Earnings Management: The Role of the Agency Problem and Corporate Social Responsibility

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DEDICATION

This work is dedicated to my mother, Diane Fiori, who missed all the good that became of her children.
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ABSTRACT: Recently, publicly-traded corporations have had to restate their earnings as a result of using various earnings management techniques. Prior research documents the many incentives managers have for engaging in earnings management, including short-term compensation-related incentives. While prior research has mostly focused on aggregate measures of earnings management at the consolidated financial statement level, this study examines the role of the agency problem (i.e., incentives and information asymmetry) on managers’ discretionary accrual decisions. In addition, this study investigates the role of the corporate environment on discretionary accrual decisions. Specifically, I conduct an experiment that examines the impact of the agency problem on business-unit managers’ expense-related accrual decisions as well as the role of corporate social responsibility in mitigating this earnings management. Consistent with agency theory, I find that business-unit managers act in their own self-interest when there is an agency problem by booking larger discretionary expense accruals in order to maximize their bonus potential. Further, managers act in the firm’s best interest when there is not an agency problem by booking smaller discretionary expense accruals in order to maximize the firm’s attractiveness for a pending IPO. More importantly, I find that a greater commitment to corporate social responsibility mitigates the impact of the agency problem. These results suggest that managers consider factors other than those associated with the agency problem when making discretionary accrual decisions.
CHAPTER 1: INTRODUCTION

1.1 Introduction

Generally Accepted Accounting Principles (GAAP) allow management some latitude in determining the amount and timing of certain period-ending accruals (Schipper 1989; Healy and Wahlen 1999). In the presence of incentives (e.g., manager bonuses), this accounting discretion can result in earnings management, or the transfer of earnings from one period to another (e.g., Healy 1985; Schipper 1989). According to Schipper (1989), earnings management occurs when managers intervene in the external reporting process in order to obtain some private gain. While prior research has identified several earnings management techniques (e.g., Healy 1985; Marquardt and Wiedman 2005; McVay 2006), the use of accrual-related discretion provides managers with greater opportunity to rationalize their accounting decisions to other members of management, or to the auditors, in an environment where such decisions may be closely scrutinized.

The financial press documents numerous recent examples of firms that have utilized discretionary accruals to manage earnings. For example, Xerox, Nortel, and Sunbeam each set up some form of excess expense accruals that were later used to make up for shortfalls in operating results (Bandler and Hechinger 2003; Brown and Heinzl 2004; Schroeder 2002). While these actions may have helped maximize executive bonuses, each company ultimately filed revised financial statements with the Securities and Exchange Commission (SEC). In addition, Arthur Levitt, the former Chairman of the Securities and Exchange Commission, notes that managers use discretionary accruals as one of several techniques to report earnings that reflect the desire of senior
management rather than the underlying economic performance of the company (Levitt 1998). Prior research confirms the association between bonus incentives and discretionary accruals (e.g., Healy 1985; Holthausen, Larker, and Sloan 1995; Guidry, Leone, and Rock 1999).

Still, it is not clear how the structure of compensation impacts earnings management or if there are factors specific to a corporation (e.g., elements of corporate culture) that can mitigate earnings management. Therefore, it is relevant to examine how the structure of compensation and an element of corporate culture or, more specifically, a company’s level of commitment to corporate social responsibility, influences earnings management.

1.2 Purpose of the Study and Proposed Research Questions

While prior archival earnings management research finds an association between short-term bonus incentives and discretionary accruals (e.g., Healy 1985; Holthausen, Larker, and Sloan 1995; Guidry, Leone, and Rock 1999; Dura, Mansi, and Reeb 2005; Cohen, Dey, and Lys 2007), there are still several unanswered questions related to earnings management. McNichols (2000) notes that the aggregate accrual models used to measure earnings management are not as robust as our theories of incentives to manage earnings. For example, many studies examine the association between discretionary accruals and the chief executive officer’s bonus compensation (typically a variable structure based on meeting financial targets). Such a research design does not allow us to evaluate discretionary accruals in the absence of these incentives (McNichols 2000). Also, Healy and Wahlen (1999) comment that there is little research to help us assess
whether earnings management behavior is attributable to a few, or several, individuals in an organization. Healy and Wahlen (1999) also suggest that there is little research that informs us as to what levels of an organization these actions may occur. For example, we do not know if the findings that associate short-term bonus incentives with discretionary accruals are the result of a controller or another senior financial executive making adjustments to the consolidated financial statements or lower-level managers making discretionary accruals which then “bubble up” to the consolidated financial statements.

In addition, archival research designs make it difficult to study managers’ use of accounting discretion for recurring operating decisions (Fields, Lys, and Vincent 2001), and do not allow us to observe accrual decisions made by managers that offset each other when consolidated. For example, with the discretionary accrual measures currently used by researchers, one-time accounting decisions (i.e., those made by a controller or another financial executive) are commingled with recurring operating accrual decisions (i.e., those made by managers throughout the organization) and may actually offset each other. Finally, archival studies do not typically examine how certain aspects of a corporation’s culture impact managers’ discretionary accrual decisions. In an effort to address many of the open questions related to earnings management, this study examines the effect of the structure of short-term bonus incentives, information asymmetry, and corporate social responsibility on business-unit managers’ discretionary accrual decisions. Specifically, this study is designed to address the following research

1 With information asymmetry, the manager has information that the chief financial officer (CFO) does not have when the manager makes his/her accounting decisions. Corporate social responsibility represents an aspect of corporate culture and is defined as part of a company’s strategic response to the inconsistencies that occur between corporate profitability goals and social goals (Heal 2004).
questions:

1. How do managers’ earnings management decisions differ based on the structure of short-term bonus incentives and information (a)symmetry?
2. How do certain aspects of a company’s values, in this case an expressed commitment to corporate social responsibility, impact managers’ earnings management decisions given their incentive structure and information (a)symmetry?

1.3 The Agency Model

Agency theory provides a framework for understanding how the alignment of incentives and information asymmetry influence managers’ decisions. Agency theory helps predict behavior when one individual (the principal) delegates work to another individual (the agent) with the expectation that the agent will make decisions that are in the best interest of the principal (Jensen and Meckling 1976; Eisenhardt 1989). Conflict between the principal and agent arises when the incentive structure imposes personal costs on the agent if he/she takes actions that maximize the principal’s objective (hereafter, I refer to this conflict as “the agency problem”). The agency problem has previously been used to explain why managers sometimes appear to make project continuation decisions that are not in the best interest of the firm (Harrison and Harrell, 1993; Harrell and Harrison, 1994; Tuttle, Harrell, and Harrison, 1997; Rutledge and Karim, 1999; Booth and Schulz 2004). However, given that discretionary accrual decisions may be subject to additional scrutiny by internal and external auditors, it is not clear that agency theory will also explain earnings management. In addition, the use of the agency theory framework to study earnings management in an experimental setting complements the archival earnings management literature by more directly assessing the
cause and effect relation between the agency problem and earnings management (Libby, Bloomfield and Nelson, 2002).

1.4 Corporate Social Responsibility

One feature of a manager’s work environment that may serve to mitigate the agency problem is a company’s expressed commitment to corporate social responsibility. Corporate social responsibility is defined as a company’s strategic response to inconsistencies that occur between corporate profitability goals and social goals (Heal 2004). It also represents a subset of an organization’s values and culture (Aguilera et al. 2004). Previous studies suggest that corporate culture in general, and more specifically, corporate social responsibility, can influence individual behavior (Smircich 1983; Trevino 1986; Schein 2004; Henri 2006, Rupp et al. 2006).

Corporate culture also helps define group identity (Trevino 1986 and Schein 2004). This is important since it has been suggested that individuals seek to define themselves both in terms of their own self identity (the individual self) and in terms of their social identity (the collective self or one’s group identity) (Greenwald and Breckler 1985; Breckler and Greenwald 1986). Further, when a particular social identity is made salient, individuals experience a heightened awareness of the social category driving the social identity (Smith and Henry 1996). Ultimately, by priming the social identity of an individual, one can alter judgments (Brewer and Gardner 1996). Therefore, a commitment to being socially responsible may influence earnings management given the

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2 Priming describes the activation of a concept or idea to see whether it influences some later decision process (Ashcraft 2002).
agency problem. Specifically, a company’s expressed commitment to being socially responsible may serve to heighten (i.e., prime) employee awareness of the need to consider interests other than those related to the structure of compensation incentives. That is, a company’s expressed commitment to social responsibility may influence a manager to move away from decisions that reflect only his/her self-interest.

1.5 Overview of the Study

This study utilizes an experimental research design to examine how earnings management decisions by business-unit managers differ based on the agency problem, and how a company’s level of commitment to corporate social responsibility impacts business-unit managers’ earnings management decisions given the agency problem. Therefore, experienced managers’ are an important attribute of this study. One hundred and six experienced managers, enrolled in executive M.B.A. programs, participated in this study. Participants were asked to assume the role of a business-unit manager in a hypothetical company faced with a year-end expense accrual decision. In the scenario presented, all participants were told that the company is committed to controlling costs in an effort to help with the company’s attractiveness given a pending initial public offering. They were then presented with a schedule of four consulting projects for which no billing has occurred. The schedule includes the project status (e.g., “early stages” of completion) and the estimated contract amount for each project. Participants were then asked to make an accrual recommendation.

3 A typical business-unit manager is responsible for decisions related to staffing and operations and is accountable for all, or a portion of, the unit’s income statement results.
The experiment utilizes a 2x2 ANOVA design. The first independent variable is the agency problem (present or not present). To satisfy the conditions for the agency problem, I create a condition in which business-unit managers have both the incentive and the opportunity to make accrual decisions that may not represent the company’s best interest. Specifically, managers are told that they work under a variable bonus incentive structure with targets that make it attractive for the manager to accrue more expenses while the chief financial officer (CFO) would prefer less. This incentive structure imposes a cost to the manager when making accounting decisions that are in the best interest of the firm (i.e., principal/agent incentives are not aligned). Further, managers are told they have information that the CFO does not have (i.e., information asymmetry). In the no-agency problem condition, managers are told their bonus is based on a fixed percentage of salary (e.g., retention bonuses). Such a bonus structure ensures there is no cost to the manager to make accounting decisions that are in the best interest of the firm (i.e., the agent’s incentives are more closely aligned with those of the principle). Managers are also told the CFO has the same information as the manager does (i.e., information symmetry). The second independent variable relates to the degree of a company’s commitment to corporate social responsibility. In the high commitment condition, the company is explicitly concerned with having a positive impact on society, while in the neutral condition no direct references to corporate social responsibility are made.

Possible implications of this study include gaining a more thorough understanding as to when, and how, discretionary accruals decisions are made by business-unit managers. This, in turn, may help us better understand when, and how, discretionary
accrual decisions impact, or “bubble up” to, the consolidated financial statements. It also provides researchers with a more direct test of the relation between incentives and discretionary accrual decisions. Additionally, this study helps corporate executives, auditors, and regulators better understand how certain aspects of the corporate environment may dampen the effect of the agency problem on earnings management through discretionary accrual decisions. Finally, understanding the effects of corporate social responsibility on accrual decisions may help analysts and other investors infer which companies are more likely to have financial statements that reflect earnings management.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews several areas of literature to provide a framework for studying the effects of the agency problem and the degree of a company’s commitment to corporate social responsibility on managers’ discretionary accrual decisions. The second section of this chapter reviews the relevant earnings management literature. The third section examines the agency model and its application in decision-making contexts. And finally, the fourth section reviews the corporate social responsibility literature and develops the link between corporate social responsibility and individual decision-making behavior.

2.2 Earnings Management

Generally accepted accounting principles (GAAP) often require that judgment, or discretion, be exercised when preparing financial statements. At times, the exercise of accounting discretion allows managers to manage earnings (i.e., shifting revenue or expense items from one accounting period to another accounting period). Schipper (1989) defines earnings management as behavior that occurs when managers intervene in the external reporting process with the intent of obtaining some private gain (e.g., maximize compensation) as opposed to merely facilitating a neutral outcome for the financial reporting process. There are a wide range of techniques available for managers who want to manage earnings. For example, such techniques may include altering (i.e., either delaying or accelerating) actual cash flow expenditures such as advertising and
research and development or such techniques may include making accrual decisions that inherently involve accounting discretion.

While there has been a substantial body of research that examines earnings management, these studies are usually large sample-size studies and use aggregate measures of earnings management within an organization (i.e., one-time accounting decisions made by senior financial executives are commingled with recurring operating accrual decisions made by managers through the organization). Such a design makes it difficult to directly study managers’ use of accounting discretion for operating decisions (Fields, Lys, and Vincent 2001). Therefore, the current study will examine managers’ use of accounting discretion when faced with an operating decision that ultimately impacts the financial statements.

2.2.1 Incentives to Manage Earnings

There is a large body of archival research that examines the incentives managers have to manage earnings (e.g., Healy 1985; Holthausen, Larcker, and Sloan 1995; Gaver, Gaver, and Austin 1995; Dechow, Sloan, and Sweeney 1996; Burgstahler and Dichev 1997; DeGeorge, Patel, and Zeckhauser 1999; Guidry, Leone, and Rock 1999; Beatty, Ke, and Petroni 2002; Cheng and Warfield 2005). Healy (1985) suggests that short-term bonus incentives are associated with earnings management. Based on bonus plan details disclosed in proxy statements, Healy infers the upper and lower threshold for bonus payments. Then, utilizing total accruals as a proxy for discretionary accruals, Healy finds that accrual policies of managers are associated with the income reporting incentives of their bonus contracts. That is, when managers have maximized their bonus potential, or have no bonus potential at all, they are more likely to have income-decreasing accruals.
Healy also finds that managers are more likely to make income-increasing accruals when those accruals contribute to higher current year bonuses.

Holthausen, Larcker, and Sloan (1995) perform a study that both replicates Healy’s findings and extends the earnings management literature in several ways. First, by utilizing proprietary databases from two human resource consulting firms, they are able to perform a study that uses actual bonus plan thresholds and actual bonus plan payments. They are also able to update the sample period, utilize more sophisticated methods for measuring the discretionary component of accounting accruals, and look at “real” earnings management techniques such as expenditures for research and development initiatives. Holthausen, Larcker, and Sloan (1995) are able to replicate most of Healy’s findings with their new data set. However, the authors do not find evidence supporting managers’ propensity to make income-decreasing discretionary accruals when they are below the bonus threshold. In discussing the results of their analysis, the authors note that the choice of discretionary accrual measures influences the results found.

Guidry, Leone, and Rock (1999) also perform a study that both replicates Healy’s findings and extends the earnings management literature. Their research design utilizes the management and financial reporting database of a large conglomerate. The database provides detailed information about business-unit managers’ bonus targets and bonus payments and, as a result, they are able to conduct analysis at the business-unit level. In addition to using the accrual measures from both Healy (1985) and Holthausen, Larcker, Larcker,
and Sloan (1995), Guidry, Leone, and Rock (1999) add a new measure for discretionary accruals that specifically focuses on the inventory reserve account balances. The results of this study are consistent with prior research and suggest that managers manipulate earnings to maximize their short-term bonus payouts.

One point should be made in analyzing the descriptive statistics associated with Guidry, Leone, and Rock (1999). Approximately sixty percent of the business units in this study are classified as part of the “upper” portfolio (i.e., business-unit earnings exceeded the threshold for the maximum bonus payout). In contrast, Healy (1985) classifies only between nine and thirty-two percent of his sample firms as in the “upper” portfolio while Holthausen, Larcker, and Sloan (1995) classify only between four and twenty-five percent of their sample firms as in the “upper” portfolio. Because such a high percentage of business-unit managers in the Guidry, Leone, and Rock (1999) sample are able to maximize their bonus payouts, this suggests there may be some endogenous factors that influence the relation between bonus targets and bonus payments that is specific to this sample. For example, Guidry, Leone, and Rock (1999) note that in setting the bonus targets, managers submit their budgets to corporate headquarters for approval. Therefore, the managers in this sample have the ability to directly influence performance expectations downward in order to reduce thresholds for the maximum bonus payout (i.e., these managers may be managing the budget process rather than the external reporting process).

In addition to examining the association between cash incentives and earnings management, prior research has also documented the association between equity incentives and earnings management. For example, Warfield, Wild, and Wild (1995)
find that the magnitude of discretionary accruals is inversely related to managerial ownership. They also find that managerial ownership is less important for regulated corporations, which, in turn, suggests that the regulatory process may be a monitoring mechanism for managers’ accounting choices. Cheng and Warfield (2005) extend this line of research by examining a different incentive for managing earnings, meeting or beating analysts’ forecasts. In studying specific conditions that may motivate managers with equity incentives to engage in earnings management, Cheng and Warfield suggest that managers with high equity incentives are more likely to sell their shares in the future and, therefore, will be more motivated to engage in earnings management. In their analysis, they report that managers with high equity incentives are more likely to report earnings that meet or just beat analysts’ forecasts.

While prior research has shown that senior executives’ short-term bonus incentives and equity incentives have an association with earnings management, Healy and Wahlen (1999) note that there is little research that helps us assess whether earnings management behavior is attributable to a few individuals in an organization, or at what levels of an organization these actions may occur. The current research helps addresses these questions by incorporating an experimental research design that focuses on managers throughout the organization, not just senior executives. In addition, whereas senior executives’ typically have a higher proportion of their total compensation based on stock grants or stock options, the compensation structure for lower level managers typically incorporates a higher proportion of cash compensation to total compensation, if they have any equity compensation at all (Guidry, Leone, and Rock 1999). Therefore, managers at lower levels of the organization are more likely to focus their attention on
actions that maximize their short-term bonus incentives. Accordingly, this study considers the structure of short-term bonus incentives on managers’ discretionary accrual decisions.

Finally, while many earnings management studies find an association between executive incentives and the net effect of all discretionary accrual decisions, archival research designs do not provide evidence of discretionary accrual behavior based on the manipulation of short-term incentive structures. As a result, interpreting the results of these models requires confidence that the measurement error in the discretionary accrual proxy is not correlated with the method used to determine who has incentives and who does not (McNichols 2000). The current study avoids these measurement issues by incorporating a research design that allows for an analysis of individual discretionary accrual decisions and includes a manipulation of the structure of short-term bonus incentives. Such a research design allows me to speak more directly to how managers’ motives impact earnings management.

2.2.2 Earnings Management Techniques

Besides establishing the association between incentives and earnings management, there is a substantial body of research that identifies the various techniques used to manage earnings. For example, Healy (1985), Holthausen, Larcker, and Sloan (1995), and Guidry, Leone, and Rock (1999) all focus on the use of discretionary accruals as a tool to manage earnings. In examining the evidence from firms recording Staff Accounting Bulletin (SAB) No. 101 adjustments (i.e., revenue recognition adjustments), Altamuro, Beatty, and Weber (2006) suggest that prior to the adoption of SAB No. 101 sample firms used revenue recognition practices to manage earnings. Marquardt and
Wiedman (2004) also examine the use of revenue recognition as an earnings management technique. They report that firms issuing equity prefer to manage earnings upward by accelerating revenue recognition.

In a paper that examines the classification of items within the income statement, McVay (2006) shows managers opportunistically shift expenses from core expenses to special items in order to meet analysts’ forecasts. Marquardt and Wiedman (2004) also report that firms trying to avoid earnings decreases utilize the category “special items” to manage earnings. In a paper that examines the sensitivity of CEO compensation to pension income items and pension expense items, Comprix and Muller (2006) provide evidence that executives who have incentives to increase earnings will use relatively higher expected rate of return estimates when reporting pension income.

There are also several papers that distinguish accrual-based earnings management techniques from “real” earnings management techniques (e.g., deferring research and development expenses, altering production in order to manage inventory levels, and accelerating or delaying sales of products depending on incentives) and show how the use of these techniques has changed over time (Roychowdhury 2006; Badertscher, Phillips, and Pincus 2007; Cohen, Dey, and Lys 2007). Badertscher, Phillips, and Pincus (2007) suggest that the use of accrual-based earnings management techniques are more prevalent than the use of “real” earnings management techniques and that the presence of net operating losses, high free cash flow, and a Big 4/5/6 auditor mitigates the propensity to use accrual-based earnings management techniques. Meanwhile, Cohen, Dey, and Lys (2007) provide evidence that although accrual-based techniques were more prevalent prior to the adoption of the Sarbanes-Oxley Act of 2002 (SOX) and “real” earnings
management techniques are more prevalent after the adoption of SOX, accrual-based

techniques are still used in the post-SOX business environment. Since it has been shown

that the use of discretionary accruals to manage earnings is still a prevalent practice, this

experiment utilizes a discretionary accrual decision in examining factors that influence

earnings management.

2.2.3 Archival Measures of Discretionary Accruals

When examining discretionary accrual decisions, archival studies all follow the

same methodological steps. They typically identify ex ante a proxy for a circumstance in

which the researcher hypothesizes that there will be an incentive for executives to report

biased earnings (for example, meeting a bonus incentive or equity incentive). They then

compute “expected accruals” based on a predetermined relation between accruals (e.g.,

the allowance for doubtful accounts) and various components of net income (e.g.,

revenues), and finally they compute “abnormal accruals” by comparing actual accruals to

expected accruals. Abnormal accruals ultimately represent the proxy for earnings

management. As a result of this methodological approach, Healy and Wahlen (1999)

note that few studies have examined whether observed earnings management behavior is

attributable to a few firms in any given sample or is a widespread business practice.

There are also a number of methodological problems associated with how
discretionary accruals are measured. As a result, there is a substantial amount of research

that discusses those problems in detail, or proposes new approaches to making better

accrual estimations (e.g., McNichols and Wilson 1988; Dechow, Sloan, and Sweeney

1995; McNichols 2000; Fields, Lys, and Vincent 2001; Kothari, Leone, and Wasley

2005). For example, Dechow, Sloan, and Sweeney (1995) and Fields, Lys, and Vincent
(2001) both identify and discuss the lack of statistical power associated with discretionary accrual models (i.e., these models do not consistently identify earnings management amounts of up to 5% of total assets). Another issue that impacts current archival research designs is the self-selection bias inherent in sample selection (i.e. researchers cannot undo any of the accounting choices that have been made or examine the firm in a controlled environment) (Fields, Lys, and Vincent 2001). As previously mentioned, McNichols (2000) notes that the lack of theory or evidence available to explain how discretionary accruals behave in the absence of incentives limits the ability to control for correlated omitted variables in archival models. McNichols (2000) also emphasizes the aggregate accrual methods take a “black box” approach to factors that may help explain accruals. This makes it difficult to be confident that measures of discretionary accruals truly capture management discretion. An experimental research design can avoid these measurement issues and complement the archival earnings management literature (Libby, Bloomfield, and Nelson 2002).

2.2.4 The Influence of Financial Reporting Factors on Earnings Management

Researchers have examined the impact of financial reporting factors on earnings management behavior. Hunton, Libby, and Mazza (2006) consider the role of financial reporting transparency on managers’ earnings management decisions. In this experiment, financial executives are given a decision task in which they must chose to sell one of five equity investment securities from an available-for-sale portfolio in order to meet a firm’s current cash flow needs. The portfolio of the five equity securities is specifically designed such that sale of the securities can be easily used to manage earnings up or down. The first independent variable is management incentive (consensus analysts’
forecasts either above or below management’s projection of earnings) and the second independent variable is financial reporting transparency for equity securities (based on Statement of Accounting Standards No. 130, disclosed in equity or separately in a financial statement). The results of this study suggest that the more transparent form of financial disclosure for equity securities reduces, but does not eliminate, the prevalence of both income increasing and increasing decreasing earnings management. However, because this research design does not incorporate any costs to making a decision among the five securities, we do not know how managers’ decisions may differ when their interests are not aligned with the firm’s interests.

In another experimental study, Bhojraj and Libby (2005) examine the effects of increased capital market pressure and financial disclosure frequency on managers’ myopic behavior. Myopic behavior is defined as giving up projects with greater cash flow in order to report externally higher near-term earnings. In this experiment, experienced managers make a project choice based on patterns of earnings and cash flows. The first independent variable is the degree of market pressure faced by managers (high or low likelihood of initial public stock offering) and the second independent variable is frequency of mandatory financial reporting frequency (semiannual versus quarterly). The results of this study suggest that managers more often choose projects that they believe will maximize short-term earnings as opposed to total cash flows in response to increased capital market pressure resulting from a pending stock issue. Longer reporting periods appear to cause a natural smoothing effect for earnings and cash flows and the authors suggest their findings indicate that more frequent disclosure will, on average, cause greater myopia in the presence of significant stock market pressure.
This is also one of the first studies to show that managers willingly manipulate earnings via real cash flows. Again, both experimental studies discussed above assume that managers’ incentives are aligned with those of the shareholders. Therefore, we do not know if managers’ decisions would differ if their incentives were not aligned with shareholders.

2.2.5 Institutional Controls and Earnings Management

While a number of studies examine when or why managers manage earnings, there are only a few studies that identify factors that may help mitigate earnings management. These studies generally focus on the influence of institutional controls such as the role of the board of directors, the role of external auditors, and the role of venture capitalists in curbing earnings management. For example, Klein (1999) examines the relation between audit committee independence and discretionary accruals. She finds there is a negative association between audit committee independence and the level of discretionary accruals. A negative association is also found between full board independence and the level of discretionary accruals. Results of this study also suggest that reductions in board or audit committee independence are accompanied by large increases in abnormal accruals.

In addition, the audit function should serve to mitigate earnings management. However, even within the context of an external audit, not all types of earnings management receive the same scrutiny by auditors. In a survey of auditors at the large international accounting firms, Nelson, Elliott, and Tarpley (2002) find that auditors are less likely to require adjustments to structured (unstructured) accounting transactions they believe represent attempts at earnings management when the accounting for those
transactions is regulated by precise (imprecise) accounting standards. Auditors also report in the survey that they are more likely to adjust earnings management attempts of small clients than large clients. Further, auditors suggest that they are more likely to require adjustments to transactions they believe are material. So while the audit function serves to mitigate earnings management, its effectiveness varies with the characteristic of the transaction or the client.

There are also several studies that examine whether auditors are sensitive to management’s incentives to manage earnings (Hirst 1994; Anderson, Kadous, and Koonce 2004; Dikolli, McCracken, and Walawski 2004). In a scenario where managers prefer lower income and lower common stock valuations as a result of a potential manager buyout of a firm (i.e., buyout-induced incentives), Hirst (1994) finds that auditor judgments of the probability that a material misstatement exits are sensitive to managers’ buyout-induced incentives to make income decreasing accruals. However, when managers’ incentives are instead associated with bonuses, auditors are not affected by whether unexpected financial statement fluctuations are driven by managers’ compensation motives. Anderson, Kadous, and Koonce (2004) find that auditors view a client with high incentives to manage earnings as more likely to report aggressively and more likely to want to make the financial statements look good. This study also shows that auditors view a manager with high incentives to manage earnings as more likely to provide information that does not reflect his/her true beliefs, or the underlying facts, and are more likely to manipulate the accounting results. An important attribute of this experiment is that management incentives are operationalized with corporate risk factors such as client tenure, public versus private company, debt covenant status, etc. In another
study that examines the impact of client managers’ incentives on auditors’ judgment, Dikolli, McCracken, and Walawski (2004) study the impact of different types of employee-client compensation contracts on auditors’ planning judgments. One of the main findings of this study is that the type of compensation contract used to reward managers (i.e., contracts based on financial measures, non-financial measures, or fixed-salary-only) impacts audit planning judgments. Findings also suggest auditors perceive contracts based on financial measures as having greater audit risk than contracts based on non-financial measures. Therefore, risk again appears to be a key mediating variable in assessing auditor judgments of manager’s incentives to manage earnings.

Finally, Morsfield and Tan’s (2006) archival study finds that the presence of venture capital firms in an IPO setting is associated with a lower level of discretionary accruals in the IPO year. These results are shown to hold up when controlling for lock-up provisions (i.e., the venture capitalist is subject to limitations when selling the stock of an IPO firm), partial cash-outs (i.e., the venture capitalist sells some, but not all, of the stock of an IPO firm), and alternative proxies for earnings management.

2.2.6 Earnings Management Literature Summary

Academic research has documented earnings management behavior. Further, the research has typically focused on identifying the types of incentives that exist when managers engage in earnings management, on identifying the types of techniques used to manage earnings, and on evaluating the effectiveness of institutional controls in mitigating earnings management. In addition, experimental researchers have examined financial reporting factors that impact managers’ earnings management decisions. Researchers have also examined the auditor’s view of the earnings management process
and how knowledge of management incentives impacts the auditor’s evaluation of client-provided information and the related audit planning judgments. However, no previous earnings management studies have examined manager’s accounting decisions when there is an actual manipulation of the structure of short-term bonus incentives (i.e., the short-term incentive bonus is variable based on financial targets versus a fixed percentage of salary). Therefore, the current study examines managers’ accounting decisions while considering the manipulation of short-term bonus incentives in conjunction with information (a)symmetry. In addition, this study evaluates other organizational factors that may moderate earnings management.

2.3 The Agency Model

Agency theory provides a framework for organizing relationships through the contracting mechanism in which one party, the principal, hires another party, the agent, for purposes of delegating responsibility to the latter (Jensen and Meckling, 1976; Baiman 1982; Eisenhardt 1985; Baiman 1990). For example, a CEO (the agent) is hired to do work on behalf of the shareholder (the principal), and a business-unit manager (the agent) is hired to do work on behalf of a senior executive (the principal). While the principal and agent may be engaged in cooperative behavior, they may also have differing goals and differing attitudes toward risk. Eisenhardt (1985) summarizes two problems that occur as a result of these differences. The risk sharing problem refers to situations where the principal and agent have different attitudes towards who should assume the risk for uncontrollable events (i.e., risk efficiency). The agency problem
refers to situations where the goals of the principal and agent conflict, and it is difficult to verify what the agent is actually doing (i.e., production efficiency).

In a world of complete certainty, the agent is assigned a task, the principal uses information to verify that the agent performed the task, and then the principal pays the agent the agreed upon amount specified in the contract (Demski 1976). However, uncertainty is introduced when the agent cannot control all the variables related to his task. For example, a contract can be structured so that a manager is entitled to a bonus if he/she minimizes plant expenses. If during the course of the year fuel costs unexpectedly rise, the agent will miss his/her bonus target. The question then arises as to who should be held responsible for these unexpected costs. If both parties agree that the agent should assume all risk for uncertain events (i.e., it is up to the agent to reduce expenses in other areas of the plant in order to offset the rising fuel costs), the structure of the bonus incentive is based on achieving an earnings target (i.e., a variable bonus). If both parties agree the principal should assume all risk for uncertain events, the structure of the bonus incentive is fixed as a percentage of salary.

The structure of the bonus incentive also addresses the issue of the agent’s effort. A variable bonus incentive motivates the agent to sustain a high level of effort in order to achieve a specific outcome, while paying a fixed wage may mitigate the agent’s incentive to maintain a high level of effort. In summary, the purpose of incorporating a variable bonus into the employment contract is to shift risk for uncertain events from the principal to the agent, as well as to increase motivation for the agent to put forth maximum effort in order to achieve the principal’s goals (Harris and Raviv 1979; Demski and Feltham 1978). The purpose of incorporating a fixed bonus into the employment contract (i.e., a
bonus that is guaranteed as a fixed percentage of salary) is to have the principal retain the risk for uncertain events that may impact a company’s financial results.

Once the principal-agent relationship is established, the assumption is that the agent will take actions and put forth an effort that is in the best interest of the principal. However, agency theory also assumes that both the principal and agent make choices based on their own self-interest. Therefore, when the goals between the two parties differ, the agent may not always take actions that are in the best interest of the principal.

In considering this type of conflict (i.e., the agency problem), agency theory focuses on two components of the employment contract: (1) the structure of the agent’s payment schedule (e.g., bonus incentives), and (2) the information system used to monitor the agent’s performance.

A contract with a variable bonus incentive may cause conflict between what is in the principal’s best interest and what is in the agent’s best interest. That is, a variable bonus incentive may actually impose a cost to the agent for making a decision that is in the best interest of the principal but, then, causes the agent to miss his/her bonus targets. Agency theory suggests that, under these conditions, the agent will make decisions that maximize his/her self-interest rather than maximize the principal’s objectives. On the other hand, when the agent is paid with a fixed bonus contract structure, the outcome of certain decisions by the agent does not impose an explicit personal cost to the agent. In this case, we can assume the agent will take actions that maximize the principal’s objectives (Dutta and Zhang 2002).

While the structure of the bonus payment provides the incentive for the agent to engage in self-interested behavior, the agent must also have the opportunity to make
decisions that are in his/her own self-interest but not in the best interest of the principal. This opportunity occurs when there is information asymmetry between the principal and agent. Specifically, information asymmetry occurs when the agent has access to information that the principal does not have at the time the agent makes decisions. Information symmetry occurs when the principal has access to the same information set as the principal. Information symmetry allows the principal to accurately evaluate the agent’s actions (i.e., effort, judgment, etc.). Under conditions of information symmetry, the agent must make a decision regarding the level of effort to expend. When there is information asymmetry the agent must decide not only what level of effort to expend but also whether to use the private information that is available to him/her for personal gain.

In summary, agency relationships exist at every level of an organization. Any employee can assume the role of the agent while the employee’s supervisor assumes the role of the principal on behalf of the shareholder. In the case of the CEO, the board of directors assumes the role of the principal. Agency theory provides a conceptual framework for investigating the influence of contract incentives and information (a)symmetry on accounting decisions (Baiman 1982; Baiman 1990; Eisenhardt 1985). Such accounting decisions include, but are not limited to, determining the amount and timing of certain period ending accruals in situations where contractual outcomes (i.e., bonus incentives) explicitly depend on reported accounting numbers. While the structure of bonus incentives is meant to deal with risk and effort issues, Watts and Zimmerman (1986) also suggest that there are unexpected consequences related to bonus incentives. Such consequences include biasing managers’ accounting decisions.
2.3.1 Agency Theory and Managers’ Operating Decisions

Prior experimental research utilizes agency theory in a management accounting context and suggests that when there is an agency problem, managers may make operating decisions that are not in the best interest of their firms (Harrison and Harrell 1993; Harrell and Harrison 1994; Tuttle, Harrell, and Harrison 1997; Rutledge and Karim 1999; Booth and Schulz 2004). In a test of the theoretical framework set forth by Kanodia, Bushman, and Dickhaut (1989) (i.e., that both incentives and information asymmetry may help explain why managers will continue projects expected to become unprofitable), Harrison and Harrell (1993) use the agency framework to explain why managers continue failing projects. In this study (i.e., Harrison and Harrell 1993), subjects are asked to evaluate how likely they are to continue four independent projects, two of which should be terminated (i.e., they will no longer meet appropriate hurdle rates) and two of which should not be terminated (i.e., they will continue to exceed appropriate hurdle rates). The first independent variable is the agency problem (present or absent), with incentives and information asymmetry manipulated concurrently. Incentives are operationalized using reputation effects. When there is an agency problem, subjects are told that a single failed project will put an outstanding job offer at risk. When there is not an agency problem, subjects are told they will incur no harm to a well-established reputation if they acknowledge they managed a failed project. In addition, when there is not an agency problem, information symmetry is operationalized by telling subjects that project performance is widely known. When there is an agency problem, subjects are told that only they are aware of project performance. The second independent variable is type of project (i.e., projects that should be continued versus
projects that should be discontinued). Results show that when there is an agency problem, managers are more likely to continue projects that should be discontinued.

Harrell and Harrison (1994) extend the findings of their initial study by examining how the components of the agency problem (i.e., incentives and information asymmetry) interact to affect managers’ decisions to continue failing projects. The authors hypothesize that managers who experience both components of agency theory are more likely to continue failing projects than managers who experience incentives alone, information asymmetry alone, or experience neither incentives nor information asymmetry. In this study (i.e., Harrell and Harrison 1994), subjects are asked to evaluate a single project that is not expected to continue to meet appropriate hurdle rates. The components of the agency problem are operationalized in the same manner as Harrison and Harrell (1993). An analysis of the results shows that managers who are told that project performance is not widely known are more likely to continue unprofitable projects than managers who are told that project profitability is widely known. However, there is no statistically significant main effect for incentives. Consistent with expectations, the interaction results show that those who experience both components of the agency problem (i.e., incentives and information asymmetry) exhibit a greater tendency to continue failing projects than the other three treatment groups.

Tuttle, Harrell, and Harrison (1997) examine the effects of the agency problem on an information systems implementation decision. In an effort to help explain why some managers do not always act in their own self-interest when they experience the agency problem, Tuttle, Harrell, and Harrison (1997) also examine the impact of ethical considerations on managers’ decisions. In their study, information systems (IS)
professionals are asked to evaluate how likely they are to implement a system with a known quality control problem. Consistent with previous research, the agency problem manipulates incentives and information asymmetry concurrently. However, unlike prior research, incentives are operationalized through the bonus structure. When there is no agency problem the manager’s bonus is based on user acceptance criteria and when there is an agency problem the manager’s bonus is based on meeting the scheduled implementation date and keeping the project under budget. Also, when there is no agency problem, managers are told that the quality control problem is widely known throughout the organization. When there is an agency problem, subjects are told that the quality control problem is not widely known by senior management. The second independent variable is based on the managers’ individual ethical considerations. The authors utilize a multi-dimensional, multi-item measure developed by Reidenbach and Robin (1990) to capture a range of rationales (i.e., perceptions of fairness, perceptions of acceptability of behavior, and perceptions of one’s obligation to society) used by individuals when making ethical judgments. As hypothesized, results show that IS professionals have a tendency to implement a project with quality problems when they experience the agency problem. Results also show that when the agency problem exists, decisions are strongly influenced by ethical considerations. Based on these results, the authors suggest that agency theory can be used to describe behavior but not necessarily predict it.

Rutledge and Karim (1999) also examine the potential influence of ethical considerations on managers’ decisions in conjunction with the agency problem. They utilize the same experimental design as Harrison and Harrell (1993) and incorporate a
measure of individual moral reasoning based on the Sociomoral Reflection Objective Measure (SROM) questionnaire. Results replicate findings associated with the influence of the agency problem on managers’ decisions to continue failing projects. Results also show that managers with a low level of moral reasoning are more likely to continue projects than managers with a high level of moral reasoning. In addition, and consistent with Tuttle, Harrell, and Harrison (1997), results show that when there is an agency problem, moral reasoning influences the decision to continue a failing project.

Booth and Schulz (2004) suggest that there are other variables besides a manager’s level of ethical reasoning that can be considered when using agency theory to explain a manager’s behavior. They propose that a strong ethical environment will also be effective in reducing the tendency for managers to continue failing projects regardless of whether there is an agency problem or not. The decision task is taken from Harrison and Harrell (1993) and the participants are again asked to state their preference for continuing a project. The agency problem (present versus not present) is again one of the independent variables and is operationalized following the prior experimental designs for this task. The strength of a corporation’s ethical environment is the second independent variable. The condition for a strong ethical environment includes explicit information on the following categories: mission and values, leadership and management influence, peer group influence, procedures, rules and code of ethics, and rewards and sanctions. In the condition representing a weak ethical environment, subjects are given no explicit information about the ethical environment. Results of this study show a statistically significant main effect for both the agency problem and the strength of the corporation’s ethical environment. However, results do not show a statistically significant interaction
between the two independent variables. The ethical environment has a similar influence regardless of whether the agency problem is present or not.

2.3.2 Agency Theory Literature Summary

Academic research has examined how the agency problem impacts managers’ operating decisions. These studies all provide insight into when and why managers may make decisions that are not always in the best interest of the firm. In addition, this research shows that while agency theory may be an appropriate framework to help describe decision-making behavior, it cannot be solely relied upon to predict behavior as there are now other factors (e.g., individual ethical considerations) that have been shown to moderate the influence of the agency problem. The present study extends the agency framework to an earnings management context and assesses the influence of a company’s expressed level of commitment to being socially responsible in mitigating the agency problem.

2.4 Corporate Social Responsibility

There has been a significant amount of academic research dedicated to defining corporate social responsibility (e.g., Zenisek, 1979; Clarkson, 1995; McWilliams and Siegel, 2001; Special Report: Corporate Social Responsibility, 2005; Leisinger 2005). While there is no consensus definition for corporate social responsibility, many of those discussed in the literature have three common elements. The first common element focuses on the conflict of interest that may occur between shareholders and other constituents of the firm including suppliers, employees, and anyone impacted by corporate actions. For example, a paint manufacturing company may maximize
shareholder interests by washing chemicals into water sources such as streams and rivers instead of paying for more costly disposal. But such action conflicts with what may be in the best interest of citizens concerned about the environment. Another common element to the definition of being socially responsible includes the concept of “going above and beyond the law.” A company is typically considered to be socially responsible when it engages in actions that exceed the minimum standards of behavior set by the law. The final common element found in the literature involves an “ethical” component to the behavior choice. This suggests that, when managers engage in socially responsible activity within the corporate context, they deem that activity to be “the right thing to do” regardless of what is considered to be in the best interests of the shareholder or management.

For purposes of this study, I will rely on a definition provided by Heal (2004) who implicitly incorporates the three elements outlined above. Heal (2004) defines corporate social responsibility as part of a corporate strategic response to inconsistencies that occur between corporate profitability goals and social goals. Utilizing this definition, Heal puts forth a framework for how responsible behavior is reflected in financial markets. Heal, an economist, states that markets work well for society, aligning corporate interests and social interests when the firm’s private and social costs are the same. But when social costs exceed those of the firm, the market does not appear to be an efficient mechanism for driving socially responsible behavior. An example of this conflict occurs with environmental issues. In this case, pollution is associated with significant social costs but relatively smaller firm cost (i.e., firms that are known to pollute do not seem to have depressed stock prices as a result of these actions). In another example, he suggests that
tobacco companies’ interests (i.e., to maximize corporate profits) are not aligned with the interests of society because those companies are willing to extract profits at the expense of the individual health of their customers. In contrast, Heal (2004) cites Apple Computer as an example of when the pursuit of corporate profits does not inherently conflict with the overall interests of society. It is within this framework that Heal (2004) proposes an analysis of socially responsible behavior that calls for an assessment of whether the interests of shareholders and other constituents are either aligned or not aligned.

2.4.1 Corporate Social Responsibility and Financial Performance

In their examination of the empirical relationship between a corporation’s social initiative and its financial performance, Margolis and Walsh (2003) also embrace the tension between economic and broader social objectives as a starting point for systematic analysis of organizational behavior. In a review of 109 studies where corporate social responsibility has been treated as an independent variable, Margolis and Walsh report that 54 studies report a positive relation between social responsibility and corporate financial performance, 7 studies report a negative relation, 28 studies report non-significant results, and 20 studies report mixed results. In 22 studies where corporate social responsibility is treated as the dependent variable, the majority of the results point to a positive relationship between corporate financial performance and socially responsible behavior. However, Margolis and Walsh (2003) also note that these studies all suffer from sampling problems, concerns about the reliability and validity of corporate social responsibility and corporate financial performance measures, proper identification of omitted correlated variables, and a lack of casual theory to link the two constructs.
Therefore, it is difficult to conclude that engaging in socially responsible behavior provides positive financial returns to shareholders (Margolis and Walsh 2003; Orlitsky, Schmidt, and Rynes 2003; Barnett 2007; Mackey, Mackey, and Barney 2007).

2.4.2 Corporate Social Responsibility and Corporate Culture

Given the inconsistent support for the role of financial incentives in driving a commitment to corporate social responsibility, there is still an open question as to why companies are willing to engage in socially responsible activities. Rupp et al. (2006) contend that employees’ judgments about an organization’s socially responsible actions may shape employees’ overall perceptions of an organization’s level of accountability, responsibility, and the extent to which it upholds moral and ethical standards. In effect, Rupp et al. (2006) suggest that an organization’s level of commitment to social responsibility is a response to those perceptions. In presenting their alternative model, the authors posit that individual employees, as members of an organization, are concerned about, contribute to, and react to an organization’s evolving social consciousness. It is important to note that these are the same characteristics that contribute to a corporation’s culture (Schein 2004).

Trevino (1986) defines corporate culture as the common set of assumptions, values, and beliefs shared by organizational members. Trevino (1986) further suggests that moral activity takes place within a social context and social context is often linked to corporate culture. Therefore, when values and beliefs are based on an organization’s level of commitment to social responsibility, individual employees can infer the appropriate standard of behavior. This is consistent with a proposition put forth by Trevino, who suggests that managers’ behavior will be significantly influenced by the
behavior of those around them. Wimbush and Shepard (1994) provide empirical support for this proposition, showing that the ethical behavior of subordinates is influenced by the example set by their supervisors. In laying the foundation for their work, Wimbush and Shepard (1994) outline evidence which suggests that employees’ ethical behavior is influenced by their perceptions of organizational policies and practices.

Rupp et al. (2006) further suggest that employees may hold organizations accountable for their actions because they want to know they are associated with an entity that “does the right thing” morally. The authors suggest that, once an employee makes an assessment about their employer’s effort to be socially responsible, his/her attitudes and behaviors are impacted accordingly. The idea that individual behavior is influenced by an aspect of corporate culture is also consistent with work by both Smircich (1983) and Schein (1996; 2004). In a review of the literature that links corporate culture and individual behavior, Smircich (1983) notes that corporate culture is important to the individual for several reasons: it conveys a sense of identity for the organization, it facilitates a sense of commitment to something larger than oneself, it enhances the stability of the social system, and it serves as a sense-making device that guides and shapes behavior. According to Schein (2004), organizational culture is pervasive and it influences all aspects of an organization’s operations. Schein (2004) further suggests that corporate culture represents the collective norms that guide individual behavior that persists over time in an organization.

In contrast to those who focus on determining the relation between socially responsible activities and financial measures, Aguilera et al. (2007) develop a theoretical model based, in part, on the assumption that companies’ social responsibility initiatives
have the potential to change the companies’ corporate culture as well as impart true social change. They build their model from the employee domain of individual needs and transpose this construct to the organizational level. Specifically motivated by the procedural justice literature, they propose that employees view a socially engaged organization as one that is concerned about multiple constituents, and one where both employees and management work together toward a greater good.

There has been relatively little work that examines the influence of corporate culture in an accounting context. In one recent study, Henri (2006) tests the relation between an organization’s culture and the attributes of performance management systems (PMS). The aspects of corporate culture that Henri examines are organizational control (i.e., centralized versus decentralized) and organizational flexibility, which is based on measures for perceived institutional character, cohesion, and emphasis as well as perceptions of the institutional leader. Findings suggest that aspects of corporate culture influence the nature of the use of the PMS (i.e., as a monitoring mechanism versus a decision-making mechanism) as well as the diversity built into the system (i.e., financial information versus financial and nonfinancial information).

2.4.3 Corporate Social Responsibility Literature Summary

Prior research identifies various components that help define corporate social responsibility and examines the link between corporate social responsibility and corporate financial performance (e.g., Margolis and Walsh 2003; Orlitsky, Schmidt, and Rynes 2003; Schuler and Cording, 2006). Henri (2006) provides empirical evidence that corporate culture influences how performance management systems are designed and
utilized. However, no prior research examines the influence of corporate culture, or more specifically, corporate social responsibility, on earnings management.

### 2.5 Social Identity Theory

While corporate culture may impact individual behavior, the mechanism for doing so may be based on one’s social identity and the extent to which one internalizes the values of a given group as part of his/her social identity. Social identity theory was originally developed to help explain the psychological basis of intergroup discrimination (i.e., why an individual favors one group over another). Intergroup discrimination is predicated on the creation of an in-group self-categorization. For example, an in-group self-categorization may occur when an individual joins one of the “Big Four” accounting firms and he/she makes assessments that favor the firm joined over the others.

One of the core assumptions of social identity theory is that a person has both an “individual self” (i.e., an individual level identity) and a “social self” (i.e., a group level identity). In conjunction with this core assumption, social identity theory suggests that a person’s self-interest may not always be defined at the individual level (Tajfel and Turner 1986). That is, individuals may redefine their self-interest in favor of the group rather than themselves. This notion is supported by Brewer (1979), who suggests that the salience of one’s group identity may result in a greater weight being given to group gains over individual gains. In addition, Kramer and Brewer (1984) provide evidence that when a person’s individual and group identities are at odds with each other, they are more likely to act on the group identity when it is made salient.
In a paper that compares social identity theory (i.e., how the group influences individual behavior) with identity theory (i.e., individual concern with fulfilling a role), Hogg, Terry, and White (1995) also discuss social identity theory as a function of group norms and an individual’s social self. That is, the group with which an individual identifies, including the company he/she works for, defines part of the individual. Hogg, Terry, and White (1995) emphasize that when a specific social identity becomes the basis for behavior in a particular context, one’s self-perception and conduct become aligned with the group and individual behavior is influenced accordingly. Consistent with Hogg, Terry, and White (1995), Kreiner, Hollensbe, and Sheep (2006) suggest that an individual’s identity adjusts and evolves, and is subject to many influences which can be based on situational (e.g., work-related) factors.

The idea that the concept of social identity influences individual behavior has also been discussed in the economics literature. To examine why individuals may not act in accordance with traditional economic theory, Davis (2006) evaluates three alternative approaches to linking social identity to personal identity: the neoclassical approach (people take action in order to reduce anxiety), the commitment approach (people want to identify with groups), and the complexity approach (people choose to belong to a group that fits their self-image). The purpose of this evaluation is to recognize that the traditional economic view that price mediates all individual differences when accounting for variance in economic behavior may not be the most appropriate representation of economic behavior. Davis (2006) concludes that a richer view of the individual (i.e., one that considers the influence of social identity), when examining economic behavior, may be warranted.
2.5.1 Priming Social Identity

In a work environment, individuals usually engage in a variety of tasks, including making decisions, as part of their daily activities. Consistent with elements of social identity theory, Breckler and Greenwald (1986) suggest that the performance of these work tasks helps establish one’s self-worth by securing favorable evaluations from those whose opinions are valued. They label this aspect of self-worth as “the collective self” or the “we” facet of an individual. When collective identities are activated, the most salient features of the self-concept become those that are shared by other members of the reference group (Brewer 1991). Therefore, achieving the goals of a reference group can be accomplished by acting in accordance with the group’s norms and expectations where these norms and expectations form the basis of a common identity (Brewer and Gardner 1996). For example, in a corporate culture that emphasizes promptness, employees who are perpetually late for engagements may eventually adjust their behavior so that they always show up to department meetings five minutes early. This adaptation of behavior is consistent with Brewer (1991) who also suggests that the demands of social identity can influence an individual.

Research suggests that individuals seek to define themselves both in terms of their individual self (i.e., a person’s unique identity differentiated from others) and their collective self (Greenwald and Breckler 1985; Breckler and Greenwald 1986; Brewer and Gardner 1996). Brewer and Gardner (1996) further provide experimental evidence that the individual and collective levels of identity are distinct forms of self-representation. More importantly, they show that priming an individual’s collective identity can alter judgments. In doing this, Brewer and Gardner (1996) confirm that the concept of the
collective self is associated with a heightened sensitivity to the group identity. These findings are consistent with Haslam et al. (2006) who show that social identity salience impacts a group’s willingness to maintain commitment to a project that is closely aligned with its organizational identity. Specifically, their study provides evidence that, as an organizational project that has been previously championed as consistent with culture and corporate values encounters difficulties, group members who experienced a heightened sense of shared social identity are much more likely to remain committed to the project than group members who do not experience the heightened sense of social identity.

2.5.2 Social Identity Theory Summary

Overall, social identity theory suggests that individuals have separate individual and social identities. Research shows that the level of group identity affects individual decision-making when that group identity is made salient. In addition, specifically priming an individual’s social identity may alter the individual’s judgments. Therefore, a company’s expressed commitment to corporate social responsibility may heighten employee awareness of the need to consider a broader range of constituents when making decisions.
CHAPTER 3: HYPOTHESIS DEVELOPMENT AND METHODOLOGY

3.1 Introduction

This study examines the effect of short-term bonus incentives, information asymmetry, and corporate social responsibility on business-unit managers’ discretionary accrual decisions. In this chapter, hypotheses are developed using agency theory and prior research on corporate culture, corporate social responsibility, and the priming of an individual’s social identity. Hypotheses are tested using an experiment in which experienced managers assumed the role of a plant manager for a manufacturing company. In this role, participants were asked to make an accrual decision for consulting and advisory services provided but not yet billed. They received information about the background of the company. They were told an IPO was imminent and that management was focused on minimizing current period expenses for IPO pricing purposes. They were also provided a schedule detailing the unbilled expenses. Finally, participants were provided information about projected expenses, their bonus structure, and whether the CFO either was aware of the current projection of expense numbers prior to the accrual decision. Related to their accrual decision, participants were asked to provide a specific dollar amount they recommended for consulting and advisory services for which the company had not yet been billed.

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5 By incorporating an IPO scenario with management focused on minimizing current period expenses for IPO pricing purposes, I establish an incentive for the manager to act in the company’s best interest.
3.2 Hypotheses

3.2.1 Earnings Management, Discretionary Accruals, and The Agency Problem

3.2.1.1 Earnings Management and Discretionary Accruals

Schipper (1989) defines earnings management as behavior that occurs when managers purposefully intervene in the external reporting process with the intent of obtaining some private gain (e.g., maximize bonuses) as opposed to merely facilitating a neutral outcome for the financial reporting process. In his September 1998 “Numbers Game” speech, SEC Chairman Arthur Levitt, Jr. expressed concern about the high number of companies that engage in the practice of earnings management (Levitt, 1998). Levitt discussed a number of specific types of earnings management techniques utilized by managers. One such technique, a type of discretionary accrual, often referred to as a “cookie jar” reserve, involves overaccruing for costs when the company is profitable and releasing those reserves when it is most beneficial (e.g., to avoid falling short of a bonus threshold or missing an earnings target).

Prior archival research documents that discretionary accruals are associated with short-term bonus incentives (e.g., Healy 1985; Holthausen, Larcker and Sloan, 1995; Guidry, Leone, and Rock, 1999). These studies typically require firm-level, or aggregate, measures of discretionary accruals as a proxy for earnings management and incorporate bonus incentive information provided in proxy statements. Effectively, this research design measures the association between executive level compensation (e.g., CEO compensation) and the net effect of all discretionary accrual decisions made throughout the organization. Utilizing this methodology, these studies show that discretionary accruals are more likely to be negative when executives have incentives to defer earnings
for bonus purposes and are more likely to be positive when they have incentives to accelerate earnings for bonus purposes. More recent studies show that the use of discretionary accruals as an earnings management technique is still prevalent (Klein 2002; Morsfield and Tan 2006; Badertscher, Phillips, and Pincus 2007; Cohen, Deys, and Lys 2007)

In addition to earnings management research using archival methods, there are two experimental studies that examine the impact of financial reporting factors (e.g., financial reporting transparency and the frequency of disclosure) on earnings management behavior. In a setting that does not involve an agency problem (i.e., there is no conflict between what is in the best interest of the manager and what is in the company’s best interest), Hunton, Libby and Mazza (2006) show that greater transparency in comprehensive income reporting makes managers less likely to engage in earnings management when deciding whether to sell select investment securities. In the other experimental study, Bhojraj and Libby (2005) examine the impact of increased market pressure and disclosure frequency on the willingness to give up projects with greater cash flow in order to report higher near-term earnings (i.e., myopic behavior). Results show that managers are willing to manage earnings via real cash flows. However, since these two studies do not manipulate conflict between the manager’s self-

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6 One exception to the archival studies using firm-level measures of earnings management is Guidry, Leone, and Rock (1999). They utilize the financial database of a large conglomerate to examine earnings management at the business-unit level. In contrast to Guidry, Leone, and Rock (1999), my study provides a more direct test of the relation between incentives and discretionary accrual with a manipulation of the agency problem and a more diverse sample of mid-level managers. Another important distinction between Guidry, Leone, and Rock (1999) and my study is that they infer discretionary accrual values based on financial statement balances while my study captures the dollar amount of an actual discretionary accrual decision.
interest and shareholder’s best interest, we do not know how earnings management may differ when such a conflict exists.

3.2.1.2 Agency Theory

While prior archival research has found an association between executives’ short-term bonus incentives and the net effect of aggregate discretionary accruals (i.e., discretionary accrual measures based on the consolidated financial statements), these studies assume there is always a conflict between the interests of the principal (shareholders) and the interests of the agent (senior executives). Therefore, these studies do not help us understand discretionary accrual decisions when there is no conflict. Since structure of compensation contracts is commonly used to best align the interests of the principal and the agent, it is important to examine how the structure of the compensation contract (i.e., a variable bonus based on financial targets or a fixed bonus as a percentage of salary) impacts earnings management.7

Agency theory provides a framework to examine contractual relationships when one party, the principal, hires another party, the agent, for purposes of delegating responsibility to the latter (Jensen and Meckling 1976; Eisenhardt 1989). For example, employment contracts are typically established when a CEO (the agent) is hired to do work on behalf of shareholder (the principal), or a business-unit manager (the agent) is hired to do work on behalf of a senior executive (the principal). Agency theory focuses on two components of the employment contract: (1) the structure of the agent’s bonus incentive (i.e., the “incentive” component) and (2) the availability of the information used

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7 Bonuses that are a fixed percentage of salary are often referred to as “retention” bonuses and are used to recruit or retain managers at all levels of an organization.
to measure whether the agent has achieved the appropriate level of performance for a bonus payout (i.e., the “opportunity” component). Ultimately, a conflict between the principal and the agent, or the “agency problem”, occurs when the agent has both the incentive and opportunity to act in her/herself-interest.

3.2.1.3 The Agency Problem and Incentives

   Employment contracts are normally structured to provide incentives for the agent to take actions that are also in the best interest of the principal, and they will frequently include a base salary plus a cash bonus. A cash bonus can be guaranteed as fixed percentage of salary (e.g., a “retention” bonus) or it can vary based on achieving certain earnings targets. The purpose of incorporating a variable bonus into the employment contract is to provide a risk-sharing element for uncontrollable events between the principal and agent, as well as to increase motivation for the agent to put forth maximum effort (Harris and Raviv 1979; Demski & Feltham 1978). Alternatively, incorporating a fixed bonus structure into the employment contract provides the agent with complete relief from assuming the risk for uncontrollable events that may impact the firm’s financial performance. Additionally, the manager will not incur any explicit personal cost for decisions made based on their financial statement impact. As a result, the manager may be more likely to take actions that otherwise may not be in her/his best interest (Dutta and Zhang 2002). While the employment contract is used to allocate risk and align the interests of managers with those of the company, both Watts and Zimmerman (1986) and Evans and Sridhar (1996) suggest that the structure of a compensation contract may bias managers’ accounting decisions.
The following is an example of how a variable incentive structure based on a financial measure can bias managers’ operating decisions. When a plant manager has a variable bonus based on minimizing plant expenses, it may be in his/her self-interest to delay maintenance costs on machinery even when such delays are known to cause incrementally higher future repair costs. On the other hand, when the structure of the agent’s bonus is guaranteed as a fixed percentage of salary, there is no personal cost to the manager to making a decision to contract for the appropriate maintenance. Therefore, he/she is more likely to take actions that incrementally reduce future repair costs (i.e., act in the best interest of the firm). While I provide an example of how incentives can impact operating decisions, as Watts and Zimmerman (1986) and Evans and Sridhar (1996) suggest, incentives may be likely to bias managers’ accounting decisions as well.

3.2.1.4 The Agency Problem and the Role of Information

While the bonus structure provides the incentive for self-interested behavior, an agent must also have the opportunity to engage in self-interested behavior. This opportunity is dependent on whether the principal has access to the same information as the agent when the agent makes his/her decisions. When all information used by the agent in the decision-making process is available to the principal (information symmetry), the principal is able to accurately monitor the agent’s actions and effort since he/she can independently assess the appropriateness of the agent’s decision. When the agent has access to information that is not available to the principal (information asymmetry), the agent can then use that private information for personal gain.
3.2.1.5 Prior Research Utilizing Agency Theory

Prior research suggests that when there is an agency problem, managers may make operating decisions that are not in the best interest of the firm (Harrison and Harrell 1993; Harrell and Harrison 1994, Rutledge and Karim 1999; Tuttle, Harrell, and Harrison, 1997; Booth and Schulz 2004). Although agency theory has been used to evaluate managers’ operating decisions, it has not been used to evaluate managers’ accrual decisions. While it is possible that managers’ incentives to act in their own self-interest are mitigated by the scrutiny and attention auditors and regulators pay to the accounting numbers, the agency problem may still play a role in managers’ accrual decisions. For example, when a business-unit manager’s short-term bonus targets are variable, they are usually based on the manager’s budgets. So, if prior to making an accrual decision, expenses for the current year are below the bonus targets, managers may recommend additional discretionary accruals that can be reversed in the subsequent year (i.e., “cookie jar” reserves). This type of action makes it easier for the manager to minimize expenses and maximize his/her short-term bonus in the subsequent year. On the other hand, when short-term bonus targets are guaranteed as a fixed percentage of salary, the manager has little incentive to make decisions that are not in the best interest of the company. Consistent with this line of reasoning, I expect that managers who experience the agency problem will accrue more (reflecting earnings management behavior) than those who do not. Specifically, I predict that managers who experience the agency problem will record larger expense accruals (i.e., maximize bonus potential.

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8 Many business-unit managers are responsible for only a selected portion of the budget.
over a two-year period), relative to those who do not (i.e., minimize current expense for IPO purposes). This leads to the following hypothesis:

**H1**: Managers will record larger discretionary expense accruals when the agency problem is present than when the agency problem is not present.

### 3.2.2 The Mitigating Effect of Corporate Social Responsibility

Corporate social responsibility is defined as a company’s strategic response to inconsistencies that occur between profitability goals and social goals (Heal 2004). Being socially responsible at the organizational level involves actions such as allocating resources to the proper enforcement of laws (e.g., those that protect the health and safety of workers or provide for the equal treatment of all employees). However, it also involves actions that go beyond those that are required by law (McWilliams and Siegel 2001; Special Report: Corporate Social Responsibility 2005). For example, Levi Strauss proactively ensures that working conditions and wages are reasonable throughout its supply chain rather than just meeting local country legal requirements (Heal 2004). There is also an ethical component of corporate social responsibility (Clarkson 1995; Special Report: Corporate Social Responsibility 2005). For instance, when Merck did not get governmental support for the distribution of a drug that cured river blindness in tropical Africa, the company decided to incur all costs internally to supply and distribute the drug to about 30 million people (Heal 2004).

In addition to being a strategic response to the inconsistencies that arise between profits and social goals, the degree of commitment to corporate social responsibility is a reflection of an organization’s values and culture (Aguilera et al. 2004). Trevino (1986) and Schein (2004) define corporate culture as the common set of assumptions, values,
and beliefs shared by organizational members. Research also suggests that an individual’s behavior is influenced by those around them (Trevino 1986; Wimbush and Shepard 1994; Schein 2004). Thus, when an individual joins an organization, he/she may be influenced by its collective values. This is consistent with Rupp et al. (2006) who suggest that once employees make an assessment about their employer’s effort to be socially responsible, their attitudes and behaviors are impacted accordingly. Effectively, as a result of the values and beliefs that are related to an organization’s level of commitment to social responsibility, employees infer the appropriate standard of behavior.

Similarly, another line of research suggests that individuals seek to define themselves both in terms of their own self identity (the individual self) and in terms of their social identity (the collective self) (Greenwald and Breckler 1985; Breckler and Greenwald 1986; Tajfel and Turner 1986). The collective self-concept is associated with a heightened sensitivity to group-related information (Kramer and Brewer 1984; Turner et al. 1987; Brewer and Gardner 1996; Johnson and Chang 2006). In the context of one’s employer, this includes information associated with an organization’s values and beliefs (Haslam et al. 2006). Further, Smith and Henry (1996) demonstrate that when a particular social identity is made salient, individuals experience a heightened awareness of the social category (e.g., corporate values). As a result, individuals are more likely to think of themselves as having characteristics that are representative of that social category. Finally, Brewer and Gardner (1996) document that by priming the social

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9 This may occur by either instilling the values of the organization in the individual or by reinforcing the beliefs and values of the individual.
identity of an individual, social representation of the self becomes more inclusive than that of just the individual self. Effectively, Brewer and Gardner (1996) show that priming an individual’s social identity can affect the accessibility of different levels of self-representations (i.e., the individual self versus the collective self), and ultimately, alter judgments. These findings are also consistent with other decision-making literature that suggests individuals are influenced the degree of social identity salience (McClintock 1972; Haslam et al. 2006).

Based on the research previously outlined above, managers making accounting decisions may be influenced when their social identity is primed. Since it has been suggested that individuals can be influenced by group identity, a company’s expressed commitment to being socially responsible may serve to heighten (i.e., prime) employee awareness of the need to consider interests other than their own. Consistent with this reasoning, I expect a company’s level of commitment to corporate social responsibility to influence managers’ discretionary accrual decisions. Specifically, I expect that an expressed commitment to being socially responsible will dampen managers’ willingness to make discretionary accruals that maximize their self-interest when there is an agency problem. I also expect that an expressed commitment to social responsibility will dampen managers’ willingness to make discretionary accruals that maximize the firm’s best interest when there is no agency problem. Therefore, my second hypothesis reflects an interaction between the agency problem and corporate social responsibility:

**H2:** The difference in accrual amounts recorded by managers with an agency problem and those without an agency problem will be smaller when a company

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10 In this case (i.e., no agency problem) there is no personal cost associated with foregoing bonus compensation and it may also be in the best interest of the manager to maximize the company’s best interest in order to secure future favorable performance evaluations.
expresses a commitment to social responsibility than when there is no such explicit commitment.

3.3 Methodology

3.3.1 Overview

The hypotheses of this study were tested via an experiment using experienced managers as participants. The experimental materials asked participants to assume the role of a plant manager for a manufacturing company. Participants were provided company background information which included a manipulation of the company’s level of commitment to corporate social responsibility as either neutral or high. Also, participants were told that the company was planning to execute an IPO within the next three months and, as a result, was committed to controlling costs in order to enhance its attractiveness in the IPO market. Participants were given information regarding the current projected plant expenses for the plant. All participants were provided with the structure of their individual compensation package, manipulated as either variable based on actual plant expenses or fixed as a percent of base salary. In addition to incentives, the agency problem requires “opportunity” (i.e., information asymmetry). Therefore, in conjunction with the manipulation of bonus incentives, participants were informed that the CFO either was, or was not, aware of the projected level of expenses prior to the manager’s accrual decision. Participants with the variable bonus based on actual plant expenses were told that the CFO was not aware of the projected level of expenses, while participants with the fixed bonus were told the CFO was aware of the projected level of expenses. Finally, participants were given a schedule of consulting and advising services contracted for but not yet billed. The schedule included vendor name, project status, and
estimated contract amount. Case materials required participants to recommend an amount, if any, to be recorded for consulting and advisory services provided but not yet billed.

After completion of the task, a post-experimental questionnaire was used to measure participants’ perceptions of the company’s culture, values, and ethical orientation, as well as participants’ (and their perception of their employer’s) concern for issues related to corporate social responsibility and several other variables. The questionnaire also contained manipulation checks for the type of bonus, whether the CFO was aware of the current expense projections, and the hypothetical company’s level of commitment to corporate social responsibility.

3.3.2 Participants

Participants were managers who were currently employed and enrolled in an executive MBA program. These managers were also familiar with making period-end accrual decisions. Managers familiar with period-end accrual decisions were chosen as participants because, in their corporate environments, they are often relied upon to make judgments related to operating activities that have accrual considerations.

3.3.3 Experimental Task

Managers were provided case materials and instructed to read the materials, to respond to the question at the end of the case materials, and to complete the attached questionnaire. The instrument required approximately 10 to 15 minutes to complete. The experimental instrument contained company background information, a schedule of consulting and advisory services provided for but not yet billed, the task objective, and a post-experimental questionnaire. These materials were created with assistance from
executives who specialize in designing compensation packages for corporate managers, specialists who perform social responsibility audits worldwide, and financial managers who regularly rely on operating managers to provide period-end accrual estimates. The instrument was pilot-tested with three managers who did not participate in the case. The purpose of the pilot-test was to ensure that all case materials were clearly written, appropriately realistic, and understandable for participants.

The background and task objective sections provided background material on the company and the experimental task. Specifically, the participants were told to assume they were the plant manager for a privately-held manufacturing company. They were also told that the company planned to execute an IPO of stock within the next three months. Participants were told that because of the pending IPO, the company was committed to controlling costs in order to help with the company’s attractiveness in the IPO market. Incorporating an IPO scenario into the case materials established the baseline for behavior that will serve the company’s “best interest”. Lastly, participants were informed that they did not own any company stock, nor would they be issued any shares when the IPO was executed. This ensured that there is no alignment of interest between the operating manager and the company due to equity compensation.

A short description of the decision task was supplied to all participants. They were told it was the end of the year and that, to finalize the financial statements, they still needed to consider an accrual for several consulting and advisory services projects for which no billing had occurred. Consulting and advisory services were chosen for two reasons. First, most managers are familiar with contracting for consulting and advisory services. Second, for accrual accounting purposes, these types of expenses typically
require managers’ discretion in estimating the amount of work that has been completed to date. A supporting table including vendor name, project status, and the estimated contract amount was included in the case materials. Participants were told that all projects had been initiated and were expected to be completed within one year (i.e., the fall of the following year). Participants were also provided with projected expenses for the current and subsequent year. They were told that the estimated contract amounts for consulting and advisory services were not included in the current projected level of expenses, but were included in the subsequent year projection of expenses (see Figure 1).

After reading the case materials, participants were asked to determine the dollar amount they recommend be recorded for consulting and advisory services not yet billed. They then completed a post-experimental questionnaire. First, manipulation checks were measured along with participant perceptions of the company’s culture, values, and ethical considerations. Next, participants completed a series of questions that measured their (and their employer’s) level of concern for issues related to corporate social responsibility. Lastly, participants responded to questions that measured demographic and control variables (e.g., general experience, task-specific experience, and experience with meeting budgets).

3.3.4 Discussion of Manipulation of the Independent Variables

The experiment utilizes a 2x2 ANOVA design. The agency problem and the level of corporate social responsibility are the two independent variables and the accrual amount is the dependent variable. See figure 2 for a depiction of the four experimental treatment groups resulting from the research design.
3.3.4.1 The Agency Problem

The first independent variable relates to the agency problem (the presence/absence of incentives and information asymmetry/symmetry, manipulated concurrently). The agency problem is examined with a two-period model that is often used to study agency issues such as evaluating the costs and benefits to managing earnings (Dye 1988), examining the equilibrium between contracts and financial reporting systems (Evans and Sridhar 1996), and analyzing the multi-period nature of the employer-employee relationship and the demand for multi-purpose accounting information (Feltham, Indejejkian, and Nanda. 2006).

Participants in the no-agency problem condition are told they receive a guaranteed bonus of 25% of base salary ($200,000) in both 2006 and 2007 and that the CFO is aware of the current projection of 2006 expenses prior to the accrual decision (i.e., the CFO has the same information that the manager does when the manager makes his/her decision). The purpose of the guaranteed bonus is to establish a fixed dollar contract. While a guaranteed bonus essentially fixes the compensation amount, it still allows for a portion of salary to be paid annually. More importantly, a fixed dollar contract should not impose any personal cost to the manager when making decisions that maximize the principal’s objectives (Dutta and Zhang 2002). Discussions with several Fortune 500 executives, and a managing director of an executive search firm, reveal that such contract structures are specifically used to remove any uncertainty in a manager’s expected compensation and to reduce any conflict between the manager and the firm. In this case, a fixed bonus structure can reduce uncertainty in expected compensation when companies with a history of volatile financial performance are recruiting experienced
managers. Similarly, these bonus structures are used to compensate managers that take new positions within a company, or to retain experienced managers during a merger or acquisition. For example, a fixed bonus structures can be used when a manager assumes new responsibilities for a division experiencing significant volatility in their financial results as a consequence of actions taken by a previous manager. In the case of an acquisition, a fixed bonus structure helps the acquiring company retain experienced managers. When these types of bonus structures are used, the amounts tend to average between 20% and 30% of base salary for mid-level managers.\(^\text{11}\)

Participants in the agency problem condition are given a variable incentive bonus schedule for 2006 and 2007 with multiple thresholds based on performance standards related to minimizing plant expenses (see Figure 3). Bonuses vary as a percentage of base salary ($200,000). Failure to attain the minimum bonus threshold results in no bonus (0%), attainment of the middle bonus threshold results in a 20% bonus, and attainment of the maximum bonus threshold results in a 40% bonus. Discussions with executives at several Fortune 500 firms, as well as a managing director of an executive search firm, confirm that the percentages used in this experiment are representative of actual bonus schemes used in practice.

In the scenario, projected plant expenses for 2006 are $3.0 million below the maximum 40% bonus target for expenses (i.e., the participant currently qualifies for the largest bonus in 2006). This $3.0 million cushion gives the manager the opportunity to accrue for an amount up to the full value of all contract services not yet billed without

\(^{11}\) These percentages were provided by a managing director of an executive search firm.
jeopardizing any portion of the maximum 40% bonus for 2006, if he or she chooses to make such a recommendation (see Figure 3).

Variable bonus targets for 2007 are structured so that projected plant expenses of $83.05 million are $50,000 above the bonus target expense threshold of $83.00 million that qualifies the manager for the minimum 20% bonus (i.e., the participant currently does not qualify for any bonus in 2007, based on projected expenses). Thus, if a manager decides to make an accrual in 2006, bonus targets become easier to achieve in 2007. For example, an accrual recommendation of $3.0 million in 2006 will not only preserve the maximum 40% bonus in 2006 but also helps qualify the manager for a 40% bonus in 2007 if actual 2007 results are consistent with the current projections. Therefore, such a bonus scheme provides personal incentive for managers to recommend higher expense accruals in the current year that can then be used to improve operating results in the following year (i.e., establishing “cookie jar” reserves). In addition, this variable bonus structure ultimately imposes a personal cost to the manager to do what is in the firm’s “best interest”. That is, by minimizing expenses for IPO purposes (i.e., minimizing his/her discretionary accrual recommendation), the manager is making it more difficult to achieve his/her 2007 bonus incentive (see Figure 4).

Finally, to provide the opportunity for self-interested behavior, there also needs to be information asymmetry. Therefore, as part of the agency problem condition, participants are told that the CFO is unaware of the current projection of 2006 expenses prior to the accrual decision (i.e., the manager has information that the CFO does not when the manager makes his/her decision).
3.3.4.2 Corporate Social Responsibility

The second independent variable, corporate social responsibility, is manipulated as a high level of corporate social responsibility (i.e., an “explicit commitment to being socially responsible”) and a neutral level of being socially responsible (i.e., “no explicit commitment to being socially responsible”) (see Figure 5). In the “explicit commitment” condition, participants are informed that the company is well-known throughout its industry and the business world as being socially responsible. It purchases its raw materials only from environmentally-friendly suppliers and conducts social responsibility audits of its facilities to ensure the protection of workers’ civil rights and to oversee the ecological well-being of the organization. In the condition that is neutral on corporate social responsibility, no specific mention of any corporate social responsibility values or activities is made, and case materials only reflect the company’s desire to increase market share and maximize profits (a typical goal for all companies). Participants were randomly assigned to the agency problem and corporate social responsibility conditions.

3.3.5 Dependent Variable – Accrual Recommendation

The dependent variable for this study is the dollar amount managers’ recommend be accrued for consulting and advisory services that have not yet been billed. Based on the schedule of consulting and advising services contracted for but not yet billed, possible responses range from $0 to $3.0 million. Participants were asked to provide a single dollar amount (i.e., no scale is provided) and were reminded that a zero dollar amount indicates that they do not recommend recording an expense entry.
3.3.6 Other Measured Variables and Manipulation Checks

Several items were included in the post-experimental questionnaire for purposes of determining their potential effects on the dependent variable of this study. Participants answered questions regarding their personal concern about issues of social responsibility, as well as their perception of their employer’s level of social responsibility. They also answered questions about their familiarity with the concept of recording expenses for services provided but not yet billed and their experience with meeting pre-determined expense budgets or revenue and expense budgets. Participants responded to these items on a ten-point scale with endpoint “1” being the most negative response (e.g., “not at all familiar”) and endpoint “10” being the most affirmative response (e.g., “very familiar”).

Additional items were included in the post-experimental questionnaire for purposes of assessing the theoretical argument for Hypothesis Two (i.e., that priming is associated with a heightened sensitivity to a group-identity). Specifically, participants indicated the degree to which corporate culture and corporate values factored into their decisions. They also indicated the degree to which ethical considerations factored into their decision. Participants responded to these items on a ten-point scale with endpoint “1” being the most negative response (e.g., “did not factor”) and endpoint “10” being the most affirmative response (e.g., “factored heavily”).

Manipulation checks were performed for the agency problem and the level of corporate social responsibility. Specifically, participants were asked about the type of incentive bonus used to compensate the plant manager (“guaranteed bonus” or “bonus contingent upon meeting targets”). Participants were also asked whether the CFO was, or was not, aware of the current expense projections. The corporate social responsibility
manipulation was assessed via a scale with endpoints of 1 ("not at all socially responsible") and 10 ("very socially responsible"). Finally participants provided basic demographic information such as gender, the number of years of professional work experience, and whether they worked for a public company.

3.3.7 Conclusion

This chapter developed the hypotheses of this study and discussed the experimental method that was used to test those hypotheses. The next chapter will present and discuss the results of those data analyses.
CHAPTER 4: RESULTS

4.1 Introduction

Chapter 3 developed the hypotheses and discussed the design of the study. The research methodology was designed to evaluate the main and interactive effects of the agency problem and corporate social responsibility on earnings management by business-unit managers. This chapter provides the results of the study and a discussion of the findings and is organized as follows: a description of the participants is provided, manipulation checks are performed to ensure participants understood various aspects of the experimental materials, the hypotheses are tested, and the results are summarized.

4.2 Description of Participants

A total of one hundred and six experimental packets were distributed to participants who were experienced managers enrolled in executive M.B.A. programs. The executive MBA programs were located in New York City and Philadelphia. I (or a faculty liaison) distributed the packets, and responses were returned directly to me (or the liaison). The number of responses by cell/group is included in Table 1.

Participants’ total years of professional work experience ranged from 5 to 33 years. Mean total years of professional work experience equaled 11.29 years. Chapter 3 identified the appropriate participants as managers who are familiar with making period-end accrual decisions. Participants indicate considerable familiarity with recording

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12 Analysis shows that when a variable representing MBA program by city is added to the main ANOVA model as a covariate, the conclusions drawn are unchanged.
accruals (mean = 8.46 on a scale where 1 = “not at all familiar” and 10 = “very familiar”). Participants also indicate considerable familiarity with meeting budget targets (mean = 7.43 on a scale where 1 = “not at all experienced” and 10 = “very experienced”). Based upon participants’ mean experience and familiarity with recording accruals, the sample appears appropriate for the study.

Tables 2 and 3 present a summary of the demographic backgrounds of the participants and the results of statistical analyses of the demographic information. To examine whether there were pre-existing differences between the groups in terms of their demographic characteristics, a two-way ANOVA was performed for each of the following variables: (1) professional work experience, (2) personal awareness with recording accruals, (3) experience with budgets, (4) personal concern about issues of social responsibility, and (5) employer’s level of corporate social responsibility. None of the demographic variables are significantly different at conventional levels (p’s > .05) between groups and when these variables are added to the main model as covariates, they do not affect the conclusions drawn.

4.3 Manipulation Checks

4.3.1 Manipulation Check for The Agency Problem

As noted in section 3.3.4.2, participants were randomly assigned to the agency problem conditions (i.e., fixed bonus/information symmetry versus variable bonus/information asymmetry, manipulated concurrently). After completion of the case study, participants were asked to indicate whether their bonus was guaranteed or contingent upon meeting bonus targets for actual plant expenses. Participants were also
asked whether or not the CFO is aware of the current projection of plant expenses before the accrual decision. An examination of participant responses reveals that, out of 106 participants, nine incorrectly responded to the bonus question while eleven responded incorrectly to the CFO question. Removing these participants from the analysis does not significantly affect the results presented or change any of the inferences drawn. Therefore, I present results using data from all 106 participants.

4.3.2 Manipulation Check for a Company’s Expressed Commitment to Social Responsibility

To assess the corporate social responsibility manipulation, participants were asked to respond to the following question on a ten-point scale: “Based on information provided in this case, how socially responsible is the company in this scenario” (1 = not at all socially responsible, 10 = very socially responsible). Mean responses for participants in the high and neutral social responsibility conditions are significantly different (6.94 and 5.47, respectively; p < .001), suggesting that the manipulation was successful. The independent-samples t-test results are documented in Table 4.

4.4 Testing of Statistical Assumptions

In this section I discuss the statistical assumptions that underlie my sample data and then I present alternative analyses performed, where appropriate. In order to utilize independent-samples t-tests and ANOVA to test the hypotheses of this study, three basic statistical assumptions must be met. The three assumptions that underlie these statistical analyses are: (1) independence of the dependent variable between treatment groups, (2) normal distribution of treatment populations, and (3) homogeneity of variances between treatment populations (Keppel 1991; Gardner 2001). The first assumption is that the
observations must be independent. All participants were randomly assigned to the four possible experimental groups. Since their assignment to a group was not dependent upon any other participant in their group or any other group, this assumption is met (Keppel 1991; Gardner 2001).

The second assumption is that the treatment populations are normally distributed. This assumption was tested by the Kolmogorov-Smirnov test of normality. Normality tests were performed for the hypothesized dependent variable (see table 1 for a depiction of the four groups). Nontabulated results indicate violations of the normality assumptions (p’s < .05) for the hypothesized dependent variable. However, it has been shown that ANOVA and independent-samples t-tests are robust with respect to violations of this assumption (Glass, Peckham, and Danders 1972). Violations of the normality assumption do not appreciably influence Type I errors, unless the sample size is quite small (Cardinal and Aiken 2006). Small sample sizes may not have sufficient power to detect differences in mean responses (Wackerly, Mendenhall, and Scheaffer 2002). The statistical power associated with my sample is .81 and represents the ability of my tests to detect an effect, if the effect actually exists.

The third assumption concerns the homogeneity of variances between treatment populations. This assumption was analyzed with Levene’s test of homogeneity of variances. The Levene test specifically assesses whether the error variance of the dependent variable across all groups is equal. Nontabulated results indicate a violation of this assumption (p < .05). According to Wilcox (1987) and Keppel (1991), the absolute value of the independent-samples t statistic becomes biased in the positive direction (i.e., increasing the likelihood of a Type I error) when the largest within group variance
divided by the smallest within group variance is 9 or greater. In order to evaluate the
effects of heterogeneity of variances on my dependent variable, such a calculation was
performed with a result equaling 3.31. Thus, it appears the independent-samples t-test
will be relatively insensitive to the heterogeneity of variances present between groups.

In summary, while the sample data does, at times, violate the independent-
samples t-test and ANOVA assumptions of normality and homogeneity of variances, it
appears that statistical analyses will be robust to these departures. Thus all data analysis
in section 4.5 below will use independent-samples t-tests and ANOVA (i.e., parametric
tests). However, the nonparametric Mann-Whitney test was also used for hypothesis
testing in section 4.5 due to the assumption violations noted above. The Mann-Whitney
test does not require that the above assumptions be met by the sample data. The results
of this nonparametric testing (not tabulated) are consistent with the results of parametric
tests reported in section 4.5.

4.5 Hypothesis Testing

4.5.1 Introduction

The remainder of this chapter contains the results of hypothesis testing. These
tests examine the effects of the agency problem and corporate social responsibility on
business-unit managers’ discretionary accrual decisions. The hypotheses presented in
chapter 3 depict relationships between one or two dichotomous independent variables and
a single dependent variable. As such, individual hypothesis testing was generally
conducted with an independent-samples t-test or, where appropriate, with a 2X2 ANOVA
model.
4.5.2 Earnings Management and the Agency Problem (Hypothesis One)

Hypothesis One examines incentives and information asymmetry, manipulated concurrently. This hypothesis predicts managers who experience the agency problem will take action that maximizes their bonus incentive (i.e., decrease current-year earnings) while managers who do not experience the agency problem will be more likely to take action that maximizes the company’s best interest (i.e., maximize current earnings for IPO purposes). Hypothesis One states:

**H1:** Managers will record larger discretionary expense accruals when the agency problem is present than when the agency problem is not present.

Each participant provided a dollar amount they recommended be booked for consulting and advisory services that have not yet been billed. Participants were reminded that a zero dollar amount means that they do not recommend any accrual for these expenses. Thus, the dollar amount of the accrual serves as the dependent variable for this hypothesis.

Since Hypothesis One is examining the impact of the agency problem, an independent-samples t-test is used to test the hypothesized effect on managers’ discretionary accrual decisions. The subsample used for this comparison is comprised of those participants who receive the case materials that reflect a neutral commitment to corporate social responsibility (i.e., groups 1 and 3 from Table 1). This comparison is appropriate since a neutral commitment to corporate social responsibility is more representative of a typical US company and it provides a purer test of the agency problem (i.e., participants have not been specifically primed for a higher level of corporate social responsibility). Table 5 presents the results of Hypothesis One testing. Significance
levels presented in Table 5 are one-tailed due to the directional nature of the hypothesis. The mean accrual dollar amount for managers’ subject (not subject) to the agency problem is $1,445,652 ($553,438). These means are in the hypothesized direction. Independent-samples t-test results indicate a significant agency problem effect \( t = -3.625, p < .001 \) and support Hypothesis One. The results suggest that when there is an agency problem, managers recommend larger discretionary accruals in order to help maximize their future bonus potential, even though it is in the company’s interest to accrue less for IPO purposes. When there is no agency problem, the results suggest that managers may be serving the company’s best interest by making smaller accruals. In this case there is no personal cost associated with forgoing bonus compensation and it may also be in the best interest of the manager to maximize the company’s interest in order to secure favorable performance evaluations.

### 4.5.3 The Mitigating Effect of Corporate Social Responsibility (Hypothesis Two)

Hypothesis Two predicts that an explicit commitment to corporate social responsibility may reduce the influence of the agency problem. Specifically, this hypothesis predicts the difference in managers’ discretionary accruals given the presence or absence of the agency problem will be smaller when managers work for a company that expresses commitment to social responsibility than when they work for a company that does not. Therefore, my second hypothesis reflects an interaction between the agency problem and a company’s level of commitment to social responsibility (see Figure 6):

**H2:** The difference in accrual amounts recorded by managers with an agency problem and those without an agency problem will be smaller when a company expresses a commitment to social responsibility than when there is no such explicit commitment.
This hypothesis is based on the notion that corporate social responsibility heightens, or primes, a manager’s awareness of corporate culture and corporate values. Therefore, I first examine whether an expressed commitment to being socially responsible did, in fact, have a priming effect. An independent samples t-test is utilized to examine participant responses to the influence of corporate culture, the influence of corporate values, and the influence of corporate ethics on their decision-making process. The sample is split between the neutral and high corporate social responsibility groups on each of the three variables and Table 6 presents the statistical analysis. The neutral and high corporate social responsibility groups report significant differences for the influence of corporate culture (mean responses are 3.47 and 4.73, respectively, where 1 = “did not factor into my decision making process” and 10 = “factored heavily into my decision making process”) and company values (mean responses are 4.00 and 5.33, respectively, where again 1 = “did not factor into my decision making process” and 10 = “factored heavily into my decision making process”). This suggests that the priming mechanism associated with the level of corporate social responsibility increases participants sensitivity to these variables (p = .009 and .009, respectively). However, the neutral and high corporate social responsibility groups did not report significant differences related to the influence of the company’s ethical environment (mean responses are 6.47 and 6.69, respectively; p = .363). This suggests that the priming mechanism associated with the level of corporate social responsibility is separate from an individual’s orientation to a company’s ethical standards. In summary, the analysis suggests that there is a priming mechanism that heightens a manager’s social identity when they are aware their company expresses a commitment to being socially responsible.
H2 suggests that this heightened sensitivity to corporate culture and corporate values will dampen managers’ tendency toward self-interested behavior. Specially, I expect corporate social responsibility and the agency problem to interactively effect managers’ discretionary accrual decisions. Again, the dependent variable for this hypothesis is the dollar amount that each participant recommended be booked for consulting and advisory services that have not yet been billed. Table 7 presents the results of Hypothesis Two testing. The significance level presented in Table 7 is one-tailed due to the directional nature of the hypothesis. Results indicate a significant interaction effect for the agency problem and corporate social responsibility (p = .0425). For managers in the high corporate social responsibility condition, the difference in the mean average accruals when there is/is not an agency problem is $238,074. This is significantly less than the difference in the mean average accrual of $892,212 recommended by managers in the neutral corporate social responsibility condition. Thus, an expressed commitment to socially responsible behavior by a company appears to temper self-interested decision-making behavior (i.e., temper managers’ willingness to maximize discretionary accruals when there is an agency problem or minimize discretionary accruals when there is not an agency problem). Overall, the sample data support Hypothesis Two and suggest that corporate social responsibility mitigates the influence of the agency problem on managers’ accrual decisions.

4.6 Summary of Hypothesis Testing

The results of this study indicate when the agency problem is present, managers
recommend larger discretionary accrual amounts than when it is not present. More importantly, results show a high degree of commitment to corporate social responsibility mitigates the effect of the agency problem. Specifically, the difference between managers’ discretionary accrual amounts when there is an agency problem and when there is not is less for managers who work for a company that explicitly states a commitment to corporate social responsibility than for those who work for a company that does not. As a result, managers’ propensity to make accrual decisions that are consistent with having the incentive and opportunity to maximize self-interest (i.e., maximize potential bonus) is mitigated when a company exhibits a greater commitment to being socially responsible. In addition, managers’ propensity to make accrual decisions that are consistent with maximizing the company’s, and likely their own, interests (i.e., minimize expenses for IPO purposes) is also mitigated when a company exhibits a greater commitment to being socially responsible.
CHAPTER 5: CONCLUSIONS, LIMITATIONS, AND IMPLICATIONS

5.1 Introduction

This study examined the effects of the agency problem and corporate social responsibility on business-unit managers’ discretionary accrual decisions (i.e., earnings management). Experienced managers completed an experimental case which asked them to assume the role of a business-unit manager in a hypothetical company and required them to make a year-end expense accrual decision. The agency problem was manipulated as either a variable bonus based on the amount of actual plant expenses incurred or as a fixed bonus calculated as a percentage of base salary. In conjunction with the manipulation of compensation, participants were informed that the CFO either was, or was not, aware of the current level of projected expenses. In addition, a company’s commitment to social responsibility was manipulated as either neutral or high. The following sections offer conclusions, limitations, and implications for the study.

5.2 Conclusions

There is a substantial amount of accounting research that evaluates earnings management (see Fields, Lys, and Vincent 2001 for the most recent review of this literature). A large number of archival studies examine the association between CEO compensation and the net effect of all discretionary accruals made throughout the organization (i.e., aggregated discretionary accruals) (e.g., Healy 1985; Holthausen, Larcker, and Sloan 1995; Gaver, Gaver, and Austin 1995; Dechow, Sloan, and Sweeney 1996; Guidry, Leone, and Rock 1999, Beatty, Ke, and Petroni 2002; Cheng and Warfield 2005). However, these studies cannot assess whether earnings management is behavior
that is attributable to only a few, or several, individuals in an organization, or at what levels of an organization these actions may occur. It is also important to note that archival studies are not designed to capture the difference in discretionary accruals when the interests of the executive are aligned with those of the shareholders and when they are not (i.e., the agency problem).

In addition to the archival earnings management studies, there are also two experimental studies that document the impact of financial reporting factors on earnings management (Bhojraj and Libby 2005; Hunton, Libby, and Mazza 2006). Again, these two studies assume there is no conflict between the interests of executives and shareholders. The current study is the first earnings management study to employ an experimental design that incorporates a manipulation of the agency problem. This allows me to examine earnings management when the interests of business-unit managers are aligned with those of the firm and when they are not. In addition, rather than employing a proxy that captures the net effect of all discretionary accruals, this study’s design incorporates a discretionary accrual decision made by business-unit managers. Finally, by examining an aspect of corporate culture, corporate social responsibility, this study helps to shed light on factors that may mitigate earnings management.

The results of my study indicate that managers’ discretionary accrual decisions are influenced by the agency problem. Specifically, results suggest that when there is an agency problem (i.e., managers have a variable bonus based on financial targets and the manager has information that the CFO does not), managers use their discretion to make larger accrual recommendations in order to help maximize their bonus potential over the two-year period, even though it is in the company’s interest to accrue less for IPO
purposes. When there is not an agency problem (i.e., managers have a bonus that is a fixed percentage of salary and the manager and the CFO have the same information), managers use their discretion to make smaller accruals in order to best serve the company’s interest. This behavior is consistent with the fact that the manager’s and the company’s interests are more closely aligned (i.e., managers do not have to forego bonus compensation in order to maximize the firm’s best interest and may ultimately receive more favorable performance evaluations).

Results also suggest that a company’s expressed commitment to social responsibility mitigates the influence of the agency problem on managers’ accrual decisions. Specifically, the difference between managers’ discretionary accrual amounts when there is an agency problem and when there is not is less for managers who work for a company that explicitly expresses a commitment to social responsibility than for those who work for a company that does not. Further analysis suggests that managers in the high social responsibility condition appear to exhibit behavior that is consistent with considering factors other than those related to the structure of compensation incentives. That is, when there is an agency problem, managers who make decisions on behalf of a socially responsible company appear more likely to sacrifice the ability to maximize their short-term compensation in order to meet the firm’s short-term needs. Likewise, when there is not an agency problem, managers who make decisions on behalf of a socially responsible company appear more likely to balance the short-term needs of the company (i.e., minimize expenses for IPO purposes) with maximizing what’s in the best interest of future shareholders.
Finally, and as previously noted, earnings management research documents an association between aggregate (i.e., company level) accrual patterns and executive-level bonus incentives. In response to Healy and Wahlen’s (1999) concern that researchers do not have evidence regarding how prevalent earnings management is, or at what levels of an organization earnings management occurs, the results of my study show that incentives drive managers to manage earnings at lower levels of the organization.

5.3 Limitations

The conclusions drawn from this study are subject to several limitations. First, I designed my study to manipulate incentives and information asymmetry concurrently. Therefore, this study cannot assess whether any of the behavior observed is from incentives only, information asymmetry only, or both. Previous experimental research suggests that when examining the effects of incentives and information asymmetry individually, information asymmetry has a more significant impact on managers’ decisions (Harrell and Harrison 1994). However, Harrell and Harrison operationalized incentives with reputation effects not compensation. So it is still an open empirical question as to whether monetary incentives alone may influence the behavior observed in this earnings management experiment. Also, this study looks at only one type of an accrual decision. In practice, there are many categories of accrual decisions made by managers (e.g., revenue-increasing accruals, revenue-decreasing accruals, and expense-decreasing accruals). Managers may react differently when making decisions regarding accruals other than the expense-decreasing accruals I investigate here.
In addition, this study employs an experimental research design to test its hypotheses. While the chief advantage of this design is enhanced internal validity, the use of an experimental design may reduce the study’s external validity. Although case materials were developed with the assistance of financial executives, when managers make actual discretionary accrual decisions they may have a much richer information set than was provided in the case materials. Finally, this study assumes that the self-assessment measure for managers’ familiarity with period-end accrual decisions serves as a reasonable proxy for task-specific knowledge related to how accounting accruals work. The case materials did not provide participants with any examples of how accruals actually work or nor did the questionnaire measure actual accrual accounting knowledge. Therefore, it is possible that participants reported reasonable familiarity with accrual decisions when, in fact, they had a cursory knowledge of how accruals work. In these cases, it is possible participants did not understand the implications of their decisions.

5.1 Implications

The findings of this study have implications for practice and future research. Senior executives, internal auditors, and the audit committee may want to consider the ramifications of the incentive structure and the availability of information when discretionary accrual decisions are made since the agency problem may affect earnings management. For example, when senior management is engaged in the review of financial results, they may want to consider the sensitivity of managers’ bonus incentives to the dollar value of their discretionary accruals in order to determine if such accruals are biased and need further revision. In addition, when financial statements are reviewed,
a list of discretionary accruals recorded just prior to when the financial results become available to senior management can be examined for potential bias.

The findings reported in this study also illustrate the impact of bonus compensation schemes, a key component of the agency problem, on earnings management. While this study provides evidence that managers’ use their accounting discretion to maximize their bonus potential when the bonus structure is variable (based on meeting financial targets), it is unrealistic to expect companies to entirely eliminate the use of these compensation structures. For companies that use these types of compensation structures, this study demonstrates that senior management can help mitigate the effect of the agency problem that may occur throughout the organization by “setting the tone” for employees and engaging in activities that are socially responsible. Results of this study suggest that, when managers make decisions on behalf of a socially responsible company, they are motivated to consider interests other than their own in their decision making process. That is, whether there is an agency problem or not, managers seem to exhibit behavior that is consistent with trying to “do the right thing”. As a result, companies may want to regularly examine their commitment to being socially responsible since it appears to be an effective tool that can be used to combat self-interested behavior.

There are some interesting implications for future research as well. While results show that the agency model explains why some managers manage earnings, this study also shows that there are organizational factors (i.e., corporate social responsibility) that alter agency model predictions. Future research should identify other potential organizational factors that either mitigate or exacerbate the agency problem. For
example, van der Stede (2000) shows that the use of rigid budgetary controls has both a positive impact on certain dysfunctional behavior (e.g., the creation of budgetary slack) and a negative impact on other dysfunctional behavior (e.g., focus on short-term results). Since meeting budgets is such a crucial component of variable compensation schemes, it would be interesting to examine whether the rigidity of budgetary controls affects earnings management that occurs when there is an agency problem. Leadership style has also been shown to influence dysfunctional behavior (Otley and Pierce 1995), and future research could examine how it impacts earnings management. Another factor that future research could consider is organizational structure (e.g., centralized versus de-centralized structure, public company versus private company structure), which may prove to be an important consideration when assessing the likelihood that managers are managing earnings. Finally, future research may also examine the effectiveness of corporate social responsibility on other potentially dysfunctional behaviors within an organization such as taking actions that maximize short-term returns over building long-term value in the business or emphasizing short-term customer profitability over long-term customer retention.

Additionally, the results of this study suggest that, regardless of whether the agency problem is present or not, companies with a higher degree of commitment to being socially responsible may have smaller variations in discretionary accruals amounts. This, in turn, may lead to more volatile earnings patterns since reported earnings may be subject to less manager discretion with regards to accrual decisions and, thus, may be more representative of “economic earnings”. It would be interesting to further examine whether companies that express a commitment to being socially responsible in fact
exhibit more volatile earnings patterns relative to companies that do not express such a commitment. In addition, it may be useful for archival earnings management models to control for differences in a company’s commitment to social responsibility, or more generally, differences in corporate culture. Future research utilizing archival research designs may also consider other organizational variables that may mitigate earnings management.
LIST OF REFERENCES


Schedule of Consulting Projects

<table>
<thead>
<tr>
<th>Service Provided by</th>
<th>Project Status</th>
<th>Estimated Contract Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$200,000</td>
</tr>
<tr>
<td>GPS Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$400,000</td>
</tr>
<tr>
<td>CUFF Advisory Services</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$800,000</td>
</tr>
<tr>
<td>SGP LLP</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$1,600,000</td>
</tr>
</tbody>
</table>

* Participants are told that all projects were initiated and expected to be completed within one year. They are also told that they have not yet been billed for any of the above services.

**Figure 1 - Schedule of Consulting and Advisory Services Contracted For But Not Yet Billed**
<table>
<thead>
<tr>
<th></th>
<th>Neutral CSR</th>
<th>High CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Problem Present</td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>Agency Problem Not Present</td>
<td>Group 3</td>
<td>Group 4</td>
</tr>
</tbody>
</table>

**Figure 2 – Experimental Groups**
Variable Bonus Targets

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Next Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bonus Targets (based on expenses)</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(As of 12/31)</td>
<td></td>
</tr>
<tr>
<td>Actual plant expenses ≤ $80,100,000</td>
<td>40%</td>
<td>40%</td>
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<td>0%</td>
</tr>
<tr>
<td>Current projected plant expenses</td>
<td>$77,100,000</td>
<td>$83,050,000</td>
</tr>
</tbody>
</table>

<sup>a</sup> Participants are told that their bonus is calculated as a percentage of base salary ($200,000).

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**Figure 3 - Schedule of Bonus Targets as a Percentage of Base Salary Based On Minimizing Plant Expenses**
Figure 4 – An Illustration of Bonus Targets Based on *Minimizing* Expenses
Information Provided in High Commitment to Corporate Social Responsibility Condition

HCP is well-known throughout its industry, and the business world in general, as a socially responsible company. The company is committed to having a positive impact on both the society and the environment. For example, HCP purchases raw materials only from environmentally-friendly suppliers. Also, the company frequently conducts social responsibility audits of its facilities to ensure the protection of workers’ civil rights and to oversee the ecological well-being of the organization. HCP takes corporate citizenship seriously and encourages all employees to do the same. You are aware that this commitment requires a continuous effort on your part to balance the financial needs of creditors and investors with the human needs of employees, customers, and the communities in which HCP operates.

Information Provided in Neutral Commitment to Corporate Social Responsibility Condition

HCP is dedicated to increasing market share and maximizing profits. Employees are focused on meeting earnings and growth targets.

Figure 5 - Expression of Commitment to Corporate Social Responsibility
Figure 6 – Expectations for Hypothesis Two

* CSR = Corporate Social Responsibility
APPENDIX: EXPERIMENTAL INSTRUMENT

EXHIBIT 1. Case Material Provided to Participants in the “Agency Problem/High Corporate Social Responsibility” Group

EXHIBIT 2. Case Material Provided to Participants in the “Agency Problem/Neutral Corporate Social Responsibility” Group

EXHIBIT 3. Case Material Provided to Participants in the “No Agency Problem/High Corporate Social Responsibility” Group

EXHIBIT 4. Case Material Provided to Participants in the “No Agency Problem/Neutral Corporate Social Responsibility” Group

EXHIBIT 5. Demographic and Case-Related Questionnaire Provided to All Participants
EXHIBIT 1.

Case Material Provided to Participants in the “Agency Problem/High Corporate Social Responsibility” Group

Company Background Information

Assume you manage a manufacturing plant for Health Care Products, Inc. (hereafter, “HCP”), a privately held company. HCP manufactures and sells various skin care products to wholesalers, retailers, and individuals throughout the United States. HCP plans to execute an initial public offering (IPO) of its stock within the next three months. HCP is well-known throughout its industry, and the business world in general, as a socially responsible company. The company is committed to having a positive impact on both the society and the environment. For example, HCP purchases raw materials only from environmentally-friendly suppliers. Also, the company frequently conducts social responsibility audits of its facilities to ensure the protection of workers’ civil rights and to oversee the ecological well-being of the organization. HCP takes corporate citizenship seriously and encourages all employees to do the same. You are aware that this commitment requires a continuous effort on your part to balance the financial needs of creditors and investors with the human needs of employees, customers, and the communities in which HCP operates.

Compensation and Expense Information for Current Year (2006) and Next Year (2007)

Your bonus is based on meeting expense targets for this manufacturing plant. Your bonus as a percentage of base salary ($200,000) is calculated as follows:

<table>
<thead>
<tr>
<th>Bonus Targets (based on expenses)</th>
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<td>0%</td>
</tr>
</tbody>
</table>

Current projected plant expenses $77,100,000 $83,050,000

Senior management has reminded you that the company is committed to controlling costs and that staying focused on current year costs should help with the company’s attractiveness in the IPO market. (Note: you do not currently own any HCP stock nor will you be issued any shares when the IPO is executed.)
### 2006 Year-End Expense Decision

It is now December 31\textsuperscript{st} and you need to decide whether to record additional outstanding expenses before the 2006 financial statements (as well as your bonus figures) are finalized. The only expense items you are considering relate to consulting and advisory services for which you have not yet been billed (see table below). All of these projects were initiated in 2006 and are expected to be completed within one year of initiation.

<table>
<thead>
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$^a$You have not yet been billed for any of the above services. The estimated contract amounts are included in the 2007 projected plant expense figure.

Here is an implication of your expense decision for your bonus:

- **If you decide to record an entry for outstanding expenses** in 2006, any entry of up to $3,000,000 still qualifies you for a 40% bonus in 2006 and increases the likelihood of your receiving a bonus next year (i.e., 2007 projected expenses of $83,050,000 will decrease by the amount of the expense entry you record in 2006).

As of now, you have not communicated any 2006 expense figures to HCP senior management. Thus, **your CFO is not aware of your current projection of 2006 plant expenses**. The CFO has told you he would like to know the final plant expense numbers as soon as possible to facilitate preparation of HCP’s 2006 consolidated financial statements to be used in upcoming meetings relating to the IPO. You indicated that you would provide final expense numbers to him before you left for the day.

**Determining Final Expense Numbers on 12/31/06:** *How much do you recommend be recorded* for consulting and advisory services for which you have not yet been billed?

$________________________$

Place a dollar amount on the line above ($0 indicates you do not recommend recording an expense entry). Feel free to review the information on the prior page before making your recommendation.
EXHIBIT 2.

Case Material Provided to Participants in the “Agency Problem/Neutral Corporate Social Responsibility” Group

Company Background Information

Assume you manage a manufacturing plant for Health Care Products, Inc. (hereafter, “HCP”), a privately held company. HCP manufactures and sells various skin care products to wholesalers, retailers, and individuals throughout the United States. HCP plans to execute an initial public offering (IPO) of its stock within the next three months.

HCP is dedicated to increasing market share and maximizing profits. Employees are focused on meeting earnings and growth targets.

Compensation and Expense Information for Current Year (2006) and Next Year (2007)

Your bonus is based on meeting expense targets for this manufacturing plant. Your bonus as a percentage of base salary ($200,000) is calculated as follows:

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Senior management has reminded you that the company is committed to controlling costs and that staying focused on current year costs should help with the company’s attractiveness in the IPO market. (Note: you do not currently own any HCP stock nor will you be issued any shares when the IPO is executed.)
2006 Year-End Expense Decision

It is now December 31st and you need to decide whether to record additional outstanding expenses before the 2006 financial statements (as well as your bonus figures) are finalized. The only expense items you are considering relate to consulting and advisory services for which you have not yet been billed (see table below). All of these projects were initiated in 2006 and are expected to be completed within one year of initiation.

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*aYou have not yet been billed for any of the above services. The estimated contract amounts are included in the 2007 projected plant expense figure.

Here is an implication of your expense decision for your bonus:

- If you decide to record an entry for outstanding expenses in 2006, any entry of up to $3,000,000 still qualifies you for a 40% bonus in 2006 and increases the likelihood of your receiving a bonus next year (i.e., 2007 projected expenses of $83,050,000 will decrease by the amount of the expense entry you record in 2006).

As of now, you have not communicated any 2006 expense figures to HCP senior management. Thus, your CFO is not aware of your current projection of 2006 plant expenses. The CFO has told you he would like to know the final plant expense numbers as soon as possible to facilitate preparation of HCP’s 2006 consolidated financial statements to be used in upcoming meetings relating to the IPO. You indicated that you would provide final expense numbers to him before you left for the day.

Determining Final Expense Numbers on 12/31/06: How much do you recommend be recorded for consulting and advisory services for which you have not yet been billed?

$________________________

Place a dollar amount on the line above ($0 indicates you do not recommend recording an expense entry). Feel free to review the information on the prior page before making your recommendation.
EXHIBIT 3.

Case Material Provided to Participants in the “No Agency Problem/High Corporate Social Responsibility” Group

Company Background Information

Assume you manage a manufacturing plant for Health Care Products, Inc. (hereafter, “HCP”), a privately held company. HCP manufactures and sells various skin care products to wholesalers, retailers, and individuals throughout the United States. HCP plans to initiate an initial public offering (IPO) of its stock within the next three months.

HCP is well-known throughout its industry, and the business world in general, as a socially responsible company. The company is committed to having a positive impact on both the society and the environment. For example, HCP purchases raw materials only from environmentally-friendly suppliers. Also, the company frequently conducts social responsibility audits of its facilities to ensure the protection of workers’ civil rights and to oversee the ecological well-being of the organization. HCP takes corporate citizenship seriously and encourages all employees to do the same. You are aware that this commitment requires a continuous effort on your part to balance the financial needs of creditors and investors with the human needs of employees, customers, and the communities in which HCP operates.

Compensation and Expense Information for Current Year (2006) and Next Year (2007)

Your compensation package for both 2006 and 2007 is composed of a base salary of $200,000 along with a guaranteed bonus of 25% of your base salary.

<table>
<thead>
<tr>
<th>Expenses:</th>
<th>Current Year 2006</th>
<th>Next Year 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current projected plant expenses</td>
<td>$77,100,000</td>
<td>$83,050,000</td>
</tr>
</tbody>
</table>

Senior management has reminded you that the company is committed to controlling costs and that staying focused on current year costs should help with the company’s attractiveness in the IPO market. (Note: you do not currently own any HCP stock nor will you be issued any shares when the IPO is executed.)
2006 Year-End Expense Decision

It is now December 31st and you need to decide whether to record additional outstanding expenses before the 2006 financial statements are finalized. The only expense items you are considering relate to consulting and advisory services for which you have not yet been billed (see table below). All of these projects were initiated in 2006 and are expected to be completed within one year of initiation.

<table>
<thead>
<tr>
<th>Service Provided by</th>
<th>Project Status</th>
<th>Estimated Contract Amounta</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$ 200,000</td>
</tr>
<tr>
<td>GPS Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$ 400,000</td>
</tr>
<tr>
<td>CUFF Advisory Services</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$ 800,000</td>
</tr>
<tr>
<td>SGP LLP</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$1,600,000</td>
</tr>
</tbody>
</table>

*aYou have not yet been billed for any of the above services. The estimated contract amounts are included in the 2007 projected plant expense figure.

You have previously communicated to HCP senior management the current projection of 2006 plant expenses before any final expense entries. Thus, **your CFO is aware of your current projection of 2006 plant expenses**. The CFO has told you he would like to know the final plant expense numbers as soon as possible to facilitate preparation of HCP’s 2006 consolidated financial statements to be used in upcoming meetings relating to the IPO. You indicated that you would provide final expense numbers to him before you left for the day.

**Determining Final Expense Numbers on 12/31/06:** *How much do you recommend be recorded* for consulting and advisory services for which you have not yet been billed?

$________________________

Place a dollar amount on the line above ($0 indicates you do not recommend recording an expense entry). Feel free to review all information before making your recommendation.
Company Background Information

Assume you manage a manufacturing plant for Health Care Products, Inc. (hereafter, “HCP”), a privately held company. HCP manufactures and sells various skin care products to wholesalers, retailers, and individuals throughout the United States. HCP plans to initiate an initial public offering (IPO) of its stock within the next three months.

HCP is dedicated to increasing market share and maximizing profits. Employees are focused on meeting earnings and growth targets.

Compensation and Expense Information for Current Year (2006) and Next Year (2007)

Your compensation package for both 2006 and 2007 is composed of a base salary of $200,000 along with a guaranteed bonus of 25% of your base salary.

<table>
<thead>
<tr>
<th>Expenses:</th>
<th>(As of 12/31)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Year</td>
</tr>
<tr>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>Current projected plant expenses</td>
<td>$77,100,000</td>
</tr>
</tbody>
</table>

Senior management has reminded you that the company is committed to controlling costs and that staying focused on current year costs should help with the company’s attractiveness in the IPO market. (Note: you do not currently own any HCP stock nor will you be issued any shares when the IPO is executed.)
2006 Year-End Expense Decision

It is now December 31\textsuperscript{st} and you need to decide whether to record additional outstanding expenses before the 2006 financial statements are finalized. The only expense items you are considering relate to consulting and advisory services for which you have not yet been billed (see table below). All of these projects were initiated in 2006 and are expected to be completed within one year of initiation.

<table>
<thead>
<tr>
<th>Service Provided by</th>
<th>Project Status</th>
<th>Estimated Contract Amount\textsuperscript{a}</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$200,000</td>
</tr>
<tr>
<td>GPS Consulting</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$400,000</td>
</tr>
<tr>
<td>CUFF Advisory Serv</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$800,000</td>
</tr>
<tr>
<td>SGP LLP</td>
<td>In early stages, estimated completion late Fall 2007</td>
<td>$1,600,000</td>
</tr>
</tbody>
</table>

\textsuperscript{a}You have not yet been billed for any of the above services. The estimated contract amounts are included in the 2007 projected plant expense figure.

You have previously communicated to HCP senior management the current projection of 2006 plant expenses before any final expense entries. Thus, your CFO is aware of your current projection of 2006 plant expenses. The CFO has told you he would like to know the final plant expense numbers as soon as possible to facilitate preparation of HCP’s 2006 consolidated financial statements to be used in upcoming meetings relating to the IPO. You indicated that you would provide final expense numbers to him before you left for the day.

Determining Final Expense Numbers on 12/31/06: How much do you recommend be recorded for consulting and advisory services for which you have not yet been billed?

$________________________

Place a dollar amount on the line above ($0 indicates you do not recommend recording an expense entry). Feel free to review all information before making your recommendation.
EXHIBIT 5.

Demographic and Case-Related Questionnaire Provided to All Participants

Demographic and Case-Related Questionnaire

For the remaining questions, please do not refer back to any prior pages. Be assured that your responses are confidential. Please place an “X” on the line corresponding to your response.

1. Based on the information presented in this case, it stated that your bonus was:

_____ a guaranteed bonus

_____ contingent upon meeting bonus targets for actual plant expenses

2. Based on the information presented in this case, the Chief Financial Officer:

_____ was aware of your current projection of 2006 plant expenses before your expense entry decision

_____ was not aware of your current projection of 2006 plant expenses before your expense entry decision

Please circle the number corresponding to your response on each of the scales below.

3. The pending IPO was an important factor in my expense entry decision:

1  2  3  4  5  6  7  8  9  10
Strongly Disagree Strongly Agree

4. Given the environment at HCP, I feel that the corporate culture:

1  2  3  4  5  6  7  8  9  10
Did Not Factor Into My Decision Making Process

Factored Heavily Into My Decision Making Process

5. Given the environment at HCP, I feel that the values of the company:

1  2  3  4  5  6  7  8  9  10
Did Not Factor Into My Decision Making Process

Factored Heavily Into My Decision Making Process
6. Given the environment at HCP, I feel that ethical considerations:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did Not Factor</td>
<td>Factored Heavily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Into My Decision</td>
<td>Into My Decision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Making Process</td>
<td>Making Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corporate Social Responsibility:** refers to the ongoing commitment by a company to behave ethically and contribute to the economic well-being of its shareholders while improving the quality of life of its workforce and their families as well as that of the communities in which it operates and society at large.

7. Based on the information provided in this case, how socially responsible is the company (HCP) in this scenario:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not At All</td>
<td>Very</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Socially</td>
<td>Socially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsible</td>
<td>Responsible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How socially responsible do you feel your **current or most recent employer** is:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not At All</td>
<td>Very</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Socially</td>
<td>Socially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsible</td>
<td>Responsible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. How concerned are you, personally, about issues of social responsibility:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not At All</td>
<td>Very</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concerned</td>
<td>Concerned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Indicate your familiarity with the concept of recording expenses for services provided to a company but not yet billed:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not At All</td>
<td>Very</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Familiar</td>
<td>Familiar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Indicate how experienced you are with meeting a pre-determined expense budget or combined revenue and expense budget:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at All</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>Very Experienced</td>
</tr>
<tr>
<td>Experienced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Experienced</td>
</tr>
</tbody>
</table>

12. What factors were most important in making your expense entry decision?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

13. Please indicate your gender?  _____ Male     _____ Female

14. How many years of professional work experience do you have?  __________ years

15. Have you ever worked for a publicly traded company?  _____ Yes _____ No

   If you answered yes, how many years have you worked for a publicly traded company?  __________ years

16. Please provide your current, and last two, job titles and the approximate time you spent in each job title:

   Most recent job title #1 ___________________________             years ___________

   Most recent job title #2 ___________________________             years ___________

   Most recent job title #3 ___________________________             years ___________
### Table 1: Participants By Group

<table>
<thead>
<tr>
<th></th>
<th>Neutral CSR</th>
<th>High CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Problem Present</td>
<td>n = 23 (Group 1)</td>
<td>n = 28 (Group 2)</td>
</tr>
<tr>
<td>Agency Problem Not Present</td>
<td>n = 32 (Group 3)</td>
<td>n = 23 (Group 4)</td>
</tr>
</tbody>
</table>
Table 2: Sample Demographic Data

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Sample Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional work experience*</td>
<td>11.29</td>
<td>4.89</td>
</tr>
<tr>
<td>Personal awareness with recording accruals*</td>
<td>8.46</td>
<td>1.274</td>
</tr>
<tr>
<td>Experience with budgets*</td>
<td>7.43</td>
<td>2.251</td>
</tr>
<tr>
<td>Personal concern about issues of social responsibility*</td>
<td>7.72</td>
<td>1.750</td>
</tr>
<tr>
<td>Employer’s level of corporate social responsibility*</td>
<td>6.96</td>
<td>2.111</td>
</tr>
</tbody>
</table>

* Professional work experience measured in years.

b Participants responded on a ten-point scale (1 = “not at all familiar” and 10 = “very familiar”).

c Participants responded on a ten-point scale (1 = “not at all experienced” and 10 = “very experienced”).

d Participants responded on a ten-point scale (1 = “not at all concerned” and 10 = “very concerned”).

e Participants responded on a ten-point scale (1 = “not at all socially responsible” and 10 = “very socially responsible”).

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public company managers</td>
<td>89</td>
<td>84</td>
</tr>
<tr>
<td>Non-public company or not-for-profit managers</td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>81</td>
<td>76</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>24</td>
</tr>
</tbody>
</table>
Table 3: Demographic Data By Group

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Agency Problem Present</th>
<th>Agency Problem Present</th>
<th>Agency Problem Not Present</th>
<th>Agency Problem Not Present</th>
<th>F Value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neutral CSR (Group 1)</td>
<td>High CSR (Group 2)</td>
<td>Neutral CSR (Group 3)</td>
<td>High CSR (Group 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional work experience(^a)</td>
<td>Mean (SD) 11.70 (3.96)</td>
<td>Mean (SD) 11.00 (6.44)</td>
<td>Mean (SD) 10.72 (3.58)</td>
<td>Mean (SD) 12.04 (5.31)</td>
<td>0.406</td>
<td>0.749</td>
</tr>
<tr>
<td>Personal awareness with recording accruals(^b)</td>
<td>Mean (SD) 8.17 (1.19)</td>
<td>Mean (SD) 8.43 (1.23)</td>
<td>Mean (SD) 8.59 (1.29)</td>
<td>Mean (SD) 8.61 (1.41)</td>
<td>0.608</td>
<td>0.612</td>
</tr>
<tr>
<td>Experience with budgets(^c)</td>
<td>Mean (SD) 7.78 (1.57)</td>
<td>Mean (SD) 7.75 (1.76)</td>
<td>Mean (SD) 6.56 (2.90)</td>
<td>Mean (SD) 7.91 (2.13)</td>
<td>2.407</td>
<td>0.072</td>
</tr>
<tr>
<td>Personal concern with social responsibility(^d)</td>
<td>Mean (SD) 8.09 (1.95)</td>
<td>Mean (SD) 7.43 (1.26)</td>
<td>Mean (SD) 8.13 (1.60)</td>
<td>Mean (SD) 7.13 (2.10)</td>
<td>2.102</td>
<td>0.105</td>
</tr>
<tr>
<td>Employers level of corporate social responsibility(^e)</td>
<td>Mean (SD) 7.09 (1.93)</td>
<td>Mean (SD) 6.82 (2.50)</td>
<td>Mean (SD) 7.63 (1.76)</td>
<td>Mean (SD) 6.09 (2.02)</td>
<td>2.546</td>
<td>0.060</td>
</tr>
</tbody>
</table>

\(^a\) Professional work experience measured in years.
\(^b\) Participants responded on a ten-point scale (1 = “not at all familiar” and 10 = “very familiar”).
\(^c\) Participants responded on a ten-point scale (1 = “not at all experienced” and 10 = “very experienced”).
\(^d\) Participants responded on a ten-point scale (1 = “not at all concerned” and 10 = “very concerned”).
\(^e\) Participants responded on a ten-point scale (1 = “not at all socially responsible” and 10 = “very socially responsible”).
Table 4: Manipulation Check For Corporate Social Responsibility

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>High Social Responsibility</th>
<th>Neutral Social Responsibility</th>
<th>Test Statistic&lt;sup&gt;a&lt;/sup&gt;</th>
<th>p-value&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company’s level of social responsibility</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.94 (2.240)</td>
<td>5.47 (2.235)</td>
<td>-3.376</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

<sup>a</sup> The test statistic is the t statistic from the independent-samples t-test.

<sup>b</sup> Significance levels are one-tailed due to the directional nature of the hypothesis.
Table 5: Testing of Hypothesis One

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Agency Problem Not Present</th>
<th>Agency Problem Present</th>
<th>Test Statistic&lt;sup&gt;a&lt;/sup&gt;</th>
<th>p-value&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual dollar amount</td>
<td>Mean (SD)</td>
<td>$553,438 (652,523)</td>
<td>$1,445,652 (1,163,352)</td>
<td>-3.625</td>
</tr>
</tbody>
</table>

<sup>a</sup> The test statistic is the t statistic from the independent-samples t-test.

<sup>b</sup> Significance levels are one-tailed due to the directional nature of the hypothesis.
Table 6: Comparison of Decision Factors Between Neutral and High Corporate Social Responsibility Groups

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Corporate Social Responsibility</th>
<th>Test Statistic&lt;sup&gt;d&lt;/sup&gt;</th>
<th>p-value&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neutral (SD)</td>
<td>High (SD)</td>
<td>Total (SD)</td>
</tr>
<tr>
<td>The company's</td>
<td>3.47 (2.45)</td>
<td>4.73 (2.87)</td>
<td>4.08 (2.72)</td>
</tr>
<tr>
<td>corporate culture&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The company's</td>
<td>4.00 (2.66)</td>
<td>5.33 (3.04)</td>
<td>4.65 (2.92)</td>
</tr>
<tr>
<td>corporate values&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical considerations&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6.47 (3.24)</td>
<td>6.69 (2.98)</td>
<td>6.58 (3.10)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Participants responded on a ten-point scale (1 = “did not factor into my decision making process” and 10 = “factored heavily into my decision making process”).

<sup>b</sup> Participants responded on a ten-point scale (1 = “did not factor into my decision making process” and 10 = “factored heavily into my decision making process”).

<sup>c</sup> Participants responded on a ten-point scale (1 = “did not factor into my decision making process” and 10 = “factored heavily into my decision making process”).

<sup>d</sup> The test statistic is the t statistic from the independent-samples t-test.

<sup>e</sup> Significance levels are one-tailed due to the directional nature of the proposed influence of priming mechanism for social identity.
Table 7: Testing of Hypothesis Two

PANEL A: Mean (Standard Deviation) Dollar Amount of Accrual Booked Across Conditions

<table>
<thead>
<tr>
<th>Agency Problem</th>
<th>Level of Commitment to Corporate Social Responsibility</th>
<th>Neutral</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>Cell 1 Mean (SD) n</td>
<td>$1,445,652 (1,163,352)</td>
<td>23</td>
<td>$1,239,786 (118,036)</td>
</tr>
<tr>
<td></td>
<td>Cell 2 Mean (SD) n</td>
<td>$1,070,682 (1,187,868)</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Not Present</td>
<td>Cell 3 Mean (SD) n</td>
<td>$553,437 (652,522)</td>
<td>32</td>
<td>$670,182 (721,948)</td>
</tr>
<tr>
<td>Total</td>
<td>Total Mean (SD) n</td>
<td>$926,545 (996,535)</td>
<td>55</td>
<td>$963,316 (1,026,806)</td>
</tr>
</tbody>
</table>

PANEL B: ANOVA Results For The Agency Problem and Corporate Social Responsibility (CSR)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Mean Squares</th>
<th>F-statistic</th>
<th>p-value a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Model</td>
<td>3</td>
<td>3.801x10^{12}</td>
<td>4.083</td>
<td>0.0045</td>
</tr>
<tr>
<td>CSR</td>
<td>1</td>
<td>5.962x10^{10}</td>
<td>0.064</td>
<td>0.4005</td>
</tr>
<tr>
<td>Agency Problem</td>
<td>1</td>
<td>8.300x10^{12}</td>
<td>8.914</td>
<td>0.0020</td>
</tr>
<tr>
<td>CSR x Agency</td>
<td>1</td>
<td>2.780x10^{12}</td>
<td>2.986</td>
<td>0.0435</td>
</tr>
<tr>
<td>Error</td>
<td>102</td>
<td>9.311x10^{11}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a All reported p-values are based on one-tailed tests due to the directional nature of the hypothesis.
VITAE

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EDUCATION

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Working Paper: