行政院國家科學委員會補助專題研究計畫成果報告

全球會計準則之統合對資本市場國際化的影響

The Effects of Global Harmonization of Accounting Standards on Capital Markets Internationalization

計畫類別：☑個別型計畫　　□整合型計畫

計畫編號：NSC90－2416－H－002－010

執行期間：　90 年 8 月 1 日至 91 年 7 月 31 日

計畫主持人：林嬋娟

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1. 摘要

國際會計調和常見的爭議課題為採用國際會計準則是否可提升財務報表之可比較性及盈餘品質？本研究檢視 6 個亞洲新興資本市場在採用國際會計準則後，其對於可比較性及盈餘品質所造成的影響。本研究利用盈餘與價格乘數及帳面價值與市值比，檢視採行國際會計準則後，可比較性是否有所改進；此外，本研究以會計資訊攸關性作為盈餘品質的指標，利用 12 個月長窗期報酬對盈餘及盈餘改變之迴歸分析，以檢視採用國際會計準則前後之盈餘品質是否顯著不同。

研究結果顯示，6 個亞洲新興市場在採用國際會計準則後之後，其會計資訊的可比較性及盈餘品質並未顯著的改善。本研究結果基本上與 Ball, Robin and Wu (2000) 所獲得的結論一致。該研究認為，一個國家即使採用國際會計準則，但卻未改善其經濟、法律及政治等相關制度，則其會計品質將無法提升。

關鍵詞：亞洲新興市場、國際會計準則、盈餘品質、可比較性。

ABSTRACT

Whether comparability and earnings quality can increase after a country adopts International Accounting Standards (IASs) has long been one of the international accounting harmonization debates. In this study, the debate was investigated by using the data from six Asian emerging markets, which have adopted IASs in mid 1990s. Both earnings/price and book-to-market ratios were adopted to examine whether comparability has been improved. Furthermore, value relevance of accounting information is considered as an indicator of earnings quality. A regression model of 12-month stock returns on the contemporaneous level and change in earnings was used to measure the earnings quality.

The empirical results show that no significant improvement in the comparability and earnings quality has been found in the six Asian emerging markets after their adoption of IASs. Our results are basically consistent with those reported by Ball, Robin and Wu (2000). They concluded that the earnings quality may not be improved in a country with poor economic, legal and political environment even the IASs are adopted.

Keywords: Asian emerging market, International Accounting Standards, Earnings quality, Comparability.

2. Motivations and Purposes

After Asia's financial crisis, pressure has mounted for developing and adopting

a set of globally recognized standards. In October 1998, the Group of Seven leading industrial nations endorsed International Accounting Standards (IASs) as appropriate global financial reporting standards. Proponents of adopting the IASs argue that it would facilitate comparisons of companies' financial performance across countries, thereby enhance the efficient allocation in capital markets. However, the IASs are developed primarily based on the capital market characteristics in those developed countries such as US and UK. Therefore, it is questionable whether such standards are also optimal for developing and transitional economies that lack the infrastructure. Additionally, whether comparability and earnings quality will improve after an adoption of IASs is worthy of investigation. With the exception of Eccher and Healy (2000), extant studies only examined the informativeness of accounting disclosure, value relevance of accounting data, or transparency of accounting information in Japan, Hong Kong, Indonesia, Malaysia, or Singapore (Alford et al., 1993; Ali and Hwang, 2000; Ball, Kothari, and Robin, 2000; Ball, Robin, and Wu, 2000; Land and Lang, 2000). It is unclear whether the comparability and quality of accounting information had been improved in emerging markets. Thus, we select six Asian emerging markets including Indonesia, Malaysia, Philippine, South Korea, Taiwan, and Thailand to examine whether the comparability and earnings quality improve after six sample countries adopt IASs.

3. Change in Comparability over time

Comparability is the quality of information that enables users to identify similarities and differences between two or more sets of economic phenomena.

Following related literature like Alford et al. (1993), Joos and Lang (1994) and Land and Lang (2000), we use earnings/price (E/P) ratio and book/market (B/M) ratio to infer changes in the comparability over time. Both E/P and B/M ratios have the advantage of comparing accounting-based valuation of net income and shareholders' equity to a market valuation, the former provides insight into valuation on the income statement, while the latter focuses on the balance sheet. If the IASs reduced measurement differences across countries, we would expect convergence in ratios after adopting IASs.

4. Change in Earnings Quality over time

Beginning with Sloan (1996), extant studies consider accounting accruals as an important indicator of earnings quality that is useful for equity valuation. Accruals represent the difference between a firm's accounting earnings and its cash flows. However, the accrual method, which is used to measure earnings quality, is not an appropriate method for cross-jurisdiction comparison. Thus, we consider value relevance of accounting information instead of accruals as an indicator of earnings quality. If earnings quality is increasing over time, the R^2 should increase over the sample period.

We estimate the value relevance of earnings by using the following model:

$$R_{et_{it}} = a_0 + a_1 \Delta E_{it} / P_{it-1} + a_2 E_{it} / P_{it-1} + «_{it} \quad (1)$$

Where $R_{et_{it}}$ is the market-adjusted return for firm i and year t. E_{it} is earnings per share for firm i at time t. μ_{it} is the residual term.

We estimate both yearly regressions

and pooled regressions of the returns specification in equation (1).

5. Data and Sample

5.1 Data

Our data are obtained from the DataStream Equity/Company accounts database, which contains up to ten years of historical stock prices and financial data from home-country annual reports of publicly traded companies around the world. Variables we get include total assets (392), total liabilities (2401), net earnings per share (254), market value (MV) and adjusted price (P).

We exclude the two extreme percentiles of each variable (i.e. total assets, total liability, EPS, MV and P). Next, we exclude each firm/year with a missing value for any variable, giving the same observation set for the various variables and model estimated. Third, we exclude countries with less than 500 firm/year observations for the period of 1992-2001. Finally, banks and financial institutions are excluded from the empirical analysis. This leaves us with a final sample of 9,658 firm-year observations for the fiscal years 1992-2001 across 6 Asian countries including Indonesia, Malaysia, Philippines, South Korea, Thailand and Taiwan.

5.2 Descriptive Statistics

Earnings/price is defined as earnings per share divided by price per share at year-end. Two facts are worth noting. First, the overall patterns in earnings/price ratios are generally different from those documented in other studies beginning with Speidell and Bavishi (1992). Land and Lang (2000), for example, find that mean earnings/price ratios in sample firms are above zero. However, in this study the mean earnings/price ratios for Indonesia, Philippines, South Korea and Thailand are negative. A possible explanation to this phenomenon could be Asia's financial crisis. Most of firms in Asia, especially in Thailand, have suffered substantial losses since 1997. Further analysis indicates that mean earnings/price ratio of six countries in our sample is negative for the period 1997 to 2001. The percentage of firms, which incurred losses, is found to be increased. In Thailand, for example, about 9.4 percent of firms has negative earnings/price ratio for the period of 1992-1996, while approximately 39.2 percent of firms has negative earnings/price ratio for the period of 1997-2001. Second, Land and Lang (2000) indicate that earnings/price ratios are higher and quite similar in the common law countries: Australia, Canada, UK and US. However, earnings/price ratios are not higher in the 'common' law counties, for example Thailand, of our sample.

Descriptive statistics of book to market ratios indicate that Taiwan and Malaysia have the lowest book/market ratios, while Philippines and South Korea have the highest book/market ratios. Overall, the mean book-to-market ratio in six sample countries is higher than that reported in Land and Lang's (2000) sample countries.

6. Empirical Results

6.1 Changes in Earnings/price Ratio Over Time

To test for changes in comparability over time, we estimate a regression splitting the sample period in two, comprising the pre- and the post-IAS adoption period. In July 1995, IOSCO agreed to endorse IASs for use in cross-border listings on securities

exchanges in all major countries when the IASC had satisfactorily completed a specified set of high-quality accounting standards (known as the "core" standards). The IASC started to prepare the core set of standards in 1995 and completed in December 1998. Although IOSCO endorsed the IAS standards in May 2000, many countries started to adopt IASs from 1997. Therefore, we include 1993-95 in a pre-IAS adoption period for all countries and 1998-2000 in a post-IAS adoption period.

We regress earnings/price ratio on indicator variables for each country/sub period grouping (i.e. 6 countries * 2 sub-periods = 12 groups). To test for deviations from the mean, we mean-adjust each E/P ratio by the mean E/P ratio for that sub-period.

The regression results indicate that two countries, Malaysia and Taiwan, retain their direction relative to the mean in the second period. Except for Malaysia, the other five countries move farer from the mean. For example, the mean earnings/price ratio for Indonesia, which was 0.024 greater than the mean in the first period, moves to 0.072 less than the mean in the second period. Philippines, South Korea and Thailand move from above the mean in the first period to below the mean in he second period. In most cases, the coefficient remains significantly different from zero, suggesting that differences still exist although six Asian countries adopt IAS.

In terms of the overall dispersion, figure 1 suggests large differences in means over the sample period, particularly for Philippines and Malaysia.

6.2 Change in Book/Market Ratios over Time

Book-to-market ratios would not be expected to change as quickly in response to changes in accounting because shareholders' equity includes the effects of accounting choices made over the life of the firm and accounting changes are generally applied prospectively. Nevertheless, if there have been changes in accounting which have made measurement more comparable, we would expect to see a narrowing of book/market ratios over time.

Figure 2 reports results from estimating the regression of mean-adjusted book to market on the twelve country/sub-period indicators. We base inference on whether coefficient estimates move closer to the mean. There is no evidence of convergence in the post-IAS adoption years. In contrast, the differences of book-to-market ratios in six countries become larger in the post-IAS adoption period.

6.3 Quality of Earnings over time

The results of year-by-year regressions indicate that the R^2s in Indonesia, Malaysia, Philippines, South Korea and Thailand have no clear pattern over time. However, the R^2 of return regression in Taiwan gradually decreased since 1998. The results are consistent with those reported by Lee (2001), which demonstrates that both the incremental value relevance of 'bottom line' earnings and the combined value relevance of earnings and book values have declined over the past fourteen years in Taiwan. Additionally, Collins et al. (1997) suggest incidence of negative earnings is likely to contribute to changes in the value-relevance of earnings and book values over time. Results indicate that about 23.8 percent of firms incur negative earnings from 1997 to 2001 , while only 13.4 percent of firms incurring negative earnings from 1992 to 1996. Therefore, one possible reason for

decrease in R^2 is due to negative earnings.

The results of pooled regressions for the pre-IAS adoption period show that the R^2s for the pre-IAS adoption period are highest in Taiwan, followed by Malaysia and South Korea, suggesting that net income reported in those three courtiers was more value relevance than that in the other three countries for the pre-IAS adoption period. Results of pooled regressions for the post-IAS adoption period suggest that the R^2s in Indonesia and Taiwan were higher than those in the other four countries. There is little evidence of convergence or increase in R^2s for six Asian countries in the post-IAS adoption period, suggesting that adopting the IASs did not significantly improve the value relevance of accounting data.

7. Conclusion

Overall, our results do not suggest that accounting data have become more comparable over the sample period. Results for both tests in earnings/price ratios and book to market ratios suggest that significant differences still exist.

In terms of the analysis of the explanatory power of accounting data for share price, there is little evidence of improvement of earnings quality over time.

Our evidence is consistent with those reported by Ball, Robin and Wu (2000). Their results show that high-quality standards do not guarantee high-quality financial reporting. As suggested by Ball, Robin and Wu (2000), if adopters do not drastically alter their enforcement mechanisms and other political, legal and economic factors affecting reporting incentives, and then adopting IAS will not improve comparability across countries and earnings quality.

7. References

Alford, A.; J. Jones; R. Leftwich; and M. Zmijewski. 1993. Relative Informativeness of Accounting Disclosures in Different Countries. *Journal of Accounting Research*, 183-233.

Ali, A. and Lee-Seok, Hwang. 2000. Country-Specific Factors Related to Financial Reporting and the Value Relevance of Accounting Data. *Journal of Accounting Research*, 1-21.

Ball, R.; S. P. Kothari; and A. Robin. 2000. The effect of International Institutional factors on properties of accounting earnings. *Journal of Accounting and Economics*, 1-51.

Ball, R.; A. Robin; and J. S. Wu. 2000. "Incentives Versus Standards: Properties of Accounting Income in Four East Asian Countries, and Implications for Acceptance of IAS." Working paper.

Collins, D. W., L., E. L. Maydew, and I. S. Weiss. 1997. Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics* 24:39-67.

Eccher, E. and P. M. Healy. 2000. "The Role of International Accounting Standards in Transitional Economies: A Study of the People's Republic of China." Working Paper.

Land, J. and M. Lang. 2000. Empirical Evidence on the Evolution of Global Accounting. Working Paper.

Lee, Chihang. 2001. A study on changes in the value relevance of earnings and book values. Unpublished Master Thesis, National Taipei University.

Figure 1

Earnings/Price Regression

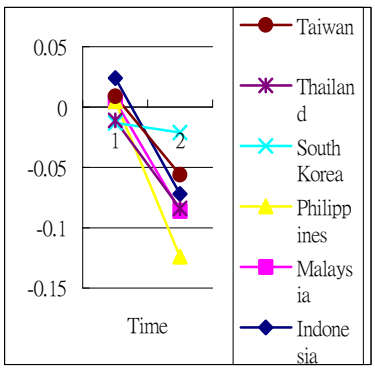
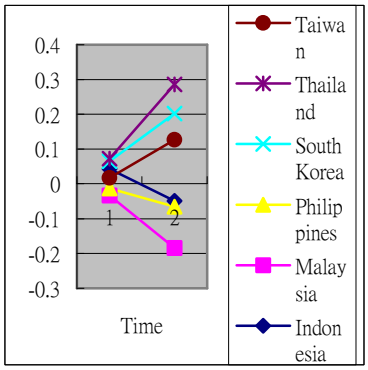


Figure 2

Book/Market Regression