

Social Preferences of Young Professionals and the Financial Industry^{*}

Andrej Gill[§], Matthias Heinz^δ, Heiner Schumacher[∞], and Matthias Sutter^β

Abstract

Trust is an important element of many financial transactions. Yet, the financial industry has been struggling with public mistrust. One explanation for this could be the selection of individuals who wish to work in and get job offers from the financial industry. In this paper, we examine the selection into the financial industry based on social preferences. We identify the social preferences of business and economics students, and, for more than six years, follow up on their early career choices as well as on their job placement after graduation. Students eager to work in the financial industry behave in a substantially less trustworthy manner and show less willingness to cooperate than those with other career plans. The job market does not alleviate this selection. Those subjects who find their first permanent job in finance behave in significantly less trustworthy manner than those working in other industries.

JEL codes: C91, G20, M51

Keywords: Social Preferences, Financial Industry, Young Professionals, Experiment

November 22, 2021

^{*} We thank Yan Chen (the Editor), an anonymous associate editor, four anonymous referees, Loukas Balafoutas, Björn Bartling, Alain Cohn, Anna Piil Damm, Thomas Dohmen, Ernst Fehr, Guido Friebel, Andreas Hackethal, Jürgen Huber, Bernd Irlenbusch, Alexander Koch, Michael Kosfeld, John List, Michel Marechal, Axel Ockenfels, Devesh Rustagi, Antoinette Schoar, Dirk Sliwka, Matthias Stefan, Uwe Walz, and Achim Wambach, as well as seminar participants at Aarhus University, University of Bonn/briq, Copenhagen University, University of Chicago, and the Society for Experimental Finance Annual Meeting for valuable comments and suggestions. We thank David Heller, Sebastian Koch, Stephan Krehl, Christopher Kroh, Jana Schneider, David Schuch, and Katharina Tilts for excellent research assistance. Financial support from the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy – EXC 2126/1– 390838866, from the University of Cologne (through the Hans Kelsen Prize), and from the Center for Financial Studies (CFS) is gratefully acknowledged.

[§] University of Mainz. Email: gill@uni-mainz.de.

^δ University of Cologne, ECONtribute, Max Planck Institute for Research on Collective Goods, Bonn, and CEPR. Email: heinz@wiso.uni-koeln.de.

[∞] University of Innsbruck and KU Leuven. Email: heiner.schumacher@uibk.ac.at.

^β Corresponding author. Max Planck Institute for Research on Collective Goods, Bonn, University of Cologne, ECONtribute, IZA Bonn, CESifo Munich and University of Innsbruck. Phone: +49 228 914 16 150; Email: matthias.sutter@coll.mpg.de.

1 Introduction

The financial industry serves a crucial role in every modern society. Most importantly, it allows businesses to finance projects and consumers to purchase property, accumulate wealth, or to insure people and property against risks. Financial transactions determine the traded assets as well as each party's payment obligations. Both asset values and payment obligations are typically subject to a multitude of external risks. Financial transactions are therefore often complex. Moreover, they are frequently characterized by asymmetric information and a conflict of interest between the trading parties. This is especially true for the relationship between clients and financial professionals. In order to engage in a financial transaction, clients have to trust financial professionals that they make recommendations or perform actions that are beneficial, or at least not detrimental, to them (Gambetta 2000, Sapienza and Zingales 2012). In retail finance, this trust in financial professionals is particularly important, as they may act as “money doctors” (Gennaioli et al. 2015, Kostovetsky 2016, Gurun et al. 2018) who help uninformed clients making risky investments by reducing anxiety about taking risk.

However, there is a lack of trust in the financial industry in many countries. Financial advisers often rank among the least trustworthy professionals (e.g., Zingales 2015). Consumer surveys consistently report that clients are less satisfied with the services offered by the financial industry than with the services offered by any other industry (e.g., European Commission 2018). Indeed, it is by now well documented that the delegation of financial decisions to financial companies increases firms' profits, but leads to reduced investment returns for individual investors (e.g., Hoechle et al. 2018, Chalmers and Reuter 2020). As a consequence, individual investors may lose trust in financial advisors and invest less in equity (Choi and Robertson 2020). Moreover, scholars argue that a number of prominent scandals have substantially reduced trust in the financial industry and the financial market (Guiso et al. 2008, Sapienza and Zingales 2012, Zingales 2015, Gurun et al. 2018).

There is a recent debate whether the business conduct in the financial industry can be ascribed to its business culture (Cohn et al. 2014a). However, the business culture in an industry is essentially shaped by the people who voluntarily decide to work in and get a job offer from that industry. In this paper, we contribute to this debate by studying who selects into and is selected by the financial industry. To this end, we measure a key dimension of social preferences, namely trustworthiness, of business and economics students several years before they enter the labor market. For six years, we follow up on their professional specialization as

well as on their job placement after graduation. With this data we can examine whether there is selection into the financial industry based on trustworthiness.

Our long-term project started with a data collection wave in 2013 in which we asked 265 business and economics students at Goethe University Frankfurt, Germany, about their professional preferences and their interest in working in different industries. Goethe University offers a study program in business and economics that allows for a strong focus on finance. Moreover, Frankfurt is the most important hub of the financial industry in Germany. It is relatively easy for students in Frankfurt to acquire professional experiences in finance before graduation and to find a job in the financial industry after graduation. Individuals with business or economics degrees make up around 50 percent of the workforce that has an academic degree in the German financial industry¹, and around 30 percent of business and economics graduates from Frankfurt work in this industry.

In 2013, students participated in an experimental trust game (Berg et al. 1995). In this game, a first mover can transfer money to a second mover, the transfer is tripled, and the second mover can return some of the tripled amount back to the first mover. The first mover's decision can be interpreted as a measure of trust², and the second mover's decision as a measure for trustworthiness. Earlier work has already shown that behavior in the trust game correlates with real-world decisions such as loan repayments (Karlan 2005), charity donations (Baran et al. 2010), effort provision at the workplace (Barr and Serneels 2009, Cohn et al. 2014b), and investment decisions (Riedl and Smeets 2017).

We ran a second wave of data collection in late 2019 and early 2020, more than six years after the first wave. This time we recorded data on the former students' actual first job placement after graduation and further details of their career paths. Following up subjects on their career paths from their college days into their first permanent job is important for at least three reasons. First, the labor market in the financial industry is very competitive. If a subject indicates in 2013 that she is strongly interested to work in the financial industry, this does not automatically imply that she will get a job offer from a financial company. Only the actual job placement reveals whom the financial industry selects and admits. Second, subjects may change their mind during their studies. If a subject indicates in 2013 that she is strongly interested in working in finance, this does not necessarily mean that she still wants to work in this industry several years later. Third, entering the financial industry after graduation is a decision with

¹ According to 2019 data acquired from "Statistisches Bundesamt" (available upon request).

² In this paper, we follow the definition of trust from Rousseau et al. (1998, p. 395): "Trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another."

long-term consequences. Ellul et al. (2020) show that only a small share of individuals switch from the financial industry to another industry and vice versa.

Looking first at the data from 2013, we find that there is no relationship between professional preferences and an individuals' trust. We are not primarily interested in whether individuals who might end up in the financial industry trust other subjects, but our main interest is in whether they behave in a trustworthy manner (for potential future clients). We find a remarkable difference in the trustworthiness of subjects with varying professional preferences. There is a significant negative correlation between an individual's desire to work in the financial industry and the degree of trustworthiness: The third of students most interested in working in finance return on average around 30 percent less in the trust game than the third of subjects least eager to work in finance. Importantly, this relationship remains unchanged if we focus on subjects who in 2013 did not have any professional experience in the financial industry, and therefore have not been exposed to its business culture yet.

With the data from 2019/2020, we can show that the job market does not alleviate this selection. In our sample, interest in working in the financial industry is highly correlated with the probability of starting a career in this industry. The probability of working in finance increases by around 10 percentage points for each additional unit of interest in working in finance (on a Likert-scale from 1 to 7). Subjects who find their first permanent job in finance returned on average around 30 percent less than subjects who start their career in another industry.

We find one further striking effect. When we focus on the third of subjects who in 2013 were most eager to work in finance, we find a large behavioral difference between students whose first job placement is in the financial industry and those who find their first job elsewhere: The former group returns on average 50 percent less as second movers than the latter group. This suggests that the job market does not reduce the selection of less trustworthy individuals into the financial industry; if anything, the opposite seems to be the case.

With our rich data, we can examine the career paths of our subjects. We find that those who get their first permanent job in the financial industry do not accidentally enter this industry. Most of these individuals already collect professional experience in finance prior to graduation, for example via internships or student jobs. The chance of starting a career in finance without such experience is small.

We also provide evidence that the selection pattern generalizes to other dimensions of social preferences. In an unrelated study (Heinz and Schumacher 2017), subjects from two other universities play the public goods game (Fischbacher et al. 2001, Fischbacher and Gächter

2010) and are asked about their professional preferences. Again, those students with a high motivation to work in finance after graduation behave significantly more selfishly than subjects with other professional goals. Interestingly, when they play the repeated version of the public goods game with fixed partner matching, they are not behaving differently from other subjects until the very last periods. In the last periods, however, they reduce their contributions significantly stronger than others. Hence, subjects with a high interest in working in the financial industry behave pro-socially to some extent as long as this behavior is rewarded in future interactions, but they quickly stop contributing when this is no longer the case.

The paper is most closely related to the literature that studies how honesty is affected by the business culture in the financial industry. The norms and formal rules of the financial industry may induce dishonest behavior among otherwise honest people (Cohn et al. 2014a). Yet, the empirical evidence on the effects of business culture on the honesty of employees in the financial industry is inconclusive (see Cohn et al., 2014a, 2019; Villeval, 2014; Stöckl, 2015; Rahwan et al., 2019; and Huber and Huber, 2020).

More generally, we contribute to a growing literature that analyzes selection into professions based on social behavior. Hanna and Wang (2017) show that students in India who cheat in a laboratory task are more eager to work in the public sector. Barfort et al. (2019) find the opposite result for Denmark, which suggests that selection into public service depends on a country's institutional context. Both studies do not follow up on their subjects' job placement after graduation so they cannot identify how strong the actual selection into public service is based on honesty or social preferences. Friebel et al. (2019) compare behavior in a trust game of police applicants (when they submit their application) and a sample of high school students in a similar age cohort. They find that the former group is more trusting and trustworthy than the latter group. Two further papers document an association between distributional preferences and career choices. Fisman et al. (2015) find that student subjects who focus on efficiency in distribution games are more likely to choose employment in the private sector, while subjects who focus on equality are more likely to choose employment in the non-profit sector. Li et al. (2017) show that the degree of altruism of medical students is negatively correlated with the remuneration in the job in which they specialize. Compared to these papers, our paper is the first that (i) identifies selection into occupations based on social preferences by following subjects' careers *before* and *after* their first job market placement, (ii) is able to match intentions and actual outcomes on the job market, and (iii) focuses on selection into the financial industry.

Finally, a number of studies find evidence that economics students behave more selfishly than students of other majors (e.g., Marwell and Ames 1981, Carter and Irons 1991,

Frank and Schulze 2000, Frey and Meier 2003, Rubinstein 2006, Baumann and Rose 2011, Heinz and Schumacher 2017). Our paper demonstrates that even within the pool of business and economics students there are considerable behavioral differences between subjects of varying professional preferences.

The remainder of the paper is organized as follows. In Section 2, we explain the study design of our long-term project. In Section 3, we present the results on trustworthiness and selection into the financial industry. Section 4 provides further support for selection on social preferences into the financial industry by presenting additional evidence from a public goods game. Section 5 discusses the interpretation of our experimental data. Finally, Section 6 concludes. An extensive Online Appendix contains additional robustness checks and all instructions.

2 Project Design

Our project consists of two waves of data collection, the first one in 2013, and the second one in late 2019 and early 2020. For convenience, we will refer to them as Wave 2013 and Wave 2020, respectively.

2.1 Professional Preferences and Trustworthy Behavior – Wave 2013

Wave 2013 was run as a laboratory experiment that we conducted in 2013 at Goethe University Frankfurt. In the invitation email for the experiment, we asked subjects to bring a current version of their résumé to the lab for an experimental game and a survey on “Study Motivation, Specialization, and Occupational Choice.” The experimenter collected the résumés and deleted any personal information (name, address, etc.) in front of the subject before the start of the experiment. Hence, all data were anonymous and could not be linked to individual identities. Subjects received a show-up fee of 20 Euros. The experiment started with a survey on professional preferences. Among other things, subjects answered the following question on a Likert-scale from 1 (“certainly not”) to 7 (“definitively”): “To what extent can you imagine working in the following industries in the future?” Besides finance and insurance, these industries were health, tourism, logistics, IT/communication, engineering, electronics, car manufacturing, energy, retail, public service, science, consulting, and auditing. We chose the industries where most graduates find their first job (based on alumni data from Goethe University Frankfurt). In the survey, we also collected demographic information, the willingness to take risks (as measured by Dohmen et al. 2011), patience (Vischer et al. 2013),

and work values (Ronen 1994). 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).

Subjects then played an experimental trust game (Berg et al. 1995). This game has two player roles, a first mover and a second mover. 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 zero and the tripled amount (yet, the back transfer is not tripled). We applied the strategy method (Brandts and Charness 2011) so that for each subject we know the behavior as first mover and as second mover for each possible amount received. At the end of the experiment, it was randomly determined for which role and which decision a subject was paid.

The behavior as first mover provides a measure for a subject's trust in the opponent. Recall, however, that we are not primarily interested in whether subjects trust others, but whether they behave in a trustworthy manner. For this reason, we will focus on a subject's behavior as second mover, which measures the degree of trustworthiness. To quantify the latter, we calculate for each subject the "mean share returned", i.e., the share of the tripled amount that the second mover sends back, on average, to the first mover, aggregated for all possible amounts received.

The experiment was programmed in z-Tree (Fischbacher 2007), and we used ORSEE (Greiner 2015) to recruit subjects. All 265 participants were students from the business and economics department of Goethe University Frankfurt.³ In terms of academic age, 57.7 percent of our subjects were in semesters 1 to 3 of their university studies, 31.7 percent were in semesters 4 to 6, and 10.6 percent were in semester 7 or higher. Payments were made right after the end of the session. Each session lasted about 60 minutes (including the time needed for instructions and payments). On average, subjects earned 26.61 Euros (including the show-up fee).

2.2 Job Market Placement and Early Career Choices – Wave 2020

In late 2019 and early 2020, we contacted via email (or, if possible, via phone) all subjects who had participated in Wave 2013, and invited them to participate in a short telephone interview. We offered all subjects 40 Euros for their participation. The interviews proceeded in two steps.

³ In total, 267 subjects participated in Wave 2013. However, one subject was registered twice in ORSEE and participated twice in the lab experiment. We dropped this subject from our sample.

In the first step, the “interview invitation”, we called subjects and explicitly explained the purpose of the research project. Specifically, we told them that the project is about “studying selection into different industries based on personal characteristics.” We avoided any reference to the financial or any other industry. Next, we informed them that their answers to our interview questions will be linked in an anonymous way to the data from the lab experiment in which they participated at Goethe University Frankfurt in 2013. Finally, we told them that the actual interview would be conducted by research assistants. We assured subjects that they will remain completely anonymous to the researchers and that no person will be able to link their identity to choices made in 2013. Subjects then had to declare their consent that we can interview them and merge the data from this interview with the data from Wave 2013.

In the second step, the actual interviews were conducted by research assistants. In the phone interviews, subjects were asked to describe their professional experiences. Instead of describing them in detail, they could also give us permission to collect the respective data from the job networking sites “LinkedIn” and “Xing” (which are frequently used by young professionals in Germany). Moreover, they were asked how many times they had applied after graduation for jobs in consulting, audit, and financial companies. The detailed guides for the interviews can be found in Online Appendix I.⁴

2.3 Linking Wave 2013 and Wave 2020: Privacy and Attrition

To match the data from both waves while ensuring subjects’ anonymity at all stages of our research project, we set up an elaborate privacy protection process with several “Chinese walls” between different datasets that were handled by different researchers and research assistants. The detailed process is described in Online Appendix II.⁵ It was approved by the ethics committee at the University of Cologne and followed the European data protection rules.

An important concern in most studies that follow the same subjects over a long period of time is attrition. Out of the 265 subjects from Wave 2013, we reached 231 subjects in Wave 2020. One subject did not allow us to link the data from Wave 2013 to data on his or her further professional career, so we dropped this subject from the Wave 2020 sample. The remaining 230 subjects approved our request to collect data on their professional career and résumé, and to link this information to the data from Wave 2013. Hence, 86.8 percent of our subjects from

⁴ We registered Wave 2020 on as-predicted.com, while when running Wave 2013 it was still very uncommon to pre-register experiments.

⁵ In a nutshell, a subject’s résumé is the key to match the data from Wave 2013 and those from Wave 2020. Both résumés (from Wave 2013 and Wave 2020) were anonymized, however. The details about education and work experience allow for an unambiguous matching across both waves, while still maintaining anonymity.

Wave 2013 also participated in Wave 2020. Attrition in our study is therefore rather low.⁶ Out of the 230 subjects, one subject was long-term sick between 2013 and 2020 and thus struggled with developing his or her career. Six other subjects were still studying in 2020. We also dropped them from our Wave 2020 sample and hence obtain a final sample of 223 subjects who had completed their studies and found their first permanent job after graduation.

2.4 Classification of Subjects: Finance Interest and Finance Job

For our analysis, we have to classify subjects according to their professional preferences in 2013 and according to their job placement after graduation. In Wave 2013, we measured professional preferences through the question “To what extent can you imagine working in the following industries in the future?”, which had to be answered on a Likert scale from 1 to 7. We define the variable “finance interest” as a subject’s average answer to this question for the financial and the insurance industry. We will use this variable in our non-parametric tests and regression analyses. For our descriptive statistics, we build three groups based on finance interest of similar size: 70 subjects (26.4 percent) have finance interest of less than four points; these will be called “low finance interest subjects”; 104 subjects (39.2 percent) have finance interest of four to less than six points; we will call them “medium finance interest subjects”; 91 subjects (34.3 percent) have finance interest of six or more points; these subjects will be called “high finance interest subjects.”

In Wave 2020, we use our subjects’ first permanent (full-time) job after graduation for classification. On average, the subjects in Wave 2020 had started their first permanent job three years ago. Since starting their first permanent job, 96.4 percent had not switched from the financial industry to a non-financial industry or vice versa.⁷ All jobs in firms with the NACE (Nomenclature of Economic Activities) codes K64, K65, and K66 are classified as jobs in the financial industry.⁸ Overall, out of our 223 subjects in the Wave 2020 sample, 75 subjects (33.6 percent) had their first permanent job after graduation in the financial industry according to the NACE classification. We will call them “finance job subjects” in the following. The remaining

⁶ In Online Appendix III, we conduct further robustness checks and show that it is unlikely that attrition affects our results.

⁷ Among finance job subjects, only three left the financial industry before we completed Wave 2020. Only five subjects switched from a non-financial to a financial company.

⁸ The description of the industry for these NACE codes is as follows: K64 means “Financial service activities, except insurance and pension funding”; K65 means “Insurance, reinsurance and pension funding, except compulsory social security”; K66 means “Activities auxiliary to financial services and insurance activities.” We apply the following exceptions from our classification: Positions in central banks or public organizations or United Nations development aid organizations that belong to NACE codes K64 to K66 were classified as non-finance jobs. Four subjects found their first job in such organizations. Excluding them from our analyses or classifying them as finance job subjects does not change our main results.

148 subjects (66.4 percent) with first jobs in other industries will be referred to as “non-finance job subjects.” In Online Appendix IV, we vary our classification of finance interest and finance job in a number of ways and run several robustness checks to ensure the reliability of our results. Specifically, we distinguish between the financial and the insurance industry.⁹ Moreover, we take into account that some subjects completed a vocational training in the financial industry before they started their studies, and that a small minority of subjects switched their study subject or their employer. We also provide information about the other industries in which subjects found their first permanent job after graduation and control for selection in other industries.

3 Results

3.1 Interest in the Financial Industry and Experimental Behavior (Wave 2013)

Overall, subjects’ behavior in the experimental trust game in 2013 was as follows. As first movers, they sent on average 38.7 percent (sd = 36.5) of their endowment. As second movers, they returned on average 20.5 percent (sd = 17.8) of the tripled amount.¹⁰

We do not find any significant association between finance interest and the amounts sent as first movers as a measure of trust. Low finance interest subjects sent on average 36.8 percent (sd = 32.3), medium finance interest subjects 39.8 percent (sd = 36.7), and high finance interest subjects 38.9 percent (sd = 39.4). There is neither a statistically significant correlation between finance interest and the amount sent in a Jonckheere-Terpstra test (p-value = 0.905), nor in an OLS regression framework, controlling for key characteristics; see Online Appendix V, Table H.

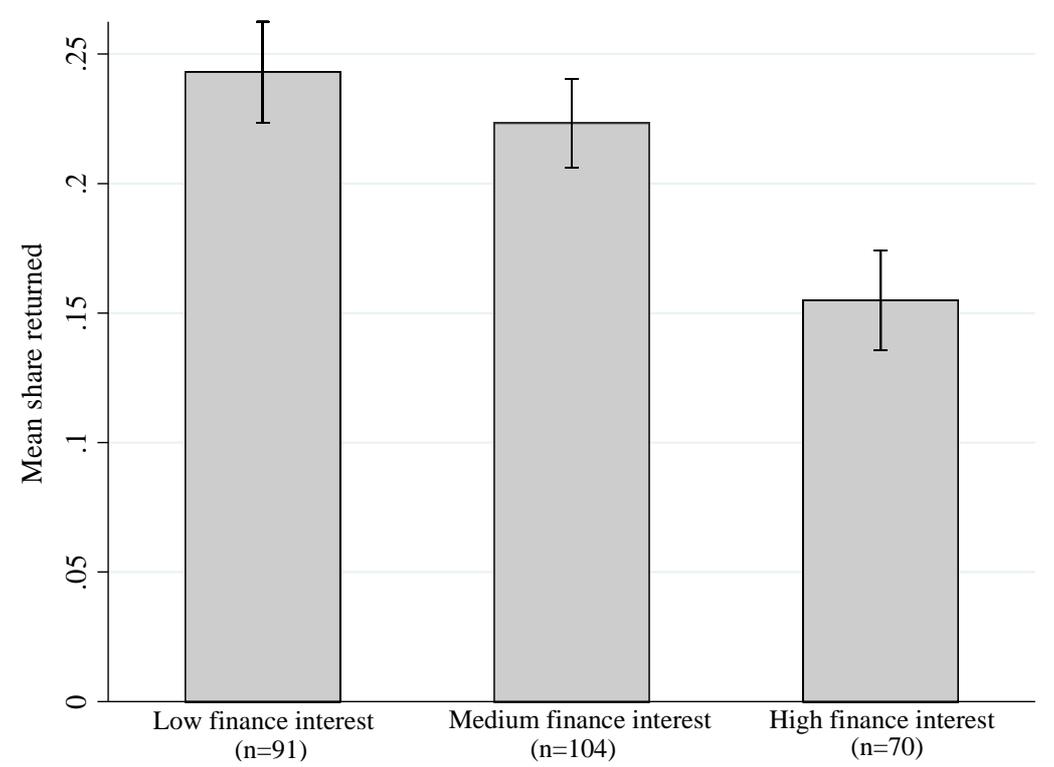
However, we find remarkable differences in the degree of trustworthiness, as measured by the mean share returned as second mover. As shown in Figure 1, low finance interest subjects returned, on average, 24.3 percent (sd = 16.3), medium finance interest subjects returned 22.3 percent (sd = 17.5), and high finance interest subjects returned only 15.5 percent (sd = 18.4). The negative relationship between finance interest and the mean share returned is statistically significant (Jonckheere-Terpstra test, p-value = 0.001).

⁹ In our main analyses, we do not distinguish between the financial and the insurance industry. The insurance industry is small relative to the financial industry in Frankfurt. However, many large insurance companies have the headquarter of their financial services affiliate in Frankfurt. Among our subjects, only three found their first job in an insurance company or in an insurance firm’s financial services affiliate.

¹⁰ When we consider only the subsample of subjects who also participated in Wave 2020, we find that first movers sent on average 39.7 percent (sd = 37.3) and second movers returned on average 20.1 percent (sd = 16.8). The behavior of this restricted sample is statistically indistinguishable from that of the full sample.

To check the robustness of this relationship, we run an OLS regression in which we regress finance interest on the mean share returned. As shown in Column 1a of Table 1, we find a significantly negative association between finance interest and the mean share returned. The size of the coefficient indicates that each additional unit on the Likert scale from 1 to 7 decreases the mean share returned by 2 percentage points, which accounts for around 10 percent of the overall average return of 20.5 percent. In a next step, we additionally control for gender, age, and cognitive ability.¹¹

Figure 1: Mean share returned, by low, medium, and high finance interest



Notes: In Wave 2013, we asked our subjects “To what extent can you imagine working in the following industries in the future?” for 15 different industries, on a Likert scale from 1 (“certainly not”) to 7 (“definitely”). Here we show the average mean share returned in the trust game for subjects who indicated an average interest for working in the financial and insurance industry of less than four points (“low finance interest”), four to less than six points (“medium finance interest”), and six or more points (“high finance interest”). The whiskers show the standard errors of the mean. The number of observations is in parentheses.

¹¹ In Online Appendix III, IV and V, we present a number of additional regressions in which we add further controls. In all regressions, our main qualitative results are the same.

Controlling for gender is particularly important, given the overrepresentation of men in some occupations of the financial industry (Adams et al. 2016). As shown in Column 2a of Table 1, our main coefficient of interest is fairly stable when adding the controls.^{12 13}

Table 1: Baseline regressions: mean share returned

Specifications	Panel A		Panel B	
	[1a]	[2a]	[1b]	[2b]
Constant	0.299*** (0.032)	-0.016 (0.114)	0.228*** (0.014)	-0.123 (0.100)
Finance interest	-0.020*** (0.006)	-0.015** (0.007)		
Finance job			-0.080*** (0.023)	-0.076*** (0.023)
Subject pool				
All subjects Wave 2013	Yes	Yes	No	No
All subjects Wave 2020	No	No	Yes	Yes
Controls	No	Yes	No	Yes
R ²	0.036	0.080	0.051	0.125
Sample size	265	265	223	223

Notes: OLS Regression. The dependent variable is the mean share returned as second mover in the trust game. *Finance interest* is the subjects' average response to the question "To what extent can you imagine working in the following industries in the future?" for the financial and the insurance industry on a Likert-scale from 1 ("certainly not") to 7 ("definitively"). *Finance job* is a dummy set to one if a subject has the first permanent job after graduation in the industry with the NACE code K64, K65, or K66. Controls are age, gender, and the score in the Raven's Advanced Progressive Matrices. Robust standard errors are in parenthesis. * p<0.1, ** p<0.05, *** p<0.01.

Our results also hold when we use a Tobit model instead of OLS; see Online Appendix V, Table I. As a further robustness check, we use six dummies for finance interest as

¹² With respect to our controls, we find that the mean share returned increases with age. However, this result has to be taken with some care since most of our subjects are from the same age cohort. Several papers show that older people are more pro-social and trustworthy (e.g., Eisenberg et al. 2005, Sutter and Kocher 2007).

¹³ Using the method from Oster (2019), we show that it is unlikely that an omitted variable bias has a significant effect on our main results. Note that our main coefficient of interest is fairly stable when we add controls, while the R-squared more than doubles (see Column 1a and Column 2a in Table 1).

independent variables.¹⁴ We find that our regression results are mainly driven by those subjects who exhibit finance interest of 6.5 or 7, and partly by those with finance interest equal to 5.5 or 6; see Online Appendix V, Table J.

Do subjects with high finance interest generally behave in less trustworthy manner than other subjects or is the share of completely selfish subjects just larger among high finance interest subjects? To find out, we compare the number of completely selfish subjects among subgroups. As second movers in the trust game, these subjects always return zero, regardless of the amount received. Among low finance interest subjects, the share of these individuals is 14.3 percent; among medium and high finance interest subjects, this share increases to 25.0 percent and 38.5 percent, respectively. If we exclude all completely selfish individuals from our sample, the finance interest coefficient decreases by around 60 percent in our main regression; see Online Appendix V, Table K, Panel A. Overall, the association between finance interest and the mean amount returned seems to be driven by two effects: a larger share of completely selfish subjects among those with high finance interest, and a lower mean amount returned among high finance interest subjects who are not completely selfish.

3.2 First Permanent Job and Trustworthy Behavior (Wave 2020)

We do not find any significant difference between finance job and non-finance job subjects in the level of trust as first movers (in the lab experiment in 2013). Non-finance job subjects sent on average 41.4 percent (sd = 36.5), while finance job subjects sent on average 36.3 percent (sd = 38.8). The difference is not statistically significant (Mann-Whitney test, p-value = 0.226).

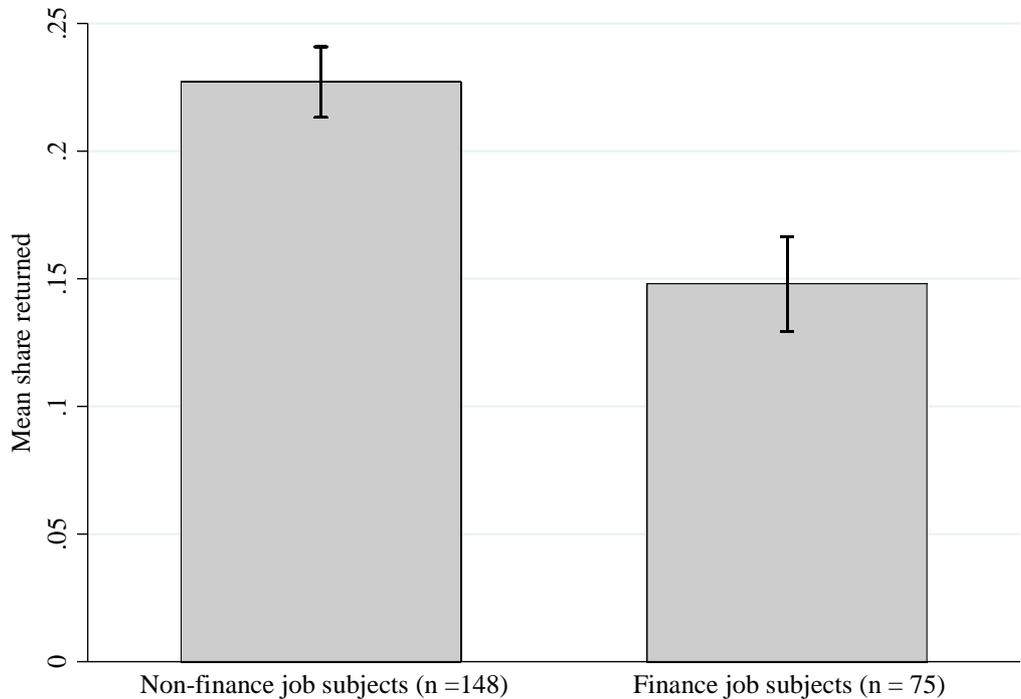
The mean share returned differs substantially between subjects who get their first job after graduation in the financial industry and those who start working elsewhere. As shown in Figure 2, non-finance job subjects returned on average 22.8 percent (sd = 16.5) of the tripled amount, while finance job subjects returned on average only 14.8 percent (sd = 16.0). The difference is statistically significant (Mann-Whitney test, p-value = 0.001).

To check the robustness of the non-parametric result, we run an OLS regression in which we regress a dummy for finance job on the mean share returned. The results are presented in Column 1b of Table 1. We find that finance job subjects return on average 8 percentage points less compared to non-finance job subjects. This means that subjects who start a career in finance return on average a third less than subjects who start working elsewhere. When we control for

¹⁴ Specifically, we use one dummy for finance interest equal to 6.5 or 7, one dummy for finance interest equal to 5.5 or 6, and so forth. A large fraction of our subjects indicates a high interest in working in the financial industry. Hence, our finance interest variable is highly skewed.

age, gender, and cognitive ability, our main coefficient of interest is stable; see Column 2b in Table 1.¹⁵

Figure 2: Mean share returned, by finance job



Notes: The figure shows the average mean share returned in the trust game for subjects with a first job placement after graduation in the financial industry (NACE codes K64 to K66) and for subjects with a job placement after graduation in any other industry based on the data collected in Wave 2020. The whiskers show the standard errors of the mean. The number of observations is in parentheses.

Again, we examine to what extent our effects are driven by varying shares of completely selfish individuals in the different subgroups. Among finance job subjects, the share of completely selfish subjects is 40 percent, while it is only 23 percent among non-finance job subjects. When we exclude all completely selfish subjects from our baseline regressions, the finance interest coefficient decreases by around 40 percent; see Online Appendix V, Table K, Panel B. Thus, the behavioral difference between the two subgroups is driven both by a larger share of completely selfish individuals among finance job subjects, and by lower amounts returned among finance job subjects who are not completely selfish.

¹⁵ Using again the method from Oster (2019), we find that it is unlikely that an omitted variables bias has a substantial effect on our finance job coefficient. In Online Appendix III, IV and V, we present a number of additional regressions in which we add further controls.

3.3 Selection into the Financial Industry

Our dataset allows us to examine how subjects' professional interests materialize in early career choices and first job placements. In this subsection, we study the selection of behavioral types into the financial industry by analyzing in detail the relationship between finance interest and finance job, and the choices subjects make in order to advance their careers before graduation. Specifically, we are interested in which side of the market – applicants or firms – drive the selection of behavioral types into the financial industry.

In a first step, we study the job placements of the different finance interest subgroups. Among high finance interest subjects, 54.7 percent find their first permanent job in the financial industry; for medium finance interest subjects, this number is 30.2 percent, and it drops to only 12.9 percent for low finance interest subjects (Jonckheere-Terpstra test, p -value = 0.000).¹⁶ We conclude that our finance interest variable is a good predictor for later job placements in the financial industry and that mainly high finance interest subjects choose to work in – and get job offers from – this industry.

While high finance interest is a good predictor for job placements in the financial industry, not all subjects who indicate high finance interest in 2013 start their career in this industry. We examine the behavior of those 75 subjects with a finance interest score of six or more points for whom we know the first permanent job after graduation. In this sample, 41 subjects indeed started a career in finance, and they returned on average only 9.2 percent ($sd = 11.7$). The other 34 subjects started a career in another industry. They returned on average 20.1 percent ($sd = 18.0$). The difference is statistically significant in a Mann-Whitney test (p -value = 0.009) and in an OLS regression framework; see Table 2. This suggests that the job market does not reduce the selection of less trustworthy individuals into the financial industry; if anything, the opposite seems to be the case.

So far, we have only considered the relationship between finance interest and actual job placements. Yet, we can use our rich data and dig even deeper by also looking at subjects' career choices before graduation. Table 3 (Columns 1 to 5) describes the career paths of the different finance interest types in terms of pre-graduation job experience and final job placements. The table shows a number of noteworthy patterns.

¹⁶ We also run a probit regression with finance job as dependent and finance interest as the independent variable. We find that each additional unit on the Likert scale from 1 to 7 increases the probability that a subject starts her career in finance by 10 percentage points, see Online Appendix III, Table A.

Table 2: Regression results, comparing subjects with finance job and non-finance job among subjects with high finance interest

Specifications	[1]	[2]
Constant	0.201*** (0.031)	-0.026 (0.211)
Finance job	-0.110*** (0.036)	-0.116*** (0.035)
Controls	No	Yes
R ²	0.121	0.231
Sample size	75	75

Notes: Modified version of our baseline regressions for finance job (Table 1, Panel B). The dependent variable is the mean share returned as second mover in the trust game. Here we focus on the subsample of subjects with high finance interest (subjects with a value of 6 or more on the Likert scale). Robust standard errors are in parenthesis. * p<0.1, ** p<0.05, *** p<0.01.

First, the likelihood of gathering pre-graduation job experience in the financial industry strongly increases in finance interest. Importantly, most of this experience was acquired after Wave 2013 (we will discuss this further in the next subsection). A large majority of high finance interest subjects, 77.3 percent, acquire such experience. For medium and low finance interest subjects, the share of individuals with finance experience is only 57 percent and 27.4 percent, respectively. The differences are significant (Jonckheere-Terpstra test, p-value = 0.000).¹⁷

Second, the chance of starting a professional career in the financial industry is much larger when an individual collected experience in the financial industry through internships or student jobs before graduation. In this case, the probability of starting a career in the financial industry is 54.8 percent. If an individual never gathered any finance experience prior to graduation, this probability is only 7.1 percent. There could be various explanations for this pattern. The financial industry might require its applicants to present some credentials about early job experience. Alternatively, young professionals might build up professional networks before graduating which are important for getting a job in finance. Another explanation could

¹⁷ In Table L of Online Appendix V, we find further patterns of this kind. High finance interest subjects submit 35.6 percent of their applications for their first permanent job to firms from the financial industry. In contrast, the share of applications to firms from the financial industry is only 26.9 percent for medium finance interest subjects, and 7.5 percent for low finance interest subjects. We also find that high finance interest subjects chose much more often “finance” as specialization during their undergraduate studies.

be that students use internships to collect information about the financial industry to see whether they can imagine working in this industry after graduation.

Table 3: Subjects' early career choices - overall and by finance job and finance interest

	Financial industry: Pre-graduation job experience		Financial industry: First permanent job		Mean share returned (sd)
	Yes	n	Yes	n	
High finance interest (n=75)	Yes	n=58	Yes	n=40	9.4% (11.7%)
			No	n=18	17.8% (18.3%)
	No	n=17	Yes	n=1	0%
			No	n=16	22.7% (17.9%)
Medium finance interest (n=86)	Yes	n=49	Yes	n=23	20.9% (19.4%)
			No	n=26	18.0% (16.1%)
	No	n=37	Yes	n=3	14.8% (16.4%)
			No	n=34	25.0% (14.7%)
Low finance interest (n=62)	Yes	n=17	Yes	n=5	22.6% (17.6%)
			No	n=12	21.3% (14.2%)
	No	n=45	Yes	n=3	31.8% (10.7%)
			No	n=42	26.5% (17.2%)

Notes: We show data for different subgroups of subjects from the Wave 2020 sample. In Column 1, we differentiate between subjects with high, medium, and low finance interest; n is the number of observations. In Column 2, we further differentiate these groups between subjects with and without job experience in the financial industry before graduation. Column 3 indicates the respective number of observations. In Column 4, we further differentiate these groups between finance job and non-finance job subjects. Column 5 indicates the respective number of observations. Column 6 shows the mean share returned for these subgroups (with standard deviations in parenthesis).

Column 6 in Table 3 shows the mean share returned for the different subgroups. We examine for those subjects who acquired job experience in the financial industry whether there are differences in the mean amount returned between those who indeed find their first permanent job in this industry and those who do not. We find that the former group returns on average 14.3 percent (sd = 16.0), while the latter group returns 18.6 percent (sd = 16.2). The difference is not statistically significant (Mann-Whitney test, p -value = 0.151). To say the least, this again indicates that the financial industry does not screen out types who behave in a less trustworthy manner, even within the sample of subjects on which this industry already has substantial information prior to application. If anything, the opposite is true. Taken together, our results on subjects' early career choices and experimental behavior suggest that it is mainly the applicants' side that drives the selection of social preference types into the financial industry.

3.4 Exposure and Selection

Our main finding – finance job subjects behave in a less trustworthy manner than those selecting into other industries – would, in principle, also be compatible with the following interpretation. As we have seen in Subsection 3.3, finance job subjects gather more experience in finance before graduation (e.g., in the form of internships) than non-finance job subjects. Hence, their exposure to finance education and the business culture in the financial industry might have made them less trustworthy already when we measured behavior in Wave 2013.

Table 4: Regression results, focusing on the subsample of subjects who are in the first three semesters of their studies

Specifications	Panel A		Panel B	
	[1a]	[2a]	[1b]	[2b]
Constant	0.305*** (0.042)	0.131 (0.169)	0.203*** (0.017)	-0.091 (0.138)
Finance interest	-0.024*** (0.008)	-0.020** (0.010)		
Finance job			-0.070** (0.029)	-0.061** (0.030)
Subject pool				
All subjects Wave 2013	Yes	Yes	No	No
All subjects Wave 2020	No	No	Yes	Yes
Controls	No	Yes	No	Yes
R ²	0.044	0.092	0.044	0.132
Sample size	153	153	128	128

Notes: Modified version of our baseline regressions from Table 1. Here we focus on subjects who were in the first, second or third semester of their studies at the point in time when we conducted Wave 2013. We know the semester based on the survey that we conducted right after the lab experiment in 2013. Robust standard errors are in parenthesis. * p<0.1, ** p<0.05, *** p<0.01.

To examine this alternative interpretation, we run two robustness checks of our baseline regressions from Table 1. First, we include only subjects who were in the first three semesters of their undergraduate studies at the point in time when they participated in Wave 2013. Here we exploit the fact that the basic courses in business and economics at Goethe University Frankfurt are the same for all students, independent of their interest in working in the financial

industry. In particular, this means that these subjects had not taken yet any specialization course in finance. Table 4 shows that the estimated coefficients for finance interest (in Panel A) and finance job (in Panel B) are of comparable magnitude as in Table 1. Hence, exposure to specialization courses in finance cannot explain the observed relation between trustworthiness and finance interest and finance job, respectively.

Table 5: Regression results, excluding all subjects who already had job experience in the financial industry before we conducted Wave 2013

Specifications	Panel A		Panel B	
	[1a]	[2a]	[1b]	[2b]
Constant	0.320*** (0.038)	-0.055 (0.136)	0.248*** (0.015)	-0.124 (0.121)
Finance interest	-0.024*** (0.008)	-0.017* (0.009)		
Finance job			-0.121*** (0.028)	-0.112*** (0.029)
Subject pool				
All subjects Wave 2013	No	No	No	No
All subjects Wave 2020	Yes	Yes	Yes	Yes
Controls				
	No	Yes	No	Yes
R ²	0.065	0.121	0.101	0.182
Sample size	160	160	155	155

Notes: Modified version of our baseline regressions from Table 1. Here we focus on subjects who had no prior job experience in the financial industry (e.g., through internships) at the point in time when we conducted Wave 2013. We only include subjects who participated in Wave 2020 (i.e., subjects for whom we have detailed information about their professional experiences). In Panel A, we also include subjects who participated in Wave 2020, but were still studying at this point in time. Note that for those subjects we have detailed data about their job experience before 2020 (and hence also before 2013). Robust standard errors are in parenthesis. * p<0.1, ** p<0.05, *** p<0.01.

Next, it could matter whether a subject had already some (albeit short-term) experience in the financial industry before Wave 2013. While most of our high finance interest subjects and finance job subjects only gained job experience in the financial industry after Wave 2013, some had been working as interns before. Therefore, we present in Table 5 the results of our baseline regression when we exclude all subjects who already had job experience in the financial industry before Wave 2013. As shown in Table 5, the exclusion does not matter for

our main results. The negative association between trustworthiness and getting a job in the financial industry remains significant.

Finally, we examine whether exposure to finance when growing up may affect the selection into the financial industry. To obtain a proxy for exposure to finance during childhood and adolescence, we asked subjects in Wave 2013 whether one or both of their parents have ever worked in the financial industry. We find that the share of parents with jobs in the financial industry is very similar among low and high finance interest subjects (24.3 percent and 20.9 percent, respectively; Jonckheere-Terpstra test, p -value = 0.796), and also among finance job and non-finance job subjects (22.7 percent and 25.7 percent, respectively; Chi-square test, p -value = 0.622). Controlling for whether parents were employed in the financial industry does not change our main results in our baseline regressions (see Online Appendix V, Table M).

3.5 Personal Characteristics

Our data also allow us to examine whether there are differences in the personal characteristics between subjects of varying finance interest and varying job placements, see Online Appendix VI for a detailed analysis. We find that males exhibit more interest in working in the financial industry than females, and they are also more likely to start a career in finance after graduation. However, neither cognitive ability nor risk preferences are associated with finance interest and finance job. Thus, it does not seem to be the case that “smarter” or more risk-loving individuals get more often jobs in the financial industry. With respect to work values we find a noteworthy difference: Finance job subjects appreciate income and benefits from the job much more than non-finance jobs subjects.

4 Further Evidence for Selection on Social Preferences

A potential concern for our results could be that the association between social and professional preferences is due to the study location or the specific dimension of social preferences that we evaluated. In this section, we therefore provide further evidence for selection into the financial industry based on social preferences. We use data from an unrelated study (Heinz and Schumacher 2017), in which we measured professional preferences and experimental behavior of 505 students from all study fields at the universities in Cologne and Düsseldorf in a public goods game. Behavior in the public goods game measures subjects’ willingness to cooperate in groups. Several papers have shown that cooperation in the public goods game predicts cooperative behavior outside the laboratory such as public goods provision (Laury and Taylor

2008), common resource management (Rustagi et al. 2010, Fehr and Leibbrandt 2011, Bluffstone et al. 2020), effort provision for keeping institutions accountable (Barr et al. 2014), open source software development (Algan et al. 2016), and workplace performance (Englmaier and Gebhardt 2016).

In the experiment, subjects are randomly matched into groups of three participants.¹⁸ Following Fischbacher et al. (2001) and Fischbacher and Gächter (2010), each subject initially holds 20 tokens, which he or she can either keep or contribute to the public good of the group. Denote by g_i the number of tokens that subject i contributes to the public good. The payoff of group member i is then given by

$$\pi_i = 20 - g_i + 0.6 \sum_{j=1}^3 g_j. \quad (1)$$

The optimal strategy for money-maximizing subjects is to free ride ($g_i = 0$), while the maximization of the group-payoff would dictate to contribute everything ($g_i = 20$). Subjects play a one-shot game where they make a single decision about how many of the 20 tokens they want to contribute to the public good.

Professional interests were elicited as in our main study so that we can again use our finance interest variable. In the Cologne/Düsseldorf sample, there are 286 subjects with low finance interest (55.5 percent), 134 with medium finance interest (26.0 percent), and 95 subjects with high finance interest (18.4 percent). Hence, interest in working in the financial industry is significantly lower in the Cologne/Düsseldorf sample than in the Frankfurt sample (Mann-Whitney test, p-value = 0.000). Nevertheless, the experimental results mirror those from our Wave 2013 and provide further support for a relationship between social preferences and professional preferences. Low finance interest subjects contributed on average 10.3 tokens (sd = 6.6), medium finance interest subjects contributed on average 8.7 tokens (sd = 6.7), and high finance interest subjects contributed only 8.3 tokens (sd = 6.9). This negative relationship between finance interest and contributions is significant (Jonckheere-Terpstra test, p-value = 0.001).

¹⁸ The instructions for this experiment are in Online Appendix IX. For the experiment, Heinz and Schumacher (2017) used an adapted version of the z-Tree code from Fischbacher and Gächter (2010). Each session lasted about 90 minutes. The exchange rate was 0.35 Euros for each token. On average, the 347 subjects at the University of Cologne earned 34.10 Euros and the 168 subjects at the University of Düsseldorf 22.50 Euros. The variation in payments is because the rest of the experimental protocol was different at the two locations, see Heinz and Schumacher (2017) for details. Controlling for the location (Cologne or Düsseldorf) does not affect our results, see Table 6.

Table 6: Regression results, contributions in the public goods game

Specifications	[1]	[2]
Constant	11.179*** (0.572)	7.371*** (2.766)
Finance interest	-0.486*** (0.145)	-0.341** (0.167)
Controls		
	No	Yes
R ²	0.021	0.029
Sample size	515	513

Notes: OLS regressions, similar to our baseline regressions for finance interest (Table 1, Panel A). The dependent variable is the unconditional contribution in the one-shot public goods game. The independent variable is finance interest (ranging from 1 to 7). Controls are age, gender, and the score in Raven's Advanced Progressive Matrices. Additionally, we include a dummy set to one if a student is a business/economics student and a dummy set to one (zero) if the experiment took place in Cologne (Düsseldorf) as controls. Two subjects are excluded in Specification 2 as we do not know their field of study. Robust standard errors are in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

To confirm this result, we run a modified version of our baseline regression, using the contribution to the public good as dependent variable. As shown in Table 6, we find a significantly negative effect of finance interest on contributions. On average, high finance interest subjects contribute about 20 percent less to the public good than low finance interest subjects. The effect size is robust to controlling for age, gender, cognitive ability, location of the experiment (Cologne or Düsseldorf), and whether the subject was a business or economics student. Our main qualitative results remain the same when we focus in our analysis on the 221 business or economics students in the Cologne/Düsseldorf sample (see Table N in Online Appendix V). Although one has to be careful when comparing findings from different experiments, we believe that these findings provide evidence for the generalizability of our results to other dimensions of social preferences.

In the experiment from Heinz and Schumacher (2017), subjects also played a repeated public goods game in fixed groups. We provide a detailed discussion of the results from this game in Online Appendix VII. Overall, we observe that high finance interest subjects act quite

strategically in the repeated public goods game. As long as contributions provide future benefits in terms of mutual cooperation, they contribute to the public good like anyone else. However, as soon as these benefits vanish, they stop contributions, and more quickly so than anyone else.

5 Discussion

5.1 Is there selection into the lab based on social preferences?

Throughout, we assumed that there is no differential selection into the experiment based on social preferences. In principle, it could be the case that subjects with low interest in working in finance participate in the experiment because of pro-social motivations (e.g., helping the researcher), while subjects with high interest in working in finance participate only for monetary gains. A number of studies show that the extent of selection based on social preferences is likely to be rather small. Falk et al. (2013) show that students who donate more in the field are not more likely to participate in laboratory experiments. 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. Abeler and Nosenzo (2015) 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. Most recently, Snowberg and Yariv (2021) show that students who participate in lab experiments are behaviorally very similar to students who do not. We therefore believe that it is highly unlikely that our results are driven by differential selection into the lab at Goethe University Frankfurt, University of Cologne, and University of Düsseldorf.

5.2 Persistence of Social Preferences and External Validity

The main result of our paper is that there is selection of young professionals into the financial industry based on social preferences. This result is meaningful if social preferences are stable over time and affect outcomes in the interaction with clients. Unfortunately, our data do not allow us to verify these assumptions directly. However, on both issues – preference stability and external validity – there exists research that provides supporting evidence.

With respect to preference stability, Carlsson et al. (2014) show that social preferences are quite stable over a six-year horizon. They correlate data, on the same set of subjects, from a public goods experiment and three real-world occasions in which voluntary contributions matter for the provision of a public good. While contributions vary significantly between the

events, the correlations between contributions are relatively large. Volk et al. (2012) and Bruhin et al. (2019) show that social preference estimates obtained in the lab are to some extent stable over time (both papers consider a time horizon of several months).

With respect to external validity, there exists a large literature that examines whether social preference games, in particular, the trust game and the public goods game, are informative about subjects' behavior outside the laboratory. We mentioned the most important papers in this literature in the introduction and in Section 4. However, publication bias and the peculiarity of the considered settings may lead to overly positive results on the correlation between lab and field behavior. Some economists are therefore critical about the external validity literature. Galizzi and Navarro-Martinez (2019) study this correlation with several experimental games and several types of field tasks that took place right outside the experimental laboratory. In contrast to many papers, they do not find a significant link between lab and field behavior.

5.3 Social Preferences and Honesty

The behavioral economics literature distinguishes between different motivations for pro-social behavior. In this paper, we focused on trustworthiness since this behavioral aspect is crucial for any actor who wishes others to entrust him or her with their resources. However, other behavioral motivations may be equally crucial for the financial industry. For example, Cohn et al. (2014a) focus on dishonest behavior, which may also matter for the lack of trust in this industry.

While honesty and social preferences (and trustworthiness in particular) are distinct behavioral concepts, we think that our results on social preferences are also informative about subjects' inclination to act honestly. Several papers document that honesty and social preferences are tightly connected. Cappelen et al. (2013) correlate behavior in the white lies treatment of Erat and Gneezy (2012) with the amount shared in a trust game. They find that subjects who make more altruistic choices are more averse to lying. Maggian and Villeval (2016) show that children and adolescents who make selfish choices are more likely to tell a lie in order to implement their preferred material allocation. Relatedly, Alan et al. (2020) find that children who are more altruistic in a version of the dictator game are less likely to cheat in a setting where dishonest behavior implies material gains. Kerschbamer et al. (2019) specifically study the relationship between social preferences and honesty and find the same result as Alan et al. (2020) in a student subject pool. Similarly, Bartfort et al. (2019) find a strong, negative relationship between giving to charities in a dictator game and cheating in a version of the dice-

under-cup game by Fischbacher and Föllmi-Heusi (2013). Finally, Thielmann and Hilbig (2015) show that trustworthy behavior in the trust game is largely driven by the personality trait “honesty-humility”, which is defined as “the tendency to be fair and genuine in dealing with others, in the sense of cooperating with others even when one might exploit them without suffering retaliation” (Ashton and Lee 2007).

5.4 Subject Pool Representativeness

The generalizability of experimental results to other subject groups is a classic concern in the behavioral economics literature. Admittedly, our subject pool is specific, but this is on purpose in order to study the behavior of a particular group of employees. In terms of the financial industry in Germany, we are confident that we use a relevant subject group since Frankfurt is the financial center of Germany and many graduates of Goethe University Frankfurt find employment in this industry.

It could be the case that our results do not obtain in other countries. Indeed, with respect to selection into public service, there exist opposing results. Hanna and Wang (2017) find negative selection into public service with respect to honesty in India, while Barfort et al. (2019) find positive selection in Denmark. However, as Barfort et al. (2019) suggest, this selection is a self-sustaining equilibrium, as Denmark is one of the least corrupt countries, while India struggles with substantial corruption. We are somewhat confident that the selection into finance based on social preferences also can be found in other western countries, for two reasons. First, the financial industry typically is the sector that pays the highest wages.¹⁹ Second, the evidence on the lack of trust into the financial industry and on its business conduct comes from varying western countries (e.g., Hoechle et al. 2018 use data from a Swiss bank, Chalmers and Reuter 2020 use data from the US).

Finally, it is clear that the findings in this study cannot easily be generalized to non-western subjects, see Henrich et al. (2010) for a discussion of this issue. It would be very interesting to see whether in non-western countries the selection into finance is different.

5.5 Priming Effects

Cohn et al. (2014a) altered subjects’ behavior by making their professional identity salient. One concern therefore could be that our survey on professional preferences had a similar effect on

¹⁹ According to the International Labour Organization (ILO), the financial industry is the industry with the highest average wage in France, Germany, Italy, and in the United Kingdom. In Japan and the United States, the financial industry ranks third in terms of average wage (all numbers from 2019 or 2020, see www.ilo.org/ilostat/topics/wages/).

behavior (in particular for subjects with high interest in working in the financial industry). Selection effects then would be confounded with priming effects. We think that this possibility is highly unlikely for the following reasons. First, Cohn et al. (2014a) asked seven questions specifically on the bankers' professional background to prime professional identity. In contrast, we asked about professional preferences regarding 15 different industries, which is far less specific and unlikely to prime subjects on one specific identity. Second, in between the questionnaire on professional preferences and the trust game, we conducted Raven's Advanced Progressive Matrices to measure cognitive ability. This test takes at least 20 minutes (including explanations and test runs). It is cognitively challenging and unrelated to professional preferences. Any priming effect from highlighting professional preferences is likely to wear off during this phase. Finally, in the public goods experiment from Section 4, we first played the experimental game and then elicited professional preferences. Hence, the results in this study – which mirror those of our main study – cannot be due to the priming of professional preferences.

6 Conclusion

Financial companies frequently emphasize the role of trust in their business (Gennaioli et al. 2015), meaning that they want to be seen as trustworthy interaction partners for their clients. In this paper, we have found that business and economics students who, during their studies, express a strong interest to work in the financial industry behave in substantially less trustworthy manner in an experimental trust game than business and economics students with other professional goals. Importantly, this relationship persists if we consider actual job market placements. In the trust game, individuals who find their first job after graduation in the financial industry returned on average one third less as second movers than individuals who commence their career in other industries. The financial industry does not seem to alleviate this selection. If anything, the opposite seems to be the case: Even among students who are highly motivated to work in finance after graduation, those who actually start their career in finance behave significantly less trustworthy than those who start working elsewhere. Similarly, we have also found a negative relationship between the willingness to cooperate (in a public goods game) and students' interest in working in the financial industry. Hence, selection on social preferences into the financial industry seems to be not only confined to trustworthy behavior. This selection does not directly imply misconduct, but it may contribute to a business culture that facilitates untrustworthy practices and behaviors.

It is unlikely that the financial industry will address this issue itself by putting more

weight on prosocial preferences of future employees. However, policy interventions that change pay and incentives in the financial industry may also change the selection of candidates in terms of social preferences. The seminal paper by Philippon and Reshef (2012) demonstrates that since the 1980s the financial industry turned into a high-skill and high-wage industry that attracted a lot of skilled labor when financial regulation was reduced. Recently, Barfort et al. (2019) argue that more pay in public service jobs may attract less honest individuals into public service. Our results suggest a link between these two results. In finance, a number of policy measures have been suggested to change incentive structures in the financial industry (e.g., Bebchuk and Spamann 2010, Bell and Van Reenen 2014, Eufinger and Gill 2017, Thanassoulis and Tanaka 2018). These measures were primarily intended to change business practices such that the risk of another major financial crisis is reduced. Additionally, a significant change in pay and incentives may change the selection of young professionals in the financial industry. Such a potential side-effect of public regulation might actually help restoring public trust in the financial industry.

References

- Abeler, Johannes, and Daniele Nosenzo (2015): “Self-Selection into laboratory experiments: pro-social motives versus monetary incentives,” *Experimental Economics*, 18, 195-214.
- Adams, Renée, Brad Barber, and Terrance Odean (2016): “Family, values, and women in finance,” Working Paper.
- Alan, Sule, Seda Ertac, and Mert Gumren (2020): “Cheating and incentives in a performance context: Evidence from a field experiment on children,” *Journal of Economic Behavior and Organization*, 179, 681-701.
- Algan, Yann, Yochai Benkler, Emeric Henry, and Jérôme Hergueux (2016): “Social motives and the organization of production: experimental evidence from open source software,” Working Paper.
- Ashton, Michael, and Kibeom Lee (2007): “Empirical, theoretical, and practical advantages of the HEXACO model of personality structure,” *Personality and Social Psychology Review*, 11(2), 150-166.
- Baran, Nicole, Paola Sapienza, and Luigi Zingales (2010): “Can we infer social preferences from the lab? Evidence from the trust game,” NBER Working Paper No. 15654.
- Barfort, Sebastian, Nikolaj Harmon, Frederik Hjorth, and Asmus Leth Olsen (2019): “Sustaining honesty in public service: The role of selection,” *American Economic Journal*:

- Economic Policy*, 11(4), 96-123.
- Barr, Abigail, and Pieter Serneels (2009): "Reciprocity in the workplace," *Experimental Economics*, 12, 99-112.
- Barr, Abigail, Truman Packard, and Danila Serra (2014): "Participatory accountability and collective action: Experimental evidence from Albania," *European Economic Review*, 68, 250-269.
- Bauman, Yoram, and Elaina Rose (2011): "Selection or indoctrination: Why do economics students donate less than the rest," *Journal of Economic Behavior and Organization*, 79(3), 318-327.
- Bebchuk, Lucian, and Holger Spamann (2010): "Regulating bankers' pay," *Georgetown Law Journal*, 98, 247-287.
- Bell, Brian, and John Van Reenen (2014): "Bankers and their bonuses," *Economic Journal* 124(574), F1-F21.
- Berg, Joyce, John Dickhaut, Kevin McCabe (1995): "Trust, reciprocity, and social history," *Games and Economic Behavior*, 10(1), 122-142.
- Bluffstone, Randy, Astrid Dannenberg, Peter Martinsson, Prakash Jha, and Rajesh Bista (2020): "Cooperative behavior and common pool resources: Experimental evidence from community forest user groups in Nepal," *World Development*, 129, 104889.
- Bors, Douglas, and Tonya Stokes (1998): "Raven's advanced progressive matrices: Norms for first-year university students and the development of a short form," *Educational and Psychological Measurement*, 58(3), 382-398.
- Brandts, Jordi, and Gary Charness (2011): "The strategy versus direct response method: a first survey of experimental comparisons," *Experimental Economics*, 14, 375-398.
- Bruhin, Adrian, Ernst Fehr, and Daniel Schunk (2019): "The many faces of human sociality: Uncovering the distribution and stability of social preferences," *Journal of the European Economic Association*, 17(4), 1025-1069.
- Cappelen, Alexander, Erik Sørensen, and Bertil Tungodden (2013): "When do we lie?," *Journal of Economic Behavior and Organization*, 93, 258-265.
- Carlsson, Frederik, Olof Johansson-Stenman, and Pham Khanh Nam (2014): "Social preferences are stable over long periods of time," *Journal of Public Economics*, 117, 104-114.
- Carter, John, and Michael Irons (1991): "Are Economists Different, and If so, Why?," *Journal of Economic Perspectives*, 5(2), 171-177.
- Chalmers, John, and Jonathan Reuter (2020): "Is conflicted investment advice better than no

- advice?,” *Journal of Financial Economics*, 138, 366-387.
- Choi, James, and Adriana Robertson (2020): “What matters to individual investors? Evidence from the horse’s mouth,” *Journal of Finance*, 75(4), 1965-2020.
- Cleave, Blair, Nikos Nikiforakis, and Robert Slonim (2013): “Is there selection bias in laboratory experiments? The case of social and risk preferences,” *Experimental Economics*, 16(3), 372-382.
- Cohn, Alain, Ernst Fehr, and Michel André Maréchal (2014a): “A culture of cheating? Dishonesty and business culture in the banking industry,” *Nature*, 516, 86-89.
- Cohn, Alain, Ernst Fehr, and Lorenz Goette (2014b): “Fair wages and effort: Evidence from a field experiment,” *Management Science*, 61(8), 1777-1794.
- Cohn, Alain, Ernst Fehr, and Michel André Maréchal (2019): “Selective participation may undermine replication attempts,” *Nature*, 575, E1-E2.
- Dohmen, Thomas, Armin Falk, David Huffman, Uwe Sunde, and Gert Wagner (2011): “Individual risk attitudes: New evidence from a large, representative, experimentally-validated survey,” *Journal of the European Economic Association*, 9(3), 522-530.
- Eisenberg, Nancy, Amanda Cumberland, Ivanna Guthrie, Bridget Murphy, and Stephanie Shepard (2005): “Age changes in prosocial responding and moral reasoning in adolescence and early adulthood,” *Journal of Research on Adolescence*, 15(3), 235-260.
- Ellul, Andrew, Marco Pagano, Annalisa Scognamiglio (2020): “Careers in finance,” CEPR Discussion Paper DP14767.
- Englmaier, Florian, and Georg Gebhardt (2016): “Social dilemmas in the laboratory and in the field,” *Journal of Economic Behavior and Organization*, 128, 85-96.
- Eufinger, Christian, and Andrej Gill (2017): “Incentive-based capital requirements,” *Management Science* 63(12), 4101-4113.
- European Commission (2018): *Consumer Markets Scoreboard – Making markets work for consumers*, 2018 Edition, Brussels.
- Falk, Armin, Stephan Meier, and Christian Zehnder (2013): “Do lab experiments misrepresent social preferences? The case of self-selected student samples,” *Journal of the European Economic Association*, 11(4), 839-852.
- Fehr, Ernst, and Andreas Leibbrandt (2011): “A field study on cooperativeness and impatience in the Tragedy of the Commons,” *Journal of Public Economics*, 95, 1144-1155.
- Fischbacher, Urs (2007): “Z-Tree: Zurich toolbox for ready-made economic experiments,” *Experimental Economics*, 10(2), 171-178.
- Fischbacher, Urs, Simon Gächter, and Ernst Fehr (2001): “Are people conditionally

- cooperative? Evidence from a public goods experiment,” *Economics Letters*, 71(3), 397-404.
- Fischbacher, Urs, and Simon Gächter (2010): “Social preferences, beliefs, and the dynamics of free riding in public goods experiments,” *American Economic Review*, 100(1), 541-556.
- Fischbacher, Urs, and Franziska Föllmi-Heusi (2013): “Lies in disguise – An experimental study on cheating,” *Journal of the European Economic Association*, 11(3), 525-547.
- Fisman, Raymond, Pamela Jakiela, Shachar Kariv, and Daniel Markovits (2015): “The distributional preference of an elite,” *Science*, 349(6254).
- Frey, Bruno, and Stephan Meier (2003): “Are political economists selfish and indoctrinated? Evidence from a natural experiment,” *Economic Inquiry*, 41(3), 448-462.
- Friebel, Guido, Michael Kosfeld, and Gerd Thielmann (2019): “Trust the police? Self-selection of motivated agents into the German police force,” *American Economic Journal: Microeconomics*, 11(4), 59-78.
- Galizzi, Matteo, and Daniel Navarro-Martinez (2019): “On the external validity of social preference games: A systematic lab-field study,” *Management Science*, 65(3), 976-1002.
- Gambetta, Diego (2000): “Can we trust trust?,” in Diego Gambetta (ed.), *Trust: Making and Breaking Cooperative Relations*, Blackwell Publishers, 213-237.
- Gennaioli, Nicola, Andrei Shleifer, and Robert Vishny (2015): “Money doctors,” *Journal of Finance* 70(1), 91-114.
- Greiner, Ben (2015): “Subject pool recruitment procedures: Organizing experiments with ORSEE,” *Journal of the Economic Science Association*, 1(1), 114-125.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales (2008): “Trusting the stock market,” *Journal of Finance*, 63(6), 2557-2600.
- Gurun, Umit, Noah Stoffman, Scott Yonker (2018): “Trust busting: The effect of fraud on investor behavior,” *Review of Financial Studies*, 31(4), 1341-1376.
- Hanna, Rema, and Shing-Yi Wang (2017): “Dishonesty and selection into public service: Evidence from India,” *American Economic Journal: Economic Policy*, 9(3), 262-290.
- Henrich, Joseph, Steven Heine, Ara Norenzayan (2010): “The weirdest people in the world?,” *Behavioral and Brain Sciences*, 33(2-3), 61-83.
- Heinz, Matthias, and Heiner Schumacher (2017): “Signaling cooperation,” *European Economic Review*, 98, 199-216.
- Hoechle, Daniel, Stefan Ruenzi, Nic Schraub, and Markus Schmid (2018): “Financial advice and bank profits,” *Review of Financial Studies*, 31(11), 4447-4492.
- Huber, Christoph, and Jürgen Huber (2020): “Bad bankers no more? Truth-telling and

- (dis)honesty in the finance industry”, *Journal of Economic Behavior and Organization*, 180, 472-493.
- Karlan, Dean (2005): “Using experimental economics to measure social capital and predict financial decisions,” *American Economic Review*, 95(5), 1688-1699.
- Kerschbamer, Rudolf, Daniel Neururer, and Alexander Gruber (2019): “Do altruists lie less?,” *Journal of Economic Behavior and Organization*, 157, 560-579.
- Kostovetsky, Leonard (2016): “Whom do you trust?: Investor-advisor relationships and mutual fund flows,” *Review of Financial Studies*, 29(4), 898-936.
- Laury, Susan, and Laura Taylor (2008): “Altruism spillovers: Are behaviors in context-free experiments predictive of altruism toward a naturally occurring public good?,” *Journal of Economic Behavior and Organization*, 65(1), 9-29.
- Li, Jing, William Dow, and Shachar Kariv (2017): “Social preferences of future physicians,” *Proceedings of the National Academy of Sciences*, 114(48), E10291-E10300.
- Maggian, Valeria, and Marie Claire Villeval (2016): “Social preferences and lying aversion in children,” *Experimental Economics*, 19, 663-685.
- Marwell, Gerald, and Ruth Ames (1981): “Economists free ride, does anyone else?,” *Journal of Public Economics*, 15(3), 295-310.
- Oster, Emily (2019): “Unobservable selection and coefficient stability: Theory and evidence,” *Journal of Business and Economic Statistics*, 37(2), 187-204.
- Philippon, Thomas, and Ariell Reshef (2012): “Wages and human capital in the U.S. finance industry: 1909 – 2006,” *Quarterly Journal of Economics*, 127(4), 1551-1609.
- Rahwan, Zoe, Erez Yoeli, and Barbara Fasolo (2019): “Heterogeneity in banker culture and its influence on dishonesty,” *Nature*, 575, 345-349.
- Riedl, Arno, and Paul Smeets (2017): “Why do investors hold socially responsible mutual funds,” *Journal of Finance*, 72(6), 2505-2550.
- Ronen, Simcha (1994): “An underlying structure of motivational need taxonomies: a cross-cultural confirmation,” in: Harry C. Triandis, Marvin D. Dunnette, and Leaetta M. Hough (Eds.): *Handbook of industrial and organizational psychology Vol. 4* (2nd edition), 241-269. Palo Alto: Consulting Psychologists Press.
- Rousseau, Denise, Sim Sitkin, Ronald Burt, and Colin Camerer (1998): “Not so different after all: A cross-discipline view of trust,” *Academy of Management Review*, 23(3), 393-404.
- Rubinstein, Ariel (2006): “A sceptic’s comment on the study of economics,” *Economic Journal*, 116(510), C1-C9.
- Rustagi, Devesh, Stefanie Engel, and Michael Kosfeld (2010): “Conditional cooperation and

- costly monitoring explain success in forest commons management,” *Science* 330, 961-965.
- Sapienza, Paola, and Luigi Zingales (2012): “A trust crisis,” *International Review of Finance*, 12(2), 123-131.
- Snowberg, Erik, and Leeat Yariv (2021): “Testing the waters: Behavior across participant pools,” *American Economic Review*, 111(2), 687-719.
- Stöckl, Thomas (2015): “Dishonest or professional behavior? Can we tell? A comment on: Cohn et al. 2014, *Nature* 516, 86–89, “Business culture and dishonesty in the banking industry,”” *Journal of Behavioral and Experimental Finance*, 8, 64-67.
- Sutter, Matthias, and Martin Kocher (2007): “Trust and trustworthiness across different age groups,” *Games and Economic Behavior*, 59(2), 364-382.
- Thanassoulis, John, and Misa Tanaka (2018): “Optimal pay regulation for too-big-to-fail banks,” *Journal of Financial Intermediation*, 33, 83-97.
- Thielmann, Isabel, and Benjamin Hilbig (2015): “The traits one can trust: Dissecting reciprocity and kindness as determinants of trustworthy behavior,” *Personality and Social Psychology Bulletin*, 41(11), 1523-1536.
- Villeval, Marie Claire (2014): “Professional identity can increase dishonesty,” *Nature*, 516, 48-49.
- Vischer, Thomas, Thomas Dohmen, Armin Falk, David Huffman, Jürgen Schupp, Uwe Sunde and Gert G. Wagner (2013): “Validating an ultra-short survey measure of patience,” *Economic Letters*, 120(2), 142-145.
- Volk, Stefan, Christian Thöni, and Winfried Ruigrok (2012): “Temporal stability and psychological foundations of cooperation preferences,” *Journal of Economic Behavior and Organization*, 81, 664-676.
- Zingales, Luigi (2015): “Does finance benefit society?,” *Journal of Finance*, 70(4), 1327-1363.