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Trust and Trustworthiness in the Executive Compensation Policy Required By the Dodd-Frank Act: an Experimental Study

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TRUST AND TRUSTWORTHINESS IN THE EXECUTIVE COMPENSATION POLICY REQUIRED BY THE DODD-FRANK ACT: AN EXPERIMENTAL STUDY

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ABSTRACT

As a result of failing financial markets, rampant managerial abuse of shareholder return through grossly unfair compensation packages and shareholder outrage at corporate governance apathy, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act in July of 2010. Two major provisions contained within the Dodd-Frank legislation are say-on-pay and clawbacks of bonus compensation. This research utilizes a trust game and experimental economics methodologies to test the relative influence of say on pay and clawbacks of bonus compensation on shareholder trust and manager trustworthiness. Results indicate that shareholders are more likely to participate in the investment process if they feel they have a voice in that process AND if they are comfortable that managers can be trusted to act responsibly. Likewise, managers are more trustworthy (i.e. return something to shareholders) a higher percentage of the time when the clawback is in place. Also, manager offers are likely to be lower when there is a penalty for misreporting. These findings suggest that the policy requiring a penalty for financial restatements is a strong incentive for managers to be conservative in their reporting of financial data. Finally, managers did not make OFFERS which were significantly different from what they thought was fair. However, ACTUAL RETURN was, in general, statistically lower than what either managers or shareholders considered to be a fair return. Differences between actual return and shareholder perception of fairness were particularly striking in the "no-penalty" conditions such that the difference between actual and fair return was statistically significant regardless of treatment

condition. However, the evidence does suggest that the clawback mitigates this inequity to some extent.

DEDICATION

I humbly dedicate this dissertation to my amazing children, Ryan and Elicia, my incredible son-in-law, Stephen, and my precious granddaughters, Riley Kate and Olivia. You guys have sacrificed so much for my dreams. You have encouraged me continually, supported me through incredible trials, and inspired me to accomplish all that I imagined possible. Mere words cannot convey how much I love and cherish each of you.

Ryan and Elicia, you two are the greatest gifts that God has ever given me and the foundation upon which my life is built.

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CHAPTER 1 – INTRODUCTION

"The best check against unchecked CEO's is an empowered shareholder group."
Senator Charles E. Schumer, The Washington Post

The collapse of U.S. financial markets in 2008 caused many to question the conventional wisdom of manager/shareholder alignment through bonus compensation. Historically, it is not uncommon for managers to receive bonuses for exemplary earnings performance as a means of bridging the gap between divergent manager and shareholder interests. However, in the midst of the greatest stock market crash since 1929, when the U.S. stock market was down 11.2 trillion dollars (Paradis, 2009) and many Americans had lost not only their jobs but half of their retirement funds as well, corporate executives continued to enjoy not only excessive salaries but exorbitant bonuses as well. In the aftermath of this economic crisis, many concluded that executive pay arrangements might have encouraged excessive risk-taking by managers out to maximize their own personal wealth at the expense of shareholder returns. Fixing such pay arrangements would be important in preventing similar excesses in the future (Dillon, 2009). This belief has led firms and public officials to seek compensation reforms that would eliminate excessive incentives to take risks (Bebchuk et al., 2010).

On July 21, 2010, Congress signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act (hereinafter referred to as the Dodd-Frank Act). This 2,300 page document is designed to increase shareholder involvement in the corporate governance process, curb governance abuses by institutional investors and provide much more stringent oversight with regard to compensation strategies for financial institutions. Congress describes the Act as being "To promote the financial stability of the United States by improving accountability and

transparency in the financial system, to end 'too big to fail', to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes".

Two policies, issued as a direct result of compensation reform within the Dodd-Frank Act, say-on-pay and clawbacks of executive compensation, were put in place to help strengthen shareholder confidence in the investment process while holding corporate executives and their respective boards accountable to shareholders. Say-on-pay is a practice whereby shareholders are allowed a non-binding (advisory) vote in deciding the compensation structure for corporate executives. Clawbacks are safeguards to allow performance based bonuses that have been paid to corporate executives to be rescinded in the event that financial statements, upon which those bonuses are based, are restated within a certain number of years. These two policies, say-on-pay and clawbacks, and the way in which they affect the investment cycle are the general focus of this study.

Under the Dodd-Frank legislation, shareholders must be allowed a non-binding vote to approve executive compensation not less frequently than once every three years. Research has shown that shareholders do consider excessive executive compensation when casting their votes either for or against executive compensation strategies (Alissa 2009) and that allowing shareholders a voice in the governance process, whether mandatory or voluntary, increases shareholder trust which leads to greater investment (Bowlin et al., 2010).

Dodd-Frank also imposes a requirement that all public firms must implement a clawback policy which applies to any executive officer (rather than just the CEO or CFO) if that firm is to be listed on any public exchange. In addition, the clawback policy must require bonuses based on reported accounting numbers to be recalled if financial statements are restated because of a

material noncompliance. Intentional misconduct is no longer a requirement to trigger the clawback of incentive based compensation and the action to enforce this policy need not be initiated by the SEC. Under the new legislation, incentive based compensation is subject to clawback for a three-year period from the date of restatement rather than the shorter twelve-month period previously allowed.

The policy provisions previously described, "say-on-pay" and "clawbacks" have been put in place to increase shareholder trust in the corporate governance process and elicit more responsible behavior on the part of corporate executives. Although prior research suggests that say-on-pay does increase shareholder activism (Alissa 2009; Conyon and Sadler 2010) as well as shareholder trust (Bowlin et al. 2010), no study has investigated whether say-on-pay combined with a clawback policy will increase shareholder trust or change manager behavior with respect to financial reporting. The limited research on clawbacks, apart from a say-on-pay provision, suggests that managers do not change the riskiness of their reporting behavior after adoption of a clawback policy (Hodge and Winn 2011). If managers do in fact inflate accounting numbers to ensure higher bonus compensation, this result is counter-intuitive and contrary to what Congress intended when it implemented the mandatory clawback policy requirement. The behavioral constructs of trust and reciprocity have been studied extensively in the economics literature. In a typical trust game, players are randomly paired and given a sum of money. The first player can either "invest" her sum of money with the hope of receiving a greater return or keep the money that she is given. The "investment" is made successful by the researcher who triples the amount before passing it on to the second player. The second player can then keep all of the money he receives or return some of it to the first player. According to rational economic wisdom, the first player will keep her original endowment because she anticipates that the second mover will not

return any money to her. Despite this bleak prediction of non-cooperative behavior, positive investment does often occur. Behavioral researchers have examined various aspects of trust and reciprocity such as monitoring, sanctions, trembling, crowding-out, and pre-commitment, but the overriding conclusions are: 1) despite the vulnerable position that investment requires, people will give up a certain amount of money with the hope of receiving a greater return (Berg et al. 1995; Bohnet and Frey 1997; Charness and Rabin 2005; Dickhaut et al. 2008; Deck 2009); and 2) despite the assumption of self-interested, non-cooperative behavior, responders tend to exhibit reciprocity by returning a positive amount to senders (McCabe et al. 2003; Cox and Deck 2006; Berg et al. 1995).

Trust game research on stated preferences is of particular interest in the current study wherein we operationalize say-on-pay by allowing investors to communicate with managers regarding a desired return. This technique has been found to be quite effective at influencing the return behavior of trustee/managers (Charness and Rabin 2005). Also of particular interest is the game theory literature on punishment. For example, Houser et al. (2008) find that regardless of whether punishment is imposed intentionally by another player or imposed by chance, trustees return more when the threat of punishment exists and hostile actions are punished with much more consistency than friendly actions are rewarded (Abbink et al. 2000).

Although prior research on trust and reciprocity is extensive, no study to date has used a game theoretical approach to investigate the specific policy implications contained within the Dodd-Frank Act. With respect to corporate reporting, the financial statements can be construed as an offer to shareholders to invest based on the assertions of management. Likewise, the expression of an opinion by shareholders regarding a desired return can be construed as a counter-offer. In publicly traded companies, managers who receive bonus compensation as a

result of misrepresented financial statements, whether intentional or not, face the threat of clawed back bonuses. Because say on pay and clawbacks of executive compensation are now mandatory policy requirements within the Dodd-Frank Act, it is important to investigate how such requirements impact the unique relationships between shareholders and managers. Specifically, this study will examine whether these legislatively imposed shareholder protections will positively impact shareholder trust and/or manager reciprocity. Experiment participants will begin the game with an endowment of real money and will assume the role of either shareholder or manager in an investment-type situation. If shareholders choose to invest, this action will be interpreted as trust. If managers choose to return a positive amount, this action will be interpreted as positive reciprocity (i.e. trustworthy behavior). Because a return is not certain, trust is required for investment in every condition. However, participants will play under various game conditions which represent the specific policy provisions of the previously discussed legislation. For example, half of the shareholder participants will be allowed to express an opinion regarding desired return (i.e. say-on-pay) and half of the manager participants will be subject to a penalty if they "mislead" investors. Game design will be described in greater detail in the Chapter 3.

Motivation and Contribution

The purpose of this study is to investigate the impact of legally mandated shareholder protections on both shareholder and manager behavior. The Dodd-Frank Act was issued in July of 2010 in response to failing financial markets, rampant managerial abuse of shareholder return through grossly unfair compensation packages and shareholder outrage at corporate governance apathy. We investigate the impact of both say on pay and clawbacks of executive compensation

using experimental economics methods to determine the effect of each on shareholder investment as well as manager return. To date, empirical studies regarding the impact of Dodd-Frank have focused primarily on either the say on pay feature of the legislation or the clawback provision. Using archival data gathered from UK companies, researchers have focused on whether or not boards mitigate the agency problem which arises from separation of ownership and control within the corporate structure (Baysinger and Butler, 1985; Conyon and Peck, 1998; Rosenstein and Wyatt, 1997; Main et al., 1995). In other words, do boards effectively minimize the costs that owners must incur to acquire information about the activities of management and to curtail management opportunism. Gilson and Kraakman (1991, p. 873) assert that in the corporate governance debate, all arguments ultimately converge on the role of the board of directors in general, and, more specifically, on the role of outside directors (Main et al., 1995). As these authors point out, studies in the area of corporate governance have tended to focus on board independence and CEO power, particularly with regard to protecting shareholder interests in a variety of settings, including the structure of executive compensation.

Although prior corporate governance research has focused on the role of corporate directors as a mediary between shareholders and managers, particularly with respect to executive compensation, we argue that because of the tremendous influence of management, corporate boards are no longer objective representatives of shareholder interests. With respect to CEO power, Main et al. (1995) note that in order for economic theory to apply usefully to the governance of the corporation, board members must be truly independent of the CEO. While in principle, board members are charged with selecting, monitoring, rewarding, and, if necessary, replacing the CEO, the reality is far more ambiguous. For reasons discussed previously, the

CEO of a company wields tremendous power over the board of directors of that company regarding the extent of protection which is provided for shareholders (Lorsch, p. 13).

Managerial Power

Managerial power theory, also known as rent extraction theory, predicts that managers can use their power and influence over boards or compensation consultants for a given firm to extract excess pay. Although compensation consultants are often utilized by boards to provide a more independent assessment of appropriate executive compensation, in the final analysis, compensation contracts are often far from objective. Consistent with managerial power theory, the compensation consultant may be hired by the CEO; thus, he may feel obliged to promote the CEO's interests above shareholders' (Conyon et al., 2009). Additionally, consultants may be reluctant to recommend pay contracts the CEO may not like for fear of being fired or not rehired by the client organization (Conyon et al., 2009).

Managerial power theory plays an important part in the management-board relationship as well, often preventing outside directors from acting efficiently to represent the best interest of shareholders. Lorsch (1989) explored how board members deal with both internally and externally caused crises, and those that occur suddenly and dramatically, as well as those that emerge more gradually. Lorsch (1989) found that when boards had to act without CEO support, or in opposition to the CEO, lack of power inhibited them, delaying their ability to act (Lorsch, 1989). Corporate directors must exhibit expertise in cultivating effective working relationships with the CEO's whom they rely on for information and data. Additionally, boards must deflect, or at least mitigate, managerial power to function effectively as fiduciary representatives with the ability to maintain shareholder trust.

Several studies have linked board performance with the ability to effectively negotiate and monitor executive compensation. Bebchuk and Fried (2005) show that managerial influence over the design of pay arrangements has produced considerable distortions in these arrangements, resulting in costs to investors and the economy. This influence has led to compensation schemes that weaken managers' incentives to increase firm value and even create incentives to take actions that reduce long-term value, as was the case with both Bear Stearns and Lehman (Bebchuk and Fried, 2005; Bebchuk, et al., 2010). The underlying principle is that a company's CEO should play no part in the determination of his or her own pay (Conyon et al., 2009). Williamson (1985, p. 324) asserts that the board of directors should be regarded principally as a governance instrument of shareholders and that management participation should not become so extensive as to upset that basic board purpose. Where it does, managerial discretion is apt, sooner or later, to manifest itself in self-dealing and subgoal pursuit (Williamson, 1985, p. 317) as is evident by the growing abuses in the area of executive compensation.

Trust Issue

The dramatic rise in CEO pay during the last two decades has been the subject of much public criticism, which intensified following the corporate governance scandals that began erupting in late 2001 (Bebchuk and Fried, 2005). The wave of corporate scandals shook confidence in the performance of public company boards and drew attention to possible flaws in their executive compensation practices (Bebchuk and Fried, 2005). As a result, there is now widespread recognition that many boards have employed compensation arrangements that do not serve shareholders' interests (Bebchuk and Fried, 2005).

In response to these weaknesses in the corporate governance process, Congress enacted the Dodd-Frank Act with the hope that shareholders will become more involved in the setting of executive compensation and boards will be much more transparent in their dealings with upper management. Two policies mandated by the Dodd-Frank Act that are the central focus of this study are "say-on-pay" and "clawbacks" of executive bonuses due to financial restatement. These policies have a direct bearing on the issues of shareholder trust and corporate accountability. The Dodd-Frank reforms have been implemented in an attempt to restore confidence in the governance process and to protect shareholders from managerial opportunism. The current research is needed to help inform policy makers about whether these reforms will provide enough incentive for shareholders to become more active in the governance process and for managers to faithfully exercise their responsibility to maximize shareholder wealth.

Accounting scholars have long been challenged to demonstrate the relevance and timeliness of their research to the issues faced by accounting policymakers (Kachelmeier & King, 2002). As the SEC and Congress continue to address the issue of self-serving managers and shareholder apathy, this study attempts to provide meaningful, timely feedback through the use of an experimental economics model based on the impact of legally mandated say-on-pay and clawback provisions on both shareholder and manager behavior. Recent Congressional legislation (the Dodd-Frank Act of 2010) and SEC standards (the Proxy Disclosure Enhancements) have the potential to improve market efficiency by involving shareholders in the governance process and by holding managers to a higher standard of accountability to those who provide crucial market capital. In this study, we use experimental economics methods to investigate whether shareholders demonstrate greater trust in managers when given a voice in the governance process and whether they invest more often when managerial performance is a

factor. We further investigate whether corporate managers act in a more trustworthy manner as a result of shareholder input and increased pay-for-performance requirements.

As agency theory posits, and as history has borne out, in the absence of adequate control mechanisms, managers will engage in opportunistic behavior at the expense of shareholders' long-term financial welfare. We have seen evidence of such behavior in our financial markets with the implosion of financial giants such as Bear Stearns and Lehman Brothers. Risky decision making for short-term benefits by self-interested managers has exploited shareholders and damaged public trust. However, complete contracting and total alignment of shareholder/manager interests as prescribed in agency theory literature is unlikely to occur since it is impossible to anticipate all future circumstances.

Legislatively imposed controls, such as say-on-pay and clawbacks of executive compensation, as outlined in the Dodd-Frank Act, provide external incentives for both shareholders and managers to engage in more meaningful economic exchanges. Prior research supports the finding that shareholders do tend to be more involved in the governance process (Alissa, 2009) and exhibit greater levels of both trust and investment (Bowlin et al. 2010) when they are given an opportunity to express their opinion, especially with regard to executive compensation. Prior research also finds that controls (such as the clawback of executive compensation) induce cooperation (Bracht and Feltovich 2008) which in turn positively affects trust; despite the claims in previous research that the mere presence of a control system causes decision makers to view the collaborative setting as non-cooperative, and other collaborators as untrustworthy (Coletti, et al. 2005).

Clawbacks of executive compensation, as mandated by Congress, are borne directly by corporate executives. It is the intent of Congress that when faced with the potentially negative

regulatory backlash of non-compliance with Dodd-Frank, managers will act in the best interest of the shareholders they represent. Based on a hypothetical managerial decision, Coletti et al. (2005) found that collaborators who were subject to higher levels of control were deemed more trustworthy by observers. Likewise, CEO/managers who are subject to greater shareholder accountability should be deemed more trustworthy by shareholders.

The Dodd-Frank Act permits shareholders to choose how often they will vote on executive compensation. Specifically, they may choose to vote every one, two or three years depending on the preference of the majority. This research is the first to consider the frequency with which shareholders choose to exercise their right to vote on executive compensation. The current study is also the first to incorporate both say on pay and clawbacks of executive compensation in an effort to understand the individual and collective impact of these control mechanisms on shareholder and manager behavior.

Experimental Economics

In the current study of legislatively mandated executive compensation policy reforms, we use experimental economics methods to investigate whether shareholder trust is improved or manager behavior is altered in the presence of either shareholder say-on-pay, clawback of bonus compensation, or both. By giving shareholders a non-binding vote on the executive compensation structure of the firms for whom they provide capital, managers are made aware of shareholder expectations. Additionally, by implementing mandatory clawback provisions of executive bonuses in the event of financial restatements, shareholders have greater assurance of performance related rewards. Unlike other studies that investigate the use of similar control mechanisms (Conyon and Sadler, 2010; Alissa, 2009; Ferri and Maber, 2010), we use an

experimental, rather than an archival design. We do this for two reasons: (1) our experimental investigation has the potential to inform policy makers of the impact of very recent legislation with respect to shareholder activism and resultant manager behavior; and (2) using an experimental economics model allows us to more effectively explore the trust relationship between shareholders and managers thereby isolating factors which improve and strengthen the trust relationship between market participants.

This study is the first of its kind to provide evidence regarding both shareholder trust and manager trustworthiness by introducing shareholder expectation and pay for performance within the experimental design of an investment game[1]. According to economic theory, rational players in an investment game should exhibit purely self-interested behavior. However, prior trust research does not support this theory. In fact, researchers have found high levels of investment and amounts returned, indicating trust on the part of the first mover and trustworthiness (i.e. reciprocity) on the part of the second mover (Berg et al., 1995; McCabe et al., 2003; Dickhaut et al., 2008). The current research will extend the prior literature by incorporating both shareholder expectation and pay for performance in our experimental design.

According to the popular press, corporate boards have failed to effectively set and monitor executive compensation. From 1995 to 2005, the average worker's pay, adjusted for inflation, increased only 4.3%, while CEO compensation increased by 298% (Popken, 2007). In that same period, the ratio of median CEO compensation to that of the average worker increased from approximately 60 to 1 to 155 to 1 (Locke, 2008). As Locke (2008) points out, the heart of

[1] In an investment game, players are randomly paired and assigned the role of first or second mover. Each player is initially given a show-up fee which will be used in playing the game. The first mover must decide whether to "invest" any portion or all of her show-up fee in hopes of receiving a larger return. The investment is typically tripled by the researcher and then given to the second mover who must decide how much of the investment , if any, he will return to the first mover. If the first mover invests, she is said to have "trusted". If the second mover returns a reasonable amount, he is said to have been "trustworthy". See Berg et al., (1995) for an example of this type of experimental design.

the controversy on executive compensation is really a perception of fairness rather than an attitude toward the absolute level of CEO compensation. What has led to increased regulation on executive compensation, as well as the erosion of public trust, is "a disproportionate distribution of wealth that leaves the 'average Joe' significantly less well off in comparison" (Locke, 2008).

With passage of the 2010 legislative and regulatory provisions aimed at increasing management transparency and motivating shareholders to become involved in the governance process, we can inform policy makers of the potential benefits of these newly enacted rules by testing, in a controlled experimental environment, the reaction of managers to shareholders who have a role in the governance process. Additionally, we can examine manager behavior in a situation where potential abuses in compensation strategies have negative consequences in the form of "clawed back" monetary awards.

Finally, this research provides an opportunity to address the challenge raised by O'Reilly and Main (2010) to develop a more comprehensive model of executive compensation that incorporates both economic and psychological determinants. O'Reilly and Main (2010) argue that agency theory alone does not fully explain the complexity of the compensation negotiation process that transpires between managers/CEO's and corporate boards. Rather, there are a number of theories, in addition to agency theory, such as management power and reciprocity[2] that collectively explain the relationship between CEO's, corporate boards, and shareholders.

Accordingly, the current research seeks to examine the trust relationship between managers and shareholders using an experimental economics model. Unlike prior research in this area, we incorporate shareholder expectation as well as pay for performance measures within our design to test the policy implications of the Dodd-Frank legislation. In light of recent

[2] Reciprocity is the term commonly used in studies on trust to describe the responsive action of a person in whom trust has been placed.

economic events, this research is needed to inform policy makers of the potential impact of the new mandatory guidelines on both shareholder trust and manager trustworthiness.

The remainder of this dissertation is organized as follows: Chapter 2 provides a review of the related literature, Chapter 3 provides a detailed description of the experimental design, Chapter 4 develops our hypotheses, Chapter 5 describes our analysis and results, and Chapter 6 concludes with a discussion of the implications and limitations of the study.

CHAPTER 2 – LITERATURE REVIEW

The Wall Street Reform and Consumer Protection Act, otherwise known as the Dodd-Frank Act, was passed in July of 2010. Without question, the most sweeping piece of corporate governance legislation since Sarbanes-Oxley, the Dodd-Frank Act attempts, among other things, to curb executorial abuses in the area of bonus compensation through greater shareholder activism and increased governmental controls. This act will require extensive standard setting by a number of federal financial and securities regulatory agencies including the Federal Deposit Insurance Corporation (FDIC), the Federal Trade Commission (FTC), the Federal Reserve System, the Commodity Futures Trading Commission (CFTC), and the Securities and Exchange Commission (SEC) as well as establishment of the Financial Stability Oversight Council. It has been estimated that the Act requires some 243[3] new regulations, of which nearly 40% must be put in place by the SEC. Although the Dodd-Frank Act is aimed primarily at financial reform, there are a number of provisions that relate to corporate governance for all public companies, including but not limited to the following:

1. Within 1 year following the date of enactment, the SEC must issue rules requiring all members of a listed company's compensation committee to be independent[4].
2. Within 1 year following the date of enactment, the SEC must issue rules requiring any compensation committee advisor to be independent.

[3] Estimate taken from Davis Polk and Wardwell summary of Dodd-Frank Act
[4] Final SEC regulations regarding the say on pay requirement and the disclosure requirements described here were implemented in January of 2011.

3. Compensation committees must be ultimately responsible for the appointment, compensation, and oversight of the work of any compensation consultant and must disclose the use of such consultant to the shareholders.
4. The SEC must issue rules requiring companies to disclose the relationship between a company's executive compensation actually paid and its financial performance.
5. The SEC must issue rules requiring companies to disclose: (a) the median annual total compensation of all employees, except the CEO; (b) the annual total compensation of the CEO; and (c) the ratio of the median employee annual compensation to that of the CEO.
6. Within 6 months after enactment of the Dodd-Frank Act, companies must provide their shareholders with a non-binding vote to approve executive compensation at any annual or other meeting of shareholders no less frequently than once every 3 years.
7. The SEC must enforce implementation of policies relating to (a) disclosure of incentive-based compensation that is based on publicly reported financial information and (b) clawback policies enabling the recovery of incentive-based compensation from current or former executive officers following a restatement[5]. The amount to be clawed back is the amount in excess of what would have been paid under the restated results (Davis-Polk document).

One explanation for the recent breakdown in corporate governance is explained, in large part, by agency theory which posits that due to the separation of ownership from control, inherent within the corporate form of organization, there are bound to be conflicting interests between managers and owners. Jensen and Meckling (1976) define the relationships within the corporate form as a nexus of contracts in which the rights and responsibilities of all employees,

[5] The SEC is expected to issue final regulations regarding the clawback policy requirement sometime in 2012.

owners, customers and suppliers are stipulated in writing. Since it is impossible to anticipate every possible situation, we must ultimately concede that complete contracting is highly unlikely, if not impossible.

Agency Theory

Agency theory posits that where a division of labor exists such that a principal must rely on the efforts of an agent to perform some service or product, there is a risk that the agent will engage in opportunistic behavior which is not in the best interest of the principal. Agency theory is most relevant in situations where contracting problems are difficult. These include situations in which there is (a) substantial goal conflict between principals and agents such that agent opportunism is likely (e.g. owners and managers, managers and professionals, suppliers and buyers); (b) sufficient outcome uncertainty to trigger the risk implications of the theory (e.g. new product innovation, young and small firms, recently deregulated industries); and (c) unprogrammed or team-oriented jobs in which evaluation of behaviors is difficult (Eisenhardt, 1989).

Adam Smith alluded to the agency problem, created by division of labor, in his 1776 publication of *The Wealth of Nations*.

> The directors of such companies, however, being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and

> profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company.

Smith's idea was not formally introduced as a theory until the mid 1970's (Mitnick, 1973; Jensen and Meckling, 1976). The "model of man" underlying agency and organizational economics is that of the self-interested actor rationally maximizing his own personal economic gain (Donaldson and Davis, 1991). Given that humans are assumed to be self-interested creatures, the principal-agent problem is one of potentially opportunistic behavior on the part of agents in the absence of adequate monitoring or incentive alignment mechanisms to protect the interests of shareholders.

Eisenhardt (1989) described the primary problems that are inherent within the principal-agency relationship. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify what the agent is actually doing. The second is the problem of risk sharing that arises when the principal and agent have different attitudes toward risk. The problem here is that the principal and the agent prefer different actions because of the different risk preferences (Eisenhardt, 1989).

Fama (1980) points out the failure of classical organizational theory to adequately explain the agency problem in the modern corporation. In classical theory, the agent who personifies the firm is the entrepreneur who is taken to be both manager and residual risk-bearer (Fama, 1980) such that control and risk are primarily borne by the same person. This classical model fails to explain the large modern corporation in which control of the firm is in the hands of managers who are more or less separate from the firm's security holders (Fama, 1980). Since the relationship between the stockholders and managers of a corporation fit the definition of a pure agency relationship it should be no surprise to discover that the issues associated with the

"separation of ownership and control" in the modern diffuse ownership corporation are intimately associated with the general problem of agency (Jensen and Meckling, 1976).

Because principals and agents are self-interested actors possessing divergent interests, the central dilemma of agency theory is how to properly motivate agents to perform in the best interest of principals. Resolution of this dilemma is not possible without incurring agency cost. The problem of inducing an "agent" to behave as if he were maximizing the "principal's" welfare is quite general. It exists in all organizations and in all cooperative efforts – at every level of management in firms (Jensen and Meckling, 1976). In agency theory terms, the owners are principals and the managers are agents and there is an agency loss that is the extent to which returns to the residual claimants, the owners, fall below what they would be if the principals, the owners, exercised direct control of the corporation (Jensen and Meckling, 1976). The two primary agency costs with which we will concern ourselves are monitoring and incentive alignment.

Agency costs occur because of the risk that managers, having specialized skills and/or expertise which are not completely understood or possessed by owners, will behave in ways that are inefficient in maximizing owner wealth. In other words, there is the risk that managers will not always make decisions in the same way that an owner would make decisions. Therefore, the wealth maximization that is sacrificed becomes an agency cost and owners must expend resources to acquire information regarding manager behavior, i.e. monitoring.

Incentive alignment is a control mechanism whereby managers are induced to act in the best interests of owners by having an ownership interest in the firm such that the long-term success of the firm benefits both owners and managers. This mechanism entails providing managers with an outcome-based contract in which the manager will profit in the case of a

positive outcome and will not profit otherwise. Eisenhardt (1989) argues that such contracts co-align the preferences of agents with those of the principal because the rewards for both depend on the same actions and, therefore, the conflicts of self-interest between principal and agent are reduced.

Agency theory predicts that the use of outcome-based (equity) contracts will not be the preferred method of compensation when monitoring is efficient. When this is the case, the risk to both managers and owners will be minimized giving firms a preference for behavior-based compensation arrangements (i.e. salaries). The board of directors, which has the power to hire, fire, and compensate senior management teams, serves to resolve conflicts of interest among decision makers and residual risk bearers (Baysinger and Butler, 1985). Therefore, the final authority for establishing executive compensation policy and minimizing risk to the shareholders is the responsibility of the board of directors.

Subsequent research (Eisenhardt, 1988; Conlon and Parks, 1990) has investigated the effect of monitoring and compensation tradition on type of compensation arrangement within agency relationships. These organizational theorists argued, consistent with agency theory, that when the costs of directly monitoring an individual's actions exceed the cost of administering incentives based on performance outcomes, performance-contingent incentives are a preferred method of control (Conlon and Parks, 1990). As expected, Conlon and Parks (1990), like Eisenhardt (1989), found that the ability of a principal to monitor an agent decreased the use of performance-contingent pay.

Traditional control mechanisms, such as bonuses for exemplary performance and boards of directors to protect shareholder wealth, have been ineffective in curbing executorial abuses. Bebchuk et al. (2010) contend that, in light of recent massive bank failures, compensation reform

is imperative if we are to address the corporate governance inefficiencies that have allowed corporate executives to prosper as their firms faced financial ruin. Bebchuk et al. (2010) investigated whether the corporate pay arrangements of Bear Stearns and Lehman provided their executives with excessive incentives to engage in risky decision making. Bebchuk reported evidence that the CEO's and top executive teams of both banks received significant cash bonuses over a seven-year period leading up to the failures with no clawback provisions in the event that short-term performance disappeared. Additionally, CEO's and top executives were able to unload huge blocks of stock and options on a regular basis within a relatively short period of time after receipt of such stocks and options.

In summary, Bebchuk et al. (2010) note the following:

> The analysis indicates that the design of the firms' performance-based compensation did not produce a tight alignment of executives' interests with long-term shareholder value. Rather, the design provided executives with substantial opportunities (of which they made considerable use) to take large amounts of compensation based on short-term gains off the table and retain it even after the drastic reversal of the two companies' fortunes. Such a design of bonus compensation provides executives with incentives to seek improvements in short-term earnings figures even at the cost of maintaining an excessively high risk of large losses down the road.

Clearly, the use of short-sighted performance based bonuses has failed to protect shareholder wealth and has significantly eroded investor confidence in the ability of boards to adequately monitor and fairly reward corporate executives.

Say-on-Pay

This paper investigates the impact of two legislatively mandated executive compensation policy variables: say-on-pay and clawbacks of executive compensation. . The first policy, say-on-pay, requires publicly traded firms to allow shareholders a non-binding vote on whether to approve the compensation of executives (Davis-Polk, 2010). Shareholders should be allowed to exercise this vote no less frequently than once every three years, at any annual or other meeting of shareholders. Concern about corporate abuses in the area of executive compensation practices is not limited to United States firms. Legislation giving shareholders a voice in setting executive compensation has sprung up in many countries including the United Kingdom, Australia, the Netherlands, Norway, and Sweden (Conyon and Sadler, 2010). In 2002, the United Kingdom (UK) government began requiring, among other things, quoted companies to publish a directors' compensation report as part of their annual reporting cycle and put the compensation report to a non-binding (advisory) shareholder vote at the annual meeting (Alissa, 2009). The annual remuneration (compensation) reports provide information on both executive directors (executives) and non-executive directors (outside board members) pay packages and plans (Carter and Zamora, 2009). UK firms are required to seek shareholder votes on the entire remuneration report. The UK government introduced the regulation because it believed that the best practice disclosure regime at that time did not achieve compliance with the three fundamental principles regarding directors' compensation: accountability, transparency, and performance linkage (Alissa, 2009).

Several researchers have investigated the impact of the requirement for UK firms to publish the Directors' Remuneration Report on shareholder activism and executive compensation. These studies provide particularly meaningful insights in the present

investigation of "say-on-pay" and executive compensation because of perceived compensatory abuses in both the United States and the United Kingdom. Most of the prior literature regarding compilation and shareholder approval of the Directors Remuneration Report is based on publicly available firm data rather than experimental evidence. However, due to similarities in the 2002 UK legislation and the 2010 US legislation, both calling for increased shareholder activism and more transparent executive compensation practices, we can use these archival studies to form a basis for triangulation with experimental work investigating similar behavioral issues.

Using sample data from 204 public firms, listed on the London Stock Exchange, Alissa (2009) investigated (1) whether shareholders consider the excess compensation of the CEO when they cast their vote on the compensation report and (2) whether boards respond to shareholders' dissatisfaction. In this study, total compensation was defined as the sum of base salary, annual bonus (cash and stock), long-term incentive plans, share options, and other annual pay. Over the sample period, total compensation grew by 72% while sales increased only 11%. Alissa developed a benchmark of expected executive compensation thereby enabling him to measure excess compensation. He then developed a measure of voter dissatisfaction which was a ratio of votes "against" the compensation report to all other votes, including proxy votes and "abstain" votes. The evidence in Alissa (2009) suggests that shareholders do consider excessive executive compensation when casting their votes in favor of or against the compensation report. Alissa also found evidence to support the argument that boards reduce excess compensation for firms whose CEO's have above the mean excess compensation (Alissa, 2009).

In a subsequent study using poll data for a large sample of UK firms for the six-year period from 2002 to 2007, Conyon and Sadler (2010) investigate shareholder activism in relation to executive pay by way of voting outcomes on resolutions at company general meetings.

Specifically, they investigated (1) the factors that determine shareholder dissent and (2) whether shareholder dissent impacted executive compensation structure. Surprisingly, Conyon and Sadler (2010) found that only about 10% of shareholders vote against the Directors Remuneration Report (DRR). Overwhelmingly, shareholders vote in favor of the DRR and, in this sense, are satisfied with company executive pay policies (Conyon & Sadler, 2010). This study also compared voting outcomes for resolutions on the DRR and other pay proposals to voting outcomes on non-pay resolutions, such as electing a director to the board, appointing auditors or amending the firm's share capital. Interestingly, results indicated that shareholders are much more likely to vote against the DRR and other pay resolutions, compared to non-pay related resolutions (Conyon & Sadler, 2010). Ultimately, Conyon & Sadler conclude there is little evidence that shareholder say-on-pay has consequences for subsequent CEO compensation practices.

Other researchers, conducting similar studies of say-on-pay using UK data, have found different results. Carter and Zamora (2009) found that the proportion of shareholder votes disapproving the remuneration report are higher when there is higher CEO salary, weaker pay-for-performance sensitivity in CEO bonus pay, and greater potential dilution from stock-based compensation, particularly stock option pay. They also found evidence to support the argument that corporate boards respond selectively to votes by curbing salary increases and dilution from stock option grants, and by improving bonus pay for performance links (Carter and Zamora, 2009).

Bowlin, et al. (2010) investigated shareholder investment decisions using an experimental economics model to determine whether say-on-pay affected level of investment. Specifically, Bowlin, et al. compared the level of investment by shareholders in a no-say condition to level of

investment in a voluntary vs. mandatory say-on-pay condition. The study revealed that shareholders who were given a say-on-pay, whether voluntary or mandatory, invested significantly more than shareholders who were not given a say-on-pay. Bowlin, et al. further found that, in general, boards conform to investors' votes by returning more of the invested amounts. This research suggests that the investment process is made more efficient by the presence of a shareholder vote on executive compensation.

In a study of shareholder voting behavior and CEO investment behavior, Gox, et al. (2011) devise an experimental economics model wherein a CEO must choose between a riskless project and a risky project with payoff schemes which vary based on level of risk and shareholder approval. Shareholder say on pay is manipulated by varying the strength of the shareholder vote in the following treatment conditions: no say on pay, advisory shareholder vote, unconditionally binding shareholder vote, and conditionally binding shareholder vote. Gox, et al. (2011) find that only when shareholders have an unconditionally binding vote is executive compensation curbed. However, this situation also fails to motivate CEO's to take appropriate risks in securing firm profits. Further, shareholders generally oppose executive bonuses in favor of greater dividends regardless of whether say on pay is binding or not. This effect is more pronounced when firm performance is poor. Gox, et al. (2011) find that non-enforceable shareholder voting rights do not curb excessive executive compensation and, in fact, seem to motivate CEO's to demand higher bonuses than would be required if shareholders had no vote on executive compensation.

Clawbacks

The Dodd-Frank Act provides that the SEC must, by rule, direct national securities exchanges and associations to prohibit the listing of any security of an issuer that does not implement a policy providing (1) for disclosure of the issuer's policy on incentive-based compensation that is based on financial information, and (2) that the issuer will recover (i.e. clawback) incentive compensation paid to certain current or former executive officers in the event the issuer is required to prepare an accounting restatement due to the material noncompliance with any financial reporting requirements (Davis-Polk, 2010). This penalty is enforced without regard to managerial intent and is directed at managers who report favorable financial results that prove to be illusory. Thus, clawbacks provide a strong economic incentive to accurately report financial information and to more carefully reward managerial performance.

Clawback is defined as the recovery of incentive compensation from executives in the event that financial statements, upon which incentive compensation is contingent, are restated. Incentive compensation is awarded to top executives as recognition of company performance that exceeds some predetermined threshold. For this purpose, "performance" is measured in terms of reported financial information. If such information is later restated because of noncompliance with financial reporting requirements, under a clawback arrangement, executives can, and should, be required to pay back any incentive awards or bonuses received depending upon the time frame of the restatement.

The Dodd-Frank Act explicitly requires that publicly traded firms have a clawback policy in place (P.L. 111-203, Sec. 954). However, this is not the first legislation to require clawbacks. Two prior statutorily imposed clawbacks can be found in the Sarbanes-Oxley Act of 2002 (SOX) and the American Recovery and Reinvestment Act of 2009(ARRA) (Earle, 2010). Although

clawbacks have been used in the past to ensure proper alignment of owner/agent interests, legislatively imposed controls have become increasingly more stringent in response to corporate abuses. For example, the clawback provision in SOX applied only to the CEO while the clawback provision in ARRA applies to the CEO in addition to a large number of top executives. SOX required executive misconduct before compensation could be clawed back whereas ARRA requires only materially inaccurate financial statements. Under SOX, only the SEC could claw back compensation, but now that ARRA has become effective, the company, rather than the government, is charged with exercising clawback rights (Earle, 2010).

In complying with the Dodd-Frank legislation, mandated practices with respect to clawbacks are even more stringent than previously required. For example, any public company that does not adequately disclose its policy on incentive-based compensation shall not be listed on a national exchange. Further, all listed firms must implement a policy allowing the recovery of incentive compensation paid to current *or former* executive officers in the event of financial restatement due to noncompliance. Finally, firms are required to make disclosures about (1) the median annual total compensation of all employees; (2) the annual total compensation of the CEO; and (3) the ratio of the median employee annual total compensation to that of the CEO (Davis-Polk, 2010).

Addy, Chu and Yoder (2009) investigated the emergence of clawback provisions for bonus recovery in the event of restated financials. Addy et al. (2009) imply that managerial power has a direct bearing on whether or not a company has clawback provisions in place. Building on that theory, they construct an index of the relative influence of management compared to independent monitoring by boards of directors. A low score on the index indicates that management is influential in setting policies and direction. Conversely, a high score on the

index indicates that independent monitors (i.e. boards) have more say in determining policies and direction. Their findings, consistent with both managerial power theory and agency theory, indicate that when the index indicates more influence by management, a clawback provision is less likely.

Given that enforcement of the new clawback provisions are not voluntary, corporate boards are now directly accountable to both shareholders and regulators for more objectively monitoring the compensation of corporate executives. Boards are often inefficient at exercising the control necessary to curb managerial abuses with regard to executive compensation. In fact, many corporate boards are chaired by the company's CEO. Although the clawback is not directly imposed on the board of directors, the board is required to enforce this penalty, requiring boards to fulfill their fiduciary responsibility to shareholders thereby requiring a higher level of objectivity than previously demonstrated.

Trust

Basic disregard for shareholder trust is at the heart of the controversy surrounding executive compensation. Swift (2001) defines trust in the context of economic exchange as the confident expectation, based upon the predictability of another party's behavior, that one's interests will not be harmed or put at risk by the other party. According to Swift, a condition of mutual vulnerability is inherent in transactional situations due to the uncertainty or risk that the parties in an exchange relationship may not behave predictably (p. 19). Because of this mutual vulnerability, a variety of institutional mechanisms can be initiated to simulate or artificially create trust. Research in this genre is predominantly concerned with ex post contract analysis of business relationships, and finds that, in general, legalistic means designed to restore trust are in

fact associated with causing higher levels of distrust (Shapiro, 1987, Ring, 1996). Swift (2001) argues that in a relationship that is truly based on trust, each party stands to lose something of significant benefit if the other defaults. The risk that both parties will be adversely affected if one or the other reneges on the relationship is a sufficient condition to ensure that the relationship works (Swift, 2001).

This type of trust is not regarded as a sufficient condition for the effective social control of business behavior, however, trust based on mutual vulnerability is promoted as an antidote to managerial opportunism (Swift, 2001). CEOs have demonstrated that they have the power to abuse their positions of influence by over-compensating themselves with exorbitant salaries and non-performance based cash bonuses, all under the watchful eye of ineffective boards of directors. It is unknown at the present time whether control mechanisms such as say-on-pay and clawbacks will improve shareholder trust, as is the intent of current legislative reform, or whether such reforms will have the adverse effect of eroding trust in the corporate governance process.

Zand (1972) found that in situations where trust is present, the trusted tend to disclose more accurate, relevant and complete information, whereas the trusting feel less need to impose social controls in order to gain access to or influence over information. Regardless of whether trust is a product of institutional mechanisms or it is generated as a byproduct of mutual vulnerability, trust in our business process is essential if our economic markets are to survive. In fact, economists Paul Zak and Stephen Knack found that trust is among the strongest predictors of a nation's wealth (Chen and Krakovsky, 2010, p 151). Zak argues that low trust countries are poor because their citizens are reluctant to make the sort of investments that create

jobs and raise incomes (p. 151). In the next section, we explore the relationship between trust and trustworthy behavior as well as the impact of each on economic outcomes.

Trust Game Literature

Most of what we have learned about trust and trustworthy behavior has been the result of extensive research within the field of experimental economics. Economics researchers have conducted thousands of experiments using trust games, investment games, ultimatum games, dictator games, and many others that belong to the paradigm of investigation known as game theory, to explain the behavioral aspects of economic interaction among rational players. Both trust and investment games are designed such that players are randomly paired with a player in another location. Players are not allowed to talk to each other as this may influence the outcome of the experiment. At the beginning of the experiment, each player is given an endowment, sometimes referred to as a show-up fee. The first person to play, also referred to as the trustor, makes a choice to keep her[6] endowment or give it to the second player in the hope of a greater return. This decision is an observable act of trust or no trust and is intended to simulate an investment decision. Assuming the first player trusts, the second player, also commonly referred to as the trustee, must decide whether and how much he will return to the first player. This decision is an observable measure of trustworthy behavior and is intended to simulate manager behavior. Economic theory dictates that the first player will behave in a purely self-interested manner, keeping her original endowment and thus ending the game.

By using carefully designed trust games in an experimental setting, we can more fully understand various aspects of economic exchange including how and why people cooperate with

[6] In this paper, Player 1 will be referred to as she and Player 2 will be referred to as he. This is the customary convention and is merely a convenience to avoid confusion in referring to both players as he or she.

each other, how they make investment decisions, what happens when people are treated unfairly, and why they choose to trust one another. As one researcher put it, when rational people interact voluntarily in ways that lead to persistent inefficiencies – this is the heart of the prisoner's dilemma – then institutional designers have a problem to solve: devise institutions that realign individual incentives to achieve collectively rational outcomes (Scalet, 2006).

Trust game literature in economics. In a seminal work integrating the study of trust and reciprocity, Berg, et al. (1995) designed an investment game to analyze both the trusting aspects and the cooperative aspects of behavior in an economic exchange. To control for potential confounding factors such as reputations from repeat interactions, contractual pre-commitments, and potential punishment threats, subjects were not allowed to communicate with each other, they were allowed to play the investment game only once and their identities were kept totally anonymous. The researchers found positive investments still occurred suggesting that trust is an economic primitive (p. 123).

The investment game, as designed by Berg et al. (1995), is played as follows. Subjects are randomly assigned to a Room A and a Room B. Each is given a show-up fee of $10. Room B participants pocket their show-up fee while Room A participants must decide how much to "invest" with an anonymous counterpart in Room B. Room A players are referred to as "trustors" and Room B players are referred to as "trustees". Room A players may invest any sum of money between zero and $10 which will be tripled before reaching the player in Room B. The trustee/reciprocator will then decide how much of the "invested" amount to return to the trustor. The amount of money returned can be between zero and $30. The amount of money sent by the Room A player indicates the level of trust and the amount of money returned by the Room B player indicates the level of trustworthiness he possesses. Economic theory predicts

that trustors will not invest any amount of money choosing instead to keep their show-up fee of $10 thereby ending the game.

Berg, et al. (1995) identified an experimental design where trust can be used for mutual gain (p. 137). Self-interest alone could not explain their results. One explanation of the data is that room A subjects were willing to place a trust, by risking some amount of money, in the belief that there would be reciprocity; the room B subjects who reciprocated kept this trust. In the first trial (no history group), two-thirds of the room B subjects did not reciprocate. The researchers speculated that this lack of reciprocity may have been because room B subjects did not perceive the actions of room A subjects to be a placement of trust. To investigate this possibility, a second trial was conducted (history group) in which room B subjects were given information about the results of the first experiment. Evidence from the "social history" group indicates that when trust is made more salient, reciprocity is greater. Subjects' propensity to believe in and use trust increased (p. 137).

This behavior observed in Berg et al. (1995) is analogous to an investment situation where investors may be viewed as trustors and firms may be viewed as being either trustworthy or not. By investing in a publicly traded firm, shareholders exhibit trusting behavior. There is a presumed expectation that managers will reciprocate by acting in the best interest of shareholders to maximize firm profitability and return a fair amount of that profit to investors. In this study, we are particularly interested in the trust/reciprocity relationship with respect to executive compensation. We consider the control mechanisms of say-on-pay and clawbacks of executive compensation both individually and collectively with respect to their impact on trust from shareholders and trustworthy behavior from managers.

In a study on the reciprocal aspect of a trust relationship, McCabe et al. (2003) defined reciprocity as trustworthy behavior in response to an initial trusting action. Positive reciprocity (i.e. trustworthiness) can be described as the costly behavior of a second mover that rewards a first mover based on both the gains from exchange to the second mover as well as the second mover's beliefs about the intentions motivating the action of the first mover (p. 269). In other words, reciprocity can occur only when the first mover in a trust game decides to forgo the rational choice to keep his original endowment causing each player to realize a payoff of less than would be received if the players cooperated. If the first mover keeps his original endowment rather than risk losing it to the second mover in hopes of receiving a greater return, he has made a decision not to trust. Alternatively, the first mover may trust the second mover to act in a trustworthy manner by reciprocating trust such that each player is better off after the second mover plays. If the game is successful, both players will cooperate to ensure an economically superior outcome. In other words, player 1 will give his endowment to player 2, the endowment will be tripled by the researcher, and player 2 will return an amount to player 1 that is greater than his original investment.

To test the effect of signaling trust, McCabe et al. (2003), designed a trust game that included two treatments: a voluntary trust condition and an involuntary trust condition. The only difference between the two treatments is that in the involuntary condition, Player 1 does not have an option to simply keep her endowment. Rather, Player 1 **must** invest, leaving Player 2 with the decision of how much to return to Player 1. By eliminating Player 1's opportunity cost associated with playing, the researchers restricted Player 2's ability to read his counterpart's intentions unambiguously (p. 273). In the voluntary trust condition, an intentional investment by Player 1 can be interpreted by Player 2 as an act of trust (p. 273). In the involuntary trust

condition, this signal of trusting behavior is removed thereby inhibiting the ability of Player 2 to read the intentions of Player 1. As predicted by the trust-reciprocity hypothesis, cooperative play occurs significantly less often in the involuntary trust game.

The act of giving up a certain $10 payoff by the first mover in the trust game designed by McCabe et al. (2003) is a signal to the second mover that he is being trusted to act in a trustworthy manner. A similar but stronger signaling effect is achieved in Berg et al. (1995) by telling second movers about the history of prior trials of the investment game wherein first movers give up their original endowment in the hope of receiving a greater return later in the experiment. Indeed, in both cases, **reciprocity** (i.e. return) is improved whether by second movers' perception of first movers' intention to trust or by knowledge of observed trusting behavior.

Monitoring/Crowding-Out. Bohnet et al. (2001) extend the principals of trust and trustworthiness to a contract game wherein offering a contract is a matter of trust, and performing it, a matter of trustworthiness. "A contractual relationship is represented by a game in which the first mover has to decide whether she wants to enter a contract without knowing whether the second mover will perform. If the second mover breaches, a chance move decides whether he is held liable for the cost of breach. Standard economic theory predicts that the higher the expected cost of breach, the more likely is the second mover to perform. Again, we can apply this reasoning to the current governance environment with respect to executive compensation. Mandatory clawback of executive compensation in the event of financial restatement is equivalent to a contractual relationship in which investors must rely on the performance/trustworthiness of managers to accurately report corporate performance upon which contractual bonuses are calculated. In the event that the contract is breached (i.e. financials are

restated) some part or all of the previously awarded executive compensation must be clawed back.

Bohnet et al. (2001) find that at low levels of legal contract enforcement, trustworthiness is increased. Because first movers cannot trust the legal system, they enter a contract only if they can trust the second mover. They are careful about the decision, which makes trustworthiness a successful trait (p. 141). Conversely, at high levels of contract enforcement, trustworthiness is high and trust is observed because second movers are deterred from breaching. However, at intermediate levels of enforcement, behavior is more difficult to predict. In this early study of the crowding out effect of legal rules on trust and trustworthiness, Bohnet et al. (2001) state the following:

> At intermediate levels of enforcement…interpersonal trust is replaced by institutional trust in the legal system, and genuine trustworthiness is crowded out. More order can result from less law, which yields a "motivation-compatible" environment (Bohnet and Frey, 1997), and from more law, which yields an incentive-compatible environment.

In other research on the effects of monitoring, Dickinson and Villeval (2008) conducted a monitoring game wherein a randomly paired principal and agent work together to accomplish a task. The principal offers a contract to the agent wherein the agent's wage corresponds to a level of output. The principal then chooses a monitoring intensity which represents a probability of audit. If shirking is verified, the principal punishes the agent with a lower wage. Reciprocity is manipulated by fixing the principal's pay in one treatment condition while allowing it to be variable in a second treatment condition. In the second treatment condition, the principal's pay varies directly with agent output. Consistent with agency theory, this research supports the

conclusion that, in general, increased monitoring results in greater output. However, increases in monitoring have a negative impact on output when the principal-agent relationship is interpersonal. No such decline in productivity is observed when the employment relationship is more distant. Dickinson and Villeval (2008) further find that crowding out functions primarily through reciprocity rather than an intrinsic loss of motivation because the observed decline only occurs in the variable condition where the principal's pay is linked to agent effort. This is the only condition where increased monitoring by the principal can be reciprocated with a decline in output. The same decline is not observed in the fixed condition where the principal's earnings cannot be affected by the agent.

Pre-play commitments and punishment. Bracht and Feltovich (2008) tested the economic as well as the behavioral effect of a precommitment mechanism as a modification to the basic trust game to determine if efficiency was improved. They allowed Player 2's to escrow a certain amount of money before Player 1's made their investment decision. If Player 1 did not invest or if Player 1 did invest and Player 2 split the successful investment, the escrow amount was returned to Player 2. However, if Player 2 acted opportunistically, the escrow amount was lost (i.e. returned to the experimenter's budget). Player 2 was given the choice to escrow a high amount or low amount in two of the experimental groups and in two other experimental groups, the escrow amount was mandated. The experiment also included one group where the basic trust game was played. As predicted by game theory, high escrow resulted in successful investing and splitting, regardless of whether the escrow was voluntarily or mandatorily selected. Bracht and Feltovich (2008) found weak support for the crowding-out theory in that when an escrow amount was possible and a zero escrow amount was chosen, investment and splitting was lower than when an escrow amount was not possible. Signaling was found to be more strongly supported in

the early rounds of play but the effect disappeared over time. When the highest escrow amount possible (even if it was a small amount) was chosen, investment and splitting occurred with substantially higher frequency. However, the researchers concluded that the disappearance of this effect in later rounds was an indication that the investors had been mistaken in their interpretation of the escrow decision as a signal.

Houser et al. (2008) investigated whether punishment threats influenced trustee decisions differently when such threats were intentional rather than when the threats were randomly imposed with no intent to punish. They conducted a trust game where the investor could send some, all or none of his initial endowment. As is usually the case in a trust game, the endowment was tripled by the experimenter before being passed to the trustee who could then return some, all or none of the tripled amount to the investor. What makes this game unique is that the investors were allowed to express a desired back-transfer amount before making their investment decision. They were also allowed, in some cases to impose a sanction if the amount returned was less than the desired back-transfer amount. Houser et al. (2008) found that, in general, trustees return more when threats of punishment exist, regardless of whether the threat is imposed voluntarily by the investor or randomly by nature. They also find that sanctions increase returns when back-transfer requests are low but work in the opposite direction when requests are high. Houser et al. conclude that incentives, rather than intentions, underlie return decisions. These results also support crowding out theory by revealing that "sanction threats change individuals' perceptions of the environment, and can reduce internal motivations for cooperation" (p. 523).

In a rather uniquely designed trust game, Abbink et al. (2000) use a moonlighting context to test the effect of a non-binding, pre-pay contract on trust and reciprocity. In their game, both

Player A and Player B are given an initial endowment of $12 (they use fictitious currency). Player A can take money from Player B or give money to him, up to $6 either way. After the money is tripled by the researcher, Player B can return up to $18 to Player A or spend up to $6 to reduce Player A's payoff by triple the amount spent. Neither Player A nor Player B can have a negative amount at any time during the game. In one condition, Player B could propose a non-binding contract before play began and Player A could accept or reject it but neither decision was binding on either Player A or Player B. Abbink et al. (2000) found that hostile actions are punished with much more consistency than friendly actions are rewarded. They also found that non-binding contracts elicit trust by Player A's but not necessarily reciprocity by Player B's. More often than not, Player B's acted according to the self-interested predictions of classical economic theory.

Researchers often study trust and trustworthiness by using a one-shot game design which controls for the possibility of reputation effects.[7] Dickhaut et al. (2008) successfully argued that in a multiple round trust game, first movers would continue to trust as long as second movers reciprocated. As for second movers, Dickhaut et al. provide strong support for the argument that non-trustworthy types will seek to build reputations in the early rounds as trustworthy types but will defect in later rounds. To demonstrate this tendency, an experiment was conducted to analyze trust and reciprocity in a one shot trust game as compared to a two-round trust game. This study showed that reciprocity was much higher in the first round of the multiple round game. However, in the second round, there was a sharp drop in reciprocity producing results which were quite similar to those in the one-shot game. These findings were also consistent with

[7] Prior literature on trust using a one-shot design includes Cox (2004), Deck (2009) and the seminal work of Berg et al. (1995).

comparisons made between experienced and non-experienced players suggesting that reputation is a significant factor in repeated economic exchange.

Trust game literature in accounting. There are very few experimental economics studies within the field of accounting and even fewer that examine the notion of trust utilizing a trust game. One very recent accounting study (Bowlin et al., 2010) , discussed in previous sections, investigated the effects of say-on-pay with regard to investors' perceptions of trust using a three person trust game to determine whether investment increased as a result of shareholder voice. Additionally, Bowlin et al. (2010) investigated whether shareholders invest more when the say-on-pay is granted voluntarily rather than mandated by the government. Findings from the Bowlin, et al. study suggest that regardless of whether say-on-pay is voluntary or mandatory, shareholders invest more when they are allowed to express an opinion.

Coletti, et al. (2005) conducted two experiments to explore the impact of controls on trust and cooperation in collaborative environments. The first experiment, of particular relevance in the present study, investigated whether controls have a positive impact on trust. Subjects were randomly assigned to one of two treatment conditions where controls were either present or absent. Participants were randomly paired and assigned the role of either *collaborator* or *observer*. *Collaborators* were managers who were charged with making decisions regarding the allocation of funds to R&D projects while *observers* had to make judgments regarding the trustworthiness of the collaborators. In the *control* condition, participants were instructed that a consultant would make periodic, unannounced visits and would report the results of that visit back to top management, likely resulting in penalties if investment decisions were poorly made. In the *no control* condition, the threat of a consultant visit was removed.

Coletti et al. (2005) find that: (1) participants cooperate more in the control system condition; (2) observers rate the participants assigned to the control system condition as more trustworthy than those assigned to the no control system condition; and (3) the presence of a control system enhances the level of trust in a collaborative setting. In fact, Colletti et al. report that cooperation perfectly mediates the relationship between perceived trustworthiness and the control system, in that the direct effect of the control system on perceived trustworthiness is not significant when the effect of cooperation is controlled (p 490).

Accounting researchers, like experimental economists, have investigated the crowding out theory which suggests that increased controls actually undermine trust which, in turn, reduces productivity. For example, in Seal and Vincent-Jones (1997), McMaster (1995) contends that insurance, monitoring, sanctions, litigation and performance rewards are all imperfect substitutes for trust, and that the use of any of these substitutes may signal distrust. Further, Neu (1991) states that the "irony of contracting" is that efficient contracting cannot take place other than in an environment of trust, but the introduction of a contract in such an environment may result in the breakdown of trust (Seal and Vincent-Jones, 1997).

These findings, although contradictory, are particularly relevant in the present study because say-on-pay and clawbacks are formally imposed *controls* which are being legislatively mandated in an attempt to reform executive compensation practices and strengthen investor trust. It is unclear at the present time whether the control mechanisms investigated in this study will have the intended effect of strengthening investor trust or eroding it.

Experimental results from the studies described above can be interpreted as emulating behavior in an actual investment setting where board members must set executive compensation with knowledge of shareholder expectation. The communication from shareholders regarding

approval or disapproval of executive compensation is a signal of shareholder trust. By exercising their right to express an opinion regarding the compensation of corporate executives, shareholders are signaling their desire to participate in the governance process as well as their faith that corporate boards will protect their interests. Knowledge of shareholder trust then becomes more salient in the minds of managers who must choose whether to act in a trustworthy manner or not. However, the question of whether managers need additional incentive to fairly reciprocate shareholder trust remains.

Although say-on-pay has been shown to increase shareholder trust, thereby increasing shareholder investment (Bowlin, et al. 2007), it is as yet unknown what effect the additional protection of a clawback provision will have on either shareholder investment or manager reciprocity. The clawback provision may prevent a perverse outcome in the sense that say-on-pay induces greater investment with no consequent increase in manager reciprocity. It may also be the case, as in Colleti, 2005, that managers who are subject to greater controls will cooperate to a greater extent, and that when such cooperation is observed, shareholders will become more trusting. Therefore, the current study is needed to extend the research on trust and reciprocity and to investigate the policy implications of the Dodd-Frank Act.

CHAPTER 3 - EXPERIMENT

Game Design

We utilize a two-stage, multiple-round investment game to observe the behavioral interactions between first and second movers in a modified investment game. In a typical investment game, subjects assume the role of either shareholder or manager with both subjects receiving an initial endowment. Stage one of the game requires a decision from the shareholder about whether to keep her endowment or invest it, hoping to earn a greater return. If the shareholder chooses to invest, the investment is immediately successful in that it is tripled by the experimenter before being passed to the manager. In stage two of the game, the manager must decide whether to return any part of the successful investment to the shareholder. If the game is optimally efficient, both players will be economically better off by cooperating. This cooperation, however, requires shareholders to trust that managers will return a positive amount greater than the shareholder's original investment thereby demonstrating trustworthiness. If the shareholder decides not to trust the manager, both players will keep their original investment and the game will end.

In the current study, this basic trust game is modified such that in each of our treatment conditions the manager makes the first move by offering a pre-play assertion to the shareholder about the amount to be returned should the shareholder choose to invest. Neither player is bound by this assertion which is analogous to a financial statement assertion by management. Managers may actually return more or less than indicated by the pre-play assertion. However, if

they return less than their stated amount, managers in the clawback conditions may be subject to a significant penalty.

Our experiment consists of four treatment conditions wherein we manipulate two independent policy variables (i.e. say-on-pay and clawbacks) in a 2 x 2 between-subjects design as described in the following section. In all conditions, subjects will be randomly paired and will play together as a shareholder-manager dyad throughout all three rounds of the multiple-round games. The four treatment conditions include the following: no say, no clawback; say-on-pay only; clawback only; and say-on-pay with clawback.

Independent Variables

The presence/absence of say-on-pay is manipulated by allowing shareholders to communicate with managers about the amount of money that they would like to have returned to them (the equivalent of the amount they would like for managers to keep, which is exactly the meaning of say-on-pay) should they choose to invest their endowment. Each game consists of three rounds of play with say-on-pay being mandatory in the first round but optional in the second and third rounds, meaning that in the second and third rounds, shareholders may, if they choose to do so, tell managers how much money they would like to get back. This aspect of the game is consistent with a provision of the Dodd-Frank Act which allows shareholders to express a say on pay not less than once every three years, with the exact frequency to be determined by a vote of the shareholders. In an actual investment environment, shareholders can choose to vote every year, every other year, or every third year. Again, as is true in an actual investment setting, this expressly stated expected return is not binding on either shareholders or managers. Shareholders will express their "say" by writing in the preferred return amount on an investment

return form when making their investment decision. The indicated amount will constitute a counter-offer to managers who will have begun the game with an assertion, written in on the same investment form, of how much they intend to return if given the opportunity.

In the second stage of the game managers must decide whether or not to return money to shareholders. A manager who returns any amount less than the amount stated in his pre-play assertion is deemed to have "misled" his investors with a faulty assertion and must, therefore, face the threat of punishment in the form of clawed back earnings. We implement enforcement of a clawback policy by giving shareholders a 50% chance for recovery of any invested amounts plus the earnings contributed by the experimenter. In other words, a manager who demonstrates untrustworthy behavior may have all of his ill-gotten gains clawed back.

The current study contributes to the overall body of research utilizing experimental methods to investigate the impact of say on pay with respect to shareholder investment (Gox et al. 2011; Bowlin et al. 2011) as well as clawbacks of executive compensation with respect to manager behavior (Hodge and Winn, 2011). Our design allows us to test specific policy requirements instituted by the Dodd-Frank Act. The trust game we use, which was adapted from Berg at al. (1995), incorporates the real-world shareholder protections of say-on-pay and clawbacks allowing us to examine the potential impact of increased regulation on trust and reciprocal behavior for interactions between investors/shareholders and firms/managers .

A number of observations are made on how shareholders and managers behave in terms of investment and return, focusing on: managers' initial offers, shareholders' counter-offers, shareholders' investment decisions (frequency of investment), and managers' decisions on the amount of money to return. The design of this experiment is such that shareholders are not allowed to vary the amount of investment. Therefore, trust is measured by tracking the number

of times that first movers choose to invest their endowment over the three rounds of play. Conversely, managers are allowed to return any amount between zero and the tripled amount of investment (i.e. $12). However, managers must also comply with the self-imposed benchmark created by their pre-play assertion to avoid clawbacks in certain treatment conditions. Therefore, trustworthiness is measured by the amount of money returned in addition to the number of instances where actual return was equal to or greater than anticipated return.

Game Procedures

Prior to the experimental session, participants were randomly seated in one of two rooms to prevent any communication which might bias the results of this study. All participants were recruited from a student population and randomly assigned the role of either shareholder (seated in Room A) or manager (seated in Room B). Subjects are also randomly assigned to one of the four treatment conditions described below. Regardless of the treatment condition, shareholders and managers each received a voucher indicating a worth of $4 at the beginning of their respective experimental session. After the players were randomly assigned to one of the two roles, seated in separate rooms and given their initial endowment, general instructions were read by the researcher instructing players not communicate with each other. Next, specific instructions were read which described the procedures of the game, and examples were provided regarding possible outcomes. Play continued in each experimental condition until players had completed three rounds. Upon completion of all three rounds, players were paid according to their earnings in one randomly chosen round.

Shareholders exhibited trust if they chose to invest their initial endowment. The principles that are central to game theory, dominance and backward induction, posit that the first

mover will anticipate self-interested behavior by the second mover and will, therefore, apply a dominant strategy of receiving an immediate positive amount rather than nothing at all. However, a vast body of prior literature shows that Players often do **not** play this strategy, choosing instead to believe that second movers will repay their trust by returning an amount greater than the original investment. Managers are said to exhibit trustworthy behavior if they "keep the trust" by reciprocating. Positive reciprocity can be described as the costly behavior of a second mover that rewards a first mover based on both the gains from exchange to the second mover as well as the second mover's beliefs about the intentions motivating the action of the first mover (McCabe et al., 2003). As a matter of convenience, we will refer to Player 1s (shareholders) as female and Player 2s (managers) as male.[8]

In the first phase of the experiment, for all treatment conditions, both Player 1 and Player 2 participants were given the same general instructions regarding the game before they were randomly assigned to their respective roles as either shareholder or manager. After the general instructions were read, the randomly chosen shareholder participants were taken to a separate room (Room A) where they remained until the conclusion of the experiment. Managers then received specific procedural instructions along with illustrative examples to help with understanding the rules of the game.

No Say-on-Pay, No Clawback Treatment Group

In the no say-on-pay, no clawback group, each manager was given an envelope containing two color-coded forms: a voucher worth $4 and an Investment Return Form A. This player had to decide how much to return to his shareholder counterpart if the shareholder chose to invest her initial endowment. The player was also required to record his initial offer on the

[8] This convention is adopted by Kreps (1990)

investment return form which was then placed in an envelope and later given to the shareholder counterpart. Manager participants retained their $4 voucher for payment following the experiment.

In the second phase of the experiment, shareholders received the specific procedural instructions along with illustrative examples to help with understanding the rules of the game. Each shareholder had to decide whether to give her initial endowment to a randomly assigned manager. The shareholder was also required to record her decision by answering "yes" or "no" to the question "Do you want to give the initial endowment to Player 2?" on the Investment Return Form A provided. If she decided to invest, the shareholder had to give the entire amount which was then tripled by the researcher and given to the paired manager in Room B. If the shareholder decided not to invest, the game was over and each player kept the original endowment. After the investment decision was made, and all rounds of the game had been completed, each shareholder completed a short questionnaire providing demographic information in addition to minimal information regarding trusting and trustworthy behavior. The post-experiment questionnaire included a manipulation check to ensure that each participant could correctly identify the condition to which he or she was assigned (refer to Appendix B).

After shareholder decisions were recorded, the third phase of the experiment began with manager participants in Room B. Each manager was seated with either one envelope or two envelopes being placed in front of him. Managers who only had one envelope were instructed to verify that they had a voucher worth $4. Managers who had two envelopes learned that a randomly paired shareholder had invested her $4 endowment. The original investment had been tripled by the researcher, giving the manager a total of $16. The manager then decided how much to return to the shareholder. He could have chosen to return any of the tripled investment,

up to a maximum of $12, or he could have chosen to keep the entire amount. Managers indicated their actual return on Investment Return Form B.

Upon completion of the final round of the experiment, managers completed a short questionnaire providing demographic information in addition to minimal information regarding trusting and trustworthy behavior. The post-experiment questionnaire included a manipulation check to ensure that each participant could correctly identify the condition to which he or she was assigned (refer to Appendix B). The players were paid according to their earnings in one of the three experimental rounds chosen at random.

Say-on-Pay Treatment Group

This treatment condition was procedurally identical to the no-say, no clawback treatment condition with the following exception. In round 1 of the game, prior to making an investment decision, shareholders were instructed to inform the manager counterpart of their expected return. Research assistants verified that an expected return was written on the investment return form before it was returned to the paired manager. In rounds 2 and 3 of the game, before the investment decision was recorded, shareholders were instructed that they could inform their respective managers about their expected return, however, this stated expectation was not required. In other words, in the second and third rounds of the game, shareholders could have chosen to invest or not invest without expressly stating what they expected the manager to return to them.

Clawback Treatment Group

This treatment condition was procedurally identical to the no-say, no clawback treatment condition with the following exception. To manipulate the presence of a clawback provision, shareholders were instructed that if managers returned an amount less than the amount originally indicated by the manager on the Investment Return Form A, she had a 50% chance of recovering the entire amount invested. In this treatment condition, a manager could forfeit the entire investment if he misled a shareholder with his original pre-play assertion.

Say-on-Pay and Clawback Treatment Group

This treatment condition was procedurally identical to the no-say, no clawback treatment condition with the following exceptions. Prior to making an investment decision, shareholders had to indicate on their Investment Return Form A how much they expected managers to return to them. The stated expectation was a requirement in round one of the game but was optional in rounds two and three. In round 1 of the game, research assistants verified that an expected return was written on the investment return form before it was passed along to the manager. In subsequent rounds of the game, before the investment decision was recorded, shareholders were instructed that they could express a desired amount of return from their respective managers but the stated expectation was purely voluntary. In other words, in the second and third rounds of the game, shareholders could have chosen to invest or not invest without expressly stating what they expected the manager to return to them. To manipulate the presence of a clawback provision in this treatment condition, shareholders were instructed that if managers returned an amount that was less than the amount originally indicated by the manager on the Investment Return Form A, she had a 50% chance of recovering the entire amount invested. In this

treatment condition, a manager could have forfeited the entire investment if he misled a shareholder with his original pre-play assertion.

CHAPTER 4 – PREDICTIONS

Issues to be investigated in the study

In this study, we examined the effects of Say-On-Pay (Say) and Clawback, two major provisions of the Dodd-Frank Act (D-F), on executive compensation, on shareholders' investing decisions and managers' responses in returning shareholders' investments. The two provisions of D-F are construed in this study as creating a new dynamic of interactions between investors and managers. We design a trust game, described in detail in the previous chapter, to map such dynamics and conduct experiments to determine the outcome of the games as a way to examine the potential effects of the provisions.

We employ a 2x2 game design which allows us to experimentally compare the following four conditions representing four possible policy choices: no-Say and no-Clawback, Say only, Clawback only, and Say with Clawback. The game setting and process reflect, sketchily, a business cycle of investment and return. It starts with the initial financial reporting from the manager that forms investors'/shareholders' expectations of the return. Say is inserted by Dodd-Frank to be a new component at this phase of the cycle – in game-theoretical terms, Say is a counter-offer to the manager's offer made in the initial financial statements. The cycle continues as an investment decision (whether or not to invest) is made, which is followed by the actual return from the manager. Clawback is imposed here as a penalty measure against the manager's failure to deliver. The game is designed so that this failure is attributable only to the manager's own wrongdoing (i.e., not caused by any "environmental" factors that would allow the manager

to claim innocent). In this game, the manager's unwillingness to give back the offered amount to the shareholder is the only reason why the manager fails to deliver, which is consistent with the intention of the provision.

The multi-stage trust game, designed based on the two provisions of Dodd-Frank, allows us to examine the impact of such provisions on a wide range of behavior involving both investors/shareholders and managers. This series of investor/shareholder and manager behaviors, in the context of Dodd-Frank, have been rarely studied in academic literature. We found a small number of studies on Say (Bowlin et al. 2010; Alissa 2009; Carter and Zamora 2009; and Gox et al. 2012), as well as a small number of studies on clawbacks (Hodge and Winn 2012; DeHaan et al. 2011) and no study to date on the two Dodd-Frank provisions together. The current research investigates the investment-return cycle, and attempts to address the impact of Dodd-Frank on the following categories of observable behavior:

(1) Manager's offer (initial financial reporting);

(2) Shareholder's counter-offer (Say);

(3) Shareholder's investment decisions;

(4) Manager's return (possibility of management fraud);

(5) Shareholder's decisions on whether to exercise Say.

These types of behavior are examined experimentally from a game-theoretic perspective. Specifically, we examine the following issues:

(1) how managers' offers might be different under four alternative conditions;

(2) how shareholders' counter-offers (Say) might be different with Clawback;

(3) the extent of trust (as measured by the frequency of investment) the shareholder might give to the manager under four alternative conditions;

(4) the extent of reciprocity (as measured by the amount of return) from the manager;

(5) the frequency of using counter-offer as an option;

(6) How fairness plays in this game.

Our predictions are based on the experimental economics literature. Where issues are not currently addressed or directly addressed in the existing literature – for example, issue (5) above, we treat them as exploratory issues and offer our predictions on relevant but indirect empirical evidence/reasoning.

Predictions

The pre-Dodd-Frank condition (no-Say and no-Clawback) is such that the manager makes an offer (the initial financial reporting) to induce investment, and when failing to deliver, there is no economic penalty for overstatement (as far as Dodd-Frank is concerned). Since the offer is to induce investment, there is no incentive to offer low. With no penalty for overstatement, the rational choice is to offer high. Knowing that there might be a counter-offer (Say) from the shareholder, the manager may be more cautious in deciding the amount of offer because a large disparity in offer and counter-offer is undesirable. Fairness is more likely to have an effect when an offer is compared to a counter-offer (Wang 2010). However, Say-only does not provide a reason for lowering the offer because the counter-offer cannot be lower. In contrast, Say-with-Clawback does provide a reason for avoiding overstatement because such behavior will be punished. In other words, Clawback promotes honesty and fairness, and Say, socially and psychologically, helps this process. These reasons suggest that the manager's offer is likely to be lower when the shareholder can make a counter-offer and there is a penalty for dishonoring the offer, stated formally:

H1a: Manager's offer will be lower when the shareholder can make a counter-offer and there is a penalty for dishonoring the offer than when there is no counter-offer option and/or there is no penalty.

H1b: Manager's offer will be closer to the stated fair amounts when shareholder can make a counter-offer and there is a penalty for dishonoring the offer than when there is no counter-offer option and/or there is no penalty.

Since the manager's offer tends to be lower when the shareholder can make a counter-offer and there is a penalty for dishonoring the offer, given an option (as in the second and third rounds of the game), the shareholder's counter-offer is then more likely under this condition than under the alternative conditions. This leads to the following prediction:

H2: Shareholder's counter-offer in the second and third rounds of the game will be more likely when there is a penalty for dishonoring the offer than when there is no such option.

Since a decent amount of return (the shareholder would not invest if the manager's offer is too low) is somewhat ensured (a 50% chance in this game) with Clawback, the shareholder is more likely to invest under this condition. Say – making a counter-offer – will only, socially and psychologically, perhaps also economically (particularly because the game has multiple rounds, which creates a need for relationship), enhance the likelihood of return (Dickhaut et al. 2008). These reasons lead to the following prediction:

H3a: Shareholder is more likely to invest with a counter-offer and when there is a penalty for dishonoring the offer than when there is no counter-offer and/or there is no penalty.

H3b: Manager is likely to return more with a counter-offer and when there is a penalty for dishonoring the offer than when there is no counter-offer and/or there is no penalty.

Additional analyses are conducted to the extent that the data allows. For example, the amounts of return are compared with "fair" amounts of return provided by the managers and shareholders. Comparisons are also made between the offered amounts and returned amounts and differences between individual conditions are discussed at length.

CHAPTER 5 – RESULTS

Participants

The purpose of this study was to experimentally investigate whether two major provisions contained in the Dodd-Frank Act, say-on-pay and clawback of bonus compensation, affected either shareholder trust or manager trustworthiness in an investment setting. To investigate these questions, we conducted five experimental sessions over a four-week period. At the beginning of each experimental session, participants were randomly chosen to serve as either manager or shareholder, maintaining that role for the duration of the experiment. After the roles had been assigned, shareholder players moved to a different room where they were randomly paired with an anonymous manager-counterpart. The identities of the respective players were not revealed to their counterparts at any time during or after the experiment.

As discussed in Chapter 3, all participants completed a post-experiment questionnaire which included a manipulation check to ensure that subjects could clearly identify the condition to which they were assigned. Those participants who failed to correctly answer the manipulation check questions were dropped from further analysis, resulting in a final sample of 35 manager-shareholder pairs. The total sample of subjects included 57 business majors and 13 non-business majors, 42 of whom were female and 28 of whom were male. Demographic data for the 70 participants is presented in Table 1 below.

Table 1

Participant Demographics

Variable	Number of Participants	%
Gender		
Male	28	40%
Female	42	60%
Age		
18 – 25	59	84%
26 – 33	7	10%
34 – 41	4	6%
Job Status		
Employed	49	70%
Not Employed	21	30%
Major		
Business	57	81%
Non-Business	13	19%

Treatment Groups

Recall that the four experimental conditions were: No Say-on-Pay with No Clawback (NSNC), Say-on-Pay with No Clawback (WSNC), No Say-on-Pay with Clawback (NSWC), and Say-on-Pay with Clawback (WSWC). Descriptive statistics are presented for individual treatment groups in Table 2. A preliminary analysis was conducted to determine whether significant differences existed between treatment groups on categorical demographic variables. Results of the chi-square analyses for demographic by treatment condition are presented in Table 3 - Panel A, indicating no significant relationship between demographic variables and treatment condition. A similar summary in Table 3 – Panel B reveals no significant results for chi-square analyses of demographic by role. It would appear that both treatment condition and role in the

experiment (i.e. shareholder or manager) are independent of all demographic variables. Thus, we can conclude that the randomization process was successful.

Table 2

Descriptive Statistics: Demographics by Treatment Group

	NSNC	NSWC	WSNC	WSWC	Totals
Number of Dyads	9	8	8	10	35
Number of Females	11	10	9	10	40
Number Employed	13	9	12	15	49
Age Group					
18 – 25	17	12	13	17	59
26 – 33	1	2	2	2	7
34 – 41	0	2	1	1	4
Major					
Business	13	16	12	16	57
Non-Business	5	0	4	4	13

Table 3 - Panel A

Chi Square Tests for Demographic by Condition

Variable	Test	Statistic	Df	Sig.
Gender	χ^2	0.145	3	0.986
Age	χ^2	3.302	6	0.812
Major	χ^2	5.122	3	0.176
Job Status	χ^2	1.911	3	0.617

Table 3 - Panel B

Chi Square Tests for Demographic by Role

Variable	Test	Statistic	Df	Sig.
Gender	χ^2	0.000	1	1.0
Age	χ^2	2.303	2	0.369
Major	χ^2	2.362	1	0.218
Job Status	χ^2	0.612	1	0.603

Aggregate Data

Some features of the aggregate data are presented in the Tables below. Table 4 shows the relative frequencies of participants who chose to invest as well as the conditional relative frequencies of "split" (given the choice to invest) by treatment and by individual round. Frequency of split was calculated using only those participants who had an opportunity to split. If their respective counterpart chose not to invest, there was no opportunity to split. In such cases, each player received only their initial endowment. Recall that the same subjects played all three rounds within each treatment group, so these are not independent observations. From a cursory inspection, the percentages of investment in Table 5 are exactly as predicted, with investment being least frequent in the control condition and most frequent in the with Say with Clawback condition. In fact, looking at the data, without the benefit of statistical analysis, it would appear that the threat of penalty (an economic variable) results in significantly more investment than giving shareholders a say on pay (a psychological variable). The relative frequency of investment and splitting is presented by treatment condition in Table 5 with the highest efficiency for both in the Say with Clawback treatment condition.

Table 4

	Frequency of Investment and Splitting			
	Choice to Invest		Choice to Split	
	Frequency	Percentage	Conditional Frequency	Percentage
No Say With No Clawback				
Round 1	**6**	**0.67**	**5**	**0.83**
Round 2	**6**	**0.67**	**6**	**1.00**
Round 3	**5**	**0.56**	**4**	**0.80**
No Say With Clawback				
Round 1	**7**	**0.88**	**7**	**1.00**
Round 2	**7**	**0.88**	**6**	**0.86**
Round 3	**7**	**0.88**	**7**	**1.00**
With Say No Clawback				
Round 1	**6**	**0.75**	**6**	**1.00**
Round 2	**4**	**0.50**	**4**	**1.00**
Round 3	**7**	**0.88**	**5**	**0.71**
With Say With Clawback				
Round 1	**10**	**1.00**	**10**	**1.00**
Round 2	**8**	**0.80**	**8**	**1.00**
Round 3	**10**	**1.00**	**8**	**0.80**

Table 5

	Percentage of Investment and Splitting			
	NSNC	NSWC	WSNC	WSWC
Percentage of Investment*	**63%**	**88%**	**71%**	**93%**
Percentage of Splitting**	**88%**	**95%**	**88%**	**93%**

Calculated based on 3 rounds of play
****Of those who had an opportunity to split***

Average winnings for shareholders in all treatment conditions combined across all three rounds of play were $5.33. Likewise, average winnings for managers in all conditions across all rounds amounted to $8.96. Interestingly, as shown in Table 6, managers tended to mislead shareholders (i.e. stated return was larger than actual return) less often in the "with say" treatment conditions than in the "no say" conditions. As expected, the most effective deterrent to manager misbehavior was the presence of a say on pay combined with the threat of economic

penalty. Two of the treatment conditions did not provide for a penalty in the event of manager misstatements. However, where the penalty was allowed, it was often enforced (50% of the time in the No Say condition and 100% of the time in the With Say condition).

Table 6

Descriptive Statistics for Entire Data Set

		Average Winnings Within Each Round		Frequency of Misbehavior	Frequency of Penalty
	Round	Shareholder	Manager	Manager Misled	Clawback Enforced
NSNC	1.00	4.89	8.44	2.00	NA
NSNC	2.00	5.33	8.00	3.00	NA
NSNC	3.00	5.22	7.22	3.00	NA
Average/Percentage for NSNC Condition		5.15	7.89	30%	NA
NSWC	1.00	5.75	9.25	2.00	1.00
NSWC	2.00	5.50	9.50	2.00	2.00
NSWC	3.00	5.00	10.00	4.00	1.00
Average/Percentage for NSWC Condition		5.42	9.58	33%	50%
WSNC	1.00	5.63	8.38	1.00	NA
WSNC	2.00	5.13	6.88	1.00	NA
WSNC	3.00	4.13	10.88	3.00	NA
Average/Percentage for WSNC Condition		4.96	8.71	21%	NA
WSWC	1.00	6.40	9.60	1.00	1.00
WSWC	2.00	5.60	8.80	1.00	1.00
WSWC	3.00	5.40	10.60	2.00	2.00
Average/Percentage for WSWC Condition		5.80	9.67	13%	100%
Average for all Conditions		5.33	8.96		

Hypothesis Testing

H1a - Manager Offers

Our first hypothesis predicts that Managers' offers will be lower in the With Say with Clawback treatment condition than in the other treatment conditions. To test whether manager offers differ by treatment condition, an ANOVA was first conducted to assess the overall impact of SAY and CLAW on mean manager offers[9]. The results indicated that the variables of interest were not significant in Rounds 1 or 3. However, CLAWBACK did present a significant effect in Round 2 (F=3.9, p=.057). Results of the Round 2 ANOVA are presented below in Table 7 along with mean manager offers by round. Referring to this table, it is apparent that the biggest difference in mean manager offers occurs between the WSWC condition and the control condition with offers being a full $1.19 higher in the latter treatment.

Table 7

	Treatment Condition				Round 2 ANOVA Results			
Mean Offer & Mean Difference by Round	With Say With Claw	No Say No Claw	With Say No Claw	No Say With Claw		*df*	F	*p*-value
1	6.10	6.11	6.25	6.38	Say	1	0.20	0.658
		-0.01	-0.15	-0.28	Claw	1	3.90	0.057
					Say x Claw	1	0.36	0.553
2	5.70	6.89	6.38	5.63				
		-1.19	-0.68	0.07				
3	7.30	7.78	7.25	6.88				
		-0.48	0.05	0.42				

Although the ANOVA for Round 2 does suggest that CLAWBACK influences manager offers, it does not provide statistical evidence with respect to specific treatment conditions that

[9] A similar analysis was conducted using repeated measures ANOVA. Results of that analysis, considering all three rounds simultaneously, indicate that neither say (F = .063, p = .803) nor claw (F = .983, p = .329) was significant.

the hypothesis addresses. Therefore, it was necessary to conduct planned post hoc comparisons between manager offers under the WSWC condition and three other conditions. As indicated in Table 8, the mean difference between manager offers in the WSWC and the NSNC condition is statistically significant (t=1.76, p=.05). However, there is no similar result when WSWC is compared to either SAY alone or CLAW alone. In other words, considering both Round 2 ANOVA results and the pairwise T-tests, presented below, the two groups that differ based on the presence of a clawback are statistically different but the two groups that differ based on shareholder say are not statistically different. This result suggests that with respect to manager offers, the economic impact of a penalty has more influence than the psychological impact of shareholder voice. This conclusion aside, H1a is only partially supported.

Table 8

Pairwise T-Tests of Manager Offers in Round 2

		Mean Offer	N	t	p-value
WSWC	4	5.70	10		
NSNC	Vs. 1	6.89	9	1.76	.050
WSNC	Vs. 2	6.38	8	1.19	.130
NSWC	Vs. 3	5.63	8	-0.114	.460
NSNC	1	6.89	9		
WSNC	Vs. 2	6.38	8	0.688	.251
NSWC	Vs. 3	5.63	8	1.55	.071

H1b – Manager Offers With Respect to Fairness

All participants, regardless of treatment condition or role (i.e. manager or shareholder), were asked to provide a statement regarding what they considered to be a fair return. The

wording in these statements was slightly different depending upon shareholder investment, but both statements, as presented to manager participants, appear in Appendix B as a part of the post-experiment questionnaire. Presentation of "Stated Fair Return" for both shareholders and managers by treatment condition is presented in Table 9.

Table 9

Stated Fair Return – NSNC

Pair ID	Shareholder	Manager
1	4	8
2	6	6
3	6	4
5	6	6
6	9	10
7	8	8
9	8	6
14	8	8
15	12	6
Average	**7.44**	**6.89**
Difference	**0.56**	

Stated Fair Return - WSWC

Pair ID	Shareholder	Manager
1	8	6
2	6	6
3	6	6
4	8	8
5	10	8
7	6	6
8	6	7
10	6	7
14	7	6
15	9	4
Average	**7.20**	**6.40**
Difference	**0.80**	

Stated Fair Return – NSWC

Pair ID	Shareholder	Manager
2	8	6
5	6	6
6	8	8
7	6	6
8	8	5
11	5	5
14	8	6
15	8	6
Average	**7.13**	**6.00**
Difference	**1.13**	

Stated Fair Return - WSNC

Pair ID	Shareholder	Manager
1	8	6
2	8	8
3	8	8
4	6	6
5	6	4
8	8	8
10	6	6
14	7	6
Average	**7.13**	**6.50**
Difference	**0.63**	

To test H1b, a "difference score" variable was needed to measure the difference between the original offer of each manager and the stated fair amount given by that manager in each round of play. In other words, this variable was the difference between managers' initial offers to shareholders and what managers stated was a fair return.

H1b predicted that managers' offers would be closer to the stated fair amount in the Say with Clawback condition than in the other three treatment conditions. Presented in Table 10-Panel A are mean difference scores, by treatment group, for the three rounds of play. Negative values indicate that the amount offered was less than the stated fair amount. With respect to these values, the treatment condition with the lowest absolute value represents the treatment condition where managers' offers were closest to their assessment of what was fair. H1b predicted that the lowest absolute value would be in the WSWC condition. Statistical results are presented in Table 10-Panel B below.

Table 10-Panel A

	Treatment Condition			
Mean Difference Between Offer and Manager Fairness by Round	**With Say With Claw**	**No Say No Claw**	**With Say No Claw**	**No Say With Claw**
1	**-0.30**	**-0.78**	**-0.25**	**0.38**
2	**-0.70**	**0.00**	**-0.12**	**-0.38**
3	**0.90**	**0.89**	**0.75**	**0.87**

Table 10-Panel B

ANOVA Results for Manager Difference Scores

	Source	*df*	F	*p*-value
Round 1	**Say**	**1**	**0.026**	**0.874**
	Claw		**1.434**	**0.240**
	Say x Claw		**1.705**	**0.201**
Round 2	**Say**	**1**	**0.224**	**0.640**
	Claw		**0.997**	**0.326**
	Say x Claw		**0.044**	**0.835**
Round 3	**Say**	**1**	**0.008**	**0.930**
	Claw		**0.011**	**0.917**
	Say x Claw		**0.016**	**0.900**

An ANOVA was conducted to determine if there were significant group differences for each round of play, across treatment conditions, between the amount of return offered by managers and managers' assessment of a fair offer. Table 10-Panel B summarizes these results. Again, a comparison is being made between the difference score in the WSWC treatment condition with the other three conditions. The difference variable is not significant in any of the three rounds based on treatment condition. Thus, H1b is not supported.

In general, for Rounds 1 and 2, managers made an initial offer that was lower than what they considered to be fair (denoted by negative difference scores). However, in Round 3, difference scores were higher, suggesting that offers were higher than was considered fair. This finding is consistent with prior findings on reputation effects in that, for the final round of play, managers are no longer concerned with shareholder perception which might affect investment in future rounds. Consequently, in Round 3, managers are more likely to behave in a self-interested fashion by offering more and returning less to shareholders. Further examination of the "fairness" aspects of shareholder and manager behavior will be addressed in a subsequent section.

H2 – Counteroffer More Likely with Clawback

Recall, H2 predicts shareholders' counteroffer in the second and third rounds of the game will be more likely when there is a penalty for dishonoring the offer. To test this hypothesis, it was necessary to limit the data to include only observations where SAY (i.e. counteroffer) was permitted because we are interested in whether the frequency of SAY is statistically different in the CLAW vs. NO CLAW conditions. It was also necessary to exclude all Round 1 observations because SAY was mandatory in Round 1 and optional in Rounds 2 and 3, thus, there would be

no variation in counteroffer for Round 1. Chi Square analysis using the data from Rounds 2 and 3 of the WSNC and the WSWC treatment conditions suggests that the presence of a penalty does not impact the exercise of a SAY with respect to return. Round 2 results are $\chi^2 = 1.90$, $p = .184$, (df=1, N=18) and Round 3 results are $\chi^2 = .064$, $p = .618$, (df=1, N=18).

Referring to the frequency table below (Table 11), a non-statistical analysis of the pattern of counteroffer vs. no counteroffer in Round 2 suggests that there is a difference in the way shareholders respond to the presence of a potential manager penalty. It would appear that shareholders in the WSWC condition are more likely to express a say, although this conclusion is not supported statistically. In Round 3, even though the pattern of counteroffer is much more consistent between the two treatments, there is still a slightly greater preference for counteroffer in the WSWC group. Although the statistical results described above are somewhat counter-intuitive, supplemental power analysis suggests that a larger sample size would have produced significant results in favor of H2. Consequently, these results warrant future consideration.

Table 11

Percentage (Frequency) of Shareholders Exercising "Say"

	Say Only Group		WSWC Group	
	Round 2	Round 3	Round 2	Round 3
Shareholder Made Counter Offer	38% (3)	75% (6)	70% (7)	80% (8)
Shareholder Did Not Make Counter Offer	62% (5)	25% (2)	30% (3)	20% (2)

H3a – Shareholder Investment

A particularly important policy issue addressed in this study is whether shareholder behavior is directly influenced by either having a say in the executive compensation process or being protected from manager misbehavior through the imposition of a penalty to clawback ill-gotten manager bonuses. In other words, will shareholders actually be motivated to invest in U.S. capital markets as a result of the Dodd-Frank legislation. H3a predicts that shareholders are more likely to invest with a counter-offer and when there is a penalty for dishonoring the offer than when there is no counter-offer and/or there is no penalty. This hypothesis requires comparison of the WSWC group to the other three treatment conditions. The results of these comparisons are summarized in Table 12 below. Chi Square tests were conducted first for each individual round of play, with all four treatment conditions considered, to determine whether the treatment conditions were significantly different from each other and then pairwise comparisons were made to examine the differences between the WSWC treatment condition and the other three treatment groups.

Table 12

Chi Square Tests for Frequency of Investment

	Statistic	Value	*Df*	*p*-value
Overall Chi Square on Round 1	χ^2	**4.19**	**3**	**0.24**
WSWC to NSNC	χ^2	**3.96**	**1**	**0.05***
WSWC to WSNC	χ^2	**2.81**	**1**	**0.09****
WSWC to NSWC	χ^2	**1.32**	**1**	**0.25**
Overall Chi Square on Round 2	χ^2	**3.27**	**3**	**0.35**
WSWC to NSNC	χ^2	**0.43**	**1**	**0.51**
WSWC to WSNC	χ^2	**1.80**	**1**	**0.18**
WSWC to NSWC	χ^2	**0.18**	**1**	**0.67**
Overall Chi Square on Round 3	χ^2	**7.04**	**3**	**0.07****
WSWC to NSNC	χ^2	**5.63**	**1**	**0.02***
WSWC to WSNC	χ^2	**1.32**	**1**	**0.25**
WSWC to NSWC	χ^2	**1.32**	**1**	**0.25**

p < .05
****p < .10***

As indicated in Table 12, there is a statistically significant overall difference among the four treatment conditions only in Round 3 (p =.07). This evidence suggests that shareholders do, in fact, exhibit some change in behavior with respect to investment which can be attributed to the manipulations. However, this overall significant result does not tell us which treatment groups are driving this difference. Therefore, supplemental chi square analysis was conducted to make pairwise comparisons, by round, between the WSWC condition and the other three treatment conditions. Again, referring to Table 12, we can see that significant differences exist in Round 1 between the control condition and the WSWC condition as well as between the "say only" condition and the WSWC condition. Careful analysis of these Round 1 results suggests that the difference in investment occurred because of the clawback rather than the say on pay. Notice that there is no statistical difference between the WSWC condition and the NSWC condition. This finding essentially verifies that if we hold claw constant, there is no significant change in frequency of investment as a result of shareholders having a say on pay. Further evidence to support the impact of the clawback on shareholder investment can be found by analyzing the result of the WSWC to the WSNC comparison in Round 1. Notice that both of these treatment conditions allow shareholders to express an opinion regarding return. The only difference between these two treatments is the presence of a clawback, yet, 93% of the shareholders in the WSWC condition invested as compared to only 71% in the WSNC condition.

In Round 3 of play, we observe both a marginal overall significance (p = .07) and a strong significance (p = .02) in the impact of treatment group on investment at the two experimental extremes, the control condition and the condition with both say and claw. With respect to Round 2, the data does not provide evidence that treatment condition is associated with

significantly different frequencies of investment. Again, supplemental power analysis suggests that increased sample size would improve the strength of these results. However, we cannot say definitively from the results in Rounds 2 or 3 whether the presence of a potential penalty is the deciding factor for shareholders in their decisions to invest but we can say that the results from Round 1 would support that theory.

It would appear that the policy provisions contained within the Dodd Frank legislation do influence shareholder behavior when taken together but we cannot make assumptions at this time as to which provision, if either, predicts shareholder investment. Referring to Table 4, investment in the WSWC condition was at 100% in the first and last rounds and remained strong in Round 2 at 80%. Investment in the NSWC condition was also very strong with investment remaining consistently at 88% throughout all three rounds of play. In terms of percentage of investment, shareholders in these two conditions, the WSWC condition and the NSWC condition, appear to be most likely to invest. Supplemental power analysis suggests that an increased sample size would support a stronger conclusion for the significance of clawback as a driver of shareholder investment.

H3b – Manager Return

The final hypothesis in the study (H3b) predicts that managers will return more in the Say with Clawback condition than in the other three treatment conditions. Testing this hypothesis requires an examination of shareholder return for each of the individual treatment conditions. A summary of the average amounts returned by managers is presented in Table 13, followed in Table 14 by a statistical comparison of mean manager return between treatment conditions for

the three rounds of play[10].

[10] Generally, statistical results of t-tests are reported in the form of a two-tailed p-value, meaning that at alpha = .05, statistical significance would be indicated by a test statistic which lies in either the upper 2.5% or the lower 2.5% of the underlying probability distribution. However, the question of interest in the present study is whether mean manager return is greater (not lesser) in the WSWC condition. Because of the nature of this directional hypothesis, it is appropriate to report significance using a one-tailed test. We use this convention where appropriate throughout the remainder of the paper.

Table 13

Average Amounts Returned by Managers Across Conditions

	N	MEAN	S.D.
NSNC			
Round 1	**9**	**4.89**	**2.26**
Round 2	**9**	**5.33**	**1.73**
Round 3	**9**	**5.22**	**3.07**
Overall Trmt Mean		**5.15**	
WSNC			
Round 1	**8**	**5.62**	**1.51**
Round 2	**8**	**5.13**	**1.46**
Round 3	**8**	**4.13**	**2.85**
Overall Trmt Mean		**4.96**	
NSWC			
Round 1	**8**	**5.75**	**1.58**
Round 2	**8**	**5.50**	**2.93**
Round 3	**8**	**5.00**	**1.93**
Overall Trmt Mean		**5.42**	
WSWC			
Round 1	**10**	**6.40**	**1.08**
Round 2	**10**	**5.60**	**1.43**
Round 3	**10**	**5.40**	**3.06**
Overall Trmt Mean		**5.80**	

As predicted in H3b, the average amount returned to shareholders was highest in the WSWC condition with an overall mean across the three rounds of $5.80. The next highest overall treatment mean was in the NSWC treatment condition with a mean return of $5.42. However, analysis of the data using t-tests suggests that these differences are not statistically significant. Referring to Table 14, the only significant difference in manager return occurred between the control condition and the WSWC condition in Round 1 with no significance in Rounds 2 or 3. Even though the predicted differences are not statistically significant, observed negative t-values for every comparison of mean return in Table 14 indicate that H3b is directionally correct.

Shareholders did receive greater absolute returns in the WSWC condition than in any other condition

Table 14
T-Tests for Amounts Returned by Managers Across Treatments

Round 1	**Game 4**	**t-stat**	**p-value (1-sided)**
	v.1	**-1.83**	**0.047***
	v.2	**-1.23**	**0.121**
	v.3	**-0.99**	**0.170**
Round 2	**Game 4**		
	v.1	**-0.36**	**0.721**
	v.2	**-0.69**	**0.499**
	v.3	**-0.09**	**0.930**
Round 3	**Game 4**		
	v.1	**-0.13**	**0.901**
	v.2	**-0.91**	**0.376**
	v.3	**-0.34**	**0.740**

Additional Analysis – Perception of Fairness

Additional tests were performed to investigate how manager offers compared to shareholders' assessment of what represented a fair return. The results reveal interesting but unsurprising patterns. Offers are less than what shareholders consider to be fair in every treatment condition in both Rounds 1 and 2. However, in Round 3, this is not the case. Consistent with prior literature, managers offer more in the final round of play resulting in less of a difference between that amount and shareholders' assessment of fairness.

Table 15

Difference Between Manager Offers and Shareholders' Assessment of Fair Return

	Manager Offer		Shareholder Fairness			Results	
Round 1	N	Mean	N	Mean	Mean Difference	*t*	p-value (one-sided)
NSNC	9	6.11	9	7.44	-1.33	-1.47	0.082**
WSNC	8	6.25	8	7.13	-0.88	-1.62	0.065**
NSWC	8	6.38	8	7.13	-0.75	-1.23	0.119
WSWC	10	6.10	10	7.20	-1.10	-1.78	0.046*
Round 2							
NSNC	9	6.89	9	7.44	-0.55	-0.58	0.287
WSNC	8	6.38	8	7.13	-0.75	-1.30	0.109
NSWC	8	5.63	8	7.13	-1.50	-2.09	0.028*
WSWC	10	5.70	10	7.20	-1.50	-2.61	0.009*
Round 3							
NSNC	9	7.78	9	7.44	0.34	0.32	0.375
WSNC	8	7.25	8	7.13	0.12	0.14	0.446
NSWC	8	6.88	8	7.13	-0.25	-0.28	0.394
WSWC	10	7.30	10	7.20	0.10	0.13	0.450

An examination of the difference between actual return and managers' assessment of a fair return is presented in Table 16. One interesting finding revealed by this analysis is the fact that actual return is less than what managers considered to be a fair return for every round in every treatment condition with the exception of one "zero" difference in the WSWC treatment condition in Round 1. Analysis using t-tests confirm that the NSNC condition presents a significant difference between actual and fair return in every round of play ($t = -2.09$, $p = .027$; $t = -1.89$, $p = .039$, $t = -1.41$, $p = .091$). This finding suggests that managers knowingly gave an unfairly low return when they were not deterred from doing so by either shareholder input or a potential economic penalty. The WSNC condition suggests a similar result with significant findings in Rounds 2 and 3 ($t = -1.91$, $p = .038$; $t = -2.11$, $p = .030$) and nearly so in Round 1 ($t = -1.20$; $p = .126$). An inconclusive exception to this finding occurred in the WSWC condition in Round 2 which presented a significant finding ($t = -1.37$, $p = .094$).

Table 16

Difference Between Actual Return and Managers' Assessment of Fair Return

	Actual Return		Manager Fairness			Results	
Round 1	N	Mean	N	Mean	Mean Difference	*t*	p-value (one-sided)
NSNC	9	4.89	9	6.89	-2.00	-2.09	0.027*
WSNC	8	5.63	8	6.50	-0.87	-1.20	0.126
NSWC	8	5.75	8	6.00	-0.25	-0.39	0.353
WSWC	10	6.40	10	6.40	0.00	0.00	0.500
Round 2							
NSNC	9	5.33	9	6.89	-1.56	-1.89	0.039*
WSNC	8	5.13	8	6.50	-1.37	-1.91	0.038*
NSWC	8	5.50	8	6.00	-0.50	-0.46	0.328
WSWC	10	5.60	10	6.40	-0.80	-1.37	0.094**
Round 3							
NSNC	9	5.22	9	6.89	-1.67	-1.41	0.091**
WSNC	8	4.13	8	6.50	-2.37	-2.11	0.030*
NSWC	8	5.00	8	6.00	-1.00	-1.32	0.108
WSWC	10	5.40	10	6.40	-1.00	-0.96	0.178

A summary of the differences between actual return and shareholder perception of a fair return, presented in Table 17, reveal significant statistical evidence (with one exception in the WSWC condition of Round 1, (t=-1.21, p = .259)) in every round of play, for each of the four treatments, that what managers actually returned was drastically different from what shareholders considered to be fair. In this instance it is also informative to examine the mean difference between actual and anticipated return. Mean difference in the two conditions where a potential penalty is present for each of the three rounds of play is smaller than the mean differences in the two conditions which do not contain a clawback provision. From this evidence we can conclude that even though there were significant differences between what managers actually returned and what shareholders thought was fair, the clawback generally worked to mitigate this contrast.

Table 17

Difference Between Actual Return and Shareholders' Assessment of Fair Return

	Actual Return		Shareholder Fairness			Results	
Round 1	N	Mean	N	Mean	Mean Difference	*t*	p-value (one-sided)
NSNC	9	4.89	9	7.44	-2.55	-2.10	0.035*
WSNC	8	5.63	8	7.13	-1.50	-2.39	0.024*
NSWC	8	5.75	8	7.13	-1.38	-2.43	0.045*
WSWC	10	6.40	10	7.20	-0.80	-1.21	0.259
Round 2							
NSNC	9	5.33	9	7.44	-2.11	-2.04	0.038*
WSNC	8	5.13	8	7.13	-2.00	-3.53	0.005*
NSWC	8	5.50	8	7.13	-1.63	-1.55	0.083**
WSWC	10	5.60	10	7.20	-1.60	-1.86	0.048*
Round 3							
NSNC	9	5.22	9	7.44	-2.22	-2.06	0.037*
WSNC	8	4.13	8	7.13	-3.00	-2.95	0.01*
NSWC	8	5.00	8	7.13	-2.13	-2.55	0.019*
WSWC	10	5.40	10	7.20	-1.80	-1.65	0.067**

In the two "say" conditions, WSNC and WSWC, shareholders were given the opportunity to express a counteroffer at the time of investment. Counteroffer was mandatory in Round 1 and voluntary in Rounds 2 and 3. Table 18 presents a summary of the average amount of counteroffer compared to what the shareholder thought was a fair return. An observation of these means suggests that the counteroffer was closer to the shareholder's perception of fair when a potential penalty for manager misbehavior was present. A plausible explanation for this behavior could be that shareholders' were more confident that their counteroffer would be considered if managers faced a penalty for misleading.

Table 18

Counteroffer vs. Shareholders' Assessment of Fair Return

	Counteroffer		Shareholder Fairness		
Round 1	N	Mean	N	Mean	*Mean Diff*
WSNC	8	5.38	8	7.13	-1.75
WSWC	10	6.40	10	7.20	-0.80
Round 2					
WSNC	7	3.00	8	7.13	-4.13
WSWC	7	7.86	10	7.20	0.66
Round 3					
WSNC	8	5.75	8	7.13	-1.38
WSWC	9	7.22	10	7.20	0.02

Once again, counteroffer was mandatory in Round 1 and voluntary in Rounds 2 and 3 of the WSNC and the WSWC conditions. Table 19 presents a summary of the average amount of counteroffer compared to what the managers thought was a fair return. Analysis of this data provides further evidence that the clawback provides some incentive for shareholders to make a counteroffer and managers are more reasonable in their assessments of fair where a potential penalty exists. In the WSWC condition for Round 1, there is no difference in manager or shareholder perception of fairness and in Rounds 2 and 3, counteroffers were closer to the managers' perception of fair when a potential penalty for manager misbehavior was present.

Table 19

Counteroffer vs. Managers' Assessment of Fair Return

	Counteroffer		Manager Fairness		
Round 1	N	Mean	N	Mean	*Mean Diff*
WSNC	8	5.38	8	6.50	-1.12
WSWC	10	6.40	10	6.40	0.00
Round 2					
WSNC	7	3.00	8	6.50	-3.50
WSWC	7	7.86	10	6.40	1.46
Round 3					
WSNC	8	5.75	8	6.50	-0.75
WSWC	9	7.22	10	6.40	0.82

CHAPTER 6 – CONCLUSION

This study is an investigation of the impact of two recently mandated shareholder protections, say on pay and clawbacks of executive compensation, implemented as a result of the Dodd Frank legislation. Say-on-pay is a psychological incentive intended to give shareholders a voice in the governance process and thereby cause them to feel vested in both the investment decision and the financial outcome. Clawbacks, on the other hand, are an economic dis-incentive intended to discourage managers from manipulating accounting information to achieve self-interested outcomes. The two control mechanisms have been independently investigated in several academic studies, most often using archival data. However, the current study is unique in that it is the first to investigate both say on pay and clawbacks of executive compensation with respect to shareholder trust and manager trustworthiness.

This study provides evidence in support of the following findings. First, shareholders are more likely to participate in the investment process if they feel they have a voice in that process AND are comfortable that managers can be trusted to act responsibly. Investment occurred more frequently (91% overall) when managers were subject to a potential penalty for misbehavior. When no such penalty existed, investment dropped to 67% overall. Likewise, managers were more likely to be trustworthy (i.e. return something to shareholders) a higher percentage of the time when the clawback was in place, roughly 94% of the time in the penalty condition compared to 88% of the time when no penalty existed. As in prior trust game studies,

managers fared better overall than shareholders with average winnings of $8.96 compared to $5.33.

Second, manager offers are lower when they are faced with a penalty for misreporting. Analysis of the four treatment conditions revealed a statistical difference between manager offers in the control condition and the penalty condition (mean of $6.89 in the control condition compared to mean of $5.63 in the penalty condition). This finding suggests that the policy requiring a penalty for financial restatements is a strong incentive for managers to be conservative in their reporting of financial data.

Third, managers did not make offers which were significantly different from what they thought was fair. However, ACTUAL RETURN was, in general, statistically lower than what either managers or shareholders considered to be a fair return. With respect to managers, the statistical differences between return and shareholder fairness were particularly striking in the "no-penalty" conditions whereas, for shareholders, the difference between actual and fair return was statistically significant regardless of treatment condition. However, the evidence does suggest that the clawback mitigates this inequity to some extent. Also, manager offers were generally higher in the third and final round of play, consistent with the notion that in the final round of play, managers are no longer concerned with the need to appear trustworthy for the purpose of inducing investment in future rounds.

Limitations and Potential Future Research

There are several limitations to this study that could be addressed with future research. First, failed manipulation check questions resulted in the loss of approximately 25% of the subjects who originally participated in the experiment. This reduction in sample size caused a

loss of power as well as unequal distribution of observations across treatment conditions. Although the findings reported herein are robust and consistent with theory, subsequent power analysis suggests that a larger sample size would provide stronger evidence to substantiate the main predictions put forth. Therefore, caution should be used when generalizing these results to a larger population.

Second, this study is based on a game theoretical approach used to explore the complex psychological states of trust and trustworthiness. Researchers have long debated the virtues of laboratory research over field research and although our study lacks contextual detail, it is grounded in sound experimental economics theory. As noted by Kachelmeier and King (2002), only in a true experiment can we vary an existing or proposed policy alternative of interest and measure its incremental influence on decision makers, holding all other influences constant. The findings reported in this study contribute in a meaningful way to the debate surrounding currently mandated shareholder protections. A future experimental study could compare the results of this study with one which provides a much greater level of contextual detail. It would appear that in at least some settings, the clarifications implied by contextual descriptions can indeed modify the economic predictions that would otherwise prevail (Haynes and Kachelmeier, 1998).

The Dodd Frank legislation continues to be a controversial, expensive, and, perhaps, ineffective regulatory measure. It was passed as a result of failing financial markets and public outrage over abusive corporate compensation practices that rewarded managers without regard for performance. The law was intended to make the process of structuring executive compensation more transparent while holding managers to a higher standard of accountability to both shareholders and the public. However, the cost of implementation and the complexity of

the legislation itself have perpetuated discord between regulators and companies. On June 21st of this year, State National Bank filed suit, challenging the constitutionality of the Consumer Financial Protection Bureau claiming that it was neither accountable nor transparent in its dealings.

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LIST OF APPENDICES

Appendix A – Instruments

Note to researchers: Be sure to read the general instructions that you always read before a game (see below). Player 1 and Player 2 should be separated in two rooms/locations before you begin this game. The risk of collusion in the holding room is greater in this game due to the tripling effect. First instruct the Player 2's in a group. Then take up all of their statements to present to Player 1's. Ask them to wait while you play with the Player 1's. Then ask the Player 1's to wait while you play with the Player 2's in turn. Finally, pay off each group. Remember that there is no show-up fee with the trust game because both sides are given the same initial endowment.

GENERAL INSTRUCTIONS

Thank you for taking the time to come today. Before we begin I want to make some general comments about what we are doing here today and explain some rules that we need to follow. We will be playing a game for real money that you will take home.

If you have heard about a game that has been played here in the past you should try to forget everything that you have been told. This is a completely different game. We are about to begin the game. It is important that you listen as carefully as possible, because only people who understand the game will actually be able to play it. Please do not talk during the game instruction or during the game itself. It is very important for you to obey this rule – even some inadvertent comments could invalidate this study, in which case we would not be able to play the game today.

GAME INSTRUCTIONS (NO SAY NO CLAW)

Game Summary

You will play three rounds of the same investment game. This game is played by pairs of individuals. Each pair is made up of a Player 1 and a Player 2. You will be assigned to the same player type (either Player 1 or Player 2) and will be paired with the *same partner* for all three rounds. Player 1 and Player 2 will each receive $4 cash vouchers to start the game. Player 1 will choose whether to keep his/her cash voucher or to invest it with Player 2. If Player 1 invests the cash with Player 2, the investment will be tripled to $12. Player 2 will then choose how much of that money ($12), if any, to return to Player 1.

Procedure

The game will be completed in the following steps:

1. Each player receives a cash voucher envelope containing a $4 cash voucher. Player 2 will also receive an Investment Return Form A.
2. On the Investment Return Form A, Player 2 enters a proposed amount (up to $12) that s/he will return to Player 1 if Player 1 will invest his/her $4. However, *Player 2 will not be bound to his/her proposal*.
3. Player 2 submits the Investment Return Form A to the experimenter, who forwards it to Player 1.
4. Player 1 reviews the Investment Return Form A and then chooses whether to invest the $4 or to keep it.

5. If Player 1 decides to invest, Player 1 will leave the cash vouchers in the envelope.
6. Player 1 hands the $4 investment and the Investment Return Form A to the experimenter, who triples the investment amount to $12 and forwards it with the Investment Return Form A to Player 2.
7. Player 2 chooses the amount to return to Player 1 on the investment return form B and hands it to the experimenter.

Payoff Calculation:

For Player 1:
Player 1 will be paid $4 if the cash voucher is not invested with Player 2. If the cash voucher was invested with Player 2, then Player 1 will be paid for the amount that Player 2 returns to Player 1.

For Player 2:
Player 2 will be paid the original $4, plus the amount (up to $12) not returned to Player 1.

Cash Payment:

Each participant will be paid the highest amount she or he earned for one of three rounds of the game played.

Note to researchers: Be sure to read the general instructions that you always read before a game (see below). Player 1 and Player 2 should be separated in two rooms/locations before you begin this game. The risk of collusion in the holding room is greater in this game due to the tripling effect. First instruct the Player 2's in a group. Then take up all of their statements to present to Player 1's. Ask them to wait while you play with the Player 1's. Then ask the Player 1's to wait while you play with the Player 2's in turn. Finally, pay off each group. Remember that there is no show-up fee with the trust game because both sides are given the same initial endowment.

GENERAL INSTRUCTIONS

Thank you for taking the time to come today. Before we begin I want to make some general comments about what we are doing here today and explain some rules that we need to follow. We will be playing a game for real money that you will take home.

If you have heard about a game that has been played here in the past you should try to forget everything that you have been told. This is a completely different game. We are about to begin the game. It is important that you listen as carefully as possible, because only people who understand the game will actually be able to play it. Please do not talk during the game instruction or during the game itself. It is very important for you to obey this rule – even some inadvertent comments could invalidate this study, in which case we would not be able to play the game today.

GAME INSTRUCTIONS (SAY ONLY)

Game Summary

You will play three rounds of the same investment game. This game is played by pairs of individuals. Each pair is made up of a Player 1 and a Player 2. You will be assigned to the same player type (either Player 1 or Player 2) and will be paired with the *same partner* for all three rounds. Player 1 and Player 2 will each receive $4 cash vouchers to start the game. Player 1 will choose whether to keep his/her cash voucher or to invest it with Player 2. If Player 1 invests the cash with Player 2, the investment will be tripled to $12. Player 2 will then choose how much of that money ($12), if any, to return to Player 1.

Procedure

The game will be completed in the following steps:

1. Each player receives a cash voucher envelope containing a $4 cash voucher. Player 2 will also receive an Investment Return Form A.
2. On the Investment Return Form A, Player 2 enters a proposed amount (up to $12) that s/he will return to Player 1 if Player 1 will invest his/her $4. However, *Player 2 will not be bound to his/her proposal*.
3. Player 2 submits the Investment Return Form A to the experimenter, who forwards it to Player 1.
4. Player 1 reviews the Investment Return Form A and then chooses whether to invest the $4 or to keep it.

5. If Player 1 decides to invest, Player 1 will leave the cash vouchers in the envelope, and in the first round of the game (optional for the second and third round), Player 1 also must do the following: On the Investment Return Form A, enter a counter-proposal of the amount of cash (up to $12) to be returned to him/her. This amount may be equal to, more than or less than the amount proposed by Player 2.
6. Player 1 hands the $4 investment and the Investment Return Form A to the experimenter, who triples the investment amount to $12 and forwards it with the Investment Return Form A to Player 2.
7. Player 2 chooses the amount to return to Player 1 on the investment return form B and hands it to the experimenter.

Payoff Calculation:

For Player 1:
Player 1 will be paid $4 if the cash voucher is not invested with Player 2. If the cash voucher was invested with Player 2, then Player 1 will be paid for the amount that Player 2 returns to Player 1.

For Player 2:
Player 2 will be paid the original $4, plus the amount (up to $12) not returned to Player 1.

Cash Payment:

Each participant will be paid the highest amount she or he earned for one of three rounds of the game played.

Note to researchers: Be sure to read the general instructions that you always read before a game (see below). Player 1 and Player 2 should be separated in two rooms/locations before you begin this game. The risk of collusion in the holding room is greater in this game due to the tripling effect. First instruct the Player 2's in a group. Then take up all of their statements to present to Player 1's. Ask them to wait while you play with the Player 1's. Then ask the Player 1's to wait while you play with the Player 2's in turn. Finally, pay off each group. Remember that there is no show-up fee with the trust game because both sides are given the same initial endowment.

GENERAL INSTRUCTIONS

Thank you for taking the time to come today. Before we begin I want to make some general comments about what we are doing here today and explain some rules that we need to follow. We will be playing a game for real money that you will take home.

If you have heard about a game that has been played here in the past you should try to forget everything that you have been told. This is a completely different game. We are about to begin the game. It is important that you listen as carefully as possible, because only people who understand the game will actually be able to play it. Please do not talk during the game instruction or during the game itself. It is very important for you to obey this rule – even some inadvertent comments could invalidate this study, in which case we would not be able to play the game today.

GAME INSTRUCTIONS (CLAW ONLY)

Game Summary

You will play three rounds of the same investment game. This game is played by pairs of individuals. Each pair is made up of a Player 1 and a Player 2. You will be assigned to the same player type (either Player 1 or Player 2) and will be paired with the *same partner* for all three rounds. Player 1 and Player 2 will each receive $4 cash vouchers to start the game. Player 1 will choose whether to keep his/her cash voucher or to invest it with Player 2. If Player 1 invests the cash with Player 2, the investment will be tripled to $12. Player 2 will then choose how much of that money ($12), if any, to return to Player 1.

Procedure

The game will be completed in the following steps:

1. Each player receives a cash voucher envelope containing a $4 cash voucher. Player 2 will also receive an Investment Return Form A.
2. On the Investment Return Form A, Player 2 enters a proposed amount (up to $12) that s/he will return to Player 1 if Player 1 will invest his/her $4. However, *Player 2 will not be bound to his/her proposal*.
3. Player 2 submits the Investment Return Form A to the experimenter, who forwards it to Player 1.
4. Player 1 reviews the Investment Return Form A and then chooses whether to invest the $4 or to keep it.

5. If Player 1 decides to invest, Player 1 will leave the cash vouchers in the envelope.
6. Player 1 hands the $4 investment and the Investment Return Form A to the experimenter, who triples the investment amount to $12 and forwards it with the Investment Return Form A to Player 2.
7. Player 2 chooses the amount to return to Player 1 on the investment return form B and hands it to the experimenter.

Payoff Calculation:

For Player 1:
Player 1 will be paid $4 if the cash voucher is not invested with Player 2. If the cash voucher was invested with Player 2, then Player 1 will be paid for the amount that Player 2 returns to Player 1, *except*: In cases where Player 2 does not return at least his/her proposed amount on the Investment Return Form A, there is a 50% chance that Player 2 will be required to return the entire $12 to Player 1.

For Player 2:
Player 2 will be paid the original $4, plus the amount (up to $12) not returned to Player 1, *except*: In cases where Player 2 does not return at least his/her proposed amount on the Investment Return Form A, there is a 50% chance that Player 2 will be required to return the entire $12 to Player 1.

Cash Payment:

Each participant will be paid the highest amount she or he earned for one of three rounds of the game played.

Note to researchers: Be sure to read the general instructions that you always read before a game (see below). Player 1 and Player 2 should be separated in two rooms/locations before you begin this game. The risk of collusion in the holding room is greater in this game due to the tripling effect. First instruct the Player 2's in a group. Then take up all of their statements to present to Player 1's. Ask them to wait while you play with the Player 1's. Then ask the Player 1's to wait while you play with the Player 2's in turn. Finally, pay off each group. Remember that there is no show-up fee with the trust game because both sides are given the same initial endowment.

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If you have heard about a game that has been played here in the past you should try to forget everything that you have been told. This is a completely different game. We are about to begin the game. It is important that you listen as carefully as possible, because only people who understand the game will actually be able to play it. Please do not talk during the game instruction or during the game itself. It is very important for you to obey this rule – even some inadvertent comments could invalidate this study, in which case we would not be able to play the game today.

GAME INSTRUCTIONS (SAY WITH CLAW)

Game Summary

You will play three rounds of the same investment game. This game is played by pairs of individuals. Each pair is made up of a Player 1 and a Player 2. You will be assigned to the same player type (either Player 1 or Player 2) and will be paired with the *same partner* for all three rounds. Player 1 and Player 2 will each receive $4 cash vouchers to start the game. Player 1 will choose whether to keep his/her cash voucher or to invest it with Player 2. If Player 1 invests the cash with Player 2, the investment will be tripled to $12. Player 2 will then choose how much of that money ($12), if any, to return to Player 1.

Procedure

The game will be completed in the following steps:

1. Each player receives a cash voucher envelope containing a $4 cash voucher. Player 2 will also receive an Investment Return Form A.
2. On the Investment Return Form A, Player 2 enters a proposed amount (up to $12) that s/he will return to Player 1 if Player 1 will invest his/her $4. However, *Player 2 will not be bound to his/her proposal*.
3. Player 2 submits the Investment Return Form A to the experimenter, who forwards it to Player 1.
4. Player 1 reviews the Investment Return Form A and then chooses whether to invest the $4 or to keep it.

5. If Player 1 decides to invest, Player 1 will leave the cash vouchers in the envelope, and in the first round of the game (optional for the second and third round), Player 1 also must do the following: On the Investment Return Form A, enter a counter-proposal of the amount of cash (up to $12) to be returned to him/her. This amount may be equal to, more than or less than the amount proposed by Player 2.
6. Player 1 hands the $4 investment and the Investment Return Form A to the experimenter, who triples the investment amount to $12 and forwards it with the Investment Return Form A to Player 2.
7. Player 2 chooses the amount to return to Player 1 on the investment return form B and hands it to the experimenter.

Payoff Calculation:

For Player 1:
Player 1 will be paid $4 if the cash voucher is not invested with Player 2. If the cash voucher was invested with Player 2, then Player 1 will be paid for the amount that Player 2 returns to Player 1, *except*: In cases where Player 2 does not return at least his/her proposed amount on the Investment Return Form A, there is a 50% chance that Player 2 will be required to return the entire $12 to Player 1.

For Player 2:
Player 2 will be paid the original $4, plus the amount (up to $12) not returned to Player 1, *except*: In cases where Player 2 does not return at least his/her proposed amount on the Investment Return Form A, there is a 50% chance that Player 2 will be required to return the entire $12 to Player 1.

Cash Payment:

Each participant will be paid the highest amount she or he earned for one of three rounds of the game played.

Appendix B – Data Collection Forms

Your ID #_____

Post-Experiment Questionnaire – No Investment - Player 1

Please take a few moments to answer the following questions. Your thoughtful responses will be greatly appreciated and will help us to most accurately interpret the data we collected in today's experiment.

I. You chose **not to give money** to Player 2. Please answer the following questions:

a. How much do you think Player 2 would have given back to you?_____

b. How much do you think is fair for Player 2 to give back?_____

II. Please answer the following questions by placing an "X" in the appropriate blank:

Gender: Male_____ Female_____

Do you have a job? Yes_____ No_____

If you DO have a job Part-Time_____ Full-Time_____

Do you have another source of income? _____Yes _____No

Level of Income: Less than $50,000_____ Greater than $50,000_____

Age: 18 – 25_____ 26 – 33_____ 34 – 41_____ 42 or Older_____

Major in college: Business_____ Non-Business_____

III. Which of the following statements best describes the rules under which the game took place in today's experiment? (check all that apply)

(1) _____You had an opportunity to tell Player 2 how much money you wanted to have returned to you.

(2) _____Had you invested, you would have had a 50% chance of receiving your entire investment back if Player 2 did not give back at least the stated amount of return.

(3) _____Neither of the above statements applied to your experiment.

Your ID #_____

Post-Experiment Questionnaire – Investment – Player 1

Please take a few moments to answer the following questions. Your thoughtful responses will be greatly appreciated and will help us to most accurately interpret the data we collected in today's experiment.

I. You chose to **give money** to Player 2. Please answer the following questions:

c. How much do you think Player 2 will give back to you?_____

d. How much do you think is fair for Player 2 to give back?_____

II. Please answer the following questions by placing an "X" in the appropriate blank:

Gender: Male_____ Female_____

Do you have a job? Yes_____ No_____

If you DO have a job Part-Time_____ Full-Time_____

Do you have another source of income? _____Yes _____No

Level of Income: Less than $50,000_____ Greater than $50,000_____

Age: 18 – 25_____ 26 – 33_____ 34 – 41_____ 42 or Older_____

Major in college: Business_____ Non-Business_____

III. Which of the following statements best describes the rules under which the game took place in today's experiment? (check all that apply)

(1) _____You had an opportunity to tell Player 2 how much money you wanted to have returned to you.

(2) _____You had a 50% chance of receiving your entire investment back if Player 2 did not give back at least the stated amount of return.

(3) _____Neither of the above statements applied to your experiment.

Your ID #_____

Post-Experiment Questionnaire – No Investment – Player 2

Please take a few moments to answer the following questions. Your thoughtful responses will be greatly appreciated and will help us to most accurately interpret the data we collected in today's experiment.

I. Given you did **not receive the money** from Player 1, please answer the following questions:

a. What do you think would have been the fair amount to give back had Player 1 given you his or her $4?_____

b. If you were Player 1, would you give your $4 to Player 2?

Yes_____

No_____

II. Please answer the following questions by placing an "X" in the appropriate blank:

Gender: Male_____ Female_____

Do you have a job? Yes_____ No_____

If you DO have a job Part-Time_____ Full-Time_____

Do you have another source of income? _____Yes _____No

Level of Income: Less than $50,000_____ Greater than $50,000_____

Age: 18 – 25_____ 26 – 33_____ 34 – 41_____ 42 or Older_____

Major in college: Business_____ Non-Business_____

III. Which of the following statements best describes the rules under which the game took place in today's experiment? (check all that apply)

(1) _____You had an opportunity to learn how much money Player 1 wanted you to return.

(2) _____You would have had a 50% chance of losing your entire investment if you had not given back at least the stated amount of return.

(3) _____Neither of the above statements applied to your experiment.

Your ID #_____

Post-Experiment Questionnaire – Investment – Player 2

Please take a few moments to answer the following questions. Your thoughtful responses will be greatly appreciated and will help us to most accurately interpret the data we collected in today's experiment.

I. Given that you **received the money** from Player 1, please answer the following questions:

c. What do you think is the fair amount to be given back to the Player 1 who gave you his or her $4?_____

d. If you were Player 1, would you give your $4 to Player 2?

Yes_____

No_____

II. Please answer the following questions by placing an "X" in the appropriate blank:

Gender: Male_____ Female_____

Do you have a job? Yes_____ No_____

If you DO have a job Part-Time_____ Full-Time_____

Do you have another source of income? _____Yes _____No

Level of Income: Less than $50,000_____ Greater than $50,000_____

Age: 18 – 25_____ 26 – 33_____ 34 – 41_____ 42 or Older_____

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III. Which of the following statements best describes the rules under which the game took place in today's experiment? (check all that apply)

(1) _____You had an opportunity to learn how much money Player 1 wanted you to return.

(2) _____You would have had a 50% chance of losing your entire investment if you had not given back at least the stated amount of return.

(3) _____Neither of the above statements applied to your experiment.

VITA

Dana L. Hart, PhD, CPA

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EDUCATION

University of Mississippi – University, MS
Doctor of Philosophy in Accountancy
Graduation, December, 2012
Overall GPA 3.9/4.0

University of Mississippi – University, MS
Master of Accountancy, Taxation
Graduated August, 1996
Overall GPA 4.0/4.0

University of Louisiana at Monroe – Monroe, LA
Bachelor of Business Administration, Accounting
Graduated August, 1994
Overall GPA 3.5/4.0

TEACHING EXPERIENCE

INSTRUCTOR – UNIVERSITY OF LOUISIANA-LAFAYETTE

Lafayette, LA, August 2010 – Present

Currently teach foundational courses in financial principles of accounting for all business majors as well as individual income taxation for accounting majors. Research activities include experimental behavioral work on trust and economic outcomes, student perceptions of effective teaching characteristics in the educational process, and policy implications of various corporate governance and tax regulations.

PhD STUDENT/INSTRUCTOR – UNIVERSITY OF MISSISSIPPI

University, MS, August 2006 – May 2010

I am currently pursuing a terminal degree in accounting with a minor in psychology. My responsibilities while in residence at the university included teaching undergraduate financial and managerial accounting principles classes which I taught consistently for the

duration of my residency. My research interests include corporate governance, behavioral tax, behavioral financial and accounting education.

ASSOCIATE PROFESSOR - AUSTIN COMMUNITY COLLEGE
Austin, TX, August 1999 - April 2000
My work at Austin Community College consisted of serving as coordinator and principle accounting instructor for the accounting technician program. In that capacity, I was responsible for curriculum development, classroom instruction, technology integration, and administrative reporting. The technical curriculum included but was not limited to Accounting Principles, Computerized Accounting, Small Business Accounting, Industry Accounting and Payroll Accounting which focused on practical accounting skills necessary in the workplace.

INSTRUCTOR - LOUISIANA TECHNICAL COLLEGE
Tallulah, LA, June 1997 - June 1999
Taught all accounting classes including principles, intermediate, advanced, payroll, automated and tax accounting. I also taught introductory computer classes as well as spreadsheet, database, and windows classes in addition to teaching business law, electronic calculators, and total quality management. I was responsible for compliance with curriculum guidelines as set forth by the state and, toward that effort, prepared attendance reports, grade reports, transcripts and schedules for all business students.

PROFESSIONAL AFFILIATIONS, CERTIFICATIONS AND HONORS

Member AICPA and Louisiana Society of CPA's since 2001
Certified Public Accountant, License #24461;
Best Manuscript Award – 2009 Southeast Regional Meeting
Recipient of 2007 Study Abroad Scholarship
1st Recipient of Northwest Flight Scholarship
2010 Graduate Achievement Award

RESEARCH AND INTELLECTUAL CONTRIBUTIONS

An Experimental Investigation of Trust and Trustworthy Behavior: Executive Compensation Policy Implications; Dissertation (in progress)

Teaching Accounting Effectively: An Examination of Accounting Students and Faculty Perceptions of a Good Teacher; Presented at 2010 Southeast Region Meeting, Peer Reviewed for Presentation at 2010 AAA Annual Meeting; Under review at Global Perspectives on Accounting Education.

An Examination of the Validity of the Teacher Behaviors Checklist; Presented at 2009 Southeast Region Meeting

Outsourcing: Its Effect on Client Trust; Presented at 2009 Accounting, Behavior and Organizations Mid-Year Meeting

PROFESSIONAL DEVELOPMENT ACTIVITIES

2012 American Taxation Association Mid-Year Meeting – Attendee
2011 Accounting, Behavior and Organizations Mid-Year Meeting - Attendee
2011 Southeast Region Meeting - Attendee
2010 American Accounting Association Annual Meeting – Presenter; Reviewer
2010 Southeast Regional Meeting – Presenter
2009 FARS Mid-Year Meeting and Doctoral Consortium
2009 International Section Mid-Year Meeting and Doctoral Consortium
2009 Southeast Regional Meeting - Presenter
2009 Accounting, Behavior and Organizations Mid-Year Meeting – Presenter
2008 ATA/KPMG Tax Doctoral Consortium
2008 American Accounting Association Annual Meeting
2008 Doctoral Consortium Fellow – AAA/Deloitte/J. Michael Cook Doctoral Consortium
2007 International Section Midyear Meeting and Doctoral Consortium
2007 – 2009 Patterson School of Accountancy – Accountancy Weekend

PRACTICAL EXPERIENCE

SENIOR IN CHARGE
Booth, Giger & Company, LLP,
Monroe, LA, September 2005 – June 2006

Heard, McElroy & Vestal, CPA's,
West Monroe, LA, September 2004 – June 2005

Cochran, Clark & Robinson, CPA's,
Rayville, LA, January 2001 – September 2004

CPA License Number 24461 (Louisiana)
Prepared individual and business tax returns and related year-ends; consulted extensively with QuickBooks clients, working directly to train them in the use of the software; supported write up department in the preparation of sales and payroll tax returns; provided remote and on-site internal control and accounting support for contracting clients, and supported client staff in a supervisory capacity

INSTITUTIONAL & COMMUNITY SERVICE

American Taxation Association Concerns of New Faculty
Committee (2011-Present)
LCPA Financial Awareness Task Force (2010-Present)
UL Research Forum – Presentation of Dissertation in progress
Reviewer for 2010 AAA Annual Meeting
Moderator at 2008 AAA Annual Meeting
Budget Committee for North Monroe Baptist Church (2005-2006)
Franklin Parish Workforce Investment Board (2004 – 2006)
MAP Committee for Louisiana Society of CPA's (2003-2005)
Active in Acadiana Chapter of Louisiana Society of CPAs
Past President of ULM Student Chapter of Institute of Internal Auditors
Outstanding Pledge – ULM Student Chapter of Beta Alpha Psi

REFERENCES

Dale L. Flesher, Ph.D., CPA, CMA, CIA, CFE, University of Mississippi Associate Dean and Arthur Andersen Alumni Professor, (662) 915-7623 (w); acdlf@olemiss.edu

Dr. Karl J. Wang, Ph.D., CPA, University of Mississippi Associate Professor, (662) 915-3980 (w); karlwang@olemiss.edu

P. Robert Viguerie, Jr., J.D., University of Louisiana-Lafayette, Associate Dean and MBA Director, (337) 482-5882 (w); mba@louisiana.edu