International Financial Reporting Standards (IFRS) and Financial Reporting Quality in Emerging Economies: Evidence from China and Hong Kong

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Abstract

This paper provides evidence on the impact of the new standards on financial reporting quality for Chinese and Hong Kong listed companies. The financial reporting quality is examined for the period from 2002 to 2011 with A-share companies using earning management metrics. The empirical results indicate that the adoption of the new substantially IFRS-convergent accounting standards in China results in better financial reporting quality evidenced by less earning management. The findings show that Hong Kong listed companies' exhibit higher level of financial reporting quality than Chinese listed companies, which implies that the financial reporting quality under IFRS can be significantly different in regions with different institutional, economic and regulatory environments.

Key words: Financial, earning, quality, cash flow, emerging markets

Introduction

Prior to the Chinese economic reformation in 1987, the main purpose of Chinese uniform accounting and financial reporting systems which originated from the former Soviet Union was to provide macroeconomic planning. With the achievements of China's economic reform, accounting system also has experienced tremendous changes. The earliest effort of converging Chinese domestic accounting system with international practices began in 1979, in which joint ventures with foreign investments were required to be regulated under a set of accounting regulations. Then, a set of accounting standards based on International Accounting Standards (IAS), known as Accounting Standards for Business Enterprises (ASBE), was released in 1992, which is a historic progress for reform of China's dogmatic accounting system. Between 1997 and 2001, China attempted to issue series of new accounting standards to move toward International Accounting Standards (Chen and Peng, 2007).

The new Chinese standards are not complete translations of IFRS; there are a few differences which represent China's unique position in the world. For example, new CAS prohibits the reversal of an asset impairment charges; related party disclosure requirement is revised to reflect the context of state-ownership and the application of fair value is also tailored (Peng and Smith, 2010).

Under the policy of one country, two systems, Hong Kong can be considered as a separate market. Before converging with IFRS, Hong Kong applied its own accounting standards and systems, which were independent of mainland China. In January 1, 2005, Hong Kong Institute of Certified Public Accountants (HKICPA) issued Hong Kong Financial Reporting Standards (HKFRS), which have been fully convergent with IFRS in all material aspects. This led to a greater confidence in the transparency and quality of Hong Kong's financial markets (HK Government Yearbook, 2005).

As China mandated IFRS conversion for all listed firms starting January 1, 2007, the study separates two periods, one is defined as post-convergence period from 2007 to 2011 and the other is defined as pre-convergence period from 2002 to 2006, which provides cumulative five years of convergence experience. Accordingly, the aim is to analyse the financial

reporting quality in both periods and investigate any significant differences in accounting quality after transiting to IFRS for Chinese listed firms.

Following prior research (Lang et al.2006; Barth et al. 2008), earnings management is applied in examining whether Chinese listed firms are less likely to manage reported earnings toward a positive target after converging with IFRS. The impact of IFRS on financial reporting quality is compared before and after the convergence periods in China and Hong Kong. The changes in accounting quality are evaluated by examining the following research questions:

- 1. To what extent are the earnings smoothened across the two periods?
- 2. How significant is the decrease in earning management following substantial convergence with IFRS?

As the study is focused on China and Hong Kong, it is important to control for differences in institutional factors such as economic, political and regulatory environments to determine the change in financial reporting quality. Thus the study makes significant contribution by strengthening the reliability of findings on financial reporting quality effect of IFRS in specific context.

Review of empirical literature

Prior studies have examined the impact of IAS or IFRS on financial reporting quality in China. Eccher and Healy (2003) use sample of B-share firms owned and traded by foreigners, which are required to issue two sets of financial reports, one complying with Chinese GAAP and the one with IAS, to compare the value relevance of accounting information under two standards. Contrary to the prediction, their finding indicates that IAS does not greatly increase value relevance compared to Chinese GAAP. They further established that IAS does not result in higher accounting quality because there is no effective regulation and system to supervise accounting practice under the International Accounting Standards.

Wang and Campbell (2012) compare earnings management using a sample of Chinese listed firms during period time between 1998 and 2009 and find significant differences in earning management since implementing IFRS in China. This suggests that IFRS neither deter nor increase earning management. In contrast, Liu et al. (2011) conducted a more comprehensive study on both earning management and value relevance in Chinese publicly listed companies and provided evidence that the accounting quality improved after substantially converging with IFRS.

Even though previous studies present mixed results on the net effect of IFRS on financial reporting quality for Chinese companies, it should be noted that most of the studies were only conducted before the year of 2006 or focused on a short period of time after implementation of the new substantially IFRS-convergent standards. So there may be insufficient time for the effects of adoption to materialize. To address these limitations, this study therefore uses a longer information window.

The effect of adoption of IFRS on financial reporting quality could vary across different countries. The mixed finding documented by prior studies can be explained by countries' institutional structures. Many studies argue that developing and transitional economies still have ineffective institutions and infrastructure though their capital market may be developing fast. China is the largest developing country in the world, characterized with concentrated ownership structures, weak legal systems and highly politicized institutional arrangements (Piotroski and Wong, 2011). As a result, prior researches attribute low financial reporting quality to ineffective regulation and infrastructure (Eccher and Healy 2003, Ball et al. 2001).

However, in recent years Chinese government as well as companies listed in Chinese Stock Exchanges have more incentives and pressures to enhance financial reporting quality due to the rapid development of equity market and the desire to attract capital worldwide (Peng, 2005). By enhancing the efficiency of capital market infrastructure, China has made great efforts towards changing its accounting regulations (Chen, Wang and Zhao, 2009). Specifically, Government regulatory authorities have strengthened the regulation of information disclosure of listed companies, especially after the implementation of CSRC 2001 policy. Chen and Peng (2007) find that this policy effectively curbed earnings management opportunism in the application of Chinese accounting standards and suggest that effective regulatory enforcement is significant in the harmonization of China's accounting practices with IFRS. Furthermore, Street and Gray (2002) provide the evidence that there is high compliance with accounting regulation due to improving audit regulation and monitoring in China.

Differences between China and Hong Kong

Hong Kong is a special administrative region of China. After its return from UK in 1997, Hong Kong is still governed under the common law system brought up by UK. This framework is expected to be maintained and carried out for at least fifty years under the one country and two systems policy. Therefore, Hong Kong and mainland China have separate and different economic, political, legal and cultural environments (Niu, 1997).

China is the largest regulated market while Hong Kong is regarded as freest economy in the world, governed under positive non-interventionism. Hong Kong's economic system is much similar to those mature and developed economies in which IFRS originated. Hong Kong financial market has a long history, starting in 1891. In contrast, China only developed its stock market in the 1990s. According to International Finance Corporation (IFC), Hong Kong stock market is classified as developed market. At the end of 2011, market capitalization of

Hong Kong stock exchange was HK\$ 17.5 trillion. A total of 1326 companies are listed on Hong Kong stock securities exchange.

Hong Kong is also one of the world's leading international financial centres with guaranteed strong investor protection and legal enforcement (Preiato, Brown and Tarca, 2011). Furthermore, Hong Kong financial markets are carefully watched and regulated under Securities and Futures Commission (SFC), an independent statutory body and Hong Kong Government Monetary Authority. While in mainland China, stock exchanges are regulated by China Securities Regulatory Commission (CSRC), which is part of the government's State Council (Niu, 1997).

As there are significant differences in terms of economy, regulatory and legal systems between mainland China and Hong Kong, this study compares the financial reporting quality for listed firms in mainland China with that of Hong Kong listed firms to examine any significant differences in financial reporting quality under IFRS regime in different environments. Hong Kong has converged with IFRS since January 1, 2005. To match the post-convergence period with China, the accounting quality is compared for these two areas in the period from 2007-2011. According to prior studies, accounting quality is higher in countries with a common law origin and high shareholder protection.

Research design

To compare the financial reporting quality for A-share firms and Hong Kong firms under IFRS regime, the study obtains a sample of Hong Kong listed and A-share firms from 2007 to 2011. Although, Hong Kong has started to fully converge with IFRS since 2005, this study limits the post-convergence period between 2007 and 2011 for Hong Kong sample firms to

match A-share firms. Final sample consists of 250 Chinese firms listed in A-shares for ten years and 100 Hong Kong listed firms for five years, which provides 3000 firm-year observations for the study. All financial and accounting data are collected from Thomson One databases. The sample firms are from a wide range of industries, with most in consumer discretionary, financials and industrials, IT, energy, etc.

There are several ways suggested by prior studies to measure financial reporting quality however, earning management has remained an effective benchmark measure (Lang et al. 2006; Barth et al. 2008; Paananen et al. 2009; Lin, Riccardi, and Wang, 2012). By constructing earnings management metrics, this study uses accounting information to compare the quality of financial reporting before and after substantial convergence with IFRS in China. Higher financial reporting quality is expected to demonstrate less reported earnings management.

Earning managing metrics

Earning smoothing is first measured by volatility of earnings, which is defined as the variability of residuals (Δ NI*) in Equation 1. The dependent variable is the change in annual net income deflated by total assets (Δ NI) and a group of control variables could potentially affect earnings. A smaller variance of Δ NI* could be evidence for earning smoothing.

The regression equation of ΔNI on the control variables is:

 $\Delta NI_{it} = \alpha 0 + \alpha 1 SIZE_{it} + \alpha 2 GROWTH_{it} + \alpha 3 EISSUE_{it} + \alpha 4 DISSUE_{it} + \alpha 5 TURN_{it} + \alpha 6 LEV_{it} + \alpha 7 CFO_{it} + \alpha 8 AUD_{it} + \epsilon_{it} \qquad (1)$

Where for firm *i* in year *t*:

 Δ NI= change in annual net income scaled by total assets; SIZE= natural logarithm of total assets; GROWTH =percentage change in revenues;

EISSUE = percentage change in common shareholders' equity;

DISSUE = percentage change in total liabilities;

TURN = revenues divided by total assets;

LEV = total liabilities divided by book value of equity;

CFO = annual net cash flow from operating activities divided by total assets;

AUD = dummy variable taking the value of 1 when the firm's auditor is one of the Big Four accounting firms, that is, PwC, KPMG, E&Y, or D&T, and 0 otherwise.

Similar to the first measure, the regression of the change in net income scaled by total assets (Δ NI) and the regression of change in operating cash flow scaled by total assets (Δ CF) is run on the same set of control variables identified in the first metric separately. Then residuals from these two regressions are obtained accordingly. The ratio is based on the variance of those residuals. Δ NI* is residuals from the regression of Δ NI on the control variables (Equation 1) and Δ CF* is residuals from the regression of Δ CF on the control variables is represented as:

The regressions are run separately for A-share firms before and after IFRS convergence and for Hong Kong listed firms in post-convergence period. Then, relevant residuals from those regressions are generated. Finally, the variance of the ΔCF^* and the variance of ΔNI^* are calculated before computing the ratio for respective group.

The earning management metric is to test managing toward small positive earnings. It is argued that managers have incentive to report small positive earnings instead of negative earnings. Moreover, the frequency of reporting small positive net income is higher for firms operating in poor investor protection environment (Leuz, Nanda and Wysocki, 2003). Following prior studies (Lang, Raedy and Yetman, 2003; Lang, Raedy and Wilson, 2006; Barth, Landsman and Lang, 2008), the study examines the frequency of small positive

earnings (SPOS). Dummy variable for SPOS is set to one if annual net income (scaled by total assets) is between 0 and 0.01, and equal to zero otherwise.

When comparing pre-convergence and post-convergence period for Chinese listed firms, the study analyses the regression of an indicator variable (Period 0, 1) that equals one for the period between 2007 and 2011 and zero for the period between 2002 and 2006 (Equation 5). A negative coefficient on SPOS indicates that A-share companies report small positive earnings more frequently before 2007 than afterward. When comparing for A-share firms and Hong Kong listed firm in the post-convergence period, IFRS (0, 1) is set to one for Hong Kong listed firms and zero for A-share firms. A negative coefficient on SPOS would suggest that A-share firms have higher probability to manage earnings toward a small positive target than Hong Kong listed firms. Thus;

Period (0, 1)
$$_{it}=\alpha 0+\alpha 1$$
SIZE $_{it}+\alpha 2$ GROWTH $_{it}+\alpha 3$ EISSUE $_{it}+\alpha 4$ DISSUE $_{it}$

+
$$\alpha$$
5TURN_{*it*}+ α 6LEV_{*it*}+ α 7CFO_{*it*}+ α 8AUD_{*it*}+ α 9SPOS_{*it*}+ ε_{it} (1)

The same applies where:

IFRS (0,1) $it=\alpha 0+\alpha 1$ SIZE $it+\alpha 2$ GROWTH $it+\alpha 3$ EISSUE $it+\alpha 4$ DISSUEit+ $\alpha 5$ TURN $it+\alpha 6$ LEV $it+\alpha 7$ CFO $it+\alpha 8$ AUD $it+\alpha 9$ SPOS $it+\epsilon it$ (2)

Table 1 presents the descriptive statistics of the sample variables for Chinese A-share firms and Hong Kong listed firms in the convergence period. A comparison between A-share sample firms and Hong Kong listed sample firms' reveals that the mean and median for all non-dummy test variables are significantly different, with the exception of change in operation cash flows (Δ CF). The change in net income (Δ NI) decreases in Hong Kong listed firms with negative mean and median, which are -0.0141 and -0.0028 respectively. On the contrary, A-share firms have experienced an increase in Δ NI (positive mean). It also can be seen that book value of equity per share (BVEPS) is substantially larger for Hong Kong sample firms than that for A-share sample firms. Both Hong Kong listed firms and Chinese A-share firms have negative stock returns (-0.0168 and -0.0151 separately) in the post-convergence period, though the mean difference is not significant.

In terms of control variables, Table 1 shows that although the size of those two groups of sample firms is similar, Hong Kong listed firms have higher growth than A-shares firms. However, the test statistics do not uncover significant difference in growth between the two groups. Further evidence demonstrates that A-shares firms have higher probability to issue debt than Hong Kong listed firms (median difference is significant). At the same time, it is highly leveraged for A-shares firms than Hong Kong firms, and the mean of leverage ratio is 1.4280 and 0.9688 respectively (both mean and median differences are significant). Finally, Hong Kong listed firms are more likely to be audited by the Big four auditors (AUD), which implies that Hong Kong has more professionals and better audit environment.

	Chinese A-shares firms N=1250			Hong Kong listed firms N=500		
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.
Test Variables						
ΔΝΙ	0.0005	-0.0003	0.1563	-0.0141*	-0.0028*	0.2083***
ΔCF	-0.0051	-0.0058	0.1295	0.0001	-0.0009	0.0975***
CFO	0.0424	0.0441	0.1030	0.0306	0.0289***	0.0855***
ACC	-0.0044	-0.0131	0.1283	0.7155***	0.0041***	4.0143***
SPOS	0.1330	0.0000	0.3397	0.1425	0.0000	0.3498
Price	11.8801	9.3050	8.2173	15.0745**	2.7200***	26.6984***
BVEPS	3.3512	2.8050	2.1672	14.6308***	3.2012	25.8241***
NIPS	0.3046	0.2050	0.4278	1.4776***	0.1766	13.1752***
NI/P	0.0242	0.0236	0.0517	1.7059***	0.0713***	12.4935***
RETURN	-0.0151	-0.0326	0.3757	-0.0168	-0.0140**	0.3903
Control Variables						
SIZE	8.4664	8.4033	1.1976	8.7979	8.4212	2.1624***
GROWTH	0.2618	0.1393	0.9417	0.3870	0.0691***	2.5063***
EISSUE	0.2416	0.0783	2.0944	0.2210	0.0885	1.0666***
DISSUE	0.3150	0.1259	2.6644	0.5560	0.0582***	3.9273***
TURN	0.7650	0.5762	0.7534	0.3916***	0.1947***	0.5097***
LEV	1.4280	1.1860	2.9218	0.9688**	0.4723***	6.3831***
CFO	0.0424	0.0441	0.1030	0.0306	0.0289***	0.0855***
AUD	0.1250	0.0000	0.3309	0.6800***	1.0000***	0.4671***

Table 1: Descriptive Statistics of A-share and Hong Kong firms in post period

*, **, ***indicates significant difference between A-shares firms and Hong Kong listed firms at the 10%, 5% and 1% confidence level, respectively (two-tailed). Non-dummy variables are winsorized at 5% level

Empirical Results

Table 2 presents results comparing the quality of financial reporting for China A-share firms and Hong Kong listed firms under IFRS regime. The result is consistent with the prediction that the accounting quality is higher for Hong Kong listed firms than A-share firms. It reveals that Hong Kong listed firms experience less earning management than A-share companies.

In terms of earnings management, Hong Kong listed firms exhibit a significantly higher variability of change in net income, Δ NI*, 0.0418 versus 0.0236. The second metric of earning management is the ratio of the variance of change in net income, Δ NI*, to variance of change in cash flow, Δ CF*, which consistent with the first finding indicates that the ratio is higher for Hong Kong listed firms (6.0871) than A-share firms (2.3561). The correlation between accruals, ACC*, and cash flow, CFO*, for Hong Kong firms of -0.0830, is significantly less negative than A-shares firms (-0.8214). The coefficient on SPOS, -0.3898, is negative, which suggest that A-share firms more frequently report small positive earnings, consistent with managing earning towards an earnings target. Overall, the findings for earning management provide evidence that Hong Kong listed firms have higher accounting quality than A-share firms in the forms of less earnings smoothing behaviour.

	Predict	A-shares	Hong Kong
		(n=1250)	(n=500)
Variability of ∆NI*	HK>A share	0.0236	0.0418***
Variability of ΔNI*/ΔCF*	HK> A share	2.3561	6.0871
Correlation of ACC* and CFO*	HK> A share	-0.8214	-0.0830***
Small positive net income (SPOS)	-	-0.3898##	

Table 2: Earning Management Metrics of A-share and Hong Kong Firms in Post-period

Sensitivity Analyses - Excluding Financial Firms

The consideration for the sensitivity analyses is that the regulatory environment for the financial firms is different from non-financial firms and financial industry is more likely to be influenced by its own industry-specific factors. Therefore, including financial firms in the sample may potentially affect the final results. Moreover, some prior studies exclude financial firms from their samples, such as Barth, Landsman and Lang (2008), Christensen, Lee and Walker (2008) and Liu et al. (2011). Even though this study have controlled the industry-specific factors by using industry fixed effect model, the analysis on non-financial firms is still repeated to further address this issue.

The results shown in Table 3 indicate that the financial reporting quality still has improved in non-financial firms. Consistent with the main result, there are less earning management and the variance of change in net income is greater for non-financial firms following convergent-IFRS adoption, which implies that non-financial firms evidence show lower earning smoothing in post-convergence period.

	Predict	Pre	Post
		(n=1035)	(n=1035)
Variability of ΔNI^*	Post>Pre	0.0059	0.0280***
Variability of $\Delta NI^*/\Delta CF^*$	Post>Pre	0.9371	3.4856
Correlation of ACC* and CFO*	Post>Pre	-0.7548	-0.7935
Small positive net income (SPOS)	-	-0.0946##	

Table 3: Sensitivity Analysis - Excluding Financial Firms

Conclusions

Overall, our results suggest that Chinese listed firms experience less earnings smoothing in the post-convergence period than in the pre- convergence period. The empirical results also demonstrate that Hong Kong listed firms has higher financial reporting quality than Chinese A-share firms. This finding further suggests that institutional factors have effect on accounting quality even under the same set of standards.

After controlling the confounding factors, industry fixed-effect regressions are conducted in the study. The overall empirical results indicate that Chinese A-share companies have significantly improved financial reporting quality after substantially converging with IFRS. The findings provide evidence that Chinese A-share firms experience higher volatility of reported earnings and have higher probability to manage earnings toward positive target in post-convergence period. This implies that A-share firms exhibit less earning management, thus an improved accounting quality since 2007.

The empirical results for comparison of A-share firms and Hong Kong listed firms under IFRS regime also support the hypothesis that financial reporting quality is higher for Hong Kong listed firms than that for Chinese A-share firms. More precisely, Hong Kong listed firms' exhibit less earning smoothing. This is also consistent with prior research that there is more earning management and lower value relevance in weaker investor protection environments (Leuz, Nanda and Wysocki, 2003).

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