CORPORATE GOVERNANCE AND U.S. FIRMS OVER THE LAST THREE DECADES[a]

Dina F. El-Mahdy[b]
Morgan State University

Key Words: Corporate Governance, Agency Theory, Sarbanes-Oxley Act 2002

JEL Classification(s): M14, M40, M48, G30, G34

Abstract

This paper provides a review, discussion, and analysis of research on the usefulness of corporate governance codes to U.S. firms based on the theories underlying corporate governance, anecdotal evidence, and practices. It reviews the concurrent corporate governance codes and theories in the U.S. business environment, and then classifies the extant literature on corporate governance and U.S. firms over the last three decades. The paper further discusses the association between corporate governance and organizational outcomes such as

---

[a] Revised and reprinted with permission from: "El-Mahdy, D., and Norman, C. 2010. Corporate governance and the U.S. firm: A review and directions for future research. Nova Science Publishers Inc., Hauppauge, New York. ISBN: 978-1617287824".
[b] Contact information: TEL: +001-443-885-3967; FAX: +001-443-885-8251; Email: dina.elmahdy@morgan.edu
The author would like to thank Carolyn Strand Norman for her contribution to the first version of this manuscript as well as participants and discussants of the 2010 American Accounting Association Southeast Regional Meeting for their helpful feedback and comments.

firm value, operating performance, and financial reporting quality in order to draw reliable conclusions regarding the overall effectiveness of corporate governance codes for U.S. firms and identifies gaps in prior literature. Based on this classification, the paper provides directions for future research regarding challenges and opportunities in order to maximize the benefits of corporate governance to U.S. firms.

INTRODUCTION

In the past, corporate governance was an important control mechanism for maintaining the accountability of management and directors of an organization. However, the value of strong corporate governance has assumed a critical role in organizations since the recent highly publicized business failures of a number of large companies. Claims about the unreliability of reported earnings continue, as evidenced by an increase in the frequency of earnings restatements, earnings management and fraud that was uncovered by the recent financial crisis.[c] Thus, corporate governance systems continue to be of utmost importance based on the impact of financial reporting (e.g., firm value, earnings and audit quality, firm performance) on capital markets (Ou, 2002; Rajgopal and Venkatachalam, 2011). This paper provides a review, discussion, and analysis of three decades of research on the usefulness of corporate governance codes to U.S. firms, based on the theories underlying corporate governance, anecdotal evidence, and practices. The paper further discusses the association between corporate governance and organizational outcomes such as firm

---

[c] Statement before the Senate Judiciary Committee on December 9, 2009 by Kevin L. Perkins, assistant director, criminal investigation division of the Federal Bureau of Investigation. Available at this link: http://www.fbi.gov/news/testimony/mortgage-fraud-securities-fraud-and-the-financial-meltdown-prosecuting-those-responsible

value, performance, and financial reporting quality in order to draw reliable conclusions regarding the overall effectiveness of corporate governance codes for U.S. firms. Based on this classification, the paper offers directions for future research regarding how to maximize the benefits of corporate governance mechanisms to U.S. firms.

This study is motivated by the extensive literature on corporate governance that attempts to answer the question: What is the value of corporate governance to U.S. firms? Research in business, finance, law, economics, management and accounting is innumerable (Bebchuk and Weisbach, 2010) and still continuing due to the continuous collapse of major firms worldwide that was followed by a global financial crisis in 2007-2008, despite the fact that most of these firms had a strong governance structure (Erkens, Hung and Matos, 2012). Most of these wide-ranging studies lack consistent evidence on the systematic usefulness of corporate governance to different constituencies, especially to firm value, performance, and financial reporting quality (Field, Lowry, and Mkrtchyan, 2013; Falato, Kadyrzhanova, and Lel, 2014). The debate is highly interesting yet still unresolved by academics as to whether corporate governance did add value to U.S. firms.

There is also doubt in the literature that there is an agreement between theoretical frameworks of corporate governance as supported by the agency theory and the best corporate governance practices employed by corporations (Cohen, Krishnamoorthy, and Wright, 2008; El-Mahdy and Norman, 2010; Grove, Patelli, Victoravich and Xu, 2011). Consequently, this study contributes to prior research in that it voids this missing link by providing a review of the usefulness of corporate governance to U.S. firms. Further, articulating the empirical evidence with the theoretical foundation underpinning the corporate governance codes is essential to our understanding of the overall effect of corporate governance systems for U.S. firms. The present study then sets the stage for future research that would advance the knowledge of the value of corporate governance to U.S. firms. It also extends the limited literature review on corporate governance (e.g., Cohen, Krishnamoorthy, and Wright, 2004; Tarraf, 2010; Yeoh, 2010; Khan, 2011; Kumar and Singh, 2013).

This paper is composed of five sections. Section 2 provides an overview of corporate governance best practices and theories and U.S. firms. Section 3 classifies research on the association between corporate governance and U.S. firm performance. Section 4 summarizes the literature on the association between corporate governance and financial reporting quality. Section 5 concludes the study by providing recommendations for future research.

AN OVERVIEW OF CORPORATE GOVERNANCE

Traditionally, shareholders rely on the management of a firm to act on their behalf, but are usually unable to directly monitor the actions of management. Likewise, managers' primary interest is in increasing the firm's profits to maximize their bonus and compensation plans. Jensen and Meckling (1976) theorize the conflict of interest between managers and shareholders this way: "Managers who own less than 100% of the residual cash flow rights of the firm are more than likely to have a potential conflict of interest with the firm's shareholders." Therefore, there is a mismatch between the interests of management and shareholders, and this mismatch creates information asymmetry. Such asymmetry is the basis underlying the corporate governance codes. Corporate governance has variously been defined as the processes, ethics, policies, guidelines, and rules that firms adopt to reduce agency costs arising from the conflict of interest between the management (agent) and shareholders (principal) of organizations. This conflict of interest arises mainly from the unique nature of the dispersed ownership structure that separates ownership of capital and the management that provides control over this capital. Unlike concentrated ownership systems such as those in Germany and Japan, the U.S. system is characterized as a dispersed ownership system with a large distance between management and shareholders. The increased emphasis on corporate governance in the U.S. stems from the fact that the U.S. is the world's richest, largest, and fastest-growing dispersed ownership system (Anglo-American). The problems emerging from the dispersed ownership structures became very hard to manage with the current institutional laws and regulators, and that mandated the existence of a strong corporate governance system. The U.S. is also a contractarian system in which the primary purpose of the firm is to maximize the shareholders' value as residual claimants.

Corporate Governance Practices

Theoretically, in the U.S., the best corporate governance practices are mainly those set forth by the Sarbanes Oxley Act 2002, the Securities and Exchange Commission (SEC), and other regulatory agencies such as the Public Company Accounting Oversight Board (PCAOB). The primary objective of these governance regulations is to promote the most efficient governance structure. Overall, theory and practice suggest certain governance practices that if followed 'properly' will result in benefits aimed at corporate governance. The best governance practices in the academic literature have been heavily focused on the board of directors and the formulation of various independent governance committees of the board of directors. Therefore, the existence, independence, structure, and composition of the governance committees are among the best governance practices in the literature. Corporate governance committees include the nominating committee, compensating committee, and audit committee.

Among the governance mechanisms that contribute to aligning the interests of managers with those of shareholders is the allocation of ownership between insiders and outsiders, the use of debt in the capital structure to reduce the free cash flow that can be abused by management, management incentive plans, takeover, board of directors, investor activisms, product market competition, and organizational structure (Farinha, 2003). In general, corporate governance best practices can be divided into two broad mechanisms: internal and external mechanisms (Bushman and Smith, 2001). Internal corporate control mechanisms include management incentive plans, shareholders and debtholders monitoring, board monitoring, corporate bylaws and charters, and the internal managerial labor market. External corporate control mechanisms consist of the market for corporate control, the external managerial labor market, the national legal and judicial system, product market competition, the corporate hostile takeover or takeover threat, product market competition, managerial labor market, financial analysts, the legal environment, and management reputation (Jensen and Meckling, 1976; Shlefier and Vishny, 1997; Bushman and Smith, 2001; and Farinha, 2003).

Corporate Governance Underlying Theories

The Agency Theory. Underlying the agency theory, corporate governance is initiated to reduce the agency costs arising from the conflict of interest between management and shareholders. That is, effective corporate governance is expected to lower the monitoring, auditing, and other private costs of investors. In the beginning of the twentieth century, the agency theory started to emerge in the pioneer work of Berle and Means (1932). The agency costs range from missed opportunities by risk-averse management to management recklessness (Burton, 2000). Anecdotal evidence suggests that the presence of good corporate governance mitigates the asymmetric information or reduces the traditional principal-agency problems between stakeholders and managers. Likewise, poor corporate governance intensifies the information asymmetry between stakeholders and managers and hence increases the agency costs.

Despite the widespread recognition of the agency theory as the primary theory underlying the corporate governance systems, the critiques have begun to aggressively comment on the appropriateness of the agency theory in reducing the agency costs, especially after the collapse of big worldwide firms in the early 1990s and the global financial turmoil in 2007-2008. For example, Hart (1995) criticizes the agency theory for dealing with the firm as a 'black box'. The agency theory predicts that corporate governance will maximize the output of the shareholders' wealth by strengthening the governance structure, which is the input to the desired output of profit maximization. However, little is known about how the input is transformed into an output. Another criticism of the agency theory is that feedback information is required regarding whether the actual output is created from the traditional input entered into the process. In other words, it is necessary to verify that the shareholders' maximizations are indeed the output of a well- developed governance structure and nothing else. We need also to be able to take corrective or preventive actions against undesired output from poor corporate governance structures. The current agency theory, unfortunately, falls short in this aspect.

In addition to the widespread use of the agency theory in prior corporate governance research, some studies employ competing theories to the agency theory, such as Contingency Theory, Stewardship Theory, Stakeholders Theory, and Resource Dependence Theory. The purpose of these competing theories is to increase our understanding of the value of corporate governance to the firm.

The Contingency Theory. Underlying the Contingency Theory is the idea that the corporate governance mechanisms might positively/negatively affect firm performance only after controlling for some moderating variables that would significantly impact the relationship between the proxy used for corporate governance and firm outcomes in the study. For example, some of the moderating variables that would significantly impact the association between financial reporting quality and corporate governance mechanisms is the environment underlying the financial reporting quality: information uncertainty, environmental factors, market conditions (bull or bear market), firm credit risk and the probability of default, country specific factors (recession or expansion), and time factors. Firm configurations are documented to affect the firm value, according to Ketchen, Combs, Russell, Shook, Dean, Runge, Lohrke, Naumann, Haptonstahl, Baker, Bechstein, Handler, Honig, and Lamoureux (1997). Another possible moderating variable is the key board composition, with factors such as high level of experience, appropriate team size, and moderate levels of variation in age and team tenure coming into play, as suggested by McIntyre, Murphy, and Mitchell (2007).

The Stewardship Theory. The Agency Theory is criticized for ignoring the non-financial, psychological and sociological aspects associated with executives (Donaldson and Davis, 1991). The central theme of Agency Theory is that managers are opportunistic in terms of their shirking and indulging in abnormal perquisites at the expense of shareholders' wealth. Unlike the Agency Theory, the Stewardship Theory focuses on 'models of man' in which the person is motivated by the need to achieve, gain satisfaction through successfully doing a great challenging job, and exercise responsibility and power to gain recognition from his work environment. Executives might perceive their future as part of their corporate success and prosperity in the market because corporate success will increase demand for executives of these successful corporations in the job market and might also increase their pension rights. Stewardship Theory holds the view that executives need to exercise full power over the firm. Executives need to feel unchallenged by the board of directors.

Underlying the Stewardship Theory, managers are inherently trustworthy and act in the best interest of shareholders and various stakeholders (Weber, 2006). For example, according to the Stewardship Theory, it is expected that the CEO who wears many hats by working as the chairman and director at the same time - a phenomena known as 'CEO duality' in the literature - will positively impact the firm performance. According to the Agency Theory, however, one of the key factors to discourage management from excessive abusive behavior is to separate between the tasks of the chairperson of the board and the executives. This is simply because the board of directors should monitor the executives or the top management. If the executive and the chairperson are the same person, then the idea of monitoring is hindered. Therefore, the Agency and Stewardship Theories are competing ones.

The Stakeholders Theory. In corporate governance's domain, while the primary groups involved are the management, board of directors, and shareholders of a firm, other interested parties might include customers, suppliers, bondholders, regulators, stakeholders and others. Therefore, the claim that the conflict of interest and hence the agency costs exist only between management and shareholders is indeed restricted. Actually, the conflict exists between the firm and all interested parties involved with the firm, such as employees, communities, regulatory agencies, customers, suppliers, government, and political groups. These groups or parties are called the stakeholders of the firm, who have intrinsic value and whose interests might not be in line with those of the firm.

The Stakeholders Theory describes the nature of the firm, the way managers think about different methods to manage the firm, how board member think about the diverse interests of stakeholders, and how corporations are actually managed. The Stakeholders descriptive approach seems crucial to the success of the corporate governance codes. Stakeholders Theory incorporates the governance codes among organizational constellations to ensure the minimizing of the conflict of interest among the different interested parties (Donaldson and Preston, 1995).

The Resource Dependence Theory. The Resource Dependence theory argues that the board of directors should provide the resources needed by the firm (Daily, Dalton, and Cannella, 2003). Underlying this theory, a specialized outside board of directors is a must-have in the composition of the board of directors in order to fulfill the firm's required diverse resources, such as legal needs and financial expertise. Therefore, the firm's performance is expected to improve and the gab/conflict of interest between management and shareholders is expected to be narrowed by employing the Resource Dependence Theory. Few studies support the Resource Dependence Theory (e.g., Boyd, 1990; Dalton, Daily, Johnson, and Ellstrand, 1999; Hillman, Cannella, and Paetzold, 2000; Johnson, Daily, and Ellstrand, 1996; Cohen, Krishnamoorthy, and Wright, 2007). The majority of the research still heavily focuses on the monitoring/controlling role of the board of directors and underestimates the resource dependence and services roles that could affect the momentum of the process of reducing the agency costs, if given the same attention as the monitoring/controlling role.

GOVERNANCE AND THE U.S. FIRM PERFORMANCE

This section attempts to answer the question: Does Wall Street appreciate corporate governance? In order to answer this question, we first need to understand the role corporate governance might play in affecting a firm's performance (e.g., stock price performance/returns). Jensen and Meckling (1976) define 'firm' as "a legal fiction which serves as a nexus for contracting relationships and which is also characterized by the existence of divisible residual claims on the assets and cash-flows of the organization which can generally be sold without the permission of the other contracting individuals." Therefore, assessing the bottom line of corporate governance codes for U.S. firm performance (e.g., stock prices) should be done by observing the change in the shareholders' wealth before and after the implementation of a certain governance provision (Denis, 2001). If the shareholders' wealth increased after the issuance of a certain governance provision, then this provision reduces the agency costs and helps align the interests of management with those of shareholders. Otherwise, the governance provision fails to reduce the agency costs. Likewise, a firm with a positive value indicates that there is a very low agency cost. This section reviews the empirical evidence on the association between corporate governance and U.S. firm performance.

Corporate Governance and Stock Price Performance/Returns

Stock market forces such as market competition and market share prices discipline management by imposing higher cost of capital on low-performing firms. A firm's stock prices synchronize with the firm's performance. When firms disclose their financial statements at the end of the accounting period, high-performing firms are usually rewarded by the market with increases in their stock prices. Likewise, low-performing firms experience a decrease in their stock prices. The intervening effect of good corporate governance codes on the relationship between stock prices and firm performance results from the fact that good governance codes enhance the transparency, accuracy, credibility of financial statements disclosed to various market-wide participants. Therefore, it is expected that the market will reward firms with strong corporate governance systems in terms of higher stock prices.

Gompers, Ishii, and Metrick (2003) were among the lead researchers to empirically investigate the relationship between corporate governance and stock price performance. They construct a "governance index or G-Index" using 24 distinct corporate governance provisions to proxy for the level of shareholder rights at 1500 firms from September 1990 to December 1999. Firms in the highest deciles of the index were in the "Dictatorship Portfolio" and referred to as having the highest management power/weakest shareholder rights. Firms in the lowest deciles of the index were called the "Democracy Portfolio" and were characterized as having the lowest management power/strongest shareholder rights. The results of Gompers's *et al.* (2003) suggest that an investment strategy that purchased shares in the Democracy Portfolio and sold shares in the Dictatorship Portfolio earned abnormal returns of 8.5 percent per year. Gompers et al. (2003) find that firms with stronger shareholder rights (or a stronger corporate governance structure) had higher firm value, higher profits, higher sales growth, and lower capital expenditures, and made fewer corporate acquisitions.

They also find evidence that firms with weak shareholder rights (or a weaker corporate governance structure) were less profitable and had lower growth than other firms in their industry. Gompers et al. (2003) explain their results by arguing that weak shareholders' rights (or a weak corporate governance structure) cause additional agency costs. Also, weak shareholder rights might cause investors to lower their expectations about the firms' future cash flow, which results in lower stock prices. Gompers et al. (2003) further interpret their results by using two competing explanations: either poor corporate governance causes agency costs, or the abnormal returns resulting from their study are due to some unobservable firm characteristics that are correlated with the G-Index they constructed.

Core, Guay, and Rusticus (2006) extend the study made by Gompers et al. (2003) by attempting to distinguish between the two competing explanations offered by Gompers et al.'s (2003) study. Core et al. (2006) first test for the association between corporate governance and operating performance, and find that the G-index had a significant negative association with future operating performance. This result supports Gompers et al.'s (2003) results, suggesting that firms with higher Governance-indices have greater agency costs. Core et al. (2006) also find that takeover frequency of weak governance firms increased throughout the 1990s and weak governance firms were taken over at about the same rate as strong governance firms were. Overall, Core et al. (2006) find no causal relationship between corporate governance and stock returns, contrary to what had been documented by Gompers et al.'s (2003) study. Also, contrary to Gompers et al.'s (2003) finding of no significant relationship between shareholders' rights and operating performance, Core et al. (2006) uncover evidence that weak shareholder rights are associated with lower operating performance. Thus, Core et al. (2006) conclude that a relationship exists between shareholder rights and operating performance, but no relationship exists between corporate governance and stock returns.

In the same vein, Johnson, Moorman, and Sorescu (2009) examine whether the long-term abnormal return results, documented by Gompers et al. (2003), are driven by non-governance factors. Following Gompers et al. (2003), Johnson et al. (2009) conclude that good governance positively affects firm value and that investors recognize and impound that value into share prices quickly and accurately. Related, Bebchuk, Cohen, and Ferrell (2009) investigate which provisions, among a set of 24 governance provisions followed by the Investor Responsibility Research Center (IRRC), correlate with firm value and stockholder returns between 1990 and 2003. Bebchuk et al. (2009) find that an increase in the level of the governance index is associated with economically significant reductions in firm valuation, as measured by Tobin's Q.

DeFond, Hann, and Hu (2005) investigate the effect of audit committee independence on the stock returns pre-SOX 2002. They test the market reaction to the appointment of outside directors with financial expertise on the audit committee to investigate the effect of SOX 2002 on the stock market. They discover a positive market reaction to the appointment of outside directors with financial experts assigned to the audit committees. This reaction was stronger for firms with a strong corporate governance structure, and they conclude that financial expertise on an audit committee helps enhance the shareholder value. Likewise, Arbogast and Thornton (2006) investigate the effect of the SOX 2002 on earnings per share for 500 companies before (2002/2003) and after (2004/2005) the implementation of SOX 2002, and provide evidence supporting a positive effect of SOX 2002 on earnings per share.

Interestingly, Cheng (2008) examines the association between board size (as a measure of corporate governance) and firm performance variability. Firm performance is measured by a number of proxies such as stock returns, Returns on Assets, Tobin's Q, accounting accruals, extraordinary items, analyst forecast errors, Research and Development spending and level, and the frequency of acquisition and restructuring activities. Cheng (2008) finds that when a board size increases by one standard deviation, the standard deviation of monthly stock returns decreases by 7% from the mean and 8% from the median. Overall, results suggest that large board sizes make less extreme decisions and end up with less variability in corporate performance measures as outlined above.

Corporate Governance and Operating Performance

This section classifies the literature on corporate governance and firm operating performance into four sections: CEO duality and firm performance, board of directors' composition and firm performance, CEO compensations and firm performance, and other governance structures and firm performance.

CEO Duality and Operating Performance. CEO duality refers to a situation where the CEO is also the Chairman of the board of directors. Stated differently, CEO duality is a situation where the CEO chairs the group responsible for oversighting and monitoring the CEO's performance (Judge, Naoumova, and Koutzevol, 2003). According to the Agency Theory, there is a conflict of interest between CEO and Chairman; the CEO should be responsible for decision management and the board should monitor decision control and align the different interests of shareholders and top management. Anecdotal evidence suggests that if the CEO and Chairman roles are separated and the Chairman is an outside independent director, the Chairman will have the maximum autonomy he/she needs to achieve the monitoring of the top management and CEO. Related, according to Stewardship Theory, management is inherently trustworthy, and hence the duality of CEO and Chairman helps the CEO to be a good steward of the corporate asset.

The Stewardship Theory argues that sometimes the separate outside independent Chairman may be unfamiliar with the business environment, so s/he becomes closely dependent on the CEO, more than on other owners and shareholders; in this case, the benefit of the duality of CEO and Chairman disappears. Boyd (1995) investigates the relationship between CEO duality and firm performance in a sample of 192 firms. Boyd first hypothesizes that duality is negatively associated with performance. Yet, Boyd finds that the duality-performance relationship is moderated by environmental uncertainty. Likewise, Filatotchev, Lien, and Piesse (2005) find that the independence of a Chairman does not affect the performance. In the same vein, Heracleous (2001) finds no statistically significant association between CEO duality and board composition (insider/outsider) and corporate performance. Heracleous (2001) further provides four possible explanations for why there is the little evidence of corporate governance usefulness. These possible explanations include:

1. The governance variables nominated as best practices are irrelevant to the firm performance.
2. The low validity of the operationalization of the governance constructs in the study.
3. The ignorance of relevant moderating variables in the model.
4. Differences in organizational structures (vertical vs. horizontal) that require different practices of corporate governance. Stated differently, different types of organizations require different board practices.

Board of Directors' Composition and Operating Performance. Today, almost all of the U.S. firms have a majority of board members who are independent and outside directors as mandated by SOX 2002, section 301 and the listing standards in the U.S. Stock Exchanges (e.g., NYSE and NASDAQ). Nevertheless, the extant research on the relationship between board independence and composition and firm performance does not provide conclusive evidence on the usefulness of board independence for the firm's operating performance. For example, Bebchuk and Cohen (2005) examine the association between staggered[d] boards and U.S. firms' operating performance measured by Tobin's Q during the period 1995-2002. Bebchuk and Cohen (2005) find that staggered boards cause – not just reflect – a significant reduction in Tobin's Q. This result suggests an economically meaningful and positive significant association between the strength of corporate governance structure and U.S. firm's operating performance.

Hillman and Dalziel (2003) contend that boards of directors are responsible for two main functions. First, a monitoring function based on the Agency Theory. In other words, boards are responsible for monitoring the wealth of shareholders to avoid possible deterioration due to management. Second, a resource based on the Resource Dependence Theory. According to the latter theory, boards are responsible for bringing resources to the firm. More specifically, boards are responsible for providing advice and counseling, maintaining the legitimacy of the business operations, providing channels for communicating information between external organizations and the firm, and showing preferential access to commitments regarding important events that occur outside the firm but might be in relation to the firm.

[d] Staggered boards (which a majority of U.S. public companies have) is a situation where boards are protected from removal in a hostile takeover. Hence, staggered boards are indications of a weak corporate governance structure.

Haniffa and Hudiab (2006) find a significant association between board size and top five substantial shareholdings and both market (Tobin's Q) and accounting (ROA) performance measures. Kiel and Nicholson (2003) find a positive association between board size and firm value, after controlling for firm size. They also identify a positive association between the insider directors and the market-based measures of firm performance.

In the same way, Bhagat and Black (2001) investigate whether the change of the degree of board independence is associated with firm profitability or growth rate in either the contemporaneous or lagged periods. They find no such association exists. Also, Ezzamel and Watson (1997) find that the presence of outside directors on the board had little impact on profitability. Zahra and Pearce (1989) argue that boards of directors are the weakest tool of corporate governance due to their critical role in both monitoring the managerial actions and formulating the firm's strategic plan. They analyze the literature on the effect of the boards of directors on corporate financial performance, and provide a suggested framework for future research that is based on the integration of the four board attributes (composition, characteristics, structure, and process) and the three board roles (service, strategy, and control).

Finegold, Benson, Hecht (2007) extend the study made by Zahra and Pearce (1989) by reviewing 105 studies done between 1989 and 2005 on the extent to which corporate boards and firm performance support the corporate governance code. Among the corporate governance codes they test are the SOX 2002 and regulations issued by NYSE NASDAQ. They also test CEO duality, board structure (insider/outsider ratio, size and stability, board ownership, director rewards). Overall, they find little evidence on the best board practices that would lead to effective firm performance.

CEO Compensation and Operating Performance. Incentive compensation and board monitoring are substitute corporate governance mechanisms in aligning the interests of shareholders with management (Dicks, 2012). To the extent that SOX 2002 placed too much importance on board monitoring, reliance on incentive compensation post SOX 2002 is expected to decline - specifically for firms with weak governance structures pre SOX 2002 (Cohen, Dey and Lys, 2013). Research on the association between managerial compensation and firm performance focuses on two main areas: the level of pay and the sensitivity of the level of pay to the managerial performance. Core, Holthausen, and Larcker (1999**)** investigate whether the level of CEO compensation was associated with the quality of firms' corporate governance and whether there is a negative association between governance structure and future performance. The results indicate a significant association between board-of-director characteristics and ownership structure (governance measures) and the level of CEO compensation after controlling for economic determinants of the level of CEO compensation. CEO compensation is higher when (1) the CEO is also the board chair, (2) the board is larger, (3) the board is mostly composed of outside directors, and (4) the outside directors are appointed by the CEO.

Related, Vance (1983) highlights the importance of having independent board committees monitor the activities of management and reduce the agency costs. The study specifically focuses on four board committees: compensation committees, audit committees, nominating committees, and executive committees. The compensating/remunerating committee is responsible for setting the rewards of executive management, and it is assumed that this committee reduces the agency costs by restraining management from awarding themselves excessively.

Cohen, Dey, and Lys (2013) document a change in the executive-based compensation post SOX 2002, shifting towards less incentive-based compensation and a decline in corporate risk-taking post SOX 2002. Related, SOX 2002, Section 304,[e] the clawback provision, mandates that the CFOs and CEOs of a firm forfeit their bonuses and profits in response to discovery of misconduct, when financial statements are fraudulent. Prior research provides evidence that this section of SOX is helpful in aligning the interests of managers with shareholders. For example, Chan, Chen, Chen, and Yu (2015) argue that the clawback provision is significantly associated with lower occurrences of internal control material weaknesses, and Dehaan, Hodge, and Shelvin (2013) find the clawback provision to be associated with better earnings quality.

Other Governance Structures and Operating Performance. Other governance structures may be used to reduce the agency costs; for example, the presence of some independent committees on the board of directors, such as nominating committees, compensating committees, audit committees, and others. Wier, Laing, and McKnight (2003) analyze the impact of audit committees on performance, but find that neither the independence nor quality of the committee membership has a positive effect on firm performance. Another stream of research focuses on analyzing the overall quality of corporate governance through building governance indexes, such as the studies made by Bauer, Guenster and Otten (2004), Bebchuk et al., (2009), and Gompers et al. (2003), which investigate the relationship between firm performance and corporate governance.

Gompers et al. (2003) establish a governance index for their sample of firms and divide the sample into either good or bad governance portfolios. They find no association between corporate governance and firm value. Bebchuk et al., (2009) analyze the association between 24 governance measures, as provided by the Investor Responsibility Research Center (IRRC), and firm value

---

[e] The Dodd-Frank Wall Street Reform and Consumer Protection Act – section 954 was released in 2010 to enhance the SOX 2002, Section 304.

and stockholder returns. They find that higher governance measures are associated with higher firm valuation, as measured by Tobin's Q.

Yermack (1996) examines the association between board size and firm performance, as measured by Tobin's Q, using 452 U.S. industrial firms between 1984 and 1991. The study found that firms with small boards perform better than their counterparts with a large board size. The study also found that firms with smaller boards showed better firm financial rations in general after controlling for company size, industry membership, inside stock ownership, growth opportunities, and alternative corporate governance structure. Likewise, Coles, Daniel and Naveen (2008) suggest that the relationship between board size and firm performance, as measured by Tobin's Q, is U-shaped. In other words, a very small or very large board size maximizes firm value. However, Coles et al. (2008) prove that firm complexity, Research and Development intensity, and the number of outside directors on the board moderate the relationship between firm value and board size. Hence, these intervening variables should be controlled while testing the governance-performance relationship.

In this vein, Perry and Shivdasani (2005) suggest that acquisition and restructuring are important determinants to consider while investigating the association between corporate governance and firm performance. Perry and Shivdasani (2005) investigate the association between board composition and how likely firms with low performance are to recover in response to the board composition. The study finds that firms with a majority of independent outside directors perform twice as well as those with inside directors.

Corporate Governance and Internal Control

The internal control system is "a process, affected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the reliability of financial reporting"—The SEC. In this section, we review the literature on the association between corporate governance mechanisms and quality of internal control, which in turn affects the quality of financial reporting. We find that research in this stream is centered on SOX 2002, sections 302 and 404 and their unplanned consequences on internal control quality, firm value, costs of capital, audit process, and stock prices.

SOX 2002 - Section 302 focuses on improving corporate responsibility for financial reports. It requires management to evaluate the effectiveness of disclosure related to internal controls and procedures. Under Section 302 of SOX 2002, no independent audit evaluation of internal control was required. Therefore, managers had more discretion to disclose Internal Control Deficiencies (ICDs) post-SOX 2002 302. Consequently, SOX 2002-section 404 was issued to overcome some of the vagueness surrounding the implementation of SOX 2002 - Section 302. Firms are not required under SOX 2002-Section 404 to disclose significant deficiencies. It is only mandatory that material weaknesses be disclosed by the management, and the auditor must testify on the management's opinion because material weaknesses indicate that internal control over financial reporting is not effective and should be discovered to the investors.

Beneish, Billings, and Hodder (2008) document a negative stock price reaction to internal control weakness disclosures using a short-window design under both Section 302 and Section 404. They argue that this negative stock price reaction is attributable to low earnings expectations and increased cost of equity. However, they document no significant stock price or cost-of-equity effects associated with Section 404 disclosures. Therefore, it is possible that an internal control deficiency could have cost-of-equity implications that are not noticeable in prior research. In line with Beneish et al., (2008), Hammersley, Myers, and Shakespeare (2008) investigate the market reaction to the disclosure of internal control material weakness under SOX 2002 - Section 302. They find that the market negatively reacts to internal control weakness disclosure, and this reaction depends on the magnitude of the internal control weakness. Ashbaugh-Skaife, Collins, and Kinney (2007) study the determinants of ICDs after SOC 2002 302 but prior to SOX 2002 404 and hence develop expectations of internal control problems. They investigate the economic factors that result in a firm's internal control risks and management's invectives to report and discover this control failure after the implementation of SOX 2002 Section 302 but prior to SOX 2002 404. They use a sample of 326 firms with fiscal year-end December 31, 2004, with disclosed SOX 2002 404 material weaknesses in their 10K filed.

Doyle, Ge and McVay (2007b) examine the determinants for material weakness of internal control for both pre-SOX 2002 Section 302 and post-SOX 2002 Section 404. Material weakness is one dimension of the internal control deficiency and the authors focus only on this dimension because its effect is the most severe on internal control deficiencies and is mandatory to disclose. They investigate whether material weaknesses in internal control are associated with firm size, firm age, financial health, financial reporting complexity, rapid growth, restructuring charges, and corporate governance. They also examine whether the severity[f] of material weakness varies based on the severity or the reason for the weakness. Doyle et al. (2007b) find that the determinants of firms disclosing material weakness are that these firms tend to be smaller, younger, financially weaker, more complex, growing rapidly, or undergoing restructuring.

Their findings also suggest that these determinants vary according to the reasons for the material weakness. In other words, each firm has its own unique set of internal control features. Additionally, the results suggest that firms that report account-specific weaknesses tend to be larger, older, and financially healthier, with more complex and diversified business operations

[f] There are two types of severity of material weakness: 1-Account-specific material weaknesses (not severe in terms of affecting the reliability of financial statements). 2- Company-level material weaknesses (more severe in terms of the reliability of financial statements).

that are growing more rapidly than firms that report company-level weaknesses, Likewise, firms with company-wide problems do not have either resources or experience to maintain a good control system. Related, Lin, Wang, Chiou and Huang (2014) find that entrenched and younger CEOs are significantly reducing the negative effect of the disclosure of internal control material weaknesses after SOX 2002, section 404, consistent with Entrenchment Theory.

Ogneva, Subramanyam, and Raghunandan (2007) find that firms with internal control weakness post-SOX 2002 Section 404 have higher implied cost of equity capital. They document that firms with internal control deficiency have higher cost of equity capital, but this cost of equity capital is not significantly associated with internal control weakness after controlling for firm characteristics and analysts' forecast bias. Krishnan and Visvanathan (2007) study the role of audit committees and auditors in the reporting of internal control deficiencies post-SOX 2002.

They use a sample of firms that reported internal control deficiencies post-SOX 2002 - Section 404 and assess the characteristics of audit committees and auditors for these firms. They find that a higher number of meetings of the audit committee, a lesser proportion of 'financial experts' in the audit committee, and more auditor changes characterize firms that report weaknesses in their internal controls compared to firms with no weaknesses. Also, the prior restatements of financial statements are higher for firms that report weaknesses in internal controls. These results are obtained after controlling for a variety of firm characteristics such as complexity of operations, profitability, and growth.

In contrast to Krishnan and Visvanathan (2007), Hoitash, Hoitash and Bédard (2009) investigate the relationship between corporate governance and internal control deficiency pre- and post-SOX 2002 Section 404. They find that stronger corporate governance is not associated with better internal controls under

Section 302 but is negatively associated with material weakness disclosure under Section 404. Cohen, Gaynor, Krishnamoorthy and Wright (2007) argue that size, financial strength, and operational complexity are firm-specific characteristics that motivate the firm to have strong internal control.

Gupta and Nayar (2006) investigate whether the application of SOX 2002 404 and its mandated requirements of disclosing internal control material weaknesses convey value-relevant information to the U.S. stock equity. They use the voluntary disclosures made by the Securities and Exchange Commission registrants and find that internal control weakness disclosures are significant value-relevant information to the capital markets because such disclosures are associated with a negative stock price reaction. This reaction is lessened when management disclosed specific remediation steps that have been taken to correct the reported internal control material weakness. Also, the price reaction is less negative for firms employing a Big-4 as their external auditor (firms with larger current liabilities relative to total assets). Also, this finding suggests that internal control weaknesses might trigger a debt ratings review and consequently increase default risk and the borrowing cost in the short run.

Krishnan (2005) examines the association between the audit committee quality (its size, independence, and expertise) and the quality of corporate internal control (by using a dummy variable for the presence or absence of internal control problems). The study uses a sample of 128 firms from the years 1997 through 2000. Results are consistent with the importance of a quality audit committee in terms of both independence and financial expertise, since the results indicate that an independent audit committee and an audit committee with financial expertise are highly associated with less likelihood of internal control problems. Audit committees do oversight their internal control as one of their functions.

SOX 2002’s effects may go beyond the normal day-to-day operations of the firm. Gupta and Nayar (2006) suggest that the disclosure of internal control weaknesses might trigger a debt ratings review and consequently increase the default risk and borrowing costs in the short run. Related, Beneish et al., (2008) document an increase in the audit fees due to the internal control reporting requirements of Sarbanes-Oxley, based in part on the increase in billable hours. Moreover, anecdotal evidence suggests that auditor resignation in the year prior to the disclosure of the internal control deficiency, according to SOX 2002 requirements is a significant risk factor that implies an incidence of an internal control deficiency. The auditor resignation is usually caused by an unsatisfactory audit engagement due to the fact that the expected costs of the audit process exceed the expected revenue, and hence the company might be susceptible to financial distress in the short run. Therefore, audit switch within one year is an indication of internal control deficiencies.

SOX 2002 creates threats to small and medium size organizations since they rely more on manual controls as opposed to automation of controls that would constitute an obstacle to the business efficiency. It is arguable that the cost of 404 compliance may hinder IT investment and business process re-design. Ashbaugh-Skaife, Collins, Kinney, and LaFond (2008) investigate the effects of internal control deficiencies and their remediation on accrual quality and find that firms with internal control deficiency have lower quality accrual.

Bronson, Carcello, and Raghunandan (2006) investigate the characteristics of medium-sized firms issuing voluntary management reports prior to SOX 2002. Results suggest that voluntary management reporting is more likely for larger firms that have an audit committee that meets more often, have a greater level of institutional ownership, and have more rapid income growth. This voluntary disclosure is less likely for firms with most rapid sales growth. Also, none of these MRIC mentioned material weakness. However, those firms that voluntarily disclose information regarding internal control are not disclosing anything related to the effectiveness of the internal control systems that might be important to investors. In addition, the internal control regulations under SOX 2002 are incompatible with many SMEs' needs and consume these companies' resources. SOX 2002 draws funds away from research and development. The internal control regulations also impact outsourced and supply chain-related activities because management has to assess the internal controls of the partner organization as they relate to activities affecting that company. However, SOX 2002 enhanced transparency and improved corporate governance, resulting in better business processes and financial statements and enhancement of organizations' enterprise risk management.

CORPORATE GOVERNANCE AND FINANCIAL REPORTING QUALITY

Corporate Governance and Earnings Management

Anecdotal evidence on the association between corporate governance mechanisms and financial reporting quality suggests that financial accounting information plays a major role in promoting efficient governance mechanisms by contributing to the information contained in stock prices. Likewise, strong corporate governance mechanisms provide greater control of the financial accounting process and improve the quality of financial reporting. We classify research in this area into two main streams: one stream suggesting that corporate governance curbs earnings management, and another stream proposed by the opponents to corporate governance who find that corporate governance is more like a context-based system that failed to curb earnings management practices. In this section we will discuss the extant literature on these two streams.

Corporate Governance Curbs Earnings Management. Ebrahim (2007) examines the relation between earnings management and corporate governance mechanisms, specifically the activity of both the board and audit committee in addition to institutional ownership and audit quality. The authors use a sample of manufacturing firms in the years 1999-2000. This study is different from prior research because it uses a larger sample and different models to measure earnings management. It also tests the interactions between the board and audit committee, their independence and activity. It assumes that both independent boards and audit committees restrain earnings management activities when they are more active and meet more frequently during the year. Results indicate that earnings management is negatively associated with both board and audit committee independence and there is a strong negative association when the audit committee is more active.

Weber (2006) investigates whether executive wealth sensitivity to stock price fluctuations is used to manage earnings. The author uses a sample of 475 chief executive officers (CEOs) from 410 randomly selected Standard and Poor’s 1500 firms as of January 1995. In other words, Weber (2006) examines the relation between executive stock-based compensation, corporate governance, and earnings management. The results suggest a positive relationship between CEO wealth sensitivity and abnormal accrual usage and that the relation is consistent with income-smoothing. However, governance does not significantly influence the association between CEO stock-based wealth sensitivity and earnings smoothing. These findings have implications for both compensation plans and policy implications because they suggest that the reliance on these standards as deterrents to earnings management may be valid. Overall, this study suggests that CEO stock-based wealth sensitivity is an earnings management tool.

Mir and Seboui (2006) test whether earnings management and governance mechanisms link the disparity between accounting values (economic value added – EVA) and market value (created shareholder value – CSV). In other words, this study analyzes the differences between EVA and CSV. The sample consists of 247 firms for the period 1998–2004. Results show a non-significant relationship between EVA and CSV and a positive association between the difference (CSV-EVA) and discretionary accruals as a proxy of earnings management. The results also suggest that some governance mechanisms can reduce the gap between CSV and EVA, whereas others can increase it. Finally, the results reveal that the different cases of convergence and divergence between CSV and EVA can be explained by governance mechanisms and earnings management.

Davidson, Goodwin-Stewart, and Kent (2005) investigate the relationship between the strength of a firm's internal governance structure and earnings management using a sample of 434 Australian firms for the financial year ending in 2000. The study is based on the assumption that earnings management is systematically reduced by the strength of internal corporate governance mechanisms, including the board of directors, the audit committee, the internal audit function, and the choice of an external auditor. Results indicate that a majority of non-executive directors on the board and on the audit committee are significantly associated with a lower likelihood of earnings management (measured by the absolute level of discretionary accruals). However, the voluntary establishment of an internal audit function and the choice of auditor were not significantly related to a reduction in the level of discretionary accruals.

Klien (2002) examines whether the magnitude of abnormal accruals (the proxy for earnings management) is related to audit committee independence using a sample of 692 publicly traded U.S. firm-years from 1992–1993. This paper is motivated by the assertions made by the Securities and Exchange Commission, the NYSE, and the NASDAQ that there was a positive association between earnings management and poor corporate governance mechanisms. The results suggest a negative relation between audit committee independence and abnormal accruals. A negative relation is also found between board independence and abnormal accruals, which is apparent when either the board or the audit committee is comprised of a minority of outside directors. Accordingly, boards that are independent from the CEO are more effective in monitoring the corporate financial accounting process and exercising corporate governance.

Corporate Governance Does Not Curb Earnings Management. Hsu and Koh (2005) examine how the corporate governance role of institutional investors is associated with their portfolio firms' accruals management. The authors use institutional ownership to proxy for institutional investor types, in which lower ownership proxies for transient institutions (more likely to vote with their feet, i.e., exit), and higher ownership proxies for transient long-term oriented institutions (more likely to be actively involved in their portfolio firms' governance, i.e., voice). The authors use a sample of 201 firm-year observations for their study and find that temporary and long-term oriented institutions co-exist and have differential effects on portfolio firms' earnings management.

Temporary institutions are associated with upward accruals management, while long-term oriented institutions control such upward accruals management for portfolio firms that have strong incentives to do so. These results suggest that long-term oriented institutions can act as a corporate governance mechanism to mitigate aggressive earnings management. Overall, the authors find that the association between institutional ownership and earnings management is context dependent, suggesting complex associations between institutional ownership and earnings management strategies.

Ravina and Sapienza (2010) provide empirical evidence that independent directors earn positive abnormal returns when they purchase their company stock, and these returns are higher for firms with weak corporate governance. Additionally, they argue that independent directors sitting on the audit committee make the highest return. This latter result suggests that independent directors possess informational advantages over outsiders. Related, Bebchuk et al., (2009) find that independent boards are recipients of perfectly-timed stock option grants and this timing is associated with significant benefits to CEOs. The results in this section suggest that independent board members should not be taken for granted as a signal of good governance, but rather, other factors should be taken into consideration such as: independent board incentives to protect shareholders' wealth and maximize the firm value.

Corporate Governance and Voluntary Disclosure

Healy and Palepu (2001) suggest that disclosure generally improves transparency and thus reduces the information asymmetry between managers and outsiders. However, information problems and agency problems prohibit the efficient allocation of resources, and hence disclosure helps mitigate these problems. We divide the literature on earnings management and voluntary disclosure into main streams of research: 1) corporate governance and management earnings forecasts, and 2) corporate governance and analysts' earnings forecasts. We then discuss the methodologies, main thrust, and outcomes of these two main streams of research.

Corporate Governance and Management Earnings Forecasts. Karamanou and Vafeas (2005) investigate the association between the strength of corporate governance (e.g., effective board and audit committee structure) and the occurrence, precision, and accuracy of management earnings forecasts for 275 Fortune 500 firms between 1995 and 2000. They provide empirical evidence supporting the argument that good corporate governance is associated with more accurate management earnings forecasts, and these accurate forecasts are considered as favorable news by the market. However, Karamanou and Vafeas' (2005) study were executed before SOX 2002 and one might find intriguing results post-SOX 2002, especially in the period surrounding the global financial crisis of 2007-2008. Hence, we encourage researchers to replicate the study made by Karamanou and Vafeas (2005) and check whether SOX 2002 enhanced voluntary disclosure, reduced forecasts' errors, and resulted in market appreciation in response to more transparent disclosure post-SOX 2002.

In criticizing the small sample of Karamanou and Vafeas (2005), Ajinkya, Bhojraj, and Sengupta (2005) investigate the association between the properties of management earnings forecasts and corporate governance structure (e.g., board of directors and institutional ownership) for 1,253 firms from 1997 to 2002. They find that firms with outside directors and more institutional ownership (strong corporate governance structure) are more likely to issue accurate and frequent earnings forecasts. Moreover, they document a negative association between concentrated ownership (weak corporate governance structure) and forecasts' properties. That later association was less negative post-Regulation Fair Disclosure in 1996, indicating that Regulation Fair Disclosure prohibited management from communicating private information to some selected stakeholders. In line with the results of Ajinkya, Bhojraj, and Sengupta (2005), Lim, Matolcsy, and Chow (2007) provide further evidence on the positive association between board composition and voluntary disclosure, finding that independent boards provide more valuable voluntary disclosure such as forward-looking and strategic information.

Corporate Governance and Analysts' Forecasts. An important role corporate governance can play is to reduce the errors/optimisms in the financial analysts' earnings forecasts. The better forecasts help reduce the information asymmetry between actual and forecasted earnings numbers. Using Structure Equation Modeling, Aerts, Cormier, and Magnan (2007) find significant interrelationships between financial analysts' activities and corporate disclosure transparency for North American firms. They question how the institutional governance regime affects financial analyst behavior with regard to web-based performance disclosure, and suggest that corporate governance reduces the dispersion among analysts or their earnings forecast errors. Nowland (2008) investigates the effect of national governance codes on the analyst earnings forecasts. The study tests this relationship on two levels, the company level and across companies (cross-sectional analysis), and finds that corporate governance codes in East Asia are associated with lower forecasting errors. The study is based on voluntary corporate governance codes, and concludes that such systems are effective and influence the disclosure practices and analysts' forecasting errors.

McKnight and Weir (2005) identify that the independence of corporate governance sub-committees such as audit committees, nominating committees, and remunerating committees reduce analysts' forecast errors and the dispersion of the errors. Related, Clement, Reese, and Swanson (2003) divide ten countries into groups with similar cultural characteristics and argue that each group's analyst forecasts differ based on the characteristics of financial analysts who are able to provide more accurate earnings forecasts than their peers. Overall, they find that cultural and corporate governance influences the forecast accuracy. They also conclude that forecasting error is affected by years of experience, size, frequency of forecast issuance across different countries, and the type of culture and corporate governance of the countries. Based on the prior literature on both analysts' earnings forecasts and corporate governance, one would conjecture that the designation of analysts as a financial expertise for an audit committee is useful to the firm and can help reduce agency costs.

CONCLUSION AND FUTURE RESEARCH

This paper summarizes the extant literature on corporate governance and the U.S. firm in order to identify challenges and opportunities for future research as well as to attempt to answer the main question: What is the value of corporate governance codes to U.S. firms? The summary of prior research suggests that corporate governance is not always directly associated with the U.S. stock price performance/returns. This could be interpreted as follows: First, the corporate governance mechanisms may simply not be associated with the stock price performance/returns. Second, the underlying governance mechanisms might be interacting with some firm value measures that result in an invalid conclusion on the association between corporate governance and firm performance. Third, the various organizational structures and configurations might call for various governance structures and codes in the sense that a one-size governance code might not fit all organizations. For example, the production cycle has changed dramatically over the last 25 years from being machine-intensive to being knowledge-intensive (Denis, 2001).

While several studies, cited earlier in this review, document the development of a governance score or index, none of these measures have been adopted as the standard for research in this area. Accordingly, future research could compare and contrast the various measures of "strong" corporate governance versus "weak" corporate governance in an attempt to determine which one might have the strongest psychometric properties (i.e., internal consistency and validity). Such a study might lead to an accepted measure that could bring consensus in results on the association between corporate governance codes and stock price performance. Additionally, controlling for endogenous governance performance and further research on its antecedents, characteristics, and consequences for the governance-performance relationship is crucial in enhancing the governance-performance model and increasing our understanding of the nature of the association between corporate governance and firm performance.

A review of corporate governance and U.S. firms' operating performance indicates that firm operating performance might or might not be positively impacted by certain corporate governance mechanisms. For example, firms with better corporate governance have been shown to be highly correlated with better operating performance, higher firm value, higher stock returns, and higher market valuation. In light of the research reported in this section, a number of possible areas seem useful for future research. One such possibility is a study of the effect of voluntary versus mandatory governance mechanisms to determine the differential impact each set of mechanisms might have on firm value. In addition, more research on the optimal composition (and characteristics) of board members and audit committee members might be a fruitful area of study. Another interesting topic to pursue might be an examination of the effect of firm-level versus country-level corporate ethics codes (as a form of governance) on firm value (both inter-country and intra-country).

Research on the association between corporate governance and earnings management suggests that earnings management might be systematically reduced by a number of both firm-level and country-level corporate governance mechanisms. For example, boards that are independent of the CEO provide a stronger corporate governance environment for the firm; independent boards are more effective in monitoring the corporate financial accounting process. Equally important, effective corporate governance is associated with higher financial disclosure quality. Nevertheless, we find meaningful opportunities to continue research in this area. As we suggest in earlier sections, the eXtensible Business Reporting Language (XBRL) was developed to improve the accuracy and reliability of financial information (www.xbrl.org). Cohen et al. (2005) claim that XBRL's potential benefits include increased efficiency and transparency of financial information (i.e., more reusable digital reports, more types of information available on a more frequent basis, improved internal reporting, and a better control environment).

Based on these claims, researchers might wish to explore the types and extent of earnings management in companies (intra-country and inter-country) that have adopted the XBRL technology for reporting financial information. The expectation is that the increased transparency of company information would be negatively and significantly associated with earnings management.

Empirical tests of this expectation should be very interesting for the management of these companies, regulators, and investors. Another area of possible future research might be the evaluation of different accounting treatments that could be considered earnings management (or earnings smoothing) schemes by the management of a firm. The extant literature on earnings management predominantly focuses on discretionary accruals as a proxy of earnings management. Are other treatments as useful or more useful in predicting earnings management? Which corporate governance mechanisms are significantly associated with these various accounting treatments, i.e, which corporate governance mechanisms are most useful in mitigating earnings management?

REFERENCES

Jones, Anita. 2006. The Term Structure of Interest Rates and Their Effect on Transition Economies. Journal of Financial Economics 43(2): 434-451. [Example of an article reference]

Aerts, Walter, Denis Cormier and Michel Magnan. 2007. The association between web-based corporate performance disclosure and financial analyst behaviour under different governance regimes. Corporate Governance: An International Review 15 (6): 1301–1328.

Ajinkya, Bipin, Sanjeev Bhojrai and Partha Sengupta. 2005. The association between outside directors institutional investors and the properties of management earnings forecasts. Journal of Accounting Research 43 (3): 343–376.

Arbogast, Gordon and Barry Thornton. 2006. Strange bedfellows: SOX 2002 and corporate profitability. The Business Review 6 (1): 56–61.

Ashbaugh-Skaife, Hollis, Daniel Collins and William Kinney. 2007. The discovery and reporting of internal control deficiencies prior to SOX 2002-mandated audits. Journal of Accounting and Economics 44: 166–192.

Ashbaugh-Skaife, Hollis, Daniel Collins and William Kinney and Ryan LaFond. 2008. The effect of SOX 2002 internal control deficiencies and their remediation on accrual quality. The Accounting Review 83 (1): 217–250.

Bauer, Rob, Nadja Guenster and Roger Otten. 2004. Empirical evidence on corporate governance in Europe: The effect on stock returns, firm value and performance. Journal of Asset Management 5: 91–104.

Bebchuk, Lucian and Alma Cohen. 2005. The costs of entrenched boards. Journal of Financial Economics 78: 409–433.

Bebchuk, Lucian and Michael Weisbach. 2010. The state of corporate governance research. The Review of Accounting Studies 23 (3): 939–961.

Bebchuk, Lucian, Alma Cohen, and Allen Ferrell. 2009. What Matters in Corporate Governance? The Review of Financial Studies 22 (2): 783–827.

Beneish, Messod, Mary Billings and Leslie Hodder. 2008. Internal control weaknesses and information uncertainty. The Accounting Review 83 (3): 665–704

Berle, Adolf and Gardiner Means. 1932. The modern corporation and private property. New York: Macmillan, as cited in Dalton, Dan, Catherine Daily, S. Travis Certo and Rungpen Roengpitya. 2003. Meta-analyses of financial performance and equity: Fusion or confusion? Academy of Management Journal 46: 13–26.

Bhagat, Sanjai and Bernard Black. 2001. The non-correlation between board independence and long term firm performance. Journal of Corporation Law 27: 231–274.

Boyd, Brian. 1990. Corporate linkages and organizational environment: A test of the resource dependence model. Strategic Management Journal 11: 419–430.

Boyd, Brian. 1995. CEO duality and firm performance: A contingency model. Strategic Management Journal 16: 301–312.

Bronson, Scott, Joseph Carcello and Kannan Raghunandan. 2006. Firm characteristics and voluntary management reports on internal control. Auditing: A Journal of Practice & Theory 25 (2):25–39.

Burton, Peter. 2000. Antecedents and consequences of corporate governance structures. Corporate Governance: An International Review 8: 194–203.

Bushman, Robert and Abbie Smith. 2001. Financial accounting information and corporate governance. Journal of Accounting & Economics 32: 237–333.

Chan, Lilian, Kevin Chen, Tai Yuan Chen and Yangxin Yu. 2015. Substitution between real and accruals-based earnings management after voluntary adoption of compensation clawback provisions. The Accounting Review 90 (1): 147–174.

Cheng, Shijun. 2008. Board size and the variability of corporate performance. Journal of Financial Economics 87: 157–176.

Clement, Michael, Lynn Reese and Edward Swanson. 2003. The influence of culture and corporate governance on the characteristics that distinguish superior analysts. Journal of Accounting, Auditing, and Finance 18(4): 593–618.

Cohen, Daniel, Aiyesha Dey and Thomas Lys. 2013. Corporate governance reform and executive incentives: Implications for investments and risk taking. Contemporary Accounting Research 30 (4): 1296–1332.

Cohen, Jeffrey, Lisa Gaynor, Ganesh Krishnamoorthy and Arnold Wright. 2007. Auditor communications with the audit committee and the board of directors: Policy recommendations and opportunities for future research. Accounting Horizons 21 (2): 165–187.

Cohen, Jeffrey, Ganesh Krishnamoorthy and Arnold Wright. 2007. The impact of roles of the board on auditors' risk assessments and program planning decisions. Auditing: A Journal of Practice and Theory (May): 71–90.

Cohen, Jeffrey, Ganesh Krishnamoorthy and Arnold Wright. 2004. Corporate governance mosaic and financial reporting quality. Journal of Accounting Literature 23: 87–152.

Cohen, Jeffrey, Ganesh Krishnamoorthy and Arnold Wright. 2008. Form vs. Substance: The implications for auditing practice and research of alternative perspectives on corporate governance. Auditing: A Journal of Practice and Theory 27 (2): 181–198.

Coles, Jeffrey, Naveen Daniel and Lalitha Naveen. 2008. Boards: Does one size fit all? Journal of Financial Economics 87 (2): 329–356.

Core, John, Wayne Guay and Tjomme Rusticus. 2006. Does weak governance cause weak stock returns? An examination of firm operating performance and investors' expectations. The Journal of Finance 61 (2): 655–687.

Core, John, Robert Holthausen and David Larcker. 1999. Corporate governance, chief executive officer compensation, and firm performance. Journal of Financial Economics 51:371–406.

Daily, Catherine, Dan Dalton and Albert Cannella. 2003. Corporate governance: Decades of dialogue and data. Academy of Management Review 28: 371–382.

Dalton, Dan, Catherine Daily, Jonathan Johnson and Alan Ellstrand. 1999. Number of directors and financial performance: A meta-analysis. The Academy of Management Journal 42 (6): 674–686.

Davidson, Ryan, Jenny Goodwin-Stewart and Pamela Kent. 2005. Internal governance structures and earnings management. Accounting and Finance 45: 241–267.

DeFond, Mark, Rebecca Hann and Xuesong Hu. 2005. Does the market value financial expertise on audit committees of boards of directors? Journal of Accounting Research 43: 153–193.

Dehaan, Ed, Frank Hodge and Terry Shelvin. 2013. Does voluntary adoption of a clawback provision improve financial reporting quality? Contemporary Accounting Research 30 (3): 1027–1062.

Denis, Diane. 2001. Twenty-five years of corporate governance research…and counting. Review of Financial Economics 10: 191–212.

Dicks, David. 2012. Executive compensation, incentives, and the role for corporate governance regulation. Review of Financial Studies 25 (6): 1971–2004.

Donaldson, Lex and James Davis. 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. Australian Journal of Management 16 (1): 49–66.

Donaldson, Thomas and Lee Preston. 1995. The stakeholder theory of the corporation: concepts, evidence, and implications. Academy of Management Review 20 (1): 65–91.

Doyle, Jeffrey, Weili Ge and Sarah McVay. 2007b. Determinants of weaknesses in internal control over financial reporting. Journal of Accounting and Economics 44: 193–223.

Ebrahim, Ahmed. 2007. Earnings management and board activity: An additional evidence. Review of Accounting and Finance 6 (1): 42–58.

El-Mahdy, Dina and Carolyn Norman, C. 2010. Corporate governance and the US firm: A review and directions for future research. Nova Science Publishers Inc., Hauppauge NY. ISBN: 978-1617287824

Erkens, David, Mingyi Hung and Pedro Matos, P. 2012. Corporate governance in the 2007-2008 financial crisis: Evidence from financial institutions worldwide. Journal of Corporate Finance 18 (2), 389–411.

Ezzamel, Mahmoud and Robert Watson. 1997. Wearing two hats: The conflicting control and management role of nonexecutive directors. In: Keasey, Kevin, Steve Thompson and Mike Wright.2007. Corporate Governance: Economic, Management and Financial Issues. Oxford University Press.

Falato, Antonio, Dalida Kadyrzhanova and Ugur Lel. 2014. Distracted directors: Does board busyness hurt shareholder value? Journal of Financial Economics 113 (3), 404–426.

Farinha, Jorge. 2003. Corporate governance: A survey of the literature. Universidade do Porto Economia Discussion Paper No. 2003-06. Available at SSRN: http://ssrn.com/abstract=470801 or doi:10.2139/ssrn.470801

Field, Laura, Michelle Lowry and Anahit Mkrtchyan. 2013. Are busy boards detrimental? Journal of Financial Economics 109, 63–82.

Filatotchev, Igor, Yung-Chih Lien and Jenifer Piesse. 2005. Corporate governance and performance in publicly listed, family-controlled firms: Evidence from Taiwan. Asia Pacific Journal of Management 22: 257–283.

Finegold, David, George Benson and David Hecht. 2007. Corporate boards and company performance: review of research in light of recent reforms. Corporate Boards and Company Performance 15(5): 865–878.

Gompers, Paul, Joy Ishii and Andrew Metrick. 2003. Corporate governance and equity prices. Quarterly Journal of Economics 118 (1): 107–155.

Grove, Hugh, Lorenzo Patelli, Lisa Victoravich and Pisun (Tracy) Xu, P. 2011. Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks. Corporate Governance: An International Review 19 (5), 418–436.

Gupta, Parveen and Nandkumar Nayar. 2006. Information content of control deficiency disclosures under the Sarbanes – Oxley Act: An empirical investigation. International Journal of Disclosure and Governance 4 (1): 3–23.

Hammersley, Jacqueline, Linda Myers and Catherine Shakespeare. 2008. Market reactions to the disclosure of internal control weaknesses and to the characteristics of those weaknesses under section 302 of the Sarbanes-Oxley act of 2002. Review of Accounting Studies 13: 141–65.

Haniffa, Roszaini and Mohammad Hudiab. 2006. Corporate governance structure and performance of Malaysian listed companies. Journal of Business Finance and Accounting 33(7) & (8):1034–1062.

Hart, Oliver. 1995. Corporate governance: Some theory and implications. The Economic Journal 105 (430): 678–689.

Healy, Paul and Krishna Palepu. 2001. A review of the empirical disclosure literature. Journal of Accounting and Economics 31: 405–440.

Heracleous, Loizos. 2001. What is the impact of corporate governance on organisational performance? Corporate Governance: An International Review 9: 165–173.

Hillman, Amy and Thomas Dalziel. 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspectives. The Academy of Management Review 28(3): 383–396.

Hillman, Amy, Albert Cannella and Ramona Paetzold. 2000. The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. Journal of Management Studies 37: 235–256.

Hoitash, Udi, Rani Hoitash and Jean Bédard. 2009. Corporate governance and internal control over financial reporting: A comparison of regulatory regimes. The Accounting Review 8 (3): 839–867.

Hsu, Grace and Ping-Sheng Koh. 2005. Does the presence of institutional investors influence accruals management? Evidence from Australia. Corporate Governance: An International Review 13(6): 809–823.

Jensen, Michael and William Meckling. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3: 305–360.

Johnson, Jonathan, Catherine Daily and Alan Ellstrand. 1996. Boards of directors: A review and research agenda. Journal of Management 22: 409–438.

Johnson, Shane, Theodore Moorman and Sorin Sorescu. 2009. A reexamination of corporate governance and equity prices. The Review of Financial Studies 22 (11): 4753–4786.

Judge, William, Irina Naoumova and Nadejda Koutzevol. 2003. Corporate governance and firm performance in Russia: An empirical study. Journal of World Business 38: 385–396.

Karamanou, Irene and Nikos Vafeas. 2005. The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. Journal of Accounting Research 43 (3): 453–486.

Ketchen, David, James Combs, Craig Russell, Chris Shook, Michelle Dean, Janet Runge, Franz Lohrke, Stefanie Naumann, Dawn Haptonstahl, Robert Baker, Brenden Bechstein, Charles Handler, Heather Honig and Stephen Lamoureux. 1997. Organizational configurations and performance: A meta-analysis. Academy of Management Journal 40: 223–240.

Khan, Humera. 2011. A literature review of corporate governance. 2011 international conference on e-business, management and economics, IPEDR 25: 1–5.

Kiel, Geoffrey and Gavin Nicholson. 2003. Board composition and corporate performance: how the Australian experience informs contrasting theories of corporate governance. Corporate Governance: An International Review 11(3): 189–205.

Klein, April. 2002. Audit committee, board of director characteristics, and earnings management. Journal of Accounting & Economics 33: 375–400.

Krishnan, Gopal and Gnanakumar Visvanathan. 2007. Reporting internal control deficiencies in the post-Sarbanes-Oxley era: The role of auditors and corporate governance. International Journal of Auditing 11: 73–90.

Krishnan, Jayanthi. 2005. Audit committee quality and internal control: An empirical analysis. The Accounting Review 80 (2): 649–675.

Kumar, Naveen and J. P. Singh. 2013. Global financial crisis: corporate governance failures and lessons. Journal of Finance, Accounting and Management 4 (1), 21–34.

Lim, Stephen, Zoltan Matolcsy and Don Chow. 2007. The association between board composition and different types of voluntary disclosure. European Accounting Review 16 (3): 555–83.

Lin, Yu-Chen, Ying-Chieh Wang, Jeng Chiou and Hua-Wei Huang. 2014. CEO characteristics and internal control quality. Corporate Governance: An International Review 22 (1): 24–42

McIntyre, Michael, Steven Murphy and Paul Mitchell. 2007. The top team: examining board composition and firm performance. Corporate Governance 7 (5): 547–561.

McKnight, Phillip and Charlie Weir. 2005. Corporate governance mechanisms and financial analysts' forecasts. Working paper available at SSRN: http://ssrn.com/abstract=847484.

Mir, Ali and Souad Seboui, S. 2006. Corporate governance and earnings management and the relationship between economic value added and created shareholder value. Journal of Asset Management 7 (3): 242–254.

Nowland, John. 2008. The effect of national governance codes on firm disclosure practices: evidence from analyst earnings forecasts. Corporate Governance: An International Review16 (6): 475–491.

Ogneva, Maria, K. Subramanyam and Kannan Raghunandan. 2007. Internal control weakness and cost of equity: Evidence from SOX 2002 Section 404 disclosures. The Accounting Review 82 (5): 1255–1297.

Ou, Jane. 2002. Financial statement analysis and the predication of stock returns. Journal of Accounting and Economics 11 (4): 295–329.

Perry, Tod and Anil Shivdasani. 2005. Do boards affect performance? Evidence from corporate restructuring. Journal of Business 78:1403–1431.

Rajgopal, Shiva and Mohan Venkatachalam. 2011. Financial reporting quality and idiosyncratic return volatility. Journal of Accounting and Economics 51 (1-2): 1–20.

Ravina, Enrichetta and Paola Sapienza. 2010. What Do Independent Directors Know? Evidence from Their Trading. Review of Financial Studies 23 (3): 962–1003.

Shleifer, Andrei and Robert Vishny. 1997. A survey of corporate governance. The Journal of Finance 2: 737–783.

Tarraf, Hussein. 2010. Literature review on corporate governance and the recent financial crisis. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1731044

Vance, Stanely. 1983. Corporate leadership: boards, directors, and strategy. New York: McGraw Hill Paper Co.

Weber, Margaret. 2006. Sensitivity of executive wealth to stock price, corporate governance and earnings management. Review of Accounting and Finance 5 (4): 321–354.

Wier, Charlie, David Laing and Phillip McKnight. 2003. An empirical analysis of the impact of corporate governance mechanisms on the performance of the UK firms. Available at SSRN:http://ssrn.com/abstract=286440 or http://dx.doi.org/10.2139/ssrn.286440

Yeoh, Peter. 2010. Causes of the global financial crisis: Learning from the competing insights. International Journal of Disclosure and Governance 7, 42–69.

Yermack, David.1996. Higher market valuation of companies with a small board of directors. Journal of Financial Economics 40, 185–211.

Zahra, Shaker and John Pearce II. 1989. Boards of directors and corporate financial performance: A review and integrative model. Journal of Management 15(2): 291–334.