



Earnings Management: A Comparative Literature Review between China and Thailand

Kulroop Dan^{1*} Xu Yongbin² Xie Shilei³ Fu Guotian⁴ Yang Yulong⁵

Article Information

Received: Jul 11, 2019

Accepted: Oct 28, 2019

Available Online: Dec 23, 2019

Abstract

This paper attempts to offer a comprehensive overview of earnings management in China and Thailand. Towards that end, 99 articles examining earnings management that used the data in China and Thailand, and published between 2000 and 2017, were reviewed. An article was selected for screening in terms of the measurement types of earnings management addressed and their motives, and whether it addressed the existing literature gap. Additionally, the review attempted to synthesize the latest definitions and evolutions of earnings management discussed in the selected papers. The findings indicate that both countries have earnings management practices, in both accruals-based and real activities-based forms, but the classification shifting-based earnings management has not been observed. Second, this paper shows that the highest motives for earnings management in China are the stock market motives followed by the bonus plans or compensation plans motives, the political cost motives, and the debt covenant motives respectively. In Thailand, the first two motives for earnings management are similarly ranked as those in China, with the stock market motives followed by the bonus plans or compensation plans motives. However, debt covenant motives supersede political motives in Thailand. Finally, this paper has found a gap in earnings management research focusing on the comparative empirical study between China and Thailand during the study period; the opportunities for future research are set out in conclusion.

Keywords: Earnings Management, Literature Review, China, Thailand

^{1*} Lecturer in Accounting Program Faculty of Management Science, Lampang Rajabhat University.

² Ph.D. of Accounting, Zhejiang Gongshang University, China.

³ Ph.D. of Accounting, Shanghai University of Finance and Economics, China.

⁴ Ph.D. of Accounting, Royal Holloway University of London, United Kingdom.

⁵ Ph.D. of Accounting, Shanghai University of Finance and Economics, China.

Introduction

In the last two decades, an enormous body of research on earnings management has been conducted with a view to addressing the preexisting gaps in the literature on accounting theory. Positive accounting was first introduced in the late 1960s when Ball and Brown (1968) examined the association between accounting earnings and stock prices or whether earnings announcements convey information to the stock market. Some researchers have had to study the impact of the annual net profit report on the stock market and the systematic abnormal return after quarterly earnings announcements (Brown, 1970; Watts, 1978). The practitioners and regulators clearly perceive that earnings are the factor affecting the stock price, and the profits have become the critical information conveyed to the stock market and socio-economy. There have been well-known instances in the past where the influence of accounting numbers on the economy and society are clearly manifested. A large business organization can collapse within a few days because of the fraudulent deviation of accounting information. Cases in point are the infamous accounting scandals of the energy giant Enron and the American telecommunication corporation WorldCom. These scandals have been so outrageous as to achieve mythical proportions for latter generations. The collapse of these two giants also dragged down the biggest auditing firm Arthur Anderson and caused its meltdown. These momentous phenomena have raised the awareness of regulators, standard setters, auditors and accountants on their responsibility to the public. Predominantly, the existing literature maintains the influence of earnings on stock prices. Therefore, earnings management will exist as long as the relationship between earnings and stock price prevails.

The previous studies have focused more on the specific situation or circumstances within one particular country. There are a few comparative studies on earnings management that have tried to obtain evidence from different institutions in different countries with varying backgrounds. It is well-known that China is the most significant and fastest economic growth in the world. China attempts to expand its economy to neighbor countries for more sustainable growth. Thailand is a small one of China's neighbor countries, which is one of the founding members of the new free trade area called the ASEAN Economic Community (AEC). Thailand is a central geographic location among the other members in the AEC, and this valuable location makes Thailand more alluring for investors to place more capital into the economic system with the hope of gaining a return on time. However, there is no research to date that compares earnings management practices in a big economy like China and those of a small one as in Thailand.

Therefore, this paper tries to conduct a comparative review of earnings management articles between China and Thailand. Moreover, this paper builds on the theoretical perspectives of previous research on earnings management in order to compare the available literature review on China and Thailand. Findings in this paper will be useful for researchers to understand the

earnings management mechanisms in both countries and conduct further research to fill the gaps in the literature. The definition and measurement of earnings management are written in the second part of this paper. The third part explores the motives and constraints of earnings management while the fourth part attempts to fill the gap in the earnings management literature comparing China and Thailand. The conclusion wraps up the paper.

Definition and Measurement of Earnings management

Healy (1985) defines earnings management as the decision undertaken by management in selecting accounting procedures responding to their demands. Schipper (1989) also supports that definition, which maintains that earnings management is the result of management incentive to choose from the variety of accrual options available under Generally Accepted Accounting Principles (GAAP), and producing accounting numbers could in principle be managed to the point of uninformativeness. These definitions state that management employs techniques to manage accounting numbers with the GAAP; the results are the manipulation of net profits in response to the specific purpose (Dechow & Sloan, 1991; Defond & Jiambalvo, 1994; Rangan, 1998; Sweeney, 1994; Teoh et al., 1998). Whether earnings management has a good or bad side-effect on the stakeholders, and whether it is legal or illegal, is determined by the effect of the practice in each case. According to the study of Dechow and Skinner (2000), earnings management activities can be implemented without violating the GAAP, utilizing either accounting choices or real cash flow choices. According to them, it constitutes aggressive accounting or conservative accounting to manipulate reported earnings. These methods are not illegal in contrast to fraudulent accounting which violates the GAAP. Another way to explain earnings management is as the real cash flows choice from ordinary operational practices. In other words, it is the deviating of neutral transaction motivated by managers' desire and misleading some stakeholders (Roychowdhury, 2006). Another study suggests that earnings management is the distorting of the natural items in the statement of income to reach some specific purpose (McVay, 2006). Subsequently, earnings management can be defined as the choices in accordance with managers' judgments of accounting policies, or real actions, affecting earnings or items in the financial statement to report unfaithful representation of operating activities so as to achieve some specific purpose. Taking all the aforementioned perspectives into account, earnings management can be categorized into three groups: accruals-based earnings management; real activities-based earnings management; and classification shifting-based earnings management.

Accruals-based earnings management: This category is the first type of earnings management that has been studied. The most notable research in this area is the Healy model (1985) that uses the items in the financial statement to calculate the deviation of earnings from the neutral aspect. In subsequent studies, researchers used the regression model to extract the distortion of accounting numbers but still used the items in the financial statement, for example, Jones's model (1991), the modified Jones model (Dechow et al., 1995), the Industry model (Dechow & Sloan, 1991), and the Performance-matched discretionary model (Kothari et al., 2005). However, from the managers' point of views, earnings management is a trick that can be used within accounting standards.

Real activities-based earnings management: This method employs the actual business transactions rather than using the principle of the accounting standard. It can occur when the firms' managers use judgment in structuring transaction to alter financial reports. The notable models in real earnings management are sales manipulations, overproduction, and delay sale and administration expenditure, as put forward by Dechow and Skinner (2000) and Roychowdhury (2006). However, real earnings management is not only the structuring of ordinary business transactions but also made through financial instruments such as securitization (Dechow et al., 2010) and debt-equity swaps (Lys & Sivaramakrishnan, 1988). Moreover, some companies countenance to sell their assets to upward their earnings (A. Gunny, 2010).

Classification shifting-based earnings management: This method does not affect the bottom line of the statement of income, but the different lines of income statement items provide a variety of ways by which information can be presented to the users. Therefore, the firms' managers distort the neutral items in the statement of income to reach some specific purpose. The predominant model used to study this type of earnings management is the McVay Model (2006).

Incidentally, researchers have many ways to detect earnings management, but they cannot directly report the numbers of manipulation. The researchers always use the proxy of earnings management. According to the positive accounting theory, the ways to measure the proxy of earnings management are used to explain and predict the accounting practices. The state "if A, then B" is suitable with the regression analysis, which makes it the most used model to explain and predict earnings management. To clarify the aspect of ways to detect earnings management in each category, this paper gathers the regression model of accruals-based, real activities-based, classification shifting-based earning management regression.

Motives and Constraints of Earnings management

The wide range of earnings management studies explains and predicts earnings behavior depending on managers' motivations. Even though engaging in earnings management is risky and entails costs, the firms' managers still manipulate their reported earnings. How about the risks to reputation, liabilities to litigation, and costs to their corporation? The reason is the benefits of earnings management are significantly higher than the risks, liabilities, and costs involved. This paper identifies four broad categories of earnings management motives. These are: the stock market motives; the bonus plans or compensation plans motives; the debt covenant motives; and the political cost motives. Moreover, this paper also explains the constraints that deter earnings management.

The stock market motives

The stock market is the source from which corporations pool funds. Stock market motives are influenced by earnings threshold which needs to meet the regulatory oversight of monitoring bodies. The interaction between stock markets and accounting earnings motivates the firms' managers to practice earnings management. That being said, the investors accept the risks of the investment in the stock market notwithstanding the systems and mechanisms of the regulator. Therefore, the reliability of accounting information in the stock market depends on corporate governance and suitable regulations. This paper recognizes three stock market motives of earnings management: meeting earnings threshold, earnings smoothing, and specific situations of the stock markets.

The meeting earnings threshold is an essential criterion for the listed company. The firms' managers try to meet or beat the expectation of strict benchmark for the good images of the firms and for the stock price on the Money Rivers of the stock market. For example, the firms' managers use discretionary accruals or real activities manipulation to meet the analysts' expectation, small loss avoidance, IPOs' criteria, and delisting criteria (Burgstahler & Dichev, 1997; Burgstahler & Eames, 2003; Degeorge et al., 1999; Dutta & Gigler, 2002; Gunny, 2010; Liu et al., 2014; Perry & Grinaker, 1994; Rangan, 1998; Roychowdhury, 2006; Sun & Liu, 2009). Nevertheless, the beating threshold evidence shows the relationship between earnings management and stock market principle. It is critical for investors, analysts, and regulators to be able to detect firms' earnings management as well as to enhance financial information. Meanwhile, earnings smoothing is the way earnings are manipulated to eliminate unsteadiness around the abnormal for the firms' operation. The firms' managers use discretionary accruals or real activities manipulation or classification shifting to reduce the variation of earnings (Aflatooni & Nikbakht, 2010; Bartov, 1993; Defond & Park, 1997; Hepworth, 1953; Ronen & Sadan, 1981; Trueman & Titman, 1988). Furthermore, the specific situations of the

stock market such as the seasoned equity offerings, split share situation, and stock repurchases encourage the managers to decorate reported profit to achieve the growth earnings (Rangan, 1998; Shivakumar, 2000; Teoh et al., 1998).

The bonus plans or compensation plans motives

The compensation contracts between firms and their operators provide some incentives for managers to manipulate reported profit that increase their reward. This motive is influenced by the asymmetric information theory, the agency theory, and the contracting theory. The personal incentives of managers serve as a motive for earnings management to beat important goals. The firms' managers use earnings information to maximize their wealth in the form of bonus schemes, compensation plans, share-based compensation, and also to show a good image of their company to their stakeholders (Ashley & Yang, 2004; Carter et al., 2007; Chaney & Lewis, 1995; Defond, 1992; Defond & Jiambalvo, 1994; Demers & Wang, 2010; Healy, 1985; Hoseininasab, 2015; Huang et al., 2014; Jiang et al., 2013; Kim & Schroeder, 1990; Lee & Liu, 1999; Ola & Ijadi, 2014; Pevzner et al., 2010; Sweeney, 1994; Warfield et al., 1995). Therefore, when the firms set the compensation contracts, they must anticipate the managers' motives for manipulating earnings.

The debt covenant motives

The moral hazard problems between managers and lenders arise from debt contracts typically based on accounting variables such as excessive dividends, additional borrowing or letting working capital fall below specified levels. These dilute the security of existing lenders and raise interest rates. The managers will be expected to avoid incremental lender cost. Earnings management in a debt covenant context can be investigated from the firms that had defaulted on debt contracts; the firms' managers tend to undertake new accounting standards to increase earnings with or without discretionary accruals in order to manipulate reported profit (Defond & Jiambalvo, 1994; Sweeney, 1994). The best reason for this motive is the survival of the firm when it faces trouble from debt contracts.

The political cost motives

In this paper, the political motives refer to the accounting choices made by firms' managers as a reaction to regulation. These motives are influenced by agency theory, the contracting theory, and political theory. It is possible that the firms' managers may report a high or low profit to escape from governmental interference, such as, the taxes rates and the required forms the stock market monitors. Moreover, some industrial companies are more likely to manipulate earnings to avoid labor negotiation strength (Chen, 2010; X. Chen et al., 2008; Field & Wongwatanasin, 2007; Ibrahim

et al., 2011; Jones, 1991; Lau, 2004; Liberty & Zimmerman, 1986; J. Liu et al., 2014; J. Sun & Liu, 2009; N. Sun, 2008).

Earnings management constraints

Many studies have sought to identify the factors that deter earnings management. Building on their findings, this paper also reviews the main factors that constrain earnings management. These are corporate governance characteristics, audit quality, institutional ownership and firms characteristics, and accounting standards. The details will be explained as follows.

1. Corporate governance characteristics: The main purpose of corporate governance is the transparency of corporate operations. The stock market regulators always emphasize corporate governance in the listed company. The characteristics of corporate governance vary depending on the background of the firms. Many studies focus on board characteristics (independence, size and CEO duality) and audit committee characteristics (size, independence and meeting of audit committee) as the proxy of good or bad corporate governance with a view to deterring earnings management (Haw et al., 2011; Q. Liu & Lu, 2007; Lo et al., 2010; Man & Wong, 2013). Moreover, some studies suggest indirectly that the manager's ownership may lessen the incentives for them to increase income excessively through earnings management.

2. Audit quality: Stakeholders expect auditors to practice independently and with expertise, both of which reflect on the accounting information used for decision-making by the stakeholder. Many studies examine the relationship between auditor or audit firms characteristics and earnings management by their client. Audit quality has different proxies: auditors' industry expertise as an indicator for audit quality; and auditor size (either as dichotomous Big x – NonBig x, or as continuous measure of size) (Becker et al., 1998; Defond & Jiambalvo, 1993; Francis et al., 2011; Frankel et al., 2002). However, the most important characteristic of the auditor is independence, which can be compromised when the audit firms are linked to their clients. As such, when a firm hires the CFO directly from its auditing firm, it affects the independence of the auditor. Nevertheless, the overall relationship between potentially weakened auditor independence and a decline in audit quality (measured by earnings management proxies) hasn't been proven.

3. Institutional ownership and Firms characteristics: Firms that have institutional ownership possess more power in terms of monitoring capabilities, cash flow right, and knowledge to put constraints on earnings management. There are also other characteristics of firms that can lessen earnings management, for example, firms with poor financial status, firms with a large customer base, firms without market-leader status, and firms with higher marginal tax rates.

These characteristics of the firms may deter earnings management (Bange & De Bondt, 1998; Bushee, 1998; Roychowdhury, 2006; Zang, 2012).

4. Accounting standards: Previously, Healy et al. (2002) had examined the trade-off between objectivity (in accounting for R&D investments) and the relevance of the accounting information, whereby a simple capitalization rule (in which R&D investments are capitalized and written down when unsuccessful or amortized over the expected life when successful) leaves more room for earnings management. To reduce earnings management (by accounting techniques), many studies suggest setting more rigorous accounting standards by limiting opportunistic management discretions in manipulating accruals and real activities (Likitwongkajon & Sutthachai, 2015; Zhou & Habib, 2013).

Literature review on China and Thailand

As mentioned above, there is a large corpus of research on the topic of earnings management, and the research has been ongoing so long as the flexibility of accounting principle choices remains an underlying factor for the business activities. This paper reviews prior research on earnings management in China and Thailand from various sources, such as, the Elsevier Science Direct, the EBSCO, the Emerald, and JSTOR, as well as the open search engines like Baidu Scholars and Google Scholars. The articles selected for this study were published from 2000 to 2017 in the English language. To get a deeper understanding of the literature in earnings management in China and Thailand, this paper provides the number of articles, the motives, and the measurement of earnings management as seen in the sections below.

Distribution of earnings management articles on China and Thailand by year

A careful survey of research articles on earnings management in China and Thailand yielded an interesting trend in the distribution of the articles by year for the period from 2000 to 2017 as shown in figure 1.

Figure 1 the number of earnings management article between China and Thailand

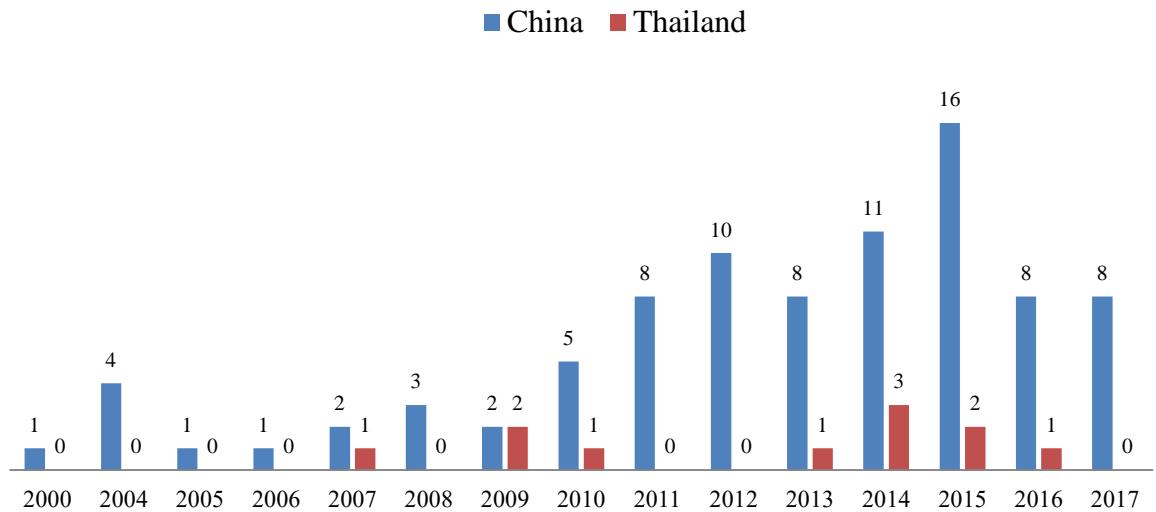


Figure 1 shows 99 articles in total dealing with earnings management in both countries. It is easy to forecast that as the biggest country with the fastest economic growth in the world, China has a greater number of articles than Thailand. China has 88 articles while 11 articles are about Thailand. The year 2015 was when the highest number of papers were published in China with 16 articles pertaining to accruals-based and real activities-based earnings management. For example, 'earnings management at the back door' (Zhu et al., 2015) shows the reverse mergers that firms in China engage in using both accruals-based and real activities-based manipulation at higher levels compared to non-reverse mergers firms. In another instance, the real and accruals-based earnings management in the pre-and post-IFRS periods (Ho et al., 2015) shows the Chinese firms after IFRS adoption (2007–2011) are less likely to engage in accrual-based earnings management. Discretionary accruals magnitude also declines after IFRS adoption. In response, the firms had been turning to real activities manipulation as a substitute for upward earnings management. Therefore, the benefits of IFRS adoption in curbing upward accrual-based earnings manipulation are not evenly distributed across firms. However, Thailand shows the highest number of published articles in 2014 which is 3 articles. For example, 'The earnings management and voluntary disclosure of management's responsibility for the financial reports' (Kiattikulwattana, 2014) shows that the firms with or without the management's responsibility for the financial reports manipulate their earnings in a similar manner. However, between 2001 and 2003, there was no article on conditional earnings management in both China and Thailand. Therefore, no paper is shown in Figure 1.

This study also tried to determine which journals or academic conferences have published the highest number of earnings management articles. In China, the Journal of Accounting & Public Policy, for example, published the paper titled 'government assisted earnings management in China' (Chen et al., 2008), which examines how local governments in China help listed companies

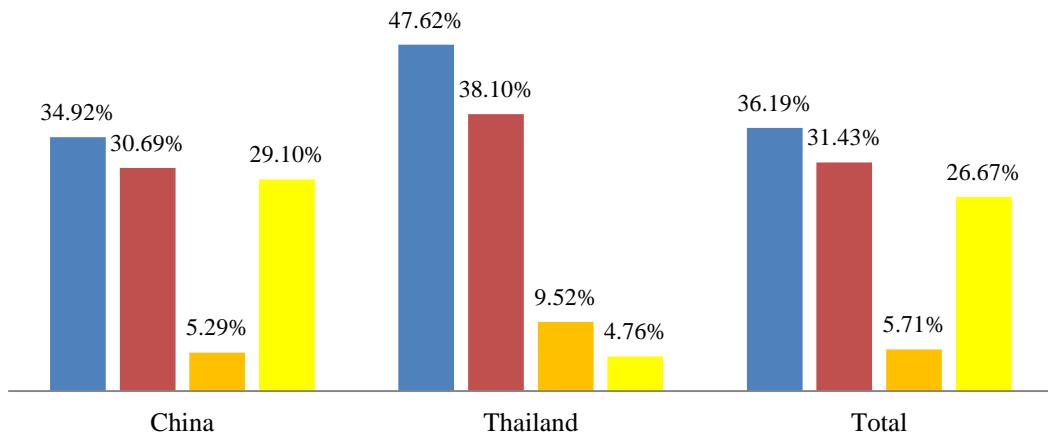
engaged in earnings management practices circumvent the central government's regulation. Another example is 'the causal disclosures on earnings and earnings management in an IPO setting' (Aerts & Cheng, 2011). This paper examines the association of earnings management and narrative impression management as reflected in properties of causal explanations of reported earnings in the prospectus of Chinese IPO firms. In Thailand, most of the published articles are from academic conferences. For example, 'investigating earnings management by surplus free cash flow, and external monitoring in the Stock Exchange of Thailand' (Chayavoradech, 2007) analyzes earning management through discretionary accruals in Stock Exchange of Thailand in relation to Surplus Free Cash Flow and External Monitoring (independent auditor and institutional investors). Another example is 'the controlling shareholders, audit committee effectiveness, and earnings quality of Thailand' (Kiatapiwat, 2010) examines the associations between earnings quality and controlling shareholders and audit committee effectiveness. However, figure 1 excludes articles that were published in Chinese and Thai languages. This leads us to ask: What are the earnings management incentives in China and Thailand? And what are the earnings management measurements that have been employed? These questions are dealt with in the following section.

Motives for earnings management in China and Thailand

This section deals with the question of why managers engage in earnings management and accept risks and liabilities that can damage their reputations. The answer to that question depends on the motives that make managers deem earnings management as worthy. As mentioned earlier, earnings management incentives can be categorized as capital market motives, the bonus plans or compensation plans motives, the debt covenant motives, and the political cost motives. The description of earnings management motives in China and Thailand is shown in figure 2.

Figure 2 the percentage of motives in earnings management from 2000 – 2017

■ Capital market ■ Bonus or Compensations plans ■ Debt covenant ■ Political costs



As shown in Figure 2, capital market motives account for the lion's share of incentives for earnings management in both China and Thailand (36.19%). Individually, capital market motives stand at 34.92% in China and 47.62% in Thailand. The motive with the least incidence in China is a debt covenant at 5.29%. In contrast, Thailand political cost motives register as the least at 4.76%. The big difference between China and Thailand lies in the political cost motive, whereby China shows 29.10 % while Thailand shows 4.76%. This may be attributed to the influence of politics on the stock market in China (Chen et al., 2008). Therefore, the institutional background in China can be seen in relation to the political cost theory.

In the case of capital market motives in China, Chinese IPO firms report better pricing-period accounting performance to have larger declines in post-IPO profitability, lower first-day stock returns and worse long-run post-IPO stock performance (Kao et al., 2009). The IPO firms make overoptimistic forecasts that affect the lower first-day returns and worse post-IPO stock performance. The firms that report higher pricing-period accounting performance have engaged in more income-increasing earnings management. However, Chinese institutional regulatory bodies try to reduce information asymmetry to counter firms' earnings management behavior. The regulators play an important role in corporate governance, accounting standards, audit quality, and regulations in a typical emerging capital market. This has clear policy implications for increasing earnings quality to improve information transparency (Dai et al., 2013). Nevertheless, the new delisting threats induce rampant earnings management on China mainland markets, and cross-listing in Hong Kong has a curbing effect on earnings management; the prices became less valuable.

relevant after the implementation of delisting regulations, and investors rationally discounted the reliability of earnings announcements in China (Tao et al., 2014).

The bonus plans or compensation plans motives and debt covenant motives in China can be grouped as contracting motives. Researchers study contracting motivations through agency problems (Beaudoin et al., 2012). Many studies suggest that Chinese managers tend to override corporate concerns and recommend higher discretionary expense accrals in an effort to maximize their compensation plans, and the leverage has a significant positive relationship with earnings management. These results are found in the SOE rather than NSOEs (J. Liu et al., 2014; Cheng et al., 2015). However, the adoption of IFRS in China may deter new opportunities for managers' earnings management and it also improves the monitoring effect of analyst coverage. The firms with analyst coverage have a lower level of earnings management through below-the-line items after IFRS adoption and firms with earnings meeting the benchmark also have a lower level of earnings management, which indicates that bright-line accounting based rules used in emerging capital markets may constrain the managers' behavior (Cang et al., 2014).

Lastly, with regards to political costs motives, many empirical studies report that the difference between size and form of ownership materially influences earnings management incentives and techniques to pay more attention to tax expense savings (Bingyang & Qingwang, 2012; Chen et al., 2011; Pheny & Wong, 2011). Moreover, there are conflicts of interest and intrigue between firms and different layers of governments in China (Chen et al., 2008). The regulations are set by the central government to ensure the quality of firms listed in the capital market as well as guiding capital resources toward the well-performing sectors. The regulations are partially compromised by earnings management aimed at maintaining the 10% return on equity requirement (Kevin & Yuan, 2004). However, intervention by regulator's rules such as return on equity requirement is positively related to earnings management (Kevin & Yuan, 2004). In contrast, the political costs that focus on tax expenses are negatively related to earnings management (Li et al., 2013), for example the political costs in the real estate firms of Non-SOEs (Chen et al., 2011).

In the case of Thailand, the capital market motives are ranked the highest among earnings management motives. The stock market in Thailand has concentrated shareholders and empirical evidence shows that the firms with a controlling shareholder are associated with lower earnings quality than firms with no controlling shareholder (Kiatapiwat, 2010). This is further corroborated by research on earnings management in small and medium enterprises listed in Market for Alternative Investment (mai), which shows that increased earnings management due to high average discretionary accrals and absolute discretionary accrals have a positive influence on dividend yield (Chansarn & Chansarn, 2016).

With regards to contracting motives in Thailand comprising bonus plans or compensation plans and debt covenant, prior research indicates that firm managers practice earnings management to increase their bonus or compensation (Kiatapiwat, 2010). In effect, earnings management has a weakly positive effect on firm value, classified based on good governance (Tangjitprom, 2013). The political costs motives in Thailand are only found in the government-controlled firms which are associated with lower accounting conservatism or higher earnings management (Kiatapiwat, 2010). Research articles on this area are very rare whether in Thai or English language. It is likely that the Stock Exchange of Thailand is quietly independent of government intervention.

Thus, the comparative literature review on earnings management illustrates that articles on China focus more on the political motives than those on Thailand because government intervention features prominently in both stock markets in China. Meanwhile, the stock market in Thailand is comparatively less subject to government intervention.

The measurement of earnings management between China and Thailand

This paper grouped the measurements of earnings management onto accruals-based and real activities-based earnings management. The classification of shifting-based earnings management is not applicable to the contexts of China and Thailand. The comparison of articles for both countries is portrayed in figure 3.

Figure 3 the measurement of earnings management from 2000-2017

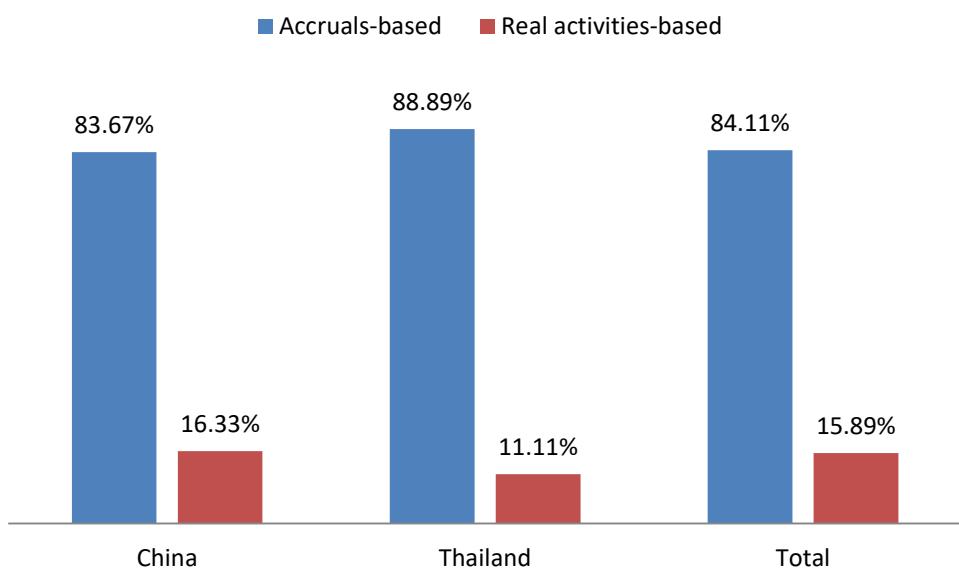


Figure 3 shows both countries generally used the same measurement of earnings management model. Accruals-based is more prominent than real activities-based with 84.11% and 15.89% of the total in both countries, respectively. In the case of China, accruals-based models use all of the approaches as proposed by McNichols (2000) including aggregate accruals models, specific accrual models, and frequency distribution approach. On the other hand, real activities-based models to measure proxies of earnings management in China use discretionary expenditures including R&D and selling or general administrative expenses (Gunny, 2005; Perry & Grinaker, 1994; Roychowdhury, 2006); assets securitization (Dechow et al., 2010; Shakespeare, 2002); sales of long-term assets (Gunny, 2005); sale manipulations (Roychowdhury, 2006); and overproduction (Roychowdhury, 2006). The measurement of earnings management in China shows that accruals-based management is higher than real activities-based at 83.67% and 16.33%, respectively.

In contrast, articles in Thailand are only focused on aggregate accruals models. There is still no evidence on specific accrual models, and frequency distribution approach. Meanwhile, only sale manipulation, overproduction, and discretionary expenses are considered in real-activities-based models. The results show that accruals-based management is higher than real activities-based at 88.89% and 11.11%, respectively.

To sum up, both countries used a balancing approach and cash flows statement approach to calculate the proxy of earnings management. Survey research has also been employed in studies on earnings management in both countries. The methodology used in earnings management area research is regression analysis, following linear models rather than non-linear models.

Conclusions

The purpose of this paper is to comprehend the results and the gap of literature linked to earnings management in China and Thailand. Specifically, this paper's findings are founded on accruals-based, real activities-based and classification shifting-based definition of the term earnings management in the aforementioned research setting. The synthesized definition of earnings management definition holds that the choices made in accordance with managers' judgments of accounting policies, or real actions, affecting earnings or items in the financial statement are aimed at unfaithful representation of operating activities so as to achieve some specific purpose. This definition used to explain and predict accounting information affects the socio-economy. The findings of this study spanned 99 articles covering both China and Thailand from 2000 to 2017. An article was selected for screening in terms of earnings management motives and types of

measurement. Both countries show that the highest motives for earnings management are stock market motives followed by bonus plans or compensation plans motives. In Thailand, the first two motives for earnings management are similarly ranked as those in China, with the stock market motives followed by the bonus plans or compensation plans motives. However, debt covenant motives supersede political motives in Thailand. The findings also indicate that both countries have accruals-based and real activities-based earnings management practices, but the classification shifting-based earnings management has not been observed.

The comparison of accruals-based and real activities-based earnings management between China and Thailand considered in terms of cash flow consequences finds that they are quite similar. The accruals-based represents accounting choices that occur at the end of the fiscal year before the issuance of the financial statements which is consistent with findings of Dechow and Skinner (2000). The firms' managers in both countries are likely to know whether earnings will meet or miss their targets, and thus accrual accounting will have adjusted financial transactions to meet the desired threshold in line with the research by Katherine A. Gunny (2010). This method has not affected cash flows whether current or future (Dechow & Skinner, 2000) but will always have reversed itself in the next period (Givoly & Hayn, 2000). On the other hand, real activities-based earnings management obviously affects current or future cash flows amount depending on the magnitude of the financial transaction effect, that is the expenditure and cash received (Dechow & Skinner, 2000).

Meanwhile, earnings management studies of both countries have referred to corporate governance, audit quality, firms' characteristics, and accounting standards as the constraints to the manipulation of reported earnings. The studies suggest that accruals-based earnings management is quite easily detected by auditors and regulators in alignment with the findings of Dechow and Skinner (2000). Moreover, two-tier corporate governance is practiced in both countries with the oversight of government regulatory bodies. The firms must follow the level of transparency demanded by regulators and this inevitably affects the way the manager chooses income-increasing or decreasing accruals (Othman & Zeghal, 2006). On the other hand, real activities-based earnings management in both countries is more challenging to detect or prevent even by the auditors and regulators. The volume and time of real activities-based management are decided by the managers and this offers more flexibility as its activities can be managed throughout the fiscal year. As such, it is less subject to scrutiny from auditors and regulatory bodies (A. Gunny, 2010; Roychowdhury, 2006). Nevertheless, corporate governance, firms characteristics and accounting standards are cited by many prior studies as the constraints that dilute earnings management in both countries (Bushee, 1998; Zhou & Habib, 2013). At the same time, the flexibility of business transactions and a variety of choices in accounting principle allows and encourages earnings management to a

certain extent. Therefore, it may be said that earnings management is compromised by its constraints, namely, corporate governance, firm's characteristics, audit quality, regulatory bodies, and accounting standards.

One of the main limitations of this paper is its reliance on research articles published in the English language while excluding those articles that were reported in the local languages of both countries. Secondly, access to the research database was based on the license of Zhejiang Gongshang University, which may not cover all of the articles in this area. Definitely, there is scope and potential for further study in this area, particularly in terms of a longer timeline and broader perception of earnings management in China and Thailand. In addition, future research may focus on comparisons of earnings management mechanisms and their incentives in a pair or more countries from the perspective of regulatory and institutional backgrounds.

References

Aerts, W., & Cheng, P. (2011). Causal Disclosures on Earnings and Earnings Management in an Ipo Setting. *Journal of Accounting & Public Policy*, 30(5), 431-459.

Aflatooni, A., & Nikbakht, Z. (2010). Income Smoothing, Real Earnings Management and Long-Run Stock Returns. *Business Intelligence Journal*, 3(1), 55-74.

Ashley, S., & Yang, M. (2004). Executive Compensation and Earnings Persistence. *Journal of Business Ethics*, 50(4), 369-382.

Ball, R., & Brown, P. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research*, 6(2), 159-178.

Bange, M., & De Bondt, M. (1998). R&D Budgets and Corporate Earnings Targets. *Journal of Corporate Finance*, 4(2), 153-184.

Bartov, E. (1993). The Timing of Asset Sales and Earnings Manipulation. *Accounting Review*, 68(4), 840-855.

Beaudoin, A., Dang, L., Fang, Q., & Tsakumis, T. (2012). The Agency Problem and the Moderating Role of Culturally Based Management Style on Chinese Managers' Discretionary Accruals. *Journal of International Accounting Auditing & Taxation*, 21(2), 145-155.

Becker, C. Defond, L., Jiambalvo, J., & Subramanyam, R. (1998). The Effect of Audit Quality on Earnings Management. *Contemporary Accounting Research*, 15(1), 1-24.

Bingyang, L., & Qingwang, G. (2012). Why China's Tax Revenue is Likely to Maintain Its Rapid Growth: An Explanation within the Framework of Tax Capacity and Tax Effort. *Social Sciences in China*, 33(1), 108-126.

Brown, P. (1970). The Impact of the Annual Net Profit Report on the Stock Market. 40.

Burgstahler, D., & Dichev, I. (1997). Earnings Management to Avoid Earnings Decreases and Losses. *Social Science Electronic Publishing*, 24(1), 99-126.

Burgstahler, D., & Eames, M. J. (2003). Earnings Management to Avoid Losses and Earnings Decreases: are Analysts Fooled? *Contemporary Accounting Research*, 20(2), 253-294.

Bushee, J. (1998). The Influence of Institutional Investors on Myopic R&D Investment Behavior. *The Accounting Review*, 73(3), 305-333.

Cang, Y., Chu, Y., & Lin, T. W. (2014). An Exploratory Study of Earnings Management Detectability, Analyst Coverage and the Impact of Ifrs Adoption: Evidence from China. *Journal of Accounting and Public Policy*, 33(4), 356-371.

Carter, E., Lynch, J., & Tuna, R. (2007). The Role of Accounting in the Design of CEO Equity Compensation. *Accounting Review*, 82(2), 327-357.

Chaney, K., & Lewis, M. (1995). Earnings Management and Firm Valuation under Asymmetric Information. *Journal of Corporate Finance*, 1(3-4), 319-345.

Chansarn, S., & Chansarn, T. (2016). Earnings Management and Dividend Policy of Small and Medium Enterprise in Thailand. *International Journal of Business and Society*, 17(2).

Chayavoradech, S. (2007). *Investigating Earnings Management by Surplus Free Cash Flow, and External Monitoring: A Study in Stock Exchange of Thailand*. Faculty of Commerce and Accountancy Thammasat University.

Chen, C., Shi, H., & Xu, H. (2011). *Underwriter Reputation, Issuer Ownership, and Pre-IPO Earnings Management: Evidence from China*. Paper presented at the Proceedings of the 2011 Annual Conference of the Chinese Accounting Society.

Chen, D., Li, J., Liang, S., & Wang, G. (2011). Macroeconomic Control, Political Costs and Earnings Management: Evidence from Chinese Listed Real Estate Companies. *China Journal of Accounting Research*, 4(3), 91-106.

Chen, M. (2010). On the Income-tax Accounting Policy Choice in China's SMEs. *Journal of Guangdong University of Foreign Studies*.

Chen, X., Lee, C., & Li, J. (2008). Government Assisted Earnings Management in China. *Journal of Accounting & Public Policy*, 27(3), 262-274.

Dai, Y., Kong, D., & Wang, L. (2013). Information Asymmetry, Mutual Funds and Earnings Management: Evidence from China. *China Journal of Accounting Research*, 6(3), 187-209.

Dechow, M., Myers, A., & Shakespeare, C. (2010). Fair Value Accounting and Gains from Asset Securitizations: A convenient earnings management tool with compensation side-benefits. *Journal of Accounting & Economics*, 49(1-2), 2-25.

Dechow, M., & Skinner, J. (2000). Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators. *Accounting Horizons*, 14(2).

Dechow, M., & Sloan, G. (1991). Executive Incentives and the Horizon Problem : An Empirical Investigation. *Journal of Accounting & Economics*, 14(1), 51-89.

Dechow, M., Sloan, G., & Sweeney, P. (1995). Detecting Earnings Management. *Accounting Review*, 70(2), 193-225.

Defond, L. (1992). The Association between Changes in Client Firm Agency Costs and Auditor Switch. *Auditing A Journal of Practice & Theory*, 11.

Defond, L., & Jiambalvo, J. (1993). Factors Related to Auditor-Client Disagreements over Income-Increasing Accounting Methods. *Contemporary Accounting Research*, 9(2), 415-431.

Defond, L., & Jiambalvo, J. (1994). Debt Covenant Violation and Manipulation of Accruals. *Journal of Accounting & Economics*, 17(1-2), 145-176.

Defond, L., & Park, C. W. (1997). Smoothing Income in Anticipation of Future Earnings. *Journal of Accounting & Economics*, 23(2), 115-139.

Degeorge, F., Patel, J., & Zeckhauser, R. (1999). Earnings Management to Exceed Thresholds. *Journal of Business*, 72(1), 1-33.

Demers, A., & Wang, C. (2010). The Impact of CEO Career Concerns on Accruals Based and Real Earnings Management. *Social Science Electronic Publishing*.

Dutta, S., & Gigler, F. (2002). The Effect of Earnings Forecasts on Earnings Management. *Journal of Accounting Research*, 40(3), 631-655.

Field, J., & Wongwatanasin, U. (2007). Tax Policies' Impact on Output, Trade and Income in Thailand. *Journal of Policy Modeling*, 29(3), 361-380.

Francis, R., Maydew, L., & Sparks, H. C. (2011). The Role of Big 6 Auditors in the Credible Reporting of Accruals. *Auditing A Journal of Practice & Theory*, 18(2), 17-34.

Frankel, M., Johnson, F., & Nelson, K. (2002). The Relation between Auditors' Fees for Nonaudit Services and Earnings Management. *Accounting Review*, 77(Suppl 1), 71-105.

Givoly, D., & Hayn, C. (2000). The Changing Time-Series Properties of Earnings, Cash Flows and Accruals: Has Financial Reporting become More Conservative? *Journal of Accounting and Economics*, 29(3), 287-320.

Gunny, A. (2005). What are the Consequences of Real Earnings Management? *Dissertation Abstracts International*, Volume: 66-08, Section: A, page: 2999.

Gunny, A. (2010). The Relation Between Earnings Management Using Real Activities Manipulation and Future Performance: Evidence from Meeting Earnings Benchmarks. *Contemporary Accounting Research*, 27(3), 855-888.

Haw, M., Ho, S. S. M., & Li, A. Y. (2011). Corporate Governance and Earnings Management by Classification Shifting. *Contemporary Accounting Research*, 28(2), 517-553.

Healy, P. (1985). The impact of Bonus Schemes on the Selection of Accounting Principles. *Journal of Accounting and Economics*, 7, 85-7

Hepworth, R. (1953). Smoothing Periodic Income. *Accounting Review*, 28(1), 32-39.

Ho, J., Liao, Q., & Taylor, M. (2015). Real and Accrual-Based Earnings Management in the Pre- and Post-IFRS Periods: Evidence from China. *Journal of International Financial Management & Accounting*, 26(3), 294-335.

Hoseininasab, H. (2015). Earnings Management based on Real Activities Manipulation and its Impact on Future Economic Performance (Some Evidences of Tehran Stock Exchange). *International Journal of Scientific Management & Development*.

Huang, R., Marquardt, C. A., & Zhang, B. (2014). Why do Managers Avoid EPS dilution? Evidence from Debt-equity Choice. *Review of Accounting Studies*, 19(2), 877-912.

Ibrahim, S., Xu, L., & Rogers, G. (2011). Real and Accrual-based Earnings Management and Its Legal Consequences. *Accounting Research Journal*, 24(1), 50-78.

Jiang, F., Zhu, B., & Huang, J. (2013). CEO's Financial Experience and Earnings Management. *Journal of Multinational Financial Management*, 23(3), 134-145.

Jones, J. (1991). Earnings Management during Import Relief Investigations. *Journal of Accounting Research*, 29(2), 193-228.

Kao, L., Wu, D., & Yang, Z. (2009). Regulations, Earnings Management, and Post-IPO Performance: The Chinese Evidence. *Journal of Banking & Finance*, 33(1), 63-76.

Kevin, C., & Yuan, H. (2004). Earnings Management and Capital Resource Allocation: Evidence from China's Accounting-Based Regulation of Rights Issues. *The Accounting Review*, 79(3), 645-665.

Kiatapiwat, W. (2010). *Controlling Shareholders, Audit Committee Effectiveness, and Earnings Quality: The Case of Thailand*.

Kiattikulwattana, P. (2014). Earnings Management and Voluntary Disclosure of Management's Responsibility for the Financial Reports. *Asian Review of Accounting*, 22(3), 233-256.

Kim, K., & Schroeder, A. (1990). Analysts' Use of Managerial Bonus Incentives in Forecasting Earnings. *Journal of Accounting & Economics*, 13(1), 3-23.

Kothari, P., Leone, J., & Wasley, E. (2005). Performance Matched Discretionary Accrual Measures. *Journal of Accounting & Economics*, 39(1), 163-197.

Lau, W. (2004). Regulations on IPO Pricing, Earnings Management and Earnings Forecasts during the Reform of State Enterprises in China. *Advances in International Accounting*, 17, 175-198.

Lee, L., & Liu, W. (1999). Management Compensation, Debt Contract, and Earnings Management Strategy. *Advances in Quantitative Analysis of Finance & Accounting*, 2(4), 1.

Li, C., Wang, Y., Wu, L., & Xiao, J. (2013). *Political Connections and Tax-Induced Earnings Management: Evidence from China*.

Liberty, E., & Zimmerman, L. (1986). Labor Union Contract Negotiations and Accounting Choices. *Accounting Review*, 61(4), 692-712.

Likitwongkajon, N., & Sutthachai, S. (2015). Does IFRS Adoption Mitigate Accrual Earnings Management? Evidence from an Emerging Market. *Utcc International Journal of Business & Economics*, 7(2), 47-72.

Liu, J., Uchida, K., & Gao, R. (2014). Earnings Management of Initial Public Offering Firms: Evidence from Regulation Changes in China. *Accounting & Finance*, 54(2), 505-537.

Liu, Q., & Lu, J. (2007). Corporate Governance and Earnings Management in the Chinese Listed Firms: A Tunneling Perspective. *Journal of Corporate Finance*, 13(5), 881-906.

Lo, Y., Wong, K., & Firth, M. (2010). Can Corporate Governance Deter Management from Manipulating Earnings? Evidence from related-party sales transactions in China. *Journal of Corporate Finance*, 16(2), 225-235.

Lys, T., & Sivaramakrishnan, K. (1988). Earnings Expectations and Capital Restructuring: The Case of Equity-for-Debt Swaps. *Journal of Accounting Research*, 26(2), 273-299.

Man, K., & Wong, B. (2013). Corporate Governance and Earnings Management: A Survey of Literature.

Ola, R., & Ijadi, A. (2014). Short-Term Debt Maturity and Accruals-Based Earnings Management in Tehran Stock Exchange (Iranian Evidence). *Asian Journal of Research in Banking & Finance*, 4(10).

Othman, B., & Zeghal, D. (2006). A Study of Earnings-Management Motives in the Anglo-American and Euro-Continental Accounting Models: The Canadian and French Cases. *International Journal of Accounting*, 41(4), 406-435.

Perry, S., & Grinaker, R. (1994). Earnings Expectations and Discretionary Research and Development Spending. *Accounting Horizons*, 8(4), 43-51.

Pevzner, M., Bong, H., Kim, Lei, L., Aier, J. K., Dan, C., Silveri, D. (2010). Debt Covenant Slack and Real Earnings Management.

Pheny, M., & Wong, P. W. (2011). Recent Development of Real Estate Tax on Residential Properties in China. *Int'l Tax J.*, 37, 51.

Rangan, S. (1998). *Earnings Management and the Performance of Seasoned Equity Offerings*.

Ronen, J., & Sadan, S. (1981). *Smoothing Income Numbers : Objectives, Means, and Implications*: Addison-Wesley Pub. Co.

Roychowdhury, S. (2006). Earnings Management through Real Activities Manipulation. *Journal of Accounting and Economics*, 42(3), 335-370.

Agnes, C., C., Wang, J., & Wei, S. (2015). *State Ownership and Earnings Management around Initial Public Offerings: Evidence from China* (Vol. 14).

Sarah Elizabeth, M. (2006). Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items. *The Accounting Review*, 81(3), 501-531.

Schipper, K. (1989). Commentary on Earnings Management. *Accounting Horizons*, 3.

Shakespeare, C. (2002). Accounting for Asset Securitizations: Fair Values and Earnings Management.

Shivakumar, L. (2000). Do firms Mislead Investors by Overstating Earnings before Seasoned Equity Offerings? . *Journal of Accounting & Economics*, 29(3), 339-371.

Sun, J., & Liu, G. (2009). The Impact of the CSRC Regulation No. 12-1996 on the Credibility of Chinese IPO Earnings Forecasts. *Global Finance Journal*, 20(2), 165-179.

Sun, N. (2008). Probe Into the Issues of Added-value Tax Accounting in China. *Journal of Shandong Education Institute*.

Sweeney, P. (1994). Debt-covenant Violations and Managers' Accounting Responses. *Journal of Accounting & Economics*, 17(3), 281-308.

Tao, L., Mi, L., & Ng, D. (2014). Earnings Management and Listing Regulations in China. *China Finance Review International*, 4(2), 124-152.

Teoh, H., Welch, I., & Wong, J. (1998). Earnings Management and the Long-Run Market Performance of Initial Public Offerings. *Journal of Finance*, 53(6), 1935-1974.

Trueman, B., & Titman, S. (1988). An Explanation for Accounting Income Smoothing. *Journal of Accounting Research*, 26(2), 127-139.

Warfield, D., Wild, J., & Wild, L. (1995). Managerial Ownership, Accounting Choices, and Informativeness of Earnings. *Journal of Accounting & Economics*, 20(1), 61-91.

Watts, L. (1978). Systematic 'abnormal' Returns after Quarterly Earnings Announcements . *Journal of Financial Economics*, 6(2), 127-150.

Zang, A. (2012). Evidence on the Tradeoff between Real Manipulation and Accrual Manipulation. *The Accounting Review*, 87(2), 675-703.

Zhou, D., & Habib, A. (2013). Accounting Standards and Earnings Management: Evidence from China. *Accounting Perspectives*, 12(3), 213-236.

Zhu, T., Lu, M., Shan, Y., & Zhang, Y. (2015). Accrual-based and Real Activity Earnings Management at the Back Door: Evidence from Chinese reverse mergers. *Pacific-Basin Finance Journal*, 35, 317-339.