

Earnings Management and the Role of Moral Values in Investing

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December 2023

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Abstract

In this study, we use earnings management to examine (1) how investors regard a CEO's commitment to honesty and (2) the impact of their perceptions, in light of their own moral values, on their investment decisions. In two laboratory experiments using students as investor proxies, we find that investors perceive a CEO as being more committed to honesty when they believe the CEO has engaged less in earnings management. A one standard deviation increase in a CEO's perceived commitment to honesty, compared to that of another CEO, leads to a 40% reduction in the importance the investors assigned, when making investment decisions, to differences in the two CEOs' claimed future returns. This effect is particularly pronounced among investors with a prosocial value orientation. For prosocial investors, their moral values and those they attribute to the CEO directly influence their investment decisions, with returns playing a secondary role. Our findings contrast with the idea, implicit in the literature on 'sin' stocks, that morality is a niche concern. By contrast, we find that moral values play a significant role for distinct types of investors and that they influence investment decisions for both moral and pecuniary reasons.

Keywords: Earnings management, honesty, investor preferences, investor segmentation, protected values

JEL Classifications: M41, G41, G11

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Abstract

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1 Introduction

Many investors not only care about the financial dimension of their investments, but also have non-pecuniary motives (see, e.g., Martin and Moser, 2016; Riedl & Smeets, 2017). In this study, we add to this literature by highlighting the interactive role of moral values. We first examine how a refusal to engage in earnings management by a CEO signals to investors the CEO's commitment to honesty; we then examine how this perception of a CEO's morality – in combination with the investors' own social and moral traits – shape the investors' future decisions.

A large literature has established that individuals experience intrinsic costs of lying and thus differ in their commitment to honesty, i.e., in their willingness to adhere consistently to ethical principles, irrespective of the situational constraints they face (Gibson et al., 2013; Gneezy, 2005; Murphy et al., 2020). We hypothesize that investors care about a CEO's commitment to honesty and use information about a CEO's past engagement in earnings management to infer such a commitment, or lack thereof. We argue that when individuals choose not to misrepresent the facts, although doing so would increase their own personal benefits, it signals a greater commitment to honesty. While this prediction seems intuitive, several studies (e.g., Gunny, 2010; Healy & Palepu, 1993; Holthausen, 1990; Perotti & Windisch, 2017; Subramanyam, 1996) argue that managers use earnings management to signal private information about company value; these results could suggest a *positive* relationship between earnings management and investors' perceptions of a CEO's moral commitment. Our first hypothesis (H1), by contrast, holds that knowledge of a CEO's earnings management activity correlates *negatively* with investors' perceptions of the CEO's commitment to honesty.

Our main analyses test two additional hypotheses regarding investment decisions. We begin by investigating the prediction that, when making investment decisions, investors are willing to trade off their perception of the CEOs' commitment to honesty against the CEO's

claimed future returns. In the prior accounting literature, Mercer (2005) focuses on how deceptive disclosure practices negatively affect investors' perceptions of a manager's credibility, while Hewitt et al. (2020) find that investors' perceptions of a CEO's trustworthiness decrease after learning the CEO engaged in earnings management. Relatedly, we consider how investors' perceptions of a CEO's moral values, in the form of the CEO's commitment to honesty, affect their investment decisions in situations where two CEOs claim different future returns. Naturally, we expect investors to invest with the company whose CEO claims higher future returns. However, our second hypothesis (H2) posits that investors place less weight on claimed return differences the more they perceive a CEO to be committed to honesty relative to another CEO. Because the participants in our experiments make four investment decisions, each having a different opportunity cost when they invest with the more honest CEO, we are able to quantify the weight put on the promised returns depending on a CEO's commitment to honesty.

Although it appears plausible, and in line with prior research, to expect a link between investors' investment choices and their perceptions of CEOs, the channel is not obvious. Our inquiry into this mechanism forms the main contribution of this paper. In line with a growing body of accounting researchers, we differentiate between self-oriented investors (proselfs), who primarily care about their own welfare, and social-oriented investors (prosocials), who also care how their choices affect others (e.g., Davidson, 2019; Yin, 2021). Research in psychology suggests that proselfs tend to interpret information about the characteristics of others by considering the implications for their own welfare, whereas prosocials interpret that same information from a moral perspective (e.g., De Bruin & Van Lange, 2000). We thus conjecture that proself and prosocial investors differ in the way they use their perceptions of a CEO's commitment to honesty when making investment decisions. Our third hypothesis (H3) posits that proself investors care more about the announced future returns being likely to materialize. Thus, their perception of a CEO's commitment to honesty should interact with

the CEO's claimed future returns. By contrast, prosocial investors place more emphasis on moral considerations than on future returns. Thus, they should invest more heavily with the CEO with whom they share a similar commitment to honesty. This hypothesis is informed by, and adds to, research highlighting the pivotal role of a congruity between the company's and the investors' values in stock market participation (e.g., Bauer & Smeets, 2015; Hong & Kostovetsky, 2012; Nilsson, 2008).

To test our hypotheses, we conduct two laboratory experiments. In both experiments, students with different backgrounds and financial literacy (acting as proxies for investors with different social and moral preferences, as well as different degrees of sophistication) are asked to make decisions to invest with one of two companies. The two companies are identical, except in that their CEOs announce different earnings per share (EPS) and thus are awarded different bonus payments. The participants are informed that CEOs can legally influence reported earnings and that they can increase their own bonuses by announcing higher earnings. The participants then decide which company to invest in, when given a series of four choices. Each choice differs regarding the future returns the two CEOs claim. The participants are also asked to state their perceptions of each CEO's commitment to honesty, among other CEO traits. To assess the participants' perceptions of each CEO's commitment to honesty, we draw on the concept of 'protected values', i.e., core values that individuals exclude from utilitarian trade-offs, as measured through a multi-dimensional scale (Baron & Spranca, 1997; Tanner & Medin, 2004; Tetlock et al., 2000). In Experiment 2, we also collect data on the participant's social and moral preferences, allowing us to categorize them as proself or prosocial investors.

The results of our experiments support H1. Indeed, most participants infer that the CEO who announces higher past earnings, and receives a higher bonus, has managed earnings more than the other CEO. They also perceive the latter CEO to be more committed to honesty. Importantly, the participants' perceptions of the extent to which a CEO has engaged in

earnings misrepresentation correlate strongly, and negatively, with their perceptions of that CEO's commitment to honesty.

When choosing between two companies in which to invest, participants tend to prefer the one led by the CEO who claims higher future returns and is perceived to have a stronger commitment to honesty. In support of H2, we find that investors become less sensitive to the differences in the returns the two CEOs claim, the more they perceive one CEO to be more committed to honesty than the other. A one standard deviation increase in a CEO's perceived commitment to honesty, compared to the other CEO, reduces the relevance of differences in claimed future returns by about 40%.

Finally, our results also support H3. While the proself participants are sensitive to claimed future returns, we find that the more they perceive one CEO to be committed to honesty, relative to the other CEO, the less return-sensitive they become. To optimize their risk-return profile, proselfs trade off two factors: On the one hand, they seek higher returns; on the other hand, they seek a lower probability of those promised returns not materializing. Prosocial participants invest with the non-earnings management CEO when they themselves are committed to honesty, we find, or when they perceive that CEO to be the more honest of the two. Finally, the future returns the CEOs claim do not interact with these participants' own commitment to honesty or with their perception of the CEOs' commitment.

Our results contribute to the accounting and finance literature along several dimensions. As do several other researchers, we find that disclosure practices affect managers' reporting credibility and investment choices (e.g., Elliott et al., 2012; Eugster & Wagner, 2021; Graham et al., 2005). In particular, our results are in line with those of Mercer (2005), that investors attribute a company's disclosure practices to the dispositional characteristics of the management. Our study also shares several features with Hewitt et al. (2020) and, as such, provides support for their findings that earnings management affects investor perceptions of a CEO which subsequently affects investment choices. However, there are also important

differences. We measure perceptions of CEOs' psychological traits and how these perceptions affect investment choices; in our second experiment, we also measure the psychological traits of the investors. These measures allow us to test whether trait congruity drives investor behavior, and for which type of investors. Indeed, we obtain the novel insight that investors respond differently to future return claims depending both on their perception of a CEO's commitment to honesty and on their own moral values. Specifically, we find that prosocial investors segment their investments into stocks based on the congruity of their own values and the CEO's values. Going beyond prior work, we show that for prosocial investors, honesty perceptions matter by themselves, and not solely as a source of disclosure credibility, which, for proself investors, is key.

These findings contribute to a developing research stream on how the moral or social values of investors shape their decision-making (e.g., Hong & Kacperczyk, 2009; Pasewark & Riley, 2010). For example, Hong and Kacperczyk (2009) highlight that prosocial institutional investors may shun sin stocks (i.e., those associated with alcohol, tobacco, weapons, gambling, and pornography). Our results for prosocial investors support this research, but we further show that, even among proself investors, CEO honesty matters – not directly for moral reasons, but for pecuniary ones, i.e., because it helps these investors secure their investment goals. These results contrast with the idea, implicitly present in the sin stocks literature, that morality is a niche concern and mostly relevant for investors constrained by religious or social norms. In addition, this finding aligns with research on sustainable finance, demonstrating that some investors invest with companies high in environmental, social, and governance (ESG) performance because they hold environmental and social values themselves, whereas others invest in high ESG companies to lower their investment risk or to comply with an insurance motive (Degryse et al., 2023; Jansson & Biel, 2011; Zolotoy et al., 2019).

We also add to accounting research which has previously focused on the role of social value orientation for unethical managerial behavior. For example, prior studies find that

prosocial managers report more honestly and create less budgetary slack than do their proself counterparts (e.g., Cardinaels et al., 2019; Davidson, 2019). Our findings suggest that social value orientation is also important in understanding how others perceive and react to CEOs' deceptive reporting practices.

Finally, we join an emerging research stream in accounting that highlights how the interactive roles of individual traits of interaction partners (e.g., auditors and clients, or superior and subordinate managers) affect accounting judgments (e.g., Johnson et al., 2021; Maske & Sohn, 2023). This research observes a homophily effect, i.e., the tendency of like to associate with like. We add to this research by showing that the perception of trait similarities in the investor-CEO dyad affects investment choices, especially for the more socially oriented investors.

2 Theory and Hypotheses

2.1 Concepts

In this paper, we study how investors' perceptions of earnings management shape their investment decisions, by exploring the relationship between investors' perceptions of a CEO's commitment to honesty and the investors' own moral values. Before we develop our three hypotheses, we clarify the key concepts earnings management and commitment to honesty.

2.1.1 Earnings Management

When conducting *accruals earnings management* (referred to simply as *earnings management* in this paper), managers change accounting methods or estimates within generally accepted accounting principles.¹ Managers extensively use such legal opportunities (Burgstahler & Dichev, 1997; Degeorge et al., 1999), engaging in earnings management to increase their individual bonuses (Guidry et al., 1999; Holthausen et al., 1995) and the value

¹ There is also real earnings management, achieved by changing the timing of spending in investing or financing operations, with the intention of manipulating the reported earnings (Gunny, 2010; Roychowdhury, 2006; Schipper, 1989; Zang, 2012). Hewitt et al. (2020) show that investors infer little about a company's credibility from real earnings management.

of their equity-based wealth (Bergstresser & Philippon, 2006). A growing literature shows that stable CEO traits affect the degree of earnings management in practice. This research finds that, among others, managers' risk-aversion (Graham et al., 2013), overconfidence (Schrand & Zechman, 2012), masculinity (Jia et al., 2014), narcissism (Capalbo et al., 2018; Ham et al., 2017), and commitment to honesty (Gibson et al., 2013) affect a company's engagement in earnings misreporting.

Several papers highlight ethical concerns with earnings management, even if such behavior remains within legal bounds and accepted accounting standards. Healy and Wahlen (1999) state that earnings management occurs when managers 'choose reporting methods and estimates that do not accurately reflect their companies' underlying economics' (p. 366) with the goal 'to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers' (p. 368). Dichev et al. (2016) deem earnings management to be 'prevalent but still problematic' (p. 27), while Jensen (2005) calls it an act of 'lying' (p. 8). Accordingly, a developing stream of research suggests that investors perceive earnings management as deceptive (Bentley et al., 2020), which, in turn, decreases investors' perceptions of the trustworthiness of the CEOs and their reporting decisions (e.g., Elliott et al., 2012; Eugster & Wagner, 2021; Hewitt et al., 2020).

2.1.2 Commitment to Honesty

We assert that a CEO's decision not to engage in earnings management serves as a potent signal of CEO's commitment to honesty, shedding light on the CEO's moral compass. We define commitment to honesty as individuals' steadfast adherence to truthfulness, emphasizing a clear intent to act in line with their ethical principles, regardless of personal consequences or external pressure (Klein et al., 2020). Moreover, commitment to honesty is regarded as reflecting a strong moral conviction (Skitka & Mullen, 2002), constituting a core belief that is central to one's identity (Bénabou & Tirole, 2004; Tetlock et al., 2000).

Compromising one's moral standard could threaten one's personal or public identity, incurring intrinsic moral costs (Gneezy, 2005). Since commitment to honesty implies a heightened sense of obligation to consistently uphold honesty across various situations, it serves as predictor of honest behavior. An individual perceived as being committed to honesty has not only acted honestly in the past but can be expected to act honestly in future situations.

We distinguish conceptually between CEOs' commitment to honesty and shareholders' trust in managers, which Hewitt et al. (2020) find influences investment decisions. According to the early trust theories, such as those by Rotter (1967) or Cook and Wall (1980) trust revolves around an individual's expectation that statements by another party can be relied upon, contingent on their willingness to attribute good intentions to that party's words or actions. Hewitt et al. (2020) defined trust as the 'shareholders' willingness to adopt a position of vulnerability with respect to managers' decisions and reporting' (p. 2062). This willingness to adopt a position of vulnerability depends on whether the manager can be seen as trustworthy. That is, trustworthiness refers to the observed quality or attribute of an individual being reliable, thereby warranting trust. According to the prominent model of Mayer et al. (1995) trustworthiness is the degree to which someone or something can be relied upon to be competent, benevolent and act with integrity.

By contrast, commitment to honesty is about an individual's adherence to ethical principles and strongly tied to one's identity and moral compass. Perceived commitment to honesty may not only be one reason why a CEO can be judged as trustworthy, but also why an investor would view the CEO's information as being more credible.² Additionally, we argue that investors' perceptions of a CEO's commitment to honesty extend beyond mere disclosure credibility, which is defined as 'investors' perceptions of the believability of a

² Given the conceptual relatedness between a commitment to honesty and trustworthiness, we include trustworthiness as a control variable in the analysis of our experimental data. This allows us to examine whether a perceived commitment to honesty accounts for additional explained variance beyond trustworthiness.

particular disclosure' (Mercer, 2004, p.186). Instead, we conjecture that a congruity of moral traits matters to certain investors. These (prosocial) investors are predicted to care about a CEO's commitment to honesty because they prefer to invest with individuals who share their moral traits.

2.2 Hypotheses

The following three hypotheses structure our experimental design and analyses: the Honesty Inference Hypothesis (H1), the Dishonesty Discount Hypothesis (H2), and the Investors' Motives Hypothesis (H3). Our main interest focuses on H2 and H3, which focus on investment choices and the heterogeneous preferences of investors.³

2.2.1 Earnings Management and Perceived Commitment of CEOs to Honesty

Psychological research shows that individuals tend to instantly form impressions about a person's character traits, and particularly about that person's moral compass, based on their actions (Brambilla et al., 2011; Goodwin, 2015).⁴ We argue that earnings management is a setting where such impressions occur. We conjecture that investors form impressions about a CEOs' commitment to honesty based on that CEOs' past earnings management practices. We hypothesize that if a CEO does not engage in earnings management, in the presence of monetary incentives to do so, it signals to investors that this CEO has a commitment to honesty. Our proposition is informed by a large literature in psychology and behavioral economics suggesting that individuals suffer costs for lying (Gibson et al., 2013; Gneezy, 2005; Murphy et al., 2020). When individuals do not cheat, thus foregoing the personal benefits associated with cheating, then this signals to observers a higher cost for lying or, in other words, a stronger commitment to honesty. Prior research suggests that managers' commitment to honesty is indeed related to their engagement in earnings management.

³ We also develop a theoretical model and the respective hypotheses in Appendix A1.

⁴ Psychological research suggests, in particular, that individuals care whether or not others are committed to honesty, for example, when they need to cooperate with them (Everett et al., 2016).

Gibson et al. (2013) find that individuals who are committed to honesty are less willing to engage in earnings management and refrain from pursuing the financial benefits related to it. We therefore posit:

Honesty Inference Hypothesis (H1): The stronger an investor's belief that a CEO has engaged in earnings management, the less committed to honesty the investor perceives that CEO to be.

However, there are two other possibilities. First, investors may see CEOs who manage earnings in a positive light, as being more committed to conveying transparent information about the company's value. This situation would occur if investors see earnings management as a tool for managers to use to convey private information, as suggested by Arya et al. (2003), Guay et al. (1996), Gunny (2010), Perotti and Windisch (2017), and Watts and Zimmerman (1986).

Second, investors may have in mind a world, like that portrayed in Stein (1989), which does not allow for the possibility that a manager could experience psychological or moral costs when managing earnings. In that world, when CEOs manage earnings, the market is not fooled. These investors would not see differences in honesty between CEOs who do and do not manage earnings but may instead assume that the manager who does not attempt to manage earnings is simply less competent. Therefore, our Hypothesis 1 is not a foregone conclusion.

2.2.2 *Perception of CEO Commitment to Honesty and Investment Choices*

Next, we investigate how investors' perceptions of a CEO's commitment to honesty, as a consequence of the engagement (or not engagement) in earnings management, affects their investment decisions when they are required to choose between two CEOs who claim different levels of future stock returns. This setting enables us to examine whether investors discount return claims based on their perception of the CEOs' lack of a commitment to honesty.

The psychological literature suggests that people are more likely to cooperate when they perceive others to be adhering to honesty (Everett et al., 2016; Priester & Petty, 1995).

Importantly, the likelihood of entrusting money to others increases when they are perceived as being more committed to honesty (Centorrino et al., 2015). Perceptions of honesty are pivotal, because they signal not only that the information disclosed by others is correct and accurate, but also that those others are willing to convey the truth even in the presence of incentives to lie (Priester & Petty, 1995). In our setting, a CEO's commitment to honesty may or may not signal greater disclosure credibility, although some evidence does suggest that disclosure credibility is influenced by investors' perceptions of the manager's integrity and competence (Appelman & Sundar, 2016; Mercer, 2004).

Based on this literature, we expect investors to consider information about a CEO's commitment to honesty when making investment decisions. In our scenario, one CEO claims higher future stock returns than another CEO in two out of four cases, and vice versa. Indeed, in practice, on the one hand, there can be factors encouraging managers to understate targets. For instance, the literature on budgetary slack creation provides evidence that business unit managers may have such incentives (e.g., Merchant, 1985; Hartmann & Maas, 2010). In the case of CEOs, the evidence is somewhat scarcer. No study that we are aware of considers stock return forecasts, although the literature on management earnings forecasts is broadly applicable. Given that the market rewards meeting or exceeding analyst forecasts (Bartov et al., 2002), CEOs might be incentivized to intentionally forecast lower earnings. On the other hand, most institutional and retail investors are on the lookout for undervalued stocks. Given the inverse relationship between prices and expected returns, a declaration of high future returns essentially implies a currently low valuation of the company. Moreover, given the competitive nature among CEOs in a particular industry, social status and pressure might also compel CEOs to project attractive future stock performance. Another incentive to promise significant future returns exists when the company plans to issue new shares, given that a

strategy promising lower returns than a comparable company would be unlikely to appeal to investors. Optimistic forecasts can also boost employee morale and motivation. When employees believe in the company's future success, they may be more engaged and committed to achieving corporate goals. Relatedly, positive predictions can attract top talent to the company. Talented executives and employees are more likely to join an organization that appears to have a bright future. While investors may feel disappointed if stock return predictions do not materialize, CEOs can attribute the discrepancy to factors beyond their control, since the prediction pertains to future returns and not to earnings (which, of course, also have an exogenous component, if less so than stock returns). We do not directly model these motivations for CEOs to understate or overstate the future returns. However, overall, our framework captures a number of potentially realistic scenarios.

We hence conjecture that, *ceteris paribus*, investors invest in companies with CEOs who promise higher returns than do their counterparts. However, we also expect that investors will use information about the CEO that signals whether or not the return claims are credible and will likely materialize. Specifically, if investors perceive a CEO to be more committed to honesty, they will view the CEO's claims about future returns as being more credible; likewise, they will discount future return claims if they perceive the CEO to lack a commitment to honesty. We hypothesize:

Dishonesty Discount Hypothesis (H2): Investors place less weight on claimed return differences the more they perceive a CEO to be committed to honesty relative to another CEO. That is, there is a dishonesty discount.

The existing accounting literature relies on disclosure credibility as the main mechanism pushing investors to choose the CEO who has not engaged in earnings management in the past (even when that CEO claimed lower returns or earnings). In the next section, we provide a novel contribution to explain that choice by focusing on heterogeneity in investors' moral traits.

2.2.3 Differences Among Investors

There are two possible explanations for why investors may trade off the claimed future returns with their perception of a CEO's commitment to honesty. Investors who care about returns may assign a higher credibility to the announcements of the CEO they regard as being the more honest. Other investors may be willing to pay a price for investing with this CEO. We argue that which of these two motives prevails depends on the investors' own social and moral beliefs, in particular on their social value orientation.

Social value orientation is defined as an individual's stable preference for self and others' outcomes in interdependent decisions (Van Lange et al., 1997). Specifically, *proselfs* primarily care about their own welfare, whereas *prosocials* also care about how their choices affect others. It is largely shaped by someone's past social interactions and the behavior of the individuals involved (Parks & Rumble, 2001). A large body of literature suggests that social value orientation predicts cooperation across a wide range of situations (Balliet et al., 2009). Furthermore, this concept has recently become important in the accounting literature (e.g., Davidson, 2019; Thomas & Thornock, 2021; Yin, 2021). Management accounting research corroborates, among other findings, that prosocial managers report more honestly and create less budgetary slack than do their proself counterparts (e.g., Cardinaels et al., 2019; Davidson, 2019). Focusing on investment, Hong and Kacperczyk (2009) find that because some investors, being constrained by social or religious norms, cannot invest in certain types of 'sin' stocks, these stocks (must) offer higher expected returns to the investors who do invest in them.

Looking at the social value orientation of investors more broadly, we argue that for proselfs, disclosure credibility is the main motivation for caring about a CEO's commitment to honesty. Prior research indeed suggests that managers' reputation and credibility are important and can, for example, compensate for implausible explanations of poor performance (Cianci & Kaplan, 2010). Importantly, Hodge et al. (2006) show that financial

statement users rely less on the consistency between managers' reporting incentives and their reporting decisions when those managers have a good reporting reputation. We argue, however, that such a rationale holds only for a certain type of investor, i.e., for financially driven investors who seek only to maximize their returns. Even when a CEO claims lower future returns, these investors continue to invest because they regard that CEO's predictions to be more credible than those of a CEO perceived as being less committed to honesty. We expect this pattern to be more prominent among proselves, because proselves tend to interpret information about the characteristics of others by considering the implications for their own welfare (e.g., De Bruin & Van Lange, 2000).

Prosocial investors, by contrast, may be willing to directly pay a price for investing with the CEO they regard as being more committed to honesty. We expect there to be a genuine, intrinsic motive, rather than a financial one, behind their investment decisions (as in Bénabou & Tirole, 2010). Investors do not focus solely on their investments' risk-return ratio, prior research has found, but also derive utility from investing in companies that engage in responsible activities (e.g., Gödker & Mertins, 2018; Martin & Moser, 2016). We expect this moral investment motive to be more prominent among prosocial investors, because prosocials tend to interpret information about the characteristics of others from a moral perspective (e.g., De Bruin & Van Lange, 2000). That is, perceived self-other similarity in honesty is of greater importance for prosocials than it is for proselves (Van Lange & Kuhlman, 1994). Recent research suggests that such similarities in the traits of interaction partners are important determinants in accounting-related judgments. For example, congruence in manager-auditor traits has been shown to affect auditors' risk assessments, and matching supervisor-subordinate traits affect performance evaluation judgments (Johnson et al., 2021; Maske & Sohn, 2023). We propose these value-matching motives to be important for investors who care about the moral dimensions of their investments. In sum, we posit:

Investors' Motives Hypothesis (H3): Proself investors care about announced future returns being credible, whereas prosocial investors are less concerned with future returns, prioritizing a consistency of their perception of CEO moral traits with their own moral values.

3 Experiments

3.1 Design, Procedure, and Participants for Experiment 1

Experiment 1 is designed to test H1 and H2. Of the 141 participants in this experiment, 63% are business/economics/finance majors and 37% are psychology students; 42% are women; their median age is 23.

To begin Experiment 1, the participants are informed that they are to act as investors, making several decisions to invest with one of two companies. They are also informed that, at the end of the experiment, they will receive a fixed payment of CHF 10 and a variable payment of up to CHF 5, depending on their decisions and the success of their investments. They are then provided with information about two companies (A and B); these companies are identical, except that the two CEOs report different earnings per share (EPS) and thus receive different remunerations. Specifically, CEO A announces a lower EPS (31 cents) than expected by the market (35 cents) and, accordingly, receives a lower remuneration (CHF 1,300,000). CEO B announces an EPS that matches the market's expectations (35 cents) and receives a higher remuneration (CHF 2,200,000). In line with Dichev et al. (2016), this difference in announced earnings roughly corresponds to the magnitude of earnings management in practice. We limit the difference between the two CEOs to one salient observable dimension of managerial behavior to most clearly identify the influence of perceived CEO commitment to honesty on investors' actions.⁵

⁵ Designing an experiment that balances maximum control and high external validity poses a significant challenge. Our design choice, where investors receive some information from experimenters that is not endogenously created within the experiment, parallels the study by Hewitt et al. (2020). One approach to testing our three hypotheses is to allow for actual interaction between participants acting as CEOs and those acting as investors in a laboratory setting. However, the strategic elements in such an interaction could complicate the interpretation of our results.

The participants are next asked to respond to several questions to ensure that they understand their task. They cannot proceed with the experiment until they have answered all the questions correctly. Furthermore, the participants indicate on bipolar scales (from -2 to +2) to what extent they judge CEO A and CEO B to be *trustworthy* vs. *not trustworthy*, *short-term oriented* vs. *long-term oriented*, and *willing to make financial sacrifices* vs. *not willing to make financial sacrifices*.

The participants then face four investment situations (in randomized order), which vary regarding the future returns the CEOs claim (see Table 1). We limit the investors' choices in each situation to investing with either A or B (rather than offering them a continuum) to most clearly highlight the fact that investing in one company entails a lost opportunity of investing that sum in the other. In two situations, CEO B announces a higher future return than CEO A; in the other two situations, CEO A announces a higher future return than CEO B.

-Insert Table 1 here-

The participants are informed of the amount (in CHF) that they can receive from each investment choice if the predicted increase in shareholder value materializes. They also learn that they will receive their money (10CHF) back if an investment turns out to be unsuccessful but will receive no additional compensation. The variable $\Delta Return$ captures the differences in claimed future returns on the investment between CEO A and CEO B (future return claim CEO A minus future return claim CEO B), thus ranging from -30% to +30%. We do not specify which CEO is more likely to deliver the announced returns. Instead, we expect different investors to draw different inferences from each situation.

The four investment choices are presented sequentially on separate pages and, in each case, the amount the investor will receive if the investment is successful is indicated in parentheses. No feedback is given immediately after each choice is made; only at the end of

Previous studies on comparable sender-receiver games (Gneezy, 2005) have encountered such difficulties. For instance, senders might 'tell the truth to deceive' (Sutter, 2009).

the experiment do the participants learn of the success or failure of their investments.

We then measure the investors' perceptions of each CEO's commitment to honesty. To do so, we draw on the concept of 'protected values,' i.e., core (deontic) values to which individuals feel intrinsically committed and which they believe ought to be excluded from utilitarian trade-offs (Baron & Spranca, 1997; Tanner & Medin, 2004; Tetlock et al., 2000). To operationalize this idea, we use the measure developed and validated by Tanner et al. (2009). Prior studies have tested these scales for their psychometric qualities and reveal that this measure for protected values is uncorrelated with social desirability, but is associated with strong moral stances and core beliefs (Merz & Tanner, 2009; Tanner et al., 2009). Importantly for the present study, individuals scoring high on the protected values scale respond less to economic incentives to lie (Gibson et al., 2013).⁶

In Experiment 1, we are interested in how the participants *perceive* CEO A's and CEO B's respective commitment to honesty, as measured by the protected values scale. We ask about attributions of CEO honesty in general, not in the context of each of the four future returns predictions. All items are rated on seven-point scales. The average of all responses forms an index of Perceived $PV_{honesty}$ (for each CEO): $CEOA_PVHon$ and $CEOB_PVHon$. The scales have high internal consistency, as assessed by Cronbach's Alphas ($\alpha_{CEOA} = .93$, $\alpha_{CEOB} = .90$). The difference in the perceived commitment to honesty between CEO A and CEO B ($CEOA_PVHon - CEOB_PVHon$) is ΔCEO_PVHon .

At the end of Experiment 1, the participants are debriefed and paid. While the ex-ante relationship between investment and payment is left uncertain, to reflect a real-life situation, the ex-post relationship between investment and payment is based on the following reasoning: A CEO who announces past earnings (dis)honestly will also be (dis)honest about claimed

⁶ Dogan et al. (2016) provide evidence that, when compared to other candidate measures (e.g., HEXACO, moral identity), the protected values measure is the strongest predictor of resistance to economic incentives.

future returns. CEO A, therefore, delivers the announced future returns, and the participants investing in Company A accordingly receive the full payout. By contrast, the future returns claimed by CEO B do not come through as announced, so the participants who invest in Company B receive zero variable payment. For example, if CEO A claims a future return of 10% and CEO B claims 30%, individuals investing in Company A receive 10% of 50,000 / 10,000 = CHF 0.5, while individuals investing in Company B receive nothing. Thus, the maximum variable payment we offered in our experiments (CHF 5) is obtained when a participant invests in Company A all four times. We believe the situation our participants face – where they are not only uncertain about whether or not the returns will materialize, but also do not know what the probabilities are – is a quite realistic one. While much of finance is built around the concept of risk (where probabilities are known), true (Knightian) uncertainty (where the probabilities are also unknown) strikes us as being more realistic. To note, ahead of time, that CEO A's claims are more likely to materialize than CEO B's would be more in line with the traditional way in which payouts are specified in such experiments; however, it would not allow us to study whether investors draw inferences from the information provided in the experiment.⁷

Finally, to guarantee anonymity and to minimize impression management tendencies, each participant chooses a code at the beginning of the experiment. Another member of the research team (not the experimenter), staying in another room, prepares the envelopes containing money. At the end of the experiment, the participants each receive a sealed envelope from the experimenter when indicating their code.

Our design of Experiment 1 anticipates that, based on their instructions, the participants will perceive CEO B to manage earnings more than CEO A and that differences in the

⁷ Some participants could have systematically chosen CEO B, thinking that they would earn more since they inferred that CEO B managed earnings within legal limits. If so, we would have observed a skewed pattern in favor of CEO B in our results. This turned out not to be the case.

perception of the CEOs' earnings management activity will negatively correlate with perceptions of the CEOs' honesty. While this dual assumption seemed straightforward at the time we conducted Experiment 1, we later recognized that validating this process was important.

In a separate step, therefore, we administer a separate survey to an additional 132 business, economics, and finance students, none of whom participate in either of our two experiments. We exclude 7 participants who state that they did not answer carefully, and 13 whose responses take an extremely short or long time. Of the remaining 112 participants, 30% are women; the median age is 21. We present these survey participants with the same case description as provided in Experiment 1. Then they are asked to indicate their perceptions, about the two CEOs' engagement in earnings management (*'Did the two CEOs manage the earnings using legal accounting procedures?'*), their risk tolerance (*'Do the two CEOs differ regarding their risk tolerance?'*), their commitment to honesty (*'Do the two CEOs differ regarding their commitment to honesty?'*), and their competence (*'Do the two CEOs differ regarding competence?'*), in randomized order.

3.2 Results for Experiment 1

Table 2 depicts the participants' choices to invest in either Company A or Company B in the four decision scenarios, i.e., with varying differences in their CEOs' claimed future returns. Overall, 61% of the 141 participants in Experiment 1 choose to invest with Company A. In what follows, we explain why they make that choice.

-Insert Table 2 here-

3.2.1 How Investors Perceive CEOs: The Honesty Inference Hypothesis (H1)

H1 holds that investors use the implicit information from past earnings announcements as signals of a CEO's commitment to honesty. The results in Table 3 strongly suggest that the participants in Experiment 1 perceive CEO A and CEO B as being different. Panel A shows that, on average, participants perceive CEO B as being less committed to honesty than CEO

A. As Panel B shows, when we compute a summary variable of the comparative honesty commitment perception for each participant, denoting by ΔCEO_PVHon the difference in perceived commitment to honesty between the two CEOs, we find that the vast majority of participants perceive CEO A to be more committed to honesty than CEO B. However, some values of ΔCEO_PVHon are negative, and 35 participants even perceive CEO B to be more committed to honesty than CEO A.⁸

Through the separate survey, we examine what investors infer about the two CEOs' earnings management choices. As Panel C of Table 3 shows, the survey participants by and large infer CEO A to have managed earnings less than CEO B. Indeed, 60% of the 121 survey participants perceive CEO B to manage earnings more than CEO A, whereas only 26% perceive CEO A to manage earnings more than CEO B; 3% perceive both CEOs to manage earnings to the same degree, while 11% say that they cannot provide an answer.

Panel C additionally shows that the survey participants perceive CEO A to be more honest and CEO B to be more risk-tolerant. Hardly anyone infers differences in professional competence between the two CEOs. Thus, it is not true that CEO A is seen simply as 'better' in all dimensions, and it is also not the case that a given participant regards CEO A and CEO B as being different on all dimensions.

-Insert Table 3 here-

To test for relations among our variables, we run logit regressions explaining whether an investor perceives A as more honest than B, with the other dimensions of CEO perceptions (not tabulated). While controlling for the participants' age and gender, we find a strong positive effect of perceiving CEO B as managing earnings more than CEO A ($z = 3.29, p < .01$), but no significant effect of perceived relative CEO risk tolerance ($z = 1.15, p = .25$) nor

⁸ We find no systematic CEO perception differences across the participants with respect to their other categorizations (participants' gender, academic major, and age). We furthermore find that proself and prosocial participants did not differ in gender, major, or age.

of perceived relative CEO competence ($z = 1.13, p = .26$).⁹ Table 4 contains additional descriptive statistics for Experiment 1, Experiment 2, and the separate survey.

-Insert Table 4 here-

In sum, Experiment 1 supports our conjectures regarding earnings management: Investors perceive CEO B to have managed earnings more than CEO A, and this perception, in turn, is associated with relative honesty inferences, i.e., investors perceive CEO A as being more honest than CEO B. Overall, these results strongly support H1.

3.2.2 *Investment Decisions: The Dishonesty Discount Hypothesis (H2)*

We next study how an investor's perception of differences in CEO honesty are related to the decision to invest. Figure 1 displays the investors' choices in favor of CEO A in Experiment 1 as a function of the differences in the CEOs' commitment to honesty, as measured by the protected values scale (ΔCEO_PVHon), and the differences in claimed future returns ($\Delta Return$). For presentation purposes, we pool the two positive and the two negative return differences, thus forming one category where CEO A claims higher future returns than CEO B, and a second category where the opposite holds. We consider the return difference categories separately in the regression analysis below. Figure 1 shows, first, that when CEO A claims higher returns, more participants in Experiment 1 choose to invest in Company A. Second, the percentage of participants investing in Company A increases the more CEO A is seen as being committed to honesty, relative to CEO B. Third, the two lines converge; that is, those participants who believe that CEO A is strongly committed to honesty, relative to CEO B, are less dependent on the claimed returns when making their investments. Conversely, those participants who believe that CEO A is only weakly committed to honesty are more sensitive to the claimed returns.

⁹ In contrast to the regression analyses for our experiments, we do not control for the participants' major when analyzing the survey results; the survey was conducted in a finance class, and hence all participants majored in finance/economics.

-Insert Figure 1 here-

To test whether these results hold when we control for other factors, we estimate logit regressions. Table 5 shows the correlations for the main variables of interest, and Table 6 summarizes the results of our regression models, with investment in Company A being the dependent variable.

-Insert Table 5 here-

Because there may be systematic variation in how individuals of a certain age, gender, or training make inferences regarding the traits of CEOs (including traits we did not ask about), we control for the *Age*, gender (*Female*), and academic major (*Economics*) in all our regressions. As Table 6 shows, we find few significant effects of these demographic variables, though economics students tend to be less likely to invest with Company A.¹⁰ As prior research finds that perceived trustworthiness affects investment (Hewitt et al., 2020), we also test and control for $\Delta CEO_Trustworthy$ in all regressions, thus picking up components of trustworthiness (such as reliability and competence, for instance) that may be unrelated to the perceived commitment to honesty.¹¹

Column (1) of Table 6 shows that investors react to differences in the claimed future returns of the two CEOs; they prefer to invest in Company A, when CEO A's claimed future returns are higher than those of CEO B, and vice versa. The marginal effects imply that an increase of the returns difference in favor of CEO A by 10% (the difference between the choice situations) increases the probability of investing with that CEO's company by about 5%. Column (2) shows the positive direct effect for the second main variable of interest, ΔCEO_PVHon , which is standardized to a mean of zero and a standard deviation of one. As expected, investors tend to invest with the CEO whom they perceive to be more committed to

¹⁰ We test for multicollinearity in our data and find that the Variance Inflation Factor for all independent variables is well below the critical value of 5 in both our experiments.

¹¹ Our inferences hold when excluding the demographics, as well as investor perceptions of CEO trustworthiness, from the regression models.

honesty. In Column (3), we include both main predictors in a single model, and both positive direct effects remain significant. A one standard deviation increase in ΔCEO_PVHon has about the same quantitative effect on the attractiveness of CEO A as does an increase in the claimed returns of CEO A relative to CEO B of 27%.

In Column (4) we test H2, which holds that as a CEO's perceived commitment to honesty increases relative to a peer, the relative difference in their claimed returns plays a diminishing role in investors' decisions. The significant negative interaction term supports H2. The more participants perceive CEO A to be more committed to honesty than CEO B, the smaller the effect of claimed future return differences on their investment decisions. A one standard deviation increase in ΔCEO_PVHon reduces the relevance of the returns of CEO A relative to CEO B by about 40%.

-Insert Table 6 here-

In summary, Experiment 1 yields three primary conclusions. First, a CEO with no history of earnings management is perceived as being more committed to honesty than a CEO who has engaged in earnings management in the past. Second, investors base their decisions on the differences between the two CEOs, in both their projected future returns and their perceived commitments to honesty. Third, investors are more likely to discount a CEO's future return claims if they perceive that CEO as being less committed to honesty.

3.3 Design, Procedure, and Participants for Experiment 2

Experiment 2 tests how various investor types use honesty perception in their investment choices. Specifically, we examine how investors' social value orientation affects their responses to a CEO's past engagement in earnings management.

Experiment 2 consists of two parts, performed about one week apart: a survey (online) and an investment decision task (in the laboratory). Our sample consists of 150 participants, after we exclude 14 participants who are either very young, have an extremely long response time, or provide mismatching identification codes for the two tasks. Of this sample, 60% are

psychology students, 37% are economics students, and 3% are students in other disciplines; 68% are women; and the median age is 21 years. The median participants review financial news at least on a weekly basis, and 29% of the participants have made stock investments themselves.

Each participant receives a fixed payment (CHF 10) for their complete participation in both tasks and a variable payment (up to CHF 5), depending on their responses in the investment decision task. The participation fee and the outcome-based remuneration rule match those of Experiment 1.

Participants first complete an online survey to assess their demographic characteristics and a variety of personal attitudes and values. We assess each participant's commitment to honesty (*Investor_PVHon*) and their social value orientation (*Investor_SVO*). We assess *Investor_PVHon* with the original nine-item protected value index (Tanner et al., 2009), using the average of the responses across all nine items ($\alpha = .85$). We further poll the participants' social value orientation through nine trials; these trials are not monetarily incentivized, but the literature has demonstrated excellent psychometric qualities for this measure (see e.g., Van Dijk et al., 2004 for an overview of these studies). In line with the extant studies, we categorize participants as 'prosocial' when they chose the cooperative alternative in at least six trials (out of nine). Participants are categorized as 'proself' when they chose the individualistic or competitive option in six or more trials (out of nine). We drop from our sample an additional 18 participants whom we cannot categorize as either prosocial or proself using this approach.¹²

At least one week later, the participants in Experiment 2 take part in an investment task identical to that in Experiment 1.¹³ The time lag mitigates concerns that the participants will merely provide answers that are self-consistent when performing the investment task.

¹² In prior work, the fraction of individuals classified as prosocial is about 60-65% (see Van Dijk et al. (2004) for a review). Our data are consistent with these findings.

¹³ In addition to the bipolar items we use in Experiment 1 (such as *short-term* vs. *long-term oriented*, etc.), we also ask to which extent CEO A and CEO B are seen as *believable* vs. *not believable* (from -2 to +2). We pool the trustworthiness and believability items into a single scale in Experiment 2. The results also hold for the single

3.4 Results for Experiment 2

3.4.1 Descriptive Statistics and Correlations between the Main Variables of Interest

Table 7 presents the descriptive statistics for the main variables of interest in Experiment 2, distinguishing between proself and prosocial participants. Table 8 shows the proself and the prosocial investors' choices for either Company A or Company B in the four investment decision scenarios, which vary according to the returns claimed. The descriptive results suggest that both subsamples (prosocial and proself) prefer to invest with Company A, though again, as in Experiment 1, far from all participants invest with A. Importantly, we also find that proselfs and prosocials do not differ significantly in how they perceive CEO A's commitment to honesty, relative to that of CEO B.

-Insert Tables 7 and 8 here-

Table 7 also shows that proselfs and prosocials differ somewhat in the extent to which they treat honesty as a protected value. The cross-tabulation in Table 9 reveals that among the proselfs (prosocials), the majority of individuals have a below-median (above-median) commitment to honesty (*Investor_PVHon*). Importantly, however, there are also many participants who are proselfs (prosocials) but have above-median (below-median) *Investor_PVHon*. Consequently, *Investor_SVO* and *Investor_PVHon* are far from perfectly correlated ($r = .18$), indicating that both scales are likely to capture distinct personality traits. Additional descriptive statistics for Experiment 2 can be found in Table 4.

-Insert Tables 9 and 10 here-

3.4.2 Investment Decisions: The Investors' Motives Hypothesis (H3)

H3 proposes that proself investors care about announced future returns being credible, whereas prosocial investors are less concerned with future returns, instead prioritizing a consistency of their perception of the CEO moral traits with their own moral considerations.

item trustworthiness measure (see Appendix.A2). For the pooled variable, CEO A is perceived as being more trustworthy ($mean = 3.60$, $SD = 0.87$) than CEO B ($mean = 2.92$, $SD = 0.96$), $t(150) = 5.19$, $p < .01$.

To test this hypothesis, we estimate logit regression models in which investment in Company A is the dependent variable. Table 10 shows the correlations among the main variables of interest separately for prosself and prosocial investors. Table 11 summarizes the regressions for the proselves (Columns 1–3), for the prosocials (Columns 4–6), and two regressions for the full sample (Columns 7 and 8). All regressions include the participants' age, gender, and academic major, but, to conserve space, these coefficients are not shown. As in Experiment 1, we also control for the difference in the CEOs' perceived trustworthiness.¹⁴

Results for proselves. The results in Column (1) for the prosself investors echo the findings we obtained in Experiment 1: A positive direct effect for $\Delta Return$ indicates that proselves are indeed sensitive to differences in claimed future returns between the two CEOs. Proselves are also sensitive to differences in the CEOs' commitment to honesty, as shown by the significant direct effect for ΔCEO_PVHon . Proselves tend to invest more heavily with Company A the more they perceive CEO A to be committed to honesty, relative to CEO B. Finally, we replicate the negative interaction term between ΔCEO_PVHon and $\Delta Return$, as observed in Experiment 1. For proselves, the positive effect of claimed future returns is strengthened when they perceive the CEO as being more committed to honesty but is weakened when they perceive the CEO as being deceptive. Column (1) also shows that, for proselves, we do not find a significant effect of *Investor_PVHon* on investment in Company A. Thus, the investment choices made by proselves do not directly depend on their own commitment to honesty. In Column (2), we include the interaction between *Investor_PVHon* and $\Delta Return$ in the regression. The interaction term ΔCEO_PVHon and $\Delta Return$ remains significant.¹⁵ Column (3) shows that the participants' protected values and those attributed to the CEOs do not interact.

¹⁴ Again, the inferences hold when excluding the demographics, as well as investor perceptions of CEO trustworthiness, from the regression models.

¹⁵ The interaction between *Investor_PVHon* and $\Delta Return$ enters negatively, suggesting that even proselves become less sensitive to claimed future returns the more they treat honesty as a protected value. It is conceivable

-Insert Table 11 here-

Results for prosocials. Columns (4) to (6) of Table 11 show results for the prosocial investors, for whom H3 predicts that returns play a much less important role, while moral motives matter directly. The absence of a main effect for $\Delta Return$ suggests, as expected, that prosocials are generally only weakly sensitive toward differences in predicted returns. However, as predicted by H3, non-financial motives matter to them. First, Column (4) shows a significant main effect for *Investor_PVHon*, i.e., prosocials tend to invest more with the non-earnings management CEO the more they themselves are committed to honesty. Second, the main effect for ΔCEO_PVHon in Column (4) means that prosocials tend to invest more heavily in Company A, the more they perceive CEO A to be committed to honesty relative to CEO B.¹⁶ The importance of moral factors tends to come in a specific form: The results in Columns (5) and (6) show that assortative matching plays a role. We observe a significant positive interaction between *Investor_PVHon* and ΔCEO_PVHon on investments with Company A. Thus, prosocials follow a simple heuristic of investing with Company A the more their protected values overlap with the values they attribute to this company's CEO.

Hence, while ΔCEO_PVHon matters for the prosocials' assessment of returns, for the prosocials it moderates the impact of their own values. One way to interpret this outcome is that the tendency of those prosocials with high *Investor_PVHon* to invest with Company A might partially stem from prosocial investors wanting to 'punish' the more dishonest CEOs by withholding funds from them.¹⁷ An additional interpretation of these findings is that

that these high *Investor_PVHon* prosocial participants wish to signal (perhaps to themselves, Bénabou & Tirole, 2004, 2006) that they uphold their commitment to honesty, in contrast to other less ethical investors.

¹⁶ We do not have a compelling explanation for why this coefficient is smaller than for the prosocials.

¹⁷ In public good games, immoral behaviors such as acts of free-riding are punished, and individuals are willing to sacrifice their own benefits to punish others (see, e.g., Hirshleifer & Rasmusen, 1989). They do this even without any future interactions with the individual they punish, that is, even when they are unlikely to gain any benefit, in the form of increased cooperation from that person, in the future (Fehr & Gächter, 2002). Our data suggest that some investors may similarly punish CEOs they perceive as unethical by withholding funds from them. Importantly, we show how these punitive sentiments depend upon the investors' own traits and values. Steinel and De Dreu (2004) discuss how social value orientation affects individuals' tendency to moralistic punishment, though they only study how it affects reactions to others' competitive or cooperative tendencies, not

prosocials use perceived managerial honesty as a signal for who is more congruent with their own (either high or low) commitment to honesty (and thereby is to be preferred as a cooperative partner). Differences in claimed future returns do not affect this behavioral pattern; we do not find any evidence that *Investor_PVHon*, *ΔCEO_PVHon*, and *ΔReturn* interact.

Results for both groups. Columns (7) and (8) present the results for the full sample of proself and prosocial investors in a single regression. Because regressions with many interaction terms can be difficult to interpret, we proceed in two steps. We include *Investor_SVO* as a dichotomous variable (proself = 0, prosocial = 1) in the regression. The effects of the main variables of interest, *ΔReturn*, *ΔCEO_PVHon*, and their interaction, are all significant and echo the effects observed in Experiment 1. These effects are thus essentially driven by the proselfs. We also find a direct effect of *Investor_PVHon* on investment choices in Column (7). However, as seen in the interaction of *Investor_SVO* and *Investor_PVHon* in Column (8), this effect is driven by the prosocials. Finally, the positive and significant three-way interaction between *Investor_SVO*, *ΔReturn*, and *ΔCEO_PVHon* underpins our main finding for Experiment 2: Proselfs trade off return differences with differences in perceived CEO commitment to honesty.

Figures 2 and 3 illustrate these results. Figure 2, Panel A displays the proselfs' choices in favor of Company A as a function of *ΔCEO_PVHon* for when CEO A claims higher returns than CEO B, and vice versa. As Figure 1 shows for Experiment 1, the two lines converge, as CEO A is increasingly perceived as treating honesty as a protected value. That is, proselfs become less sensitive toward returns the more they perceive one CEO to be more committed to honesty compared to the other. Figure 3, Panel A shows that the more a proself participant

to perceived differences in honesty. We note that with our experimental design, it is not possible to determine whether an investment in A is an active choice *for* A or a choice *against* B. While this is a conceptually interesting distinction, it may not be of first-order concern from the perspective of managers seeking to attract capital.

is committed to honesty, the smaller the effect of return differences on investment choices. As seen in the regressions, however, *Investor_PVHon* alone does not predict these investors' investment decisions.

Figure 2, Panel B demonstrates that differences in returns between the two CEOs do not noticeably affect the prosocials' investment choices. The figure depicts the small, but significant, main effect of ΔCEO_PVHon on investment choices. However, Figure 3, Panel B shows that prosocials invest more heavily with CEO A the more they themselves are committed to honesty, whereas they prefer to invest with CEO B when they have low *Investor_PVHon*.

-Insert Figures 2 and 3 here-

To sum up, the results of Experiment 2 support H3. They suggest that both proself and prosocial investors are sensitive to a CEO's commitment to honesty, but for different reasons. Proself investors have a pecuniary motive: They aim to maximize their economic benefit by investing with the company whose CEO claims the higher returns. They are indirectly sensitive to the CEO's commitment to honesty, because it informs them about the likelihood that the promised returns will actually be delivered. By contrast, prosocial investors derive utility from following non-monetary, moral motives: They are directly sensitive to the CEO's commitment to honesty, because they prefer to invest with the company led by a CEO whose values, they believe, match their own.¹⁸

¹⁸ In Appendix A2, we discuss several further issues, including the potential role of experimenter demand effects. We also summarize several additional analyses in Appendix A3. These analyses show – among other findings – that our results hold when we control for additional variables concerning the perception of the CEO (e.g., perceived trustworthiness and perceived willingness to make financial sacrifices) and the interaction of these variables with $\Delta Return$. Thus, our analysis picks up the role of the perceived CEO commitment to honesty net of other factors (such as reliability and competence) that potentially influence trustworthiness. Moreover, the results for Experiment 2 are similar but less pronounced for a median split for *Investor_SVO*, which allows us to use the full sample of 150 participants. Furthermore, our results hold when controlling for the financial savviness of our participants.

4. Conclusion

Interventions meant to rein in deceptive disclosure practices and promote corporate honesty are often proposed; some are successful. For example, public oversight of accountants has induced stronger financial reporting credibility (Gipper et al., 2019). Frequently, however, regulatory attempts meet with mixed success (Christensen et al., 2013; Christensen et al., 2016). Our finding, that a broad clientele of investors elects to invest in companies managed by CEOs they perceive as being honest, suggests that market forces may help curb unethical managerial behavior.

Though a common (and legal) practice, earnings management reduces trust in managers' reporting decisions, which may then affect investors' decisions (Hewitt et al., 2020). We extend research into the negativities of earnings management by demonstrating that its use signals a CEO's lack of commitment to honesty and by documenting that investors differ in how they interpret and use this information, whether in an instrumental (for proself investors) or a principled (for prosocial investors) manner.

As with any experimental research, our study comes with limitations. First, the participants in our experiments must form an opinion about other individuals (the two CEOs) based on very limited information. To assert, as we do in our experiments, that two companies are identical in all respects, except concerning the information we provide, is clearly a severe simplification of reality. In practice, investors have much more information, both about individual CEOs and about the companies they lead, on which to base their perceptions of a CEO's commitment to honesty. We concede that having CEOs vary across more than one dimension, such as gender or age, could yield richer interpretations. It is possible, for example, that investors perceive female CEOs to be more committed to honesty than male CEOs. However, our simpler one-dimensional experimental design allows for the greatest control. We recognize that this choice is an abstraction from reality.

Second, the CEOs' actions are taken as inputs; they do not occur within the experiment as the observed choice of other participants. In general, in experimental work one has to be mindful of the possibility that participants might infer certain experimenter preferences from the information provided. However, in this case, the situation we describe – CEOs with stronger performance incentives announcing higher earnings and, on average but with some exceptions, managing earnings more – is not a purely hypothetical or possibly counterfactual scenario, but a simplified version of one validated by both empirical (Bergstresser & Philippon, 2006) and experimental (Gibson et al., 2013) studies. While we do not expect our participants to be familiar with these studies, we do expect them to accept the realism of the scenario, thus lessening the chance that they will infer any intentions of the experimenters.

Third, we implement an ex-post remuneration scheme in which the participants receive the variable compensation only if they invest in Company A. We, on purpose, do not explain this scheme at the beginning of the experiment, but keep it ambiguous, merely telling the participants that they will receive a payment only if the promised returns materialize. This type of true (Knightian) uncertainty about payoffs strikes us as being more realistic than a situation of mere risk (where the payoff probabilities are known), but we acknowledge that our choice deviates from what is typically done in laboratory experiments. While we see no reason to suspect a systematic bias in decisions due to this experimental setup, to the extent that it introduces some noise into participant decisions, we may be underestimating the statistical significance of some relationships.

Our work suggests testable implications for future empirical studies. The key novel point this paper implies is that resistance to economic incentives for misbehavior indicates a strong commitment to good behavior. In real-world data, the incentives for CEOs to misbehave vary (in cross-section and over time), and this variation can be exploited. For example, to the extent that the market perceives discretionary accruals to indicate the deceptive component of earnings management, *not* managing earnings in this way should

increase the credibility of a company's future announcements when incentives to manage earnings are higher (see, e.g., Eugster & Wagner, 2021). Generally, if a CEO did *not* do something (legal but) potentially unethical, despite having an opportunity and incentives to do so, it suggests that the CEO is committed to honesty, and the market should respond positively. This prediction is more specific than testing whether the market reacts negatively to a revelation of fraudulent activity.

Finally, our results bear implications for companies, investors, financial advisors, and academics. Distinguishing between prosocial and proself investors is important when companies assess the composition of their investor pool. Prosocial investors consider the financial returns of their holdings secondary to the moral integrity of the company and its positive impact on society. They thus constitute a more sticky, long term-oriented pool of investors, as opposed to shareholder activists. Indeed, the latter may primarily be found among the more opportunistic proself investors. From a strategic point of view, companies who are interested in long term planning and long term value creation may want to cater primarily to prosocial rather than to proself investors.

For prosocial investors themselves, having more awareness of their preferences and the monetary trade-offs involved could encourage them to consider the financial aspects of investing more thoroughly, especially when making investment choices among companies of equal virtue. Proself investors, in contrast, might be urged to consider the broader implications of investing in companies led by dishonest CEOs.

Our findings can also help financial advisors better tailor their advice to their clients. For prosocial clients, advisors might focus on companies with a strong track record of ethical leadership. For proself clients, advisors could emphasize the importance of credibility in earnings forecasts when considering potential investments. Such personalized advice could enhance client satisfaction and thus improve the advisor's reputation.

Finally, our findings can inform the curriculums of accounting and finance courses, emphasizing to students the significant role of investors' moral motives and other personality traits in investment decisions. Future business leaders might then better understand the importance of ethical leadership and of effective, trustworthy communication in attracting and retaining both types of investors.

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Figure 1: Choices in favor of CEO A and Perceived CEO Protected Value for Honesty

This graph plots the share of investors' choices for CEO A, depending on the differences in perceived commitment to honesty between CEO A and CEO B (ΔCEO_PVHon) in Experiment 1. Participants made, in total, four investment choices between the company managed by CEO A and the company managed by CEO B. Two choices were made with CEO A claiming higher future returns than CEO B (solid line), and two with CEO A claiming lower future returns than CEO B (dashed line). We categorize investors in terms of ΔCEO_PVHon terciles.

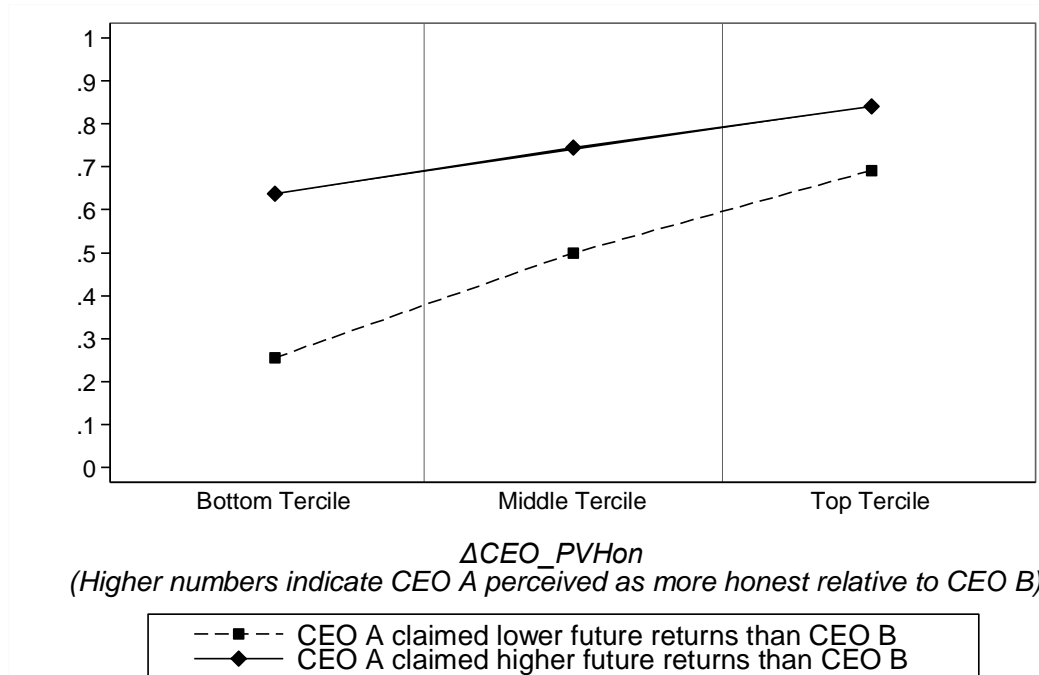


Figure 2: Choices in favor of CEO A and perceived CEO protected values for honesty

These graphs plot the share of investors' choices for CEO A, depending on the differences in perceived commitment to honesty between CEO A and CEO B (ΔCEO_PVHon), separately for proself (Panel A) and prosocial investors (Panel B). Participants made, in total, four investment choices between the company managed by CEO A and the company managed by CEO B. Two choices were made with CEO A claiming higher future returns than CEO B (solid line), and two with CEO A claiming lower future returns than CEO B (dashed line). We categorize investors into ΔCEO_PVHon terciles.

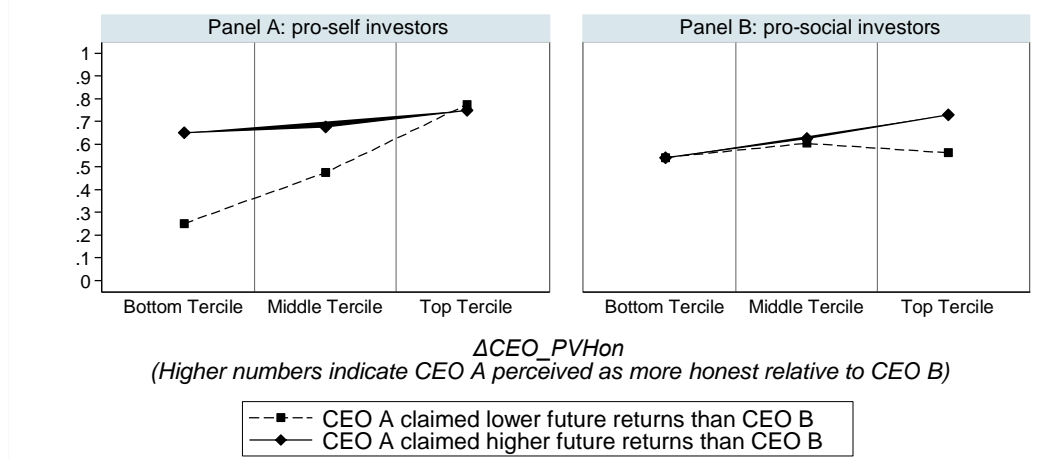


Figure 3: Choices in favor of CEO A and investor protected values for honesty

These graphs plot the share of investors' choices for CEO A, depending on investors' own commitment to honesty ($Investor_PVHon$), separately for proself (Panel A) and prosocial investors (Panel B). Participants made, in total, four investment choices between the company managed by CEO A and the company managed by CEO B. Two choices were made with CEO A claiming higher future returns than CEO B (solid line), and two with CEO A claiming lower future returns than CEO B (dashed line). We categorize investors into $Investor_PVHon$ terciles.

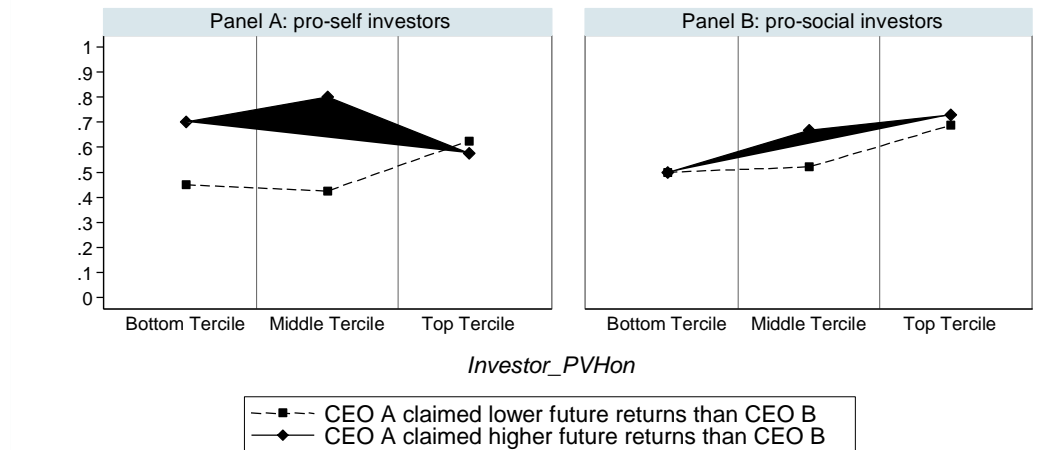


Table 1: Overview of the four different investment choices

Choice	Company	Claimed returns in %	Return difference (CEO A–CEO B) in %: $\Delta Return$
1	CEO A	10	- 30
	CEO B	40	
2	CEO A	20	- 10
	CEO B	30	
3	CEO A	30	+10
	CEO B	20	
4	CEO A	40	+30
	CEO B	10	

Table 2: Investment choices in the four scenarios

This table shows the investment choices for either Company A or Company B in the four investment scenarios.

Return difference (CEO A–CEO B) in %: $\Delta Return$	-30	-10	10	30
<i>Invest in</i>				
<i>Company A</i>	64	71	106	104
<i>Company B</i>	77	70	35	37
<i>N</i>	141	141	141	141

Table 3: Differences in perceived CEO characteristics

Panel A of this table presents means and standard deviations (SD) of the perceived commitment to honesty ($PV_{honesty}$) of CEO A and CEO B (measured on a 7-point scale), as well as a t-test for differences ($N=141$). *** indicates significance at the 1% level. Panel B presents differences in CEO perception between the two CEOs. ΔCEO_PVHon is the difference in perceived commitment to honesty between CEO A and CEO B (Perceived $PV_{honesty}$ CEO A - Perceived $PV_{honesty}$ CEO B). In the regressions, we standardize ΔCEO_PVHon to mean zero and a standard deviation of one. Panel C depicts summary statistics for the perceived CEO characteristics in the separate survey ($N=112$), including *perceived earnings management* (on a 6-point scale, where for this presentation we group ‘only CEO A’ with ‘CEO A more than CEO B’, and ‘only CEO B’ with ‘CEO B more than CEO A’, respectively), *perceived CEO honesty*, *perceived CEO competence*, and the *perceived CEO risk tolerance* (on 4-point scales).

Panel A: Perceived CEO honesty in Experiment 1

	Mean CEO A	SD CEO A	Mean CEO B	SD CEO B	t-test for mean differences
$PV_{honesty}$	4.46	1.31	3.31	1.03	$t(140) = 6.53^{***}$

Panel B: Differences in perceived CEO honesty in Experiment 1

	Mean	%Positive	SD	Min	Max
ΔCEO_PVHon	1.15	75%	2.08	-3.44	6.00

Panel C: Differences in perceived CEO actions and characteristics in the separate survey

	CEO A more than CEO B	CEO B more than CEO A	No difference	Cannot answer
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<i>Perceived earnings management</i>	26%	60%	3%	11%
<i>Perceived CEO honesty</i>	40%	11%	29%	20%
<i>Perceived CEO competence</i>	9%	6%	50%	35%
<i>Perceived CEO risk tolerance</i>	13%	57%	9%	21%

Table 4: Descriptive statistics for all variables in Experiment 1 and Experiment 2

This table presents means, standard deviations (SD), quartiles (P25, Median, P75), minimum values (Min), maximum values (Max), and the Range for all variables in Experiment 1 ($N=141$), the separate survey ($N=112$), and Experiment 2 ($N=150$, where the main analysis uses the 132 participants who can be classified as prosocial or prosocial). Experiment 1: *CEOA_Trustworthy* (*CEOB_Trustworthy*) is the perceived trustworthiness of CEO A (CEO B), measured on a single 5-point scale. *CEOA_LTO* (*CEOB_LTO*) is the perceived long-term orientation of CEO A (CEO B), measured on a single 5-point scale. *CEOA_Sacrifice* (*CEOB_Sacrifice*) is the perceived willingness to make financial sacrifices by CEO A (CEO B), measured on a single 5-point scale. *Invest in A* is the dependent variable in Experiment 1, which is 1 when a participant chose to invest in the company managed by CEO A, and 0 otherwise. *CEOA_PVHon* (*CEOB_PVHon*) is the perceived commitment to honesty of CEO A (CEO B) measured on a 9-item, 7-point scale. Experiment 1- separate survey: *Perceived earnings management* is the perceived CEO engagement in earnings management, measured on a single 6-point scale. *Perceived CEO risk tolerance* is the perceived difference in the two CEOs' risk tolerance, *Perceived CEO honesty* is the perceived difference in the two CEOs' honesty, and *Perceived CEO competence* is the perceived difference in the two CEOs' competence, all three variables measured on a single 4-point scale. Experiment 2: *Stocks* polls whether participants own stocks or not. *Financial_News* polls how often participants inform themselves about economic events, measured on a single 5-item scale. *Investor_PVHon* is the participants' commitment to honesty, measured on a 9-item, 7-point scale. *Investor_SVO* captures the investors' social value orientation, i.e., their preferences regarding how to allocate resources between themselves and others ; we classify investors as prosocial (*Investor_SVO* = 0) or prosocial (*Investor_SVO* = 1) when they chose the cooperative (self-maximizing) alternative in six out of nine social value orientation (*Investor_SVO*) items. All remaining items in Experiment 2 are measured as in Experiment 1 with one exception: *CEOA_Trustworthy* (*CEOB_Trustworthy*) is measured on a 2-item, 5-point scale. See the online appendix for the exact wording of all items, as displayed in the experimental instructions.

	Mean	SD	P25	Median	P75	Min	Max	Range
Experiment 1								
<i>Female</i>	0.42	0.50	0	0	1	0	1	nominal
<i>Age</i>	23.40	3.42	22	23	24	19	51	
<i>Economics</i>	0.63	0.48	0	1	1	0	1	nominal
<i>CEOA_Trustworthy</i>	3.79	0.99	3	4	4	1	5	1-5
<i>CEOB_Trustworthy</i>	2.78	0.98	2	3	3	1	5	1-5
<i>CEOA_LTO</i>	3.94	1.06	3	4	5	1	5	1-5
<i>CEOB_LTO</i>	2.43	1.01	2	2	3	1	5	1-5
<i>CEOA_Sacrifice</i>	3.58	1.17	3	4	4	1	5	1-5
<i>CEOB_Sacrifice</i>	2.50	1.10	2	2	3	1	5	1-5
<i>Invest in A</i>	0.62	0.49	0	1	1	0	1	nominal
<i>CEOA_PVHon</i>	4.46	1.31	3.44	4.56	5.44	1	7	1-7
<i>CEOB_PVHon</i>	3.31	1.03	2.56	3.22	4	1	6.22	1-7
Experiment 1 - separate survey								
<i>Female</i>	0.30	0.48	0	0	1	0	1	nominal
<i>Age</i>	22.21	4.51	20	21	22	18	44	
<i>Perceived earnings management</i>	3.46	1.38	2	4	4	1	6	1-6
<i>Perceived CEO risk tolerance</i>	2.37	0.96	2	2	3	1	4	1-4
<i>Perceived CEO honesty</i>	2.29	1.19	1	2	3	1	4	1-4
<i>Perceived CEO competence</i>	3.11	0.87	3	3	4	1	4	1-4

Experiment 2								
<i>Female</i>	0.68	0.47	0	1	1	0	1	<i>nominal</i>
<i>Age</i>	22.17	4.93	20	21	23	19	59	
<i>Economics</i>	0.37	0.48	0	0	1	0	1	<i>nominal</i>
<i>Stocks</i>	0.29	0.46	0	0	1	0	1	<i>nominal</i>
<i>Financial_News</i>	3.22	1.27	2	3	4	1	5	1-5
<i>Investor_PVHon</i>	5.28	0.88	4.67	5.39	5.89	1.89	7.00	1-7
<i>Investor_SVO</i>	0.55	0.50	0	1	1	0	1	<i>nominal</i>
<i>CEOA_Trustworthy</i>	3.60	0.87	3	4	4	1	5	1-5
<i>CEOB_Trustworthy</i>	2.92	0.96	2	3	3.5	1	5	1-5
<i>CEOA_LTO</i>	3.63	0.05	3	4	4	1	5	1-5
<i>CEOB_LTO</i>	2.61	1.16	2	2	3	1	5	1-5
<i>CEOA_Sacrifice</i>	3.57	1.03	3	4	4	1	5	1-5
<i>CEOB_Sacrifice</i>	2.49	1.09	2	2	3	1	5	1-5
<i>Invest in A</i>	0.59	0.49	0	1	1	0	1	<i>nominal</i>
<i>CEOA_PVHon</i>	4.51	1.20	3.67	4.67	5.44	1.67	7	1-7
<i>CEOB_PVHon</i>	3.27	1.13	2.44	3.11	4	1	6.33	1-7

Table 5: Correlation matrix for Experiment 1

This table presents Spearman correlations above the diagonal and Pearson correlations below. * indicates significance at the 5% level.

	<i>Invest in A</i>	<i>ΔReturn</i>	<i>ΔCEO_PVHon</i>	<i>ΔCEO _Trust worthy</i>	<i>Age</i>	<i>Female</i>	<i>Economics</i>
<i>Invest in A</i>	1.	0.25*	0.30*	0.34*	0.01	0.02	-0.07
<i>ΔReturn</i>	0.25*	1	0.00	0.00	0.00	0.00	0.00
<i>ΔCEO_PVHon</i>	0.29*	0.00	1	0.72*	0.12*	-0.03	-0.04
<i>ΔCEO_Trustworthy</i>	0.34*	0.00	0.76*	1	0.11*	-0.08*	-0.10*
<i>Age</i>	0.01	0.00	0.13*	-0.01	1	-0.10*	0.12*
<i>Female</i>	0.02	0.00	-0.06	-0.08*	0.12*	1	-0.34*
<i>Economics</i>	-0.07	0.00	-0.01	-0.09*	-0.03	-0.34*	1

Table 6: Investment choices and perceived CEO protected value for honesty

This table presents the results of logit regressions for Experiment 1. The dependent variable is *Invest in A*, which is 1 when a participant chose to invest in the company managed by CEO A, and 0 otherwise. Participants made four such choices each. $\Delta Return$ is the difference in claimed returns between CEO A and CEO B. The perceived commitment to honesty of each CEO was measured on a 9-item Likert scale, and the difference in perceived commitment (ΔCEO_PVHon) was used as the predictor in the regression. Trustworthiness was measured on a single-item Likert scale. $\Delta CEO_Trustworthy^\perp$ was orthogonalized relative to ΔCEO_PVHon . P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance, ** 5% significance, * 10% significance.

	(1)	(2)	(3)	(4)
$\Delta Return$	0.025*** (0.00)		0.028*** (0.00)	0.027*** (0.00)
ΔCEO_PVHon		0.686*** (0.00)	0.742*** (0.00)	0.737*** (0.00)
$\Delta Return * \Delta CEO_PVHon$				-0.011* (0.08)
$\Delta CEO_Trustworthy^\perp$	0.468*** (0.00)	0.444*** (0.00)	0.481*** (0.00)	0.504*** (0.00)
<i>Age</i>	0.030 (0.17)	0.003 (0.89)	0.004 (0.89)	0.005 (0.84)
<i>Female</i>	0.053 (0.79)	0.182 (0.33)	0.197 (0.33)	0.191 (0.35)
<i>Economics</i>	-0.202 (0.33)	-0.162 (0.39)	-0.176 (0.39)	-0.178 (0.39)
<i>Constant</i>	-0.094 (0.86)	0.458 (0.44)	0.498 (0.44)	0.437 (0.49)
<i>Observations</i>	564	564	564	564
<i>Pseudo R-squared</i>	0.0839	0.100	0.156	0.162
<i>Pseudo Log Likelihood</i>	-345.1	-339	-317.9	-315.5
<i>Base Log Likelihood</i>	-376.7	-376.7	-376.7	-376.7

Table 7: Summary statistics for Experiment 2

This table presents descriptive statistics for Experiment 2. *Invest in A* is the fraction of investor choices for the company managed by CEO A. ΔCEO_PVHon is the difference in perceived commitment to honesty between CEO A and CEO B ($CEOA_PVHon - CEOB_PVHon$). ΔCEO_PVHon and *Investor_PVHon* are standardized. *Investor_PVHon* is the investor's own commitment to honesty. We categorize participants as prosocial ($N=72$) (proself, $N=60$) when they chose the cooperative (self-maximizing) alternative in six out of nine social value orientation (*Investor_SVO*) items. *Investor_SVO* captures investors' preferences regarding how to allocate resources between themselves and others. t-statistics are for tests of differences in the means between proself and prosocial investors. *** 1% significance, ** 5% significance, * 10% significance.

Group:	Proselfs		Prosocials		t-test for differences in means
	Mean	SD	Mean	SD	
<i>Invest in A</i>	0.60	0.49	0.60	0.49	$t(526) = -0.11$
ΔCEO_PVHon	-0.04	0.92	0.17	0.97	$t(130) = -1.27$
<i>CEO A PVHon</i>	4.52	1.1	4.70	1.18	$t(130) = -0.93$
<i>CEO B PVHon</i>	3.36	1.02	3.10	1.12	$t(130) = 1.34$
<i>Investor_PVHon</i>	-0.13	1.07	0.19	0.86	$t(130) = -1.94^*$
<i>Investor_PVHon</i> (unstandardized)	5.16	0.94	5.45	0.76	$t(130) = -1.94^*$

Table 8: Investment choices in the four scenarios and social value orientation

This table shows the choices for either Company A or Company B in the four investment scenarios separately for proself and prosocial participants.

Group:	Proselfs				Prosocials			
Return difference (CEO A–CEO B)	-30	-10	10	30	-30	-10	10	30
in %: $\Delta Return$								
<i>Invest in</i>								
<i>Company A</i>	27	33	40	43	38	44	47	44
<i>Company B</i>	33	27	20	17	34	28	25	28
<i>N</i>	60	60	60	60	72	72	72	72

Table 9: Cross-tabulation of participants according to their protected values for honesty and social value orientation

This table shows the number of participants in each of four combinations of traits. We perform a median split on *Investor_PVHon*. We categorized participants as prosocial ($N=72$) when they chose the cooperative alternative in six out of the nine *Investor_SVO* items. They are categorized as proself ($N=60$) when they chose the self-maximizing alternative in six out of the nine items. Data are from Experiment 2.

<i>Investor_PVHon</i>	<i>Investor_SVO</i>		
	Proself	Prosocial	Total
Below median	34	29	63
Above median	26	43	69
Total	60	72	132

Table 10: Correlation matrix for Experiment 2

The tables in Panel A and Panel B present the Spearman (above the diagonal) and the Pearson correlations (below) separately for the subsamples proself and prosocial investors. * indicates significance at the 5% level.

Panel A: Investors with a proself value orientation

	<i>Invest in A</i>	Δ Return	Δ CEO_PVHon	Δ CEO_Trustworthy	Age	Female	Economics	<i>Investor_PVHon</i>
<i>Invest in A</i>	1.00	0.21*	0.29*	0.27*	-0.04	0.03	-0.05	0.03
Δ Return	0.21*	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Δ CEO_PVHon	0.29*	0.00	1.00	0.65*	-0.03	0.04	-0.11	0.13*
Δ CEO_Trustworthy	0.28*	0.00	0.65*	1.00	0.02	0.15*	-0.24*	0.28*
Age	0.01	0.00	0.04	0.09	1.00	-0.19*	0.20*	0.18*
Female	0.03	0.00	0.06	0.11	-0.11	1.00	-0.45*	0.16*
Economics	-0.05	0.00	-0.14*	-0.19*	0.15*	-0.45*	1.00	-0.22*
<i>Investor_PVHon</i>	0.05	0.00	0.11	0.30*	0.27*	0.21*	-0.24*	1.00

Panel B: Investors with a prosocial value orientation

	<i>Invest in A</i>	Δ Return	Δ CEO_PVHon	Δ CEO_Trustworthy	Age	Female	Economics	<i>Investor_PVHon</i>
<i>Invest in A</i>	1.00	0.07	0.14*	0.22*	-0.07	-0.08	-0.09	0.19*
Δ Return	0.07	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Δ CEO_PVHon	0.16*	0.00	1.00	0.48*	-0.01	-0.14*	-0.24*	0.12
Δ CEO_Trustworthy	0.22*	0.00	0.51*	1.00	-0.02	-0.12*	-0.16*	0.06
Age	-0.04	0.00	0.09	0.06	1.00	-0.16*	0.19*	-0.07
Female	-0.08	0.00	-0.08	-0.10	-0.16*	1.00	-0.23*	0.15*
Economics	-0.09	0.00	-0.26*	-0.16*	0.04	-0.23*	1.00	-0.44*
<i>Investor_PVHon</i>	0.21*	0.00	0.22*	0.11	-0.03	0.18*	-0.42*	1.00

Table 11: Investment choices and Perceived CEO Protected Values for Honesty depending on investor Social Value Orientation

This table presents the results of logit regressions for Experiment 2. The dependent variable is *Invest in A*, which is 1 when a participant chooses to invest in the company managed by CEO A, and 0 otherwise. Participants made four such choices each. The table shows two regressions for each investor subsample, i.e., investors with a proself and investors with a prosocial orientation. All variables were measured as in Experiment 1, except the *ΔCEO_Trustworthy* measure, which is a two-item measure (trustworthiness and credibility) in Experiment 2. *Investor_PVHon* is the investors' commitment to honesty. *ΔCEO_Trustworthy*[⊥] is orthogonalized relative to *ΔCEO_PVHon*. *Investor_SVO* in column 7 is a dichotomous variable with proself = 0 and prosocial = 1. The coefficients on the demographic variables (age, gender, academic major) are not shown. P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance, ** 5% significance, * 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Investor_SVO</i>	Proself value orientation			Prosocial value orientation			Full sample	Full sample
<i>ΔReturn</i>	0.020** (0.02)	0.019** (0.04)	0.019** (0.04)	0.006 (0.41)	0.007 (0.40)	0.007 (0.39)	0.019** (0.04)	0.019** (0.04)
<i>ΔCEO_PVHon</i>	0.713*** (0.00)	0.720*** (0.00)	0.711*** (0.00)	0.322*** (0.01)	0.305*** (0.01)	0.305*** (0.01)	0.686*** (0.00)	0.724*** (0.00)
<i>ΔReturn *</i> <i>ΔCEO_PVHon</i>	-0.019* (0.07)	-0.018* (0.09)	-0.021** (0.05)	0.003 (0.67)	0.004 (0.64)	0.004 (0.62)	-0.019* (0.07)	-0.018* (0.08)
<i>Investor_PVHon</i>	-0.079 (0.60)	-0.080 (0.57)	-0.072 (0.60)	0.553*** (0.00)	0.582*** (0.00)	0.581*** (0.00)	0.235** (0.03)	-0.034 (0.79)
<i>Investor_PVHon *</i> <i>ΔCEO_PVHon</i>		-0.040 (0.78)	-0.060 (0.67)		0.170* (0.06)	0.168* (0.08)	0.094 (0.25)	-0.035 (0.81)
<i>Investor_PVHon *</i> <i>ΔReturn</i>		-0.018** (0.04)	-0.017* (0.05)		-0.001 (0.95)	-0.001 (0.90)	-0.010 (0.14)	-0.018** (0.05)
<i>Investor_PVHon *</i> <i>ΔReturn *ΔCEO_PVHon</i>			0.012 (0.25)			-0.002 (0.76)	0.002 (0.82)	0.002 (0.73)
<i>Investor_SVO</i>							-0.190 (0.30)	-0.227 (0.20)
<i>Investor_SVO *</i> <i>ΔCEO_PVHon</i>							-0.346* (0.07)	-0.418** (0.02)
<i>Investor_SVO *</i> <i>ΔReturn</i>							-0.011 (0.35)	-0.013 (0.30)
<i>Investor_SVO*ΔReturn *</i> <i>ΔCEO_PVHon</i>							0.023* (0.08)	0.021* (0.09)
<i>Investor_PVHon *</i> <i>Investor_SVO</i>								0.586*** (0.00)
<i>Investor_PVHon *</i> <i>Investor_SVO * ΔReturn</i>								0.018 (0.18)
<i>Investor_PVHon *</i> <i>Investor_SVO*ΔCEO_PVHon</i>								0.212 (0.22)
<i>ΔCEO_Trustworthy</i> [⊥]	0.313** (0.04)	0.324** (0.04)	0.337** (0.04)	0.333*** (0.00)	0.351*** (0.00)	0.351*** (0.00)	0.294*** (0.00)	0.348*** (0.00)
<i>Demographic controls</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Constant</i>	0.271 (0.83)	0.296 (0.81)	0.385 (0.75)	1.270** (0.01)	1.210** (0.02)	1.210** (0.02)	1.333*** (0.01)	1.176** (0.01)
<i>Observations</i>	240	240	240	288	288	288	528	528
<i>Pseudo R-squared</i>	0.135	0.157	0.163	0.079	0.083	0.084	0.084	0.084
<i>Pseudo Log Likelihood</i>	-140.1	-136.5	-135.6	-178.4	-177.6	-177.6	-320.1	-314.8
<i>Base Log Likelihood</i>	-161.9	-161.9	-161.9	-193.7	-193.7	-193.7	-355.7	-355.7

Supplementary Appendix (Online Material)

A.1 Theoretical Model

To fix ideas, consider an investor who decides whether to invest with CEO A or CEO B. Let R_c denote the returns promised by CEO c . Both promised returns are positive. Suppose first that the investor's information set regarding the two CEOs is identical. We also posit that the investor has constant marginal utility and cares only about returns. Expected utility is defined as follows:

$$(1) \quad V = \begin{cases} p^0 R_A + (1 - p^0)0 & \text{if } A = 1 \\ p^0 R_B + (1 - p^0)0 & \text{if } A = 0 \end{cases}$$

where A is the choice variable (investment in A). Given the identical information about the two CEOs, the investor has, for each CEO, the same prior p^0 that the CEO's promised returns come through. Investing with A means not investing with B. Defining $\Delta Return = R_A - R_B$, here abbreviated as ΔR , an investor prefers to invest with A when he receives higher expected utility from investing in A than from investing in B, that is, when

$$(2) \quad p^0 \Delta R > 0.$$

Without further information, an investor will tend to invest with A if A promises higher returns than B. This is true for any prior that is identical for the two CEOs (though it is reasonable to posit $p^0 = 1/2$).¹

Suppose now that the investor has additional information beyond the announced future returns. Specifically, the investor has information regarding past earnings announcements and the associated bonus payments. Concretely, the investor knows that B announced higher earnings than A, and that B received a higher bonus.

¹ Empirically, in line with standard practice, we assume that the comparison of the utilities translates into a decision based on a random choice model, incorporating an error term ε , which is independent of the explanatory variables. By assuming that ε has the logistic distribution, one obtains the logit model, which is the main specification on which we focus in the empirical implementation. Thus, while we do not expect 100% investment in A as soon as ΔR is minimally positive, we do expect investment in A to increase as ΔR increases.

First, based on the large literature that establishes a link between monetary incentives and earnings management, we expect the investor to infer that B has managed the earnings more than A. However, investors can be expected to differ in the strength of that inference. Second, our primary interest focuses on the inferences regarding honesty. If market participants know that there are some principled managers, then not reporting managed earnings will lead investors to infer that these managers are more committed to honesty.

If investors believe that past honest reporting is an indication of a CEO to always announce the truth, they will also assign a higher probability to the CEO's future announced returns to materialize. They update estimated probabilities for A and B reporting their promised returns accurately from the common prior p^0 to the posteriors p^A and p^B , respectively, where $\Delta p = p^A - p^B$ is on average *positive*.

The investor wants to infer the probability that the CEO's promised returns in the future come through. The signal the investor observes is whether the CEO has managed earnings or not. While the observation of earnings management is a fact (and not a random variable per se), behind that realization is some decision-making process by the CEO, which links the outcome to manage earnings or not to the intrinsic tendency of the CEO to report the truth. Gibson et al. (2013) show that individuals with stronger protected values resist the monetary temptation to misreport earnings. If an investor believes that past honest reporting is an indication of a CEO to always announce the truth, he will also assign a higher probability to the CEO's future announced returns to come through.

Specifically, the investor is interested in $\Pr(\text{CEO A delivers} \mid \text{A has not managed earnings})$. Let $d = 1$ denote "CEO delivers" and let $EM = 0$ denote "CEO has not managed earnings". p^0 denotes the prior probability that the CEO delivers.

By Bayes' rule, the posterior thus is

$$p^A = \xi(d = 1 \mid EM = 0) = \frac{\Pr(EM = 0 \mid d = 1) * p^0}{\Pr(EM = 0 \mid d = 1) * p^0 + \Pr(EM = 0 \mid d = 0) * (1 - p^0)}$$

In the extreme, if it were the case that the CEO who delivers what he announces also does not engage in earnings management, then observing no earnings management drives the posterior to 1. In a less extreme version, suppose that the investor estimates a choice model of the CEO. He infers high honesty from “no earnings management” if he thinks that "no earnings management" was less likely to have been random or due to other reasons (like low CEO competence). Overall, it seems plausible that $Pr(EM = 0 | d = 1)$ is increasing in $CEOA_PVHon$. Because $\xi(d = 1 | EM = 0)$ is increasing in $Pr(EM = 0 | d = 1)$, this $CEOA_PVHon$ also is an estimate of (or is positively correlated with) $p^H = \xi(d = 1 | EM = 0)$. Similarly, $CEOB_PVHon$ is an inverse estimate of (or is negatively correlated with) $p^B = \xi(d = 1 | EM = 1)$. Combining, ΔCEO_PVHon provides an estimate of (or is positively correlated with) $\Delta p = p^A - p^B$.

Thus, ΔCEO_PVHon provides a proxy for Δp .

The investor decides to invest with A if

$$(3) \quad p^A R_A - p^B R_B > 0, \text{ or } \frac{p^A}{p^B} > \frac{R_B}{R_A}.$$

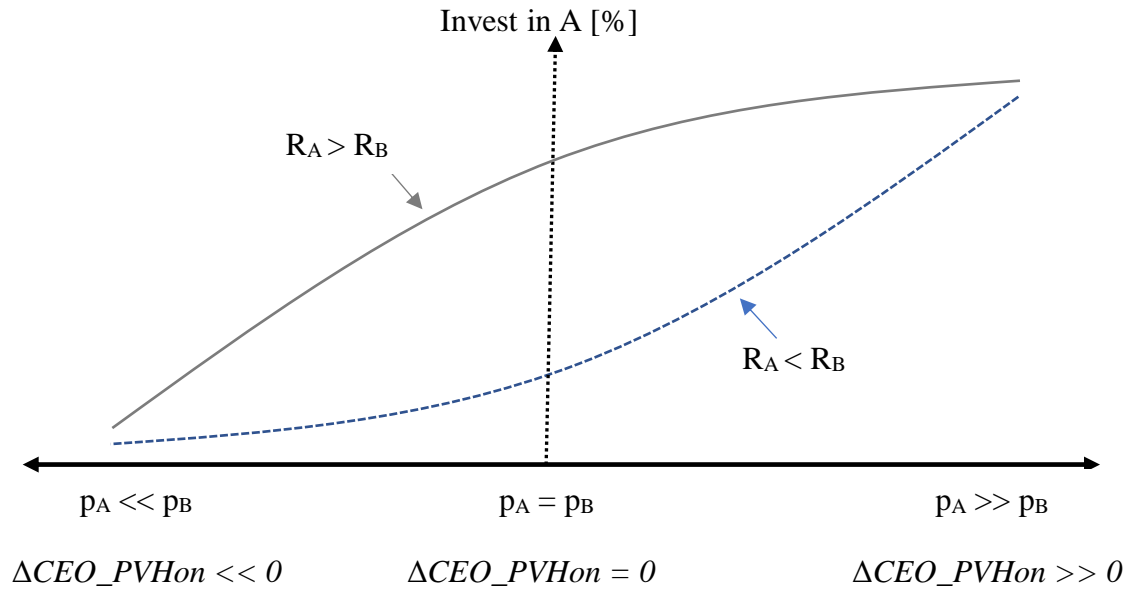
Three predictions follow. First, investors prefer to invest with CEO A, the higher the promised future returns of CEO A relative to CEO B. Second, equation (3) implies that higher attributed protected values for A should, as a proxy for the probability of delivering the promised returns, be positively associated with investment choices into A. Third, equation (3) indicates the substitutive roles of attributed protected values and announced returns:

Intuitively, even if the difference in promised returns between CEO A and CEO B is negative, that is if $\Delta R < 0$, the investor may choose A if Δp is sufficiently large. In the extreme case where this difference approximates unity, differences between returns matter less and less. Investors discount differences in claimed future returns by the two CEOs more the higher the investors' perception of the commitment to honesty of a given CEO relative to another CEO.

To illustrate, Figure A1 presents the percentage of investors expected to invest in A for varying Δp . The figure is centered around the case where $\Delta p = 0$, that is, when an investor's posterior is equal to the prior. The solid line shows the expected behavior if $\Delta R = R_A - R_B > 0$. Thus, even when $\Delta p = 0$, the investor is more likely to invest with A. In the region where $\Delta p > 0$, it is even more attractive to invest with A than with B. In the extreme, where Δp goes towards one, that is, where the investor regards A as much, much more honest than B, the probability of investing in A approximates unity.

Figure A1: Expected behavior in Experiment 1

This graph plots the predicted share of investors' choices for CEO A depending on the differences in estimated probabilities of delivery of the announced returns, Δp , which are empirically proxied by the differences in perceived commitment to honesty between CEO A and CEO B (ΔCEO_PVHon). It does so for the situation where $\Delta R > 0$, that is, where CEO A announces higher future returns than CEO B (solid line), and for the opposite case (dashed line).



Importantly, even when $\Delta R = R_A - R_B < 0$, plotted with the dashed line, the same limiting outcome obtains: Even if A promises lower returns than B, as long as A is estimated to be sufficiently more likely to deliver than is B, the investor will tilt towards A. Thus, we observe the solid and dashed curves approximating each other towards the right, meaning that the importance of future returns diminishes as the posteriors diverge. By contrast, return differences play a bigger role in determining the ultimate decision when posteriors are similar, as in the middle of the figure.² For completeness, consider what happens in the left part of the figure, where $\Delta p < 0$. Intuitively, if investors regard B as more honest than A, return differences between A and B matter less; they will tend to invest with B.³

² When ΔR is bigger, the two lines would be further out, but would again converge to 100% and 0%, respectively, at the right and left limits. When ΔR approximates zero, there would be a straight, diagonal line. The shape of these lines is also implicitly determined by the marginal utility of money of investors. In Experiment 2, we control for whether investors have prosself and prosocial value orientations to partially capture this distinction.

³ Even if investors do not infer differential honesty of managers, they may make predict differences in the managers' probability to deliver the promised returns. Specifically, as mentioned above investors may infer the earnings-management CEO to be more competent, and to the extent that investors associate this inferred competence with the likelihood of future claimed returns coming through, they infer $\Delta p = p^A - p^B$ to be on average *negative*. Investors may then discount the returns claimed by a CEO whom they regard as incompetent.

A.2 Additional Results and Robustness Analyses

Robustness analyses for Experiment 1. Due to the nature of our research questions regarding moral considerations in investment decisions and the context-rich experimental setup, one might worry that experimenter demand effects could have played a role in this study. That is, participants may have tried to guess the experimenters' preferred outcome, threatening both the internal and external validity of the results. In our setup this would mean that participants could have guessed the remuneration scheme and always invested with CEO A. Our results do not support this concern, however, as in roughly 40% of choices, participants invested with CEO B.⁴

In Experiment 1, participants first received the information on CEOs' earnings announcements, then participants made the investment choices, and then we polled their perception of the two CEOs' commitment to honesty. Therefore, at the point of making investment choices, participants are unlikely to have inferred that the focus of our study was the role of perceptions of CEO honesty. However, one might worry that participants' investment choices indirectly affect their perception of CEO PV_{honesty} in a way that they perceive the CEO with whom they invest as more honest irrespective of the CEO's engagement in earnings management. To investigate this concern, we conducted an additional online questionnaire with students in a corporate finance class at the University of Zurich. Participants ($N = 51$, of whom 17 were female) were given the same description of the CEOs' earnings announcements as in the main experiment, followed directly and solely by the *CEO_PVHon* scales for CEO A and CEO B. These participants did not make any investment choices. We find practically identical results in this additional data collection concerning

⁴ de Quidt et al. (2019) discuss ways to mitigate demand effects in experimental settings, stressing the role of proper remuneration schemes, anonymity, and a minimum of interaction between participants and the experimenter. We were very careful on these issues when designing and executing the experiment. de Quidt et al. also recommend neutral instructions. However, as stated by the authors, there is little direct evidence that framing influences demand bias. For example, Abbink and Hennig-Schmidt (2006) find no framing effects in an experiment on corruption. Similarly, Dreber et al. (2013) find no framing effects in dictator games.

participants' perception of CEO PV_{honesty} . CEO A is perceived to be more committed to honesty ($mean = 4.71$) than CEO B ($mean = 3.53$) also in this sample, $t(50) = 4.47, p < .01$. A Kolmogorov-Smirnov test does not reject the hypothesis that the distributions of experiment participants and non-participants are identical ($p = 0.67$). These findings suggest that our results concerning differences in the perception of CEO_PVHon between CEO A and CEO B are based on the CEOs' earnings announcements rather than on participants' strive for internal consistency.

Since extant accounting research shows that trustworthiness affects investment choices, we control for its effect. First, descriptive statistics support prior research, as participants perceive the CEO A as more trustworthy than CEO B (Table A1). Table 2 shows that when participants perceive CEO A to be more trustworthy than CEO B, they tend to invest with CEO A, which further supports previous research (Hewitt et al., 2020).⁵ Table A3 column (1) shows, however, that $\Delta Return$ and $\Delta CEO_Trustworthy$ do not interact. Moreover, all effects of the main predictors (ΔCEO_PVHon and $\Delta Return$) and their interaction hold when we add the interaction between $\Delta CEO_Trustworthy$ and $\Delta Return$ into the regression. Thus, perceived differences between CEOs commitment to honesty provide additional and subtle information, beyond perceived trust, that matter when investors make investment decisions.

In Table A3 column (2), we also test if differences in long-term orientation and willingness to make financial sacrifices between the two CEOs affect our findings. Participants considered CEO B as more short-term oriented, and less willing to make financial sacrifices than CEO A (Table A1). However, including these two variables and their interactions with $\Delta Return$ does not affect any of the relationships of our main variables of

⁵ Since $\Delta CEO_Trustworthy$ and ΔCEO_PVHon highly correlate (see Table A2), $\Delta CEO_Trustworthy^\perp$ was orthogonalized relative to ΔCEO_PVHon . In additional robustness analyses available upon request, we also change the order of orthogonalization. Thus, we compute ΔCEO_PVHon orthogonal to $\Delta CEO_Trustworthy$. The same inferences regarding H2 continue to hold. In particular, the interaction between ΔCEO_PVHon and $\Delta Return$ becomes more significantly negative, and the interaction between $\Delta CEO_Trustworthy$ and $\Delta Return$ remains non-significant.

interest. We neither find a main effect of these two variables on investment choices, nor an effect of their interaction with $\Delta Return$. These results corroborate that participants' perception of the CEOs' commitment to honesty measured through the validated, multi-dimensional protected values for honesty scale is a sound predictor of participants' investment choices, whereas perceived CEO long-term orientation and perceived willingness to make financial sacrifices, both measured with single-item scales, are not. Finally, we confirm that age, gender, and academic major do not affect participants' sensitivity towards differences in claimed future returns.⁶

Robustness analyses for Experiment 2. In the main analysis, we categorize participants as prosocial when they chose the cooperative alternative in six out of the nine *Investor_SVO* items. This method is in line with previous research (Van Dijk et al. 2004). Doing so, 18 participants do not fall into either of the two categories. For robustness, we run another analysis, using a median split: Participants who chose more than the median number of self-maximizing choices in the *Investor_SVO* task were categorized as proself and participants below or on the median were categorized as prosocial. Our main results continue to hold, however, tend to be less pronounced (see Table A5).

The results regarding investment choices hold when controlling for participants' financial savviness in addition to the demographic variables that we have considered throughout (Table A6). We control for (orthogonalized) differences in perceived trustworthiness ($\Delta CEO_Trustworthy$) and find, similar to Experiment 1, that the more participants perceive CEO A as trustworthy compared to CEO B, the more they invest with CEO A. (Again, the order of orthogonalization does not affect the substantive inferences.)

⁶ Results available upon request show that none of the variables interacts significantly with $\Delta Return$, though there is some tendency for economics students to care more about returns. Moreover, including these interactions into the regression does not affect the significance of the interaction term between ΔCEO_PVHon and $\Delta Return$. We acknowledge that the field of study may not sufficiently capture differences among participants in their financial savviness, which may correlate with inferences and behavior in the experiment. In Experiment 2, we therefore also collected additional data on the financial savviness of participants.

However, the inclusion of this variable does not affect our main predictions regarding the behavior of proself and prosocial investors with respect to their own and the perceived differences in CEOs' protected values for honesty.

A.3 Additional Analyses

Table A1: Investment choices and the interaction of CEO characteristics with claimed future returns

This table presents the results of logit regressions for Experiment 1. The dependent variable is *Invest in A*, which is 1 when a participant chooses to invest in the company managed by CEO A, and 0 otherwise. Participants made four such choices each. $\Delta Return$ is the difference in claimed future returns between CEO A and CEO B. We test the interaction of differences in perceived CEO willingness to make financial sacrifices ($\Delta Sacrifice$) and differences in perceived CEO long-term orientation (ΔLTO) with differences in claimed future returns ($\Delta Return$). All other variables remain exactly as in Table 5. P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance; ** 5% significance, * 10% significance.

	(1)	(2)
$\Delta Return$	0.028*** (0.00)	0.028*** (0.00)
ΔCEO_PVHon	0.726*** (0.00)	0.745*** (0.00)
$\Delta Return *$ ΔCEO_PVHon	-0.010* (0.10)	-0.013** (0.04)
$\Delta Return *$ $\Delta CEO_Trustworthy$	0.004 (0.39)	0.003 (0.55)
$\Delta Return * \Delta Sacrifice$		0.002 (0.77)
$\Delta Return * \Delta LTO$		0.007 (0.31)
$\Delta Sacrifice$		0.003 (0.97)
ΔLTO		-0.058 (0.62)
$\Delta CEO_Trustworthy$	0.512*** (0.00)	0.532*** (0.00)
<i>Age</i>	0.005 (0.83)	0.008 (0.77)
<i>Female</i>	0.192 (0.35)	0.192 (0.36)
<i>Economics</i>	-0.176 (0.39)	-0.186 (0.38)
<i>Constant</i>	0.444 (0.48)	0.399 (0.54)
<i>Observations</i>	564	564
<i>Pseudo R-squared</i>	0.164	0.168
<i>Pseudo Log Likelihood</i>	-315.1	-313.5
<i>Base Log Likelihood</i>	-376.7	-376.7

Table A2: Investment choices and perceived CEO protected values for honesty depending on investor social value orientation (median split)

This table presents the results of logit regressions for Experiment 2. The dependent variable is *Invest in A*, which is 1 when a participant chooses to invest in the company managed by CEO A, and 0 otherwise. Participants made four such choices each. The table shows two regressions for each investor subsample. Participants are categorized as proself or prosocial based on a median split to overcome excluding participants using the traditional approach by van Lange et al. (1997). We counted the self-maximizing choices in the Investor_SVO task and performed a median split on this variable. Participants above the median were categorized as proself and participants below or on the median were categorized as prosocial. All other variables remain exactly as in Table 8 columns 1- 6. P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance; ** 5% significance, * 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)
Investor_SVO	Proself value orientation			Prosocial value orientation		
<i>ΔReturn</i>	0.016** (0.04)	0.014* (0.08)	0.014* (0.08)	0.008 (0.28)	0.008 (0.27)	0.008 (0.25)
<i>ΔCEO_PVHon</i>	0.656*** (0.00)	0.668*** (0.00)	0.672*** (0.00)	0.320*** (0.01)	0.314*** (0.01)	0.313*** (0.01)
<i>ΔReturn *</i>	-0.013* (0.10)	-0.011 (0.15)	-0.012 (0.13)	0.004 (0.61)	0.004 (0.57)	0.004 (0.55)
<i>Investor_PVHon</i>	-0.085 (0.52)	-0.033 (0.78)	-0.034 (0.76)	0.504*** (0.00)	0.515*** (0.00)	0.514*** (0.00)
<i>Investor_PVHon *</i>		0.081 (0.34)	0.053 (0.57)		0.101 (0.26)	0.098 (0.29)
<i>ΔReturn *</i>		-0.014* (0.06)	-0.011 (0.15)		-0.003 (0.76)	-0.003 (0.71)
<i>Investor_PVHon *</i>			0.008 (0.27)			-0.003 (0.64)
<i>ΔReturn* ΔCEO_PVHon</i>						
<i>ΔCEO_Trustworthy</i>	0.291** (0.04)	0.273* (0.07)	0.280* (0.06)	0.295*** (0.00)	0.308*** (0.00)	0.308*** (0.00)
<i>Demographic controls</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Constant</i>	-0.372 (0.55)	-0.354 (0.56)	-0.371 (0.54)	1.341** (0.01)	1.311** (0.01)	1.312** (0.01)
<i>Observations</i>	288	288	288	312	312	312
<i>Pseudo R-squared</i>	0.120	0.136	0.141	0.0807	0.0826	0.0834
<i>Pseudo Log Likelihood</i>	-172.5	-169.2	-168.3	-193.8	-193.4	-193.3
<i>Base Log Likelihood</i>	-195.9	-195.9	-195.9	-210.8	-210.8	-210.8

Table A3: Investment choices and perceived CEO protected values for honesty depending on investor social value orientation controlling for financial savviness

This table presents the results of logit regressions for Experiment 2. The dependent variable is *Invest in A*, which is 1 when a participant chooses to invest in the company managed by CEO A, and 0 otherwise. Participants made four such choices each. The table shows two regressions for each investor subsample. We control for whether a participant has made stock investments or not (*Stocks*) and whether he or she regularly reads the financial news or not (*Financial_News*). These items serve as a proxy for participants' financial savviness. All other variables remain exactly as in Table 8 columns 1- 6. P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance; ** 5% significance, * 10% significance.

	(1)	(2)	(3)	(4)	(5)	(6)
Investor_SVO	Proself value orientation			Prosocial value orientation		
<i>ΔReturn</i>	0.020** (0.02)	0.019** (0.04)	0.019** (0.04)	0.006 (0.41)	0.007 (0.40)	0.007 (0.39)
<i>ΔCEO_PVHon</i>	0.711*** (0.00)	0.717*** (0.00)	0.706*** (0.00)	0.305** (0.01)	0.286** (0.01)	0.286** (0.01)
<i>ΔReturn *</i> <i>ΔCEO_PVHon</i>	-0.019* (0.08)	-0.018* (0.09)	-0.021* (0.05)	0.003 (0.67)	0.004 (0.64)	0.004 (0.62)
<i>Investor_PVHon</i>	-0.087 (0.59)	-0.087 (0.56)	-0.079 (0.60)	0.552*** (0.00)	0.579*** (0.00)	0.577*** (0.00)
<i>Investor_PVHon *</i> <i>ΔCEO_PVHon</i>		-0.039 (0.79)	-0.059 (0.68)		0.166* (0.07)	0.164* (0.09)
<i>Investor_PVHon *</i> <i>ΔReturn</i>		-0.018** (0.04)	-0.017* (0.05)		-0.001 (0.94)	-0.001 (0.90)
<i>Investor_PVHon *</i> <i>ΔReturn* ΔCEO_PVHon</i>			0.012 (0.25)			-0.002 (0.75)
<i>ΔCEO_Trustworthy</i>	0.317** (0.04)	0.330** (0.05)	0.343** (0.04)	0.351*** (0.00)	0.367*** (0.00)	0.367*** (0.00)
<i>Age</i>	0.013 (0.83)	0.014 (0.81)	0.009 (0.88)	-0.030 (0.13)	-0.031 (0.12)	-0.031 (0.12)
<i>Female</i>	-0.056 (0.86)	-0.092 (0.77)	-0.100 (0.75)	-0.620** (0.02)	-0.572** (0.02)	-0.574** (0.02)
<i>Economics</i>	0.019 (0.93)	0.008 (0.97)	-0.006 (0.98)	0.170 (0.50)	0.219 (0.39)	0.220 (0.39)
<i>Stocks</i>	-0.037 (0.89)	-0.033 (0.91)	-0.020 (0.94)	-0.194 (0.43)	-0.136 (0.58)	-0.136 (0.58)
<i>Financial_News</i>	-0.041 (0.74)	-0.044 (0.74)	-0.046 (0.72)	-0.141 (0.14)	-0.143 (0.13)	-0.144 (0.12)
<i>Constant</i>	0.328 (0.83)	0.364 (0.81)	0.479 (0.75)	1.792*** (0.00)	1.747*** (0.00)	1.750*** (0.00)
<i>Observations</i>	240	240	240	288	288	288
<i>Pseudo R-squared</i>	0.135	0.157	0.163	0.0828	0.0868	0.0872
<i>Pseudo Log Likelihood</i>	-140.1	-136.5	-135.5	-177.7	-176.9	-176.8
<i>Base Log Likelihood</i>	-161.9	-161.9	-161.9	-193.7	-193.7	-193.7

A.4 Instructions for Experiment 1

[Note: “-----“ indicates a separate page in the experiment]

Welcome!

This is a study on decision-making of individuals in the role of shareholders. With your participation you help us learn more about factors that are associated with decision making.

The study will take about 15 minutes to complete. In what follows, you should put yourself in the role of a shareholder. As such, you will have to make a series of decisions, just like a real shareholder.

Of course, your choices will be treated confidentially and anonymously. For your participation you earn CHF 10-15. Total compensation depends on your decisions as well as on the correctly answered interposed questions (that can be answered correctly by reading the instructions carefully).

Please enter the following code:

- *The last 3 digits of your Legi +*
- *"R" +*
- *2 letters of your choice*

Example: Legi number = 01-705-234 - any > 234

2 random letters. Nz

-> Insert code: 234Rnz (Example)

General Information

Please consider the following:

- *Read the instructions for the tasks and questions carefully!*
- *Please answer all questions!*
- *Please answer openly and honestly! As only your personal perspective counts, there are - except for the interposed questions - no right or wrong answers.*

Personal details

Sex

- *Male*
- *Female*

Age (for example, 38)

In which field are you studying?

- *Psychology: Social and Economic Psychology*
- *Psychology: Another area*
- *Psychology Minor:* *Major subject:*
- *Economics: Banking and Finance*
- *Economics: Another area:*
- *Economics as a minor subject: Main subject:*

Information about your compensation

- *In what follows, you will put yourself in the role of a shareholder. The amount of money you receive at the end of the experiment depends on whether you will have been successful with your investment or not. Thus, you receive between CHF 10 and CHF 15.*
- *In addition, some interposed questions are asked that lead to a discount in case of a false answer. However, the questions can be answered easily if you read the instructions carefully. In case of complete participation, you receive CHF 10 in any case.*

Introduction

Please read the following description of the situation carefully.

Imagine...

*You are an investor and think about investing CHF 50'000 in either **Firm A** or in **Firm B**. In order to get a picture of each CEO and company, you will be provided with information below.*

Firm A and Firm B differ only regarding their publicly announced earnings per share and regarding CEO pay, which depends on earnings per share. The CEO pay consists of a fixed and a variable component. The variable component is a bonus, which depends on the announced earnings per share. You know that a CEO can influence, using legal accounting procedures the earnings per share that are announced to the market.

Firm	Earnings per share expected by the market	Actual earnings per share	Earnings per share announced by the CEO	CEO pay
A	35	Only known to the CEO	31	CHF 1'300'000
B	35	Only known to the CEO	35	CHF 2'200'000

The table shows: Firm B announced higher earnings per share and therefore the CEO of Firm B received a higher CEO pay. If the CEO of Firm A had announced the same earnings per share as CEO B, he would have also received a CEO pay of CHF 2'200'000.

Information

Prior to the actual decisions, you will be asked some interposed questions on the next page. Answering these questions incorrectly will lead to a discount of your compensation and you will need to answer these questions correctly to proceed.

Interposed questions

Can a CEO announce earnings that deviate from the company's actual earnings?

- *Yes*
- *No*

The compensation of the CEO...

- *depends on the announced earnings per share*
- *does not depend on the announced earnings per share*

Which CEO received higher pay?

- *CEO of Firm A*
- *CEO of Firm B*

Now we are interested in how you perceive the two CEOs – Firm A vs. Firm B - to differ from your personal point of view.

To what extent do you rate CEO A as ...

<i>untrustworthy</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>trustworthy</i>
<i>short time profit-oriented</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>long term profit-oriented</i>
<i>not willing to make financial sacrifices</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>willing to make financial sacrifices</i>

To what extent do you rate CEO B as ...

<i>untrustworthy</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>trustworthy</i>
<i>short time profit-oriented</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>long term profit-oriented</i>
<i>not willing to take financial sacrifices</i>	<i>-2</i>	<i>-1</i>	<i>0</i>	<i>+1</i>	<i>+2</i>	<i>willing to take financial sacrifices</i>

Compensation scheme in the experiment

Now you will be informed about the possible returns on investment of the two companies.

The amount you receive at the end of the experiment corresponds to CHF 5 + 1/10,000 of the total returns.

2 examples - You invest CHF 50'000:

- If the investment turns out to be **successful**, and the claimed future return is 10%, then you will receive a fixed compensation of CHF 50,000 (CHF 5) plus the amount of CHF 5,000 (CHF 0.50), thus CHF 5.5 in total.
- With a claimed future return of 30%, you will receive the fixed compensation of CHF 50,000 (CHF 5) plus the amount of CHF 15,000 (CHF 1.50), thus CHF 6.5 in total.

If the investment turns out to be **unsuccessful**, you will receive only the investment of CHF 50,000 (CHF 5) back.

In what follows, 4 possible investment situations will be presented to you.

Situation 1

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **20%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 10,000** (or CHF 1.00), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **30%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 15,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
- I invest in Firm B

Situation 2

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **30%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 15,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **20%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 10,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
 - I invest in Firm B
-

Situation 3

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **10%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 5,000** (or CHF 0.50), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **40%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 20,000** (or CHF 2.00), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
 - I invest in Firm B
-

Situation 4

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **40%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 20,000** (or CHF 2.00), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **10%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 5,000** (or CHF 0.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
 - I invest in Firm B
-

CEOs' compensation levels depend on the earnings they report to shareholders. CEOs have an incentive to modify reports to shareholders. What do you think is the CEO of Firm A's opinion on modifying company information in reports?

Please choose the appropriate category for CEO A.
CEO A thinks that this is ...

very immoral	1	2	3	4	5	6	7	very moral
not at all praiseworthy	1	2	3	4	5	6	7	very praiseworthy
not at all blameworthy	1	2	3	4	5	6	7	very blameworthy
not at all outrageous	1	2	3	4	5	6	7	very outrageous
not at all acceptable	1	2	3	4	5	6	7	very acceptable

CEOs' compensation levels depend on the earnings they report to shareholders. CEOs have an incentive to modify reports to shareholders. What do you think is the CEO of Firm B's opinion on modifying company information in reports?

Please choose the appropriate category for CEO B.
CEO B thinks that this is ...

very immoral	1	2	3	4	5	6	7	very moral
not at all praiseworthy	1	2	3	4	5	6	7	very praiseworthy
not at all blameworthy	1	2	3	4	5	6	7	very blameworthy
not at all outrageous	1	2	3	4	5	6	7	very outrageous
not at all acceptable	1	2	3	4	5	6	7	very acceptable

CEOs have an opportunity to modify information in the reports they provide to shareholders. Some view such modification as a violation of truthfulness; others regard it as acceptable protection of personal interests. What do you believe does **CEO A** think about the value of truthfulness in such a situation?

Truthfulness is something ...

... that one should not sacrifice, no matter what the (material or other) benefits.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... for which it is right to make a cost-benefit analysis.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... that cannot be measured in monetary terms.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... about which one can be flexible if the situation demands it.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

CEOs have an opportunity to modify information in the reports they provide to shareholders. Some view such modification as a violation of truthfulness; others regard it as acceptable protection of personal interests. What do you believe does **CEO B** think about the value of truthfulness in such a situation?

Truthfulness is something ...

... that one should not sacrifice, no matter what the (material or other) benefits.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... for which it is right to make a cost-benefit analysis.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... that cannot be measured in monetary terms.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

... about which one can be flexible if the situation demands it.

CEO strongly disagrees	1	2	3	4	5	6	7	CEO strongly agrees
------------------------	---	---	---	---	---	---	---	---------------------

Thank you very much for your participation!

A.4 Instructions for Experiment 1 – Additional Survey

Welcome!

This is a study on the perception of CEOs by shareholders. With your participation you help us learn more about factors that are associated with CEO perception by shareholders.

The study will take about 5 minutes to complete. In what follows, you should put yourself in the role of a shareholder. As such, you will be asked a series of questions about your perception of several CEOs. Your answers will be fully anonymous, and your response will be treated with confidentiality.

Personal details

Sex

- Male
- Female
- Others

Age (for example, 23)

In which field are you studying?

- Economics: Banking and Finance
- Economics: General
- Economics as a minor subject: Main subject:

Please read the following case description carefully. We will ask you a series of questions of your perception of the companies and CEOs described in the case. Accordingly, it is important that you read the description carefully.

Firm A and Firm B differ only regarding their publicly announced earnings per share and regarding CEO pay, which depends on earnings per share. The CEO pay consists of a fixed and a variable component. The variable component is a bonus, which depends on the announced earnings per share. You know that a CEO can influence, using legal accounting procedures the earnings per share that are announced to the market.

Firm	Earnings per share expected by the market	Actual earnings per share	Earnings per share announced by the CEO	CEO pay
A	35	Only known to the CEO	31	CHF 1'300'000
B	35	Only known to the CEO	35	CHF 2'200'000

The table shows: Firm B announced higher earnings per share and therefore the CEO of Firm B received a higher CEO pay. If the CEO of Firm A had announced the same earnings per share as CEO B, he would have also received a CEO pay of CHF 2'200'000.

Information

Prior to the actual decisions, you will be asked some interposed questions on the next page. You cannot proceed until you answered all questions correctly.

Interposed questions

Can a CEO announce earnings that deviate from the company's actual earnings?

- *Yes*
- *No*

The compensation of the CEO...

- *depends on the announced earnings per share*
- *does not depend on the announced earnings per share*

Which CEO received higher pay?

- *CEO of Firm A*
- *CEO of Firm B*

In what follows, we will ask you some questions about your perception of the two companies and the two CEOs.

Did the two CEOs manage the earnings using legal accounting procedures?

- *Only CEO A*
- *Only CEO B*
- *Both, but CEO A more than CEO B*
- *Both, but CEO B more than CEO A*
- *None of the two CEOs*
- *Cannot answer*

Do the two CEOs differ regarding their risk tolerance?

- *CEO A is more risk tolerant than CEO B*
- *CEO B is more risk tolerant than CEO A*
- *The two CEOs are comparable in their risk tolerance*
- *Cannot answer*

Do the two CEOs differ regarding their honesty?

- *CEO A is more honest than CEO B*
- *CEO B is more honest than CEO A*
- *The two CEOs are comparable in their honesty*
- *Cannot answer*

Do the two CEOs differ regarding their competence?

- *CEO A is more competent than CEO B*
- *CEO B is more competent than CEO A*
- *The two CEOs are comparable in their competence*
- *Cannot answer*

Thank you very much for your participation!

A.5 Instructions for Experiment 2

A.5.1 Instructions of the questionnaire part of Experiment 2

Welcome!

This is the online questionnaire part of the investment behavior study. Your participation will help us learn more about factors that are associated with decision making.

Please note that you cannot participate in the laboratory experiment without completing the present questionnaire.

The questionnaire will take about 15 minutes to complete.

*For your full participation you will receive a total amount between **CHF 10 and CHF 15**, depending on your decisions in the computer lab. The amount will be paid at the end of the experiment in the computer lab.*

Your information will be treated confidentially and anonymously.

Anonymity

To ensure anonymity, please generate your personal identification code.

Your identification code is composed as follows:

- *First letter of the first name of the mother* (Ex: Andrea = A)
- *Second letter of the first name of the father* (Ex: Stefan = t)
- *Month of your birthday* (Ex: 06/17/1963 = 06)
- *Last two digits of the Legi* (Ex: At0601)

*Please fill in your **personal identification code**. Make sure to use the same identification code later in the experiment in the computer lab!*

General Information

Please note the following points:

- *Read the instructions for the individual tasks and questions carefully!*
- *Please answer all questions!*
- *Please answer openly and honestly! Since your personal perspective alone counts, there are no right or wrong answers.*

Personal details

Sex

- Male
- Female

Age

In which field are you studying?

- Psychology: Social and Economic Psychology
- Psychology: Another area
- Psychology Minor: Major subject:
- Economics: Banking and Finance
- Economics: Another area:
- Economics as a minor subject: Main subject:

Do you own individual stocks, stock funds or bonds?

- Yes
- No
- No answer

How many times have you informed yourself about economic events in the last month?

- Daily
- Several times a week
- Once a week
- Less than once a week
- Never

After entering your personal information, let us go on with the actual survey.

On this page and the next page, you will find statements that may apply more or less to yourself.

Please indicate how much you agree or disagree with each statement.

	<i>strongly disagree</i>	<i>disagree</i>	<i>neutral</i>	<i>agree</i>	<i>strongly agree</i>
<i>I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.</i>	1	2	3	4	5
<i>If I want something from someone, I will laugh at that person's worst jokes.</i>	1	2	3	4	5
<i>I wouldn't pretend to like someone just to get that person to do favors for me.</i>	1	2	3	4	5
<i>If I knew that I could never get caught, I would be willing to steal a million dollars.</i>	1	2	3	4	5

<i>I would never accept a bribe, even if it were very large.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
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Please indicate how much you agree or disagree with each statement.

	<i>strongly disagree</i>	<i>disagree</i>	<i>neutral</i>	<i>agree</i>	<i>strongly agree</i>
<i>I'd be tempted to use counterfeit money, if I were sure I could get away with it.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Having a lot of money is not especially important to me.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>I would get a lot of pleasure from owning expensive luxury goods.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>I think that I am entitled to more respect than the average person is.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>I want people to know that I am an important person of high status.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>

Because of their earnings-related compensation structure, CEOs have the incentive to modify information in the reports they provide to shareholders.

What do you think about managers changing company information in reports?

<i>very immoral</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>very moral</i>
<i>not at all praiseworthy</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>very praiseworthy</i>
<i>not at all blameworthy</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>very blameworthy</i>
<i>not at all outrageous</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>very outrageous</i>
<i>not at all acceptable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>very acceptable</i>

CEOs have an opportunity to modify information in the reports they provide to shareholders. Some view such modification as a violation of truthfulness; others regard it as acceptable protection of personal interests.

What do you think about the value truthfulness in such a situation?

Truthfulness is something ...

... that one should not sacrifice, no matter what the (material or other) benefits.

<i>I strongly disagree</i>	1	2	3	4	5	6	7	<i>I strongly agree</i>
----------------------------	---	---	---	---	---	---	---	-------------------------

... for which it is right to make a cost-benefit analysis.

<i>I strongly disagree</i>	1	2	3	4	5	6	7	<i>I strongly agree</i>
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... that cannot be measured in monetary terms.

<i>I strongly disagree</i>	1	2	3	4	5	6	7	<i>I strongly agree</i>
----------------------------	---	---	---	---	---	---	---	-------------------------

... about which one can be flexible if the situation demands it.

<i>I strongly disagree</i>	1	2	3	4	5	6	7	<i>I strongly agree</i>
----------------------------	---	---	---	---	---	---	---	-------------------------

Imagine that you were paired randomly with another person. You do not know the other person and you will not know the person in the future. By your own decision, you distribute points to you and the other person. The same way, the other person is distributing points to you and himself/herself. Every point is valuable. The more points you get, the better for you, and the more points the other person gets, the better for him / her. Here is an example of how the task works:

In this example, if you select A you would get 500 points and the other person would get 100 points; if you choose B, you would get 500 points and the other person 500; and if you choose C would you 550 points and run the other person 300.

<i>(Example)¹</i>	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	500	500	550
<i>Other person receives</i>	100	500	300

Thus, you see your decision influences both the score you achieve and the score for the other person. For each of these nine decision situations click A, B or C, depending on which column you prefer most.

<i>1.</i>	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	480	540	480
<i>Other person receives</i>	80	280	480
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

<i>2.</i>	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	560	500	500
<i>Other person receives</i>	300	500	100
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

<i>3.</i>	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	520	520	580
<i>Other person receives</i>	520	120	320
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

¹ In this example, Option A is the competitive choice, Option B the cooperative choice, and Option C the individualistic choice. Participants are typically categorized as pro-self, when they choose the competitive or individualistic option in 6 or more out of the 9 trials, and are categorized as prosocial, when they choose the cooperative option in at least 6 out of the 9 trials (e.g. van Dijk, De Cremer, and Handgraaf (2004)).

4.	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	500	560	490
<i>Other person receives</i>	100	300	490
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

5.	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	560	500	490
<i>Other person receives</i>	300	500	90
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

6	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	500	500	570
<i>Other person receives</i>	500	100	300
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

7.	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	510	560	510
<i>Other person receives</i>	510	300	110
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

8.	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	550	500	500
<i>Other person receives</i>	300	100	500
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

9.	<i>A</i>	<i>B</i>	<i>C</i>
<i>You receive</i>	480	490	540
<i>Other person receives</i>	100	490	300
<i>Your choice:</i>	<i>A</i>	<i>B</i>	<i>C</i>

Important!

Appointment reminder for the computer lab!

The online questionnaire is almost over now. We thank you for your participation! As previously mentioned, the experiment consists of this online questionnaire and a part in the computer lab, for which you have already registered. Please reserve the date in advance!

Of course, your answers in today's survey as well as your answers in the next session remain anonymous. Only you know your personal code, which you have chosen at the beginning. You will enter this code at the beginning of the session in the computer lab to take part in the experiment.

The payment will be carried out after the session in the computer lab. You will receive an envelope labeled with your code containing your payment. The person giving you the envelope does not know the its content. Thus, complete anonymity is guaranteed.

For questions or comments feel free to contact us.

A.5.2 Instructions of the laboratory part of Experiment 2

Welcome!

This is a study on investment behavior. Your participation will help us learn more about factors that are associated with decision making.

This study will take about 15 minutes. Please take this time. It is very important for us that you complete the tasks carefully and seriously.

In what follows, you should put yourself in the role of a shareholder. As such, you will have to make a series of decisions, just like a real shareholder.

For your complete participation you earn CHF 10 – CHF 15. Total compensation depends on your decisions as well as on the correctly answered interposed questions (that can be answered correctly by reading the instructions carefully).

Your information will be treated confidentially and anonymously.

Anonymity

To ensure your anonymity, please generate your personal identification code.

Your identification code is composed as follows:

- *First letter of the first name of the mother* (Ex: Andrea = A)
- *Second letter of the first name of the father* (Ex: Stefan = t)
- *Month of your own birthday* (Ex: 06/17/1963 = 06)
- *Last two digits of the Legi* (Ex: At0601)

Only you know your personal code. Please note down your code. You will need the code for your compensation.

General Information

Please note the following points:

- *Read the instructions for the individual tasks and questions carefully!*
- *Please answer all questions!*

Please answer openly and honestly! Since your personal perspective alone counts, there are - except for the interposed questions - no right or wrong answers.

Information about your compensation

- In what follows, you will put yourself in the role of a shareholder. The amount of money you receive at the end of the experiment depends on whether you will have been successful with your investment or not. Thus you receive between CHF 10 and CHF 15.
 - In addition, some interposed questions are asked that lead to a discount in compensation in case of a false answer. However, the questions can be answered easily, if you read the instructions carefully. In case of complete participation, you receive CHF 10 in any case.
 - You will receive your compensation at the end of the experiment. You will get more information on that at the end of the experiment.
-

Introduction

Please read the following description of the situation carefully.

Imagine...

You are an investor and think about investing CHF 50'000 in **Firm A** or in **Firm B**. In order to get a picture of each CEO and the company, you are provided with information below.

Firm A and Firm B differ only regarding their publicly announced earnings per share and regarding CEO pay, which depends on earnings per share. The CEO pay consists of a fixed and a variable component. The variable component is a bonus, which depends on the announced earnings per share. You know that a CEO can influence, using legal accounting procedures the earnings per share that are announced to the market.

Firm	Earnings per share expected by the market	Actual earnings per share	Earnings per share announced by the CEO	CEO pay
A	35	Only known to the CEO	31	CHF 1'300'000
B	35	Only known to the CEO	35	CHF 2'200'000

The table shows: Firm B announced higher earnings per share and therefore the CEO of Firm B received a higher CEO pay. If the CEO of Firm A had announced the same earnings per share as CEO B, he would have also received CEO a pay of CHF 2'200'000.

Information

Prior to the actual decisions, you will be asked some interposed questions on the next page. Answering these questions incorrectly will lead to a discount of your compensation and you will need to answer these questions correctly to proceed.

Interposed questions

Can a CEO announce earnings that deviate from the company's actual earnings?

- Yes
- No

The compensation of the CEO is ...

- depending on the announced earnings per share
- regardless of the announced earnings per share

Which CEO has a higher salary?

- CEO of Firm A
- CEO of Firm B

Now we are interested in how you perceive the two CEOs – Firm A vs. Firm B - to differ from your personal point of view.

*To what extent do you rate the **CEO A** as ...*

<i>not credible</i>	-2	-1	0	+1	+2	<i>credible</i>
<i>untrustworthy</i>	-2	-1	0	+1	+2	<i>trustworthy</i>
<i>short time profit-oriented</i>	-2	-1	0	+1	+2	<i>long term profit-oriented</i>
<i>not willing to take financial sacrifices</i>	-2	-1	0	+1	+2	<i>willing to take financial sacrifices</i>

*To what extent do you rate the **CEO B** as ...*

<i>not credible</i>	-2	-1	0	+1	+2	<i>credible</i>
<i>untrustworthy</i>	-2	-1	0	+1	+2	<i>trustworthy</i>
<i>short time profit-oriented</i>	-2	-1	0	+1	+2	<i>long term profit-oriented</i>
<i>not willing to take financial sacrifices</i>	-2	-1	0	+1	+2	<i>willing to take financial sacrifices</i>

Compensation scheme in the experiment

Now you will be informed about the possible returns on investment of the two companies.

The amount you receive at the end of the experiment corresponds to CHF 5 + $1/10'000^{\text{th}}$ of the total returns.

2 examples - You invest CHF 50'000:

- If the investment turns out to be successful, and the claimed future return is 10%, then you will receive a fixed compensation of CHF 50,000 (CHF 5) plus the amount of CHF 5,000 (CHF 0.50), thus CHF 5.5 in total.
- With a claimed future return of 30%, you will receive the fixed compensation of CHF 50,000 (CHF 5) plus the amount of CHF 15,000 (CHF 1.50), thus CHF 6.5 in total.

If the investment turns out to be unsuccessful, you will receive only the investment of CHF 50,000 (CHF 5) back.

In what follows, 4 possible investment situations will be presented to you.

Situation 1

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **40%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 20,000** (or CHF 2.00), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **10%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 5,000** (or CHF 0.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
- I invest in Firm B

Situation 2

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **30%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 15,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **20%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 10,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
- I invest in Firm B

Situation 3

Now you have the opportunity to invest 50'000 CHF either in Firm A or in Firm B.

CEO A claims to increase the firm value by **20%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 10,000** (or CHF 1.00), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **30%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 15,000** (or CHF 1.50), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
- I invest in Firm B

Situation 4

Now you have the opportunity to invest CHF 50'000 either in Firm A or in Firm B.

CEO A claims to increase the firm value by **10%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 5,000** (or CHF 0.50), as well as the investment of CHF 50,000 back (or CHF 5).

CEO B claims to increase the firm value by **40%**. Should the claim prove to be true, you receive - in the case of investment - in the upcoming year **CHF 20,000** (or CHF 2.00), as well as the investment of CHF 50,000 back (or CHF 5).

In which company do you invest your money?

- I invest in Firm A
- I invest in Firm B

CEOs' compensation levels depend on the earnings they report to shareholders. CEOs have an incentive to modify reports to shareholders. What do you think is the CEO of Firm A's opinion on modifying company information in reports?

Please choose the appropriate category for CEO A.

CEO A thinks that this is ...

very immoral	1	2	3	4	5	6	7	very moral
not at all praiseworthy	1	2	3	4	5	6	7	very praiseworthy
not at all blameworthy	1	2	3	4	5	6	7	very blameworthy
not at all outrageous	1	2	3	4	5	6	7	very outrageous
not at all acceptable	1	2	3	4	5	6	7	very acceptable

CEOs' compensation levels depend on the earnings they report to shareholders. What do you think is the CEO of Firm B's opinion on modifying company information in reports?

Please choose the appropriate category for CEO B.

CEO B thinks that this is ...

very immoral	1	2	3	4	5	6	7	very moral
not at all praiseworthy	1	2	3	4	5	6	7	very praiseworthy

<i>not at all blameworthy</i>	1	2	3	4	5	6	7	<i>very blameworthy</i>
<i>not at all outrageous</i>	1	2	3	4	5	6	7	<i>very outrageous</i>
<i>not at all acceptable</i>	1	2	3	4	5	6	7	<i>very acceptable</i>

*CEOs have an opportunity to modify information in the reports they provide to shareholders. Some view such modification as a violation of truthfulness; others regard it as acceptable protection of personal interests. What do you believe does **CEO A** think about the value of truthfulness in such a situation?*

Truthfulness is something ...

... that one should not sacrifice, no matter what the (material or other) benefits.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... for which it is right to make a cost-benefit analysis.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... that cannot be measured in monetary terms.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... about which one can be flexible if the situation demands it.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

*CEOs have an opportunity to modify information in the reports they provide to shareholders. Some view such modification as a violation of truthfulness; others regard it as acceptable protection of personal interests. What do you believe does **CEO B** think about the value of truthfulness in such a situation?*

Truthfulness is something ...

... that one should not sacrifice, no matter what the (material or other) benefits.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... for which it is right to make a cost-benefit analysis.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... that cannot be measured in monetary terms.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

... about which one can be flexible if the situation demands it.

<i>CEO strongly disagrees</i>	1	2	3	4	5	6	7	<i>CEO strongly agrees</i>
-------------------------------	---	---	---	---	---	---	---	----------------------------

Thank you very much for your participation!

You can pick up your compensation. Please take the envelope that is labeled with your personal identification code.

Feel free to contact us for questions and comments.

about ECGI

The European Corporate Governance Institute has been established to improve *corporate governance through fostering independent scientific research and related activities*.

The ECGI will produce and disseminate high quality research while remaining close to the concerns and interests of corporate, financial and public policy makers. It will draw on the expertise of scholars from numerous countries and bring together a critical mass of expertise and interest to bear on this important subject.

The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

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