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Corporate Social Responsibility and Managerial Reporting

Abstract

This study uses an experiment to examine the role that managerial reporting plays in CSR decisions. Managerial reporting can affect CSR decisions when information asymmetry makes it necessary for lower-level managers to communicate decision-relevant information to upper-level managers. If lower-level managers value the societal benefits associated with CSR activities, they may bias the information they communicate in favor of such activities even when they have financial incentives to communicate unbiased information. I find that when lower-level managers recommend whether a CSR or a non-CSR project be implemented, they bias their recommendations in favor of the CSR project even though this reduces their personal payoff and firm profit. However, when lower-level managers must make a report that requires a factual assertion about project costs, their biased reporting is significantly reduced, suggesting that their honesty preferences act as a partial, but not full, control against their bias in favor of the CSR project. Finally, when lower-level managers can also build slack into their reports as they can in many actual settings, their biased reporting significantly increases, offsetting the deterrent effect of honesty preferences on their bias in favor of CSR projects. I also find that some lower-level managers are motivated primarily by wealth, some primarily by honesty, and some primarily by a preference for CSR. Those motivated primarily by a preference for CSR take significantly less slack than those motivated primarily by wealth, leading to higher firm profit when lower-level managers are motivated primarily by a preference for CSR. These results have implications for upper-level managers who rely on lower-level managers’ reports, for shareholders because biased reporting affects firm profit, and for those in society who are affected by CSR decisions.
I. Introduction

While numerous definitions of corporate social responsibility (hereafter CSR) exist, most contain the notion that CSR requires that firms recognize that they have greater obligations to society than simply maximizing profits within the limits of the law. Consistent with this view, Benabou and Tirole (2010, 2) note that “A standard definition of CSR is that it is about sacrificing profits in the social interest. For there to be sacrifice, the firm must go beyond its legal and contractual obligations, on a voluntary basis.”¹

Because most business decisions have some impact on society, almost every business decision can be evaluated in terms of CSR. For example, all businesses use energy and therefore could consider projects that reduce energy consumption or use renewable energy to reduce carbon emissions (Porter and Kramer 2006). As another example, businesses who depend on suppliers could decide whether and how closely to evaluate the business practices of companies in their supply chain (Roberts 2003; Maloni and Brown 2006).

Despite the importance of CSR decisions, much is still unknown about how companies make decisions involving CSR initiatives. A common assumption is that upper-level managers make such decisions after carefully evaluating the costs and benefits of alternative courses of action (Sprinkle and Maines 2010).² However, this assumption may be too simplistic because it fails to capture an important aspect of actual CSR decision environments: Where do upper-level managers get the information needed to make CSR decisions? As with most business decisions, upper-level managers likely acquire the necessary information to make CSR decisions from

¹ See Carroll (1999) for a more extensive discussion of the different ways CSR has been defined in academic research.
² Sprinkle and Maines (2010) relate CSR decisions to other business decisions such as the purchase of materials, product promotion and pricing, explaining that “decisions related to corporate responsibility also can be viewed through the lens of benefits reaped by, and costs incurred by, the company” and that “effective CSR decisions rely on assessments of value and opportunity costs.”
lower-level managers who produce and report such information to the upper-level managers. My study examines the role that such reporting plays in CSR decisions.

Considering whether and how the need for reporting by lower-level managers affects CSR decisions is important because this introduces the possibility that lower-level managers’ reports could be biased in favor of CSR projects.3 Lower-level managers may bias their reports if they have preferences for CSR because they value the societal benefits associated with CSR projects.4

Assuming that lower-level managers value the societal benefits associated with CSR projects, there are two separate aspects of the reporting environment that could influence the extent to which they bias their reports in favor of CSR projects. First, because making a report that is biased in favor of a CSR project requires dishonest reporting, honesty preferences could act as a natural control against biased reports. Second, reporting settings with information asymmetry between lower-level and upper-level managers often allow lower-level managers to build slack into their reports. As explained later, the ability to consume slack could either increase or decrease lower-level managers’ willingness to bias their reports in favor of CSR projects.

To isolate the effect of honesty preferences and the ability to consume slack on the extent of bias in lower-level managers’ reports, I conduct an experiment with three conditions (No Reporting, Reporting-w/o Slack, and Reporting-w/ Slack). In my No Reporting condition,

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3 I define a lower-level manager’s report as being biased in favor of a CSR project if it causes a less profitable CSR project to be implemented rather than a more profitable non-CS project. This definition reflects the fact that, if the upper-level manager does not share the lower-level manager’s preference for the CSR project, the upper-level manager would consider such a report to be biased in favor of the CSR project.
4 In the remainder of the paper for expositional expediency I refer to a “preference for CSR” when describing lower-level managers who value the societal benefits associated with CSR activities. Lower-level managers who exhibit a preference for CSR can be thought of as demonstrating other-regarding preferences in that they are not acting to maximize their own personal wealth. Prior research has shown that individuals exhibit other-regarding preferences in numerous settings. Other-regarding preferences have been shown in public goods settings (Ledyard 1995), in dictator and ultimatum games as well as gift exchange settings (Cooper and Kagel 2009).
participants assume the role of a lower-level manager who observes the actual costs of both a CSR and a non-CSR project and then recommends which project to implement. The recommended project is then automatically implemented. In my Reporting-w/o Slack condition, participants also assume the role of a lower-level manager who observes the same actual costs of the same CSR and non-CSR projects. However, in this condition lower-level managers must report the costs of each project. The project with the lowest reported cost is then automatically implemented. In both the No Reporting and the Reporting-w/o Slack conditions, lower-level managers’ payoffs are based on the actual cost of the project that is implemented. Therefore, the only difference between these two conditions is that there is a reporting requirement in the Reporting-w/o Slack condition but not in the No Reporting condition. Because honesty preferences can only come into play when lower-level managers must make a report, I can isolate the effect of honesty preferences on the frequency with which the less profitable CSR project is implemented (i.e., the bias in favor of CSR projects) by comparing the frequency of such projects in the No Reporting condition to that in the Reporting-w/o Slack condition.

In my Reporting-w Slack condition, as in my Reporting-w/o Slack condition, the lower-level manager must report the costs of both the CSR and the non-CSR projects, with the lowest reported cost project being automatically implemented. However, in contrast to my Reporting-w/o Slack condition in which lower-level managers’ payoffs are based on the actual cost of the project that is implemented, in my Reporting-w Slack condition, the lower-level manager’s payoffs are based on the actual cost of the project that is implemented. The implementation decision is made based on the reported costs, and the project with the lowest reported cost is automatically implemented.

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5 Rather than using real upper-level managers in my study who make an implementation decision based on the information communicated to them by the lower-level manager, I use an implementation rule that maximizes firm profit based on the lower-level managers’ recommendation or report. Using actual upper-level managers could have increased the frequency with which less profitable CSR projects were implemented because actual upper-level managers might have implemented the CSR project even when it was less profitable if they have a personal preference for projects that benefit society. However, the focus of my study is the potential impact of lower-level managers’ biased recommendations or reports on the frequency of less profitable CSR project implementation and not on the frequency of less profitable CSR project implementation as a result of the upper-level managers’ preferences for CSR projects. Therefore, I did not use actual upper-level manager participants in my study.
implemented project, lower-level managers’ payoffs in my Reporting-w Slack condition are based on the reported cost of the implemented project. Consequently, in the Reporting-w Slack condition, lower-level managers are able to build slack into their reports. Because the only difference between the Reporting-w Slack condition and the Reporting-w/o Slack condition is the ability of lower-level managers to build slack into their reports, I can isolate the effect of the ability to consume slack on any bias in favor of CSR projects by comparing the frequency of CSR project implementation across these two conditions.

I find a strong bias in favor of CSR projects in my No Reporting condition. Specifically, lower-level managers in the No Reporting condition recommend the less profitable CSR project for implementation 47% of the time, even though this reduces both their personal payoff and firm profit. In comparison, lower-level managers in my Reporting-w/o Slack condition report to implement the less profitable CSR project only 22% of the time. That is, honesty preferences in the Reporting-w/o Slack condition act as a partial control against the bias in favor of the CSR project documented in my No Reporting condition. Finally, I find that lower-level managers in my Reporting-w Slack condition report to implement the less profitable CSR project 36% of the time, showing that the ability to consume slack significantly offset the ability of honesty preferences to reduce biased reports in favor of CSR projects.

My study expands our knowledge of CSR because it is the first to examine the impact of internal reporting on the information used to make CSR decisions. Specifically, my results indicate that lower-level managers bias their reports in favor of CSR projects, and that this bias is likely to persist in reporting environments in which lower-level managers are able to build slack

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6 Although My Reporting-w/o Slack condition is used primarily to isolate the effect of the ability to consume slack on biased reporting in favor of CSR projects, this condition reflects a possible real world setting. For example, if a company has a strong control system in place, the actual cost of a prospective project could be discovered after the project has been implemented, which would prevent the lower-level managers from building slack into their reports.
into their reports. Thus, even if upper-level managers intend to make CSR decisions that maximize firm profit, the need to acquire inputs for CSR decisions from lower-level managers can lead to the implementation of less profitable CSR projects. Because of the possible effect of biased reporting on firm profit, both upper-level managers and shareholders should be interested in my findings. In addition, although my results show that lower-level managers’ biased reports negatively impact firm profit, as explained in more detail later, evidence from my Reporting-w Slack condition suggests that firms can actually be more profitable when lower-level managers have a strong preference for CSR than when they have a strong preference for wealth.

II. Development of Hypothesis and Research Questions

Background

Prior CSR research has primarily focused on the relationship between CSR and firm financial performance, with largely inconclusive results. The most recent meta-analysis of the relationship between CSR and firm financial performance (Margolis et al. 2009) examined 251 studies that were conducted over the past 40 years and concluded that while there appears to be a positive association between CSR and firm financial performance, it is quite small and is even smaller for studies conducted in the past 10 years.

More recent CSR accounting research has focused on external reporting related to CSR. Dhaliwal et al. (2011 and 2012) are two recent archival studies that show that companies that issue a stand-alone CSR report are associated with a lower cost of equity and lower analyst forecast error, respectively. Elliott et al. (2012) and Martin and Moser (2012) are two recent examples of experimental studies that examine investor reaction to CSR reports.

While these prior studies provide useful information regarding external reporting related to CSR, my study shifts the focus to the role that internal reporting plays in CSR decision making. There are two reasons why I use an experimental setting to examine the role of internal
reporting in CSR decisions. First, because my research question concerns internal managerial reporting, there are no archival data available to address my question. Second, using an experiment allows me to study CSR decisions in a setting in which the effect of investing in a CSR project on the reporting manager’s personal wealth and the firm’s profit is known with certainty by the reporting manager. This allows me to separate CSR decisions that do not maximize personal wealth and firm profit from those that do. Further, because my experimental setting allows for CSR decisions that reduce both personal wealth and firm profit, I am able to separate the effects of conventional economic forces from preferences for CSR and preferences for honesty on CSR decisions.

**Setting**

The setting I use is one in which a lower-level manager communicates information about a CSR project and a non-CSR project to an upper-level manager. The need for lower-level managers to communicate information to the upper-level managers exists because of information asymmetry about the costs of the CSR and non-CSR projects between the upper-level and lower-level managers. I examine whether lower-level managers use this information asymmetry to bias their reports in favor of the CSR project, and the extent to which two factors, the need to make a factual assertion regarding costs and the ability to build slack into reports, affects the extent of any such bias.

I define biased recommendations or reports as cases in which the lower-level manager makes a recommendation or report that causes the less profitable CSR project to be implemented. In my setting, such a recommendation or report lowers both the lower-level manager’s personal wealth and firm profit, which gives lower-level managers a financial

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7 The upper-level manager can be thought of as separate from the firm as long as the firm is owned by more than one individual. Since this is the case for most firms, I treat the upper-level manager and the firm as two separate entities.
incentive to always ensure that the more profitable (i.e., lowest cost) project is implemented. Thus, my primary dependent measure is the frequency of less profitable CSR project implementation.

I assume that upper-level managers know that lower-level managers have financial incentives to ensure that the project with the lowest actual cost is implemented. Thus, upper-level managers expect lower-level managers to recommend or report in a manner that causes the more profitable project to be implemented. Consequently, in my experiment, rather than using real upper-level managers, I use an implementation rule such that the recommended project is always implemented (in the No Reporting setting) or the project with the lower reported cost is always implemented (in the Reporting-w/o Slack and the Reporting-w Slack settings). In actual corporate settings the upper-level manager could ignore the lower-level managers’ recommendation or cost reports. However, by using an implementation rule based on the financial incentives of the lower level managers to implement the more profitable project, I can focus on the lower-level managers’ recommendation or reporting choice, which is the primary focus of my study.

**Development of Hypothesis and Research Questions**

Lower-level managers maximize their personal payoff and firm profit by ensuring that the lower cost project is implemented, whether that is the CSR or the non-CSR project. Therefore, in order to examine whether a reporting requirement influences CSR decisions, it must first be established that some lower-level managers knowingly bias their recommendations or reports in favor of less profitable CSR projects even when this lowers their personal wealth and firm profit.
Many individuals contribute some of their personal wealth to charitable causes. Some economic models explain such behavior by assuming that individuals gain utility in the form of a “warm-glow” from donating to public charities (Andreoni 1988; Andreoni 1990). More recent neuro-economic studies have supported this assumption by finding heightened levels of neural activity in the reward areas of the brain when an individual chooses to make a charitable donation (Harbaugh et al. 2007). Thus, it is likely that some managers cause less profitable CSR projects to be implemented because of the warm glow they receive from doing so.

Although personal contributions to charitable causes share similarities with managers who pursue CSR activities at a personal cost, there is an important difference. When individuals choose to donate to charity, they do so knowing that their decision affects only themselves and society. In contrast, when managers take actions that result in less profitable CSR activities, they know that they are also affecting other shareholders who may not want the manager to take this action. Because of the strong focus on maximizing shareholder value in corporate settings, CSR decisions made in corporate settings may differ from decisions made by individuals in charitable giving settings that have no such focus. However, recent experimental evidence suggests that even in a corporate setting, a significant portion of individuals will sacrifice personal and other shareholder wealth to invest in less profitable CSR activities (Martin and Moser 2012). Based on this prior evidence, my first hypothesis is:

**H1:** A significant portion of lower-level managers will bias their recommendation in the No Reporting setting to implement the less profitable CSR project even though this reduces their personal wealth and firm profit.

Assuming that, consistent with H1, a significant portion of lower-level managers make biased recommendations in favor of less profitable CSR projects in a setting with no reporting requirement, my next question is whether requiring lower-level managers to make a factual
assertion in their report affects the extent of any such bias. The need to make a factual assertion in a reporting setting has been shown to influence reporting choices (Rankin et. al 2008).

Specifically, prior research demonstrates that some individuals are deterred from misreporting by a preference for honesty (Evans et al. 2001; Stevens 2002; Hannan et al. 2006; Hobson et al. 2011).

Because in my setting the project with the lower reported cost is always implemented, lower-level reporting managers who want the higher cost CSR project to be implemented will need to misreport the CSR project as having the lower cost.\textsuperscript{8} In turn, because lower-level managers must misreport to get the CSR project implemented in my setting, lower-level managers’ preferences for honesty could reduce or eliminate any bias that managers may otherwise have in favor of the CSR project.

Although prior research shows that honesty preferences can act as a significant control against misreporting, there are several reasons why the role of honesty preferences in reducing the frequency of less profitable CSR projects in my setting is not so clear. First, there is an important distinction between the role of honesty preferences in prior budgeting settings and my setting. In the prior budgeting studies showing that honesty preferences can significantly reduce self-interested wealth-maximizing behavior (Evans et al. 2001; Stevens 2002; Hobson et al. 2011), the sole motive for misreporting was to increase the misreporting manager’s personal payoff. In contrast, misreporting to implement a less profitable CSR project in my study decreases the misreporting manager’s personal payoff, while simultaneously benefiting society. Managers most likely can more easily justify misreporting (at a personal cost) to benefit society than to justify misreporting that is solely for their own personal gain. Consistent with this

\textsuperscript{8} For example, if the actual cost of the CSR project is $13 and the actual cost of the non-CSR project is $10, misreporting the cost of the non-CSR project as $14 will cause the CSR project to be implemented even though it has the higher actual cost.
reasoning, Church et al. (2012) find that managers’ misreporting increases when it does not solely benefit the manager, but also benefits a third party. Similarly, misreporting in my setting benefits others and thus honesty preferences may have less of a deterrent effect on misreporting.

Second, prior research has shown that, when examined separately, honesty preferences can be a significant factor in motivating behavior (Evans et al. 2001; Rankin et al. 2008; Hobson et al. 2011). However, in my setting, the affect of reporting on lower-level managers’ bias in favor of the CSR project does not depend only on the reporting manager’s preference for honesty. Rather, it depends on the relative strength of the reporting manager’s preference for honesty versus his or her preference for CSR.

There are several possible outcomes when reporting managers have preferences for both honesty and CSR. If the preference for honesty dominates, the preference for honesty will act as a complete control against the implementation of less profitable CSR projects. Alternatively, if the preference for CSR dominates, the preference for honesty will have no deterrent effect on the implementation of less profitable CSR projects. Finally, the preference for honesty could dominate the preference for CSR for some managers, while the preference for CSR could dominate the preference for honesty for other managers. In this case, the preference for honesty would act as a partial control against the implementation of less profitable CSR projects. Because I am unable to make a clear directional prediction regarding the effect of honesty preferences on the implementation of less profitable CSR projects, I investigate the following research question:

RQ1: In a reporting setting that requires a factual assertion will honesty preferences act as a complete, partial, or no control against the implementation of less profitable CSR projects?

If information asymmetry regarding the costs of the two projects persists after one of the projects has been implemented, this not only allows a lower-level manager to misreport which
project has the lower cost, it also allows the lower-level manager to build slack into his or her report by misreporting the cost of the project that will be implemented to be higher than it actually is.\textsuperscript{9} Prior research that examined reporting settings in which managers can build slack into their reports (Young 1985; Evans et al. 2001; Stevens 2002; Hannan et al. 2006; Rankin et al. 2008; Brown et al. 2009; Hobson et al. 2011) finds that most individuals in a reporting setting with slack will misreport to consume some, but not all, of the slack available.

Although misreporting to consume slack does not directly affect the frequency of less profitable CSR project implementation, it could indirectly affect the frequency in two opposite ways. First, because the consumption of slack increases a lower-level manager’s payoff, they may view consuming slack as a way to reduce or eliminate the personal cost of misreporting to get the less profitable CSR project implemented.\textsuperscript{10} This opportunity to offset the personal cost of reporting to implement a less profitable CSR project by consuming more slack could result in an increase in the frequency of less profitable CSR projects in the Reporting-w Slack condition as compared to the Reporting-w/o Slack condition.

Second, reporting to implement a less profitable CSR project decreases the amount of slack available for the lower-level manager to consume. If this reduction in available slack reduces the amount of slack that the lower-level manager actually takes, this results in an

\textsuperscript{9} If the upper-level manager can never find out the true cost of either project, the lower-level manager can 1) misreport to implement the project with the higher cost, or 2) misreport to consume slack, or 3) misreport to do both. For example, if the actual cost of the CSR project is $13 and the actual cost of the non-CSR project is $10, a lower-level manager who wants the CSR project to be implemented could accurately report the cost of the CSR project as $13 but then report the cost of the non-CSR project as $14. No slack is built into this report because the reported cost is equal to the actual cost for the CSR project that will be implemented. However, if the lower-level manager wishes to get the CSR project implemented while also consuming $2 of slack s/he could report the cost of the CSR project to be $15 and the cost of the non-CSR project to be $16. The CSR project will still be implemented because it has the lower reported cost, but now the lower-level manager has built $2 of slack into his/her report (the $15 reported cost - $13 actual cost of the implemented CSR project).

\textsuperscript{10} For example, if a lower-level manager’s payoff is reduced by $1 through their incentive contract when they report to implement a less profitable CSR project, they could increase their slack consumption by $1 to offset the personal cost of implementing such a project.
additional personal cost to the lower-level manager of implementing the less profitable CSR project in the Reporting-w Slack condition as compared to the Reporting-w/o Slack condition, if.\footnote{For example, if the actual cost of the CSR project was $13 and the actual cost of the non-CSR project was $10, a lower-level manager who reports to get the CSR option implemented will reduce their available slack by $3 (since slack is measured as reported cost minus the actual cost, increasing the actual cost of the implemented project by $3 reduces the available slack by $3). If the lower-level manager was planning on consuming an amount of slack that would include some portion of this $3, this is an incremental cost to reporting to implement the CSR project in the Reporting-w Slack condition that is not present in the Reporting-w/o Slack condition. Because lower-level managers in the Reporting-w/o Slack condition could not consume slack, the cost of implementing a less profitable CSR project in this condition could not include the cost of foregone slack.} This increase in the personal cost to the lower-level manager could result in a decrease in the frequency of less profitable CSR projects implemented in the Reporting-w Slack condition as compared to the Reporting-w/o Slack condition.

Although it is unclear which, if either, of the two potential effects described above will occur, evidence from prior budgeting studies offers some insights. As explained above, lower-level managers would need to plan to consume very high amounts of slack for the ability to consume slack to decrease the frequency of less profitable CSR projects. We know from prior budgeting experiments that few individuals take all of the available slack and that most take only a portion (Evans et al. 2001). Therefore, it is unlikely that the ability to consume slack would increase the cost of implementing a less profitable CSR project for most lower-level managers, and thus also unlikely that the ability to consume slack would result in a decrease in the frequency of less profitable CSR projects in the Reporting-w Slack condition versus the Reporting-w/o Slack condition.

If most lower-level managers only consume a portion of available slack, it becomes more likely that they would reduce or eliminate the personal cost of reporting to implement a less profitable CSR project by increasing the amount of slack they take. Recent work in the area of moral reasoning suggests that individuals who do something “good” or are reminded of
something good about themselves feel more license to engage in subsequent unethical acts (Zhong et al. 2009; Mazar and Zhong 2009; Sacdeva et al. 2009). Thus, when a lower-level manager implements the CSR project in my study, s/he could feel good about doing so, and this could help to offset any guilt s/he has about taking more slack to offset the personal cost of implementing the less profitable CSR project.

However, there is an important difference between the prior moral reasoning studies and my study. The “good” act in my study is less clearly a “good” act than those used in prior moral reasoning studies because it also includes elements that can be viewed as unethical. That is, even a manager who reports to implement a less profitable CSR project is engaging in pro-social behavior at one level (the “good” act), this requires misreporting and reduces company profits (which both could be viewed as unethical). This makes it less likely that lower-level managers in my study who bias their reports in favor of the less profitable CSR project will engage in moral reasoning to justify taking more slack.

Finally, there is another way in which the ability to consume slack could influence the frequency of less profitable CSR project implementation. The Reporting-w Slack condition provides strong financial incentives for lower-level managers to misreport to consume slack. Prior research shows that many individuals are influenced by financial incentives to misreport to consume at least some of the available slack (Evans et al. 2001), and thus the effectiveness of honesty preferences to act as a deterrent against misreporting for a different purpose may be reduced. Specifically, because the ability to consume slack leads to misreporting for one purpose (to consume slack for financial gain), honesty preferences may be less effective in preventing misreporting for another purpose (to implement the less profitable CSR project) because the report can no longer be 100% honest. In other words, the ability to consume slack may increase
misreporting to implement a less profitable CSR project because reports that consume slack are already dishonest.

Because the possible effects outlined above do not clearly predict how the ability to consume slack will influence the frequency of less profitable CSR project implementation, my second research question is as follows:

RQ2: Will lower-level managers’ ability to consume slack in a reporting setting influence the frequency of less profitable CSR project implementation compared to a reporting setting in which lower-level managers cannot consume slack?

In the Reporting-w Slack condition, there are three possible preferences that could guide the lower-level manager’s reporting behavior: a preference for wealth, a preference for honesty and a preference for CSR. Those whose actions are dominated by wealth (hereafter, “wealth types”) would never misreport to implement a less profitable CSR project, but would misreport to consume a large amount of slack. Those whose actions are dominated by a preference for honesty (hereafter, “honest types”) would also never misreport to implement a less profitable CSR project but, unlike the wealth types, would not misreport to consume slack. Those whose actions are dominated by a preference for CSR (hereafter, “CSR types”) would misreport to implement a less profitable CSR project, but it is unclear what amount of slack, if any, such individuals would take. CSR types could misreport only to get the CSR project implemented, but not to consume any slack, which would make their slack consumption similar to that of the honest types. Alternatively, CSR types could misreport to consume the maximum amount of slack remaining after misreporting to get the CSR option implemented, which would make their slack consumption similar to that of the wealth types. Finally, CSR types could misreport to consume some, but not all, of the available slack, which would make their slack consumption
greater than that of the honest types, but less than that of the wealth types. Thus, my third research question is:

RQ3: What percentage of slack will lower-level managers whose reporting choices are dominated by a preference for CSR take relative to lower-level managers whose actions are dominated by either preferences for honesty or preferences for wealth?

Whether the lower-level manager’s report causes a less profitable CSR project to be implemented and how much slack is consumed by the lower-level manager both affect firm profit. Firm profit is highest when the lower-level manager’s reporting behavior is dominated by a preference for honesty. This is because honest types will never report to implement the less profitable CSR project or to consume slack. Firm profit is lowest when the lower-level managers’ reporting behavior is dominated by a preference for wealth. This is because even though such managers would not report to implement the less profitable CSR project, they would consume as much slack as possible.

By definition, lower-level managers whose actions are dominated by a preference for CSR generate less firm profit than lower-level managers whose actions are dominated by a preference for honesty because firm profit decreases when the less profitable CSR option is implemented. However, it is unclear whether lower-level managers whose actions are dominated by a preference for CSR will generate more firm profit than lower-level managers whose actions are dominated by a preference for wealth. This is because, as discussed in the development of RQ3, it is not clear how much, if any, slack lower-level managers whose actions are dominated by a preference for CSR will consume. Thus, my fourth research question is as follows:

RQ4: When lower-level managers reporting choices are dominated by a preference for CSR how does firm profit compare to when lower-level managers’ actions are dominated by preferences for wealth?

III. Method
Design

My experiment uses three experimental conditions (No Reporting, Reporting-w/o Slack and Reporting-w Slack) to test the hypothesis and research questions described above. In the No Reporting condition participants assume the role of a lower-level manager who must **recommend** either a CSR project or a non-CSR project to their upper-level manager, with the recommended project automatically being implemented. In both the Reporting-w/o Slack and the Reporting-w Slack conditions participants also assume the role of a lower-level manager, but in these conditions they must **report** the cost of both the CSR and the non-CSR projects to their upper-level manager, with the lowest cost project automatically being implemented. In both the No Reporting and the Reporting-w/o Slack conditions, participants’ payoffs are based on the **actual cost** of the implemented project. In contrast, participants’ payoffs in the Reporting-w Slack condition are based on the **reported** cost of the implemented project. This allows participants in the Reporting-w Slack condition to build slack into their reports. These three conditions allow me to isolate the effect of a reporting requirement and the ability to consume slack on the frequency of less profitable CSR project implementation. Detailed procedures for each condition are provided below.

Participants

Participants were recruited from MBA and upper-class undergraduate business classes at the University of Pittsburgh. There were 108 participants in total, with 36 participants in each experimental condition.\(^{12}\) Several experimental sessions were conducted for each experimental condition.

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\(^{12}\) I collected the following demographic information for each participant: Gender, age, years of work experience, years of college education, number of economics classes, US/Non-US citizen and Graduate/Undergraduate student. Only one of these variables (US/Non-US citizen) varied significantly across the three conditions. To ensure that this difference did not affect my results, I included this variable as a control variable in all tests that use data from more than one condition. Because the results of these tests did not change any of the statistical
condition, with each experimental session consisting of 24 periods. At the conclusion of each experimental session, one of the 24 periods was selected at random to be the payment period, and all participants were paid their participation fee and the payoff that they earned for the payment period.

**No Reporting Condition Procedures**

Participants in the No Reporting condition assumed the role of a lower-level manager in a company whose task was to recommend one of two separate and competing projects to their upper-level manager for implementation (only one of the projects could be implemented). The first project was a “CSR” project that resulted in lower carbon emissions. The second project was a “non-CSR” project that did not result in lower carbon emissions. Either project provided an additional $40 in cash flows to the company. Each lower-level manager recommended either the CSR or the non-CSR project for implementation to their upper-level manager. The upper-level manager then automatically selected the recommended project for implementation. Prior to making their recommendation, the lower-level managers knew the actual cost for the CSR project and the actual cost for the non-CSR project.

As indicated above, the lower-level managers’ recommendation determined whether the CSR project or the non-CSR project was implemented. Lower-level managers knew that if their recommendation resulted in the CSR project being implemented, this had a real societal benefit because it resulted in a donation of real dollars to the Carbonfund. The Carbonfund is a real non-profit environmental organization that uses contributions to invest in renewable energy and reforestation projects that reduce the amount of greenhouse gases in the environment. To reflect

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13 Because of the availability of participants, the data for the No Reporting condition were collected in four experimental sessions, the data for the Reporting-w/o Slack condition were collected in two experimental sessions, and the data for the Reporting-w Slack condition were collected in three experimental sessions.
the fact that the CSR project had real societal benefits, the lower-level managers were aware that each time their recommendation resulted in the CSR project being implemented, 50% of the actual cost of the CSR project was contributed to this real “green” fund. Specifically, at the conclusion of the experiment, I made a donation of real dollars equal to 50% of the actual cost of any CSR project implemented in the randomly selected payment period to the Carbonfund.

The specific steps for each period of the No Reporting condition are shown in Panel A of Figure 1. In Step 1, each lower-level manager learned the actual cost of both the CSR project and the non-CSR project with certainty. The lower-level managers were informed that their upper-level manager knew that the actual cost of the CSR project and the non-CSR project could range from $10 to $20. They were also informed that they were the only individual with access to the actual cost information and that their upper-level manager could never learn which project had the lowest actual cost. In Step 2, the lower-level manager recommended one of the projects to their upper-level manager for implementation. In step 3, the recommended project was automatically implemented. Finally in Step 4, payoffs to the lower-level manager and the firm were calculated using the actual cost of the implemented project.

(Figure 1)

Eight different actual cost pairs were used in the experiment. As shown in Table 1, the lower cost project in each cost pair always had a cost of $10, while the higher cost project in each cost pair was one of the following costs: $11, $13, $15 or $20. Each of the eight specific cost pairs was provided three times (8 cost pairs x 3 = 24 total periods). The order in which the cost pairs were presented to the participants was randomly chosen prior to the experimental sessions, with this randomly chosen pattern used in all experimental sessions in all conditions.

14 While any portion of the cost would technically make the societal benefit real, I chose to donate 50% of the cost of any CSR project implemented in the payoff period to ensure that participants viewed the societal impact as substantial.
The actual cost pairs provided to the participants followed a balanced design in which the CSR project had a lower cost in four of the cost pairs, and the non-CSR project had a lower cost in the remaining four cost pairs. This balanced design allowed me to ensure that lower-level managers who recommended or reported to implement a less profitable CSR project were not making mistakes by comparing the frequency of less profitable CSR project implementation to the frequency of less profitable non-CSR project implementation.

The lower-level managers’ payoff in the No Reporting condition consisted of a bonus equal to 45% of the firm’s pre-bonus profit from the project as shown below:

Lower-level manager’s payoff = 45% x ($40 project cash flows - the actual cost amount of implemented project)

Using this payoff calculation, we can see that lower-level managers maximize their payoff by always recommending the project with the lowest actual cost (see Panel A of Table 2).

Firm profit in the No Reporting condition was equal to the cash flows from the implemented project less the actual cost of the implemented project and less the cost of the bonus paid as shown below:

The firm’s profit = $40 project cash flows – the actual cost amount of the implemented project – bonus paid

Using this firm profit calculation, we can see that firm profit is highest when the lower-level manager recommends the project with the lowest actual cost.

**Reporting-w/o Slack Condition Procedures**

The specific steps for the Reporting-w/o Slack condition are shown in Panel B of Figure 1. The Reporting-w/o Slack condition setting is the same as the No Reporting condition, except
for one important difference. In the Reporting-w/o Slack condition, lower-level managers do not recommend a project to be implemented, but rather must report the cost of each of the projects (Step 2 in Panel B of Figure 1). The project with the lowest reported cost is then automatically implemented (Step 3 in Panel B of Figure 1). In contrast, as shown in Panel A of Figure 1, in the No Reporting condition lower-level managers recommend a project to be implemented (Step 2 in Panel A of Figure 1), with the recommended project being automatically implemented (Step 3 in Panel A of Figure 1). Except for the presence of the reporting function, all other procedures, parameters and payoffs described earlier for the No Reporting condition are the same for the Reporting-w/o Slack condition.

**Reporting-w Slack Condition Procedures**

The specific steps for the Reporting-w Slack condition are shown in Panel C of Figure 1. The Reporting-w Slack condition setting is the same as the Reporting-w/o Slack condition, except for one important difference. The payoff to the lower-level manager in the Reporting-w/o Slack condition is based on the actual cost of the implemented project (Step 4 in Panel B of Figure 1). Because their payoff is based on the actual cost of the implemented project, lower-level managers cannot misreport to consume slack in the Reporting-w/o Slack condition.

In contrast, as shown in Step 4 in Panel C of Figure 1, in the Reporting-w Slack condition the payoff to the lower-level manager is based on the reported cost of the implemented project. This allows lower-level managers to build slack into their reports because the lower-level manager can report a cost that is higher than the actual cost for the project that will be implemented. Thus, the lower-level managers’ payoff in the Reporting-w Slack condition includes two components 1) a bonus equal to 45% of the firm’s pre-bonus profit from the
project, and 2) the difference between the reported and the actual cost of the project that is
implemented as shown below:

Lower-level manager’s payoff = 45% x ($40 project cash flows - the reported cost amount of
implemented project) + (Reported cost of the implemented project – actual cost of the
implemented project)

Using this payoff calculation, we can see that the range of personal payoffs for the lower-level
manager is always higher when their report causes the project with the lowest actual cost to be
implemented (see Panel B of Table 2).\(^{15}\)

The firm’s profit from the implemented project is equal to the cash flows from the project
less the reported cost for the implemented project and less the cost of the bonus paid as shown
below:

The firm’s profit\(=\) $40 project cash flows – the reported cost amount of the implemented project
– bonus paid

From this firm profit calculation, we can see that range of possible firm profits is higher when
the lower-level manager’s report causes the project with the lowest actual cost to be
implemented. Except for the lower-level manager’s ability to consume slack and the related
effect on the lower-level manager’s payoff and firm profit described above, all other procedures
and parameters described earlier for the Reporting-w/o Slack condition are the same for the
Reporting-w Slack condition.

**Additional Payoff Procedures – All Conditions**

Before each experimental session began, participants were informed that at the
conclusion of the experimental session, one period would be selected at random to be the
payment period, and all participants except for one would be paid based on the payoff that they

\(^{15}\) Panel B of Table 2 provides a range of possible lower-level manager payoffs rather than a single payoff because
the actual lower-level manager’s payoff depends not only on which project is implemented, it also depends on
how much slack the lower-level manager has built into his or her cost report.
earned in their role as a lower-level manager for that period. However, to ensure that the participants felt that the impact of their actions on the firm’s profit was real, they were also informed prior to the experimental session that one participant would be randomly chosen to be paid the average firm profit for the randomly selected payment period rather than the payoff they earned as a lower-level manager. To ensure that participants’ considerations of the firm’s profit was as similar to the real world as possible, the firm profit associated with the randomly selected participant was excluded from the calculation of the average firm profit that was paid to the randomly selected participant. This ensured that, as in the real world, lower-level managers’ knew that their reporting choices would have a real impact on the firm’s profit, but they would not be impacting their own personal payoff through their impact on the firm’s profit.

IV. Results

Tests of H1

H1 predicts that a significant portion of lower-level managers will recommend the less profitable CSR project in the No Reporting condition.16 As shown in Panel A of Table 3, lower-level managers recommend the less profitable CSR project in the No Reporting condition 47.2% of the time (153 out of 324 opportunities). The 95% confidence interval for the proportion of lower-level managers who recommended a less profitable CSR for implementation is (.472 ± .054). Since this confidence interval does not contain the wealth-maximizing prediction of zero, H1 is supported.

(Table 3)

A limitation of using the confidence interval reported above to test H1 is that, because lower-level managers can only err in one direction, any mistakes are misclassified as evidence

16 A CSR project is less profitable in this particular setting if it has the higher actual costs of the two projects. For this reason, the terms “less profitable”, “higher cost” and “more costly” are used interchangeably.
supporting H1. To overcome this limitation, I compare how often lower-level managers recommended the less profitable CSR project to how often they recommended the less profitable non-CSR project. As shown in Figure 2 and Panel A of Table 3, lower-level managers recommended the less profitable non-CSR project for implementation only 6.5% of the time (21 out of 324 opportunities). This percentage is significantly lower ($z=29.79$, $p<.001$) than the percentage of lower-level managers who recommended a less profitable CSR project (47.2%) for implementation. This result is consistent with lower-level managers knowingly recommending the less profitable CSR project because they had a preference for the CSR project, and not because they were making mistakes. Finally, the statistical support for H1 is not driven by a small number of participants. Thirty-one of the 36 participants (86.1%) chose to recommend a less profitable CSR project at least once, with 14 of those participants (38.9%) doing so more than 50% of the time (not tabulated).

Data from a post experiment question provides further evidence that participants in the No Reporting condition knowingly recommended the less profitable CSR project for implementation because they valued the societal benefits associated with the CSR project. Specifically, participants rated their willingness to contribute to environmental causes on a 7-point Likert scale with end points of zero (Not Willing) and 6 (Very High Willingness) and a midpoint of 3 (Moderate Willingness). Their responses are significantly positively associated with the frequency with which they recommended the less profitable CSR project for implementation, suggesting that their recommendations reflected their preferences for the societal benefits associated with the CSR project.17

Tests of RQ1

17 Responses to this post experiment question in both the Reporting-w/o Slack and the Reporting-w Slack conditions are also significantly positively associated with the frequency with which the lower-level managers reported to implement the less profitable CSR project.
RQ1 asks how a reporting requirement influences the frequency of less profitable CSR project implementation. A setting with a reporting requirement requires a factual assertion, and this introduces a role for honesty preferences to possibly reduce the frequency of less profitable CSR project implementation. For this reason RQ1 asks whether the introduction of honesty preferences in a reporting setting acts as a full, partial or no control against the implementation of less profitable CSR projects.

I first examined whether honesty acted as a full control by testing whether a significant portion of lower-level managers in the Reporting-w/o Slack condition reported in a way that implemented a less profitable CSR project. If honesty preferences introduced by the reporting requirement act as a full control against the implementation of the less profitable CSR project, the frequency of less profitable CSR project implementation should be zero in the Reporting-w/o Slack condition. As shown in Figure 2 and Panel B of Table 3, lower-level managers in the Reporting-w/o Slack condition chose to misreport to implement the CSR project 22.2% of the time (72 out of 324 opportunities). The 95% confidence interval for the proportion of lower-level managers who misreported to implement the CSR project when it had the higher actual cost is (.222 ± .045). Since this confidence interval does not include zero, this analysis indicates that a significant portion of lower-level managers chose to implement the CSR project in the Reporting-w/o Slack condition. That is, honesty preferences introduced by a reporting requirement did not act as a full control against the implementation of less profitable CSR projects in the Reporting-w/o Slack condition.

However, as explained in the analysis for H1, establishing that the confidence interval for the frequency of less profitable CSR projects does not include zero does not account for the fact that some lower-level managers making reports to implement a less profitable CSR project may
simply be making mistakes. Therefore, I again control for the possibility of mistakes by comparing how often participants report to implement a less profitable CSR project to how often participants report to implement a less profitable non-CSR project. As shown in Figure 2 and Panel B of Table 3, lower-level managers reported to implement a less profitable non-CSR project only 4.9% of the time (16 out of 324 opportunities). This proportion is significantly smaller (z=14.35, p<.001) than the proportion of lower-level managers who misreported to implement a less profitable CSR project (22.2%). This result provides evidence that in most cases in which lower-level managers misreported to implement a less profitable CSR project, they did so because they had a preference for the CSR project, and not because they made a mistake. Finally, this documented behavior is not driven by a select few participants. Eighteen of the 36 participants (50%) chose to misreport to implement a less profitable CSR project at least once, with 5 of those participants (13.9%) choosing to do so more than 50% of the time (not tabulated).

Since a significant portion of managers implement a less profitable CSR project in my Reporting-w/o Slack condition, it is clear that a reporting requirement does not act as a complete control for the implementation of less profitable CSR projects. However, the honesty preferences introduced when there is a reporting requirement could still act as a partial control on the implementation of less profitable CSR projects.

I tested this possibility using a logistic regression with whether a less profitable CSR project was implemented (yes or no) as the dependent variable, and experimental condition (No Reporting or Reporting-w/o Slack) as the independent variable. Using a logistic regression allows me to control for repeated measures since managers made multiple decisions within my experiment. The results show that, when controlling for repeated measures, the frequency of less
profitable CSR project implementation is significantly lower ($z=-3.2$, $p=.001$) in the Reporting-w/o Slack condition than in the No Reporting condition.

In summary, a comparison of the frequency of less profitable CSR project implementation in the Reporting-w/o Slack condition versus the No Reporting condition provides evidence that the reporting requirement acted as a significant, but not full, control against the implementation of less profitable CSR projects.

Although managers’ behavior in the experiment provides the strongest evidence that preferences for honesty reduced the frequency of less profitable CSR in the Reporting-w/o Slack condition as compared to the No Reporting condition, data from a post experiment question provide additional support for this interpretation. Participants in the Reporting-w/o Slack condition indicated the extent to which their reporting choices were influenced by a desire to report honestly on a 7-point Likert scale with endpoints of zero (No Influence) and 6 (Very High Influence), and a midpoint of 3 (Moderate Influence). The responses were significantly negatively correlated with how often a participant misreported to implement the less profitable CSR project, supporting the conclusion that individuals’ preferences for honesty reduced their willingness to misreport to implement the less profitable CSR project.

**Tests of RQ2**

As discussed earlier, the presence of information asymmetry between lower-level and upper-level managers regarding project costs not only allows the lower-level manager to misreport which project has the lower cost, it could also allow lower-level managers to misreport to consume slack. RQ2 asks if this ability to consume slack affects the frequency of less profitable CSR project implementation.

To test RQ2, I compare the frequency of less profitable CSR project implementation in the Reporting-w Slack condition to the frequency in the Reporting-w/o Slack condition. As
shown in Figure 2 and Panel C of Table 3, the rate of less profitable CSR implementation in the Reporting-w Slack condition was 36.1%. In contrast, recall that the rate of less profitable CSR project implementation was only 22.2% in the Reporting-w/o Slack condition. The frequency of less profitable CSR project implementation in the Reporting-w Slack condition (36.1%) is significantly higher ($z=-5.21, p<.001$) than in the Reporting-w/o Slack condition (22.2%), suggesting that the ability to consume slack increased the frequency of less profitable CSR project implementation.

However, the simple comparison of frequencies reported above does not control for the fact that participants in both conditions made multiple choices. Therefore, I also compared the frequencies across these two conditions using a logistic regression that controls for repeated measures. The dichotomous dependent variable is whether the less profitable CSR project was implemented (yes or no), and the dichotomous independent variable is the experimental condition (Reporting-w Slack or Reporting-w/o Slack). The results provide marginal support ($z=-1.82, p=.069$) for the conclusion that the frequency of less profitable CSR project implementation is higher in the Reporting-w Slack condition than the Reporting-w/o Slack condition. Overall, my results suggest that the ability to consume slack increases the willingness of lower-level managers to misreport to implement a less profitable CSR project.

As described earlier in the development of RQ2, the ability to consume slack could have either increased or decreased the willingness of lower-level managers to report to implement the less profitable CSR project. The results above indicate that the ability to consume slack increased the frequency of less profitable CSR project implementation. A possible reason for this finding is that the ability to consume slack allowed lower-level managers to offset the personal cost of misreporting to implement the less profitable CSR project by consuming slack.
If this is case, lower-level managers’ payoffs should be higher in the Reporting-w Slack condition than in the Reporting-w/o Slack condition.

I tested this using a regression with the lower-level manager’s payoff when they misreported to implement the less profitable CSR project as the dependent variable and condition (1 if the observation was in the Reporting-w Slack condition and zero if the observation was in the Reporting-w/o Slack condition) as the independent variable. Because the actual cost of the implemented project also affected the lower-level manager’s payoff, I included it in the regression as a control variable.

I find that the lower-level manager’s payoff was significantly higher (t=6.31, p<.001) by an average of $1.79 when they misreported to implement the less profitable CSR project in the Reporting-w Slack condition than when they misreported to implement the less profitable CSR project in the Reporting-w/o Slack condition. This result is consistent with the ability to consume slack leading to higher payoffs for lower-level managers when they reported to implement the less profitable CSR project in the Reporting-w Slack condition. In turn, it is likely that lower-level managers’ higher payoffs in the Reporting-w Slack condition increased their willingness to misreport to implement the less profitable CSR project in that condition.

Test of RQ3

RQ3 asks how the percentage of slack varied across three different types of lower-level managers; those whose reports were dominated by preferences for honesty, those whose reports were dominated by preferences for wealth and those whose reports were dominated by preferences for CSR. To examine this question I first divided lower-level managers in the Reporting-w Slack condition into three separate groups based on the three preferences described above. Managers who never misreported to implement a less profitable CSR project and
reported to consume less than half of the available slack were classified as “Honest” types. Managers who never misreported to implement a less profitable CSR project but reported to consume more than half of the available slack were classified as “Wealth” types. Finally, managers who chose to implement a less profitable CSR project more than half of the time were classified as “Strong CSR” types.18

As shown in Table 4, based on these classifications, 7 of the 36 participants (19.4%) were classified as Honest types, 4 participants (11.1%) were classified as Wealth types, and 10 participants (27.8%) were classified as Strong CSR types. Table 4 also reports the average response to three post experiment questions that deal with preferences for honesty, wealth, and CSR. Consistent with the classifications based on their behavior, Honest types gave the highest average response on the post experiment question relating to honesty (5.00). Strong CSR types gave the highest average response to the post experiment question related to CSR (5.22) and Wealth types gave the second highest average response to the post experiment question relating to wealth (0.00).

As also shown in Table 4, the average percentage of slack was highest for Wealth types (92.4%), next highest for Strong CSR types (43.0%) and lowest for Honest types (2.7%). A statistical comparison of these averages shows that the average percentage of slack for the Strong CSR types (43.0%) is significantly lower (t=-4.62, p<.001) than the average percentage of slack for the Wealth types (92.4%), but significantly higher (t=4.76, p<.001) than the average percentage of slack for the Honest types (2.7%).

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18 Because some individuals likely did not have a dominant preference for wealth, CSR or honesty, 15 of the 36 participants in the Reporting-w Slack condition have been classified as “Weak CSR” types since all of these individuals choose to implement a less profitable CSR project at least once, but did not do so more than 50% of the time. To ensure that my results regarding RQ3 and RQ4 were not driven by my definition of CSR types, I repeated all of the reported tests for Strong CSR types including the Weak CSR types. All statistical inferences using both Strong CSR and Weak CSR types were unchanged from the reported inferences using only the Strong CSR types.
Test of RQ4

RQ4 asks how firm profit when lower-level managers are Strong CSR types compares to firm profit when lower-level managers are Wealth types. Since the results of RQ3 show that Strong CSR types do not consume as much of the available slack as Wealth types, firm profit is likely to be higher with Strong CSR types than with Wealth types. However, because Strong CSR types reduce firm profit by misreporting to implement less profitable CSR projects, and Wealth types do not, the results regarding RQ3 are not sufficient to show that firm profit will be higher for Strong CSR types than for Wealth types. Figure 3 shows that average firm profit is higher for Strong CSR types ($14.14) than for Wealth types ($11.93), while, as expected, Honest types result in the highest average firm ($16.37). A statistical comparison of average firm profit between Strong CSR types and Wealth types shows that average firm profit is significantly higher (t=4.35, p=.001) for Strong CSR types ($14.14), than for Wealth types ($11.93). This result is obtained despite the fact that the Strong CSR types reduce firm profit by implementing less profitable CSR projects and Wealth types do not. This finding shows that under certain conditions, firms may be better off when lower-level managers have strong CSR preferences than when lower-level managers have strong preferences for wealth.

Additional Analysis

Does implementation of unprofitable CSR vary with cost?

Because I vary the cost of recommending or reporting to implement a less profitable CSR project, I can examine whether preferences for CSR activities are impacted by the cost of such activities. As shown in Table 5, the frequency of less profitable CSR project implementation decreased in all conditions when the cost of the CSR project increased. A logistic regression in
which the dependent variable is whether the less profitable CSR project was implemented (yes or no), and the dichotomous independent variable is the cost of the CSR project, shows a negative and significant ($z=-7.12; p<.001$) relationship between the cost of the CSR project and the frequency with which it was implemented. However, as shown in Table 5, a significant portion of managers in all three conditions continued to recommend or report to have the less profitable CSR project implemented even when the cost of the CSR project increased from 10% to 50% higher than the non-CSR alternative.$^{19}$

(Table 5)

V. Conclusion

Prior research implicitly assumes that upper-level managers decide whether to engage in CSR activities after carefully weighing the associated costs and benefits (Kim et al. 2012; Barnea and Rubin 2010). Missing from this assumption is how such upper-level decision makers get the cost and benefit information needed to make CSR decisions. Such information often comes from lower-level managers. For this reason, I conduct an experiment to investigate whether, in such a setting, lower-level managers bias their communication to upper-level managers in favor of CSR projects, leading to the implementation of less profitable CSR projects rather than more profitable non-CSR projects.

Two factors often present in a setting in which lower-level managers communicate information to upper-level managers could influence the extent to which such information is biased in favor of CSR activities. First, the communication of information from lower-level managers to upper-level managers often takes the form of a report that requires a factual

$^{19}$ In addition, if all of the prior tests are repeated using only instances in which the cost of the CSR project was 50% higher than the cost of the non-CSR project, all previously reported statistical inferences for H1 and RQ’s 1 and 2 are unchanged. While results for RQ’s 3 and 4 followed a similar pattern as the previously reported results, because both of these research questions are tested using only data from the Reporting-w Slack condition, the reduction in sample size makes statistical inferences difficult for these two research questions.
assertion regarding the costs or benefits of alternative courses of action. The need to make a factual assertion introduces a potential role for honesty preferences to influence the extent to which lower-level managers bias their reports. Second, in many reporting settings lower-level managers can build slack into their reports. Because the ability to consume slack affects lower-level manager’s payoffs, this ability could also influence the extent to which they bias their reports.

I find that lower-level managers recommendations cause the less profitable CSR project rather than the more profitable non-CSR project to be implemented 47% of the time. The frequency of less profitable CSR project implementation decreases to 22% when lower-level managers must misreport to implement the less profitable CSR project, suggesting that their honesty preferences act as a significant, but not full, control against the implementation of less profitable CSR projects. However, when lower-level managers are also able to build slack into their reports, the frequency of less profitable CSR projects increases to 36%, suggesting that the ability to consume slack offsets the deterrent effect of honesty preferences against the implementation of less profitable CSR projects.

My results add to our understanding of how CSR decisions are made within firms. Specifically, the results of my study show that information reported by lower-level managers to upper-level managers can be biased in favor of less profitable CSR activities. This finding has implications for upper-level managers who rely on such information and therefore unknowingly implement less profitable CSR projects. Since all three settings examined in my study include financial incentives for lower-level managers to provide unbiased information, upper-level managers may not recognize that they are nevertheless being provided biased information. If upper-level managers value unbiased information, they may want to consider investing resources
to reduce information asymmetry between themselves and lower-level managers about the actual cost of CSR versus non-CSR activities.

My results also have implications for shareholders because of the impact of biased reports on firm profit. In settings that do not allow lower-level managers to consume slack, biased communication in favor of CSR projects reduces firm profit because such biased communication causes less profitable CSR projects to be implemented. Assuming that shareholders are wealth maximizers, they would not want such projects to be implemented. Thus, like upper-level managers, shareholders may want to invest resources to reduce information asymmetry between themselves and lower-level managers about the actual cost of CSR versus non-CSR activities.

However, in settings in which lower-level managers can consume slack, shareholders may be willing to tolerate lower-level managers who bias reports in favor of less profitable CSR projects even when shareholders are wealth maximizers. This is because firm profit is higher when lower-level managers bias their reports in favor of less profitable CSR projects than when they do not, but then take all or most of the available slack. This result occurs because lower-level managers with a strong preference for CSR take considerably less of the available slack than managers who have a strong preference for wealth, and this effect more than offsets the negative impact of less profitable CSR project implementation on firm profit.

My study is subject to several limitations. First, the participants of my study were business students and not actual current managers. To the extent that the participants in my experiment have different mixes of preferences for wealth, honesty and CSR, than various groups of actual managers, my results may not generalize to all such groups of managers. However, since two-thirds of my subjects were graduate business students, 61% of whom had
three or more years of work experience, such participants may already have experience as managers. In addition, the other one-third of my participants were upper-level business majors, and as such will likely hold manager positions in the near future. Second, the specific socially responsible cause used in my experiment was a “green” cause. Other socially responsible causes may result in stronger or weaker effects of the type documented in my study depending on the strength of preferences that managers have for such causes. Finally, the financial stakes in my experiment were smaller than those found in actual CSR decision settings, and thus the results of my study may not generalize to settings in which the financial stakes are much larger. However, numerous studies provide evidence that the smaller stakes used in experimental settings often generalize to settings in which the stakes are much larger (Kachelmeier and Shehata 1992; Falk and Heckman 2009; and Camerer 2011).
References


Figure 1 - Steps in Each Period of the Experiments

Panel A – No-Reporting Condition

1. The lower-level manager learns the actual cost of each separate project
2. The lower-level manager recommends one of the projects to their upper-level manager
3. The recommended project is implemented
4. Payoffs are determined using the actual cost of the implemented project

Panel B – Reporting-w/o Slack Condition

1. The lower-level manager learns the actual cost of each separate project
2. The lower-level manager reports the cost of each project to their upper-level manager
3. The project with the lower reported cost is implemented
4. Payoffs are determined using the actual cost of the implemented project

Panel C – Reporting-w Slack Condition

1. The lower-level manager learns the actual cost of each separate project
2. The lower-level manager reports the cost of each project to the upper-level manager
3. The project with the lower reported cost is implemented
4. Payoffs are determined using the reported cost of the implemented project
Figure 2: Frequency of project implementation by project type and by condition

- CSR
  - No Report: 47.2%
  - Reporting - w/o slack: 36.1%
  - Reporting - w slack: 22.2%

- Non-CSR
  - No Report: 6.5%
  - Reporting - w/o slack: 4.9%
  - Reporting - w slack: 2.8%
Figure 3: Average Firm Profit by Manager Type

- **"Strong CSR" Types**: $14.14
- **"Wealth" Types**: $11.93
- **"Honest" Types**: $16.37

Total Possible: $16.00
Table 1: Cost Pairs (All Conditions)\(^a\)

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\(^a\) A cost pair consists of a cost for the CSR project and a cost for the non-CSR project. Exactly one half of the time the CSR project had the highest cost and one half of the time the non-CSR project had the highest cost. The lower cost project of each cost pair was always $10, while the higher cost project was $11, $13, $15 or $20.

\(^b\) Each of the four rows in the table below represent one possible cost pair in which the CSR project has a higher actual cost than the non-CSR project.

\(^c\) Each of the four rows in the table below represent one possible cost pair in which the non-CSR project has a higher actual cost than the CSR project.
### Table 2

#### Panel A: Lower-Level Manager's Possible Payoffs – No Reporting & Reporting-w/o Slack Conditions

<table>
<thead>
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<th>Actual Cost - Higher Cost Project&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Actual Cost- Lower Cost Project</th>
<th>Project Implemented Based on Recommendation or Report&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Manager's Payoff&lt;sup&gt;c&lt;/sup&gt;</th>
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<td>Lower Cost Project</td>
<td>$13.50</td>
</tr>
<tr>
<td>$11</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$13.05</td>
</tr>
<tr>
<td>$13</td>
<td>$10</td>
<td>Lower Cost Project</td>
<td>$13.50</td>
</tr>
<tr>
<td>$13</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$12.15</td>
</tr>
<tr>
<td>$15</td>
<td>$10</td>
<td>Lower Cost Project</td>
<td>$13.50</td>
</tr>
<tr>
<td>$15</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$11.25</td>
</tr>
</tbody>
</table>

<sup>a</sup> One-half of the time the CSR project was the higher cost project and one-half of the time the non-CSR project was the higher cost project.

<sup>b</sup> The lower-level manager could recommend or report to get either the higher cost project or the lower cost project to be implemented.

<sup>c</sup> The lower-level manager’s payoff was calculated by the following formula: 45% * ($40 – actual cost of the recommended project)

#### Panel B: Lower-Level Manager's Possible Payoffs – Reporting-w Slack Condition

<table>
<thead>
<tr>
<th>Actual Cost - Higher Cost Project&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Actual Cost- Lower Cost Project</th>
<th>Implemented Project&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Manager’s Payoff Range&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>$11</td>
<td>$10</td>
<td>Lower Cost Project</td>
<td>$13.50 - $18.45</td>
</tr>
<tr>
<td>$11</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$13.05 - $17.45</td>
</tr>
<tr>
<td>$13</td>
<td>$10</td>
<td>Lower Cost Project</td>
<td>$13.50 - $18.45</td>
</tr>
<tr>
<td>$13</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$12.15 - $15.45</td>
</tr>
<tr>
<td>$15</td>
<td>$10</td>
<td>Lower Cost Project</td>
<td>$13.50 - $18.45</td>
</tr>
<tr>
<td>$15</td>
<td>$10</td>
<td>Higher Cost Project</td>
<td>$11.25 - $13.45</td>
</tr>
</tbody>
</table>

<sup>a</sup> One-half of the time the CSR project was the higher cost project and one-half of the time the non-CSR project was the higher cost project.

<sup>b</sup> The implemented project was the project with the lowest reported cost.

<sup>c</sup> The lower-level manager’s payoff range was calculated using the following formula: 45% * ($40 – reported cost of the implemented project) + (reported cost – actual cost of the implemented project) The reported cost of the implemented project could range from a low of the actual cost to a high of $19.
Table 3

Panel A: Project Frequency by Cost – No-Reporting Condition

<table>
<thead>
<tr>
<th>Project Implemented</th>
<th>CSR Highest Cost</th>
<th>Non-CSR Highest Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>CSR</td>
<td>153</td>
<td>47.2%</td>
</tr>
<tr>
<td>Non-CSR</td>
<td>171</td>
<td>52.8%</td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100%</td>
</tr>
</tbody>
</table>

Panel B: Project Frequency by Cost – Reporting-w/o Slack Condition

<table>
<thead>
<tr>
<th>Project Implemented</th>
<th>CSR Highest Cost</th>
<th>Non-CSR Highest Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>CSR</td>
<td>72</td>
<td>22.2%</td>
</tr>
<tr>
<td>Non-CSR</td>
<td>252</td>
<td>77.8%</td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100%</td>
</tr>
</tbody>
</table>

Panel C: Project Frequency by Cost – Reporting-w Slack Condition

<table>
<thead>
<tr>
<th>Project Implemented</th>
<th>CSR Highest Cost</th>
<th>Non-CSR Highest Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>CSR</td>
<td>117</td>
<td>36.1%</td>
</tr>
<tr>
<td>Non-CSR</td>
<td>207</td>
<td>63.9%</td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^a\) In the no-reporting condition, the project that was implemented was the project that was recommended by the lower-level manager. The lower-level manager could recommend either the CSR or the non-CSR, regardless of which project had the higher cost.

\(^b\) In the reporting with and without slack conditions, the project that was implemented was the project with the lower reported cost. These tables includes only instances in which a lower-level manager could report either the CSR or the non-CSR as having the lower cost, regardless of which project actually had the lower cost.

\(^c\) This column represents instances in which the CSR project had the higher actual cost. Exactly one-half of the time the CSR project had the higher actual cost and one-half of the time the non-CSR project had the higher actual cost.

\(^d\) This column represents instances in which the non-CSR project had the higher actual cost. Exactly one-half of the time the non-CSR project had the higher actual cost and one-half of the time the CSR project had the higher actual cost.
Table 4: Types of Lower-Level Managers in the Reporting-w Slack Condition

<table>
<thead>
<tr>
<th>Types</th>
<th>N</th>
<th>Frequency of Type</th>
<th>Mean % of Slack Taken</th>
<th>Mean Response Honesty PEQ</th>
<th>Mean Response CSR PEQ</th>
<th>Mean Response Wealth PEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong CSR a</td>
<td>10</td>
<td>27.8%</td>
<td>43.0%</td>
<td>3.22</td>
<td>5.22</td>
<td>-0.11</td>
</tr>
<tr>
<td>Weak CSR b</td>
<td>15</td>
<td>41.7%</td>
<td>53.0%</td>
<td>2.88</td>
<td>3.88</td>
<td>0.50</td>
</tr>
<tr>
<td>Total CSR Types</td>
<td>25</td>
<td>69.5%</td>
<td>49.4%</td>
<td>3.00</td>
<td>4.36</td>
<td>0.028</td>
</tr>
<tr>
<td>Wealth c</td>
<td>4</td>
<td>11.1%</td>
<td>92.4%</td>
<td>0.25</td>
<td>0.25</td>
<td>0.00</td>
</tr>
<tr>
<td>Honest d</td>
<td>7</td>
<td>19.4%</td>
<td>2.7%</td>
<td>5.00</td>
<td>0.86</td>
<td>-2.86</td>
</tr>
<tr>
<td>Total Participants</td>
<td>36</td>
<td>100%</td>
<td>45.1%</td>
<td>3.08</td>
<td>3.22</td>
<td>-0.36</td>
</tr>
</tbody>
</table>

a Strong CSR types are defined as individuals who have reported to implement a less profitable CSR project more than one-half of the time.
b Weak CSR types are defined as individuals who have reported to implement a less profitable CSR project at least once, but less than one half of the time.
c Wealth types are defined as individuals who never reported to implement a less profitable CSR project and who took more than one-half of the available slack.
d Honest types are defined as individuals who never reported to implement a less profitable CSR project and who took less than one-half of the available slack.
e Mean % of slack taken is measured as (slack taken / slack available).
f Participants were asked to rate their response to the question “To what extent was your reporting choice regarding the cost of the two projects influenced by a desire to report honestly?” on a 7 point Likert scale with end points of zero “No Influence” and 6 “Very High Influence” and a midpoint of 3 “Moderate Influence.”
g Participants were asked to rate their response to the question “To what extent was your reporting choice regarding the cost of the two projects influenced by a desire to implement the green project?” on a 7 point Likert scale with end points of zero “No Influence” and 6 “Very High Influence” and a midpoint of 3 “Moderate Influence.”
h Participants were asked to indicate the extent to which they agree with the following statement: “When the green project had the higher actual cost, I considered the amount my possible payoff would be reduced in deciding whether to misreport to get the green project implemented” on a 7 point Likert scale with end points of -3 “Strongly Disagree” and 3 “Strongly Agree” and a midpoint of zero “Neither Agree nor Disagree.”
Table 5: Frequency of Less Profitable CSR Project Implementation by Cost of CSR project and Experimental Condition

<table>
<thead>
<tr>
<th>Cost of CSR Project</th>
<th>No Reporting</th>
<th>Reporting – w/o slack</th>
<th>Reporting – w slack</th>
<th>Average – All Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$11 (10% higher than non-CSR cost of $10)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>74.1%</td>
<td>36.1%</td>
<td>56.5%</td>
<td>55.6%</td>
</tr>
<tr>
<td>$13 (30% higher than non-CSR cost of $10)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>38.9%</td>
<td>18.5%</td>
<td>29.6%</td>
<td>29.0%</td>
</tr>
<tr>
<td>$15 (50% higher than non-CSR cost of $10)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>28.7%</td>
<td>12.04%</td>
<td>22.2%</td>
<td>21.0%</td>
</tr>
</tbody>
</table>

Overall – by condition

|                | 47.2% | 22.2% | 36.1% | 35.2% |

<sup>a</sup> When the actual cost of the CRR project was $11, the actual cost of the CSR project was $1 higher than the actual cost of the non-CSR project ($11-10) and 10% higher than the actual cost of the non-CSR project ($1/$10).

<sup>b</sup> When the actual cost of the CRR project was $13, the actual cost of the CSR project was $3 higher than the actual cost of the non-CSR project ($13-10) and 30% higher than the actual cost of the non-CSR project ($3/$10).

<sup>c</sup> When the actual cost of the CRR project was $15, the actual cost of the CSR project was $5 higher than the actual cost of the non-CSR project ($15-10) and 50% higher than the actual cost of the non-CSR project ($5/$10).