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Abstract

Two laboratory experiments show that investors perceive a CEO to be more committed to honesty when the CEO resisted, at a personal cost, engaging in earnings management. A one standard deviation higher CEO's perceived commitment to honesty compared to another CEO reduces the relevance, for investment decisions, of differences between the CEOs' claimed future returns by 40%. This interaction effect is prominent among investors with a pro-self orientation. To pro-social investors, their own honesty values and those attributed to the CEO matter directly, not through the returns. Overall, CEO honesty matters to different investors for distinct reasons.

Keywords: Honesty, earnings management, market segmentation, investor preferences, social value orientation, protected values, trust

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Abstract

Two laboratory experiments show that investors perceive a CEO to be more committed to honesty when the CEO resisted, at a personal cost, engaging in earnings management. A one standard deviation higher CEO's perceived commitment to honesty compared to another CEO reduces the relevance, for investment decisions, of differences between the CEOs' claimed future returns by 40%. This interaction effect is prominent among investors with a pro-self orientation. To pro-social investors, their own honesty values and those attributed to the CEO matter directly, not through the returns. Overall, CEO honesty matters to different investors for distinct reasons.

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1 Introduction

Corporate fraud and managerial deception have over the recent decades been pervasive and value-destroying to shareholders and to society at large. Prominent responses to such behaviors have included calls to change the structure of managerial compensation, to strengthen board members and auditors' independence, and in general to increase regulation. In this paper, we focus on the potential role of market discipline in fostering managerial honesty. A prerequisite for this to work is that stock market participants respond to differing (perceived) levels of honesty of managers. This potential response is the subject of this paper.

While prior work by Hong and Kacperczyk (2009) has established that some "norms-oriented" investors avoid "sin stocks" (which consequently have higher excess returns and lower valuations than comparable stocks), we examine how perceived managerial honesty and the characteristics of those who assess managers – in our context, the investors – may affect investment decisions. We ask: Do investors shun firms (perceived to be) run by dishonest managers (that is, "sinful CEOs") and do they instead invest in firms run by managers perceived to be more honest? And how do investor preferences and values affect this choice? Thus, while Akerlof and Shiller (2015) provide a compelling account of the seemingly never-ending *supply* of dishonest managers, our paper is concerned with the role of investor *demand* for managerial honesty.

To answer these research questions, we conduct two laboratory experiments. The general design of both experiments is that participants, cast in the role of investors, are given the choice between investing in one of two companies, which are run by CEO A and CEO B, respectively. Participants have to infer the two managers' preferences for honesty by observing two pieces of

information about the managers: the annual earnings the two managers reported, and the bonuses they earned due to their earnings announcements. Participants are informed that reported earnings can be influenced in a legally acceptable manner, and that CEOs can increase their bonus by announcing higher earnings. Investors also learn what the CEOs assert as future stock returns of their respective companies. Each participant then decides in which of the companies to invest in a series of four choices. Each choice differs in terms of future returns claimed by the two CEOs.

We choose the specific frame of earnings announcements as a situation which (a) exemplifies a potential moral conflict for managers between their personal gains and honest reporting and which (b) offers the opportunity for market participants to draw inferences about managers' commitment to honesty based on their choices. The laboratory experimental method allows us to abstract from other factors that play a confounding role in the reality of corporate reporting and earnings management. (We discuss this frame as well as issues of external validity of laboratory experimental work in more detail in Section 2 below.)

The purpose of our experiments is to investigate three hypotheses: Our first hypothesis, the *honesty inference hypothesis,* investigates what determines investors' perceptions of CEO honesty. It asserts that: Participants use the implicit information regarding past earnings announcements – which makes salient that one of the CEOs could have managed earnings to reach the same announced earnings as the other CEO, but did not do so – as a signal of that manager's stronger commitment to honesty. This hypothesis and the resulting experimental design are motivated by a large literature that has established that some individuals incur intrinsic costs of lying (Gneezy 2005; Gibson, Tanner and Wagner 2013), and that resistance against incentives to misrepresent

facts can serve as a signal of the importance attributed to these lying costs . We build on this literature to construct a measure of the *perceived* CEO preferences for honesty. To measure investors' perceptions of each of the two CEOs' commitment to honesty, we use an established scale of "protected values for truthfulness" (Tanner, Ryf and Hanselmann 2009; Gibson, Tanner and Wagner 2013). The novelty of this research is to use the scale to assess others' (the CEOs') perceived protected values.

Our second hypothesis focuses on the motives behind investment choices. Naturally, we expect investors to select the CEO claiming higher future returns and to invest with the CEO to whom they attribute higher commitment to honesty. Most importantly, the *dishonesty discount hypothesis* posits that investors discount differences in claimed future returns by the two CEOs more the higher the investors' perception of the commitment to honesty of a CEO relative to another CEO. Our setup of linking investment decisions with perceived CEO honesty is akin to field experimental research on the reputation of eBay sellers.[1] However, in order to test the *dishonesty discount hypothesis*, it is critical to observe, as we do, each individual investor's subjective perception of CEO honesty, rather than an aggregate reputation score.

Experiment 1 provides strong evidence for the *honesty inference hypothesis*: Investors on average perceive a CEO to be more committed to honesty when he or she refrains from misreporting earnings of the firm. We also find substantial support for the *dishonesty discount*

[1] For example, in their seminal work, Resnick, Zeckhauser, Swanson and Lockwood (2006) find that buyers pay an 8% premium when buying from a reputable seller with positive feedback. This premium might be due to the fact that reputable eBay sellers are less likely to make bold claims and to send counterfeits (Jin and Kato 2006), that is, they are more likely to be honest. It is not clear ex ante, however, whether insights from product markets would transfer to financial markets.

hypothesis: Investors prefer the CEO with higher claimed future returns and higher attributed protected values for honesty. Most importantly, investors become less sensitive to differences in returns claimed by the two CEOs the more they perceive a CEO to treat honesty as a protected value relative to the other. A one standard deviation increase in a CEO's perceived commitment to honesty compared to another CEO reduces the relevance of differences, between the CEOs, in claimed future returns by about 40%.

Summarizing Experiment 1, perceived values of the CEO matter greatly and investors trade this information off with financial motives. However, a question still stands: does perceived commitment to honesty of the CEO bear the same meaning for different types of investors? This attribute of the CEO may be important to investors for at least two different reasons: First, some investors may assign higher credibility to the figures issued by a CEO whom they perceive as being more committed to honesty. They may therefore respond more strongly to his prognostications regarding future returns. Second, some investors may care about perceived honesty of the CEO because they themselves value honesty. As a consequence, they are then willing to forego returns for investing with the CEO whom they regard as more honest.

To test for such differences in meaning of perceived CEO honesty, we need information about investors' motives and characteristics. We first rely on the concept of Social Value Orientation (SVO), a framework widely used in psychology (e.g., De Bruin and Van Lange (2000)) and more recently also in economics (e.g., Grossman and van der Weele (2016)). It proposes that individuals do not only differ regarding preferences for specific distributions of self-other outcomes but also with regard to inferences they draw from personality information about others (such as

honesty). Specifically, while pro-selfs (who care primarily for their own outcomes) tend to interpret information about the characteristics of others by considering the implications for their own welfare, pro-socials (who care for their own and for others' outcomes) tend to interpret such information from a moral perspective. Furthermore, research has also demonstrated that perceived self-other similarity in honesty is of greater importance for pro-socials than for pro-selfs (Van Lange and Kuhlman 1994). Second, because we expect moral motives to matter more for pro-social investors, we collect data on investors' own protected values for honesty. This is the counterpart to what investors infer about the CEOs.[2]

These data allow us to test the *heterogeneous investors hypothesis*, which holds that pro-self investors care about future returns and thus invest with the CEO perceived as honest due to him announcing more credible returns, while pro-social investors' investment decisions place less emphasis on future returns than on moral considerations.

The results of Experiment 2 support this hypothesis. First, pro-self investors are more sensitive to claimed future returns than pro-social investors. Moreover, the more they perceive a CEO to treat honesty as a protected value compared to the other, the less return-sensitive they become. These investors thus exhibit the behavior observed on average in Experiment 1 most strongly. They optimize their risk-return profile: They seek higher returns as well as lower uncertainty about claimed returns, and they trade off the two factors against each other.

[2] Importantly, social value orientation and protected values for honesty are far from perfectly correlated ($r = .18$), suggesting that they pick up two distinct individual characteristics.

Second, pro-social investors invest with the non-earnings management CEO when they themselves have strong protected values for honesty, or when he is perceived as the more honest CEO. We also observe a complementarity between these investors' assessment of CEO honesty and their own protected values for truthfulness. Finally, returns announced by the CEOs do not interact with either investors' own or the CEO's attributed honesty values.

This research makes three contributions to the existing literature. First, while there is a large literature on the determinants of investors' clientele and segmentation effects,[3] few papers examine how investors' moral, religious and social characteristics shape investment decisions. Hong and Kacperczyk (2009) highlight that certain groups of institutional investors may shun sin stocks. They focus mostly on prosocial investors. Our results instead show that even among the pro-self investors, CEO honesty matters – not directly for moral reasons, but because it helps investors achieve their investment goals. Other research finds that mutual fund managers who make campaign donations to Democrats invest less in companies that are deemed socially irresponsible (Hong and Kostovetsky 2012). In regions with higher Catholic–Protestant ratios, investors exhibit a stronger propensity to hold very risky stocks (Kumar, Page and Spalt 2011), though Reneeboog and Spaenjers (2012) find that Catholic households invest less frequently in the stock market. With our experimental data, we have fine-grained information about individual investors that allows us to examine the interaction of investor characteristics and (perceived) managerial characteristics.

[3] Clienteles may be characterized, for example, by preferences for different investment horizons as in Cella, Ellul and Giannetti (2013), by distinct dividend appetites as in Graham and Kumar (2006), or by heterogeneous beliefs as in Detemple and Murthy (1994) and Basak (2000).

Second, this paper extends the literature on the role of trust and credibility in financial markets. Generalized trust, that is, the trust that market participants place in the integrity of the institutional, legal and political environment of a given country matters greatly for capital markets.[4] We examine the consequences of perceived managerial honesty, rather than the correlates of generalized trust. That investors care strongly about trust in partners in financial interactions (and may be willing to give up investment performance for it) is a central theme of the "money doctors" theory of Gennaioli, Shleifer and Vishny (2015). Familiarity (Huberman 2001), loyalty (Cohen 2009), and long-standing relations (Kostovetsky 2016) can also play an important role in investment decisions. Firms with accused managerial indiscretions experience negative market reactions (Cline, Walkling and Yore 2016), and option backdating can increase firms' perceived information risk (Fotak, Jiang and Lee 2016). When employees perceive top management as trustworthy, firm performance is stronger (Guiso, Sapienza and Zingales 2015).[5] Complementing this literature, our results suggest that the ability of firms to attract capital also depends on the shareholder perceptions of managerial honesty, and they shed light on the interaction of investor characteristics with these perceptions.

[4] For example, Guiso, Sapienza and Zingales (2008) show that stock market participation is lower in countries where there is higher distrust in the legal and institutional environments. Kuhnen and Miu (2017) find that lower socioeconomic status (SES) households have more pessimistic beliefs about stock outcomes. It is conceivable, among other explanations, that these individuals have also had their trust violated. Pevzner, Xie, and Xin (2015) document that higher social trust in a country as well as higher earnings quality on the country level is associated with larger reactions to earnings announcements. Bottazzi, Da Rin and Hellmann (2016) study the role of intercountry trust for venture capital investments.

[5] Furthermore, the work on disclosure quality (e.g., Botosan (1997), Francis, Nanda and Olsson (2008), and Barth, Konchitchki, and Landsman (2013)) by and large finds that corporate transparency decreases the cost of capital.

Third, the findings on the importance of perceived managerial honesty enrich the literature on managerial characteristics. For example, McGuire, Omer and Sharp (2012) show that managers in more religious areas engage in less accounting earnings management, and Benmelech and Frydman (2015) document that military CEOs are less likely to be involved in corporate fraudulent activity. Furthermore, personal and corporate ethics are correlated (Davidson, Dey and Smith 2015; Grieser, Kapadia, Li and Simonov 2016; Griffin, Kruger and Maturana 2016; Liu 2016), and so are various types of unethical corporate behavior (Biggerstaff, Cicero and Puckett 2015). What we add is the insight that investors do in fact infer moral characteristics of managers, namely their commitment to honesty, from managers' prior actions, and that the consequences of that inference depend on the investors' own characteristics.[6]

The structure of the paper is the following: Section 3 discusses external validity of laboratory experiments and the choice of the frame of the experiment. Section 4 describes the experimental design and the results of the first experiment. Section 5 presents the second experiment and its results. Finally, Section 6 discusses the implications of our findings especially in terms of implications that future empirical archival work can test.

[6] Although reduced access to capital is clearly a negative consequence of perceived low integrity of management, other work shows that there may be trade-offs between employee creativity, risk-taking, and integrity. For example, Grieser, Kapadia, Li and Simonov (2016) document that firms where more employees have extramarital affairs (a risky activity) are more innovative and engage in riskier corporate policies (which is beneficial in certain situations).

2 Methodological comments

Before we describe the detailed experimental design in Section 3.1 (for Experiment 1) and in Section 4.2 (for Experiment 2), we here briefly discuss general issues of external validity of laboratory experiments like ours, as well as the choice of the frame, namely investors making decisions in the presence of CEOs having made earnings management choices.

2.1 External validity

Experimental simulation of investor decision-making raises questions of external validity. Do experimental participants understand what they are doing? Is it really meaningful to draw inferences regarding financial markets after watching students engage in an investment task? Fortunately, the existing literature provides some answers to these questions.[7]

Many studies in experimental finance and economics use student subjects to study quite complex trading behavior (Plott and Sunder 1988; Frydman et al. 2014; Asparouhova, Bossaerts, Roy and Zame 2016; Frydman and Camerer 2016). These studies give us confidence that decision-making situations like the one in the present experiment should pose no conceptual problem for participants. We use a concrete setting for the investment task, with concrete background information (regarding the earnings announcements of CEOs). Other studies also put students in the situation of corporate decision-makers (e.g., Gächter and Riedl (2005)).[8] Numerous studies find that the behavior of professional decision makers does not qualitatively differ from that exhibited

[7] See Asparouhova, Bossaerts, Roy and Zame (2016) and Gillette, Noe and Rebello (2008) for additional discussion of some of these issues.

[8] The classic alternative in experimental economics is to choose a completely abstract setting. Even in an abstract experiment, each participant may form a view on which real situations the experimental setup might mirror. There is no consensus in the experimental literature as to which design approach is overall better.

by student subject groups (DeJong, Forsythe and Uecker 1988; Smith, Suchanek and Williams 1988; Dyer, Kagel and Levin 1989; Sade, Schnitzlein and Zender 2006). Some studies do find that professionals behave differently (Alevy, Haigh and List 2007; Kirchler, Lindner and Weitzel 2017), though even for professionals, relatively soft priming interventions affect behavior (Cohn, Fehr and Maréchal 2017). In light of this ambivalent evidence, we do not select participants based on their familiarity with financial decisions. Thus, we are able to test if, for example, it plays a role whether a participant has an economics and finance background (and, therefore, is already familiar with the concept of earnings announcements and earnings management before the experiment) or whether a participant has a psychology background (and, therefore, most likely learns about earnings management in the experiment). As we will document, we find little effect of such characteristics. We did choose to select participants from a culturally fairly homogenous group of students at a Swiss university. It is well-known that experimental participants in Switzerland and the US exhibit far stronger pro-social behavior than experimental participants in Greece and Russia, for example (Herrmann, Thöni and Gächter 2008). There is, however, as we document, also substantial between-subject variation in both honesty values and social value orientation within our sample, which allows us to meaningfully explore the role of these ethical characteristics. Information about such ethical characteristics of investors would be hardly available in archival research.

2.2 Earnings announcements, earnings management, and CEO bonuses

The motivation for using the earnings announcement situation as the setting where investors make inferences about CEO commitment to honesty derives from several papers that highlight the ethical ambivalence of earnings management even if such behavior remains within the boundaries of accepted practices established by accounting standards. Dichev, Graham, Harvey, and Rajgopal (2016) refer to earnings management as "prevalent but still problematic" (p. 27). Healy and Wahlen (1999) state that earnings management occurs when managers "choose reporting methods and estimates that do not accurately reflect their firms' 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). Jensen (2005) explicitly refers to earnings management as an act of "lying" (p. 8). Nonetheless, we emphasize that clearly there are many other explanations that underlie earnings management in reality. Earnings management can be beneficial for short-term existing shareholders; it may be difficult to detect correctly; there are accrual reversals, and earnings per share are not the only key performance indicator used by firms to set their performance-based compensation in practice. It is precisely due to these complications that a laboratory experiment can be useful. Experiments allow us to cleanly identify and isolate the distinct factors influencing behavior by manipulating or measuring specific variables of interest, while keeping others constant. That is, in our experimental setting participants only have information about the choice of one CEO to announce higher earnings, which gives that CEO a higher bonus. We expect that there will be some variation in the extent to which participants attribute a commitment to honesty to the two CEOs. It is, of course,

possible that participants make additional inferences about the CEOs that we do not capture, but those would make it less likely that we find consequences of the specific inferences about the CEOs' perceived honesty that we do measure.

3 Experiment 1

3.1 Method for Experiment 1

A total of 141 students from the University of Zurich participated in this fully anonymous (see below) experiment. Of this sample, 63% were economics and 37% were psychology students; 42% were women; the median age was 23. Although we had more male participants and more economics students than females and psychology students, respectively, we have a sufficient degree of demographic variation that we can meaningfully control for individual differences in our analysis. 96 individuals completed a computer version and 45 a paper-pencil version of this study. Since we found no differences in the main results between the computer vs. paper-pencil versions, we combine these two data sets.

The full instructions are in the Supplementary Appendix. The instructions informed participants that they would be in the situation of an investor who has to make several decisions to invest with one of two companies. They were also informed that they would be paid at the end of the experiment. Participants received a fixed amount of CHF 10 (≈ US$ 10) for their participation

and a variable amount up to CHF 5, depending on their choices in the decision tasks and the success of their investment, implying that the stakes are 1/2 of the fixed compensation for the (short) task.[9]

Participants were then provided with some information about the two companies, which were described to be identical, except that CEO of firm A and CEO of firm B reported different earnings per share (EPS) and thus received different remunerations. More specifically, participants were provided with Table 1 and additional instructions, which stated the following (the original description was in German):

"*Firm A and Firm B differ only in terms of their publicly announced earnings per share and the performance-based compensation of each CEO. 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.*

Table 1: Company and CEO description [not labeled as a Table for participants]

Firm	Earnings per share expected by the market	True 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 higher pay. If the CEO of Firm A had announced the same earnings as CEO B, he would have also earned CHF 2'200'000."

[9] Several studies show that the levels of payments received by participants have no major effects on their behavior if the subjects are paid proportionately to the opportunity cost of their time; see, Davis and Holt (1992) for a survey.

Dichev, Graham, Harvey, and Rajgopal (2016) find that public company CFOs believe that about 10 cents of every dollar in earnings is typically misrepresented for companies engaging in within-GAAP earnings management. Private companies' CFOs believe that the extent of misrepresentation is even higher. We chose the difference in announced earnings to roughly correspond to these quantities. We limited the difference between the CEOs to one salient observable dimension of managerial behavior in order to most cleanly identify the influence of perceived CEO commitment to honesty on investor actions. In particular, the instructions make it clear that the CEOs do not differ in their competencies.

Participants then had to respond to several test questions to ensure that they understood the task of the experiment. They could not proceed until all questions were answered correctly.

Then, in order to verify whether the two CEOs were perceived to be different, participants were also asked to indicate on bipolar scales (from -2 to +2) to which extent they judged CEO A and CEO B as *short-term* vs. *long-term oriented* and *willing to make financial sacrifices* vs. *not willing to make financial sacrifices*. We also included an item on perceived trustworthiness (*trustworthy* vs. *not trustworthy).*

Participants were then presented with four investment choices (in randomized order), which varied in terms of claimed future returns by the CEOs. We limited investor choices to investing with either A or B (rather than offering them a continuum) to most clearly highlight the fact that investing with one entails a lost opportunity of investing with the other. In two choice situations, CEO B announced a higher future return than CEO A, and in the other two choice situations CEO A announced a higher future return than CEO B (see Table 2). The amount presented to participants

in parentheses was the amount that they could receive from each investment choice if the predicted increase in shareholder value materialized. The participants also learned that if the investment turned out to be unsuccessful, they would only receive their investment back, but no additional return. The variable *ΔReturn* captures 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%.

The four investment choices were presented sequentially on separate pages. An example of such a choice situation follows:

*"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 this prove to be the case, 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 this prove to be the case, 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?"

Table 2: Overview of the four different investment choices
[not shown as a table to participants]

Choice	Company	Claimed returns in %	Return difference (CEO A–CEO B) in %: *ΔReturn*
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	

We then assessed, before the impression of the CEOs would fade, the extent to which investors believed each CEO to be committed to honesty.[10] For this, we draw on the concept of protected values for truthfulness, using the measure developed and validated by Tanner, Ryf and Hanselmann (2009) and applied in Gibson, Tanner, and Wagner (2013). The protected values for truthfulness scale we use in the main analysis aggregates two distinct but related subscales. One subscale (five items) captures more affective reactions to (real or anticipated) violations of honesty (see also Tetlock, Kristel, Elson, Green, and Lerner (2000)). The other subscale (four items) captures more the cognitive notion of an individual's unwillingness to consider trade-offs of honesty based on cost-benefit analyses (see also Baron and Spranca (1997)). Prior studies have tested the scales for their psychometric qualities and revealed that this protected values measure reflects strong moral stances and core beliefs (Tanner, Ryf and Hanselmann 2009). It correlates positively with moral identity (Aquino and Reed 2002), ethical idealism (Forsyth 1980), and deontology and intuitionism (Witte and Doll 1995). Critically for this study, individuals scoring high on the protected values scale respond less to economic incentives to lie (Gibson, Tanner and Wagner 2013). In addition, 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.

In this first experiment, we were only interested in how participants *perceived* CEO A's and CEO B's respective commitment to honesty as measured by the protected values scale.

[10] One caveat of our experimental setup could be that participants' perceptions of the two CEOs' commitment to honesty might not only depend upon the CEOs' earnings announcements but also on their investment choices. Evidence from an additional survey, reported in Section 4.2.4, suggests that this was not the case.

Specifically, participants were asked what they thought the CEO A's (CEO B's) opinions were regarding managing the earnings (first subscale consisting of five items): *very immoral* to *very moral*, *not at all praiseworthy* to *very praiseworthy*, *not at all blameworthy* to *very blameworthy*, *not at all outrageous* to *very outrageous, not at all acceptable* to *very acceptable*). In addition, participants were asked what they thought CEO A's (CEO B's) opinions about the value of honesty (second subscale consisting of four items) were: Specifically, participants were asked to which degree they thought that CEO agrees with four statements ranging from *CEO strongly disagrees* to *CEO strongly agrees: Truthfulness is something that one should not sacrifice, no matter what the (material or other) benefits; truthfulness is something for which it is right to make a cost-benefit analysis; truthfulness is something that cannot be measured in monetary terms; truthfulness is something about which one can be flexible if the situation demands it*). All items were rated on 7-point scales (details regarding the two sets of questions are in the instructions in the Supplementary Appendix). The average of all responses was used as an index of Perceived $PV_{honesty}$ (for each CEO), that is, Perceived $PV_{honesty}$ CEO A and Perceived $PV_{honesty}$ CEO B. The scales have high internal consistency, as assessed by Cronbach's Alphas ($\alpha_{CeoA} = .93$, $\alpha_{CeoB} = .90$).[11] Δ*CEO_PVHon* then is the difference in perceived commitment to honesty between CEO A and CEO B (Perceived $PV_{honesty}$ CEO A - Perceived $PV_{honesty}$ CEO B).

At the end, participants were debriefed and paid. The relationship between investment and payments was that the claimed future return was effectively delivered by the honest CEO (i.e.,

[11] Cronbach's Alpha is a measure of the reliability and the internal consistency of an instrument. The measure ranges from 0 to 1 and will generally increase when the correlations between the items increase.

CEO A), and the payout was made accordingly. The future returns claimed by the dishonest CEO did not come through, and participants received zero variable payment when they invested in his company.[12] To guarantee anonymity and minimize the activation of impression management tendencies, participants chose an own code at the beginning of the experiment (consisting of 2 letters and 4 digits). Based on this code, another person of the research team (not the experimenter), staying in another room, prepared an envelope containing the money. Participants received the sealed envelope from the experimenter when indicating their personal code.

3.2 Results of Experiment 1

3.2.1 Perceived differences between the CEOs

The *honesty inference hypothesis* holds that participants use the implicit information from the past earnings announcements as signals of the two managers' commitment to honesty. Therefore, we examine whether participants perceive the CEO who did not engage in earnings management and thus sacrificed his individual bonus (CEO A) differently than the CEO who managed earnings (CEO B). The results in Table 3 support the hypothesis: The CEO who managed earnings to increase his personal bonus is perceived as less committed to honesty.

[12] For example, if CEO A claimed 10% and CEO B claimed 30% as a future return, individuals investing in A received 10% of 50,000 / 10,000 = CHF 0.5, while individuals investing in B received nothing. Thus, the maximum of CHF 5 was reached when they invested with the honest CEO across all choice situations. It is possible that some participants would have made their choices systematically in favor of CEO B thinking that they would earn more since they were told that this CEO managed the earnings within legal limits. However, if that had been the case, we would have observed a skewed pattern in favor of CEO B in the results. This turned out not to be the case.

In addition, CEO B is also perceived as less trustworthy, more short-term oriented, and less willing to make financial sacrifices. We caution that only perceived honesty (which is the key variable in what follows) derives from a multi-dimensional, previously validated scale. We use these other variables for robustness checks.

It is interesting to observe from the standard deviations of $PV_{honesty}$ for both CEOs that perceptions differ widely even though the participants display quite a similar cultural background. Thus, there is no uniform interpretation of earnings management, as presented in this experiment, as a violation of honesty principles. This suggests that the variation in these perceptions may help explain variation in investment behavior. Results available upon request show that there were no systematic CEO perception differences across the participants with respect to their other categorizations (participants' gender, academic major, and age).

Table 3: Differences in perceived CEO characteristics

This table presents means and standard deviations (StD) of perceived CEO A and CEO B characteristics (all measured on 7-point scales) as well as t-tests for differences in these variables in Experiment 1 (N= 141). *** indicates significance at the 1% level.

Perceived CEO characteristics	Mean CEO A	StD CEO A	Mean CEO B	StD CEO B	t-test for differences
PVHonesty	4.46	1.31	3.31	1.03	$t(140) = 6.53$***
Trustworthiness	3.79	0.99	2.78	0.98	$t(140) = 7.09$***
Long-term orientation	3.94	1.07	2.43	1.01	$t(140) = 9.86$***
Willingness to make financial sacrifices	3.58	1.18	2.49	1.11	$t(140) = 6.45$***

3.2.2 Descriptive statistics and correlations of main variables of interest

Table 4 presents the descriptive statistics for the three individual-level variables of interest in the analysis that follows. 61% of participants choose to invest with CEO A, the CEO who had

announced the lower earnings. We define *ΔCEO_PVHon* as the difference in perceived commitment to honesty between CEO A and CEO B. *ΔCEO_Trustworthy* is similarly defined for perceived trustworthiness. *ΔCEO_PVHon* and *ΔCEO_Trustworthy* are standardized to mean zero and standard deviation of one. Table 4 shows the considerable range of these variables.

Table 4: Summary statistics for Experiment 1

This table depicts summary statistics for the main variables of Experiment 1 (N = 141). *Invest in A* is the total number of investors' choices for the company managed by CEO A. *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). *ΔCEO_Trustworthy* is the difference in trustworthiness between CEO A and CEO B (Perceived Trustworthiness CEO A – Perceived Trustworthiness CEO B). *ΔCEO_PVHon* and *ΔCEO_Trustworthy* are standardized to mean zero and standard deviation of one.

Variable	Mean	Median	StD	Min	Max
Invest in A	0.61	1.00	0.49	0.00	1.00
ΔCEO_PVHon	0.00	0.04	1.00	-2.20	2.33
ΔCEO_Trustworthy	0.00	-0.01	1.00	-2.96	1.76

Correlations are shown in Table 5. Not surprisingly, a positive return claimed by CEO A (*ΔReturn*) goes along with higher investments with CEO A (*Invest in A*). Investment with CEO A correlates also with a positive relative assessment of this CEO in terms of $PV_{honesty}$ (*ΔCEO_PVHon*) and trustworthiness (*ΔCEO_Trustworthy*). *ΔCEO_Trustworthy* highly correlates with *ΔCEO_PVHon*, though in principle both capture conceptually different aspects of perceived CEO characteristics. Accordingly, we orthogonalize these two variables in all regressions when we include both of them.

Table 5: Correlation matrix for Experiment 1

This table presents Spearman correlations above the diagonal and Pearson correlations below. Data are from Experiment 1. * indicates significance at the 5% level.

	Invest in A	*ΔReturn*	*ΔCEO_PVHon*	*ΔCEO_Trust worthy*	*Age*	*Female*	*Economics*
Invest in A	1.	0.25*	0.30*	0.34*	0.01	0.02	-0.07
ΔReturn	0.25*	1	0.00	0.00	0.00	0.00	0.00
ΔCEO_PVHon	0.29*	0.00	1	0.72*	0.12*	-0.03	-0.04
ΔCEO_Trustworthy	0.35*	0.00	0.76*	1	0.11*	-0.08*	-0.10*
Age	0.01	0.00	0.13*	-0.01	1	-0.10*	0.12*
Female	0.02	0.00	-0.06	-0.08*	0.12*	1	-0.34*
Economics	-0.07	0.00	-0.01	-0.09*	-0.03	-0.34*	1

3.2.3 Investment decisions

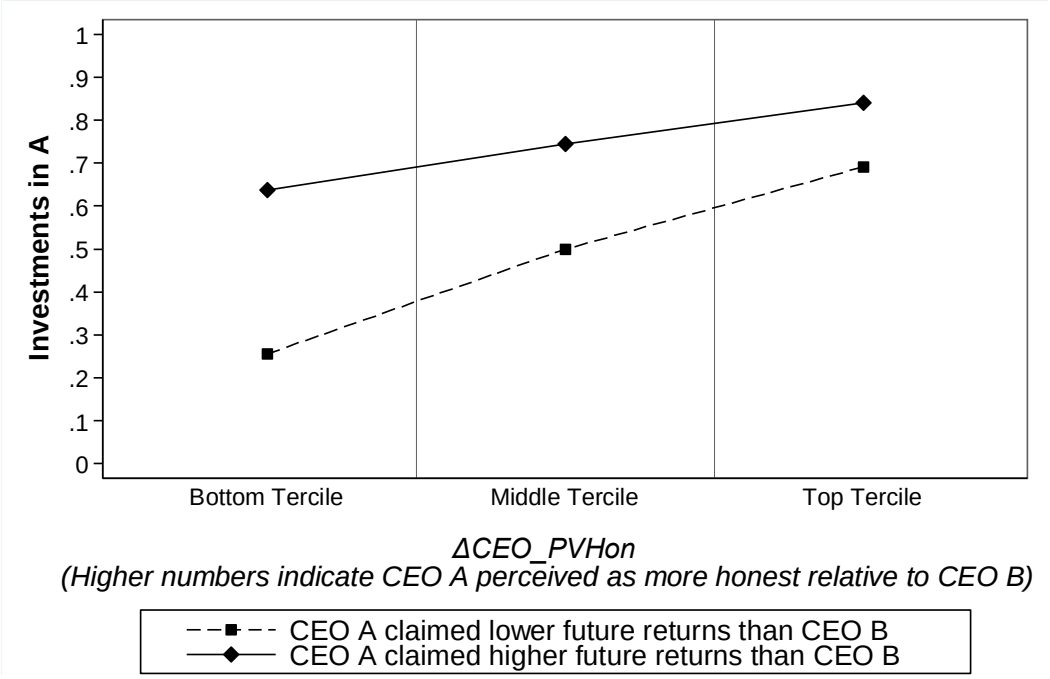
Figure 1 displays investors' choices in favor of CEO A as a function of *ΔCEO_PVHon* and differences in claimed future returns (*ΔReturn)*. For presentation purposes, we pool the two positive and the two negative return differences, thus forming one category where CEO A claimed higher future returns than CEO B and one category where the opposite holds. We consider the returns differences groups separately in the regression analysis below. Three main results can be gleaned from the figure: First, when CEO A claims higher returns, more investors choose to invest with CEO A. Second, the percentage of investors choosing CEO A increases the more CEO A is seen as committed to honesty, relative to CEO B. These two results were also present in the correlation analysis above.

Third, the two lines converge going from left to right in the graph. That is, those investors who believe that CEO A is strongly committed to honesty relative to CEO B make their decision less dependent on the claimed returns. Conversely, those investors who believe that CEO A is only

weakly committed to honesty are more sensitive to the claimed returns. These results support the *dishonesty discount hypothesis.*

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 $PV_{honesty}$ 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 decisions with CEO A claiming lower future returns than CEO B (dashed line). We categorize investors in terms of *ΔCEO_PVHon* terciles.



To test whether these results also survive controlling for various other factors, we estimate logit regressions. Table 6 summarizes the results of our regression models, the investment in CEO A being the dependent variable. We control for participants' *Age*, Gender (*Female)*, and academic major (*Economics*) in all regressions. Controlling for these backgrounds can be important if there

is systematic variation in how individuals of certain age, gender or training make inferences regarding traits of the CEOs (including about traits which we did not ask participants about). We rarely find significant effects of these demographic variables, though economics students tend to be less likely to invest with CEO A.

Column (1) shows that investors react to differences in claimed future returns between the two CEOs such that they prefer to invest with CEO A when he or she claimed higher future returns than CEO B and vice versa. The marginal effects imply that an increase of the returns difference in favor of CEO A by 10 percentage points (the difference between the choice situations) increases the probability of investing with that CEO by about 5%. Column (2) shows the positive direct effect for the second main variable of interest, CEO $PV_{honesty}$ (*ΔCEO_PVHon*). Thus, investors tend to invest with the CEO whom they perceive to be more committed to honesty relative to the other CEO. 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 CEO A's perceived commitment to honesty relative to CEO B's perceived commitment to honesty has about the same quantitative effect on the attractiveness of CEO A as an increase in claimed returns of CEO A relative to CEO B of 26 percentage points (=0.714/0.027).

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. *ΔReturn* 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. As *ΔCEO_Trustworthy* and *ΔCEO_PVHon* correlate, these two variables were orthogonalized. Participants' *Age*, Gender (*Female)*, and academic major (*Economics*) were included as control variables. 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)
ΔReturn	0.024***		0.027***	0.028***	0.027***	0.028***	0.028***
	(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔCEO_PVHon		0.662***	0.714***	0.742***	0.737***	0.736***	0.726***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ΔCEO_Trustworthy				0.481***	0.504***	0.497***	0.512***
				(0.00)	(0.00)	(0.00)	(0.00)
*ΔReturn * ΔCEO_PVHon*					-0.011*		-0.010*
					(0.08)		(0.10)
*ΔReturn * ΔCEO_Trustworthy*						0.005	0.004
						(0.31)	(0.39)
Age	0.008	-0.019	-0.021	0.004	0.005	0.004	0.005
	(0.72)	(0.41)	(0.41)	(0.89)	(0.84)	(0.88)	(0.83)
Female	-0.033	0.097	0.104	0.197	0.191	0.197	0.192
	(0.87)	(0.62)	(0.62)	(0.33)	(0.35)	(0.33)	(0.35)
Economics	-0.348	-0.299	-0.322	-0.176	-0.178	-0.175	-0.176
	(0.11)	(0.13)	(0.13)	(0.39)	(0.39)	(0.40)	(0.39)
Constant	0.531	1.102*	1.189*	0.498	0.437	0.502	0.444
	(0.36)	(0.07)	(0.07)	(0.44)	(0.49)	(0.42)	(0.48)
Observations	564	564	564	564	564	564	564
Pseudo R-squared	0.053	0.071	0.125	0.156	0.162	0.158	0.164
Pseudo Log Likelihood	-356.8	-349.9	-329.7	-317.9	-315.5	-317.3	-315.1
Base Log Likelihood	-376.7	-376.7	-376.7	-376.7	-376.7	-376.7	-376.7

One potential concern could be that while CEO $PV_{honesty}$ and CEO trustworthiness are conceptually different CEO characteristics, the effect of the former variable on investment behavior could be suppressed by the latter. Accordingly, we add the trustworthiness measure (*ΔCEO_Trustworthy*) as a control variable in Column (4). We observe a positive direct effect for *ΔCEO_Trustworthy* on investments in CEO A, meaning that when investors perceive CEO A to be

more trustworthy than CEO B, they tend to invest with CEO A. However, *ΔCEO_PVHon* remains significant and of almost identical impact in the regression as before.

In Column (5) we test the interaction between the two main variables of interest. The *dishonesty discount hypothesis* holds that as a CEO's perceived commitment to honesty increases relative to his peer, the relative difference in their claimed returns plays a diminishing role in motivating investor choices. The significant negative interaction term supports this hypothesis. The more investors perceive CEO A to be more committed to honesty than CEO B, the smaller the effect of claimed future returns on investments in CEO A. A one standard deviation increase in *ΔCEO_PVHon* reduces the relevance of returns of CEO A relative to CEO B by about 40% (0.011/0.027), a sizable effect.

Overall, we derive three main conclusions from the results of Experiment 1. First, the CEO who did not engage in earnings management in the past is perceived to be more committed to honesty than the CEO who manages earnings. Second, participants' investment choices depend upon differences between the two CEOs not only in claimed future returns, but also in perceived commitment to honesty and in perceived trustworthiness. Finally, holding another CEO's claimed returns fixed, investors become less sensitive towards returns of a CEO the more they perceive this CEO to treat honesty as a protected value relative to the other.

3.2.4 Additional results and robustness

We test whether differences concerning other characteristics than differences in perceived CEO commitment to honesty of the CEO could affect investment decisions as well as investors' return

sensitivity. As mentioned above, we find that our results hold controlling for *ΔCEO_Trustworthy*. Column (6) additionally shows that claimed future return and trustworthiness do not interact. Moreover, Column (7) shows that all effects of the main predictors (*ΔCEO_PVHon* and *ΔReturn*) and their interaction still hold when we add the interaction between *ΔCEO_Trustworthy* and *ΔReturn* into the regression.

In the Supplementary Appendix, we also test if differences in long-term orientation and willingness to make financial sacrifices between the two CEOs affect our findings. *ΔCEO_PVHon* correlates significantly with relative long-term orientation (long-term orientation CEO A minus long-term orientation CEO B) and relative willingness to make financial sacrifices (willingness to make financial sacrifices CEO A minus willingness to make financial sacrifices CEO B) (r = .24, and r = .20, respectively, ps < .05). However, we neither find a main effect of these two variables on investment choices, nor an interaction with *ΔReturn*. Including these two variables and their interactions with *ΔReturn* does not affect any of the relationships of our main variables of interest (see Table A1 in the Appendix).

In our set-up, participants are first given the information on CEOs' earnings announcements, then participants make the investment choices, and then we poll their perception of the two CEOs' commitment to honesty. Accordingly, 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 did an additional online survey with students in a corporate finance class at the University of Zurich. Participants (N = 51, of whom 17 were female) were given the

exact same description of the CEOs' earnings announcements as in the main experiment (Table 1 and the surrounding text), 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 participants' perception of CEO $PV_{honesty}$. CEO A is perceived to be more committed to honesty (m = 4.71) than CEO B (m = 3.53) also in this sample, $t(50) = 4.47$, $p < .01$. A Kolmogorv-Smirnov test does not reject the hypothesis that the distributions of experiment participants and non-participants are identical ($p = 0.67$). This suggests 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.

Furthermore, we test whether the control variables age, gender, and academic major affect participants' sensitivity towards differences in claimed future returns. None of the variables interact significantly with *ΔReturn*, though there is some tendency for economics students to care more about returns. Finally, results available on request show that including these interactions into the regression does not affect the significance of the interaction term between *ΔCEO_PVHon* and *ΔReturn*.

4 Experiment 2

4.1 Motivation for Experiment 2

The results from Experiment 1 suggest that investors care about perceived managerial honesty and are willing to invest with the CEO claiming lower returns if their assessment of that CEO's commitment to honesty is sufficiently high. There are two interpretations of this result.

On the one hand, some investors may assign higher credibility to this CEO's announcements regarding the future returns. Thus, even when CEO A claims lower future returns than CEO B, these investors may not have felt that they are bearing an opportunity cost by investing with CEO A, because they anyways did not regard CEO B's predictions as credible enough.

On the other hand, it may be that some investors are, in fact, willing to pay a price for investing with the CEO they regard as more honest. Thus, in the extreme, some investors may have expected both CEOs to exactly deliver those returns they claimed for the future, but these investors were on purpose willing to give up higher returns to keep investing with CEO A. This possibility can in particular arise if some of the investors themselves hold honesty as a protected value and at the same time care about rewarding the non-earnings management CEO or a CEO who shares their values by investing with him (and, conversely, "punishing" the earnings-management CEO by withholding funds from him).

To examine which of these two mechanisms drive behavior (and for whom), we, therefore, collect data on investors' social value orientation as well own as on their own protected values for honesty. These measures of investor characteristics allow us to test the *heterogeneous investors hypothesis.* This hypothesis holds that pro-self investors care about future returns and thus invest

with the CEO perceived as honest due to him announcing more credible returns, while pro-social investors place less emphasis on future returns than on moral considerations. We expect pro-self investors to be return-sensitive, but also to discount differences in claimed returns by taking into account differences in perceived CEO honesty, as a more honest CEO can be expected to deliver what he has claimed to deliver. Pro-social investors' tendency to invest in CEO A should be positively associated with their own protected values, and with their relative assessment of that CEO's honesty. Return differences between the two CEOs should be less important to them.

4.2 Method for Experiment 2

A total of 164 students were recruited from the University of Zurich to participate in this study, which consists of two parts, about one week apart: a survey (online) and an experimental part (laboratory). None of the students had participated in Experiment 1. Fourteen respondents were excluded due to either extremely long process time required to finish the online survey (z-transformed process time > 2 standard deviations above 0; 2 people), very young age responses (< 19 years old; 7 people), or because identification codes did not match between the two tasks (see below, 5 people). This yielded a final sample size of 150 participants (though in the main analysis we use 132 because 18 could not be classified according to the social value orientation criterion, see below). Of this sample, 60% were psychology students, 37% economics and 3% students of other disciplines; 68% were women. The median age was 21.[13]

[13] We highlight for the reader that the composition of this sample is different than the one observed in Experiment 1. Results for Experiment 1 had shown that field of studies is not significantly associated with investment choices. In Experiment 2 as well, we find that demographics do not explain investment choices.

Participants were expected to complete two separate tasks (a survey and a decision-making task as investors) in order to get paid. Participants received a fixed amount of CHF 10 for their participation and a variable amount up to CHF 5, depending on their responses in the decision making task. The participation fee and the outcome-based remuneration mirrored the ones used in Experiment 1.

Survey: As the first task, participants completed an online questionnaire that was designed to assess demographic characteristics and a variety of personal attitudes and values. Amongst other items, we assessed each participant's own protected values for truthfulness (*Investor_PVHon*) and social value orientation (*Investor_SVO*). To compute $PV_{honesty}$, we again used the Gibson, Tanner, and Wagner (2013) survey, as in Experiment 1. The average of the responses across all items was used to form an index of own $PV_{honesty}$, yielding a high Cronbach's Alpha ($\alpha = .85$). Social value orientation (*Investor_SVO*) is a common concept in psychology and is also used in economics (e.g., in Grossman and van der Weele, (2016)). It was measured by means of the commonly applied and rigorously tested Decomposed Game Measure (see for details, Van Lange, Otten, de Bruin, and Joireman (1997)). The task consists of nine trials. In each of them participants are asked to choose one of three combinations of outcomes for themselves and for an (anonymous) other. In line with extant studies (e.g. van Dijk, De Cremer, and Handgraaf (2004)), we categorized participants as pro-social when they chose the cooperative alternative in at least six trials (out of nine). Participants were categorized as pro-self when they chose the individualistic or competitive option in six or

more trials (out of nine). With this approach, 18 participants could not be categorized into one of the two investors' segments.[14]

Again, to guarantee anonymity, participants chose their own identification code, which was also valid for the second task. The first and second tasks were at least one week apart. Both the time lag and the diversity of questionnaires that the participants had to fill out were introduced to reduce suspicion about the purpose of our study and concerns that they would provide answers that were self-consistent when performing the investment task.

Investment Task: This second task and its procedure were identical to the investment task used in Experiment 1. Upon arriving in the laboratory, participants were informed that they would be in the situation of an investor who has to make several decisions to invest with one of two companies. They were then provided with information about the CEO A and CEO B, announcing different earnings per share. Again, participants could only continue with the task when they had correctly responded to some manipulation check questions as in Experiment 1. Afterwards, they were provided with several items to examine whether both CEOs were perceived to be different, like in Experiment 1. In addition to the same bipolar items used in the previous experiment (such as *short-term* vs. *long-term oriented* etc.), we also asked to which extent CEO A and CEO B were seen as *credible* vs. *not credible* (from -2 to +2). We pooled the trustworthiness and credibility items into one single scale in Experiment 2.[15]

[14] In an additional analysis, participants are categorized as pro-self or pro-social based on a median split. Our results hold for that approach, too. See Section 4.2.3.
[15] The results also hold for the single item trustworthiness measure (see the robustness check section).

Then, participants were again presented with the four investment choices (in a randomized order), which varied in terms of claimed future returns by both CEOs. Then, we again collected data on Perceived $PV_{honesty}$ CEO A and Perceived $PV_{honesty}$ CEO B. At the end, participants were debriefed and paid when indicating their personal identification code. Anonymity was ensured using the same procedure as in Experiment 1.

4.3 Results of Experiment 2

4.3.1 Descriptive statistics and correlations of main variables of interest

Table 7 presents the descriptive statistics for the variables of interest in Experiment 2, distinguishing between pro-self and pro-social investors.[16] As can be seen, both subsamples share a preference to invest with CEO A. Interestingly, they do not differ significantly in how they perceive CEO A relative to CEO B in terms of his commitment to honesty. The difference in perceived trustworthiness is also not statistically significant, though the analysis suggests that pro-social investors tend to infer somewhat stronger differences among the CEOs along that dimension. Pro-selfs and pro-socials differ somewhat in the extent to which they treat honesty as protected value.

Table 7: Summary Statistics for Experiment 2

The table presents the descriptive statistics for Experiment 2. *Invest in A* is the total number of investors' choices for the company managed by CEO A. *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). *ΔCEO_Trustworthy* is the difference in trustworthiness between CEO A and CEO B (Trustworthiness CEO A – trustworthiness CEO B). *ΔCEO_PVHon* and *ΔCEO_Trustworthy* are standardized. *Investor_PVHon* is the Investor's PVhonesty. The descriptive statistics are

[16] In the Appendix (Table A2), we provide correlation statistics for the pro-self and pro-social investors in Experiment 2.

presented for the pro-self and pro-social investors separately. We categorize participants as pro-social (N = 60) (pro-self, N = 72) when they chose the cooperative (self-maximizing,) alternative in six out of the nine social value orientation (*Investor_SVO*) items. *Investor_SVO* captures investors' preferences regarding how to allocate resources between them and another person. For details, see the text. We include t-statistics for tests of differences in the variables between pro-self and pro-social investors. *** 1% significance; ** 5% significance, * 10% significance.

Group:	**Pro-selfs**		**Pro-socials**		
	Mean	StD	Mean	StD	t-test for differences in means
Invest in A	0.60	0.49	0.60	0.49	$t(526) = -0.11$
ΔCEO_PVHon	-0.04	0.92	0.17	0.97	$t(130) = -1.27$
ΔCEO_Trustworthy	-0.07	1.06	0.20	0.92	$t(130) = -1.55$
Investor_PVHon	-0.13	1.07	0.19	0.86	$t(130) = -1.94$*

However, SVO and PVown are far from perfectly correlated (r = .18). The cross-tabulation in Table 8 reveals that investors fall in any of the combinations of high or low in *Investor_PVHon* (median split) and *Investor_SVO* (pro-self vs. pro-social). These findings are consistent with *Investor_PVHon* and *Investor_SVO* seeking to measure conceptually distinct traits of the participants.

Table 8: Cross-tabulation of individuals according to *Investor_PVHon* and *Investor_SVO*

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

	Investor_SVO		
Investor_PVHon	**Pro-self**	**Pro-social**	Total
Below median	34	29	63
Above median	26	43	69
Total	60	72	132

4.3.2 Investment decisions

While we do not see differences between pro-self and pro-social investors in terms of their perception of the CEO's commitment to honesty, the *heterogeneous investors hypothesis* suggests that perceptions of the CEO have a different meaning to the two groups of investors, and therefore can affect their behavior through different channels. We again estimate logit regression models, where the investment in CEO A is the dependent variable. Table 9 summarizes regressions for the pro-self investors (Columns 1 – 3), for the pro-social investors (Columns 4 – 6), and two regressions for the full sample (Columns 7 and 8). We control for differences in perceived trustworthiness (*ΔCEO_Trustworthy*). Moreover, all regressions include the participants' *Age*, gender (*Female)*, , and academic major (*Economics*). The coefficients for the demographic controls are not shown to conserve space.

Visually, the most striking fact about Table 9 is that in Columns (1) to (3), the variables including *Δreturn* are all significant, indicating that economic considerations play an independent role and interact with non-financial motives, which jointly suggests that pro-self investors use non-financial motives to analyze the claimed returns. By contrast, in Columns (4) to (6), the variables including *Δreturn* are all insignificant, showing that for pro-social investors economic considerations play much less of a role, both directly and in conjunction with ethical aspects.

Table 9: 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 pro-self and investors with a pro-social orientation. All variables were measured like in Experiment 1, with the exception of the *ΔCEO_Trustworthy* measure, which is a two-item measure (trustworthiness and credibility) in Experiment 2 (see methods section). *Investor_PVHon* is the investors' own commitment to honesty. *ΔCEO_Trustworthy* and *ΔCEO_PVHon* are orthogonalized. *Investor_SVO* in column 7 is a dichotomous variable with pro-self = 0 and pro-social = 1. The coefficients on the demographic variables (age, gender, program of studies) 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)
***Investor*_SVO**	**Pro-self orientation**			**Pro-social orientation**			**Full sample**	**Full sample**
ΔReturn	0.020**	0.019**	0.019**	0.006	0.007	0.007	0.019**	0.019**
	(0.02)	(0.04)	(0.04)	(0.41)	(0.40)	(0.39)	(0.04)	(0.04)
ΔCEO_PVHon	0.713***	0.720***	0.711***	0.322***	0.305***	0.305***	0.686***	0.724***
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
*ΔReturn * ΔCEO_PVHon*	-0.019*	-0.018*	-0.021**	0.003	0.004	0.004	-0.019*	-0.018*
	(0.07)	(0.09)	(0.05)	(0.67)	(0.64)	(0.62)	(0.07)	(0.08)
Investor_PVHon	-0.079	-0.080	-0.072	0.553***	0.582***	0.581***	0.235**	-0.034
	(0.60)	(0.57)	(0.60)	(0.00)	(0.00)	(0.00)	(0.03)	(0.79)
*Investor_PVHon * ΔCEO_PVHon*		-0.040	-0.060		0.170*	0.168*	0.094	-0.035
		(0.78)	(0.67)		(0.06)	(0.08)	(0.25)	(0.81)
*Investor_PVHon * ΔReturn*		-0.018**	-0.017*		-0.001	-0.001	-0.010	-0.018**
		(0.04)	(0.05)		(0.95)	(0.90)	(0.14)	(0.05)
*Investor_PVHon * ΔReturn *ΔCEO_PVHon*			0.012			-0.002	0.002	0.002
			(0.25)			(0.76)	(0.82)	(0.73)
Investor_SVO							-0.190	-0.227
							(0.30)	(0.20)
*Investor_SVO * ΔCEO_PVHon*							-0.346*	-0.418**
							(0.07)	(0.02)
*Investor_SVO * ΔReturn*							-0.011	-0.013
							(0.35)	(0.30)
*Investor_SVO*ΔReturn* ΔCEO_PVHon*							0.023*	0.021*
							(0.08)	(0.09)
*Investor_PVHon * Investor_SVO*								0.586***
								(0.00)
*Investor_PVHon * Investor_SVO * ΔReturn*								0.018
								(0.18)
*Investor_PVHon * Investor_SVO*ΔCEO_PVHon*								0.212
								(0.22)
ΔCEO_Trustworthy	0.313**	0.324**	0.337**	0.333***	0.351***	0.351***	0.294***	0.348***
	(0.04)	(0.04)	(0.04)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.271	0.296	0.385	1.270**	1.210**	1.210**	1.333***	1.176**
	(0.83)	(0.81)	(0.75)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	240	240	240	288	288	288	528	528
Pseudo R-squared	0.135	0.157	0.163	0.0790	0.0832	0.0836	0.0836	0.0836
Pseudo Log Likelihood	-140.1	-136.5	-135.6	-178.4	-177.6	-177.6	-320.1	-314.8
Base Log Likelihood	-161.9	-161.9	-161.9	-193.7	-193.7	-193.7	-355.7	-355.7

Studying the results in more detail, we see that Column (1) echoes the findings we obtain in Experiment 1. Specifically, first, the regression shows a positive direct effect for *ΔReturn*: Pro-self investors are indeed sensitive towards differences in claimed future returns between the CEOs. Pro-self investors are also sensitive towards differences in $PV_{honesty}$ between the two CEOs, as shown by the significant direct effect for *ΔCEO_PVHon*. They tend to invest more heavily with CEO A, the more they perceive the CEO to be committed to honesty relative to CEO B. Finally, we replicate the negative interaction term between *ΔCEO_PVHon* and *ΔReturn* as observed in experiment 1. For pro-self investors, the positive main effect of claimed future returns on investment behavior is strengthened when they perceive this CEO as more committed to honesty, but is weakened when they perceive the CEO as deceptive. Column (1) also shows that we do not find a significant main effect of *Investor_PVHon* on investment in CEO A for pro-self investors, thus the choices made by these investors do not depend directly on their own preferences for truthfulness.

In Column (2) we include the interaction between *Investor_PVHon* and *ΔReturn* in the regression. The interaction term *ΔCEO_PVHon* and *ΔReturn* remains significant. Interestingly, the interaction between *Investor_PVHon* and *ΔReturn* enters negatively, suggesting that even pro-self investors become less sensitive to claimed future returns the more they themselves treat honesty as a protected value. It is conceivable that these high *Investor_PVHon* investors wish to signal (perhaps to themselves, in the spirit of self-signaling models such as Bénabou and Tirole (2004, 2006)) that they uphold their protected values for honesty in contrast to other less ethically

inclined pro-self investors. Column (3) shows that the investor's own protected values and those attributed to the CEOs do not interact.

Overall, these results support what the *heterogeneous investors hypothesis* suggests for pro-self investors, namely, that they become less return sensitive the more they perceive a CEO to treat honesty as a protected value compared to the other.

Columns (4) to (6) turn to the pro-social investors, for whom the *heterogeneous investors hypothesis* predicts that returns play a much less important role while non-financial (moral) motives matter directly. The positive, but small and statistically insignificant main effect for *ΔReturn* suggests, as expected, that pro-social investors are generally only weakly sensitive towards differences in predicted returns. However, as predicted by the hypothesis, non-financial motives matter. First, column (4) shows a significant main effect for *Investor_PVHon, i*.e. pro-social investors tend to invest more in the non-earnings management CEO the more they themselves value honesty. Second, the main effect for *ΔCEO_PVHon* in Column (4) of Table 9 means that pro-social investors tend to invest more heavily with CEO A, the more they perceive this CEO to be committed to honesty relative to CEO B.

Indeed, the importance of non-financial factors tends to come in a specific form: The regression results in Columns (5) and (6) show that for pro-social investors assortative matching plays a role. We observe a significantly positive interaction between *Investor_PVHon* and *ΔCEO_PVHon* on investments with CEO A for pro-social investors. Thus, pro-social investors follow a simple heuristic of investing with CEO A the more their own protected values overlap with the values attributed to this CEO.

Thus, while *ΔCEO_PVHon* matters for the pro-selfs' assessment of returns, for the pro-socials it moderates the impact of their own values. One way to interpret this outcome is that the tendency of those pro-socials with high *Investor_PVHon* to invest with CEO A might partially stem from pro-socially oriented investors wanting to "punish" the dishonest CEO by withholding funds from him.[17] An additional interpretation of the findings is that pro-socials use the perceived managerial honesty as a cue of who is more congruent with their own (either high or low) commitment to honesty (and thereby to be preferred as 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.

Overall, these results provide evidence for what the *heterogeneous investors hypothesis* suggests for pro-social investors. These investors are insensitive to returns, but base their investment judgments directly on moral motives.

Columns (7) and (8) present the results for both pro-self and pro-social 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 (pro-self = 0, pro-

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

social = 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 pro-self investors. 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 pro-social investors. Finally, the significant three-way interaction between *Investor_SVO*, *ΔReturn*, and *ΔCEO_PVHon* underpins the main finding for Experiment 2. Pro-self investors trade off return differences with differences in CEO $PV_{honesty}$. Pro-social investors are generally less sensitive to claimed future returns (though the regressions show that the difference is not statistically significant) and base their investment choices directly on moral motives.

Figures 2 and 3 illustrate these results. Figure 2 Panel A displays pro-self investors' choices in favor of CEO A as a function of *ΔCEO_PVHon* for when CEO A claims higher returns than CEO B and vice versa. Similarly, as in Figure 1 for Experiment 1, the two lines converge as CEO A is being increasingly perceived as treating honesty as a protected value. That is, pro-self investors become less sensitive towards returns the more they perceive a CEO to treat honesty as a protected value compared to the other. Figure 3 Panel A shows that the more a pro-self investor 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' investments in CEO A.

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 $PV_{honesty}$ between CEO A and CEO B (*ΔCEO_PVHon*) separately for pro-self (Panel A) and pro-social investors (Panel B). Participants made in total four investment choices between the company managed by CEO A and the company managed by CEO B. In two choice situations, CEO A claimed higher future returns than CEO B (solid line), and in two choice situations CEO A claimed lower future returns than CEO B (dashed line). We categorize investors into *ΔCEO_PVHon* terciles.

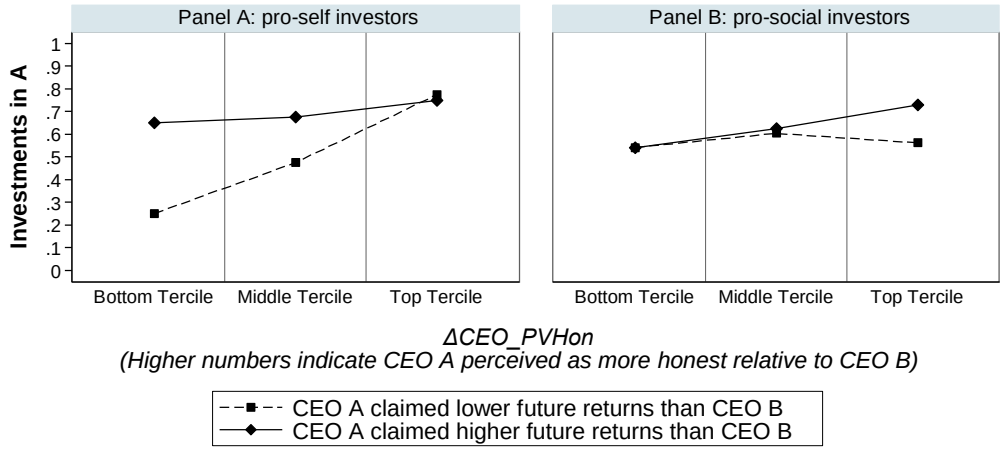
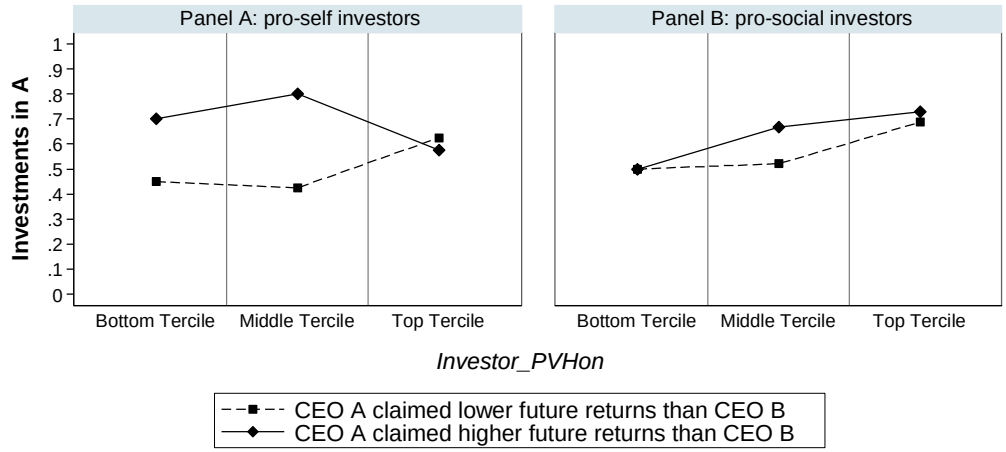


Figure 3: Choices in favor of CEO A and Investor Protected Values for Honesty

These graphs plot the share of investors' choices for CEO A depending on investors' own $PV_{honesty}$ (*Investor_PVHon*) separately for pro-self (Panel A) and pro-social investors (Panel B). Participants made in total four investment choices between the company managed by CEO A and the company managed by CEO B. In two choice situations, CEO A claimed higher future returns than CEO B (solid line), and in two choice situations CEO A claimed lower future returns than CEO B (dashed line). We categorize investors into *Investor_PVHon* terciles.



For the pro-social investors, we find a completely different picture regarding the influence of the main variables of interest on investment behavior. Panel B in Figure 2 demonstrates that differences in returns between the two CEOs do not noticeably affect the pro-socials' investment choices. The figure depicts the small, but significant, main effect of *ΔCEO_PVHon* on investment choices. However, Panel B in Figure 3 shows that pro-social investors invest more heavily with CEO A the more they themselves are committed to honesty, whereas they prefer to invest with CEO B when they themselves have a low *Investor_PVHon.*

To sum up, the results of Experiment 2 support the heterogeneous investors hypothesis. They suggest that both pro-self and pro-social investors are sensitive towards CEO commitment to honesty, but for different reasons. Pro-self investors aim to maximize their economic benefit, by investing with the CEO who claims higher returns relative to the other. They are therefore sensitive towards CEO commitment to honesty because this informs them about the likelihood that the promised returns will be achieved. By contrast, pro-social investors derive utility from following non-monetary, moral motives directly, investing with the non-earnings management CEO when they themselves have a strong commitment to honesty. These results expand the "price of sin" intuition in Hong and Kacperczyk (2009): We find that even for the pro-self investors managerial honesty is important – not as a goal in itself, but because it allows them to better achieve their goal of maximizing returns with limited (CEO deception) risk.

4.3.3 Additional results and robustness

In the main analysis, we categorize participants as pro-social 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, De Cremer and Handgraaf 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 pro-self and participants below or on the median were categorized as pro-social. Our main results continue to hold (see Table A3 in the Appendix).

Generally, we use the exact same experimental setup as in Experiment 1. However, in Experiment 2, we measure trustworthiness with two items, i.e. we also asked participants to which extent CEO A (CEO B) was seen as *credible* vs. *not credible.* For our main analysis (Table 10) we pool this item with the trustworthiness item. To make sure that this difference does not affect our findings and to increase comparability with Experiment1, we also run the regression in Experiment 2 with the single item measure for trustworthiness. We find that the results also hold for the single trustworthiness item measure.

Finally, in Experiment 2, we also collected data on HEXACO. The HEXACO Personality Inventory (HEXACO-PI) captures six personality factors, i.e. Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O) (Ashton and Lee 2009). We measured investors' Honesty-Humility in this research. In tables available on request, we find that our results hold even when controlling for

this HEXACO (H) sub-scale. As expected, HEXACO (H) itself is, among the pro-social investors, positively related to a preference for investing with the honest CEO.

5 Concluding remarks and implications

Hirshleifer (2015) calls for a move from behavioral finance to "*social finance*", where social finance "*includes the study of how social norms, moral attitudes, religions and ideologies affect financial behaviors*" (p. 159). This paper contributes towards this goal. Specifically, we conduct two laboratory experiments to shed light on how investor perception of managerial honesty as well as investors' own characteristics affect investment choices. Investors, on average, perceive a CEO to be more committed to honesty when he or she has previously resisted engaging in earnings management at a personal cost. Perceived managerial honesty in turn matters for investment choices, attracting several investor clienteles: Pro-social investors are more likely to invest with the CEO who did not manage earnings when they themselves have high protected values for honesty and when they attribute strong protected values for honesty to the CEO. Pro-self investors invest with that CEO because they value managerial honesty as a signal of the credibility of the CEOs' claimed returns. These results demonstrate that (a) (perceived) honesty of the CEO matters in investment choices, (b) investors' personal values also play a pivotal role in these choices and (c) that investors segment into stocks based on the joint effects of these two driving forces.

This work implies testable implications for future empirical work as well as potential normative overall financial market and prudential implications. In addition to experimental work,

archival empirical research can also be fruitfully conducted, exploring, for example, whether managerial honesty translates into a positive impact on the firms' ability to raise equity and debt, to benefit from a liquid secondary security trading activity and ultimately from a lower cost of capital. Work cited in the introduction points in this direction. The key novel point implied by the present paper is that resistance against economic incentives for misbehavior is indicative of strong commitment to good behavior. In real-world data, incentives of CEOs to misbehave vary (in the cross-section and over time), and this can be exploited. That is, if a CEO did not do something (legal but) potentially unethical even though he had an opportunity and incentives to do so, then this suggests that the CEO is committed to integrity, and the market should respond to such resistance. This is a more specific prediction than just testing whether the market reacts negatively to, for example, the revelation of option backdating, or fraudulent activity. For example, to the extent that the market perceives discretionary accruals as an indication of the deception component of earnings management, *not* managing earnings this way should particularly increase the credibility of a firm's future announcements when incentives to manage earnings would have been higher. Eugster and Wagner (2017) offer first evidence in support of this prediction.

From an overall financial market perspective, the findings suggest that managerial honesty may be an important factor that facilitates stock market participation for a variety of investor types. From a prudential perspective, observing that broad clienteles of investors' elect to invest into firms managed by honest CEOs, though for different reasons, suggests that, after all, market discipline may contribute towards curbing managerial unethical behaviors. Before firm conclusions can be drawn in this respect, however, further research is necessary.

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6 Supplementary Appendix

6.1 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. *ΔReturn* 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 (*Sacrifice*) and differences in perceived CEO long-term orientation (*LTO*) with differences in claimed future returns (*ΔReturn*). All other variables remain exactly as in Table 6. P-values, based on standard errors clustered at the individual level, are reported in parentheses. *** 1% significance; ** 5% significance, * 10% significance.

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

Table A2: Correlation Matrix in Experiment 2

The tables in Panel A and Panel B present the Spearman above the diagonal and the Pearson correlations below for the subsamples pro-self and pro-social investors separately. * indicate significance at the 5% level.

Panel A Investors with a pro-self orientation

	Invest in A	*ΔReturn*	*ΔCEO_PVHon*	*ΔCEO_Trustworthy*	*Age*	*Female*	*Economics*	*Investor_ PVHon*
Invest in A	1.00	0.21*	0.29*	0.27*	-0.04	0.03	-0.05	0.03
ΔReturn	0.21*	1.00	0.00	0.00	0.00	0.00	0.00	0.00
ΔCEO_PVHon	0.29*	0.00	1.00	0.65*	-0.03	0.04	-0.11	0.13*
ΔCEO_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*
Investor_PVHon	0.05	0.00	0.11	0.30*	0.27*	0.21*	-0.24*	1.00

Panel B Investors with a pro-social orientation

	Invest in A	*ΔReturn*	*ΔCEO_PVHon*	*ΔCEO_Trustworthy*	*Age*	*Female*	*Economics*	*Investor_ PVHon*
Invest in A	1.00	0.07	0.14*	0.22*	-0.07	-0.08	-0.09	0.19*
ΔReturn	0.07	1.00	0.00	0.00	0.00	0.00	0.00	0.00
ΔCEO_PVHon	0.16*	0.00	1.00	0.48*	-0.01	-0.14*	-0.24*	0.12
ΔCEO_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*
Investor_PVHon	0.21*	0.00	0.22*	0.11	-0.03	0.18*	-0.42*	1.00

Table A3: 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 pro-self or pro-social 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 pro-self and participants below or on the median were categorized as pro-social. All other variables remain exactly as in Table 10 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 Investor_SVO	**Pro-self orientation**			**Pro-social orientation**		
ΔReturn	0.016**	0.014*	0.014*	0.008	0.008	0.008
	(0.04)	(0.08)	(0.08)	(0.28)	(0.27)	(0.25)
ΔCEO_PVHon	0.656***	0.668***	0.672***	0.320***	0.314***	0.313***
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
*ΔReturn **	-0.013*	-0.011	-0.012	0.004	0.004	0.004
ΔCEO_PVHon	(0.10)	(0.15)	(0.13)	(0.61)	(0.57)	(0.55)
Investor_PVHon	-0.085	-0.033	-0.034	0.504***	0.515***	0.514***
	(0.52)	(0.78)	(0.76)	(0.00)	(0.00)	(0.00)
*Investor_PVHon **		0.081	0.053		0.101	0.098
ΔCEO_PVHon		(0.34)	(0.57)		(0.26)	(0.29)
*Investor_PVHon **		-0.014*	-0.011		-0.003	-0.003
ΔReturn		(0.06)	(0.15)		(0.76)	(0.71)
*Investor_PVHon **			0.008			-0.003
ΔReturn ΔCEO_PVHon*			(0.27)			(0.64)
ΔCEO_Trustworthy	0.291**	0.273*	0.280*	0.295***	0.308***	0.308***
	(0.04)	(0.07)	(0.06)	(0.00)	(0.00)	(0.00)
Age	0.041	0.040	0.041	-0.031*	-0.031*	-0.031*
	(0.10)	(0.11)	(0.11)	(0.09)	(0.09)	(0.09)
Female	-0.131	-0.156	-0.148	-0.484*	-0.460*	-0.461*
	(0.61)	(0.52)	(0.54)	(0.07)	(0.08)	(0.08)
Economics	-0.035	-0.003	-0.009	-0.077	-0.065	-0.065
	(0.88)	(0.99)	(0.97)	(0.77)	(0.81)	(0.80)
Constant	-0.372	-0.354	-0.371	1.341**	1.311**	1.312**
	(0.55)	(0.56)	(0.54)	(0.01)	(0.01)	(0.01)
Observations	288	288	288	312	312	312
Pseudo R-squared	0.120	0.136	0.141	0.0807	0.0826	0.0834
Pseudo Log Likelihood	-172.5	-169.2	-168.3	-193.8	-193.4	-193.3
Base Log Likelihood	-195.9	-195.9	-195.9	-210.8	-210.8	-210.8

6.2 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 in terms of their publicly announced earnings per share and the performance-based compensation of each CEO. 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	True 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 higher pay. If the CEO of Firm A had announced the same earnings as CEO B, he would have also earned 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 true 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 ...

	-2	-1	0	+1	+2	
untrustworthy						*trustworthy*
short time profit-oriented						*long term profit-oriented*
not willing to make financial sacrifices						*willing to make financial sacrifices*

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

	-2	-1	0	+1	+2	
untrustworthy						*trustworthy*
short time profit-oriented						*long term profit-oriented*
not willing to take financial sacrifices						*willing to take financial sacrifices*

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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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								*very moral*
not at all praiseworthy								*very praiseworthy*
not at all blameworthy								*very blameworthy*
not at all outrageous								*very outrageous*
not at all acceptable								*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								*very moral*
not at all praiseworthy								*very praiseworthy*
not at all blameworthy								*very blameworthy*
not at all outrageous								*very outrageous*
not at all acceptable								*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!

6.3 Instructions for Experiment 2

6.3.1 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:*

After entering your personal information, let us go on to 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.

	strongly disagree	*disagree*	*neutral*	*agree*	*strongly agree*
I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.					
If I want something from someone, I will laugh at that person's worst jokes.					
I wouldn't pretend to like someone just to get that person to do favors for me.					
If I knew that I could never get caught, I would be willing to steal a million dollars.					
I would never accept a bribe, even if it were very large.					

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

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

Because of their profit-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?

very immoral								*very moral*
not at all praiseworthy								*very praiseworthy*
not at all blameworthy								*very blameworthy*
not at all outrageous								*very outrageous*
not at all acceptable								*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 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 strongly disagree								*I strongly agree*

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

I strongly disagree								*I strongly agree*

… that cannot be measured in monetary terms.

I strongly disagree								*I strongly agree*

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

I strongly disagree								*I strongly agree*

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.

(Example)[18]	*A*	*B*	*C*
You receive	*500*	*500*	*550*
Other person receives	*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.

1.	*A*	*B*	*C*
You receive	*480*	*540*	*480*
Other person receives	*80*	*280*	*480*
A	*B*		*C*

[18] 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 pro-social, when they choose the cooperative option in at least 6 out of the 9 trials (e.g. van Dijk, De Cremer, and Handgraaf (2004)).

2.	*A*	*B*	*C*
You receive	*560*	*500*	*500*
Other person receives	*300*	*500*	*100*
A	*B*		*C*

3.	*A*	*B*	*C*
You receive	*520*	*520*	*580*
Other person receives	*520*	*120*	*320*
A	*B*		*C*

4.	*A*	*B*	*C*
You receive	*500*	*560*	*490*
Other person receives	*100*	*300*	*490*
A	*B*		*C*

5.	*A*	*B*	*C*
You receive	*560*	*500*	*490*
Other person receives	*300*	*500*	*90*
A	*B*		*C*

6	*A*	*B*	*C*
You receive	*500*	*500*	*570*
Other person receives	*500*	*100*	*300*
A	*B*		*C*

7.	*A*	*B*	*C*
You receive	*510*	*560*	*510*
Other person receives	*510*	*300*	*110*
A	*B*		*C*

8.	*A*	*B*	*C*
You receive	*550*	*500*	*500*
Other person receives	*300*	*100*	*500*
A	*B*		*C*

9.	*A*	*B*	*C*
You receive	*480*	*490*	*540*
Other person receives	*100*	*490*	*300*
A	*B*		*C*

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.

6.3.2 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 in terms of their publicly announced earnings per share and the performance-based compensation of each CEO. 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	True 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 higher pay. If the CEO of Firm A had announced the same earnings as CEO B, he would have also earned 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 a profit, known different from the actual profit?

- *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 ...*

not credible						*credible*
untrustworthy						*trustworthy*
short time profit-oriented						*long term profit-oriented*
not willing to take financial sacrifices						*willing to take financial sacrifices*

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

not credible						*credible*
untrustworthy						*trustworthy*
short time profit-oriented						*long term profit-oriented*
not willing to take financial sacrifices						*willing to take financial sacrifices*

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 + 1/10'000th 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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 this prove to be the case, 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								*very moral*
not at all praiseworthy								*very praiseworthy*
not at all blameworthy								*very blameworthy*
not at all outrageous								*very outrageous*
not at all acceptable								*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								*very moral*
not at all praiseworthy								*very praiseworthy*
not at all blameworthy								*very blameworthy*
not at all outrageous								*very outrageous*
not at all acceptable								*very acceptable*

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*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*

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*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!

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.

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