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Comparison of cosmetic earnings management for the developed markets and emerging markets: Some empirical evidence from the United States and Taiwan

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ABSTRACT

This study examines the effect of the implementation of corporate governance regulations on cosmetic earnings management in developed and emerging markets respectively. Using Benford's Law, the analysis employs 84,870 positive earnings observations for all publicly listed US and Taiwan companies from 1990 to 2011.
The empirical results show that, regardless of developed markets and emerging markets, the phenomenon of cosmetic earnings management exists. In contrast to developed markets, corporate managers of emerging markets have stronger incentives to manipulate earnings. More importantly, it was found that the degree of earnings management is significantly less after implementing corporate governance regulations both in developed and emerging markets. This result suggests that the implementation of corporate governance regulations plays an important role in reducing the earnings manipulative behavior. The findings of the study add more evidence to the ongoing debate about the effectiveness of corporate governance regulations in preventing earnings management.

1. Introduction

Existing information asymmetry problem makes it difficult for investors to understand the real underlying situation of firms. The information asymmetry problem is more acute in emerging markets or developing economies, making financial statements of firms in developing countries more suspicious than those in developed countries (Vives, 2006). Several researches suggest that the value relevance of accounting information is lower in less developed countries than in more developed countries (Biddle and Hilary, 2006; Biddle et al., 2009; Hope and Thomas, 2008; McNichols and Stubben, 2008). High-quality accounting information seems to be desirable in mitigating information asymmetry for firms (Chen et al., 2011).

Earnings management is the manipulation of accounting numbers within the scope of the Generally Accepted Accounting Principles (GAAP) (Jackson and Pitman, 2001). Healy and Wahlen (1999) believed that managers use subjective judgment in financial reporting or transaction recognition to manipulate financial reports. Earnings management is often considered materially misleading and thus a fraudulent activity to the stakeholders, even though the changes may follow all of the accounting standards and laws. Obviously the existence of earnings management will reduce the quality of financial statements.

Excessive earnings management often causes serious corporate fraud. To reduce the probability of occurrence of corporate fraud, numerous countries have enacted laws to strengthen the corporate governance mechanism, such as the United States and Taiwan.[1]

World Bank (1999) defines that the complete corporate governance framework consists of internal and external mechanisms. Good internal corporate governance mechanisms, including ownership structure, the board of directors, and timely and accurate disclosure of relevant information, can reduce the earnings management motive of managers. These internal mechanisms for corporate governance can be strengthened by external laws, rules, and institutions. In developed market economies, these policies and institutions minimize the divergence between social and private returns and reduce costly agency problems, primarily through greater transparency, monitoring by regulatory and self-regulatory bodies, and compliance mechanisms (World Bank, 1999).

The extent of earnings management is strongly related to the countries' institutional arrangements (Man and Wong, 2013). Compared

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[1] The Sarbanes–Oxley Act of 2002 is one fundamental step toward enhancing the quality of financial statements in the United States. In 2003, Taiwanese regulatory authorities began implementing programs to strengthen the corporate governance mechanism, including the Corporate Governance Best-Practice Principles (CGBPP) for TWSE/GTSM-Listed Companies, Market Observation Post System, Corporate Governance Best-Practice Principles for Securities Firms (2003), Corporate Governance Best-Practice Principles for Future Firms, and Information Disclosure Assessment of Publicly Listed Companies.

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with emerging markets, developed markets have better investor protection and more comprehensive legal systems. Burgstahler et al. (2006) show that countries with stronger legal systems have lower earnings management. In addition, countries with lower investor protection usually have a higher extent of earnings management (Leuz et al., 2003). Therefore, we expect that emerging markets with weaker investor protection could give inside managers more incentive to manipulate firm performance.

Prior research shows that the critical determinants of earnings management have been separated into two major categories. In the first category, zero is adopted as the threshold of earnings management. Hayn (1995) suggested that firms avoid reported loss, conduct earnings management, and cross over the zero-earnings thresholds. In the second category, a key reference point, represented by $n \times 10^k$, is used as the threshold of earnings management (Guan et al., 2006; Herrmann and Thomas, 2005; Lin et al., 2011). For example, if net income is expected to be $70 million but the actual earnings are only $69 million, managers may have an incentive to adjust the earnings data to allow the net income to achieve the expected earnings threshold. Benford's law has been widely applied to financial data to investigate instances of digital rounding.

Although substantial studies have been performed on digital analysis using Benford's law, there is still little research to compare the difference between developed and emerging markets. This study aims at comparing the earnings management phenomenon between developed and emerging markets by utilizing Benford's law. We observe the existence of earnings adjustments exceeding the key reference point, and analyze whether an earnings management anomaly exists. Furthermore, has earnings management changed as governments gradually strengthen corporate governance mechanism? What is the difference of cosmetic earnings management between a developed market and an emerging market? Using Benford's law, this study investigates the difference of cosmetic earnings management between developed and emerging markets by observing the real distribution of earnings numbers reported in the United States and Taiwan. The study could supply more evidence to the ongoing debate about the effectiveness of corporate governance regulations in preventing earnings management.

2. Literature review

2.1. Corporate governance mechanism and earnings management

The occurrence of the agency problem results from the separation of ownership and control. The managers might pursue their self-interest to maximize their own wealth, perhaps at the expense of other stakeholders' wealth and interests (Jensen, 1986). Contracts may request the managers to disclose relevant accounting information in order to protect the stakeholders' interests. However, due to accounting information is provided by the managers, who may overstate the numbers in the financial statements through their accounting estimates and standards (Watts and Zimmerman, 1986). The existence of earnings management will reduce the quality of financial statements.

Corporate governance would efficiently reduce the agency problem between shareholders and managers (Gompers et al., 2003). John and Senbet (1998) defined that corporate governance “deals with mechanisms by which stakeholders of a corporation exercise control over corporate insiders and management such that their interests are protected.” Man and Wong (2013) consider that an institutional environment which provides robust legal protection can control managers' self-interest to a certain extent. Prior researches have shown that firms with effective governance mechanisms can successfully minimize earnings management behavior (Dechow et al., 1995; Liu and Lu, 2007; Marra et al., 2011; Peasnell et al., 2000; Shen and Chih, 2007; Zéghal et al., 2011).

Dechow et al. (1995) demonstrated that thorough governance reduces the adverse effects of earnings management. They found that firms that overstate earnings are more likely to have a board with inside directors and a CEO serving as the board chair. Peasnell et al. (2000) showed similar findings in which firms with a high proportion of outside directors are unlikely to take earnings manipulation when earnings fall below the threshold. Liu and Lu (2007) investigate the relation between earnings management and corporate governance in the Chinese listed companies. They demonstrate that firms with higher corporate governance levels have lower levels of earnings management. Chang and Sun (2009) find earnings management to be negatively related to the independence of the audit committee and the board of directors after SOX. Their findings suggest that the SOX provisions improve the effectiveness of cross-listed foreign firms' corporate-governance functions in monitoring the quality of accounting earnings. Zéghal et al. (2011) show a positive influence of external audit quality on reducing earnings management. Marra et al. (2011) found an increase in the influence of audit committees in strengthening the financial reporting quality after the introduction of the International Financial Reporting Standards (IFRS). The result shows that corporate governance mechanisms are key factors in earnings quality.

There are differences in corporate governance between emerging markets and developed markets. Prior studies find that the characteristics of weak investor protection institutions involve severe earnings management and a low level of earnings information (DeFond et al., 2007; Leuz et al., 2003). Several studies demonstrate that it is less likely for managers to manipulate earnings when there is greater legal protection (Nenova, 2003; Shleifer and Wolfenzon, 2002). Developed markets tend to have more extensive disclosure requirements, stronger private and public enforcement of security regulations, and stronger shareholder and creditor rights to reduce the level of managerial discretion.

Leuz et al. (2003) find that earnings management decreases in countries with stronger investor protection. Ball et al. (2003) argue that the institutional arrangement of a country is the most important feature in controlling managers' self-interest, reducing opportunistic earnings manipulation, and improving the quality of financial statements. Shen and Chih (2007) show that earnings management lowers in countries with stronger investor protection and more transparent accounting disclosure. Legal systems protect stakeholders' rights by conferring on their powers to discipline managers as well as by enforcing contracts designed to limit managers' benefits (Claessens et al., 2002; Dyck and Zingales, 2004; La Porta et al., 1998).

Mehmet and Emin (2012) find that whether international big audit firms provide high quality services or not, the audit environment, which is affected directly by the legal environment and effectiveness of the legal system, is more important than audit quality. Firms in a strong enforcement environment seem to induce a decrease in the level of discretionary accruals, compared to firms in the weak environment. The quality of a government depends on other institutional constraints such as constitution, laws, and the political system. Firms under the influence of a low quality government tend to have complex organizational structures, poor transparency and weak corporate governance (e.g., Fan et al., 2012; Jiang et al., 2010; Leuz and Oberholzer-Gee, 2006).

Poor disclosure and financial opacity are common characteristics of emerging market firms. It is well acknowledged that the financial opacity of emerging market firms cannot be improved by changing the accounting system alone, because the enforcement of accounting rules depends on strong institutions which are lacking in these markets (Ball et al., 2000). In countries with stronger investor protection laws, managers and controlling shareholders are less likely to expropriate the firm's resources and more likely to invest in projects that benefit shareholders (Bekaert et al, 2010; Shleifer and Wolfenzon, 2002; Wurgler, 2000).