financial Management and Accounting*, Vol. 21, pp. 85-119.

15. Ding, Y. and Su, X. J. (2008), "Implementation of IFRS in a regulated market", *Journal of Accounting and Public Policy*, Vol. 12, pp. 1-6.

16. Eccher, E. A. and Healy, P. M. (2000), "The role of International Accounting Standards in transitional economies: A study of the People's Republic of China", http://ssrn.com (accessed 18 August 2011).

17. Goodwin, J., Ahmed, K. and Heaney, R. (2008), "The effects of International Financial Reporting Standards on the accounts and accounting quality of Australia firms: A retrospective study", *Journal of Contemporary Accounting and Economics*, Vol. 4, pp. 89-119.

18. Haw, I., Qi D., and Wu, W. (1999), "Value-relevance of financial reporting disclosures in an emerging capital market: The case of A-shares in China", *Pacific Economic Review* Vol. 4, pp. 337 – 348.

19. Hung, M. and Subramanyam, K. (2007), "Financial statement effects of adopting International Accounting Standards: The case of Germany", *Review of Accounting Studies* Vol. 12, pp. 623-657.

20. Karampinis, N. and Hevas, D. L. (2011), "Mandating IFRS in an unfavourable environment: The Greek experience", *The International Journal of Accounting*, Vol. 46, pp. 304-332.

21. KPMG. (2009), "New accounting standards conversion for business enterprises", *China Boardroom Update*, January 2009. http://www.kpmg.com.cn (accessed 18 August 2011).

22. KPMG. (2012), "China alter: Financial service focus – Official launch of the RMB Qualified Foreign Institutional Investors (RQFIIs) pilot programme", http://www.kpmg.com.au (accessed 06 March 2012).

23. Lin, Z. J. and Chen, F. (2005), "Value relevance of international accounting standards harmonization: evidence from A- and B-share markets in China", *Journal of International Accounting, Auditing and Taxation*, Vol. 14, pp. 79-103.

24. Liu, J. and Liu, C. (2007), "Value relevance of Accounting Information in Different Stock Market Segments: The Case of Chinese A-, B-, and H-Shares", *Journal of International Accounting Research*, Vol. 6, pp. 55-81.

25. Liu, C. H., Yao, L. J., Hu, N. and Liu L. (2011). The Impact of IFRS on Accounting Quality in a Regulated Market: An Empirical Study of China, *Journal of Accounting, Auditing & Finance*, Vol. 26, pp. 659–676.

26. Lourenco, I. and Curto, J. (2008), "The level of shareholder protection and the value relevance of accounting numbers: Evidence from the European Union before and after IFRS adoption", http://ssrn.com (accessed 18 August 2011)

27. Ng, P. P. H. and Lau, C. K. C. (2006), "New PRC Accounting Standards – A Milestone", http://www.hkiaat.org/images/uploads/articles/PRC1.pdf (accessed 16 August 2011).

28. Paananen, M. and Lin, H. (2009), "The development of accounting quality of IAS and IFRS over time: The case of Germany", *Journal of International Accounting Research*, Vol.8, pp. 31-55.

29. Peng, S. L. and Smith, J. L. (2010), "China GAAP and IFRS: An analysis of the convergence process", *Journal of International Accounting, Auditing and Taxation*. Vol. 19, pp.16-34.

30. Peng, S. L., Tondkar, R. H., Smith, J. L. and Harless, D. W. (2008), "Does convergence of accounting standards lead to the convergence of accounting practices? A study from China", *The International Journal of Accounting*, Vol. 43, pp. 448-468.

31. Ryan, J. (2008), "The clouds part – China convergences", *A Plus +*, January, pp. 16-19.

32. Sami, H. and Zhou, H. (2004), "A comparison of value relevance of accounting information in different segments of the Chinese stock market", *The International Journal of Accounting*, Vol. 39, pp. 403 – 427.

33. UNCTD. (2006), "Review of Practical Implementation Issues of International Financial Reporting Standards", Trade and Development Board, Commission on Investment, Technology and Related Financial Issues, Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting, twenty-third session, Geneva, 10–12 October.

34. Zeff, S. A. (2007), "Some obstacles to global financial reporting comparability and convergence at a high level of quality", *The British Accounting Review*, Vol. 39, pp. 290-302