Corporate Governance
And Earnings Management:
A Survey Of Literature

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ABSTRACT

Corporate governance can reduce or even eliminate the extent of earnings management. Normally, an institutional environment that provides better legal protection can control managers’ self-interest to a certain extent. Takeover force can exert market pressure on managers to do the best for shareholders. Prior studies have investigated different corporate governance mechanisms that can have negative relationships with earnings management. Board independence can enhance certain monitoring behaviors in managers, including the misappropriation of assets. Female directors can develop trust leadership, which requires managers to share information, and are more likely to be risk-averse to frauds and opportunistic earnings management. An audit committee can oversee the internal control for financial reporting and the quality of financial information. Directors with financial expertise can provide incremental control effects on earnings management, especially in firms with weak corporate governance. This paper contributes to corporate governance by providing detailed reviews of different corporate governance mechanisms, reviewing the latest findings on classification shifting, and summarizing earnings management measures, including a new diagnostic system. In the future, this new diagnostic system may be investigated in different contexts.

Keywords: Corporate Governance; Earnings Management; Literature Review

1. INTRODUCTION

Corporate governance continues to be an area of importance while earnings management still appears to be a problematic issue. This paper aims to review the extant literature and examine whether the evidence supports the view that additional corporate governance and regulatory measures will mitigate earnings management. However, this paper does not address the agency theory behind corporate governance mechanisms, as reviewed by Shleifer and Vishny (1997). This study contributes to the corporate governance literature by providing detailed reviews of the various corporate governance mechanisms, reviewing the latest findings on classification shifting, and summarizing earnings management measures, including a new diagnostic system. Many studies argue that some of the currently used accrual models are questionable; hence, it would be better to review the latest findings in earnings management measurements. In the future, this new diagnostic system, as well as Dechow’s novel model, may be investigated in different contexts. The remainder of this paper is organized as follows. Section 2 introduces the concept of corporate governance. Section 3 presents various corporate governance mechanisms. Section 4 reviews different types of earnings management. Section 5 reviews different measures of earnings management. Section 6 discusses the relationship between corporate governance and earnings management and the last section concludes this paper.

2. CORPORATE GOVERNANCE

Gabrielle O’Donovan defines corporate governance as an internal system encompassing policies, processes, and people that serve the needs of shareholders and other stakeholders by directing and controlling management...
activities with good business practices, objectivity, and integrity. Sound corporate governance is reliant on external marketplace commitment and legislation, as well as a healthy board culture that safeguards policies and processes. Corporate governance is designed to pursue stakeholders’ interests (e.g., obtaining a reasonable return on capital, reducing misappropriation of assets) (Shleifer and Vishny, 1997). Corporate governance is also a set of mechanisms by which outside investors protect themselves against expropriation by insiders (La Porta et al., 2002). These mechanisms include the various applicable laws, rules, and functions.

Coffee (1999) observes the distinction between legal and functional convergence. Legal convergence refers to the changes in the rules and enforcement mechanisms toward successful standards. Functional convergence refers to the market-based changes that bring more firms and assets under the umbrella of effective investor legal protection. To improve corporate governance, radical changes are required in legal systems including amendments to the securities, company, and bankruptcy laws designed to protect the minority shareholders by increasing the disclosure of material information. The company laws enable minority shareholders to act in enforcement of their interests.

Shleifer and Vishny (1997) argue that the subject of corporate governance is practical importance. Easterbrook and Fischel (1991) and Romano (1993) assess the American corporate governance system, and review it positively. Prior earlier studies have also discussed replacing the American and UK corporate governance mechanisms with those of the German and Japanese systems (Roe, 1993; Charkham, 1994). Barca (1995) and Pagano, Panetta, and Zingales (1995) argue that Italian corporations are less developed in terms of corporate governance than corporations in developed countries. Some emerging countries do not exhibit any corporate governance mechanisms (Boycoc, Shleifer, and Vishny, 1995). Alchian (1950) and Stigler (1958) claim that improvements in corporate governance are unnecessary, because competition can make firms adopt corporate governance to minimize their cost of capital. The above studies on market competition seem to be valid; however, this emerging process may need more time. Hence, stakeholders who have already provided capital to firms may suffer a loss during this process. These stakeholders also want to ensure the receipt of certain returns from firms.

Improving corporate governance involves not only market competition but also the imposition of regulations. Poor corporate governance allows insiders to secure finance polities and markets (LLSV, 2000). Successful corporate governance means that law reforms could hamper the special interests of the insiders. For example, in 1933, the US government introduced securities market regulation in order to increase corporate disclosure. In 1929, the US experienced a Great Depression in part because of insufficient disclosures about the fair values of assets. In addition to the passage of the Smoot-Hawley Tariff Act (Beaudreau, 2005), this factor also partially contributed to a capital markets crash in 1929.

The creation of the agency problem results from the separation of ownership and control. As managers have more inside information than the financial providers, these financial providers face agency costs to monitor managers’ behavior. The managers might pursue their self-interests to maximize their own wealth, perhaps at the expense of other parties’ wealth and interests (Jensen, 1986). The contract setting may not be enough to resolve the problem of managers acting in conflict with the interests of financial providers. Furthermore, contracts between managers and financial providers may require the managers to disclose accounting information in order for the financial providers to monitor their financial providers’ interests and wealth. However, this information is provided by the managers (Watts and Zimmerman, 1986), who may choose to overstate the numbers in the financial statements through their accounting estimates and standards.

Corporate governance would reduce the agency problem between financial providers and managers and increase the efficiency of contracts (Gompers, Ishii, and Metrick, 2003). Even in firms in developed countries, this agency problem can be a source of larger costs for shareholders. Jensen and Meckling (1976) define agency costs as

1 They argue that most Russian firms are held by the government and do not have external capital. Therefore, they are weak at corporate governance.
2 He argues that the deepening the great depression results from the eventual passage of the tariff act.
sum of the monitoring expenses such as vote in general meetings and litigation cost to sue managers’ wrongdoing by shareholders, the bonding expenditures such as disclosure of annual reports and forego powers by managers, and the residual loss that generated by delegation of powers to managers. Thus, corporate governance would reduce the agency costs of different parties to the firm. In commonwealth countries, the primary ways to protect shareholders, including minority shareholders, are the legal system (i.e., corporate laws, SEC rules and regulations, corporate bylaws, and charters) and market takeover force. Another way to protect shareholders is through internal corporate governance mechanisms including board independence, board composition, audit committee, compensation committee and nomination committee. This paper only focuses on the perspective of how corporate governance influences earnings management. One of the reasons is that earnings management can influence shareholders by using financial information to make decisions. More importantly, earnings management can also affect the credibility of financial information, which can lead to major financial scandals (e.g., Enron, World.com), and the capital market may crash. Furthermore, it can also help standard-setters from emerging countries protect shareholders’ interests by using experience from western countries.

3. CORPORATE GOVERNANCE MECHANISMS

There are several types of corporate governance mechanisms, such as the Anglo-American, Japanese, and German systems. This paper will focus more on the Anglo-American system because the common law system is currently regarded to be the most effective corporate governance system. Corporate governance mechanisms can be broadly classified into two types: internal and external. While regulators concentrate on internal mechanisms, in practice external mechanisms are also important (Agrawal and Knoeber, 1996). External mechanisms are determined by outside factors, aim to govern firms in favor of the interests of stakeholders, and include items such as legal protection and takeover rules. Internal mechanisms are decided by internal factors, including insider shareholding as well as board structures and characteristics, including the proportion of independent directors, director backgrounds, audit committees, remuneration committees, and ownership structures.

3.1 External Corporate Governance

3.1.1 The Legal/Regulatory System

Shareholders provide capital to firms in exchange for control rights. This creates contractual relationships that include charters and bylaws between shareholders and firms (Hart, 1995). Shareholders can seek legal remediation from the court if managers violate the contract under common law. Shareholders have different rights under corporate laws, such as voting apportionment or removal of directors⁴, approval of executive service compensation contracts, and alteration of firm charters and bylaws (Manne, 1965; Easterbrook and Fischel, 1983). Management has day-to-day operational control of firms under the law; however, it is subject to statutory requirements including qualifications, functions, disclosures, and removal, as well as limitations of power, the duty of care, fiduciary duty, and shareholders’ voting rights, as mentioned above. This legal protection can generate high costs to shareholders, and frequently requires a certain proportion of shareholders to seek court injunctions against certain actions by managers or to take legal action against firms. Normally, firms in common law countries, where investor protection is stronger, make higher dividend payouts (Choy, Gul, and Yao, 2011). Countries with better investor protection have higher Tobin’s Q ratios (LLSV, 2002). This greater legal protection is associated with lower levels of information asymmetry (La Porta et al., 2002; Gul and Qiu, 2012).

Comparative studies of corporate governance on legal protection have shown that common law countries provide the strongest degree of protection for shareholders (Denis, 2010). For instance, Weisbach (1988) provides evidence that firms with more outside directors are more likely to remove top managers when firm performance is poor⁵. However, shareholders have less relative protection than employees and creditors, as employees are paid for their services almost immediately and creditors receive their principal and interest before shareholders when liquidation occurs. Hence, shareholders require stronger protection of their interests. There are two main types of

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⁴ There is no requirement for voting a director out.

⁵ A different view claims that firms would experience performance disaster before the board acts. For instance, Kaplan (1994) and Kaplan and Minton (1994) demonstrate evidence of this in Japan and Germany.
 protección from laws: duty of care and duty of loyalty (or fiduciary duty). Fiduciary duty involves controlling self-dealing and self-interest of acts or behavior by insiders. Many rules and regulations deal with aspects of both elements, including approval of independent directors, subcommittee supervision, disclosure of financial information, and compensation approval from shareholders. As the common law system is currently regarded to be the most effective corporate governance system, this paper will investigate the rules and regulations that protect shareholders under the common law system. According to UK requirements, the board of directors should include a certain balance of executive and non-executive directors (particularly independent non-executive directors should be independent to meet UK independence criteria from the management team and free from any related business or other relationships or circumstances that could affect their judgments, and should have conduct due diligence with a positive contribution on the board) such that no individual or small group of individuals can dominate the board’s decision making. In the US, listed companies must be required to have a majority of independent directors in the board. NYSE mentions the reason is that requiring a majority of independent directors will increase the quality of board oversight and lessen the possibility of damaging conflicts of interest. This supports the board independence can reduce the managers’ self-interest. Hong Kong stock exchange listing rules require every board of directors of a listing issuer is required to appoint at least three independent non-executive directors. The rule to strengthen that one-third of the directors must be independent and non-executive will change at the end of 2012.

UK audit committee regulations require boards to establish an audit committee of at least three directors, or two directors in the case of smaller companies, all of whom are independent non-executives and at least one of whom has recent and relevant financial experience should be set out in written terms of reference that deal clearly with the committee’s authority and duties. The members of the committee, a majority of whom should be independent non-executive directors, but chairman of the board should not be a member of the committee (for smaller companies, the chairman of the board may be a member of the audit committee but not its chair of the committee), should be listed in the annual report and financial accounts. In contrast, the US previously required a listed company to have an audit committee of independent directors only; however, the NYSE, NASDAQ, and ASE now require three independent directors on the committee, each of whom must be “financially literate.” Hong Kong has similar requirements to the UK, although different countries have different rules to control excess compensation for top managers. The UK requires that listed companies employ a remuneration committee, composed of at least three independent non-executive directors (two for smaller companies), to set compensation. In annual meetings, shareholders should also be invited to approve service contracts exceeding two years. Firms must disclose annual total compensation with individual remuneration. The US has more relaxed requirements: the board can set its own salary, and the US disclosure rule only requires disclosure of the salaries of the top five officers. In Hong Kong, Main Board Rule 13.68 and GEM Rule 17.90 requires that service contracts including

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6 Duty of care refers to decision-making procedure and quality of decision making. Duty of loyalty requires the director to place the interests of the company before personal interests.

7 To control directors’ inside dealings, the UK requires disclosure of directors’ transactions plus approval within four days (LR 9, Model Code nos. 3–11). The US and Hong Kong have similar requirements.

8 The Combination Code of Corporate Governance A.3.1 & A3.2.

9 The Combination Code of Corporate Governance A.3 Main Principal.

10 NYSE LCM 303A.01.

11 NYSE manual Section 3: Corporate Responsibility.

12 SEHK LR Main board rule 3.10(1). It also requires at least one of the independent non-executive directors must have appropriate professional qualifications or accounting or related financial management expertise.

13 Rule 3.10A

14 UK Combined Code on Corporate Governance 2010 C3.1. and FRC Guidance on Audit Committees Section 2.3.

15 Disclosure and Transparency Rules 7.1.1.R.

16 UK FRC Guidance on Audit Committees Section 2.2.

17 UK FRC Guidance on Audit Committees Section 2.3.

18 Combined Code Guidance D.3.1. to D.3.5. No one other than the audit committee’s chairman and members is entitled to be present at a meeting of the audit committee.


20 SEHK Listing rule 3.22. The audit committee must be chaired by an independent non-executive director (2.23).

21 UK Corporate Governance Code D2.1 (Financial Reporting Council, 2010).

22 UK Corporate Governance Code D2.2 and Listing Rules LR 9.4.

employment contracts exceeding three years for listed companies must be approved by shareholders\(^{24}\) in the meetings, and firms must disclose total salaries under Section 161 of the Companies Ordinance\(^{25}\). For disclosure of insiders’ information, UK requires firms to disclose to the public as soon as possible; Hong Kong requires an ongoing basis disclosure; the US requires disclosure in the same year through Form 8-K\(^{26}\) but it shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Acts.

In some cases, the above-mentioned laws restrict certain self-dealing and self-interest actions by managers. This can be enforced by the court. The plaintiff suffering from such actions can seek justice from the court. In some cases, the court gives the right to firm charters and bylaws to enforce shareholders’ interests (Easterbrook and Fischel, 1991). The law delegates power to the majority; however, another agency problem can arise between the majority and the minority. Therefore, rules on the disclosure of holdings are imposed on majority shareholders. However, as the court does not want to intervene in firm affairs more than is necessary, in some cases, the court requires at least 5% of voting rights of shareholders allowed to seek remedies (such as in Thailand, Malaysia, etc) (Nam and Nam, 2004). Hence, the legal system can only protect shareholders’ interests to a certain extent. Thus, other corporate governance mechanisms are required to control management.

One such mechanism is the legal protection mentioned above. Another is giving control of the firm to blockholders to reduce the agency problem between shareholders and management. Lack of investor protection compels company insiders to hold higher fractions of the equity of the firms they manage. Prior studies indicate a negative relationship between the degree of legal protection for investors and the amount of equity held by insiders, and a positive correlation between inside equity ownership and the marginal return to capital (Himmelberg, Hubbard, and Love, 2004). During the Asian Financial Crisis, firm performance was negatively related to the extent of legal protection for investors (Johnson et al., 2000a).

### 3.1.2 The Takeover Force

Corporate takeovers have increasingly become a characteristic of the American business culture (Pound, 1988). Takeover plays an important role in capital reallocation worldwide. When the actual and potential values of a firm are sufficiently negative, there is incentive for outside parties to seek control of the firm. Even firms with cost inefficiency face a high risk of being taken over (Frydman, Frydman, and Trimbath, 2001\(^{27}\)). Through takeover, cost efficiency can be improved\(^{28}\). Changes in the control of firms virtually always occur at a premium (Denis and McConnell, 2003). Outsiders can earn a premium for share performance. Prior studies generally show significant ex post performance improvement (Healy, Palepu, and Ruback, 1992; Lichtenberg, 1992; Switzer, 1996). Threat of takeover can pressurize firm management to maintain a high firm value. Otherwise, the firm could be taken over and the management replaced. Weisbach (1993) argues that one of the reasons that hostile takeovers occur is to replace managers that are not maximizing shareholder wealth. The potential replacement of managers can provide incentives for managers of target firms to keep their firms’ share price as high as possible\(^{29}\). However, Denis and McConnell (2003) argue “managers interested in maximizing the size of their business empire can waste corporate resources by overpaying for acquisitions rather than returning cash to shareholders”. Prior studies also provide evidence that firm size has a negative effect on the risk of takeover (Singh, 1975; Hasbrouck, 1985). Therefore, the threat of takeover can compel managers to do better for shareholders’ interests because the firm value is reflected in the share price. This may be a good corporate governance mechanism to protect shareholders’ interests.

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24 SEHK views an “employment contract” with a director to contain the terms upon which he is to provide his/her services to the firm. So, an employment contract should be subject to the same disclosure and shareholders’ approval requirements.

25 Cap32 S161 Particulars in accounts of directors’ emoluments, pensions, etc.

26 Form 8-K is a form used for listed firms to notify investors of any material event that is important to shareholders or the US SEC.

27 They measure the ex-post performance of takeovers by cost-per-unit revenue.

28 There has been a vigorous debate regarding whether or not takeovers improve firm cost efficiency and performance. Prior studies have generally taken two approaches: whether the ex-ante performance of firms attracts takeovers, and whether firms improve their performance after being taken over.

29 Mitchell and Lehn (1990) provide empirical evidence on this proposition.
Bertrand and Mullainathan (2000) measure the takeover force as part of a composite governance variable (Totgov). They classify corporate governance into internal and external governance. The extent of external governance is determined by the level of anti-takeover protection. If firms take stricter anti-takeover measures (which may include some defenses such as poison pills, staggered boards), corporate governance in the market is lower, and vice versa. If managers of a firm do not perform well, the firm would be X-inefficient and the share price of the firm would drop. These takeover defenses may hurt shareholders’ interests if managers use these defenses to entrench themselves or benefit personally. This would then attract other firms that are more management-efficient to take over at a low price. When the new managers improve the firm, its share price increases. The new managers would then gain from this increase. Therefore, the economy’s resources would be kept in the hands of efficient managers (Manne, 1965). This would exert pressure on the X-inefficient managers to do better in order to reduce the risk of being laid off from a takeover. Thus, a lower anti-takeover level would provide more market control to the firm, thereby a higher level of external governance. It appears that overall, takeover corporate governance seems to be effective in controlling management self-interests. However, Shivdasani (1993) considers other corporate governance mechanisms and finds that corporate governance has a major significant effect on managers’ behavior, and that takeovers are a part of the process that eventually reorganizes inefficient organizations.

3.2 Internal Corporate Governance

3.2.1 Board Structures, Composition, and Meetings

One check on management is provided by the board of directors. In theory, the board is an effective corporate governance mechanism. Shareholders elect members of the board to act on their behalf, and the board in turn delegates power to top management while still monitoring management performance and ratifying any decision that demonstrates a lack of good faith for shareholders. If board members do not do a good job monitoring managers’ behavior, shareholders can vote out and replace members of the board. As common law countries are regarded as having better corporate governance, this paper focuses on board structures, composition, and meetings in these countries. The US is concerned with the size and structure of boards, outside directors, and whether or not the CEO and chair positions are held by the same individual. Many prior studies around the world deal with the corporate governance measurement of board structure. Considering stock returns, operating performance, and sales growth, Kaplan and Minton (1994) show that outside directors can stabilize and modestly improve corporate performance. In the UK, Dahya, McConnell, and Travlos (2002) find that CEO turnover increased following the issuance of the corporate governance code requiring that different people serve as chairperson and CEO, and that the sensitivity of turnover to performance became stronger. In New Zealand, a higher fraction of outside directors leads to better performance (Hossain, Prevost, and Rao, 2001). In Spain, the market reacts positively to announcements of new corporate governance compliance (Rodriguez and Anson, 2001).

Composing a board of directors is an important corporate governance mechanism that can control managers’ opportunistic behavior and reduce earnings management. Board composition includes determining the mix of non-executive (including independent) and executive directors; designating audit, compensation, nominating and other committees; determining the mix of qualifications and areas of expertise; and determining the proportion of female directors on the board.

Bertrand and Mullainathan (2000) also consider internal governance measurements, including the percentage of independent directors on the board and the number of board meetings. Independent directors supervise the managers in the firm and reduce the misappropriation of assets by the managers at the expense of shareholders’ interests. A higher percentage of the independent directors would more efficiently control the managers, providing better corporate governance. NYSE provides the definition for independence. Independent directors are no material relationship with the company, shareholder, or office of related organization with the listed company, must not be an employee or former employee of listed company during the previous three years, not receive more than $120,000 in direct compensation annually from the listed company in any year. Not a partner or employee of the


31 NYSE LCM 303A.02 Independence Tests.

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company’s auditors, not during the past three years an executive officer of another company where an executive officer of the listed company has served on the compensation, and not an employee of a company that has received payments from or made payments to that listed company greater than $1 million. Other common law countries have similar definitions of independence. Adams (2000) claims that, in addition to the board structure, the number of board meetings is a good proxy for the ability of corporate governance structures to control manager behavior. The board still needs to be effective in enforcement. It is necessary for directors to perform their duties to monitor managers’ behavior; otherwise, the managers can still act against the interests of the shareholders. Therefore, the number of board meetings is a good proxy for measuring the effectiveness of board performance and internal corporate governance.

Females are becoming increasingly represented on boards. Researchers have recently found evidence of increased female board participation. For instance, in the US in 2012, women held only 16.6% of board seats among Fortune 500 companies, compared with 16.1%, 15.7%, 15.2%, 15.2% and 14.8% in 2011, 2010, 2009, 2008 and 2007, respectively (Catalyst, 2012, 2011, 2010, 2009, 2008 and 2007). In Australia, women held almost 12.3% of the board seats of those countries’ ASX200 corporations in 2012, compared with 8.4% and 8.3%, respectively, in 2010 and 2007. In Canada and the UK, women held almost, 14%, and 9%, respectively, of the board seats of those countries’ largest corporations in 2009, compared with 13%, and 8.5%, respectively, in 2007 (Equal Opportunity for Women in the Workplace Agency, 2010). Women held almost 8.0%, 8.5%, and 9.7% of the board seats of the top 300 European corporations in 2004, 2006, and 2008 respectively, compared with 11.7% in 2010 (European Professional Women’s Network EPWN, 2010). The highest proportion of women representation in board is Norway among EU countries from 2004 to 2010 (more 35% in 2010). Different countries have encouraged or imposed rules and regulations to promote the greater participation of women on boards, such as Australia32, Canada, India33, Malaysia and Italy34. Adams and Ferreia (2009) find that female directors can better monitor managers’ behavior through board input, such as board attendance, and are more likely to sit on monitoring-related committees (e.g., audit, nominating, and corporate governance), and affect firm governance in terms of chief executive officer turnover and compensation. Therefore, female directors can often better improve the earnings quality of firms (Srinidhi, Gul, and Tsui, 2011), as they tend to have better communication skills, hold more informed discussions, and feature better independent thinking, thereby contributing to better monitoring of the managers (Terjesen, Sealý, and Singh 2009; Adams and Ferreira, 2009; Adams, Gray, and Nowland, 2010).

3.2.2 Audit Committees

Audit committees mainly provide independent oversight of internal control effectiveness and the quality of the financial reporting and work done by external auditors. Other roles of the audit committee include providing assurance that firms are in compliance with pertinent laws and regulations, conducting internal and external affairs ethically, maintaining the control mechanisms in an effective way against fraud, and dealing with conflicts of interest. The audit committee also provides a communication bridge between the board, external auditors, internal auditors, and the relevant authorities. This paper focuses on common law countries as they are regarded to have better corporate governance, among these countries the US has stricter regulations on audit committees.

According to US Sarbanes-Oxley Act of 2002 (SOX)35, listing rules of the NYSE and NASDAQ, the audit committee is set up to enhance the integrity of financial information. SOX 2002 enhances the monitoring role of the audit committee within firms. For instance, Section 202 requires audit committee of firm shall preapprove of all other services provided by the audited firm, except certain conditions and requires the approval of non-audit services by the auditor shall be disclosed in periodic reports. Section 204 increases requirement of timely reports to audit committee on critical accounting policies and practices, and all alteration treatments of financial information within

32 ASX Corporate Governance Code.
33 India Listing Rules Clause 49.
34 Law 120
35 SOX has had positive effects on the quality of financial reporting. Prior studies show that after SOX was enacted, financial statement restatements from firms increased dramatically, from 5.7% in 2003 to 14% in 2005 (Benoit, 2006). Thus, SOX seems to be working (See Public Accounting Report: Report Suggests Sox is Working. “Restatement figures climb since 2003”).
GAAP. Section 301 mentions the audit committee is “directly responsible for the appointment, compensation, and oversight of work” of the auditor employed by firm. Subsection (3A) also requires that the committee be composed of independent directors only though it provides a definition of “independence”36. Section 302 requires the committee to monitor management on internal control effectiveness. However, the US SEC does not require members of the committee to have financial expertise,37 which is a good way of controlling the self-interest of managers (Bedard, Chtourou, and Courteau, 2004). Independence of audit committee is critical for firms and stakeholders. Before SOX 2002, a CEO could select the members of the audit committee and determine their duties and the discussion agenda in committee meetings. However, many frauds have involved senior managers. When the committee lacks independence, the problems are not brought to it. Dhaliwal, Naiker, and Navissi (2007) and Cohen et al. (2012) state that an audit committee’s financial expertise can improve financial information quality and enhance the credibility of the firm’s financial statement (for other studies related to audit committees with financial expertise and information quality, see Bédard et al., 2004 and Krishnan, 2005), as it can provide better accounting and financial advice to the board and better monitor internal control systems and the quality of external audit work.

3.2.3 Compensation Committee

In theory, shareholders should set executive compensation. However, in practice, this authority is delegated to the compensation committee. In fact, in 2003, NYSE and NASQAD required listed companies to form a compensation committee to perform this task and all members of the committee were required to be independent directors38. In 2012, they even proposed to prohibit firms to list when not complying with SEC rule regarding independence of compensation committee. The main role of the compensation committee is to design executive incentives and compensation to attract, maintain, and motivate top executives. The role of these committees is to control certain self-interested behaviors of managers, such as providing themselves with overly generous compensation. The kind of compensation packages most likely to alleviate moral hazard involves a combination of base salaries, bonuses, restricted shares, warrants, and stock options. The US SEC requires that the compensation contracts of top executives of listed companies be approved or recommended by the board by a majority of independent directors. Apart from setting compensation for top executives, the committee also has oversight on the design and operation of retirement plans. Such committee has fiduciary duties to shareholders for ensuring both fairness and motivation of compensation for top executives. The compensation committees of large firms usually hire external consultants to provide industry-wide compensation data or benchmarking so it can set competitive compensation for top executives. Recently, there has been frequent criticism regarding the excessive compensation awarded to top executives, the committee seems losing control of the size of executive compensation, and the weakening relationship between the level of executive compensation and firm performance.

3.2.4 Ownership Structure

When the owners are also the managers of a firm (the alignment effect), the overlap between ownership and control could lead to a reduction in conflicts of interest (agency problem) and, therefore, higher firm value. When managers are not owners, they may have greater freedom to pursue their own objectives, reducing firm value (the entrenchment effect). Holderness (2002) indicates that the relationship between blockholders and firm performance in the US is sometimes negative, sometimes positive, and never very pronounced. In Germany, firm performance is positively related to concentrated equity ownership, and the positive relationship between ownership concentration and firm value is particularly strong where there is block ownership by banks (Franks and Mayer, 2001). Claessens et al. (1998) find that board ownership by corporations is negatively related to performance. Short and Keasey (1999) find that in the UK, entrenchment effects dominate alignment effects after board ownership exceeds 12%. Craswell, Taylor, and Saywell (1997) find a weak curvilinear relation between inside ownership and performance in Australia. Chen and Ho (2000) document that diversification ownership has a negative effect on firm value. Morck, Nakamura, and Shivasasani (2000) demonstrate that the relationship is more positive when institutional ownership

36 Members may not be compensated for anything other than service on the board and accept consulting, advisory, or other Compensatory fee from the firm.
37 SOX Section 407 only requires US firms to disclose whether an audit committee includes financial expertise. It also imposes a limited definition of financial expertise as, under huge pressure from corporations, it has relaxed its definition.
38 Section 16(b) of Securities Exchange Act 1934 and Section 162(m) of the Internal Revenue Code of 1986.
(held by banks) is high. Xu and Wang (1997) find that this relation is stronger when blockholders are financial institutions than when blockholders are corporations.

Regarding diversified holdings by shareholders, a large number of public shareholders holding large shares of the firm pressurize the management of the firm to act in the shareholders’ interests since they have more power to lay off inefficient managers. More importantly, the public shareholders would require the disclosure of much more information regarding the firm to the public. Thus, a firm held by large public shareholders would be efficient at controlling the managers of the firm. Leech and Leahy (1991) provide evidence for this in the UK based on corporate governance and the percentage of holdings from public shareholders. Regarding ownership concentration, Berle and Means (1932) find that if no single shareholder has over 20% of shares, the public shareholders can exert effective control over a firm.

However, Hart (1995) argues that dispersed ownership of large public firms creates the problem in that small holding shareholders are too small to exercise control over the day-to-day operation of firms and have little incentive to monitor management. The reason is that monitoring management is a public good. Other shareholders can benefit from some shareholder monitoring management to improve performance. Given that some are free riders, others would not want to monitor management. Therefore, concentrated ownership of firms is necessary. However, large shareholders also create another agency problem between minority shareholders and major shareholders. Large shareholders that own less than 100% may underperform their monitoring role, as they cannot gain 100% profit from firms. Further, they may divert firm profit to themselves by selling goods at a lower price to firms they own. As mentioned before, this has been covered by Shleifer and Vishny and will not be explored further here.

In summary, more diversified holdings by a large number of shareholders may improve corporate governance in that the managers can align with the interest of shareholders (the alignment effect). In contrast, given more concentrated holding by fewer shareholders, it is more likely that managers will act contrarily to the interest of shareholders (entrenchment effects). Therefore, more diversified holdings are more likely to compel managers’ incentive to manage earnings.

3.2.5 Institutional Shareholders

Institutional shareholders tend to be more informed than individual shareholders. They are generally able to spend more time researching the firm and its industry, whereas individual shareholders tend to have limited time to monitor firms’ performance. Further, the institutional shareholders, including holders of pension funds, investment trusts, and insurance companies, are more powerful: they invest large amounts of money into a firm and thus have greater incentive to monitor their interest in the firms. When the firm performs poorly, they can place pressure on the managers of the firm and even withdraw their investment. Hirschman (1970) finds that exit action by institutional shareholders exerts pressure on management. Thus, institutional shareholders can provide market power for corporate control.

The items mentioned above are the most common determinants of corporate governance used by researchers. However, some research would like to use a combined measurement to measure the degree of corporate governance. Mitton (2002) uses compose of various variables to provide a thorough measurement of corporate governance. These variables include disclosure quality, ownership concentration, and the corporate diversification level. Gompers, Ishii, and Metrick (2003) have combined various determinants to create a governance index. However, Hart (1995) argues that dispersed ownership of large public firms creates the problem that small holding shareholders are too small to exercise control over the day-to-day operation of firms and have little incentive to monitor management. The reason is that monitoring management is a public good. Other shareholders can benefit from some shareholder monitoring of management to improve performance. Given that some are free riders, others would not want to monitor management.

G-Score includes Blank Check, Classified Board, Special Meeting, Written Consent, Compensation Plans, Contracts, Golden Parachutes, Indemnification, Cumulative Voting, Anti-Greenmail, Directors’ Duties, Poison Pill, and Directors’ Duties Law.
Score, to measure the overall extent of corporate governance of firms. This combination measurement is relatively not common.

4. TYPES OF EARNINGS MANAGEMENT

Earnings management is the choice of a manager of accounting policies or other actions—including voluntary earnings forecasting, voluntary disclosure, and estimation of accruals—to affect earnings intentionally. Earnings management is an important research area, as earnings management may undermine the credibility of financial statements, which provide useful information for stakeholders in well-functioning capital markets. Most studies in the earnings management literature have focused on two types of general earnings management: accrual management and the manipulation of real economic activities. For discretionary accruals, a firm can use provisions for credit losses (Ahmed, Takeda, and Thomas, 1999; Anandarajan, Hasan, and McCarthy, 2007), warranty costs (Cohen et al., 2011), inventory values, and the timing and amount of unusual items; however, the accrual earnings management may have a reverse effect (Dechow et al., 2012). Another type of earnings management is the use of real variables, which may be costly, to affect the firm’s long-term interest. Graham, Harvey, and Rajgopal (2005) find that most respondents would prefer to use real variables to manage earnings. Schipper (1989) claims that it is very costly to determine managers’ earnings management tactics. She argues that even more visible earnings management techniques, like change in accounting policies and timing of capitalization, are difficult to interpret.

Prior studies have explored the reasons for earnings management. One such reason is compensation schemes (Healy, 1985; McNichols and Wilson, 1988; Holthausen, Larcker, and Sloan, 1995; Gaver, Gaver, and Austin, 1995; Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; Houmes and Skantz, 2010). Healy (1985) provides the earliest evidence of contractual motivation to manage earnings. Since managers have inside information, they have opportunities to manage net income to maximize their bonuses. Therefore, it is more likely that managers will increase current-period earnings. According to Healy, most bonus schemes from his samples have a bogey but not have a cap. Further, he finds that for bonus schemes with a bogey and a cap, 46% are income-increasing. Compensation induces managers to engage in earnings management; however, this is by no means consistent across countries (Brown and Higgins, 2001). Recent studies have shown that top managers’ compensation is linked to firm performance, which is correlated to greater earnings management (Cornett, McNutt, and Tehranian, 2009; Jiang, Petroni, and Wang, 2010). More importantly, managers may manage current earnings upward at the expense of future earnings in order to ensure job security (DeFond and Park, 1997). However, some prior studies provide evidence that changes in top management provide incentives for income-decreasing earnings management. New managers are more likely to engage in income-decreasing earnings management in order to take a “big bath”, therefore increasing their chances of earning a bonus in the subsequent period.

Another motivation is debt covenants. Usually, a long-term debt contract has covenants to protect debtholders. If firms violate debt covenants, they will face higher costs. Therefore, managers are more likely to manage earnings to avoid covenants. Sweeney (1995) finds that firms near default tended to adopt new accounting standards to increase earnings. Other papers also demonstrate consistent results (DeFond & Jiambalvo, 1994; DeAngelo, DeAngelo and Skinner, 1996; Shores, Bowen and DuCharme, 1995). Furthermore, firms are also more likely to avoid reporting losses by managing earnings. Otherwise, they could violate covenants and face higher costs (Hayn, 1995; Burgstahler and Dichev, 1997b). More importantly, Healy and Wahlen (1999) argue the need for differentiating managers’ different opposing or reinforcing motives so as to identify the magnitude of each motive. For instance, managers may be motivated to overstate earnings as result of beating or meeting the analyst forecasts or because of compensation contracts as above mentioned.

41 Gompers et al. (2003) combine 24 different provisions to construct a governance index from 1,500 firms.
42 They also document similar results to Healy’s findings. The difference is that McNichols and Wilson use bad debt allowance as a measure of earnings management. They argue that discretionary accrual exists when the difference estimate and actual bad debt provision.
43 They study managers’ accruals behavior for bonus purposes, and their findings are consistent with Healy’s results.
44 They find that as compared with firms in other countries, US firms are more likely to manage earnings to meet investors’ expectations.
Firms that issue earnings forecasts are more likely to manage earnings to meet investors’ expectations (Burgstahler and Eames, 1998; Kasznik, 1999; Degeorge, Patel, and Zeckhauser, 1999; Matsunaga and Park, 2001; Bartov, Givoly, and Hayn, 2002; Barton and Mercer, 2005; Das, Shroff, and Zhang, 2007; Chin, Chen, and Hsieh, 2009). Some studies find that management appears to manage earnings to prevent earnings from falling below analysts’ forecasts (Burgstahler and Eames, 1998; Kasznik, 1999; Matsumoto, 2002; Burgstahler and Eames, 2006). DeAngelo et al. (1996) document that when firms cannot consistently meet earnings growth forecasts, they experience, on average, 14% negative abnormal returns. More significantly, it is more likely that firms with losses or inconsistent earnings growth would be more incentivized to manipulate earnings, as they could gain more utility from management (prospect theory) and could also reduce transaction costs with stakeholders, as the terms of transactions tend to be more favorable for firms with higher or positive earnings. Therefore, there is strong incentive for managers to manage earnings to meet investors’ expectations. McVay, Nagar, and Tang (2006) find that managers are more likely to manage earnings to meet analysts’ forecasts before selling their shares. Firms are also more likely to manage earnings to set better prices before listing. After initial public offering (IPO) dates, there are frequently reversals of earnings management (Hughes, 1986, Clarkson et al., 1992; Teoh, Welch, and Wong, 1998a, b). Cormier and Martinez (2006) provide evidence that firms in France with weak corporate governance that provide earnings forecasts have a greater earnings management after their IPOs. Further, when some firms acquiring other firms in which stock consideration is a part of purchase price, earnings are more likely to be managed upward to increase the share price and reduce the acquisition cost (Louis, 2004). Further, earnings management may occur because of loan loss reasons (Beaver and Engel, 1996; Beaver, McNichol, and Nelson, 2003). Additionally, some studies have shown that some firms use hedging activities to manage earnings (Barton, 2001) and some change research and development costs to manage earnings (Bushee, 1998).

As mentioned above, earnings management can be treated as opportunistic behavior. However, earnings management can also reduce blocked communication to reveal insider information and serve as a signaling mechanism (Lambert, 1984; Suh, 1990; Stocken and Verrecchia, 2004). These studies provide evidence that earnings management can be used as a signaling mechanism to improve blocked communication channels between insiders and outsiders. For instance, regarding earnings management in the banking industry, Beaver et al. (1989) and Wahlen (1994) find that the market reacts positively to incremental loan loss reserves (signaling effect rather than opportunistic effect). However, opportunistic earnings management is probably more common (Dechow, Sloan, and Sweeney, 1996; Hanna, 1999).

5. MEASURES OF EARNINGS MANAGEMENT

Researchers have generally used four models to identify earnings management, including discretionary accruals. The most popular method is to decompose the total accruals into normal and abnormal groups; other models consider the earnings management components, discontinuities in earnings distribution (Burgstahler and Dichev, 1997a, b), or account-specific items (McNichols and Wilson, 1988; Petroni, 1992; Beatty et al., 1995; Haw, Ho, and Li, 2011).

5.1 Discretionary Accruals

Accrual is used to mitigate the problem of timing and the matching problem; however, it can reflect management intentions. Investors can use the financial information for their decision making. The earnings are a specific focus of investors because the investors’ objective is to maximize their wealth. Usually, investors use

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45 They estimate that 8–12% of firms with small earnings decreases manage earnings to avoid a decrease in earnings. Moreover, 30–44% of firms with small losses manage earnings to avoid a loss in that period.

46 Please refer to Kahneman and Tversky, 1979.

47 Bowen et al. (1995) further discuss how firms with higher earnings can reduce transaction costs with respect to customers, suppliers, lenders, and valuable employees. For instance, customers are willing to buy goods from firms with higher earnings because they can meet warranty guarantees. Suppliers and lenders can offer better contract terms to firms with higher earnings because they are less likely to default. Employees are more likely to be retained in firms with higher earnings.

48 Beatty et al. (1995) also find that managers are more likely manage loan loss reserves with other earnings management techniques.
earnings to measure company performance and adjust their investment decisions based on the available information. However, managers can use accruals to manage earnings in order to meet or beat financial analysts’ expectations or other incentives.

Research regarding the use of accruals begins with Healy (1985). He uses working capital accrual as a measure of accruals. However, the Healy model does not incorporate determinants of nondiscretionary accruals. Therefore, earlier studies would use this model or have made minor changes to this model (DeAngelo, 1986), assuming the nondiscretionary accrual level to be constant. However, the assumption is not realistic, as nondiscretionary accrual should be changed following any change in business activities (Kaplan, 1985; McNichols, 2000). McNichols (2000) provides some evidence that firm characteristics (e.g., high-expected-growth stocks) are correlated with discretionary accruals. She also shows evidence that the total accruals models does not include long-term earnings growth, thereby it may thus have a misspecification problem (Dechow et al., 2012). This suggests that the change in accruals may relate to firm characteristics rather than incentive for earnings management.

Jones (1991) created a model to measure managers’ entrenchments after controlling firm’s normal accrual with changes in revenues and property, plants, and equipment. The 1991 Jones model is the most popular proxy for earnings management concerning abnormal accruals. The normal accruals can be estimated and explained by the amount of accruals explained by changes in sales and property, plants, and equipment. As Jones states, revenues could be the main driver of current accruals, whereas property, plants, and equipment are the main driver of noncurrent accruals. Beaver (2002) claims that this model is too simple. After controlling these two variables, the remaining unexplained error terms are regarded as discretionary accruals, a measure of earnings management. However, this model can have difficulty accurately estimating nondiscretionary accruals. Given a failure in estimating the entire nondiscretionary accrual, the error term would include both nondiscretionary and discretionary accruals. The regression results would omit the correlated problem, such as firm size, especially in cross-section analysis research (Ecker et al., 2011), because firm size is more likely to affect the level of accrual parameters such as growth, complexity, and monitoring. The model was used until Dechow, Sloan, and Sweeney (1995) and Sloan (1996) modified Jones’ model by adjusting the determinants of change in revenue by determining the change in net accounts receivable so that credit sales would not be included in the determinants of nondiscretionary accruals, as the firm may manage credit sales. However, this adjusted model is not very powerful, especially in cases of extreme performance, because it most likely has a lower ability to isolate discretionary accruals (Dechow et al. 2012).

Dechow and Dichev (2002) proposes another model to emigrate this problem. They use a different approach to estimate discretionary accruals: they include determinants of past, present, and future operating cash flow as nondiscretionary. Nondiscretionary accruals should be negatively correlated with present cash flow and positively correlated with future cash flow. However, this method is also questionable (Wysocki, 2009). Furthermore, Kothari, Leone, and Wasley (2005) develop a performance-matched discretionary model to measure earnings management by using return on assets and industry to control the effect on the discretionary accruals. However, Dechow et al. (2012) also argue that this model can reduce the misspecification problem, but it reduces the test power of the model.

Fields, Lys, and Vincent (2001) argue that there are likely to have inference problems by using existing accruals models, and McNichols (2000) argues that this model cannot support by theory in the absence of discretion to change in behavior of accruals, so she recommends combining the Jones model and the Dechow and Dichev model (McNichols, 2002). Dechow et al. (2012) argue that the above models are tests of low power for earnings management of economically plausible magnetite, which account only for 1–5% of total assets; when firms have extreme financial performance, the above models have misspecification problems. Therefore, they introduce an approach to detect earnings management and to improve test power with the migrating misspecification problem as using accruals as earnings management in one period must reverse in another period. Nondiscretionary accruals should persist across periods as a firm’s going concern. Therefore, this model can test the reversal level of

Jones used this model to test whether firms would gain benefits from import relief, including tax tariff increases and quota reductions, and found that firms would attempt to manage earnings during import relief investigations.
discretionary accrual while persisting in nondiscretionary accrual\textsuperscript{50} to improve the detection power of earnings management. They also test the new approach with Ball and Shivakumar’s (2008) study of IPOs and Defond and Jiambalvo’s (1994) study of debt covenant violations. Their results show significant improvement of the test power of earnings management. One difference between the 1991 Jones model and the 2012 Dechow model are dependent variable replacement from total accrual to working capital estimated by change in current assets deducing by changes in current liabilities and cash and adding by change in short term debts (Dechow et al., 2012). Independent variables include variables to estimate the earnings management reversal with determinants of nondiscretionary accruals and also dropping depreciation variable, as it is related to long-term capital expenditure rather than working capital (Allen, Larson, and Sloan, 2010).

As Dechow et al. (2012) state, the explanation power of accrual-based models for earnings management is low, and because of omitted correlated variables for nondiscretionary accruals, the model test has many misspecification problems. They suggest that the choice of models depends on specific research: if researchers are concerned with the reversal of earnings management, then they can use the new Dechow model. In addition, when using Jones and modified Jones models, a concern is the problem of incorrectly classifying discretionary accruals as non-discretionary unless omitted variables bias can be eliminated. The determinants of nondiscretionary accruals should be chosen based on economic conditions to see whether they would be correlated with earnings management. When using the Dechow and Dichev performance-matching model, they advise caution unless the omitted correlated variables are known.

5.2 Assets Turnover (ATO)/Profits Margin (PM) Diagnostic

Over the last twenty years, many researchers have used the Jones model (1991) or other accrual models as a proxy for earnings management. In addition to Dechow’s (2012) new model, a recent paper demonstrates a new insight for the proxy of earnings management that uses asset turnover and a profit margin diagnostic. This model is to decompose DuPont analysis into asset turnover and profit margin. Jansen, Ramnath, and Yohn (2012)\textsuperscript{51} observe that the changes in ATO or PM warrant further investigation in quality of earnings analyses. They also note that changes in both ATO and PM could signal earnings management. As upward earnings management can affect both the income statement and balance sheet in the same direction; However, it can also affect operating income and net operating assets in opposite directions, which can signal downward earnings management. In theory, an increase in profit margin (e.g., by understating R&D, bad debt, or other expenses) and a decrease in asset turnover can signal upward earnings management, whereas, a decrease in profit margin (e.g., by overstating expenses) and an increase in asset turnover can signal downward earnings management. For instance, if a firm manages earnings by understating allowances for doubtful debts, it can overstate the profit margin ratio, thereby overstating net accounts receivable and understating the asset turnover ratio, or vice versa. They test whether this new measure can meet or beat analyst forecasts, whether it can explain the subsequent earnings restatements as an indicator of earnings management, and whether it can explain the earnings reversals and future abnormalities. For the first test, even though the diagnostic already controls for abnormal and discretionary accruals, the diagnostic can still provide additional information that a firm meets or beats expectations and has a greater discriminating ability to identify firms that are beating or meeting analyst forecasts than the accrual model. For the second test, the diagnostic can provide additional information about a firm’s likelihood of managing earnings downward by “taking a bath” or “smoothing income”. For the third test, abnormal accruals cannot explain future earnings restatements, whereas the diagnostic can provide additional information about a firm’s likelihood of restating earnings in the future. For the fourth test, both the abnormal and diagnostic accruals are useful for identifying earnings reversals. Hence, future EM research may be better to include this additional diagnostic to testify the relationship of variables. Otherwise, the explanatory power for accrual model seems to be not strong enough.

\textsuperscript{50} In that paper, Dechow et al. (2012) added two variables to the previous model, including a dummy variable in which earnings management is hypothesized to reverse and another to classify the period of earnings management.

\textsuperscript{51} They test an ATO and PM diagnostic with abnormal accruals to determine whether it can provide incremental information to identify earnings management and whether opposite change in PM and ATO can signal earnings management.
5.3 Earnings Management Proxies: Classification Shifting

Most previous studies of earnings management have focused on accrual management and manipulation of real economic activities. However, some researches are more willing to use proxies to measure the existing earnings management. For instance, a recent paper has provided a proxy: measuring earnings management by classification shifting—managers’ deliberate misclassification of core expenses as noncore special items on the statement of comprehensive income to create the illusion of an increase in core earnings for investors (Haw et al., 2011) so as to affect the share performance. They find that like other measures of earnings management, one of the motivations to shift core expenses to special items is to meet analyst earnings forecasts (McVay et al., 2006). The difference between the Haw and McVay research is that the former uses two corporate governance measures including ownership structure and type of auditors, and legal institutions.

5.4 Earnings Management Proxies: Restatements

One of indicators of whether firms engage in earnings management is the existence of restatements and fraud in financial information. The restatements of financial information can be classified into non-intentional errors and intentional irregularities based on the US SEC, lawyers, and auditors (Hennes, Leone, and Miller, 2008). Hennes et al. find the overall market reaction on restatement to be negative; however, market response to intentional irregularities is much stronger. Arthaud-Day et al. (2006) indicate that CEOs and CFOs who file material restatements are more likely to leave firms. The majority of directors and audit committee members leave firms when there are restatements, and they suffer reputation penalties (Srinivasan, 2005).

6. CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT

6.1 External Corporate Governance

6.1.1 The Legal System and Earnings Management

The protection of outsider investors is a function of both the rights accorded to them and the legal enforcement of these rights. The extent of earnings management is correlated to the institutional arrangements of countries. Burgstahler, Hail, and Leuz (2006) provided evidence that countries with stronger legal systems have lower earnings management. Countries with lower investor protection usually have a higher magnitude of earnings management (Leuz, Nanada, and Wysocki, 2003), and this lack of protection gives insiders more incentive to obfuscate firm performance. Leuz et al. (2003) classify sample countries into three clusters that are similar to prior studies that group countries according to common or code law (Ball, Kothari, and Robin, 2000; Ball, Robin, and Wu, 2003). They find that earnings management scores among the three clusters are significant and that countries with lower earnings management are correlated with strong investor legal protection. Prior studies demonstrate that it is less likely for managers to divert earnings or assets when there is greater legal protection (Shleifer and Wolfenzon, 2002; Nenova, 2003). Some recent studies have also provided consistent evidence. Chin et al. (2009) find that foreign-owned firms in Taiwan with stronger levels of investor protection have reduced earnings management to meet the target level of earnings from outsiders. Ball et al. (2003) argue that the institutional arrangements of a country is the most important factor in controlling managers’ self-interest, reducing opportunistic earnings management, and improving the quality of financial reporting. However, another view suggests that even countries under common law, such as Hong Kong, Singapore, and Malaysia, report earnings that do not show common law prosperities (Ball et al., 2003). Fan and Wong (2002) present consistent findings. Prior studies find that severe earnings management and a low level of earnings informativeness are the characteristics of weak investor protection institutions (DeFond, Hung, and Trezevant, 2007; Leuz et al., 2003).

52 They compare 31 countries with different levels of legal protection and find that around the world, earnings management measures are negatively associated with the quality of minority shareholder rights and legal enforcement.

53 The first cluster includes Singapore, Hong Kong, Malaysia, the UK, Norway, Canada, Australia, and the USA; the second includes Austria, Taiwan, Switzerland, Germany, Japan, Belgium, Netherlands, Denmark, France, Finland, Sweden, South Africa, and Ireland; the third includes Greece, Korea, Portugal, Italy, India, Spain, Indonesia, Thailand, Pakistan, and the Philippines.
When firms face a higher probability of being acquired or losing control, they have more incentive to engage in practices to reduce this likelihood (Comment and Schwert, 1995; Billet and Xue, 2007), and are more likely to repurchase their own stocks. Similarly, such firms are also more likely to manage earnings to show better performance as a takeover defense, inflating the share price and raising the cost to acquirers and making it more difficult for acquirers to complete the deal. Perry and Williams (1994) and Wu (1997) provide evidence that under management buyout, firms are more likely to manage earnings downward so that managers can purchase firm shares at a lower price. In contrast, Braga-Alves et al. (2009) document that firms would manage earnings upward to reduce or avoid the likelihood of a successful takeover. Thus, it is more likely that firms would use more conservative accounting policies to reduce their takeover risk (Shen, 2007).

6.2 Internal Corporate Governance

6.2.1 Ownership Structure and Earnings Management

Corporate governance structure and earnings management are correlated with earnings informativeness and earnings quality. Prior studies have documented that ownership structure can influence firm earnings quality (Anderson and Reeb, 2004; Ali, Chen, and Radhakrishnan, 2007). Firms with higher dispersed ownership can reduce earnings management because no majority can control the operation of firms, insiders cannot enjoy private benefits from controlling firms, and their interests can align with other owners. Firms must meet public expectations in terms of disclosure and improved earnings quality. Leuz et al. (2003) indicate that earnings management appears to be lower in firms with dispersed ownership, which can reduce insiders’ incentive to conceal firm performance (Nenova, 2003; Dyck and Zingales, 2004). Sánchez-Ballesta and García-Meca (2007) provide recent evidence that a lower level of insider ownership is associated with less earnings management, which is consistent with previous studies. In contrast, Morck, Shleifer, and Vishny (1988) indicates an entrenchment effect with concentrated ownership. In such cases, managers are more likely to manipulate earnings to cover their entrenchment behavior. These firms are under ineffective corporate governance mechanisms, including the boards of directors, the composition of boards, and external capital market control over the firms (Shleifer and Vishny, 1997; La Porta et al., 1999; Johnson et al., 2000b).

Jiraporn and DaDalt (2009) show that founding-family-owned firms have less incentive to manage earnings, as they do not have high pressure to meet or beat earnings expectations. Wang (2006) also provides evidence consistent with prior studies. Fan and Wong (2002) provide evidence that East Asian earnings informativeness measured by earnings return relation is related to ownership structure. Fan and Wong measured different types of ownership structures, including concentrated-level, associated-pyramidal, and cross-holding structures. Major shareholders have a conflict of interest with minority shareholders, as they are more likely to prevent disclosure of proprietary information to the minority or the public, and are also likely to manipulate the reporting of earnings to cover self-interest behavior. The problems of lower earnings quality, more earnings management, and less informativeness are not because of poor accounting standards; in fact, many East Asian countries have already imposed international accounting standards or have complied with international accounting standards to make some changes. Rather, these problems are largely due to poor corporate structure, one of the elements of corporate governance.

6.2.2 Composition of Boards and Earnings Management

Board governance can effectively influence managers’ operation, investment, and finance decisions and activities, and can influence choosing, hiring, and controlling the external auditors and internal control mechanisms...
via the audit committee. In turn, better board governance can use the internal control system to control opportunistic earnings management (Byrd and Hickman, 1992; Brickley, Coles, and Terry, 1994; Klein, 2002; Carcello et al., 2006).

**Board Independence and Earnings management**

Prior studies have documented how board independence can reduce earnings management (Jensen and Fama, 1983; Dechow and Dichev, 2002; Peasnell, Pope, and Young, 2000) because independent directors do not pursue self-interests such as executive compensation and the misappropriation of assets, pressure from shareholders to meet or beat expectations of firm performance, and the need to maintain personal reputation to the public. Williamson (1981) argues that the independence of the board is needed to control managerial activities to protect the interest of investors. Board independence can also prevent managers’ abuse of power and to dampen investors’ interest (Roe, 1991). More importantly, shareholders can control the appointment and reappointment of independent directors. Therefore, it gives pressure to them to well monitor management closely. Dechow et al. (1996) argue that firms with extensive earnings management are more likely controlled by insiders rather than outsiders. Beasley (1996) finds that the inclusion of a large numbers of outside directors on the board can reduce the likelihood of financial information fraud. When the CEO comes from the founding family, the firm tends to lack independence and have a higher probability of restatement of accounting information (Agrawal and Chadha, 2005). Peasnell, Pope, and Young (2005) find that a higher proportion of outside directors in the UK can better constrain income-increasing discretionary accruals to avoid earnings management. Klein (2002) finds support for the negative relationship between board independence and earnings management in the US. Uzun, Szewczyk, and Varma (2004) also find evidence consistent with prior studies in the US. Sharma (2004) finds evidence that Australian firms with greater board independence and intuitional ownership have less fraud than those with CEO duality. Xie, Davidson III, and DaDalt (2003) and Peasnell et al. (2000) indicate relationships between board independence and the extent of earnings management: Xie et al. (2003) document a negative relationship; Peasnell et al. (2000) find an increased likelihood of discretionary accrual to avoid earnings loss for firms with higher proportions of non-executive directors. Davidson, Goodwin-Stewart, and Kent (2005) provide evidence consistent with these findings: Australian firms with higher board independence have more incentive to manage earnings. Most of these studies consider earnings management according to discretionary accruals, the test of the model has misspecifications. Given the latest findings from the Jansen PM/ATO diagnostic, future studies related to earnings management may need to consider this model to improve the explanatory power of the test.

**Female Representation on Boards and Earnings Management**

Some prior studies investigate the relationships between the proportion of female directors on boards with earnings management and earnings quality. Adams and Ferreira (2009) claim that female directors are more likely to have board diligence and more effort to demand and monitor for managers’ performance. Further, female directors think more independently and monitor CEO behavior more effectively than male directors (Carter, Simkins, and Simpson, 2003). Adams et al. (2010) also argue that female directors are more likely to think independently and monitor executives more effectively. This is a very critical control for earnings management: firms with more females on the board can have better earnings quality and lower earnings management because independent thinking is critical for checking opportunistic activities and providing better quality financial information.

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56 Using the market reaction to the adoption of poison pills, they consider whether firms controlled by outside directors can align their interest with that of shareholders or whether they harm shareholders. If the outside directors harm shareholders, there is no significant difference in market reaction to firms controlled by outside directors and those not. They find that outside directors are a vital part of board composition to control managers’ behavior and align with shareholders’ interest.

57 The research finds that independent corporate boards can effectively monitor earnings management in firms operating in countries in the institutional arrangement of the US and the UK.

58 They show that female directors have greater independence than their male counterparts.
Further, female directors are more likely to be less tolerant of opportunistic activities and behavior than male directors (Krishnan and Parsons, 2008; Thorne, Massey, and Magnan, 2003). Many prior studies in Canada and the US provide evidence that female auditors generally have higher levels of moral reasoning than their male counterparts (Etherington and Schulting, 1995; Bernardi and Arnold, 1997; Lampe and Finn, 1992; Shaub, 1994; Sweeney, 1995). Another paper more directly investigates the relationship between female auditors and their level of tolerance of opportunistic behavior (Thorne et al., 2003) and finds that female auditors are less tolerant of misappropriation behavior than male auditors.

According to Hambrick and Mason (1984), an organization should reflect top executives and characteristics of top management teams and they argue that executive decision making is based on their experiences, values, and deposition. Thus, executives can influence firm performance through decision making in top management teams. The dynamics and complementarities of the management team greatly influence corporate outcomes and corporate governance (Hambrick, Nadler, and Tushman, 1998). Klenke (2002) proposes that the desires of female leaders and their efforts can build a culture of trust within firms using transformational strategies such as visioning, impression management for the organizational and individual good, and empowering team members. Hence, female leaders are more likely to employ a trust leadership style (Klenke, 2003; Trinidad and Normore, 2005). This trust leadership requires managers to share more information with female directors. Powell and Ansic (1997) and Sunden and Surette (1998) find that females are more risk averse in their decision making than males. Therefore, Bajtelsmit and Van Derheij (1997) and Hinz et al. (1997) argue that female directors are similarly risk averse in their decision making. Female directors should thus not allow management to manage earnings, causing them to face litigation risk and influencing their reputation. Earnings management would damage the reputation of firms (Hunto, Libby, and Mazza 2006). Du Charme, Malatesta, and Sefcik (2004) find that during initial offerings of stock to the public, firms face more frequent lawsuits if there is earnings management. Hence, female directors are more averse to the risk of litigation and reputation loss (Srinidhi et al., 2011). Thus, female directors would choose and monitor internal and external auditors more closely.

Srinidhi et al. (2011) argue that female directors can improve board governance in terms of monitoring CEOs, improving board attendance, and improving communication; these aspects are likely to improve earnings quality. Therefore, female representation on the board can actually reduce earnings management for various reasons. Srinidhi, Gul, and Tsui apply different measures of earnings management and find a positive relationship between female representation on the board and earnings management (2010). They test whether the proportions of female directors, female non-executive directors, and female audit committee members are correlated with opportunistic earnings management and find a significantly positive correlation.

Audit Committee and Earnings Management

The audit committee fills various roles for the firm, management, shareholders, creditors, and other stakeholders. One of these roles is to enhance the credible financial statements used by stakeholders for their

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59 This paper investigates whether the national institutional context is associated with differences in auditors’ moral reasoning by examining three components of auditors’ moral decision processes. One of the control variables for moral reasoning is gender.

60 This paper investigates how gender difference can influence the decision-making process in top management teams.

61 Other studies related to gender differences in the decision-making process include Powell (1990), Powell and Ansic (1997), and Carter, Williams, and Reynolds (1997).

62 Sunden and Surette (1998) use data from the 1992 and 1995 Surveys of Consumer Finances to compare the distinguishing characteristics of investing in defined contribution plans by males and females. They find that gender significantly affects the allocation of assets in defined contribution plans.

63 They find that earnings management in firms with high transparency damages the reputation of financial reporting, whereas earnings management in firms with low transparency does not affect the reputation of firms. The authors suggest that greater transparency can reduce earnings management.

64 They apply earnings management measures, including the 2002 McNichols model, which combines the Dechow and Dichev model and earnings management by including changes in sales and property, plants, and equipment with operating cash flow in past, present, and future periods. They also use the 2003 Ashbaugh et al. model for their regression. They find a negative coefficient for the relationship, which indicates less opportunistic earnings management.
decision making. Agency theory comes into play when there is a separation of ownership and management. In such cases, management may not align with the interest of shareholders; this may result in the misappropriation of assets. Managers are likely to cover their opportunistic behavior by managing earnings. Thus, the audit committee can actively monitor the quality of work done by internal auditors and can choose better external auditors to improve the quality of financial statements. Another role of the committee is to maintain internal control effectiveness under the requirements of the Sarbanes-Oxley Act. Maintaining good internal control effectiveness can reduce earnings management and improve financial information. Song and Windram (2004)\(^6\) argue that limitations on the audit committee’s ability can affect its monitoring of financial accounting quality. Thus, audit committee structure is an important corporate governance mechanism.

As mentioned in section 3, the US, the UK and HK stock exchanges require certain proportion of independent non-executive directors who are not managers in audit committee so that they can provide a clear mandate for overseeing for financial statements and the work of external auditors. Chtourou, Bedard and Courteau (2001) provide firms with large proportion of outside directors in the committee have less income increasing earnings management. Further, they also find that the increase in proportion of short term stock options held by directors in audit committee is more likely to reduce the effectiveness of monitoring managers to have high level of earnings management.

Prior studies demonstrate that audit expertise can control fraud and earnings restatements, which are measures that affect earnings management (Abbott, Parker, and Peters, 2004; Agrawal and Chadha, 2005). Carcello et al. (2006)\(^6\) indicate a high correlation between the composition of the audit committee and earnings management. Further, for firms with other weak corporate governance mechanisms, both accounting and financial expertise can mitigate earnings management\(^6\). They also find that the most effective composition of the audit committee to control opportunistic earnings management (measured by discretionary accruals) includes independent audit directors with accounting or financial expertise. Carcello et al. (2006) document a trade-off between financial expertise (by the restricted definition) and other corporate governance mechanisms. Although audit committee financial expertise cannot provide an incremental effect on the reduction of earnings management, it can have an influential effect on firms with other poor corporate governance mechanisms. Thus, Hong Kong and UK SECs impose the requirement that an audit committee must include at least one financial expert. Another US study finds that audit committees with financial expertise can reduce earnings management (Bedard et al., 2004). Prior studies also demonstrate that audit committee independence can reduce opportunistic earnings manipulation (Turner and Vann, 2010). However, prior studies cannot show a relationship between the size of the audit committee and earnings management (Bedard et al., 2004). Cohen et al. (2005) find that after imposing SOX, earnings management drops significantly. This explains why the US government imposed harsh legal requirements on firms, including the audit committees, to maintain internal control effectiveness.

**Compensation Committee and Earnings Management**

Section 5 details the incentives to manage earnings, one of which is compensation motivation. Managers are more likely to boost earnings, to earn higher bonuses, by reducing discretionary expenditure such as R&D or by adjusting discretionary accruals. The main function of the compensation committee is to design incentive plans for top managers. The committee can sometimes exercise its power for special situations in order to achieve this goal (Dechow, Huson, and Sloan, 1994). Hence, stock exchanges in US, UK, and elsewhere require listed firms to include a certain proportion of independent directors on a compensation committee to control managers’ self-interest, such as overpaying themselves and reducing R&D expenditures (Cheng, 2004\(^6\)). However, Cheng (2004)\(^6\)

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\(^6\) They examine cases of firms subject to investigation by the Financial Reporting Review Panel. If there are busy directors and directors that hold shares of these firms, the audit committee’s ability to monitor earning quality tends to be limited.

\(^6\) Carcello et al. (2006) did not find that the presence of an audit committee financial expert is associated with real earnings management. Cohen, Dey and Lys (2005) indicate incremental real earnings management even after imposing SOX.

\(^6\) They find that independent financial accounting expertise and non-accounting financial expertise are more effective at reducing earnings management.

\(^6\) Cheng finds a significant relationship between change in R&D expenditures and change in value of CEO stock option grants. This explains why compensation committees can mitigate managerial opportunistic reductions in R&D expenditure through stock option payments.

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only focuses on one real earnings management variable, namely R&D expenditure, and only considers eight industries. Therefore, results are based on only a few intensive industries. Prior studies do not suggest a relationship between stock option payments and earnings management (Cheng and Warfield, 2005; Coles, Hertzel, and Kalpathy, 2006; Bergstresser and Philippin, 2006; McAnally, Srivastava, and Weaver, 2008; Cohen, Dey, and Lys, 2008; Cornett, Marcus, and Tehranian, 2008). Huson et al (2012) provide evidence that the compensation committee makes decisions regarding discretionary expenditure in the executive’s terminal year when setting cash compensation for executives, and intervenes to reduce payments when managers make up accruals. However, Pourciau (1993) argues that the members of the board of directors and shareholders have difficulty structuring the CEO turnover to reduce the opportunistic earnings management in the terminal year as the non-routine executive change is more likely unplanned and unexpected. Her result does not support her argument. Hence, these findings provide evidence to support the hypothesis that a well-functioning committee governance mechanism (such as a compensation committee) can identify opportunistic earnings management and pricing in the executive compensation setting.

7. CONCLUSION

Corporate governance can reduce or even eliminate the extent of earnings management. Normally, an institutional environment that provides better legal protection can control managers’ self-interest to a certain extent. Takeover force can put market pressure on managers to do the best for shareholders. Prior studies have investigated different corporate governance mechanisms that can have negative relationships with earnings management. Board independence can enhance certain monitoring behaviors in managers, including the misappropriation of assets. Female directors can develop trust leadership, which requires managers to share information, and are more likely to be risk averse to frauds and opportunistic earnings management. Audit committees can oversee internal control for financial reporting and the quality of financial information. Directors with financial expertise can provide incremental control effects on earnings management, especially firms with weak corporate governance. This paper reviews corporate governance systems, internal and external corporate governance mechanisms, earnings management, and earnings management measurements, as well as the relationships among them. Therefore, this paper contributes to the corporate governance literature by investigating these different mechanisms in detail, reviewing the latest findings on classification shifting and summarizing earnings management measures, including a new diagnostic system. Future research may need to investigate the new diagnostic system as well as the new model proposed by Dechow in different contexts.

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The results support previous research with the benefit of outside monitoring on earnings management but contradict the conversional alignment argument by using pay-for-performance compensation. This is due to the weakening relationship between performance and option compensation once the impact on earnings management is removed from profitability estimates. This evidence is inconsistent with Cheng and Warfield’s findings.

They find that the compensation committee values abnormal discretionary expenditures in non-terminal periods but does not value upward real and accrual earnings management in the terminal period.
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