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### Trust, Trustworthiness and Selection into the Financial Industry

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#### Trust, Trustworthiness and Selection into the Financial Industry

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#### Abstract

We examine trust and trustworthiness of individuals with varying professional preferences and experiences. Our subjects study business and economics in Frankfurt, the financial center of Germany and continental Europe. In the trust game, subjects with a high interest in working in the financial industry return 25 percent less than subjects with a low interest. We find no evidence that the extent of professional experience in the financial industry has a negative impact on trustworthiness. We also do not find any evidence that the financial industry screens out less trustworthy individuals in the hiring process. In a prediction game that is strategically equivalent to the trust game, the amount sent by first-movers was significantly smaller when the second-mover indicated a high interest in working in finance. These results suggest that the financial industry attracts less trustworthy individuals, which may contribute to the current lack of trust in its employees.

Keywords: Trust, Trustworthiness, Selection, Financial Industry

JEL Codes: C9, G2, M5

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#### 1. Introduction

Trust – the subjective probability one attributes to the possibility of being cheated – is an essential feature of every transaction in the financial industry. If trust in its actors (brokers, bankers, financial advisors) is low, investors will be more cautious in making their money available to the financial industry. This has serious consequences for individuals' financial well-being. Demand for advice and delegation is reduced so that more individuals hold inefficient portfolios and less financial wealth (Guiso 2010). A low level of trust also reduces demand for insurance and hence increases individuals' exposure to financial risk. More generally, low trust results in lower stock market participation (Guiso et al. 2008) and an increased demand for regulation (Aghion et al. 2010, Pinotti 2012).

Unfortunately, there seems to be a general lack of trust and trustworthiness in the financial industry. The *General Social Survey* and the *Financial Trust Index Survey* reveal that trust in banks and bankers declined sharply during the last financial crisis. According to the 8<sup>th</sup> Consumer Markets Scoreboard, the financial service sector is viewed by consumers as a substantially underperforming sector.<sup>4</sup> This distrust seems to be warranted. Many financial corporations have been repeatedly accused of defrauding their private, business, and government clients.<sup>5</sup> Financial advisers frequently propose products that generate fees for themselves but on average hurt the customer (Mullainathan et al. 2012). In a recent conference presentation on "malfeasance in financial markets," Michael Brennan<sup>6</sup> describes the current status of the trader profession as follows: "Now individuals who make their livelihood by trading face what we might describe as moral erosion. [...] Their profession

<sup>&</sup>lt;sup>4</sup> In particular, the market for "investment products, private pensions, and securities" ranks worst of all markets in overall consumer satisfaction, see European Commission (2012).

<sup>&</sup>lt;sup>5</sup> One of the largest recent frauds was the LIBOR and EURIBOR scandal in which several large financial companies formed an illegal cartel to manipulate important interest rates for interbank trade. In December 2013, the European Commission fined several companies, including *Royal Bank of Scotland*, *Société Générale*, *Deutsche Bank, JP Morgan* and *Citigroup*. *Goldman Sachs* has been embroiled in the following "controversies": their involvement in the European sovereign debt crisis (*GS* helped the *Central Bank of Greece* hide the size of Greece's debt), several insider trading cases, misstatement of financial results, and the scandal about the Abacus mortgage-backed CDOs (*GS* created these CDOs, sold them to investors, and then bet against them).

<sup>&</sup>lt;sup>6</sup> Keynote speech given at the Marie Curie ITN - Conference on Financial Risk Management & Risk Reporting, University of Konstanz, Germany, April 11 - 12, 2013.

frequently requires them to disguise their motives in trading and to use their superior information to take advantage of the people with whom they trade."

This lack of trust and trustworthiness may arise from three sources. First, the incentive system in financial institutions may alter employees' propensity to abuse clients' trust. Monetary incentives and compensation schemes are at the heart of policy debates about financial market regulation and consumer protection (e.g., Inderst and Ottaviani 2012, Bénabou and Tirole 2013, Thanassoulis 2012, 2013). Second, working in the financial industry may change employees' preferences and therefore lead to, as Michael Brennan puts it, "moral erosion." A growing number of economists propose that the societal and institutional environment can change one's preferences (e.g., Fehr and Hoff 2011, Cohn et al. 2014). Third, the financial industry may just attract less trustworthy people. A nascent literature in organizational economics analyzes selection and matching effects between individuals and organizations according to social motivations. Besley and Ghatak (2005) show in a principal-agent framework that workers who are motivated by a "mission" (such as saving lives, promoting justice or creating knowledge) self-select into occupations with moderate monetary incentives, while workers without such "mission motivation" choose occupations with steep incentives.<sup>7</sup> It may therefore be the case that the financial industry with its materialistic values and high bonuses attracts rather selfish individuals.

In this paper, we report on two experiments that are designed to investigate whether there is evidence for this third channel. Do people consider those who are interested in working in the financial industry to be less trustworthy than those who have other professional goals? And if yes, is this mistrust warranted? In the first experiment (henceforth Study 1), we invited students of business administration and economics from *Goethe-University* Frankfurt to the experimental lab. We required them to bring a current version of their résumé. Subjects answered a number of survey questions, in particular, questions on

<sup>&</sup>lt;sup>7</sup> Delfgaauw and Dur (2007) and Kosfeld and von Siemens (2009, 2011) explore similar mechanisms.

professional preferences, and played the trust game (Berg et al. 1995). The trust game is the most frequently used experimental game to measure behavioral trust and trustworthiness.<sup>8</sup> Karlan (2005) and Baran et al. (2010) provide evidence that the trust game played in the lab predicts reciprocal behavior in the field.<sup>9</sup> Thus, we obtained data on (a) how eager a subject is to work in the financial industry relative to other sectors, (b) whether and how much professional experience in finance she has (through internships or vocational training), and (c) her degree of trustworthiness. We therefore can test whether subjects with a high interest in working in finance are less trustworthy<sup>10</sup> than those with a low interest. The information from the résumés allows us to control for possible influences of previous professional experience on behavior, and to evaluate which subjects have a good chance of getting a job in finance.

In the second experiment (henceforth Study 2), we invited students from all other faculties of *Goethe-University* Frankfurt to our experimental lab to play a prediction game that is strategically equivalent to the first-mover decision in a trust game against randomly chosen second-movers from Study 1. The second-movers' decision in Study 1 was recorded through the strategy method (they made conditional decisions for every possible first-mover action). We can therefore match the first-mover's action in Study 2 to a payoff that depends on the second-movers' decision. There were no additional payments to Study 1 participants. Hence, only subjects' assessment of the second-movers' trustworthiness matters for their decision (and no other considerations such as altruism). Before subjects made their decision, they received information about their second-movers' professional preferences and experiences. Thus, we can test whether there is a lack of trust in those fellow students who are interested in working in finance.

<sup>&</sup>lt;sup>8</sup> See Johnson and Mislin (2011) for a recent review and meta-analysis.

<sup>&</sup>lt;sup>9</sup> Moreover, Cohn et al. (forthcoming) find that workers who do not behave reciprocally in an experimental game conducted in the lab (which is strategically similar to the trust game), also do not act reciprocally in a field experiment in which they do not know that they are observed.

<sup>&</sup>lt;sup>10</sup> In this paper, we are agnostic about the precise motivation behind the second-mover's action. Experimental economists typically accept trustworthiness. Some readers may prefer the term "selfish" to "less trustworthy."

*Goethe-University* Frankfurt is an ideal location for this study. Frankfurt is the financial center of Germany and continental Europe. The headquarters of many of Germany's and Europe's most important private and public financial institutions are located there (e.g. *European Central Bank, German Central Bank, Deutsche Bank, Commerzbank,* local headquarters of *Goldman Sachs, Morgan Stanley*). This makes it relatively easy for students to acquire professional experience in the financial industry before graduation. The economics department at *Goethe-University* specializes in finance and attracts many students who wish to work in the financial sector. Around 40 percent of *Goethe-University's* business and economics students choose their specialization in finance. More than 35 percent of *Goethe-University's* business and economics graduates find their first job in the financial industry.

Our experiments yield three main results. With regard to the first question, we find that subjects in Study 2 trust those with high interest in working in the financial industry (6 or 7 points on a scale between 1 and 7) significantly less than those with low interest (1 to 5 points). Second-movers with high finance interest receive 8 percent less than second-movers with low finance interest. A second-mover's professional experience has no impact on the amount received. Hence, our subjects seem to believe that the financial industry attracts less trustworthy individuals, but that working there does not change a person's trustworthiness.

With regard to the second question, we find that this distrust is warranted. Those with high interest in working in the financial industry return 25 percent less than those with low finance interest. This difference is mainly driven by a larger share of subjects who return nothing, regardless of the amount received, in the group of high finance interest subjects (36 percent) than in the group of low finance interest subjects (13 percent).

We also observe that those with professional experience in finance return 25 percent less than those without such experiences. However, the negative relationship between finance interest and trustworthiness also occurs in the subsample of subjects who do not have any professional experience in finance. We find no evidence that the extent of experience in the financial industry impacts on behavior. As our subjects from Study 2 anticipate, the financial industry seems to attract less trustworthy individuals, but working there does not necessarily corrupt one's character.

Finally, we find no evidence that the financial industry actively screens out less trustworthy individuals. Those subjects with high finance interest, who applied for a job in the financial industry, but have (so far) no working experience in finance, are as trustworthy as those with finance experience. To find out what matters most for a successful application, we conducted a number of interviews with human resource managers for financial companies located in Frankfurt. The key findings from the interviews are twofold. First, in order to get a job in finance, it is essential to acquire professional experience in this industry prior to the application. Applicants with no experience in finance are unlikely to be invited to a job interview. Second, compared to an applicant's analytical and communication skills and ability to work in teams (which are easy to test in a job interview), her trustworthiness turns out to be rather unimportant for a successful application. We conclude that the financial industry not only attracts less trustworthy individuals, but there is also no evidence that financial companies companies screen them out in the hiring process.

Given the importance of the financial industry for the economy, this adverse selection may be costly for society. There does not seem to be a simple solution. Regardless of previous professional experiences, the share of least trustworthy individuals is largest in the group of those with high interest in working in finance, i.e., those most likely to apply for jobs there. Thus, hiring applicants with professional experiences in other industries may again tend to attract less trustworthy individuals. Making employment in the financial industry less attractive in terms of monetary rewards could be one way to change the pool of applicants. Indeed, one of the few significant differences in personal characteristics between low and high finance interest subjects is a relatively higher valuation of income in the latter group. Increasing equity requirements substantially (as suggested by Admati and Hellwig 2013) may decrease profits and earnings in the financial industry, and thereby change the selection of workers into occupations.

The rest of the paper is organized as follows. In Section 2, we review the related literature. In Section 3, we explain the experimental setup of Study 1 and briefly discuss average behavior in this experiment. In Section 4, we explain the experimental setup of Study 2 and analyze the results. In Section 5, we go back to Study 1 and examine whether the financial industry attracts less trustworthy individuals. In Section 6, we discuss whether the financial industry screens out less trustworthy types. Section 7 concludes and discusses the implications of our results as well as possible limitations.

#### 2. Related Literature

A growing literature analyzes the extent to which individuals self-select into different occupations based on social preferences. For non-profit organizations there is some evidence for matching effects. Carpenter and Myers (2010) find that the decision to join a volunteer fire service is positively correlated with altruism. Gregg et al. (2011) find a positive correlation between self-selection into the public service sector and the propensity to donate labor. Serra et al. (2011) find that pro-socially motivated health care workers are more likely to work in the non-profit sector where they earn lower wages. A number of experimental papers provide evidence that some workers are motivated by their organization's mission (e.g., Carpenter and Gong 2013, Gerhards 2013). We study the inverse of this selection and find that the financial industry attracts selfish individuals. To the best of our knowledge, this paper is the first that provides evidence for selection based on social preferences for an important industry of the private sector.

A number of papers study trust and discrimination based on ethnicity and geographic location. Fershtman and Gneezy (2001) examine the trust game and the dictator game played in Israel between Eastern Jews and Ashkenazic Jews. They find that men of Eastern origin receive fewer investments in the trust game, but the same amounts in the dictator game. Hence, in their sample, discrimination in the trust game is due to a lack of trust and not to a "taste for discrimination." They also find that this lack of trust is not warranted, i.e., both ethnicities are equally trustworthy. Falk and Zehnder (2013) conduct a city-wide experiment in Zurich where inhabitants of different districts play the trust game against each other. Individuals living in high-income districts receive higher investments and return more. Similar to Study 2 of our experiment, first-movers correctly anticipate the relative trustworthiness of second-movers.

The only paper that examines the social behavior of employees of the financial industry experimentally is Cohn et al. (2014). They find that priming employees of financial firms with their professional identity increases cheating in a coin-tossing task.<sup>11</sup> We examine the relationship between professional preferences and trustworthiness of individuals who will enter the job market in the near future. The information provided through the résumés allows us to control for the (potential) influence of work experience on behavior, and to evaluate subjects' relative chances of getting a job in finance.

#### 3. Study 1: Trustworthiness, Professional Preferences, and Experiences

#### **3.1 Experimental Design and Procedures**

The goal of the first experiment is to create a pool of subjects about whom we know job preferences, experiences and their behavior in the trust game. With these data we can examine the relationship between job preferences and trustworthiness. Moreover, we will draw the matching partners for the subjects of Study 2 from this pool.

In the invitation email for the experiment, we asked business and economics students of *Goethe-University* Frankfurt to bring a current version of their résumé to the *Frankfurt* 

<sup>&</sup>lt;sup>11</sup> Priming refers to the temporary activation of an individual's mental representations and the effect of this activation on behavior in an unrelated subsequent task (see Bargh and Chartrand 2000 for an overview).

*Laboratory for Experimental Economics (FLEX)* for an experimental game and a survey on "Study Motivation, Specialization, and Occupational Choice." Only subjects who complied were allowed to participate in the experiment. The experimenter collected the résumé and deleted any personal information (name, address, etc.) in front of the subject. To ensure the participation of sufficiently many subjects, we paid them a show-up fee of 20 Euros, which is extraordinarily high for this laboratory.

The experiment started with a survey on professional preferences. Among other things, subjects answered the question "To what extent can you imagine working in the following industries in the future?" for a number of industries on a Likert-scale between 1 ("certainly not") and 7 ("definitively").<sup>12</sup> The corresponding answer for the financial industry is our measure of preference for working in finance. We also collected demographic information, personality measures (Big Five), the willingness to take risks (as measured by the SOEP scale, see Dohmen et al. 2011), patience (as measured by the SOEP scale, see Vischer et al. 2013), and work values.<sup>13</sup> After conducting the survey, we measured subjects' cognitive ability by using the 12 minute version of Raven's Advanced Progressive Matrices (Bors and Stokes 1998).

Next, subjects played the trust game against each other with role uncertainty. Each subject played the game as first- and as second-mover. In our version of the trust game, the first-mover is initially given 8 Euros and can send any integer value between 0 and 8 Euros to the second-mover. Before reaching the second-mover, the amount is tripled. The second-mover can then send back any integer value between 0 and the amount received. We applied the strategy method so that for each subject we know the behavior as second-mover for any

<sup>&</sup>lt;sup>12</sup> Besides finance, we asked subjects to what extent they can imagine working in the following industries: health, tourism, logistics, IT/communication, engineering, electronics, car manufacturing, insurance, energy, retail, public service, consulting, auditing. We chose the industries where most graduates find their first job (based on alumni data from *Goethe-University*).

 $<sup>^{13}</sup>$  To measure work values, we ran a questionnaire based on Ronen (1994) that has been used in several psychological studies. Subjects were asked to indicate on a scale from 1 ("not important") to 7 ("very important") to what extent several work values are important for the attractiveness of a job. See Table 1 below for a list of these work values.

possible amount received. After the experiment, we randomly decided for each subject the matching partner and the player role that determines the payoff.<sup>14</sup>

The experiment was programmed using z-Tree (Fischbacher 2007). We used ORSEE (Greiner, 2004) to recruit subjects from the business and economics faculty. In total, 268 subjects participated in the experiment;<sup>15</sup> 93 percent of them were Bachelor students (all others Master students), and 75 percent of the Bachelor students were in the first two years of their studies. Payments were made right after the end of the session. Each session lasted about 60 minutes (including time needed for instructions and payments). On average, subjects earned 26.61 EUR (including the show-up fee).

#### **3.2 Classification of Subjects**

We classify our subjects along two dimensions, preferences and experiences. For preferences, our classification is based on subjects' self-reported interest in working in the financial industry. Figure 1 displays the distribution of this variable: 58 subjects indicate seven points and 99 subjects indicate six points in the finance interest question. Those subjects will be called "high finance interest subjects." All others will be called "low finance interest subjects."<sup>16</sup> Our sample contains 157 high finance interest subjects and 110 low finance interest subjects.

#### [INSERT FIGURE 1 ABOUT HERE]

For experience, our classification is based on the subjects' résumés. Subjects who have professional experience (vocational training, internships, or student assistantships) in firms that belong to the NACE<sup>17</sup> two-digit industry codes sub-category "financial service activities"

<sup>&</sup>lt;sup>14</sup> Brandts and Charness (2011) survey the experimental literature that studies whether the strategy method and the direct-response method lead to different results. They find no study where the treatment effects found with the strategy method are not observed with the direct-response method.

<sup>&</sup>lt;sup>15</sup> One subject studied law and was dropped from the sample.

<sup>&</sup>lt;sup>16</sup> We will check the robustness of our results with respect to the definition of high/low finance interest subjects.

<sup>&</sup>lt;sup>17</sup> The European classification of economic activities ("Nomenclature statistique des activités économiques dans

la Communauté européenne").

are called "finance experience subjects." Subjects who have no professional experience in this category are called "no finance experience subjects." We have 71 finance experience subjects in our sample and 189 no finance experience subjects.<sup>18</sup> Not surprisingly, the correlation between finance interest and experience is large: 83.1 percent of our finance experience subjects are also high finance interest subjects, compared to 50.2 percent of no finance experience subjects.

#### 3.3 Experimental Results (Study 1): Descriptive Statistics of Personal Characteristics

Table 1 provides an overview of subjects' personal characteristics, ordered by finance interest and experience. There are some differences between subsamples that are statistically significant, either for finance interest (e.g., high finance interest subjects care less about the work-life balance) or for finance experience (e.g., the last school of finance experience subjects was further away from Frankfurt).<sup>19</sup> However, most differences are not statistically significant for both classifications.

#### [INSERT TABLE 1 ABOUT HERE]

There are two noteworthy exceptions. First, high finance interest subjects are more willing to take risks than low finance interest subjects (6.7 versus 5.8 on the 11-point scale). The same holds true if we compare finance experience subjects to no finance experience subjects (6.7 versus 6.2). Second, regarding work values, earnings are more important for high finance interest subjects than for low finance interest subjects (6.1 versus 5.2 on the 7-point scale). Again, the same is true for the different experience groups (5.9 versus 5.6).

Our subjects acquired substantial professional experience. Those with finance experience had on average 2.9 jobs (1.3 in the financial industry), and spent 105.0 weeks in a

<sup>&</sup>lt;sup>18</sup> Six subjects worked at firms that belong to the sub-category "Insurance, reinsurance, and pension funding", and one subject worked at a firm that belongs to "Activities auxiliary to financial services and insurance activities." We will drop these subjects from the main analysis. We will show that including them as finance or no finance experience subjects does not affect our results in a qualitative way.

<sup>&</sup>lt;sup>19</sup> All p-values reported in the paper result from two-sided t-tests. The main qualitative results are the same when we use Mann-Whitney ranksum tests.

working relationship with some firm. Almost 30 percent of these subjects completed a threeyear vocational training program in a bank. No finance experience subjects had on average 2.1 jobs and spent 80.8 weeks in a working relationship;<sup>20</sup> 10.6 percent of them had completed a vocational training program.

#### 3.4 Experimental Results (Study 1): Trustworthiness

Table 2 provides an overview of subjects' behavior in the trust game, ordered by finance interest and experience. As shown in column 2, there are no statistically significant differences in the amounts sent, neither between low and high finance interested, nor between subjects with and without finance experience.

#### [INSERT TABLE 2 ABOUT HERE]

In terms of the mean amount returned as a fraction of the amount received (henceforth "mean amount returned") we find remarkable differences between groups. While subjects with low finance interest return on average 24.1 percent, subjects with high finance interest return only 17.4 percent. The difference in the average mean amount returned is highly significant according to a t-test (p-value = 0.001). A similar pattern obtains if we compare subjects with and without finance experience. Subjects with no finance experience return substantially more on average than those with finance experience (21.5 percent compared to 16.4 percent; t-test, p-value = 0.024).<sup>21</sup> Thus, subjects with high interest in working in the financial industry and subjects with previous professional experience in finance return on average 25 percent less in the trust game than subjects with low finance interest/without finance experience.

An interesting fact about the channels of this result arises if we compare the number of subjects who always return zero, independently of the amount received. These subjects do not

<sup>&</sup>lt;sup>20</sup> There are 29 subjects without any working experience. Excluding those subjects, we find that a no finance experience subject had on average 2.46 (sd = 1.47) jobs and spent 95.50 (sd = 133.94) weeks in a working relationship with some firm. Excluding those subjects does not change our main results, as will be shown below. <sup>21</sup> In a Mann-Whitney ranksum test, the respective p-values are 0.001 for interest and 0.025 for experience.

show *any* reciprocal behavior in the trust game. As presented in Table 2, 12.7 percent of low finance interest subjects have a mean return of zero, compared to 35.7 percent of high finance interested subjects; 23.3 percent of no finance experience subjects have a mean return of zero, compared to 35.2 percent of finance experience subjects. Indeed, if we just compare the mean amounts returned conditional on being positive, there are no statistically significant differences<sup>22</sup> between groups according to a t-test (p-value = 0.806 for finance interest, and p-value = 0.206 for finance experience).<sup>23</sup>

We cannot argue that there is a causal link between finance interest and trustworthiness due to endogeneity concerns. However, in a regression framework we can control for potentially confounding factors. We thus run a number of OLS regressions, using the mean amount returned as the dependent variable. As the main independent variable we include either *finance interest* (a variable defined on a scale from 1 to 7)<sup>24</sup> or *finance experience*, which is a dummy set to one if a subject has experience in the financial industry (and zero otherwise). We have to conduct separate regressions for both independent variables as they are highly correlated. Results for finance interest are presented in Panel A of Table 3, results for finance experience in Panel B.<sup>25</sup>

#### [INSERT TABLE 3 ABOUT HERE]

As shown in column 1a, when regressing the mean amount returned on finance interest, the coefficient for finance interest is negative and significant. The size of the

<sup>&</sup>lt;sup>22</sup> Excluding subjects who on average return zero, we find that low finance interest subjects on average return 27.6 percent (sd = 13.1), high finance interest subjects 27.1 percent (sd = 13.0), no finance experience subjects 28.1 percent (sd = 13.0), and finance experience subjects 25.3 percent (sd = 13.2).

 $<sup>^{23}</sup>$  Interestingly, 81.4 percent of the subjects who have a mean return of zero stated that earnings are very important (6 or 7, on a scale from 1 to 7), compared to 53.3 percent in the group of subjects who return a positive amount. This effect is mainly driven by the finance experience (92.0 percent) and high finance interest subjects (87.5 percent) who have a mean return of zero.

 $<sup>^{24}</sup>$  One concern may be that we interpret the ordinal finance interest scale in a cardinal way. Therefore, we also regress seven dummy variables (one dummy for each value of finance interest) on the mean amount returned. As shown in Table A in the Online Appendix, the main qualitative results are quite similar to our regression results above. Another concern may be that the amount returned is bounded. We thus estimate our baseline regression, using a tobit model. As shown in Table B in the Online Appendix, the main results are the same.

<sup>&</sup>lt;sup>25</sup> In all regressions, we use Huber-White standard errors. Using heteroskedasticity-robust standard errors does not change our main results.

coefficient indicates that, whenever a subject is one point more interested in working in finance, she returns 1.9 percentage points less. In column 2a, we include age, a gender dummy, a dummy capturing whether the subject has used the résumé in a previous job application, and, to control for cognitive ability, the number of correctly solved problems in the Raven test as controls. Including the controls has a slight impact on the size of the finance interest coefficient, but the effect remains significant. Age is the only control variable that turns out to be statistically significant, indicating that older subject are more trustworthy.<sup>26</sup>

Using finance experience as an independent variable, we also find a significant negative effect. Finance experience subjects return on average 25 percent less than subjects who have no finance experience. Including additional control variables improves the fit of the regression, but does not affect the result (column 2b). Again, age turns out to be significant in these specifications. Moreover, we find that women are significantly more trustworthy.<sup>27</sup> Based on the results above, we conclude:<sup>28</sup>

**Result 1.** Subjects with high interest in working in the financial industry, and subjects with previous professional experience in finance return around 25 percent less in the trust game than subjects with low interests and no such experiences. This effect is mainly driven by a larger number of subjects in the high finance interest/finance experience group, who always return zero, regardless of the amount received.

<sup>&</sup>lt;sup>26</sup> A number of studies found that trustworthiness increases with age (Fehr et al. 2003, Bellemare and Kröger 2007, Sutter and Kocher 2007), however, for much wider ranges of years of life.

<sup>&</sup>lt;sup>27</sup> A number of papers find that women are more trustworthy than men, while others find no significant gender differences (see Croson and Gneezy 2009 for an overview). In our experiment, we find significant gender differences in trustworthiness only in some specifications. To control for the impact of gender and age, we include both variables in all our regressions for Study 1.

<sup>&</sup>lt;sup>28</sup> One concern may be that subjects in the finance experience group have at least some professional experience, while some subjects in the no finance experience group have no experience at all. If we exclude all subjects that have no job experience in any industry, the results remain the same (see Online Appendix, Table C). We also run a regression in which we use an extended definition of experience in the financial industry. Here we include subjects who have experience in "Activities auxiliary to financial services and insurance activities" and "Insurance, reinsurance and pension funding" and set the finance experience dummy also to one for those observations. As shown in column 2 (Online Appendix, Table C), the results remain the same.

Do similar behavioral patterns exist for other industries? Based on the résumés we could identify all other industries in which the subjects in our sample have professional experience. Besides finance (n = 71), most subjects gathered experience in the retail (n = 43), and the audit industry (n = 40), as well as in public administration (n = 26). To control for the effects of other industries, we run our baseline regression, including dummies for the 15 industries in which most subjects had professional experience. Each dummy is set to one if a subject has professional experience in the corresponding industry and zero otherwise.<sup>29</sup> Our main qualitative results for finance experience are the same (see Table D in the Online Appendix). We do not find a robust and significant effect for any other industry.<sup>30</sup>

#### 4. Study 2: Trust, Professional Preferences, and Experiences

#### **4.1 Experimental Design**

The goal of our second study is to find out whether there is a lack of trust in people who have a high interest in working in the financial industry and/or professional experience in this sector. We therefore adopted the following experimental design. We recruited students from all faculties except from business and economics<sup>31</sup> to play a prediction game that is strategically equivalent to the first-mover decision in the trust game. Specifically, subjects played the trust game as first-mover against randomly chosen subjects from Study 1 (from whom we have recorded all choices through the strategy method). Subjects from Study 1 did not get any additional payments or feedback from Study 2, and we made this clear to Study 2 participants. The only motive for sending positive amounts to the second-mover is trust. Since

<sup>&</sup>lt;sup>29</sup> Note that we cannot run similar regressions for subjects' interest in working in the 15 industries, as the interests for some sectors are correlated. We investigate the impact of other professional preferences on trustworthiness in two ways. First, we run our baseline regression including the interest in the two other industries where most subjects have experience, i.e., retail and audit. Second, we conduct a regression where we measure finance interest in relative terms, i.e., the interest of a subject to work in the financial industry divided by the subject's average interest in working in all industries. As shown in Table E in the Online Appendix, the main results are similar to that in our baseline regression. In the first specification, we find a positive correlation between retail interest and trustworthiness, indicating that subjects with experience in the retail sector are more trustworthy.

<sup>&</sup>lt;sup>30</sup> The only exception is the computer industry. Here, however, the number of observations is quite low (n = 14).

<sup>&</sup>lt;sup>31</sup> We adopted this procedure in order to make sure that no subject was invited to both studies.

there are no payments to the second-mover, altruism or a taste for discrimination should not matter for the decision.

Each subject played against three randomly chosen second-movers from Study 1. After the experiment, one of them was randomly selected to be decisive for the subject's final payoff. Before subjects made their choices, they received the following information about each of the three second-movers: their age, their response to the preference question for finance, audit and retail business (the three industries where most Study 1 subjects acquired professional experience), and the industry in which they obtained professional experience.<sup>32</sup> For each subject, we randomly chose three different second-movers from the set of those Study 1 participants who had some professional experience.

The experiment was programmed using z-Tree and conducted at the *FLEX*. We recruited 189 subjects via ORSEE. We made sure that all subjects understood the experimental game by asking several control questions. If a subject did not correctly answer all control questions, he or she received additional assistance from the experimenters. Payments were made right after the experiment. Each session lasted about 60 minutes (including time needed for instructions and payments). On average, subjects earned 14.90 Euros (including a show-up fee of 8 Euros).

#### 4.2 Experimental Results (Study 2): Trust

Table 4 compares the average amounts sent to low and high finance interest subjects and to subjects with and without finance experience.<sup>33</sup> We treat the three amounts sent by each subject in Study 2 as independent observations.

#### [INSERT TABLE 4 ABOUT HERE]

<sup>&</sup>lt;sup>32</sup> See the Online Appendix for an example.

<sup>&</sup>lt;sup>33</sup> In the Online Appendix (Table F) we provide an overview of the characteristics of the subjects from Study 2.

Second-movers with high finance interest receive on average 4.43 Euros, compared to 4.80 Euros for subjects with low finance interest. This difference is significant according to a t-test (p-value = 0.051). Second-movers with finance experience on average receive 4.57 Euros, while second-movers without finance experience receive 4.64 Euros. This difference is not significant (t-test, p-value = 0.757).

In trust games, there is usually large cross-individual heterogeneity in the amounts sent by first-movers, while the intra-personal differences in the amount sent to various second-movers are smaller (see, e.g., Falk and Zehnder 2013). Trusting other players is risky and may depend on risk preferences and subjective beliefs about the trustworthiness of others. One advantage of our experimental design is that we observe three decisions for each subject. The only variations for a first-mover in the three trust games are the second-movers' characteristics. This procedure allows us to include a first-mover fixed effect in our regressions that captures (to a large extent) the invariant level of trust in Study 1 participants. Our dependent variable is the amount sent by the first-mover to the second-movers' interest in working in the financial industry,<sup>34</sup> or *finance experience*, which is a dummy set to one if the second-mover has finance experience and zero otherwise.

#### [INSERT TABLE 5 ABOUT HERE]

Results for finance interest are presented in Panel A of Table 5. As shown in column 1a, the coefficient for our main variable of interest is negative and significant. The size of the coefficient indicates that, whenever a second-mover is one point more interested in working in finance, the first-mover sends 0.10 Euros less. In column 2a, we include the second-

<sup>&</sup>lt;sup>34</sup> One concern may be that we interpret the ordinal finance interest scale in a cardinal way. To deal with this concern, we regress seven dummy variables (one dummy for each value of finance interest) on the amount sent. A second concern might be that our dependent variable is not normally distributed. We thus conduct a tobit regression. As shown in Table G and H in the Online Appendix, the main qualitative results are quite similar to our regression results above.

movers' age. While the coefficient for age turns out to be positive and significant, we find that the size of the finance interest coefficient is almost unchanged.<sup>35</sup> We conclude that subjects indeed anticipate both the negative correlation between finance interest and trustworthiness and the positive correlation between the second-mover's age and trustworthiness.

In Panel B of Table 5, we report our results for finance experience. The coefficient for finance experience turns out to be insignificant, indicating that the second-movers' professional experience in the financial industry has no impact on first-movers' trust. We summarize these results as follow:

**Result 2.** The amount sent by first-movers decreases in the second-movers' stated interest for working in the financial industry. The second-movers' professional experiences had no effect on the amount sent. In line with the results from Study 1, we find a positive effect of the second-movers' age on the amount sent.

#### 4.3 Experimental Results (Study 2): Who distrusts high finance interest subjects?

Do subjects differ in their ability to anticipate the negative correlation between finance interest and trustworthiness? To find out, we run our fixed-effects regression for different subsamples of subjects. We find that gender and cognitive ability (as measured by the Raven test) are related to the anticipation of relative differences in trustworthiness (see Table J in the Online Appendix). Whenever a second-mover is one point more interested in working in the financial industry, female subjects and subjects with above-median cognitive ability send 14 cents less. The coefficient for male subjects and subjects with below-median cognitive ability

 $<sup>^{35}</sup>$  Subjects in Study 2 were informed about the second-mover's finance interest as well as about her interest in working in the retail and auditing industry. To control for the interest in the two other industries, we ran our baseline regression, including one variable that captures retail and one that captures auditing interest. Our qualitative results remain the same (see Online Appendix, Table I). However, when including age and the two other interest variables, the coefficient for finance interest turns out to be slightly insignificant (p-value = 0.133).

decreases substantially compared to the baseline regressions and turns out to be insignificant. This indicates that those groups do not anticipate the relative differences in trustworthiness between low and high finance interest subjects.<sup>36</sup>

#### 5. Does the financial industry attract less trustworthy people?

We observed that people distrust those with a high interest in working in the financial industry, regardless of previous professional experience. We now exploit the data from Study 1 to investigate whether this distrust is warranted. Is there evidence that the financial industry attracts less trustworthy people? Or does the interaction of our subjects with the financial industry through internships or vocational training make them less trustworthy?

#### [INSERT TABLE 6 ABOUT HERE]

To investigate these questions, we split our sample into four groups: subjects with no finance experience and low finance interest (n = 94), subjects with finance experience and low finance interest (n = 12), subjects with no finance experience and high finance interest (n = 95), and subjects with finance experience and high finance interest (n = 59). In Panel A of Table 6, we present for each group the average of the mean amount returned (row 4) and the share of subjects who always return zero (row 5).

If we focus on subjects without finance experience, we find that those who have low finance interest on average return 24.6 percent, while those with high finance interest on average return only 18.4 percent. The difference in the averages of the mean amount returned is highly significant according to a t-test (p-value = 0.009) and robust in an OLS regression.<sup>37</sup> Again, this result is mainly driven by subjects who always return zero: 13.8 percent of low finance interest subjects always return zero, compared to 32.6 percent of high finance interest

<sup>&</sup>lt;sup>36</sup> We conduct the same regressions with the second-mover's finance experience as an independent variable. In none of these regressions does the effect of finance experience turn out to be significant.

 $<sup>^{37}</sup>$  We run our baseline regression for finance interest, including only subjects who have no finance experience. As shown in Table K in the Online Appendix, the main results turn out to be the same as in our baseline regression.

subjects.<sup>38</sup> Thus, high finance interest subjects are less trustworthy than low finance interest subjects, even if they have no experience in the financial industry.

Focusing on subjects with finance experience, we find that those with high finance interest on average return 15.4 percent, and that 40.7 percent of them have a mean return of zero. The 12 subjects who have finance experience, but only low finance interest, return on average 21.1 percent, and 8.3 percent of them have a mean return of zero. However, the difference between low and high finance interest groups is not significant (t-test, p-value = 0.271). This is not surprising, given the small number of subjects with finance experience and low finance interest. We conclude:

**Results 3.** Among subjects with no finance experience, we find that high finance interest subjects are less trustworthy than low finance interest subjects. Among subjects with finance experience, we find that high finance interest subjects are slightly, but not significantly, less trustworthy than low finance interest subjects.

Could it be that working in the financial industry makes subjects even less trustworthy? Clearly, our empirical setup is insufficient to answer this question conclusively. An appropriate experimental setup would randomly assign student subjects to firms from various industries (which requires firms' consent and enormous resources). However, our Study 1 dataset is rich enough to provide some indicative evidence.

Again, consider Panel A of Table 6. The numbers suggest that if we keep finance interest constant, finance experience reduces the average mean amount returned. However, both differences are insignificant (p-value = 0.273 for high finance interest, p-value = 0.453 for low finance interest). Nevertheless, assume that working in the financial industry lowers

<sup>&</sup>lt;sup>38</sup> The averages of the mean amount returned conditional on being positive are 28.6 percent (sd = 12.9) and 27.4 percent (sd = 13.1), respectively. This difference is not significant according to a t-test (p-value = 0.574).

one's trustworthiness. We would then expect that the amount of time spent in finance has a negative effect on the mean amount returned. In Panel B of Table 6, we differentiate between subjects with little finance experience (less than 4.5 weeks), intermediate finance experience (4.5 to 100 weeks), and high finance experience (more than 100 weeks, usually through vocational training). Comparing the averages of the mean amount returned and the percentage of subjects who have a mean return of zero, we find no evidence that subjects who have more finance experience are less trustworthy. If anything, the opposite is true: subjects who have worked for a longer time in finance return more on average. However, this may due to the fact that subjects with more professional experience are older on average. To investigate this, we re-examine our baseline regression, including a variable capturing the duration of experience in the financial industry.

#### [INSERT TABLE 7 ABOUT HERE]

As shown in Table 7, controlling for the duration of the working relationship has almost no impact on the estimated coefficient for finance interest/experience in our baseline regression. The coefficient for duration is almost zero and not significant. We conclude:

**Result 4.** There is no evidence that subjects who have more finance experience are less trustworthy.

The incentives to work in the financial industry are not the same for all subjects in Study 1. For subjects from Frankfurt the financial industry is attractive because (among other things) working there allows them to stay close to their social network (family, friends). This is not the case for subjects from outside Frankfurt. They had to leave their social network in order to study economics at Goethe-University. If they work in the financial industry after graduation, it is quite likely that they stay in Frankfurt and therefore remain separated from their previous social network. Hence, we conjecture that for subjects from outside Frankfurt material incentives are even more important than for subjects from Frankfurt. The effect of finance interest on trustworthiness should be more pronounced in the subsample of subjects who moved to Frankfurt for their studies.<sup>39</sup>

Through the résumés we have information about the location of a subject's last secondary school. German employees (and parents) are relatively immobile (David et al. 2010). Hence, the last school attended is a good indicator of where subjects grew up. We can thus compare the behavior of subjects who come from Frankfurt (or nearby) and German subjects who migrated to Frankfurt for their studies.

#### [INSERT TABLE 8 ABOUT HERE]

We run two separate regressions, one for subjects whose last school was within 50 kilometers of Frankfurt, and one for subjects whose last school was more than 50 kilometers away from Frankfurt.<sup>40</sup> Table 8 provides the results. As shown in column 1a and 1b, we find no significant effect of finance interest and finance experience on trustworthiness for German subjects whose last school was in Frankfurt (or close nearby). We find, however, a negative and significant effect of finance interest (column 2a) and finance experience (column 2b) on the average mean amount returned. The coefficient for both variables is larger than in our baseline regression. This finding suggests that our main result – high finance interest and finance experience are correlated with a lack of trustworthiness – is mainly driven by those subjects who migrate to Frankfurt for their studies.

<sup>&</sup>lt;sup>39</sup> Moreover, subjects from Frankfurt may be more "socialized" to have an interest in finance by the prominence of that profession in their home town. Hence, they may be less selected than subjects from outside.

<sup>&</sup>lt;sup>40</sup> On a descriptive level, we find that high finance interest subjects from Frankfurt or nearby have an average mean amount returned of 17.8 percent, low finance interest subjects of 24.6 percent. This difference is significant according to a t-test (p-value = 0.032). High (low) finance interest subjects who migrate to Frankfurt have an average mean amount returned of 15.1 percent (23.6 percent; t-test, p-value = 0.003). For (no) finance experience subjects from Frankfurt the respective numbers 19.1 percent (21.2 percent; t-test, p-value = 0.572), while for (no) finance experience subjects from other places they are 14.3 percent (20.8 percent; t-test, p-value = 0.040).

#### 6. Does the financial industry select less trustworthy people?

Having less trustworthy people in a company is a problem for two reasons. First, there are many ways in which employees can take advantage of the employer (Bewley 1999). In the financial industry, fraud against the employer can be very costly as the trading scandals around Jerôme Kerviel<sup>41</sup> and others suggest. Second, for the success of a large company employees must exchange information and cooperate with each other despite potential conflicts of interests. Such exchange and cooperation depend on trust (La Porta et al. 1997, Kramer 1999). It could therefore make sense for the financial industry to screen applicants with respect to trustworthiness. In this section, we study whether there is any evidence that this happens.

In the questionnaire of Study 1, we asked our subjects whether they have applied in the financial industry for vocational training, internships, or student jobs. We can therefore compare high finance interest subjects who applied, but do not (yet) have finance experience, and high finance interest subjects with finance experience. If the financial industry screens out applicants of low trustworthiness, we should see that subjects who applied, but have no finance experience are less trustworthy than those with experience.

In our sample, 47 percent of high finance interest subjects with no finance experience have already applied for a job in finance, compared to 23 percent of low finance interest subjects without experience.<sup>42</sup> On average these subjects return amounts similar to those of subjects with high finance interest and finance experience (mean returns = 16.3 percent versus 15.4 percent; t-test, p-value = 0.837). The share of subjects who have a mean return of zero is also similar between these two groups (44.4 percent versus 40.7 percent). Moreover, we find no significant differences in the returns of subjects with low finance interest who have applied

<sup>&</sup>lt;sup>41</sup> Mr. Kerviel engaged in rogue trading for two years, which resulted in a loss of 4.9 billion Euros for *Société Générale* (see, e.g., Clark 2010).

<sup>&</sup>lt;sup>42</sup> One may ask why some subjects have applied in finance when they have only a low interest in working in this sector. One reason could be that they just search for some job and therefore send their application to several firms, even if they are not interested in working in finance in the future.

in the industry, but have no finance experience (yet) and low finance interest subjects with experience (mean returns = 23.9 percent versus 21.1 percent; t-test, p-value = 0.603).<sup>43</sup> We conclude that there is no evidence that the financial industry screens out less trustworthy individuals in the hiring process. Subjects who were selected for a three-year long vocational training program, for a student job or an internship are as trustworthy as subjects who applied, but have no experience (yet).

**Result 5.** There is no evidence that the financial industry screens out less trustworthy individuals.

It could be that financial companies screen applicants for permanent jobs better than for temporary jobs. We therefore investigated what matters most for a successful application in a number of interviews with human resource managers from financial companies located in Frankfurt (see the Online Appendix for details). Two questions are of particular interest.

In the first question, we presented eight résumés from Study 1 to our interview partners, four résumés from finance experience subjects and four résumés from no finance experience subjects.<sup>44</sup> For each résumé we asked our interview partners to indicate the probability with which this subject gets a job in the company if he or she applied (at the most relevant division for his or her specialization). Interview partners responded either "quite

<sup>&</sup>lt;sup>43</sup> We also run a regression where we only include subjects with no finance experience and regress the mean amount returned on a dummy, which is set to one if a subject has applied for a job in finance in the past (zero otherwise). Results are provided in the Online Appendix, Table L. The coefficient of the variable of interest is negative and significant, indicating that subjects who applied in the financial industry return five percent less than subjects who have not applied in this sector. Thus, subjects who applied in the financial industry behave in the trust game similarly to subjects who already have finance experience.

<sup>&</sup>lt;sup>44</sup> To ensure that the extent of professional experience is comparable between finance and no finance experience résumés, we adopted the following procedure. For each interview, we randomly chose résumés such that two out of four résumés from the (no) finance experience subjects show vocational training, and the two other résumés show at least one internship of more than four weeks. One résumé could be selected several times. In the chosen sample of résumés, finance experience subjects with vocational training have on average 171.6 weeks (sd = 50.64) of professional experience, no finance experience subjects with vocational training 217.83 weeks (sd = 126.6). The corresponding numbers for subjects without vocational training are 77.0 (sd = 73.2) for finance experience subjects and 78.0 weeks (sd = 126.0) for no finance experience subjects. We re-wrote the résumés in uniform style and deleted any information about the subjects' age and extracurricular activities (see the Online Appendix for an example).

likely" (two points), "eventually" (one point) or "no chance" (zero points). In total, we have 56 ratings.

The responses to this question yield a clear picture. Subjects with vocational training in an industry other than finance get an average score of 0.08, and subjects with experience through internships in an industry other than finance get an average score of 0.29. In most cases, these subjects would not even be invited to a job interview. On the contrary, subjects with vocational training in finance get an average score of 1.00, and subjects with experience through internships in the financial industry score highest with 1.36 points on average. When we directly ask for the share of economists who completed an internship in the financial industry before they were hired by the company, the response was in most cases 100 percent. This indicates that it is almost impossible to get a job in the financial industry without relevant professional experience.

In the second question, we listed the nine personal characteristics that most frequently appear as required skills in recent job postings in the financial industry.<sup>45</sup> Then we added "trustworthiness" to this list (it was almost never mentioned in the job postings). We asked our interview partners to pick three personal characteristics that they think are "very important" (two points) for a job in the company, and four skills they think are "important" (one point). The other skills are rated as "neutral" (zero points).

The three most important personal characteristics are communication skills with an average score of 1.83, ability to work in teams with an average score of 1.50, and analytical skills with an average score of 1.33. Trustworthiness scores a fifth place (on par with determination and readiness) with an average score of 1.00 (see Table M in the Online Appendix). This suggests that the trustworthiness of an applicant is not particularly important

<sup>&</sup>lt;sup>45</sup> These personal characteristics were "communication skills", "analytical skills", "ability to work in teams", "ability to work independently", "conceptual skills", "performance motivation", "readiness", "mobility/flexibility", and "determination." We identified all job postings on the leading German online job market ("monster.de"), two days before the first interview took place. We checked 50 randomly selected postings that appeared when we searched for jobs in the financial industry and identified all personal characteristics that are important for applicants according to the job postings of financial companies.

in the hiring process. Instead, skills that are relevant for the daily business and that can easily be tested in a job interview are important for a successful application.

#### 7. Conclusion and Discussion

Financial companies frequently emphasize the role of trust in their daily business. For example, Goldman Sachs writes at the very top of its "Code of Business Conduct and Ethics" that "[...] we believe the best way to build and to maintain trust is to conduct every element of our business according to the highest standards of integrity." Our results suggest that the current selection of employees may be confounding attempts to build trust in the financial industry. We found that people trust individuals who are highly motivated to work in the financial industry less than individuals with other professional goals. This lack of trust seems to be warranted to some extent. Those with high interest in working in finance return on average 25 percent less in the trust game than individuals with other professional goals. This difference is driven by a much larger share of subjects who never return anything in the high finance interest group. Importantly, these results hold irrespective of subjects' previous professional experiences. Thus, the financial industry seems to attract less trustworthy individuals, and we found no evidence that it seeks to screen them out in the hiring process. Hence, at least part of the lack of trust and trustworthiness in the financial industry may be due to the selection of selfish individuals. In the following, we discuss the implications of this result as well as possible limitations of our study.

#### 7.1 Implications

Our results yield implications for public policy, financial and non-financial companies. Given the importance of the financial industry for the economy, it seems desirable from a policy perspective to avoid the selection of less trustworthy individuals into this industry. We can only speculate how this could be achieved. In a recent paper, Dal Bó et al. (2013) show that the pool of applicants for public sector jobs can be improved (in terms of cognitive ability, personality, and motivation) through higher wages. We conjecture that the financial industry attracts many talented students through its high wages and bonuses. Indeed, we observed that those with high interest in working in the financial industry have a relatively high valuation for monetary rewards (as compared to subjects with other job preferences). This suggests that making employment in finance less attractive in terms of remuneration may also change the pool of applicants. A number of policy measures are available to reduce workers' earnings in the financial industry, see Bell and Van Reenen (2014) for a discussion. One can pursue a tighter regulation that constrains profits and thereby reduces earnings (such as higher equity requirements), or increase taxes on very high incomes. In both cases, the policy measure may not only have a direct effect (reduction of incomes), but also change the pool of applicants, perhaps for the better. Thus, our results suggest that policy-makers should take into account the self-selection of workers into occupations based on social preferences in their decisions on regulation.

There does not seem to be a simple way for the financial industry to select more trustworthy individuals. Companies may choose to hire from a different pool, e.g., applicants with professional experiences in industries other than finance. Our results suggest that this would not change much. Within the sample of subjects without finance experience, those who are most eager to work in the financial industry are just as trustworthy as those with finance experience and high finance interest.

At the very least, our results show that consumer protection and the promotion of product transparency is even more important in the financial industry than in other sectors. Since monetary incentives seem to work especially well for employees of the financial industry, effective regulation is feasible and unlikely to crowd out any other "mission oriented" motivation.

#### 7.2 Possible limitations of the study

The differences in trustworthiness between low and high finance interest subjects may be due to differential selection into the lab: those low finance interest subjects who participate in the experiment do so because of pro-social motivations (e.g., helping the researcher), while those high finance interest subjects who participate do so only for monetary gains. A number of studies show, however, that such selection is unlikely. Abeler and Nosenzo (forthcoming) vary the content of invitation mails (rewards versus helping research). They find that the subject pools in each treatment exhibit the same distribution over social preferences. Cleave et al. (2013) compare the behavior in the trust game of a representative sample of the student population and participants of lab experiments. Subjects who participate in experiments are less trustworthy than non-participants, but the difference is rather small.<sup>46</sup> Falk et al. (2013) show that those students who donate more in the field are not more likely to participate in laboratory experiments.

Another criticism could be that we do not know who among our subjects ultimately works in the financial industry. However, it became very clear in the interviews that having professional experience in the financial industry through internships (or, in some cases, vocational training) is essential for a successful application. Thus, finance experience subjects have a much higher probability of being successful in the finance job market than no finance experience subjects. Moreover, our subject pool is the most relevant for the finance job market. Most employees in the financial industry have a university degree (in the interviews, 82 percent), and most employees with a university degree are economists (in the interviews, 87 percent). Our interview partners indicated that the ideal age of an applicant is around 25 years (the average age of our finance experience subjects is 22.1 years). So while we do not have a representative sample of finance and non-finance employees, we do certainly have a

<sup>&</sup>lt;sup>46</sup> In particular, 11.1 percent of all potential subjects participate in the laboratory experiment, while 12.1 percent of those who always return zero participate.

significant number of individuals who will end up in the financial industry; and we are able to compare them to those who most likely will find a job in another industry.

As in Cohn et al. (2014), the main effect in Study 1 may partially be due to priming through the survey on professional preferences. Since individuals are constantly exposed to their professional identity during their working time, this would not be problematic for our conclusions. Apart from this, we think that the priming effect is not substantial. After the survey and before the experiment, we conducted the Raven test which takes 12 minutes (plus some minutes to read the instructions for the test) and is cognitively challenging. If anything, we primed all subjects to behave rationally in the trust game.

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### **Figures and Tables**





	Finance Interest:		Finance	Experience:
	Low (n=110)	High (n=157)	No (n=189)	Yes (n=71)
Demographics, background				
Age (mean years)	22.4 (2.5)	21.9 (2.3)*	22.0 (2.5)	22.1 (2.1)
Female	71.8%	38.9%	52.9%	46.5%
Distance between last school and Frankfurt (mean km)	123.1 (154.4)	133.5 (197.2)	111.9 (133.4)	167.8 (257.9)**
Psychological tests/questions (mean scores)				
Raven's test: Total number of correctly solved problems	7.2 (2.0)	7.4 (2.2)	7.2 (2.1)	7.7 (2.0)
Big 5: Extraversion	3.7 (0.5)	3.7 (0.6)	3.7 (0.6)	3.8 (0.5)**
Big 5: Agreeableness	3.9 (0.6)	3.7 (0.6)*	3.8 (0.6)	3.8 (0.6)
Big 5: Conscientiousness	4.2 (0.5)	4.2 (0.5)	4.2 (0.5)	4.2 (0.5)
Big 5: Neuroticism	2.4 (0.7)	2.3 (0.7)	2.2 (0.7)	2.3 (0.7)
Big 5: Openess	3.3 (0.8)	3.2 (0.8)	3.2 (0.8)	3.4 (0.8)
Willingness to take risk and patience (mean scores)				
Self-reported willingness to take risk	5.8 (2.1)	6.7 (2.0)***	6.2 (2.1)	6.7 (1.9)*
Self-reported patience	5.9 (2.3)	6.1 (2.6)	6.0 (2.4)	6.2 (2.5)
Self-reported importance of work values (mean scores)				
Physical working conditions	5.5 (1.0)	5.7 (1.1)	5.6 (1.0)	5.7 (1.2)
Work-Life-balance	6.1 (1.1)	5.7 (1.5)***	5.9 (1.3)	5.7 (1.5)
Living in area desirable for you	5.6 (1.2)	5.6 (1.0)	5.6 (1.3)	5.5 (1.4)
Security	5.9 (1.2)	5.7 (1.5)	5.9 (1.3)	5.4 (1.5)**
Earnings	5.2 (1.2)	6.1 (1.0)***	5.6 (1.1)	5.9 (1.2)**
Benefits	3.7 (1.6)	4.6 (1.6)***	4.2 (1.7)	4.4 (1.6)
Relationship co-workers	6.3 (1.0)	6.2 (1.0)	6.3 (1.0)	6.1 (0.9)
Relationship boss	6.0 (1.1)	6.1 (1.0)	6.1 (1.1)	6.0 (1.0)
Career opportunities	6.0 (1.1)	6.4 (0.8)	6.2 (0.9)	6.4 (0.9)
Training opportunities	6.0 (0.9)	6.0 (1.2)	6.1 (0.9)	5.9 (1.3)
Autonomy	5.6 (1.2)	5.6 (1.3)	5.5 (1.2)	5.8 (1.2)

#### Table 1: Descriptive statistics (Study 1) - Characteristics of subjects

Students with vocational training (%)	10.6%	29.6%
Given student has had vocational training:		
Duration (mean weeks)	110.7 (41.9)	115.8 (30.3)
Distance: Training place and Frankfurt (mean km)	28.9 (41.0)	274.3 (193.4)***
Total number of internships (mean)	2.1 (1.6)	2.9 (1.6)***
Duration of each internship (mean weeks)	26.3 (37.5)	23.3 (20.9)
Jobs experience (mean weeks)	80.8 (127.9)	105.0 (79.8)
Educational background (subsample)		
Job experience in financal industry: Duration (mean weeks)		62.6 (67.3)
Total number of internships in financial industry (mean)		1.3 (0.8)
Total number of students with job experience		
in financial industry: <4.5 weeks		21
in financial industry: 4.5-100 weeks		26
in financial industry: >100 weeks		24

5.7 (1.3)

5.7 (1.0)

5.0 (1.5)

5.6 (1.2)

5.7 (1.1)

5.4 (1.4)

5.6 (1.3)

5.6 (1.1)

5.2 (1.5)

5.7 (1.1)

5.8 (1.1)

5.3 (1.4)

Personality development

**Educational background** 

Challenging job

Reputation

Subjects were asked to indicate "to what extent can you imagine to work in the following industries in the future: (...) Finance (...)" on a scale from "certainly not" (1) to "definitely" (7). *Low* means that the subject stated an interest in working in the financial industry of (5) or less, *High* means an interest of (6) or (7). Finance experience subjects have experience in firms that belong to the NACE two-digit industry sub-category "financial service activities". We exclude in column 3 and 4 subjects who had experience in the following two industries: "Activities auxiliary to financial services and insurance activities", "Insurance, reinsurance and pension funding". Distance: Subjects whose last school was not in Germany are excluded. Raven test: Number of correct answers in Raven's

Advanced Progressive Matrices test. Willingness to take risk, patience and work values: Self-reported values, questions based on Dohmen et al. (2011), Vischer et al. (2013) and Ronen (1994). Data about educational background are based on subjects' résumés. No subject completed more than one vocational training program. One subject with finance experience completed a vocational training program in a non-financial institution. All other subjects with finance experience and vocational training received their training in banks. Internships also include student jobs. Standard deviations are reported in parenthesis. In case of significant differences between two groups, the results of a two-sided t-test are reported. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

## Table 2: Descriptive statistics (Study 1) - Amount sent and mean amount returned, by finance interest and experience

	Finance interest:		Finance e	xperience:
	Low	High	No	Yes
Observations	110	157	189	71
Mean amount sent (SD)	3.05 (2.61)	3.14 (3.14)	3.24 (2.92)	2.82 (3.03)
Mean amount returned as a fraction of amount received (SD)	24.1% (15.4)	17.4% (16.7)***	21.5% (16.4)	16.4% (16.1)**
Fraction of subjects: Mean return is 0	12.7%	35.7%	23.3%	35.2%

Row 2 presents the mean amount sent, by the extent subjects could imagine to work (column 1 and 2) or had already job experience (column 3 and 4) in the financial industry. *Low* means that the subject stated an interest in working in the financial industry of (5) or less. Row 3 shows the mean amount returned as a fraction of the amount received. We used the strategy method in our experiment. Row 4 shows the fraction of individuals who always choose to return zero. Standard deviations are in parenthesis. In case of significant differences between the two groups the results of a two-sided t-test are reported. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

	Panel A: Independent variable: Finance interest		Panel B: Independent variable: Finance experience	
Specifications	(1a)	(2a)	(1b)	(2b)
Constant	0.303***	0.010	0.215***	-0.156
Finance interest/experience	-0.019***	-0.014**	-0.052**	-0.050**
Age	(0.005)	(0.006) 0.013***	(0.023)	(0.022) 0.016***
Gender		(0.004) 0.032		(0.004) 0.049**
Ravens IQ		(0.021) -0.002		(0.020) -0.001
CV used in application		(0.005) -0.007		(0.005) -0.004
		(0.029)		(0.030)
R <sup>2</sup>	0.046	0.092	0.020	0.098
Sample Size	267	267	260	260

#### Table 3: Baseline regression (Study 1) - Mean amount returned

One observation is one subject. The dependent variable is the mean amount returned as a fraction of amount received. In Panel A, "Finance Interest/Experience" is the interest of a subject in working in the financial industry, on a scale from (1) to (7). In Panel B, "Finance Interest/Experience" is a dummy set to one if a subject has experience in the financial industry. In column 2, we include age, gender (set to one for women), the number of correctly solved questions in the Raven test, and a dummy set to one if subjects state that they have already used their résumé in an application for an internship or a job. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Huber-White standard errors are in parenthesis.

	Finance	interest:	Finance ex	xperience:
	Low	High	No	Yes
Observations	298	269	413	154
Mean amount sent (SD)	4.80 (2.44)	4.43 (2.67)*	4.64 (2.58)	4.57 (2.48)

# Table 4: Descriptive statistics (Study 2): Amount sent, by finance interest and experience of the second-mover

In Study 1, second-movers were asked to indicate "to what extent can you imagine to work in the following industries in the future: (...) Finance (...)" on a scale from "certainly not" (1) to "definitely" (7). In Study 2, first-movers were informed about the interest of the three second-movers in working in the financial industry. One observation is one first-mover decision. The table shows the mean amount sent, broken down by interest of the second-mover in working in the financial industry and by finance experience. Standard deviations are in parenthesis. In case of significant differences between the two groups the results of a two-sided t-test are reported. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

	Panel A: Independent variable:		Panel B: Independent variable	
Specifications	(1a)	(2a)	(1b)	(2b)
Constant	5.118***	2.713***	4.620***	2.127***
	(0.224)	(0.831)	(0.086)	(0.785)
Finance interest/experience	-0.102**	-0.089**	0.023	0.013
-	(0.044)	(0.044)	(0.191)	(0.189)
Age		0.105***		0.112***
		(0.035)		(0.035)
First-mover fixed effects	Yes	Yes	Yes	Yes
R <sup>2</sup> (within)	0.014	0.037	0.000	0.031
Sample Size	567	567	567	567

#### Table 5: Baseline regression (Study 2) - Amount sent

One observation is one decision by the first-mover. The dependent variable is the amount sent. Independent variables are the interest (on a scale from 1 to 7) of the second-mover in working in the financial industry (column 1 and 2) and age (column 2). \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Huber-White standard errors are in parenthesis.

# Table 6: Descriptive Statistics (Study 1) - Mean amount returned and share of subjects with zero returns, by finance interest and experience

Panel A: Interaction of finance experience and interest					
Finance experience	Finance interest	Number of observations	Mean amount returned	Mean return zero (% of subjects)	
No	Low	94	24.6% (15.6)	13.8%	
Yes	Low	12	21.1% (15.1)	8.3%	
No	High	95	18.4% (16.8)	32.6%	
Yes	High	59	15.4% (16.3)	40.7%	

	Panel B:	<b>Duration</b> of	experience f
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Finance experience	Experience: Weeks in finance industry	Number of observations	Mean amount returned	Mean return zero (% of subjects)
Yes	<4.5	21	14.3 % (15.8)	42.9%
Yes	4.5 - 100	26	15.3% (15.6)	34.6%
Yes	>100	24	19.4% (17.1)	29.2%

	Panel A: Independent variable:	Panel B: Independent variable:
Specifications	<b>Finance interest</b>	Finance experience
Constant	-0.041	-0.148
	(0.101)	(0.095)
Finance interest/experience	-0.013**	-0.061**
	(0.006)	(0.028)
Finance experience: Duration	-0.001	0.001
	(0.001)	(0.001)
Age	Yes	Yes
Gender	Yes	Yes
R <sup>2</sup>	0.092	0.099
Sample Size	267	260

# Table 7: Baseline regression (Study 1) - Mean amount returned,<br/>controlling for the time spent in the financial industry

Baseline regression (as in Table 3), including a variable capturing the number of weeks a subject spent in the financial industry. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Huber-White standard errors are in parenthesis.

	Panel A:		Pan	el B:
	Independent variable:		Independe	nt variable:
	Finance interest		Finance e	experience
Specifications	≤ 50 km	> 50 km	≤ 50 km	> 50 km
Constant	0.112	-0.121	0.024	-0.401***
	(0.191)	(0.163)	(0.186)	(0.133)
Finance interest/experience	-0.008	-0.017*	-0.027	-0.075**
	(0.008)	(0.009)	(0.037)	(0.029)
Age	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.072	0.143	0.075	0.182
Sample Size	106	130	102	127

# Table 8: Baseline regression (Study 1) - Mean amount returned, by subjectswhose last school was close or far away from Frankfurt

Baseline regression (as in Table 3). In columns 1 and 3, we only include subjects whose last school was 50 or less kilometers away from Frankfurt. In columns 2 and 4, we only include subjects whose last school was more than 50 km away from Frankfurt. Subjects whose last school was not in Germany are excluded. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Huber-White standard errors are in parenthesis.



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