Trust and Delegated Investing: A Money Doctors Experiment

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ABSTRACT

Trust is a key ingredient for economic transactions. Gennaioli, Shleifer, and Vishny (2015) propose that trust is particularly important for delegated investing. In short, the more trust investors place in a money manager, the more confident they are to accept and hence benefit from risky investments. This paper tests the key mechanism of this theory in a laboratory experiment. Participants first play a trust game. Participants then act as investors who have to make two separate, delegated investment decisions. Using the amount returned in the trust game as measure of trustworthiness, we show that investors are willing to take substantially more risk when a money manager is more trustworthy, even if this manager charges higher costs. The willingness to take more risk and pay higher costs is increasing in the difference in trustworthiness. Depending on the specification of the difference in trustworthiness between a third and a fifth of the difference in trustworthiness translates into the share invested risky.

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1 Introduction

Trust is a vital aspect of economic transactions (Arrow, 1972). General trust has been linked to overall economic performance (La Porta, Lopez-de Silanes, Shleifer, & Vishny, 1997; Knack & Keefer, 1997), and in particular to stock market participation (Guiso, Sapienza, & Zingales, 2004, 2008). In the absence of trust, financial markets need to be more regulated: Trust leaves agents satisfied with (inevitably) incomplete contracts, so that when trust is lost, laws and regulation must provide additional safety for agents (see e.g., Carlin, Dorobantu, & Viswanathan, 2009; Sapienza & Zingales, 2012). Opinions in the *Financial Times* (*"Trustworthiness is key for asset managers"*)[1] and in the blog of the *CFA Institute* (*"How to Win Investors' Trust"*)[2] also support the notion that trust is vital for the finance industry.

Trust, however, is a complex concept and there seem to be many channels through which it may affect human decision making (for a start, see Ben-Ner & Halldorsson, 2010). In a recent theory, Gennaioli, Shleifer, and Vishny (2015) transfer the importance of trust to delegated investing. They propose a model which explains management fees as a trust premium voluntarily paid by investors. All else equal, more trustworthy money managers[3] can set higher fees for generic services. In essence, the value that money managers provide is to hold their clients' hands and make them confident to accept risks. Hence, the channel through which trust is assumed to affect delegated investing in Gennaioli et al. (2015) is that of lowered risk aversion.

To our knowledge, we are the first to test this theory – and in particular the risk aversion channel – in an experiment. Our experiment consists of two parts: First, participants play a trust game in the spirit of Berg, Dickhaut, and McCabe (1995). This game allows measuring *trusting* and *trustworthy* behavior (Camerer, 2003; Fehr, 2009; Johnson & Mislin, 2011). We exploit variation in the amounts participants return in this game: Higher returned amounts are

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[1] https://www.ft.com/content/fc597c2e-8711-11e2-bde6-00144feabdc0.

[2] https://blogs.cfainstitute.org/investor/2014/10/21/how-to-win-investors-trust.

[3] The idea of Gennaioli et al. (2015) applies to various financial intermediaries, such as "families of mutual funds, registered investment advisors, financial planners, brokers, funds of funds, bank trust departments, and others who give investors confidence to take risks." (p. 92)

considered a signal of higher trustworthiness. Second, participants make investment decisions in two treatments. In both treatments, participants are matched to two other participants, who represent money managers. Participants (i.e., investors) then have to invest separately through both money managers. We induce different levels of money manager trustworthiness by providing the amount each money manager returned in the trust game. In particular, we provide the level of money manager trustworthiness because it is the *investor* who needs to place differential trust in money managers: Regardless of an investor's unconditional level of trust, she will place more trust in a money manager who appears more trustworthy. In the first treatment participants have to specify how risky they want to invest with either money manager. These money managers either charge high or low costs. In the second treatment participants have to specify the costs they are willing to bear from one money manager in order to obtain the same investment as with the other money manager.

We find that investors take substantially more risk when they invest through a more trustworthy money manager than when they invest through a less trustworthy money manager. On average, the share invested into a risky asset is approximately 16% larger for a more trustworthy money manager than for a less trustworthy manager. This finding is striking, since more trustworthy money managers are exogenously assigned twice the costs (1.5%) of less trustworthy money managers (0.75%). Nonetheless, investors benefit from increased risk taking in terms of expected portfolio return. The larger the difference in managers' trustworthiness, the larger the difference of the share invested risky. A third of the absolute difference in trustworthiness translates directly into a difference of the share invested risky. Results from the second treatment show that investors are also willing to bear substantially higher costs for investing with more trustworthy managers. On average, investors indicate acceptable costs of 1.95% for a more trustworthy money manager when the less trustworthy money manager charges only 0.75%. On average, investors accept costs that are 2.6 times higher or almost a third of the return of the risky investment. Effect sizes from both the first and the second treatment are increasing in the difference in trustworthiness between money managers.

Furthermore, our results also shed some light on the complexity of trust. One aspect of trust that is generally accepted is that trust is to some extent "calculative" of reciprocity: Individuals form expectations of trustworthiness, i.e., whether it is more or less likely that their trust will be exploited at their expense (Gurun, Stoffman, & Yonker, 2018). While trust is not purely a special form of risk-taking (Eckel & Wilson, 2004; Fehr, 2009; Houser, Schunk, & Winter, 2010), the "calculative" aspect of trust can also be observed in our experiment. In the experiment, asset characteristics are independent of trustworthiness and are fully known to participants, yet a substantial proportion of participants state that they believe (more) trustworthy money managers to deliver higher expected returns. Such beliefs are wrong (hence labeled *Biased Beliefs*) given the experimental setting, but they are consistent with the aforementioned aspect of trust. If investors chose to invest with a more trustworthy money manager, the lower expected probability of being exploited would in turn imply a higher expected portfolio return relative to a less trustworthy money manager.[4] In line with this reasoning, we find somewhat higher sensitivity to differences in trustworthiness for participants with biased beliefs.

A second aspect that is often glued to trust is social preferences such as altruism or warm-glow (Fehr, 2009; Ben-Ner & Halldorsson, 2010; Sapienza, Toldra-Simats, & Zingales, 2013). In the experiment, investors cannot monetarily reward money managers by investing more of their endowment into the risky asset. This is contrary to common practice, but allows for a cleaner test of the risk aversion channel proposed by Gennaioli et al. (2015). Nonetheless, a substantial proportion of participants state that they invested more risky with trustworthy money managers because they wanted to reward them (hence labeled *Reward Motivation*).[5] We view reward motivation as a plausible channel as well: Generally, individuals want to signal their appreciation for received kindness. In line with this reasoning, we find somewhat higher sensitivity to differences in trustworthiness for participants who indicate reward motivation.

Crucially, however, channels other than lowered risk aversion are not *necessary* for trust to influence delegated investing. Our main findings do not vanish once we condition on those

[4] The Madoff Ponzi-scheme, as investigated by Gurun et al. (2018), is an extreme example of calculative trust: Apparently, many investors trusted Madoff with their investments, and assigned a low probability to the event that the money manager Madoff would "walk away" with the investors' money. The uncovered Ponzi-scheme showed that in today's financial markets there still exists the possibility of having one's trust exploited.

[5] Money managers also do not observe the investors' choices.

participants for whom the only plausible trust channel is that modelled by Gennaioli et al. (2015). Thus, this study demonstrates that the risk aversion channel can be sufficient for trust to benefit investors.

Empirical support for the Money Doctor theory comes from several studies. Kostovetsky (2016) uses announced changes in the ownership of fund management companies as exogenous shock to an existing trust relationship. The study finds that, after controlling for fund characteristics, approximately 7% of assets are withdrawn in the 12-month period following the announcement. Because retail investors and investors in funds with higher expense ratios (i.e., those funds able to extract higher trust premia) are most responsive to ownership changes, Kostovetsky interprets his findings as evidence for the Money Doctor theory. Dorn and Weber (2017) find that retail investors who had delegated all their equity investments to fund managers – money doctors – before the financial crisis, were almost twice as likely to exit the stock market during the crisis than their peers who invested into individual stocks. This finding is consistent with the view of Gennaioli et al. (2015) that those investors relying on a trust relationship to invest into the stock market will be particularly affected by a negative shock to this trust relationship. Linnainmaa, Melzer, Previtero, and Foerster (2018) proxy trustworthiness by the length of a client-advisor relationship. They show that, consistent with the Money Doctor hypothesis, investors with a longer-established client-advisor relationship are more willing to take financial risks. Gurun et al. (2018) exploit the collapse of the Madoff Ponzi-scheme as exogenous shock to trust in delegated investing. They show that investors withdraw funds, as they adjust their beliefs about financial fraud upwards following the collapse of the Ponzi-scheme. However, money managers who are able to form trust relationships with clients, as in Gennaioli et al. (2015), are shown to be less vulnerable to fund withdrawals.

Nonetheless, these empirical studies only reveal the direction in which trust affects mutual fund flows and investor behavior, respectively. Neither empirical setting does allow for a clean quantification of trust or a measurement of the trust-cost-relationship. The assumption that investors balance trust against management fees, however, is critical to the Money Doctors theory. Testing the theory in a controlled experiment allows for both a quantification of trust and a measurement of the trust-cost-relationship. Thus, we contribute to the understanding of the mechanism of the Money Doctors theory.

2 Money Doctors Theory

In the following, we briefly sketch the model of Gennaioli et al. (2015) that we seek to test. Gennaioli et al. (2015) think of trust as an ingredient that reduces the perceived riskiness of an investment. In particular, investing through a more trusted money manager is more effective in reducing perceived riskiness of financial investments than is investing through a less trusted money manager. Placing this idea in an economic context, investors' risk aversion is lower when they invest with a trusted money manager. Importantly, money managers offer identical investment services and investors have correct beliefs about the investment services provided by money managers.[6] Hence, trustworthiness is *not* mistaken for skill. Formally, assuming a standard quadratic utility function, this translates to

$$u_{i,j}(c) = \mathbb{E}(c) - \frac{a_{i,j}}{2} Var(c), \tag{1}$$

where c is the investor's future consumption. Parameter $a_{i,j} \geq 1$ represents investor i's "anxiety" of investing with money manager j. To keep the model simple, Gennaioli et al. (2015) assume that investors do not invest risky themselves, which implies $a_{i,i} = \infty$. From the investor's utility function it becomes evident that placing more trust into a money manager, thereby reducing $a_{i,j}$, decreases the costs of bearing investment risk. However, this also means that more trusted money managers are able to exploit their relative advantage over their less trusted counterparts. Ceteris paribus, more trustworthy money managers can charge higher fees without losing investors to competitors. From the investor's point of view, the investment problem becomes one of weighting the benefits of trust – less perceived risk and thus greater participation in risky investments – against the costs of management fees. Given a riskless asset with return R_f (in which investors can invest on their own) and a risky asset

[6] In the latter part of their paper, Gennaioli et al. (2015) also examine implications of their model if investors hold biased beliefs. Our paper, however, focuses on the part of their paper in which investors hold correct beliefs.

with excess return over the riskless asset of R and variance σ^2,[7] investor i's expected utility of investing with manager j is thus equal to

$$U_{i,j}(x_{i,j}, f_j) \equiv R_f + x_{i,j}(R - f_j) - \frac{a_{i,j}}{2} x_{i,j}^2 \sigma^2, \tag{2}$$

where the share of wealth invested into the risky asset is denoted by $x_{i,j}$. Solving for the optimal portfolio composition thus yields

$$\hat{x}_{i,j} = \frac{(R - f_j)}{a_{i,j}\sigma^2}. \tag{3}$$

Therefore, the investor will invest a larger proportion of his portfolio into the risky asset when she invests with a more trusted money manager. Substituting $\hat{x}_{i,j}$ back gives the utility obtained from investing optimally:

$$U_{i,j}(\hat{x}_{i,j}, f_j) = R_f + \frac{(R - f_j)^2}{2a_{i,j}\sigma^2}. \tag{4}$$

Investors still have to choose among money managers. The simplest case is the choice between two money managers (referred to as manager A and manager B), as outlined in the original model. In the simplest case, the investor will prefer manager A over manager B provided that $U(\hat{x}_{i,A}, f_A) \geq U(\hat{x}_{i,B}, f_B)$. Rearranging the relationship yields a central prediction of the theory:

$$\frac{a_{i,B}}{a_{i,A}} \geq \frac{(R - f_B)^2}{(R - f_A)^2}. \tag{5}$$

Hence, the investor will choose manager A provided that the benefit of trustworthiness overcompensates for the disutility stemming from higher management fees. The investor's choice thus depends on the difference, but not the level, in trustworthiness of money managers.

[7] Gennaioli et al. (2015) denote variance as σ (p.95).

3 Experimental Design and Hypotheses

The experiment consists of two distinct parts. In the first part, we aim to collect a measure of trustworthiness that is based on human interaction. This step is necessary in order to induce different levels of trustworthiness in the second part. For this purpose, participants first play a trust game. In the second part, participants face two treatments in which they have to make investment decisions. In the first treatment, participants have to make two separate investment decisions with two different money managers, who charge different costs. In the second treatment, participants have to indicate management fees they are willing to pay for one money manager in order to obtain the same investment allocation as with another money manager. Building on the first part, the treatments in the second part allow us to test predictions of the theory. Participants do not know what the second part looks like before completing the first part. Thus, participants have no reason to bias their behavior in the first part in order to obtain more favorable outcomes in the second part. The experiment concludes with control questions and a sociodemographic survey. The sequence of the experiment is shown in Figure 1. In the following, the details of the experiment are laid out.

[Insert Figure 1 here]

3.1 Trust Game

Gennaioli et al. (2015) emphasize that they "do not think of trust as deriving from past performance" (p.92). Since we want to adhere to the original paper, money managers' trustworthiness must also not be induced by past performance in our experiment. We opt for a trust game (Berg et al., 1995) to induce differences in trustworthiness. In the trust game, a sender (trustor) is endowed with an amount X. The sender can transfer any amount between 0 and X to the receiver (trustee). The amount sent to the trustee, S, is then tripled. The trustee has the choice to reciprocate by returning any amount between 0 and $3S$. Because trustees are not obliged to return anything, self-interested trustors should not send anything in the first place. In the trust game, sending is therefore associated with *trusting* behavior, while returning is associated with *trustworthy* behavior (Camerer, 2003; Fehr, 2009; Johnson & Mislin, 2011).

We use the trust game for two reasons: First, results of the trust game are derived from actual human interaction. Second, the trust game is a well-studied game in the economics literature and has been found to predict trusting and trustworthy behavior also outside the lab (see e.g., Baran, Sapienza, & Zingales, 2010; Aksoy, Harwell, Kovaliukaite, & Eckel, 2018). In finance, pro-social behavior in the trust game has recently been linked to real-world propensity to hold socially responsible investments (Riedl & Smeets, 2017).

Results from trust games show that trustors usually send part of their endowment, and that trustees usually reciprocate to a certain extent. In a meta study of more than 160 trust games, Johnson and Mislin (2011) find that participants on average send 50% of their endowment, and return 50% of the available amount. Several studies also show that there is variation in the amounts sent and the amounts returned in the trust game (Berg et al., 1995; Croson & Buchan, 1999; Buchan, Croson, & Johnson, 2002; Keser, 2002; Ashraf, Bohnet, & Piankov, 2003; Cox, 2004; Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005; Dubois, Willinger, & Blayac, 2012). These empirical observations are critical for our experiment: Since the amount returned in the trust game represents the level of trustworthiness, we can exploit variation in the amount returned by trustees to induce differences in trustworthiness. Not critical for our experiment is how exactly the trust game is designed. Changing parameters of the trust game (e.g., doubling or quadrupling the amount sent) or having participants play both sender and receiver in the trust game may affect participant behavior (see the meta study by Johnson & Mislin, 2011). These modifications to the trust game, however, affect all participants and thus only affect the level of trust and trustworthiness. Identification in our experiment is based on differences in participants' behavior and is therefore not susceptible to changes in the design of the trust game.

In the first part of the experiment, participants are paired anonymously and randomly. Senders are endowed with 100 ECU and can send any amount of tens between 0 and 100 ECU.

The amount sent is then tripled, and receivers can return any amount of tens between 0 and the tripled amount sent. The trust game is played using the strategy method: Participants indicate *a)* how much they would be willing to send if they were playing as sender, and *b)* how much they would be willing to return for any possible amount sent if they were playing as receiver.[8] We incentivize choices in the trust game by randomly picking the roles within each pair and by evaluating the trust game according to the indicated choices. If the trust game is chosen randomly to determine participants' payoff from the experiment, 1 ECU is converted to 0.05 €. Based on average levels of trust and trustworthiness found by Johnson and Mislin (2011), the expected payoff for senders is 7.5 € and 3.75 € for receivers.[9]

3.2 Treatment: Exogenous Costs

After the trust game, every participant plays the role of an investor. Investors have the choice to invest their endowment (100 ECU) into a riskless asset with return $r = 0$ and a risky asset with normally distributed returns with mean of 6% and volatility of 20%. Because we are interested in the impact of trust on the investment decision, we match every investor with two other participants and their respective decisions in the trust game. These two participants represent money managers. Investors then have to make separate investment decisions with both money managers.

For both money managers, the identical expected asset returns before costs are displayed prominently. Thus, the risk-return profile of the risky investment is perfectly known to investors. While Gennaioli et al. (2015) think of "hand-holding" by money managers as being particularly helpful for investors who do not fully understand financial risks (i.e., know the risk-return profile), we ensure that the risk-return profile is common knowledge. Separating trust from asset characteristics not only allows for identification of the risk-aversion channel, but also provides a more conservative test of the Money Doctors theory.

Importantly, money managers do not effectively act. In other words, they do not influence

[8] Using the strategy method for simple economic games such as the trust game has been found to yield similar results as direct (i.e., playing only one role and only once) elicitation approaches, see e.g. Brandts and Charness (2000), Brandts and Charness (2011), and Vyrastekova and Onderstal (2010).

[9] Senders send 50% (50 ECU) of their endowment (100 ECU) and receivers return 50% (75 ECU) of the available amount (150 ECU, 3 times 50 ECU).

the characteristics of the riskless and the risky investment – just as money managers in the real world have no control over the movement of the stock market. Nonetheless, both money managers can be associated with a different level of trustworthiness. This level of trustworthiness stems from the money managers' decision to return a certain amount in the trust game. A money manager who was willing to return more in the trust game is therefore more trustworthy than a money manager who returned less. As in the Money Doctors model, risky investments can only be made via money managers. Crucially, both money managers offer identical risky investments *before* costs (mean return of 6% and volatility of 20%). However, money managers charge different costs – specifically, the money manager who returned more in the trust game is assigned high costs ($C_h = 1.5\%$), the money manager who returned less in the trust game is assigned low costs ($C_l = 0.75\%$). In case both money managers returned the same amount in the trust game, one is randomly assigned high costs and one is randomly assigned low costs. This random allocation of costs without differences in trustworthiness generates a natural control group. We deliberately rule out trivial cases in which more trustworthy managers also charge lower costs. Known to participants, costs are not transferred to managers. Hence, concerns of higher risky investments as means of monetarily "rewarding" more trustworthy managers are alleviated and also covered by some of our robustness tests.

Investors receive the following information: *1)* the mean and the volatility of the risky asset, *2)* the costs each money manager charges, *3)* the expected return ,and *4)* the amount each money manager was willing to return in the trust game for the amount the investor was willing to send. An exemplary screen of the treatment, also showing the exact wording of the instructions, is shown in Figure 2.

[Insert Figure 2 here]

Since only one of the two investment decisions is selected randomly for payoff, diversification across money managers is not possible. Thus, rational (risk-averse) investors should invest a greater share of their endowment into the risky asset via the low-cost, low-trust manager than via the high-cost, high-trust manager.[10] Alternatively, if trustworthy money managers are effective in holding a client's hand, investors could also invest more risky via the high-cost, high-trust manager. In particular, the share invested risky with the high-trust manager relative to the share invested risky with the low-trust manager should increase the larger the difference in trustworthiness.

After one investment decision is chosen randomly, the return of the respective risky investment is drawn and costs are deducted. Participants are then informed which choice was drawn and how their investment decision turned out. As in the trust game, 1 ECU is converted to 0.05 €. The expected payoff from this task depends on how much risk is taken. Afterwards, investors are again independently matched with two new money managers. In total, this investment task is repeated five times with independent matchings of new money managers. If participants' payment for participation is randomly chosen to be determined by this treatment, the outcome of one of the five rounds is chosen randomly. In summary, we test the following hypotheses in the first treatment:

> **Hypothesis 1 ("Hand-holding"):** Investors invest a larger proportion of their wealth into the risky investment via a more trustworthy money manager (higher amount returned in trust game) than via a less trustworthy money manager (lower amount returned in trust game), even if the more trustworthy money manager charges higher costs (twice as much) than the less trustworthy money manager.

> **Hypothesis 2:** The larger the difference in trustworthiness between money managers, the larger the share invested risky with the more trustworthy money manager relative to the share invested risky with the less trustworthy money manager.

[10] Risk aversion is an assumption in the Money Doctors model. In our experiment, risk-seeking or risk-neutral preferences would imply that investors should invest all their wealth into the risky asset, as it offers a positive expected return as opposed to the riskless asset. From participants' actual choices we can assume that participants do not have such preferences: No participant invested all his wealth into the risky asset in all rounds and only two participants invested all their wealth into the risky asset in four out of five rounds.

3.3 Treatment: Indifference Costs

There are two possible identification strategies in our experiment: One is to fix costs and exploit variation in the share invested risky. The second is to fix the share invested risky, and exploit variation in costs. The previous treatment fixes costs and allows us to elicit investors' risk aversion, which is potentially lowered by trust. In this treatment, we investigate the costs investors are willing to bear to make the same investment decision with a more trustworthy money manager as with a less trustworthy money manager. This setting makes costs even more salient. Again, every participant is matched with two other participants. First, acting as investor, every participant has to indicate how much she would invest risky with the first money manager. Parameters of both assets, riskless and risky, are identical to the previous treatment. By construction, the first money manager always charges fees of $C_l = 0.75\%$ and always returned less than or equal to the second money manager in the trust game. We impose this restrictions to increase the reliability of statistical testing, as costs logically have to be bounded by 0%. Second, investors have to indicate the costs they are willing to accept from the second money manager in order to obtain the same risky investment as with the first money manager.

Participants indicate their indifference costs on a slider with a lower bound of 0% and an upper bound of 10%.[11] The default input is set to 0%, which, if anything, would imply an anchoring bias against our hypothesis. Figure 3 shows the setting. As predicted by the theory, investors should indicate higher indifference costs for more trusted money managers. Choices in this treatment are not monetarily incentivized, as indicating indifference costs of 0% would be a dominant strategy.[12] Again, this task is repeated five times with new random and independent matchings. In summary, we test the following hypotheses in the second treatment:

[11] In pretests, participants had trouble entering fees in the correct numerical units when presented with an input box. Thus we opt for the more restrictive slider input.

[12] We refrain from using an incentive-compatible Becker-Degroot-Marschak (Becker, DeGroot, & Marschak, 1964) mechanism, as we believe it would considerably complicate the second treatment for participants.

Hypothesis 3: Investors are willing to accept higher costs from more trustworthy money managers in order to obtain the same investment allocation as with a less trustworthy money manager.

Hypothesis 4: The larger the difference in trustworthiness, the higher the costs investors are willing to accept from more trustworthy managers in order to obtain the same investment allocation as with less trustworthy money managers.

[Insert Figure 3 here]

4 Results

The experiment took place at the University of Mannheim experimental laboratory in July and September 2017. Participants were invited through ORSEE (Greiner, 2015). The experiment was computerized using oTree (Chen, Schonger, & Wickens, 2016). In total, 114 individuals participated in 8 sessions. Participants were predominantly female (58.77%). Almost all participants were students (98.25%). Thus, the mean age was relatively low at 23.35 (*SD*=3.99) years. Furthermore, most participants studied business or economics (71.05%). However, only few participants had any real investment experiences: Only 20.18% and 11.40% of all subjects had invested in passive or active funds, respectively. Sessions lasted approximately 30 minutes and the average payment for participation was 6.16 €, including a base payment of 1 €. The minimum payment was 2.5 €, the maximum payment 16 €, and payment variance was 1.86.

Trust Game

In order to induce different levels of trustworthiness, there must be variation in participants' choices in the trust game. Results from our trust game are in line with the literature.

Participants usually trust their counterpart. Only 13 (11.4%) participants resorted to the equilibrium strategy of sending 0 ECU in the trust game. On average, 43.16 ECU were sent from trustors. The distribution of sent amounts is depicted in Figure 4.

[Insert Figure 4 here]

The measure of money manager trustworthiness, however, is the amount the money manager returns in the trust game. Hence, to establish a situation which allows us to test predictions from the Money Doctors theory, there must also be variation in the amounts returned in the trust game. For every possible choice of trustors, we find substantial variation in the choices of trustees. The average standard deviation of returned amounts is approximately 29.49. Figure 5 shows a boxplot of median returned amounts in the trust game. As expected, the absolute median returned amount increases with the amount sent. Nonetheless, the relative level of median reciprocity (amount returned divided by amount sent) stays relatively constant at one. In summary, results from the trust game offer sufficient variation for our subsequent analysis.

[Insert Figure 5 here]

Treatment: Exogenous Costs

In this treatment, we are interested in the share of wealth participants invest risky with both money managers. Specifically, we want to test whether investors are willing to invest more risky with more trustworthy money managers, even if that investment comes at higher costs. For this reason, simple univariate analyses are reported first. To assess differences in the shares of wealth invested risky, we need to account for the fact that observations are not necessarily independent, since participants face multiple choices per treatment. Thus, we regress the difference of the share invested risky with the more trustworthy and the share invested risky with the less trustworthy money manager on a constant only and cluster standard errors at the individual level. Hence, we effectively run a test of means, but adjust for potential non-independence of observations. For all subsequent comparisons of means we use this approach as well. Univariate p-values reported subsequently are therefore adjusted for clustering at the individual level. In Table A1 in the appendix, we also report results of tests for each round individually.

The order in which more or less trustworthy money managers appear in the investment decision screen is randomized. As results are similar for cases in which the more trustworthy money manager appears on top and for cases in which she appears at the bottom, pooled results are reported throughout this paper. Table 1 compares the average amount invested risky with both money managers. When money managers are *not* equally trustworthy, investors are willing to invest substantially more risky with the trustworthy, but more expensive money manager. The difference of 16.88% is highly statistically significant. Investors profit from investing through a more trustworthy money manager in terms of expected return: The average investment decision with the more trustworthy money manager implies a total expected return on the portfolio of 2.07% (Mean Risky Share$_{HT,HC}$ times 4.75%), whereas the average investment decision with the less trustworthy money manager translates only to a total expected return on the portfolio of 1.54% (Mean Risky Share$_{LT,LC}$ times 5.25%, p-value=0.000). More precise, investors essentially move upwards on the Capital Market Line. While the total investment's Sharpe ratio is unchanged, it is more risky overall and thus offers higher expected return.

[Insert Table 1 here]

By construction, we prohibit trivial cases in which more trustworthy money managers charge lower costs than less trustworthy money managers. However, there are cases in which both money managers are equally trustworthy. If there is no difference in trustworthiness, investors are expected to invest more risky with the money manager who charges lower costs. Results are provided in Table 2. Investors behave completely rational if there is no difference in trustworthiness. On average, investors invest a higher share of their wealth into the risky asset if costs are lower. This difference of 6.98% is also significant at the 10%-level. However, 13 participants chose the Nash equilibrium strategy in the trust game. By default, these participants are always presented cases in which both money managers are equally trustworthy: If senders send 0 ECU, the only choice of receivers is to return 0 ECU. Excluding the choices (13*5=65 choices) of these non-trusting participants results in an increased and highly significant difference of 12.71%. In Table A2 in the appendix, we again report results of tests for each round individually. In summary, univariate analyses strongly support our first hypothesis. Investors voluntarily pay a trust premium and are less risk averse when they invest with trustworthy money managers. Nonetheless, investors benefit from this increase in risk taking even net of fees.

[Insert Table 2 here]

We use multivariate analyses to test our second hypothesis. Equation (5) states that the discrepancy of trustworthiness between money managers is a key factor in the Money Doctors framework by Gennaioli et al. (2015). To analyze whether the difference in trustworthiness is related to the difference of the share invested risky, the following random effects model (RE_i) with round fixed effects ($Round_t$) is estimated:

$$\Delta\ Risky\ Share_{it} = \alpha + \Delta\ Trustworthiness_{it}\beta + RE_i + Round_t + \epsilon_{it}.$$

A random effects model is used because the independent variable, $\Delta\ Trustworthiness_{it}$, is orthogonal to other regressors, as it is obtained by randomly matching investors to money managers. For robustness, fixed effects regressions are reported in the appendix. The dependent variable, $\Delta\ Risky\ Share$, is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy manager. In case both managers are equally trustworthy, it is calculated as the share of wealth invested risky with the more costly manager minus the share of wealth invested risky with the less costly manager. Therefore, the constant in the regression is expected to be negative. Because Δ *Risky Share* is technically censored at -100 and +100, we also report random effects tobit regressions in Table A4 in the appendix. Results are very similar.

For the independent variable, Δ *Trustworthiness*, we test three different specifications. In a first specification, it is calculated in absolute terms as the amount the more trustworthy manager returned in the trust game minus the amount the less trustworthy manager returned in the trust game. This absolute difference, however, depends on the amount that was sent in the trust game. For larger amounts sent, the absolute measure may thus be substantially larger. To correct for this mechanical relationship, in a second specification the relative difference in trustworthiness is calculated. It captures the percentage the less trustworthy manager sent less than the more trustworthy manager and is calculated as $(1 - (\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount})) * 100$. As a third and last specification, the difference in trustworthiness is calculated adjusting for the amount the investor sent in the trust game. This approach aims at controlling for potentially different sensitivity to differences in trustworthiness depending on investors' own level of trust. As shown in Table A3, more trusting investors – not surprisingly – invest more risky and state higher indifference costs. The third measure is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent}) * 100$. In all three specifications, however, we also implicitly control for the amount sent through random or fixed effects. Summary statistics for all three variable specifications are shown in Table 3.

[Insert Table 3 here]

Regression results are summarized in Table 4. All regressions account for potential learning effects by including round fixed effects. As hypothesized, coefficients for differences in trustworthiness are positive and significant across all regression specifications. That is, the larger the difference in managers' trustworthiness, the larger the difference of the share invested risky. An absolute difference in trustworthiness of 1 ECU therefore relates to an increase of the amount invested risky with the more trustworthy manager over the amount invested risky with the less trustworthy manager of 0.33 ECU (see column (1)). In other words, a third of the absolute difference in trustworthiness translates directly into a difference of the share invested risky. A similar picture remains for relative differences in trustworthiness. Returning 1% less than a more trustworthy manager results in a difference of attracted risky investments of 0.25 percentage points. Scaled by the amount investors sent, a relative difference in trustworthiness of 1% still implies a difference of the share invested risky of 0.18 percentage points. Evidence from three regressions thus is in favor of our second hypothesis. In general, investors are sensitive to differences in trustworthiness. These differences also translate to the risky investment choice: The more trustworthy a money manager is relative to a competitor, the more funds she can attract relative to this competitor.

[Insert Table 4 here]

Treatment: Indifference Costs

Instead of investigating the share invested risky with money managers, one may also look at the costs investors are willing to bear to make risky investments. In this treatment, participants are asked to make an investment decision with one money manager first, and indicate at which costs they are indifferent between making the same risky choice with a second money manager. By construction, the first manager always charges $C_l = 0.75\%$. Thus, to test the third hypothesis, we compare C_l to the average indifference costs investors indicate in cases in which the second money manager is more trustworthy than the first. Results are shown in Table 5. On average, investors accept costs of 1.95% when the second money manager is more trustworthy than the first. These costs are 2.6 times the costs the less trustworthy manager charges, or, put differently, almost a third of the return of the risky investment. The difference to the low costs the less trustworthy manager charges is statistically significant at the 1%-level. Table 5 also provides the results of a test of those cases in which the second manager and the first manager are equally trustworthy. In this scenario, indifference costs should not be significantly greater than 0.75%. Indeed, indifference costs are only 0.844% on average, and the difference to 0.75% is statistically insignificant. As in treatment 1 investors behave rationally if there is no difference in trustworthiness. Results are virtually identical if we only include participants who sent a positive amount in the trust game. Again we report results of tests for each round individually in Table A6 in the appendix.

[Insert Table 5 here]

As in the first treatment, we also test the impact of differences in trustworthiness (Hypothesis 4). For this purpose, indifference costs are used as dependent variable in random effects regressions. Because these costs are technically censored at 0 and +10, we report random effects tobit regressions in Table A7 in the appendix and results are very similar. The same specifications for $\Delta\ Trustworthiness$ as in the previous regressions are used. Table 6 shows the results. Coefficients are positive and hence point into the hypothesized direction in all specification. All coefficients, that is for absolute and relative differences in trustworthiness, are significant at the 1%-level. In economic terms, investors are willing to accept 0.63 basis points more management fees from a 1% more trustworthy manager. Scaled by the amount investors sent, a relative difference in trustworthiness of 1% translates to 0.69 basis points higher management fees accepted by investors for investing with the more trustworthy money manager. Findings from Treatment 2 therefore provide further evidence of the Money Doctors hypothesis.

[Insert Table 6 here]

5 Alternative Explanations

Is Trustworthiness Mistaken for Skill?

Trustworthiness could be mistaken for investment skill. Investors could believe that more trustworthy money managers are able to deliver better investment performance. Beliefs could be such that more trustworthy managers offer an expected return that overcompensates for their higher management fees. In this case, rational investors should invest more risky with the more trustworthy – allegedly more skilled – money manager. To control for such biased beliefs, we ask participants whether they believed that more trustworthy money managers could deliver better investment performance after the experiment. Possible answers are “Yes”, “No”, and “I do not know”. We deliberately refrain from asking for participants’ beliefs about asset returns during the experiment, as this might tempt them to believe that there was a difference in investment skill, simply because we ask for it explicitly.

66 participants believe that more trustworthy managers can deliver better investment performance. There may be two explanations for this observation. On the one hand, participants can justify their choices in the experiment ex post. By stating that they (incorrectly) believed that more trustworthy money managers were able to offer better investment performance, participants can rationalize the behavior the experimenter observes. On the other hand, there is the aspect of calculative trust. By assigning lower probabilities of being exploited to more trustworthy money managers, investors implicitly assign higher expected returns to investments made with more trustworthy money managers. Although calculative trust is an essential component of overall trust, it constitutes biased beliefs by design of the experiment.

We first contrast choices of participants holding biased beliefs with choices of participants holding correct beliefs (N=36, “I do not know” answers excluded) in Treatment 1. Numbers can be found in Table 7. As expected, holding biased beliefs increases the difference between the share invested risky with the high trust / high cost money manager and the share invested risky with the low trust / low cost money manager (18.52 to 14.22). However, also for the subgroup of participants holding unbiased beliefs, the difference (14.22) remains highly statistically significant (p-value=0.003).

In Treatment 2, biased beliefs should have a positive impact on stated indifference costs. When the second manager is more trustworthy than the first, investors are willing to accept costs of 2.23% if they hold biased beliefs, but only 1.53% if they do not have biased beliefs. Nonetheless, indifference costs for both groups are significantly different from 0.75% (p-values=0.000 and 0.032, respectively). Note that we excluded – and exclude in the following subsection – observations in which both managers returned equal amounts in the trust game, because the alternative channels are void in these cases. In summary, biased beliefs amplify the findings in Treatment 1 and Treatment 2. However, evidence in favor of our hypotheses, and thus the risk aversion channel, remains if investors hold correct beliefs.

[Insert Table 7 here]

Are More Risky Investments a Means of Rewarding?

A second reason why investors might invest more risky with more trustworthy money managers is that they use the risky investment as a reward. While this reciprocity motivation is interesting in itself, it would describe a different channel than that modeled by Gennaioli et al. (2015). To control for such motivation, we ask participants whether they invested risky with more trustworthy money manager because they wanted to reward them. Possible answers are "Yes", "No", and "I do not know". Half of the participants (N=58) stated that they wanted to reward more trustworthy managers when they invest more risky. On the other hand, 36 participants ("I do not know" answers excluded) stated that rewarding did not motivate their investment choices. Contrasting the choices of both subgroups in Treatment 1 reveals the expected pattern: On average, rewarding investors invest 21.45% more risky with the more trustworthy manager, whereas non-rewarding investors invest only 8.69% more risky with the more trustworthy manager. While the former is significant at the 1%-level, the latter is marginally insignificant (p-value=0.137). In Treatment 2, the reward motivation leads to higher indifference costs for investments with more trustworthy money managers. Rewarding investors indicate indifference costs of 2.22%, while non-rewarding investors indicate indifference costs of 1.58%. Again, however, these costs are significantly higher than the costs (0.75%) charged by less trustworthy managers (p-value=0.000 and 0.022, respectively). Evidence from both treatments point to “rewarding for trustworthiness” as one of the drivers of investors’ investment choices. However, even without this motivation, results are still in line with our hypotheses.

Finally, we investigate whether the difference of the share invested risky with either money manager varies significantly between participants holding correct and biased beliefs, and between participants with and without reward motivation. For this purpose, random effects regressions are estimated.[13] In these regressions, we can also check for any interaction between biased beliefs and reward motivation. For Treatment 1, Table 8 shows results of a regression with Δ *Risky More* $-$ *Risky Less* as dependent variable. This variable is calculated as the amount invested risky with the more trustworthy money manager minus the amount invested risky with the less trustworthy money manager. Results of random effects tobit regression can be found in Table A9 in the appendix. Results are very similar. Independent variables are a dummy equal to 1 if investors hold biased beliefs (*Biased Beliefs*), a dummy equal to 1 if investors stated that they were motivated by rewarding for trustworthiness (*Reward Motivation*), and an interaction term of both dummies (*Biased Beliefs*×*Reward Motivation*).[14] If higher trustworthiness were to lower investors’ anxiety of investing with a money manager, the constant in this regression should be positive and significant. This is exactly what we find. On average, investments with more trustworthy money managers are 17.5% more risky, despite higher associated costs. On the other hand, neither *Biased Beliefs* nor *Reward Motivation* significantly influence differences in investment choices in multivariate analyses. Hence, differences in subgroups’ investment choices, as observed in univariate tests, seem to be statistically insignificant.

[13] Here we cannot report fixed effects estimates, as the independent variables of interest – dummies for biased beliefs or reward motivation – are time invariant.

[14] Observations with “I do not know” as answer to the control questions are excluded in this analysis.

[Insert Table 8 here]

For Treatment 2, Table 9 reports results of a regression with *Indifference Costs* as dependent variable. Random effects tobit regression are shown in Table A10 in the appendix and results are very similar. Independent variables are the same as before. Under our hypotheses, the constant in the regression should be positive and significantly different from the low fees of 0.75%. That is, investors should be willing to accept higher costs for a risky investment made with a more trustworthy money manager. Regression results are as expected: On average, investors are willing to accept costs of 1.79% (p-values of 0.001 and 0.056 when compared to 0 and 0.75, respectively) when they invest with a more trustworthy money manager. Coefficients for *Biased Beliefs*, *Reward Motivation*, and the interaction of both are not statistically significant. Thus, even after controlling for confounding channels, evidence from Treatment 2 supports the Money Doctors theory.

[Insert Table 9 here]

Do Participants React to Arbitrary Information?

A possible objection to our results is that participants may not interpret higher amounts returned in the trust game as sign of higher trustworthiness. More subtle, this objection would mean that our results could simply be due to participants reacting to arbitrary information. In other words, replacing the amount returned in the trust game with irrelevant information might produce similar results. To control for this objection, we ask whether participants interpreted higher amounts returned in the trust game as signal of higher trustworthiness at the end of the experiment. Possible answers are "Yes", "No", and "I do not know". The manipulation check indicates that only a fifth of participants (20.18%) do *not* associate higher amounts returned in the trust game with higher trustworthiness. For the majority of participants (64.04%), the manipulation through the trust game appears to have been effective. Nonetheless, we check whether subgroups behave differently. In general, effect sizes should be greater for the subgroup of participants affirming the manipulation question. Numbers can be found in Table 7. In both Treatment 1 and Treatment 2, tests of the variable(s) of interest confirm this hypothesis. In Treatment 1, participants answering "Yes" to the manipulation check on average invest 17.93% more risky with the more trusted money manager (p-value=0.000). Participants answering "No" to the manipulation check, on the other hand, only invest 10.94% (p-value=0.056) more risky with the more trusted money manager. In Treatment 2, participants answering "Yes" to the manipulation are on average willing to accept costs of 2.10%. Participants answering "No" to the manipulation check, however, are only willing to accept costs of 1.53%. For both groups, costs are significantly different from 0.75% (p-values=0.000 and 0.054, respectively). In summary, these results do not corroborate the objection that our general findings are driven by participants just reacting to some arbitrary information.

Do Participants Confuse Trust Game and Investment Task?

Lastly, results may be driven by participants confusing the trust game with the subsequent investment task. Since participants on average reciprocate increasingly (in absolute terms) the more they receive, they may transfer this experience to the subsequent investment tasks. In that case, we would observe higher risky investments with more trustworthy money managers due to the heuristic derived from the trust game, but not due to trust itself. However, several reasons speak against this hypothesis. First, in the computerized experiment, the trust game and the investment tasks are clearly labeled as "Experimental Task 1" and "Experimental Task 2". Second, if participants initially confused the two tasks, one would expect participants to learn over time that the two tasks are not similar. As shown in Table A1, there is no trend of decreasing differences in mean risky share over rounds. In regressions, we also account for potential learning through round fixed effects. Third, our main findings also hold for participants who do not indicate biased beliefs and hence cannot have acted on the confusion heuristic. Fifth, our results are increasing in differences in trustworthiness. Finally, investors behave completely rational if there is no difference in trustworthiness between the two money managers.

6 Conclusion

This experimental study provides a direct test of the Money Doctors theory. Our findings support the notion that trust is an important component for delegated investing. Even at higher costs, investors take more risk when they invest through a money manager who can be trusted. Vice versa, investors are willing to accept higher costs for investments made through more trustworthy money managers. The larger the spread between managers' trustworthiness, the larger the observed effects. Collectively, our study highlights a positive aspect of delegated investing. Although investors would be best off in terms of expected return with high risk taking at low costs, they are still better off in terms of expected return with higher risk taking at higher costs, if they trust their money manager. In short, our study identifies trust as the "substantial intangible benefit" Bergstresser, Chalmers, and Tufano (2009, p. 4129) suspect but cannot observe. Trust may thus be the "saving grace" for a delegation and advice industry whose benefits have been severely doubted in several studies (see e.g., Bergstresser et al., 2009; Mullainathan, Noeth, & Schoar, 2012; Hackethal, Haliassos, & Jappelli, 2012; Hoechle, Ruenzi, Schaub, & Schmid, 2017, 2018).

Furthermore, our experiment points to other aspects of trust, namely calculative trust and reward motivation, why trustworthy money managers may be able to charge higher fees *and* attract more funds. While these channels appear plausible and may even be inseparably linked, they are different from the trust-modified risk aversion mechanism proposed by Gennaioli et al. (2015).

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Figure 1: Diagram of Experimental Setup

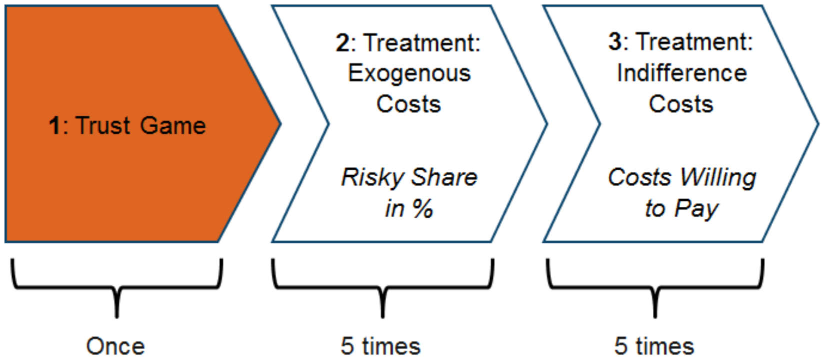
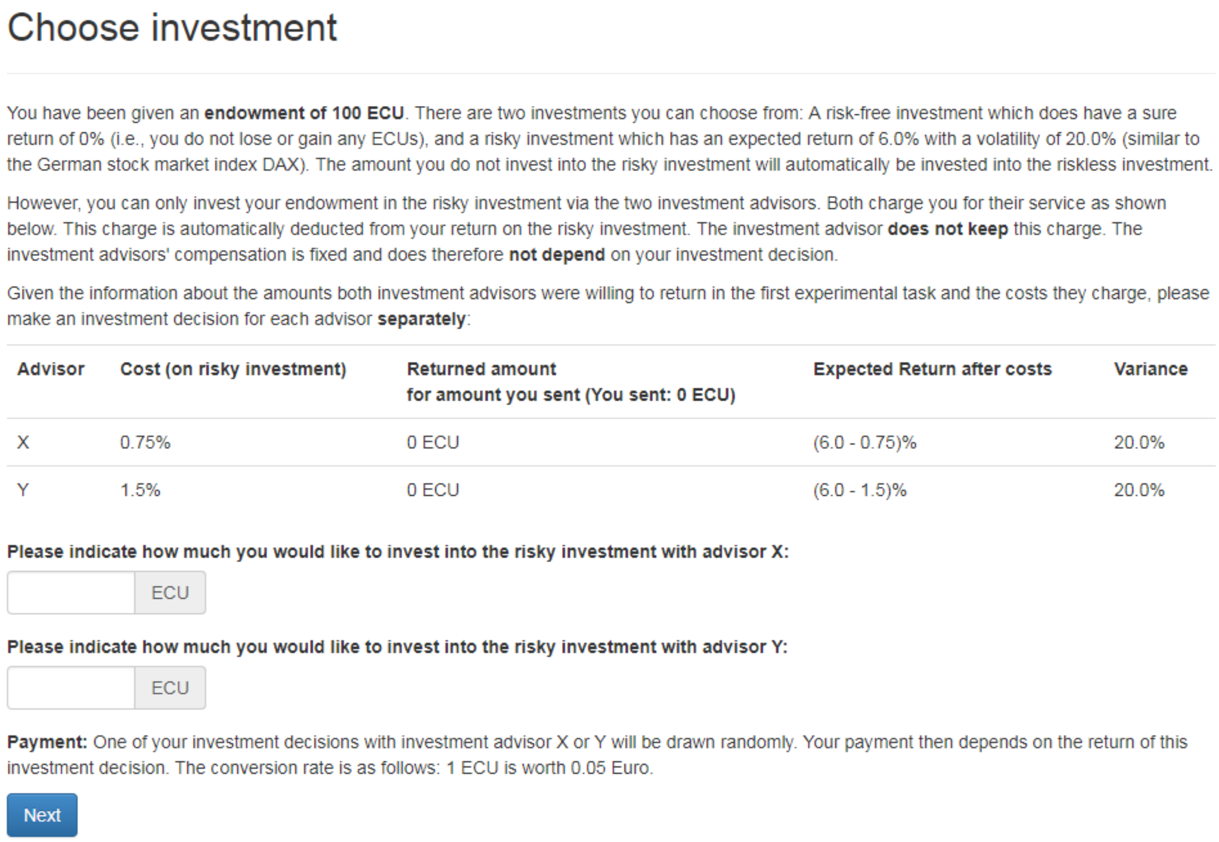


Figure 2: Exemplary Screen of Treatment: Exogenous Costs

This figure is a screenshot of the instructions and the action screen of Treatment: Exogenous Costs. The level of money manager trustworthiness, as proxied by the amount returned in the trust game, is displayed in the third column as "**Returned amount for amount you sent (You sent: X ECU)**". Because exemplary choices for this screenshot were to send 0 ECU as sender and return 0 ECU as receiver for any amount sent, the level of trustworthiness shows as "0 ECU".



Choose investment

You have been given an **endowment of 100 ECU**. There are two investments you can choose from: A risk-free investment which does have a sure return of 0% (i.e., you do not lose or gain any ECUs), and a risky investment which has an expected return of 6.0% with a volatility of 20.0% (similar to the German stock market index DAX). The amount you do not invest into the risky investment will automatically be invested into the riskless investment.

However, you can only invest your endowment in the risky investment via the two investment advisors. Both charge you for their service as shown below. This charge is automatically deducted from your return on the risky investment. The investment advisor **does not keep** this charge. The investment advisors' compensation is fixed and does therefore **not depend** on your investment decision.

Given the information about the amounts both investment advisors were willing to return in the first experimental task and the costs they charge, please make an investment decision for each advisor **separately**:

Advisor	Cost (on risky investment)	Returned amount for amount you sent (You sent: 0 ECU)	Expected Return after costs	Variance
X	0.75%	0 ECU	(6.0 - 0.75)%	20.0%
Y	1.5%	0 ECU	(6.0 - 1.5)%	20.0%

Please indicate how much you would like to invest into the risky investment with advisor X:

ECU

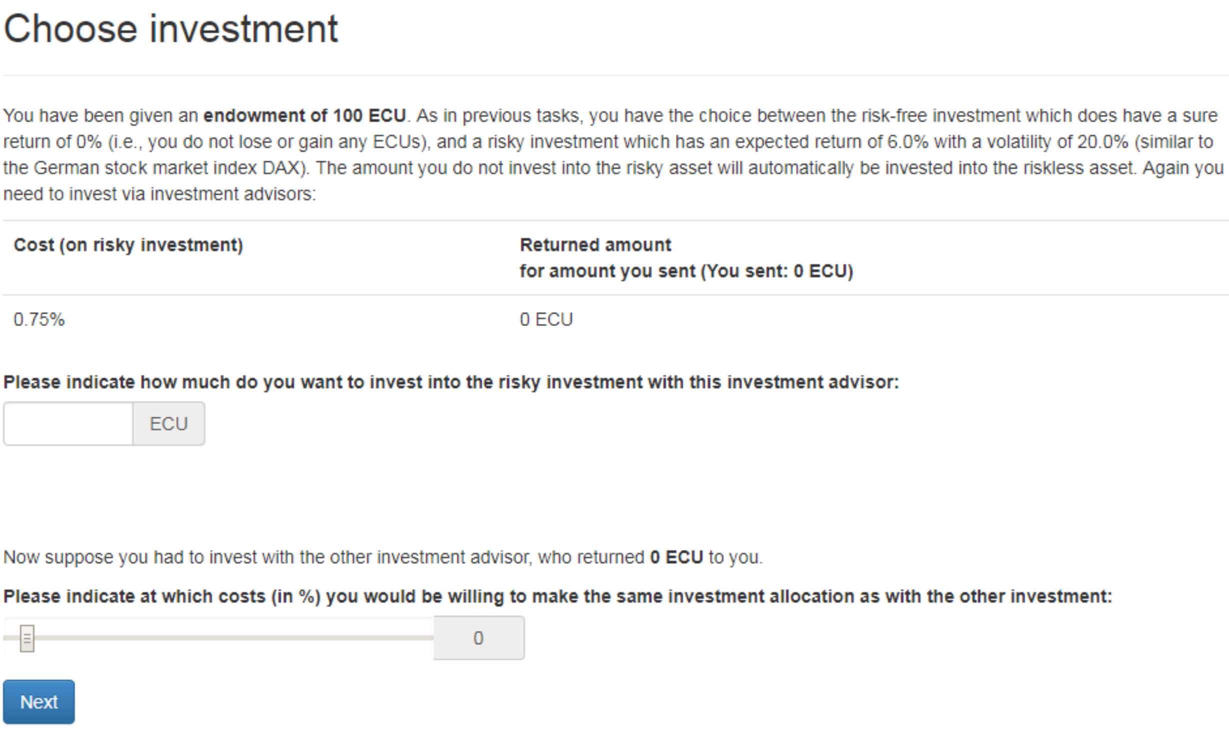
Please indicate how much you would like to invest into the risky investment with advisor Y:

ECU

Payment: One of your investment decisions with investment advisor X or Y will be drawn randomly. Your payment then depends on the return of this investment decision. The conversion rate is as follows: 1 ECU is worth 0.05 Euro.

Next

Figure 3: Exemplary Screen of Treatment: Indifference Costs



Choose investment

You have been given an **endowment of 100 ECU**. As in previous tasks, you have the choice between the risk-free investment which does have a sure return of 0% (i.e., you do not lose or gain any ECUs), and a risky investment which has an expected return of 6.0% with a volatility of 20.0% (similar to the German stock market index DAX). The amount you do not invest into the risky asset will automatically be invested into the riskless asset. Again you need to invest via investment advisors:

Cost (on risky investment)	Returned amount for amount you sent (You sent: 0 ECU)
0.75%	0 ECU

Please indicate how much do you want to invest into the risky investment with this investment advisor:

ECU

Now suppose you had to invest with the other investment advisor, who returned **0 ECU** to you.

Please indicate at which costs (in %) you would be willing to make the same investment allocation as with the other investment:

0

Next

Figure 4: Distribution of Sent Amount in Trust Game

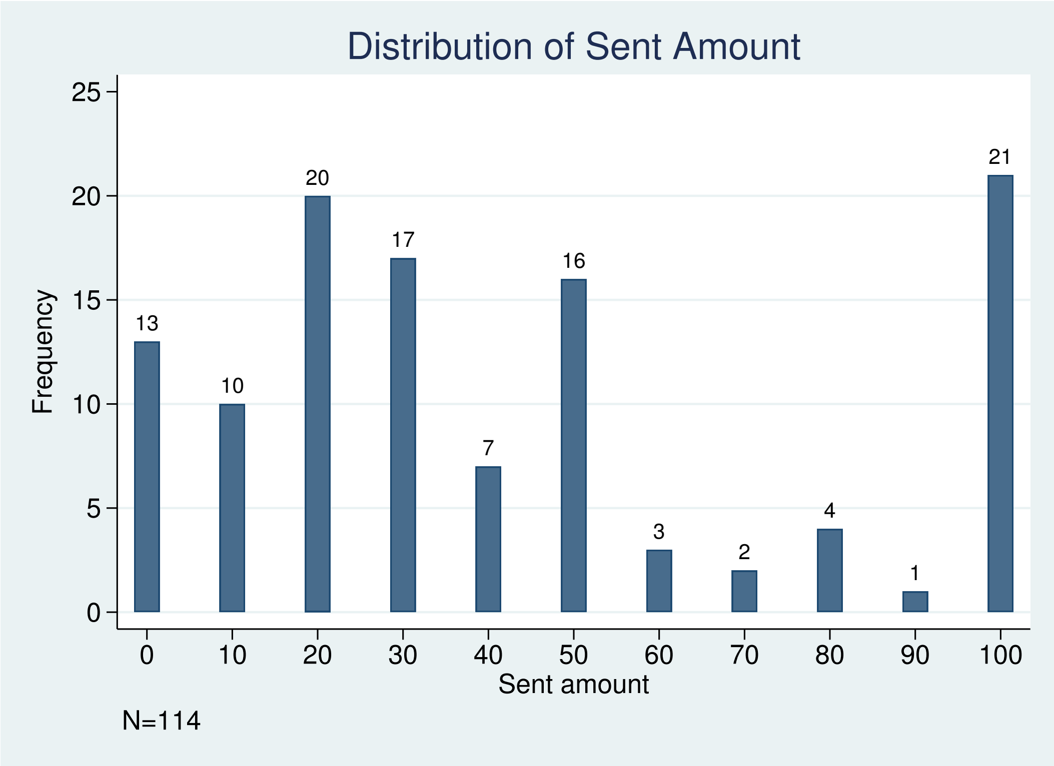


Figure 5: Distribution of Median Returned Amounts in Trust Game

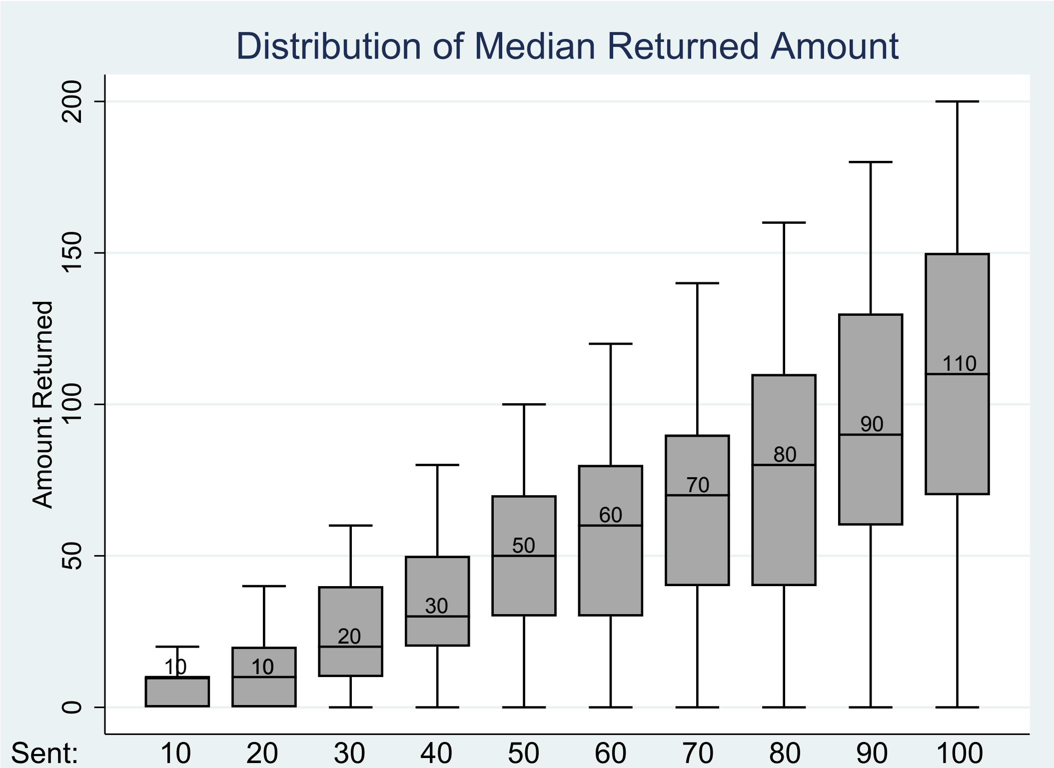


Table 1: Risky Share of Investment

This table shows the share invested into the risky asset, *Risky Share*, for both money managers. *High Trustworthiness*, *High Costs* corresponds to the more trustworthy (i.e., returned more in the trust game) but more costly money manager. *Low Trustworthiness*, *Low Costs* corresponds to the less trustworthy (i.e., returned less in the trust game) but less costly money manager. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

		Risky Share in %			
	N	mean	sd	5th Percentile	95th Percentile
High Trustworthiness, High Costs	410	46.15	29.20	0	100
Low Trustworthiness, Low Costs	410	29.27	27.07	0	100
		Δ t-stat = 6.58***			

Table 2: Risky Share of Investment For Identically Trustworthy Money Managers

This table shows the share invested into the risky asset, *Risky Share*, for both money managers when both money managers are equal in trustworthiness (i.e., returned identical amounts in the trust game). The type of costs, high or low, is indicated by *High Costs* and *Low Costs*, respectively. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

All Participants

	N	Risky Share in % mean	sd	5th Percentile	95th Percentile
Low Costs	160	32.71	28.11	0	100
High Costs	160	25.73	27.32	0	100
		Δ t-stat = 1.77*			

Only Participants Who Sent > 0 ECU

	N	Risky Share in % mean	sd	5th Percentile	95th Percentile
Low Costs	95	35.84	30.89	0	100
High Costs	95	23.14	25.90	0	100
		Δ t-stat = 3.11***			

Table 3: Summary Statistics Δ *Trustworthiness*

Δ *Trustworthiness Absolute* is calculated as the amount the more trustworthy manager returned in the trust game minus the amount the less trustworthy manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1 - (\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount})) * 100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent}) * 100$.

	N	mean	sd	5th Percentile	95th Percentile
Δ *Trustworthiness Absolute*	570	28.77	34.78	0	160
Δ *Trustworthiness Relative*	570	49.00%	39.86%	0%	100%
Δ *Trustworthiness Relative to Sent*	570	60.00%	56.58%	0%	300%

Table 4: Risky Share – Difference in Trustworthiness

This table reports regression results with Δ*Risky Share* as dependent variable. It is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy money manager. In case both managers are equally trustworthy, it is calculated as the share of wealth invested risky with the more costly manager minus the share of wealth invested risky with the less costly manager. All regressions account for unobserved individual heterogeneity through random effects. Δ *Trustworthiness Absolute* is calculated as the amount the more trustworthy manager returned in the trust game minus the amount the less trustworthy manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1-(\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount}))*100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent})*100$.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
		Random Effects	
Δ *Trustworthiness Absolute*	0.330***		
	(0.067)		
Δ *Trustworthiness Relative*		0.248***	
		(0.042)	
Δ *Trustworthiness Relative to Sent*			0.176***
			(0.031)
Constant	-0.669	-3.801	-1.909
	(3.809)	(4.295)	(3.954)
Observations	570	570	570
Cluster-robust S.E.	YES	YES	YES
Round FE	YES	YES	YES
$R^2_{overall}$	0.082	0.054	0.066

Table 5: Indifference Costs

This table shows indifference costs of investing with the second money manager in Treatment 2. Tests are based against the costs the first money manager charges, which are equal to 0.75%. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Trustworthiness Second Manager > First Manager

	N	mean	sd	5th Percentile	95th Percentile
Indifference Costs	412	1.946	2.243	0	8.02
		Δ t-stat = 6.42***			

Trustworthiness Second Manager = First Manager

	N	mean	sd	5th Percentile	95th Percentile
Indifference Costs	158	0.844	1.174	0	5
		Δ t-stat = 0.56			

Trustworthiness Second Manager = First Manager
Only Participants Who Sent > 0 ECU

	N	mean	sd	5th Percentile	95th Percentile
Indifference Costs	93	0.845	1.021	0	2.99
		Δ t-stat = 0.69			

Table 6: Indifference Costs – Difference in Trustworthiness

This table reports regression results with *Indifference Costs* as dependent variable. All regressions account for unobserved individual heterogeneity through random effects. Δ *Trustworthiness Absolute* is calculated as the amount the second manager returned in the trust game minus the amount the first manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1 - (\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount})) * 100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent}) * 100$.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
		Random Effects	
Δ *Trustworthiness Absolute*	0.0098***		
	(0.0039)		
Δ *Trustworthiness Relative*		0.0063***	
		(0.0022)	
Δ *Trustworthiness Relative to Sent*			0.0069***
			(0.0020)
Constant	1.514***	1.500***	1.390***
	(0.181)	(0.167)	(0.181)
Observations	570	570	570
Cluster-robust S.E.	YES	YES	YES
Round FE	YES	YES	YES
$R^2_{overall}$	0.036	0.031	0.059

Table 7: Differences in Risky Share and Indifference Costs for Alternative Explanations

This table shows differences in the share invested into the risky asset (Treatment: Exogenous Costs) and differences between stated indifference costs and the costs the first money manager charges (Treatment: Indifference Costs). These differences are tested separately for participants who indicate biased beliefs, rewarding as motivation, or a non-functioning manipulation. Observations for which trustworthiness of money managers is equal are excluded. All tests of differences are based on the regression-based approach. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Treatment: Exogenous Costs

	N	Δ *Risky More* $-$ *Risky Less*	Δ t-stat
Biased Beliefs = *"Yes"*	254	18.52	5.24***
Biased Beliefs = *"No"*	122	14.22	3.25***
Reward Motivation = *"Yes"*	227	21.45	6.68***
Reward Motivation = *"No"*	111	8.69	1.53
Manipulation Check = *"Yes"*	288	17.93	5.62***
Manipulation Check = *"No"*	69	10.94	2.06*

Treatment: Indifference Costs

	N	Δ *Indifference Costs* -0.75%	Δ t-stat
Biased Beliefs = *"Yes"*	258	1.48	6.32***
Biased Beliefs = *"No"*	117	0.78	2.26**
Reward Motivation = *"Yes"*	227	1.47	5.54***
Reward Motivation = *"No"*	113	0.83	2.44**
Manipulation Check = *"Yes"*	291	1.35	5.61***
Manipulation Check = *"No"*	67	0.78	2.08*

Table 8: Risky Share – Robustness

This table reports regression results with Δ *Risky More* $-$ *Risky Less* as dependent variable. It is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy money manager. The regression accounts for unobserved individual heterogeneity through random effects. *Biased Beliefs* is an indicator variable equal to 1 if participants stated that they believed that more trustworthy money managers could deliver better investment performance. *Reward Motivation* is an indicator variable equal to 1 if participants stated that they invested more risky with more trustworthy money managers because they wanted to reward them.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Random Effects
Biased Beliefs	-12.98
	(11.48)
Reward Motivation	1.289
	(8.862)
Biased Beliefs×*Reward Motivation*	18.46
	(13.27)
Constant	17.46**
	(8.633)
Observations	322
Cluster-robust S.E.	YES
Round FE	YES
$R^2_{overall}$	0.057

Table 9: Indifference Costs – Robustness

This table reports regression results with *Indifference Costs* as dependent variable, for cases in which the second money manager is more trustworthy than the first money manager. The regression accounts for unobserved individual heterogeneity through random effects. *Biased Beliefs* is an indicator variable equal to 1 if participants stated that they believed that more trustworthy money managers could deliver better investment performance. *Reward Motivation* is an indicator variable equal to 1 if participants stated that they invested more risky with more trustworthy money managers because they wanted to reward them.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Random Effects
Biased Beliefs	0.216
	(0.637)
Reward Motivation	0.002
	(0.688)
Biased Beliefs×*Reward Motivation*	0.591
	(0.844)
Constant	1.787***
	(0.543)
Observations	324
Cluster-robust S.E.	YES
Round FE	YES
$R^2_{overall}$	0.042

A Appendix: Additional Tables and Figures

Table A1: Risky Share of Investment

This table shows the share of wealth invested into the risky asset, *Risky Share*, for both money managers. HT, HC corresponds to the more trustworthy (i.e., returned more in the trust game) but more expensive money manager. LT, LC corresponds to the less trustworthy (i.e., returned less in the trust game) but less expensive money manager. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	N	Mean Risky Share$_{HT,HC}$	Mean Risky Share$_{LT,LC}$	Paired t-test	Wilcoxon signed-rank
Round 1	86	42.97	26.05	0.000***	0.000***
Round 2	81	46.48	28.64	0.000***	0.000***
Round 3	85	48.06	28.94	0.000***	0.000***
Round 4	77	42.66	31.95	0.003***	0.001***
Round 5	81	50.49	31.11	0.000***	0.000***

Table A2: Risky Share of Investment For Identically Trustworthy Money Managers

This table shows the share of wealth invested into the risky asset, *Risky Share*, for both money managers when both money managers are equal in trustworthiness (i.e., returned the same amounts in the trust game). The type of costs, high or low, is indicated by subscripts $_{HC}$ and $_{LC}$, respectively. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

All Participants

	N	Mean Risky Share$_{LC}$	Mean Risky Share$_{HC}$	Paired t-test	Wilcoxon signed-rank
Round 1	28	31.96	18.21	0.033**	0.013**
Round 2	33	33.33	24.94	0.152	0.013**
Round 3	29	30.17	27.76	0.736	0.111
Round 4	37	36.27	28.05	0.181	0.045**
Round 5	33	30.94	28.52	0.696	0.108

Only Participants Who Sent > 0 ECU

	N	Mean Risky Share$_{LC}$	Mean Risky Share$_{HC}$	Paired t-test	Wilcoxon signed-rank
Round 1	15	31.67	15.67	0.050*	0.033**
Round 2	20	37.25	22.65	0.100*	0.012**
Round 3	16	31.88	20.94	0.291	0.090*
Round 4	24	42.71	25.83	0.024**	0.025**
Round 5	20	32.50	27.75	0.538	0.279

Table A3: Amount Sent – Risky Share and Indifference Costs

This table reports regression results with the amount participants sent in the trust game, *Amount Sent*, as independent variable. For this regression all observations of one treatment were pooled. The value of *Amount Sent* is fixed for an individual for all five rounds of a treatment. In column (1) the dependent variable is the share investors invested risky with the first money manager in Treatment 1. In column (2) the dependent variable is the share investors invested risky with the second money manager in Treatment 1. In column (3) the dependent variable is the indifference costs investors specified.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
	Random Effects	Random Effects	Random Effects
	Risky Share (in %) *1st Money Manager*	Risky Share (in %) *2nd Money Manager*	Indifference Costs
Amount Sent	0.237***	0.216***	0.0087**
	(0.060)	(0.060)	(0.0044)
Constant	27.13***	17.69***	1.413***
	(3.721)	(3.447)	(0.272)
Observations	570	570	570
Cluster-robust S.E.	YES	YES	YES
Round FE	YES	YES	YES
$R^2_{overall}$	0.073	0.080	0.024

Table A4: Risky Share – Difference in Trustworthiness

This table reports random effects tobit regression results with $\Delta Risky\ Share$ as dependent variable. It is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy money manager. In case both managers are equally trustworthy, it is calculated as the share of wealth invested risky with the more costly manager minus the share of wealth invested risky with the less costly manager. All regressions account for unobserved individual heterogeneity through random effects. $\Delta\ Trustworthiness\ Absolute$ is calculated as the amount the more trustworthy manager returned in the trust game minus the amount the less trustworthy manager returned in the trust game. $\Delta\ Trustworthiness\ Relative$ is calculated as $(1-(\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount}))*100$. $\Delta\ Trustworthiness\ Relative\ to\ Sent$ is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent})*100$.
$\Delta Risky\ Share$ is censored at -100 and +100.
Bootstrapped standard errors (100 repetitions) are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
	Random Effects Tobit		
Δ *Trustworthiness Absolute*	0.341***		
	(0.069)		
Δ *Trustworthiness Relative*		0.252***	
		(0.041)	
Δ *Trustworthiness Relative to Sent*			0.179***
			(0.032)
Constant	-0.357	-3.423	-1.531
	(4.108)	(4.630)	(4.559)
Observations	570	570	570
Bootstrapped S.E.	YES	YES	YES
Round FE	YES	YES	YES
Log-likelihood	-2735	-2739	-2737

Table A5: Risky Share – Difference in Trustworthiness

This table reports regression results with Δ*Risky Share* as dependent variable. It is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy money manager. In case both managers are equally trustworthy, it is calculated as the share of wealth invested risky with the more costly manager minus the share of wealth invested risky with the less costly manager. All regressions account for unobserved individual heterogeneity through fixed effects. Δ *Trustworthiness Absolute* is calculated as the amount the more trustworthy manager returned in the trust game minus the amount the less trustworthy manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1-(\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount}))*100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent})*100$.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
		Fixed Effects	
Δ *Trustworthiness Absolute*	0.384***		
	(0.081)		
Δ *Trustworthiness Relative*		0.290***	
		(0.047)	
Δ *Trustworthiness Relative to Sent*			0.190***
			(0.033)
Constant	-2.307	-6.044	-2.815
	(3.651)	(3.813)	(3.370)
Observations	570	570	570
Cluster-robust S.E.	YES	YES	YES
Round FE	YES	YES	YES
$R^2_{adjusted}$	0.090	0.095	0.092

Table A6: Indifference Costs

This table shows indifference costs of investing with the second money manager in Treatment 2. Tests are based against the costs the first money manager charges, which are equal to 0.75%. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	N	Mean Indifference Costs	Exogenous Costs	Paired t-test	Wilcoxon signed-rank
Trustworthiness Second Manager > First Manager					
Round 1	80	2.24	0.75	0.000***	0.000***
Round 2	86	1.98	0.75	0.000***	0.000***
Round 3	79	1.71	0.75	0.000***	0.000***
Round 4	81	2.02	0.75	0.000***	0.000***
Round 5	86	1.78	0.75	0.000***	0.000***
Trustworthiness Second Manager = First Manager					
Round 1	34	0.71	0.75	0.835	0.037**
Round 2	28	0.91	0.75	0.545	0.087*
Round 3	35	0.81	0.75	0.715	0.375
Round 4	33	0.92	0.75	0.444	0.180
Round 5	28	0.89	0.75	0.598	0.194
Trustworthiness Second Manager = First Manager, Only Participants Who Sent > 0 ECU					
Round 1	21	0.61	0.75	0.141	0.091*
Round 2	15	1.13	0.75	0.307	0.477
Round 3	22	0.73	0.75	0.834	0.625
Round 4	20	1.00	0.75	0.373	0.478
Round 5	15	0.86	0.75	0.765	0.393

Table A7: Indifference Costs – Difference in Trustworthiness

This table reports random effects tobit regression results with *Indifference Costs* as dependent variable. All regressions account for unobserved individual heterogeneity through random effects. Δ *Trustworthiness Absolute* is calculated as the amount the second manager returned in the trust game minus the amount the first manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1 - (\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount})) * 100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount\ -\ Lower\ Returned\ Amount}{Amount\ Sent}) * 100$.
Indifference Costs is censored at 0 and +10.
Bootstrapped standard errors (100 repetitions) are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
	Random Effects Tobit		
Δ *Trustworthiness Absolute*	0.0102**		
	(0.0045)		
Δ *Trustworthiness Relative*		0.0073***	
		(0.0025)	
Δ *Trustworthiness Relative to Sent*			0.0075***
			(0.0022)
Constant	1.358***	1.309***	1.208***
	(0.196)	(0.184)	(0.188)
Observations	570	570	570
Bootstrapped S.E.	YES	YES	YES
Round FE	YES	YES	YES
Log-likelihood	-1074	-1075	-1067

Table A8: Indifference Costs – Difference in Trustworthiness

This table reports regression results with *Indifference Costs* as dependent variable. All regressions account for unobserved individual heterogeneity through fixed effects. Δ *Trustworthiness Absolute* is calculated as the amount the second manager returned in the trust game minus the amount the first manager returned in the trust game. Δ *Trustworthiness Relative* is calculated as $(1 - (\frac{Lower\ Returned\ Amount}{Higher\ Returned\ Amount})) * 100$. Δ *Trustworthiness Relative to Sent* is calculated as $(\frac{Higher\ Returned\ Amount - Lower\ Returned\ Amount}{Amount\ Sent}) * 100$.
Standard errors clustered at the individual level are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
		Fixed Effects	
Δ *Trustworthiness Absolute*	0.0094**		
	(0.0039)		
Δ *Trustworthiness Relative*		0.0056***	
		(0.0022)	
Δ *Trustworthiness Relative to Sent*			0.0064***
			(0.0019)
Constant	1.527***	1.531***	1.417***
	(0.125)	(0.115)	(0.135)
Observations	570	570	570
Cluster-robust S.E.	YES	YES	YES
Round FE	YES	YES	YES
$R^2_{adjusted}$	0.031	0.020	0.053

Table A9: Risky Share – Robustness

This table reports random effects tobit regression results with Δ *Risky More* $-$ *Risky Less* as dependent variable. It is calculated as the share of wealth invested risky with the more trustworthy money manager minus the share of wealth invested risky with the less trustworthy money manager. The regression accounts for unobserved individual heterogeneity through random effects. *Biased Beliefs* is an indicator variable equal to 1 if participants stated that they believed that more trustworthy money managers could deliver better investment performance. *Reward Motivation* is an indicator variable equal to 1 if participants stated that they invested more risky with more trustworthy money managers because they wanted to reward them.
Δ *Risky More* $-$ *Risky Less* is censored at -100 and +100.
Bootstrapped standard errors (100 repetitions) are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Random Effects Tobit
Biased Beliefs	-12.67
	(14.47)
Reward Motivation	1.170
	(9.357)
Biased Beliefs×*Reward Motivation*	18.21
	(16.84)
Constant	18.39**
	(8.825)
Observations	322
Bootstrapped S.E.	YES
Round FE	YES
Log-likelihood	-1525

Table A10: Indifference Costs – Robustness

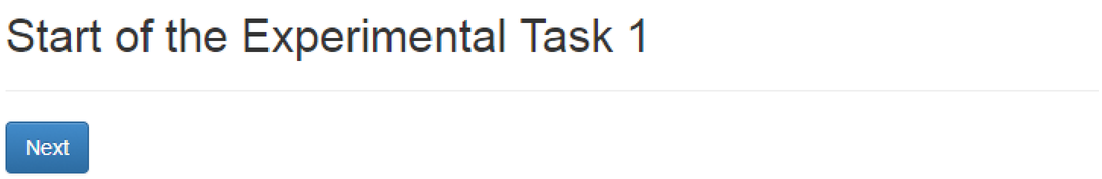
This table reports regression results with *Indifference Costs* as dependent variable, for cases in which the second money manager is more trustworthy than the first money manager. The regression accounts for unobserved individual heterogeneity through random effects. *Biased Beliefs* is an indicator variable equal to 1 if participants stated that they believed that more trustworthy money managers could deliver better investment performance. *Reward Motivation* is an indicator variable equal to 1 if participants stated that they invested more risky with more trustworthy money managers because they wanted to reward them.
Indifference Costs is censored at 0 and +10.
Bootstrapped standard errors (100 repetitions) are shown in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Random Effects Tobit
Biased Beliefs	0.214
	(0.652)
Reward Motivation	0.010
	(0.656)
Biased Beliefs×Reward Motivation	0.644
	(0.857)
Constant	1.751***
	(0.527)
Observations	324
Bootstrapped S.E.	YES
Round FE	YES
Log-likelihood	-659

B Experimental Instructions

The following images show instructions and experimental screens as presented to participants. All realized values shown in the experimental screens are for illustration purposes only.

Screen 1:



Screen 2:

Introduction

Instructions

You have been randomly and anonymously paired with another participant. One of you will be randomly selected to be participant A, the other will be selected to be participant B. To start with, participant A receives 100 experimental currency units (ECU), participant B receives nothing. Participant A can send any integer amount of tens between 0 and 100 (i.e., 10, 20, 30, etc.) ECU to participant B. The amount participant B receives will be **tripled**. In the next step participant B can decide to return any integer amount of tens between 0 and the tripled amount.

Payment: Your payment from the experiment depends on your and your counterpart's choice in this game and whether you were selected as participant A or participant B. The conversaion rate is as follows: 1 experimental currency unit is worth 0.05 Euro.

For your convenience, these instructions will remain available to you on all subsequent screens of this study.

Next

Screen 3:

Indicate your choices

Suppose you were participant A and had the choice to send an integer amount of tens between 0 and 100:

Please indicate the amount you would like to send:

[   ] ECU

Now suppose you were participant B. Please indicate how much of the tripled amount you would like to return. Again you can only send integer amounts of tens.

If participant A had sent 10 ECU, I would like to return:

[   ] ECU

If participant A had sent 20 ECU, I would like to return:

[   ] ECU

If participant A had sent 30 ECU, I would like to return:

[   ] ECU

If participant A had sent 40 ECU, I would like to return:

[   ] ECU

If participant A had sent 50 ECU, I would like to return:

[   ] ECU

If participant A had sent 60 ECU, I would like to return:

[   ] ECU

If participant A had sent 70 ECU, I would like to return:

[   ] ECU

If participant A had sent 80 ECU, I would like to return:

[   ] ECU

If participant A had sent 90 ECU, I would like to return:

[   ] ECU

If participant A had sent 100 ECU, I would like to return:

[   ] ECU

Next

Instructions

You have been randomly and anonymously paired with another participant. One of you will be randomly selected to be participant A, the other will be selected to be participant B. To start with, participant A receives 100 experimental currency units (ECU), participant B receives nothing. Participant A can send any integer amount of tens between 0 and 100 (i.e., 10, 20, 30, etc.) ECU to participant B. The amount participant B receives will be **tripled**. In the next step participant B can decide to return any integer amount of tens between 0 and the tripled amount.

Payment: Your payment from the experiment depends on your and your counterpart's choice in this game and whether you were selected as participant A or participant B. The conversaion rate is as follows: 1 experimental currency unit is worth 0.05 Euro.

For your convenience, these instructions will remain available to you on all subsequent screens of this study.

Screen 4:

Start of the Experimental Task 2

Next

Screen 5:

Introduction (Experimental Task 2)

You have been randomly and anonymously paired with two other participants in the room. You are an investor having to make an investment decision, the two participants you are paired with can be considered investment advisors offering you investment opportunities. They will be called investment advisor X and investment advisor Y. The only information available to you is the amount the two investment advisors **would have returned** to you in the first task.

You will have to make several investment decisions in this second experimental task. Investment decisions are **independent**. In other words, every investment decision will start with a **new random and anonymous** pairing with two other participants (investment advisors) in the room.

Next

Screen 6: Repeated

Choose investment

You have been given an **endowment of 100 ECU**. There are two investments you can choose from: A risk-free investment which does have a sure return of 0% (i.e., you do not lose or gain any ECUs), and a risky investment which has an expected return of 6.0% with a volatility of 20.0% (similar to the German stock market index DAX). The amount you do not invest into the risky investment will automatically be invested into the riskless investment.

However, you can only invest your endowment in the risky investment via the two investment advisors. Both charge you for their service as shown below. This charge is automatically deducted from your return on the risky investment. The investment advisor **does not keep** this charge. The investment advisors' compensation is fixed and does therefore **not depend** on your investment decision.

Given the information about the amounts both investment advisors were willing to return in the first experimental task and the costs they charge, please make an investment decision for each advisor **separately**:

Advisor	Cost (on risky investment)	Returned amount for amount you sent (You sent: 0 ECU)	Expected Return after costs	Variance
X	0.75%	0 ECU	(6.0 - 0.75)%	20.0%
Y	1.5%	0 ECU	(6.0 - 1.5)%	20.0%

Please indicate how much you would like to invest into the risky investment with advisor X:

ECU

Please indicate how much you would like to invest into the risky investment with advisor Y:

ECU

Payment: One of your investment decisions with investment advisor X or Y will be drawn randomly. Your payment then depends on the return of this investment decision. The conversion rate is as follows: 1 ECU is worth 0.05 Euro.

Next

Screen 7: Repeated

Results

You chose to invest (100 ECU - 0 ECU) into the riskless investment and 0 ECU into the risky investment with investment advisor X. The return from the risky investment turned out to be 8.66%.

You chose to invest (100 ECU - 0 ECU) into the riskless investment and 0 ECU into the risky investment with investment advisor Y. The return from the risky investment turned out to be -9.68%.

For this round, your investment decision with investment advisor Y was selected randomly. Your total total payoff from this round is thus **100.0** = (100 ECU - 0 ECU)+ (100% -9.68%)*0 ECU) .

Please remember: Investment decisions are independent and you will be matched with new investment advisors in the next round. Therefore your result in this round will not affect your result in the next round.

Next

Screen 8: Repeated

Choose investment

You have been given an **endowment of 100 ECU**. As in previous tasks, you have the choice between the risk-free investment which does have a sure return of 0% (i.e., you do not lose or gain any ECUs), and a risky investment which has an expected return of 6.0% with a volatility of 20.0% (similar to the German stock market index DAX). The amount you do not invest into the risky asset will automatically be invested into the riskless asset. Again you need to invest via investment advisors:

Cost (on risky investment)	Returned amount for amount you sent (You sent: 0 ECU)
0.75%	0 ECU

Please indicate how much do you want to invest into the risky investment with this investment advisor:

ECU

Now suppose you had to invest with the other investment advisor, who returned **0 ECU** to you.

Please indicate at which costs (in %) you would be willing to make the same investment allocation as with the other investment:

0

Next

Screen 9:

Feedback on the Experiment

Did you perceive advisors who returned more to you in the trust game (Experimental Task 1) as more trustworthy?

- Yes
- No
- I do not know

Did you expect investment decisions with advisors who returned more in the trust game (Experimental Task 1) to give you higher returns than investment decisions with advisors who returned less in the trust game?

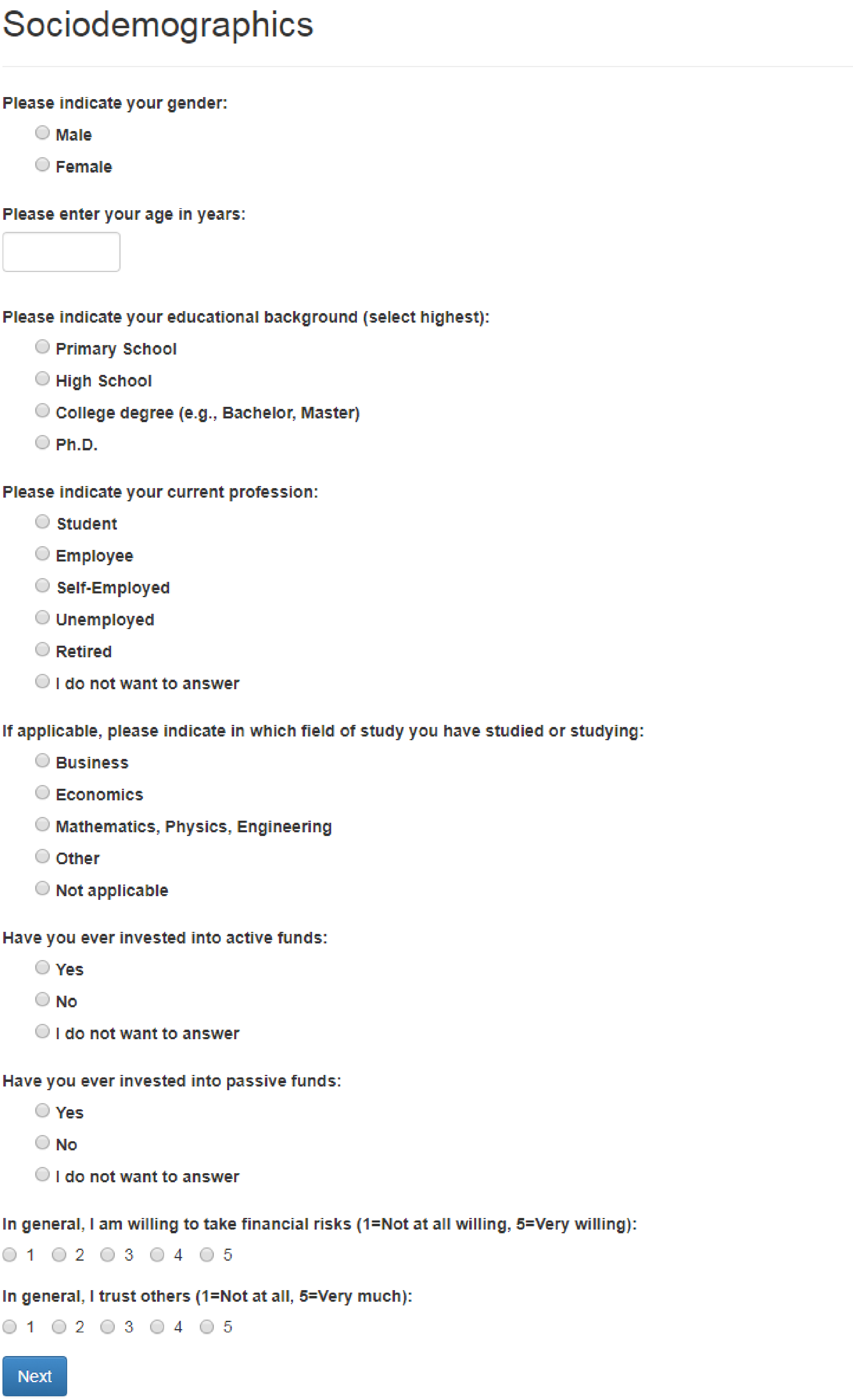
- Yes
- No
- I do not know

Did you invest more risky with the advisor who returned more in the trust game (Experimental Task 1) because you wanted to reward him?

- Yes
- No
- I do not know

Next

Screen 10:



Sociodemographics

Please indicate your gender:

- Male
- Female

Please enter your age in years:

Please indicate your educational background (select highest):

- Primary School
- High School
- College degree (e.g., Bachelor, Master)
- Ph.D.

Please indicate your current profession:

- Student
- Employee
- Self-Employed
- Unemployed
- Retired
- I do not want to answer

If applicable, please indicate in which field of study you have studied or studying:

- Business
- Economics
- Mathematics, Physics, Engineering
- Other
- Not applicable

Have you ever invested into active funds:

- Yes
- No
- I do not want to answer

Have you ever invested into passive funds:

- Yes
- No
- I do not want to answer

In general, I am willing to take financial risks (1=Not at all willing, 5=Very willing):

1 2 3 4 5

In general, I trust others (1=Not at all, 5=Very much):

1 2 3 4 5

Next

Screen 11:

Quiz (Part 1/2)

A bat and a ball costs $1.10 in total. The bat costs a dollar more than the ball. How much does the ball cost?

If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?

In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

If John can drink one barrel of water in 6 days, and Mary can drink one barrel of water in 12 days, how long would it take them to drink one barrel of water together?

Next

Screen 12:

Quiz (Part 2/2)

Jerry received both the 15th highest and the 15th lowest mark in the class. How many students are in the class?

A man buys a pig for $60, sells it for $70, buys it back for $80, and sells it finally for $90. How much has he made?

ECU

Simon decided to invest $8,000 in the Investment market one day early in 2008. Six months after he invested, on July 17, the Investments he had purchased were down 50%. Fortunately for Simon, from July 17 to October 17, the Investments he had purchased went up 75%.

- broken even in the Investment market
- is ahead of where he began
- has lost money

Next

Screen 13:

Continue to results

Please click next to see your payoff.

Next

Screen 14:

Results

Your payoff is 100 ECU and is based on round 4 of the second part of the experiment.

Next