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Who needs guidance from a financial adviser?

Japanese survey evidence

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Abstract

Using individual household data from Japan, we find that households choosing sources of finance information involving financial experts have better financial knowledge, measured in terms of knowledge about the Deposit Insurance Corporation of Japan, than those selecting financial institutions for the same purpose. These same households are also more willing to purchase high-yielding financial products entailing the possibility of a capital loss within one to two years. The results are thus consistent with US and European studies in finding that households seeking guidance from financial advisers tend to have better financial knowledge.

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1. Introduction

The prolonged period of low economic growth and interest rates that has accompanied rapid population aging in Japan over the past two decades requires evermore Japanese households to more carefully decide how much to save and where to invest. For example, many Japanese corporations have begun to implement defined contribution corporate pension plans because continuing low interest rates have made it difficult to sustain traditional defined benefit pension plans. In corporations adopting defined contribution plans, households with workers working for them need to take much more responsibility for their own saving. However, the flow of funds accounts for Japan show that about half of all Japanese household financial assets are safe assets, such as bank deposits, and that riskier assets, such as stocks or investment trusts, accounted for only 16% of all household financial assets as of June 2018.

For this reason, the Financial Services Agency (FSA) of Japan has been actively promoting investment in FSA-selected no-load and simple investment trusts through tax exemptions on dividend and interest earnings on securities, up to 400,000 yen per year for up to 20 years. However, it is still up to households to choose from those products approved by the FSA, and thus they still need sufficient financial knowledge for this purpose. To quickly improve financial knowledge, it is common in the US and Europe for households to seek guidance from financial advisers. However, households still need enough knowledge to understand the guidance given, as argued by Inderst and Ottaviani (2012). The question is whether more Japanese households will take advantage of the presence of financial advisers in the future to help make better decisions.[1]

In this paper, we pose the following questions. First, what are the actual and desirable sources of financial information and knowledge for Japanese households? Second, what types of households prefer to seek guidance from financial experts? Third,

[1] The Japan Association for Financial Planners (JAFP) has been granting Certified Financial Planner® (CFP)® certification, a globally recognized credential, and Affiliated Financial Planner (AFP) certification, a domestic credential. As of July 2017, 21,228 individuals have CFP® certification and 155,568 individuals have AFP certification. About 50% of certified members work for financial institutions. Many of these financial institutions have been supporting JAFP's activities by being corporate members. See details at https://www.jafp.or.jp/eng/.

do households with better financial knowledge invest more in risky assets than safe assets? We respond to these questions empirically after presenting a simple theoretical model. The major findings are as follows. We start by formulating a theoretical model where a household will seek guidance from a financial adviser in making risky investments if the benefit of obtaining such guidance, consisting of both favorable investment returns and up-to-date financial knowledge, exceeds the costs. In turn, these costs consist of the costs of purchasing risky assets and the costs of spending time understanding the guidance given. The model makes two empirical predictions. First, households with better financial knowledge tend to invest in risky assets and seek guidance for this from financial advisers. Second, among households investing in risky assets, households with better financial knowledge will seek guidance from financial advisers, whereas households with poorer financial knowledge will make the same decision based on their own information.

We then move to an empirical analysis using the Survey of Household Finances (SHF) conducted by the Central Council for Financial Services Information (CCFSI) from 2010 to 2017, which provides unique information on the actual and desirable sources of financial knowledge and information for Japanese households. We find that households choosing actual sources of financial information and knowledge involving financial experts already have better financial knowledge, as measured by knowledge about the Deposit Insurance Corporation of Japan (DICJ), and are more willing to purchase high-yielding financial products entailing the possibility of a capital loss within one to two years. This is consistent with our first theoretical prediction. We also find that it is unclear whether households seeking guidance from financial experts tend to have a higher ratio of stocks to total financial assets than households selecting financial institutions as their source of financial information and knowledge. This is consistent with our second theoretical prediction.

Before presenting our theoretical model, we summarize the three related areas of literature. These concern (i) guidance from financial advisers, (ii) the measurement of financial knowledge, and (iii) the relationship between investment decisions and financial knowledge and financial adviser guidance. In terms of financial adviser guidance, Inderst and Ottaviani (2012) conducted a survey and argued that households should have better financial knowledge when seeking guidance from financial advisers because the

financial adviser may recommend a product that benefits the seller of that product, rather than the household, if the seller provides fees based on the sale of their product. This assertion found support in empirical studies using Italian data by Calcagno and Monticone (2015) and US data by Collins (2012). Kim et al (2016) pointed out the role of financial advisers to resolve household inertia in investment management over their life cycles. They assumed that investors must forgo acquiring job-specific skills when they spent time managing their money, and their efficiency in financial decision making varied with age. Their model showed how people optimally chose between actively managing their assets versus delegating the task to financial advisors.

As for analysis of Japanese data, Yamori (2014) used regional aggregate data from the SHF 2010–2013 and found that households with greater financial assets tended to select financial experts as their source of financial information and knowledge. In contrast, households living in the Kanto region of Japan tended to choose neutral institutions not reflecting the interests of a particular industry as their source of financial information and knowledge.

Many existing studies quantify the financial knowledge of households including, for example, Atkinson and Messy (2012). A survey by Lusardi and Mitchell (2014) compared financial literacy around the world using a financial literacy index that counts the number of correct answers to three questions on compound interest rates, inflation and the real value of financial assets, and diversified investments. The findings suggested that financial literary varies from country to country reflecting the historical experience of financial markets, and older, male, and more educated persons tend to have better financial knowledge. In Japan, to the best of our knowledge, the 2009 wave of the Japanese Study on Aging and Retirement (JSTAR 2009) conducted by the Research Institute of Economy, Trade and Industry, Hitotsubashi University, and the University of Tokyo, the 2010 wave of the Preference Parameters Study conducted by Osaka University's 21st Century Center of Excellence Program (PPS 2010), the 2010 wave of the National Survey on Work and Family (NSWF 2010) conducted by Nihon University Population Research Institute, and the 2016 Financial Literacy Survey (FLS) conducted by the CCFSI included the same three questions. The financial literacy index analyzed by Lusardi and Mitchell (2014) was also replicated by Shimizutani and Yamada (2018) using JSTAR 2009, Sekita (2011) using PPS 2010, Clark et al. (2013) using NSWF 2010,

and Yoshino et al. (2017) using FLS 2016. Fujiki (2018a) imputed the missing financial literacy variable for the SHF in 2010 and 2016 by matching the standard measure of financial literacy data constructed from PPS 2010 and FLS 2016.

For the relationships between investment decisions and financial knowledge and financial adviser guidance, Lusardi et al. (2017) reported that financial knowledge alone accounted for 30–40% of retirement wealth inequality using US data. Elsewhere, Jappelli and Padula (2015) found that financial knowledge positively correlated with stock market participation using European data for the over fifties. Similar positive associations between stock market participation or asset holdings and the level of financial knowledge are evident in Georgarakos and Inderst (2014), Jappelli and Padula (2013), van Rooij et al. (2011, 2012), Guiso and Jappelli (2008). For instance, using Dutch data, von Gaudecker (2015) found that households with better financial knowledge usually sought guidance from financial experts, and that these households accordingly achieved a 50 basis point higher investment return than other households. Bianchi (2018) used French administrative panel data on portfolio choices with survey measures of financial literacy. It showed that the most literate households experienced 0.4% higher annual returns than the least literate households, and more literate households held riskier positions when expected returns were higher and they were more likely to buy assets that provided higher returns than the assets that they sold.

As for studies using Japanese data, regarding the studies using PPS data, Ito et al. (2017) identified an association between risky asset holdings and financial knowledge. Sekita (2013) showed that even after controlling for the endogeneity of financial literacy, the financial literacy increased wealth accumulation. Kadoya and Khan (2017a) showed that financial literacy could reduce anxiety about life in old age by making people capable of accumulating more assets and earning more income. Kadoya and Khan (2017b) showed that financial literacy significantly improved stock market participation even after controlling the demographic, socio-economic, and psychological factors. Regarding the studies using FLS 2016, Yoshino et al. (2017) constructed a financial literacy index, and found that high-income households tended to have better financial knowledge. Kadoya and Khan (2017c) examined the factors affecting financial literacy in terms of financial knowledge, financial attitudes, and financial behavior. They found that age, education, balance of financial assets, and use of financial information were positively related to

overall financial literacy and its three components, while employment status and experience of financial trouble were negatively associated. Fujiki (2018b) examined the relationship between a household's decision about investing risky assets and its sources of financial knowledge and information.

Elsewhere, Clark et al. (2013) used data from 2,872 individuals aged 40 to 59 in NSWF 2010, and found that men, and households living in urban areas and those with more formal education and high-income tended to have higher measure of financial literacy. They also found that higher levels of financial literacy were associated with greater demand for additional human capital and for participation in on-the-job training programs. Shimizutani and Yamada (2018) used data from 2,852 individuals aged 50 to 75 in JSTAR 2009 and found that financial literacy was generally associated with educational attainment, cognitive skills, coursework in economics or finance, and income level. They also found that individuals with higher financial literacy were more likely to invest in stocks or securities separate from their savings. Iwaisako et al. (2015) identified a positive relationship between educational attainment and stock holdings using the Nikkei Rader data sets. Using prefectural aggregate data from the National Survey of Family Income and Expenditure, Mori (2017) concluded that the prefectural stock holding to total asset ratio related to age, educational attainment, and the share of wealthy households in the prefecture, but not to the level of financial literacy as measured by FLS 2016. With the use of financial adviser guidance, Nogata and Takemura (2017) found using an investor survey, that conditional on the level of financial knowledge, households that placed an emphasis on the suggestions of security firms and family and friends tended to have lower ratios of stock to total financial assets. Fujiki (2018b) used FLS 2016 and Iwaisako et al (2018) used the 2017 wave of Japan Household Panel Survey (JHPS 2017) to analyze actual sources of financial knowledge and information including the use of financial adviser guidance.

Our contribution to this literature, especially with reference to Japan, is that we employ unique information regarding households' actual and desirable sources of financial knowledge and information from the SHF individual data set. For example, Yamori (2014) only used regional aggregate data from SHF 2010–2013, while we employ individual data sets over the period 2010–2017; unlike Ito et al. (2017) and Iwaisako et al (2015), we consider the sources of financial information and knowledge. Fujiki (2018b)

and Iwaisako et al (2018) did not consider desirable sources of financial knowledge and information. However, one limitation of our analysis is that our data set is only from a consumer savings survey, and thus does not include information on the supply of financial products. Accordingly, we are unable to identify the effects of supplier sale strategies on the demand for financial assets as in Hastings et al. (2017) using Mexican data.

The remainder of the paper is organized as follows. Section 2 details the theoretical model. Section 3 explains the SHF data used for the regression and Section 4 reports the results of the regression analysis. Section 5 concludes with some policy implications.

2. Model

In this section, we begin by proposing a simplified version of Calcagno and Monticone's (2015) model to consider the relationship between the household demands for financial adviser guidance and risky financial assets. We then derive the empirical predictions using this model. Note that ours is a simple static model and does not consider the life cycle model of the accumulation of financial knowledge and assets as in Lusardi et al. (2017). However, we believe our main contribution lies in our empirical findings.

2.1. Model

Consider an economy with many households and financial advisers. A household has a utility function that depends on the expected return and variance of the amount of its total financial assets. The household then allocates some initial amount of financial assets into a risky asset, say stocks or an investment trust, and a safe asset, like a bank deposit. To inform this decision, the household can use its own information or information available from friends or family members without cost. Alternatively, the household can seek fee-paying guidance from a financial adviser.

The level of financial knowledge, k, varies from household to household. The higher the value of k, the better the level of financial knowledge. Each household knows that the return from the risky asset is either $r_H > 0$ or $r_L < 0$. However, the household does not know the probability of realizing the positive value $r_H > 0$. Hence, the household assumes that the probability of realization of r_H will be 0.5. In contrast, a

financial adviser can access a better information set I_A, and knows that with probability $\theta > 0.5$, r_H will be realized, and with probability $1 - \theta$ that r_L will be realized. Given $\theta > 0.5$, $\theta r_H + (1-\theta) r_L > 0.5(r_H + r_L)$ and $(1-\theta)\theta(r_H - r_L)^2 < 0.25(r_H - r_L)^2$, if a household follows the guidance a financial adviser, the household should enjoy a higher expected return and a lower variance of return from the risky asset.

The household must incur cost $f(k)$ to consider investing into the risky asset. The cost $f(k)$ includes a fee to open a financial account in a financial institution or the disutility from reading the prospectus of investment trust. The higher the value of k, the better the level of financial knowledge and the lower the cost $f(k)$. In contrast, the household must incur two types of additional cost if it seeks the guidance of a financial adviser. First, the household must pay a fee for obtaining the guidance. Second, the household must spend time understanding the guidance given. The second type of cost will be lower if the household has a better level of financial knowledge or a higher value of k. In return, the household will enjoy two types of benefits from the guidance of a financial adviser. First, the household enjoys a higher expected return and a lower variance of return from investing in the risky asset. Second, the household also accesses up-to-date financial knowledge on, for example, how to protect themselves from fraudulent financial behavior.

Let the net benefit of seeking guidance from a financial adviser, $\phi(k)$, be the difference between the second type of benefit and the total cost of seeking guidance from a financial adviser, such that $\phi(k)$ will then take a positive value if k is sufficiently high. However, $\phi(k)$ will take a negative value for households with poor financial knowledge and lower values of k. Suppose a household has the following utility function that depends on the expected value and variance of the household's total financial asset W,

$$\mathrm{E(W)} - \tfrac{1}{2}\gamma Var(W) = \bar{W} - \tfrac{1}{2}\gamma(E(W^2) - \bar{W}^2), where\ \bar{W} = E(W).$$

Now let the household's initial financial asset be W_0 and the share of investment in the risky asset be v. If the returns from the risky asset and the safe asset are $\tilde{r}$ and r_f, respectively, the expected value of the total financial asset will be $W_0 \mathrm{E}(v\tilde{r} + (1-v)\mathrm{r_f})$. Letting the return from the safe asset be zero through normalization, the expected value and variance of the amount of household financial assets will be $W_0 v \mathrm{E}(\tilde{r})$ and $(W_0 v)^2 \mathrm{Var}(\tilde{r})$, respectively. Each household will then solve the following

optimization problem to find the optimal investment (as a ratio of total financial assets) in the risky asset v^*,

$$\max_v \mathrm{E(W)} - \frac{1}{2}\gamma Var(W) = \max_v W_0 v\mathrm{E}(\tilde{r}) - \frac{1}{2}\gamma(W_0 v)^2 \mathrm{Var}(\tilde{r}).$$

The optimal investment ratio v^* and U^*, the level of utility attained at v^*, is

$$v^* = \frac{\mathrm{E}(\tilde{r})}{\gamma W_0 \mathrm{Var}(\tilde{r})} \text{ and } U^* = \frac{1}{2}\frac{\mathrm{E}(\tilde{r})^2}{\gamma \mathrm{Var}(\tilde{r})}.$$

In obtaining those solutions, we assume that if $\tilde{r} < 0$, $v^* = 0$ because households cannot short sell the risky asset. If the household uses its own information or that from friends or family members and makes an investment decision, because $\mathrm{E}(\bar{r}) = 0.5(r_H + r_L)$ and $Var(\bar{r}) = 0.25(r_H - r_L)^2$,

$$v^* = \frac{2(r_H + r_L)}{\gamma W_0 (r_H - r_L)^2},\ U^* = \frac{2(r_H + r_L)}{\gamma W_0 (r_H - r_L)^2},\ if\ (r_H + r_L) < 0,$$

$$v^* = 0,\ U^* = 0\ if\ (r_H + r_L) < 0.$$

On this basis, the household must incur cost $f(k)$ to consider investing in the risky asset; hence, the utility from investment is $U^* - f(k)$. As in Table 1, the household will not invest in the risky asset if $v^* = 0$, or $v^* > 0$ and $U^* < f(k)$. Conversely, the household will invest in the risky asset if $v^* > 0$ and $U^* > f(k)$.

Alternatively, if the household seeks the guidance of a financial adviser, $\mathrm{E}(\bar{r}) = \theta r_H + (1-\theta) r_L$ and $\mathrm{Var}(\bar{r}) = (1-\theta)\theta(r_H - r_L)^2$. The optimal investment ratio $v^*(\mathrm{I}_A)$ and $U^*(\mathrm{I}_A)$, defined as the level of utility attained at $v^*(\mathrm{I}_A)$, is then

$$v^*(\mathrm{I}_A) = \frac{\theta r_H + (1-\theta) r_L}{\gamma W_0 \theta(1-\theta)(r_H - r_L)^2}, U^*(\mathrm{I}_A) = \frac{(\theta r_H + (1-\theta) r_L)^2}{2\gamma\theta(1-\theta)(r_H - r_L)^2}$$
$$if\ \theta r_H + (1-\theta) r_L > 0,$$
$$v^*(\mathrm{I}_A) = 0, U^*(\mathrm{I}_A) = 0\ if\ \theta r_H + (1-\theta) r_L < 0.$$

Note that $1 > \theta > \frac{1}{2}$ implies that $v^*(\mathrm{I}_A) > v^*$ and $U^*(\mathrm{I}_A) > U^*$. For the household seeking the guidance of a financial adviser, the household enjoys a net benefit from seeking guidance, $\phi(k)$, and in doing so incurs cost $f(k)$. Table 2 summarizes the four types of household decisions on investment and the purchase of guidance from a financial adviser.[2]

[2] Calcagno and Monticone (2015) consider a game between the household and the financial adviser where the financial adviser will reveal the true information to the household if the level of the household's financial knowledge is sufficiently high. For simplicity, we do not consider such strategic behavior by the financial adviser.

First, suppose that $v^* = 0$, $U^* = 0, v^*(\mathrm{I}_A) = 0, \text{and } U^*(\mathrm{I}_A) = 0$. The household will then seek financial adviser guidance, but will not invest in the risky asset if $\phi(k) > f(k)$, while the household will not seek the guidance of a financial adviser and will not invest in the risky asset where $\phi(k) < f(k)$. Second, suppose that $v^* = 0$, $U^* = 0$, $v^*(\mathrm{I}_A) > 0$, and $U^*(\mathrm{I}_A) > 0$. The household will then seek the guidance of a financial adviser and invest in the risky asset when $U^*(\mathrm{I}_A) + \phi(k) > f(k)$. For this household, the level of financial knowledge is sufficiently high that the benefit from seeking the guidance of a financial adviser and the utility of investing in the risky asset will exceed the cost of contemplating the investment in the risky asset. Consequently, the household will not seek financial adviser guidance and will not make an investment into a risky asset when $U^*(\mathrm{I}_A) + \phi(k) < f(k)$.

Third, suppose that $v^* > 0$, $U^* < f(k)$, $v^*(\mathrm{I}_A) > 0$, and $U^*(\mathrm{I}_A) > 0$. The household will then seek the guidance of a financial adviser and invest in the risky asset when $U^*(\mathrm{I}_A) + \phi(k) > f(k)$, as in the second case. Fourth, suppose that $v^* > 0$, $U^* > f(k)$, $v^*(\mathrm{I}_A) > 0$, and $U^*(\mathrm{I}_A) > 0$. This household will seek guidance from a financial adviser and invest in the risky asset when $U^*(\mathrm{I}_A) + \phi(k) > U^*$, and will not seek financial adviser guidance and not invest in the risky asset when $U^*(\mathrm{I}_A) + \phi(k) < U^*$. The household will then invest in the risky asset using its own information; hence, $f(k)$ does not affect the decision about seeking guidance from a financial adviser. Alternatively, for the household with a high level of financial knowledge, the benefit of seeking financial adviser guidance, and the utility of investing in the risky asset, will exceed the utility of investing in the risky asset using its own information. It will then both invest in the risky asset and seek the guidance of a financial adviser, as in von Gaudecker (2015). Any remaining households (those with poor financial knowledge), will invest in the risky asset using only their own information.

2.2. Empirical implications

The model in Section 2.1 provides the following empirically testable propositions. First, households that invest in the risky asset tend to have better financial knowledge. Second,

households that seek the guidance of a financial adviser also tend to have better financial knowledge. Third, suppose we identify a household that does not currently seek the guidance of a financial adviser, but believes it is desirable to obtain such guidance. Our model suggests that this household would also tend to have better financial knowledge, and we predict that either the net benefit of seeking guidance from a financial adviser or the return from investing the risky asset will increase, or the level of financial knowledge will improve. Finally, among households investing in the risky asset, households with better financial knowledge will seek the guidance of a financial adviser, whereas households with poor financial knowledge will invest in the risky asset using only their own information.

3. SHF 2010–2017 Data

3.1 Summary statistics

We employ individual household data from the SHF over the period 2010–2017. We use data after 2010 because of the availability of the questions concerning the sources of financial information and knowledge. For each survey year, the SHF data comprise family and single-person household data sets. For the family household data set, the SHF uses a stratified two-stage random sampling method to select 500 survey areas, and then randomly selects 16 households, consisting of two or more people from each area, totaling about 8,000 samples. Of these, in each survey year, about half of the samples respond. By contrast, the single-person household data set selected each survey year comprises 2,500 respondents from a pool of individuals registered with a survey company through the Internet. The distribution of respondent ages (20–69 years), gender, and regions is determined in such a way as to represent the population in the Japanese Census.

The SHF provides rich information concerning a household's characteristics. This includes data on annual after-tax disposable income and the outstanding amounts of financial products held as savings (excluding those held for family businesses or for settlement purposes). It also includes the age, gender, area of residence, education (primary school, senior high school, vocational college, junior college, university, graduate school, and other), and employment status (full-time worker, part-time worker, self-employed, no job, student, and other) of household members. In addition, the data

include whether a respondent is a homeowner, has debt, resides in one of eight regions of residence or four size categories for cities of residence based on their population, and household size measured by the number of household members in the family household data set. We specify dummy variables for households that know or have heard about the role of the DICJ as a proxy variable for a household's financial knowledge. We specify the following to proxy for preferences in each household's investment decision. These dummy variables identify households that consider the provision of a financial advisory service as one of the conditions for choosing a financial institution, households that make mattress deposits to reduce investment risk, households suffering capital losses, and households willing to purchase high-yielding financial products including the possibility of incurring a capital loss. We also specify the percentage share of bonds, stocks and investment trusts in total outstanding financial assets for each household and the percentage share of contributions to a defined contribution pension plan. Note that these contributions are not included in the outstanding amount of financial products. We report the variable means in turn.

Table 3 provides the means of the dummy variables for the categories of annual disposable income, the amount of financial assets, and the age of the household head for family and single-person households.

For assets and income, we initially attempt to include 10 categories so that each contains a similar proportion of observations. For example, Income_200_260 takes a value of one for a family household that responds that its annual disposable income is greater than 2 million yen and less than or equal to 2.6 million yen, and zero otherwise. Asset_0 then takes a value of one for households that respond with zero financial assets, and zero otherwise. Table 3 suggests that about 30% of family households and about 40% of single-person households do not hold any financial assets. Recall that the definition of financial assets in the SHF excludes financial assets held for business and for settlement purposes.

Since 2016, the SHF has also asked households that responded that they did not hold any financial asset whether they had a financial account and whether the outstanding amount of the account was zero. In the 2017 family household data, 51% of households that initially responded that they did not have any financial asset indeed had a financial account with a positive outstanding amount. Note also that responses concerning the

stock of cash holdings are a separate question. Thus, respondents with zero financial assets could also hold a positive amount of cash holdings.

The dummy variables for the age of the household head (Age) are 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, and over 74 years for family households. For the single-person household data, the dummy variables for the ages of the household head are 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, and 65–69 years. The variables followed by _NA are dummy variables identifying a family household not reporting its annual disposable income, amount of financial assets, or the age of the household head. This is because family household respondents can refuse to answer these questions as they are in paper form, whereas in an Internet survey, the single-person household questionnaire requires respondents to respond to all questions before proceeding. Note that the SHF does not ask about the total amount of financial assets for those households that responded that they did not have financial assets. We classify these households as Asset_0 = 1 not as Asset_NA = 1. The figures in Table 3 show that family households generally have higher incomes, larger amounts of financial assets, and older household heads.

Table 4 reports the mean of the dummy variables indicating the educational attainment for each survey respondent: senior high school, vocational college, junior college, university, and graduate school. There is an additional classification for junior high school and other, but for ease of analysis, we add these categories together because the number of households with other school is very small. In the following regressions, this is the base case. For family households, we also specify a dummy variable indicating spouse for the survey respondent's job situation and educational attainment, as indicated by an S_ before the variable names.

We specify dummy variables for respondents who know or have heard about the role of the DICJ (Know Deposit Insurance and Heard of Deposit Insurance, respectively). We trust these variables correlate with household financial knowledge because the SHF unfortunately does not include questions that would allow us to construct a standard measure of financial literacy as reviewed by Lusardi and Mitchell (2014). Nevertheless, Yamori (2014) proves that household knowledge about the DICJ tends to be better in those regions and periods with more bank failures, and thus the information regarding a household's knowledge about the DICJ might not be a good proxy for general financial

knowledge. In responding to this, Fujiki (2018a) imputes the missing financial literacy variable for the SHF in 2010 and 2016 by matching the standard measure of financial literacy data constructed from PPS 2010 and FLS 2016. Fujiki (2018a) finds that the imputed financial literacy variables using four different matching methods yield high values for agents with better knowledge about the DICJ (Table 5). Table 5 suggests that the responses to this question on knowledge of the DICJ may be a useful proxy variable for the level of financial literacy where otherwise unavailable.

Table 4 also reports the means of the following variables that should correlate with the preferences governing each household's investment decisions. These are dummy variables that take a value of one for households that consider the provision of a financial advisory service as one of the conditions for choosing a financial institution and zero otherwise (Choice advice), and another that takes a value of one for households making mattress deposits to reduce investment risk and zero otherwise (Mattress). Table 4 also reports the mean percentage shares of bonds (Sbond), stocks (Sstock), and investment trusts (Sinv_trust) to total outstanding financial assets. We also include the percentage share of the amount of contributions into a defined contribution pension plan (Sdcplan). Capitalloss_yes is a dummy variable that takes a value of one for households that have experienced capital losses, and otherwise zero.

We also report the means for dummy variables indicating the willingness to purchase high-yielding financial products including the possibility of incurring a capital loss within one to two years. Risk_yes is a dummy variable that takes a value of one for households that respond that they are willing to purchase such a product, and otherwise zero. Risk_alittle is a dummy variable that takes a value of one for households that respond that they would purchase such a product to some extent, and otherwise zero. We also specify dummy variables indicating each respondent's job situation, namely whether the household head is a full- (Full-time) or part-time (Part-time) worker, self-employed (Self-employed), no response (Job_NA), a student (Student, single-person households only), and no employment, and does not attend school (S_No job-student) for spouses in family households only. Table 4 shows that the single-person household data set contains more samples whose educational attainment is either university or graduate school, and who are more willing to purchase financial products with high yields with the possibility of incurring a capital loss within one to two years.

Table 6 reports the means of the following variables. A dummy variable indicating whether a household has a male household head (Male), dummy variables indicating household size as measured by the number of household members (H_sizeN, N = 2,…6, 6 and more), a dummy variable indicating whether a household is a homeowner (Homeowner), a dummy variable indicating whether a household has debt (Debt), and dummy variables for eight regions of residence (Tohoku, Kanto, Hokuriku, Chubu, Kinki, Chugoku, Shikoku, and Kyushu, with Kanto as the base or reference category). Table 6 also includes the means for four size categories of cities based on population in the family household data set: (1) the 20 largest cities, (2) cities with more than 40,000 households, (3) cities with 20,000–40,000 households, and (4) cities with fewer than 20,000 households and villages. We use dummy variables to denote city size, being Top 20cities, Cities_40k_, Cities_20k_40k, and designate cities with fewer than 20,000 households and villages as the base category. For the single-person household data sets, we do not have data on size categories for cities. We also specify dummy variables denoting the survey year (Yeard2010–Yeard2017). The figures in Table 6 generally indicate that the single-person household data set has a higher proportion of households with a male household head and that are homeowners and have debt.

3.2. Risky asset holdings

The upper panel of Table 7 provides summary statistics for the holdings of risky financial assets. Note that the SHF asks the surveyed households whether they have financial assets and defined contribution pension contributions. If a household replied that it had financial assets and it joined defined contribution pension contributions, the household then provides a breakdown of the financial assets, the total amount of financial assets, and defined contribution pension contributions. The columns labeled “With financial assets” and “Yes” report the proportion of households that replied that they had positive amount of stocks, investment trusts, and bonds. The columns labeled “With financial assets” and “No” report the proportion of households that replied that they have zero amount of stocks, investment trusts and bonds. The columns labeled “Defined Contribution Plan” and “Yes” report the proportion of households that replied that they had made contributions to a defined contribution pension plan. The columns labeled “Defined Contribution Plan” and “No” report the proportion of households that replied

that they did not make contributions to a defined contribution pension plan. If a household replied that it had not participated in defined contribution pension plan, we report the proportion of these households in the column labeled "NA." For the family household data, the participation rates are 15% for stocks, 10% for investment trusts, 4% for bonds, and only 2% for defined contribution pension plans. Some 35% of family households do not have any financial assets, and 63% of family households do not participate in defined contribution pension plans. For single-person households, the figures show that the participation rates are 25% for stocks, 14% for investment trusts, 6% for bonds, and 4% for defined contribution pension plans. Overall, 37% of single-person households do not have financial assets, and 41% do not participate in defined contribution pension plans.

The lower panel of Table 7 reports the means, standard errors (s.e.), minimums, maximums, and the number of observations (N) for the percentage shares of stocks, investment trusts, bonds, and the ratio of contributions to defined contribution pension plans to the total amount of financial assets. It does so only for those reporting positive risky financial assets (households "With financial assets" and "Yes" in the upper panel) and positive contributions to a defined contribution pension plan. For the family household data, the highest mean percentage is that of stocks (5%), followed by investment trusts (3%) and bonds (1%). The mean ratio of the contribution to defined contribution pension plans to total amount of financial assets is 65%. For the results from the single-person household data, the highest mean percentage is that of stock (8%), followed by investment trusts (4%) and bonds (1%). The ratio of the contribution to defined contribution pension plans to the total amount of financial assets is 49%. Note that the mean percentage shares of stocks, investment trusts, bonds, and the mean ratio of contributions to defined contribution pension plans to total amount of financial assets reported in Table 4 include data from households with no financial assets. Consequently, the mean percentages in Table 4 are much lower than in Table 7. Table 7 also shows that Japanese households have a lower participation rate and lower percentage shares to total financial assets for the three risky financial assets (stocks, investment trusts, and bonds) than suggested by the national flow of funds accounts.

3.3. Sources of financial knowledge and information

Table 8 summarizes the actual and desirable sources of financial knowledge and information, which we refer to as actual and desirable sources hereafter. For the actual sources, the SHF asks, "What is your main source of knowledge and information on finance? Choose up to three sources from: financial institutions (e.g. financial service representatives and tellers, brochures and advertisements, websites), financial experts (e.g., books, lectures, seminars, websites, and television programs), a neutral institution that does not reflect the interest of a particular industry (e.g., brochures, lectures, seminars, advertisement, and websites), family, and friends (word-of-mouth communications), school (e.g. classes and lectures), other."

The top panel of Table 8 reports the frequencies of actual choices in descending order of frequency. As a household can select up to three responses, the sum of the frequencies exceeds 100%. The results from the family household data in the left column show that the sources of information are financial institution (FI) 69%, family and friends (FF) 34%, financial experts (E) 24%, other (Other) 18%, neutral institution that does not reflect the interest of a particular industry (NI) 8%, do not answer (No answer) 2%, and school (School) 0.3%. The results from the single-person household data in the right column show corresponding figures for FI of 49%, Other 33%, FF 22%, E 20%, NI 11%, and School 3%. While the SHF does not explain which sources of knowledge and information correspond to Other, a similar question on the sources of knowledge and information in FLS 2016 suggests that it could encompass mass media (newspaper, television, radio, etc.) and websites. In FLS 2016, 16% and 24% of respondents selected these two unavailable choices in the SHF, respectively. While 20–24% SHF respondents chose E as the source of knowledge and information, Fujiki (2018b) and Iwaisako et al (2018) reported only 5% and 10% respondents chose E as the source of knowledge and information using FLS 2016 and JHPS 2017 respectively.

The second panel of Table 8 details the top 10 frequencies of all possible combinations of choices in descending order of frequency. The results from the family household data in the left column show that among the 69% of family households that chose FI, 31% selected FI exclusively, and 16% chose it in combination with FF, 8% with E, and 4% with E and FF. Among the 34% of family households selecting FF, only 8% chose it exclusively, and 16% selected it in combination with FI, and 4% with FI and E. For the single-person household data in the right column, we find similar choices as for

family households. However, for single-person households, just Other (26%) is the top choice followed by just FI (26%), in contrast to Other being only the third choice (10%) in the family household data. Overall, these 10 choices explain about 88% of all choices in both data sets.

Regarding the desirable sources, the SHF asks "Who should provide knowledge and information on finance? Choose up to three from: financial institutions, financial experts, a neutral institution that does not reflect the interest of a particular industry, family and friends, school, do not know, other." The third panel of Table 8 reports the frequency of choice for the family and single-person household data. The results from the family household data in the left column are FF (51%), NI (34%), E (32%), do not know (Don't know) (18%), FF (12%), Other (5%), School (2%), and No answer (1%). The results from the single-person household data in the right column are FF (41%), NI (32%), E (27%), Don't know (26%), FF (11%), Other (9%), and School (4%). We note especially that the relative popularity of NI and E and FI and FF is relatively higher and lower than the relative popularity of the actual sources, respectively.

The fourth panel of Table 8 reports the top 10 frequencies of all possible choices of desirable sources. The results from the family household data in the left column show that among the 51% of family households choosing FI, 21% selected FI exclusively. The remaining popular choices include Don't know (18%), exclusively NI (10%), FI and E (8%), and FI, E, and NI (7%). In contrast, for the single-person household data in the right column, among the 41% of single-person households selecting FI, 17% chose FI exclusively, which is in fact lower than for Don't know (18%). Other popular choices include exclusively NI (10%), FI, E, and NI (7%), and FI and E (6%). Overall, these 10 choices explain 87% and 85% of all choice sets in the family and single-person data sets, respectively.

Note that a household's actual sources typically differ from its desirable sources. As evidence, Table 9 details the choice of desirable sources conditional on the three most popular actual sources. Conditional on the choice of exclusively FI as the actual source, 43% of family households and 44% of single-person households chose exclusively FI as the desirable source. However, the case for exclusively FI turns out to be an exception. Conditional on the choice of exclusively FF as the actual source, only 22% of single-person households chose exclusively FF as the desirable source. Moreover, conditional

on the choice of FI and FF as the actual source, only 14% of family households choose FI and FF as the desirable source. Conditional on the choice of exclusively Other as the actual source, only 11% of family households and 12% of single-person households selected Other as a desirable source.

We are now ready to test the empirical predictions of our model. We first examine whether households seeking guidance from a financial adviser have better financial knowledge. We then examine whether households not currently seeking guidance from a financial adviser, but consider it desirable to seek guidance from a financial adviser, have better financial knowledge. Lastly, we examine whether households investing in risky assets have better financial knowledge.

4. Regression Results

4.1. Level of financial knowledge and the choice of actual and desirable sources

We first examine whether households seeking guidance from a financial adviser have better financial knowledge, assuming that the household will select E or NI. Table 10 reports the results of the multinomial logit model of the choice of actual sources made by family households. In the first column, we report the demographic variables, the number of observations (N), the pseudo R-squared values (PseudoRsq), and the log-likelihood (LLR). To conserve space, we do not report the parameter estimates for the dummy variables for job situation, gender of household head, household size, homeownership, debt and survey year, as they do not yield interesting results. We take the 31% of family households that chose exclusively FI as the base case, and regress an indicator variable for the second- to seventh-most preferred choices listed in the first row of columns 2–7. We select only the top-seven choices of actual sources because the inclusion of additional choices leaves less than 500 observations for some choices, yielding insufficient degrees of freedom to estimate our multinomial logit model as it includes nearly 100 explanatory variables. In reporting our parameter estimates in columns 2–7, we also do not report the standard error of the parameter estimates. However, the superscripts *, **, *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. We employ gray (blue) shading to identify estimated

coefficients that are negative (positive) and statistically significantly different from zero, except for the dummy variables with _NA in their name.

The results in columns 2–4 suggest that a family household has greater odds of choosing sources including E if the household knows the role of the DICJ, considers the provision of a financial advisory service as one of the conditions for selecting a financial institution (hereafter, considers the provision of a financial advisory service) excluding the choice of exclusively E, is willing to purchase financial products with a high yield but with the possibility of incurring a capital loss within one to two years (hereafter, willing to purchase high-yield financial products), and purchases financial products with a high yield but with the possibility of incurring a capital loss within one to two years to some extent (hereafter, purchases high-yield financial products to some extent). In contrast, columns 5 and 6 show that a family household has higher odds of selecting sources including both FI and FF and FF alone if it does not know about the role of the DICJ and has no experience incurring capital losses.

We also report the marginal effects of the explanatory variables on the probability of each choice of actual information source in Table 11. Note that when the explanatory variables are dummy variables that take values of zero or one, the marginal effects reported in Table 11 represent the effects of changes in the dummy variables from zero to one on the probability of choosing a particular information source. The estimations employ the margins command with dydx(*) option from Stata 14. The results in Table 11 are consistent with those in Table 10. These show that a family household has a greater probability of choosing sources including E if it knows the role of the DICJ, considers the provision of a financial advisory service excluding the choice of exclusively E, is willing to purchase financial products with a high yield, and purchases financial products with a high yield to some extent. It also shows that a family household has a higher probability of selecting sources including both FI and FF and FF alone if the household does not know about the role of the DICJ and has no experience incurring capital losses.

Tables 12 and 13 detail the estimated coefficients and marginal effects obtained from the multinomial logit model of the choice of actual sources made by single-person households. We take the 26% of single-person households that selected FI exclusively as the base case, and regress an indicator variable for the second- to sixth-most preferred

choices. To conserve space, we do not include the parameter estimates for the dummy variables for job situation, area of residence, and survey year, as these again did not yield interesting results. Columns 2 and 3 in Table 12 and columns 3 and 4 in Table 13 show that a single-person household has greater odds and a greater probability of choosing sources including E if it knows about the role of the DICJ, has experience incurring capital losses, is willing to purchase high-yield financial products, and purchases financial products with a high yield to some extent. In contrast, column 5 in Table 12 and column 6 in Table 13 show that a family household has greater odds and a greater probability of choosing sources including FF if the household does not know about the role of the DICJ and has no experience incurring capital losses. Column 6 in Table 13 and column 7 in Table 14 show that a family household has a greater probability of choosing the source of Other exclusively if the household does not know about the role of the DICJ and is not willing to purchase high-yield financial products.

The results in Tables 10–13 show that households selecting actual sources involving E have better financial knowledge, as measured by knowledge of the DICJ, and are willing to purchase high-yield financial products. The evidence thus supports the theoretical predictions of our model that households seeking guidance from a financial adviser tend to have better financial knowledge. The evidence is consistent with the finding by von Gaudecker (2015) that Dutch households with better financial knowledge usually sought guidance from financial experts.

What about the other prediction for desirable sources? The results in Tables 14–17 address this question. Tables 14 and 15 report the estimated coefficients and marginal effects obtained from the multinomial logit model of choice of desirable sources made by family households. We designate the 21% of family households choosing FI exclusively as the base case, and regress an indicator variable for the second- to seventh-most preferred desirable sources listed in the left column of the fourth panel of Table 8. Tables 14 and 15 provide the following results. First, family households that know about the role of the DICJ and that have a household head whose educational attainment is university or graduate school have greater odds of selecting desirable sources involving E and NI, while family households that know about the role of the DICJ and have a household head whose educational attainment is university or graduate school have a higher probability of choosing desirable sources involving NI. Second, family

households that have experience incurring capital losses tend to have greater odds and a greater probability of selecting desirable sources involving E. Third, family households that are unwilling to purchase high-yield financial products tend to have greater odds and a greater probability of choosing exclusively NI and NI in combination with FI. Finally, family households that purchase high-yield financial products to some extent also tend to have greater odds and a greater probability of selecting desirable information sources involving E.

Tables 16 and 17 report the estimated coefficients and marginal effects obtained from the multinomial logit model of the choice of desirable sources made by single-person households. We take the 17% of single-person households selecting FI exclusively as the base case, and regress an indicator variable for the second- to ninth-most preferred choice of desirable sources listed in the right column of the fourth panel of Table 8. We obtain the following results. First, single-person households that know about the role of the DICJ tend to have greater odds and a greater probability of selecting desirable sources involving E and NI, except for the marginal effect of choosing the desirable source of exclusively E. Second, single-person households that purchase high-yield financial products to some extent tend to have greater odds and a greater probability of selecting desirable information sources involving E. These findings are identical to those we obtain using the family household data. Finally, single-person households that have the experience of incurring capital losses tend to have a greater likelihood of choosing exclusively NI and NI and E. In addition, single-person households that are unwilling to purchase high-yield financial products tend have higher odds of choosing exclusively NI and NI and FI. Single-person households tend to have greater odds and a higher probability of choosing exclusively Other if they are aware of the role of the DICJ, have a higher share of stock holdings, and are willing to purchase high-yield financial products.

The results in Tables 14–17 show that households choosing desirable sources involving E and NI have better financial knowledge as measured by knowledge of the DICJ, except for the marginal effect of choosing the desirable source of exclusively E. A household also has a greater probability of choosing E if it is willing to purchase high-yield financial products and has experience of incurring capital losses in the case of a family household. Moreover, a household has a greater probability of choosing NI if it

is unwilling to purchase high-yield financial products in the case of family households. The evidence again supports our theoretical prediction that households seeking guidance from a financial adviser tend to have better financial knowledge.

4.2. Discrepancy between actual and desirable sources

From the figures in Table 9, we can appreciate that the most popular actual sources differ from the most popular desirable sources. In this section, we examine the demographic background of households whose actual sources and desirable sources do not correspond. Tables 18 and 19 report the estimated coefficients and marginal effects obtained from the multinomial logit model of the choice of desirable sources conditional on the choice of exclusively FI as the actual source using family household data. We designate households that chose FI exclusively as the desirable source as the base case, and regress an indicator variable that takes a value of one to seven for the top-eight preferred choices of desirable sources listed in column 1 of the uppermost panel of Table 9. We obtain the following results. First, a family household that knows about the role of the DICJ tends to have greater odds of choosing desirable sources involving NI (columns 4–7 in Table 18) and a greater probability of choosing as desirable sources exclusively NI and FI and NI (columns 7 and 8 in Table 19). Second, a family household that is unwilling to purchase high-yield financial products tends to have greater odds of choosing NI and FI. Lastly, a family household that purchases high-yield financial products to some extent tends to have greater odds and a greater probability of selecting desirable information sources involving NI and E.

Tables 20 and 21 report the estimated coefficients and marginal effects obtained from the multinomial logit model of the choice of desirable sources conditional on the choice of exclusively Other as the actual source using the single-person household data. We designate households that chose exclusively Other as the desirable source as the base case, and regress an indicator variable that takes a value of one to six for the top-seven preferred choices of desirable sources listed in column 1 of the bottom panel of Table 9. The results in Tables 20 and 21 suggest that a single-person household that knows about the role of the DICJ tends to have greater odds and a greater probability of choosing as desirable sources E and NI and exclusively NI.

Tables 22 and 23 report the estimated coefficients and marginal effects obtained

from the multinomial logit model of the choice of desirable sources conditional on the choice of exclusively FI as the actual source using the single-person household data. We take households that exclusively chose FI as the desirable source as the base case, and regress an indicator variable that takes a value of one to six for the top-seven preferred choices of desirable sources listed in column 2 of the bottom panel of Table 9. The results in Tables 22 and 23 indicate that a single-person household that knows about the role of the DICJ tends to have greater odds of choosing desirable sources involving E and NI (except for the choice of exclusively E) and a higher probability of choosing desirable sources involving E and NI (except for the choice of exclusively E and FI and E). Our model suggests that households that do not currently seek guidance from a financial adviser, but that believe it is desirable to obtain the guidance of a financial adviser, tend to have better financial knowledge. The findings in Tables 18 to 23 are consistent with this model prediction.

4.3. Risky asset holdings and actual sources

Importantly, a household can make a decision about investing the risky asset and a decision about seeking the guidance of a financial adviser simultaneously. Accordingly, we should estimate a structural model for joint household decisions on financial assets and financial adviser guidance. For example, we may wish to use a similar model to Dubin and McFadden (1984) to estimate the conditional demand for risky assets based on the choice of seeking financial adviser guidance. Such a model would correct for the sample selection bias arising from the choice of seeking guidance from a financial adviser by using the results of the multinomial logit models reported in Tables 10 and 12, as Fujiki and Tanaka (2018) did for the demand for cash conditional on the choice of payment method. However, as we have four risky assets and about 10 choices of actual sources, it is difficult to consider all combinations of risky assets and actual sources. The other difficulty in estimating conditional risky asset demand functions is that the level of financial knowledge is an endogenous variable that correlates with the demographic variables that help predict asset holdings. To address this problem, Sekita (2011) used regional data on the score of national examinations. Unfortunately, our model already includes regional dummies. Therefore, to examine the relationship between investment decisions governing financial assets and financial adviser guidance, instead of estimating

a structural model, we conduct propensity score matching. We thus compare the average share of risky assets in the total financial assets of households that appear similar other than for the decision about seeking guidance from a financial adviser. For this purpose, we utilize the results in Tables 10 and 12. To focus on the effects on risky assets, we analyze the average treatment effects (ATEs) on stocks and investment trusts. Table 24 reports the results.

The upper panel of Table 24 reports the ATEs of choosing the six actual sources reported in Table 10 on the ratio of stocks and investment trusts to total financial assets, designating the family households that exclusively selected FI as the control group. We also report the number of observations, pseudo R-squares, log-likelihoods, percent correctly classified, and the area under the receiver operating characteristic (ROC) curve for the logit treatment model to compute the propensity scores. In estimating the logit treatment model, we employ the same demographic variables as in Table 10, and confirm that all the standardized differences after matching have absolute values less than 0.1. The upper panel of Table 24 provides the following results. First, the ATEs for the ratio of stocks to total financial assets for choosing FI and E and exclusively E are significantly positive. However, the ratio of stocks to total financial assets for choosing FI and FF are significantly negative, which is consistent with the result obtained by Nogata and Takemura (2017) if we assume FI her is security firms. Second, the ATEs for the ratio of investment trusts to total financial assets for choosing exclusively FF, FI and FF, and FI, E, and FF are significantly negative. Finally, the choice of exclusively Other leads to a significantly positive ATE for the ratio of stocks and a significantly negative ATE for the ratio of investment trusts. The signs of these significant ATEs coincide with those of the statistically significant parameters reported in Table 10. The only exception is that the ATEs for the ratio of stocks to total financial assets for choosing FI and FF are significantly negative in Table 24, whereas in Table 10 there are no corresponding statistically significant parameter estimates.

Turning to the results from the single-person household data, the lower panel of Table 24 reports the ATEs of choosing the five actual sources reported in Table 12 on the ratio of stocks and investment trusts to total financial assets, designating the single-person households that chose FI exclusively as the control group. In estimating the logit treatment model, we use the same demographic variables as in Table 12, and confirm that

all of the standardized differences after matching have absolute values less than 0.1. With the choice of FI and E, we dropped two demographic variables (age30_34 and age40_44) to obtain the results. First, the ATEs on the ratio of stocks to total financial assets for choosing E exclusively are significantly positive. Second, the choice of exclusively Other leads to a significantly positive ATE on the ratio of stocks and a significantly negative ATE on the ratio of investment trusts. These results are identical to those using the family household data. However, in the single-person household data, the ATEs on the ratio of stocks to total financial assets for choosing FF exclusively are significantly positive, unlike in the family household data. The signs of those significant ATEs coincide with those of the statistically significant parameters reported in Table 12.

The results from the family household data in Table 24 show that the ATEs on the ratio of stocks to total financial assets for choosing E exclusively and those for choosing FI and E are significantly positive. However, the ATEs on the ratio of stocks to total financial assets for choosing FI, E, and FF in the family household data and FI and E are not significantly positive. Consequently, it is unclear whether a household seeking guidance from a financial adviser has a greater share of stocks among its total financial assets. In the single-person household data, the ATEs on the ratio of stocks to total financial assets for choosing exclusively E, exclusively FF, and exclusively Other are all positive and statistically significant. Those results are consistent with our model predictions that among households investing in risky assets, households with better financial knowledge will seek guidance from a financial adviser, while households with poorer financial knowledge will invest in risky assets using only their own information.[3]

5. Conclusion and Policy Implications

We consider a theoretical model where a household can seek guidance from a financial adviser in making risky investments if the net benefit of obtaining such guidance, which consists of both favorable investment returns and up-to-date financial knowledge,

[3] Regarding the demand for risky asset and the difference in the desirable sources, we estimate the ATEs on the ratio of stocks and investment trusts to total financial assets of choosing desirable sources reported in Tables 18, 20 and 22 compared with the base choices in those tables. The consistency with signs of the ATEs reported in Tables 18, 20 and 22 varies from estimation to estimation, consistent with the findings in Table 24.

exceeds the total cost, which comprises both the cost of purchasing risky assets and the cost of spending time understanding the guidance.

The model makes the following predictions. First, households that invest in risky assets tend to have better financial knowledge. Second, households seeking guidance from a financial adviser also tend to have better financial knowledge. Third, suppose we identify a household that does not currently seek guidance from a financial adviser, but believes that it is desirable to obtain such guidance. Our model suggests that such a household also tends to have better financial knowledge. Finally, among households that invest in risky assets, households with better financial knowledge will seek guidance from a financial adviser, whereas households with poor financial knowledge will invest in the risky asset using only their own information.

We employed the SHF from 2010 to 2017, and obtained the following results consistent with our model. First, households choosing actual sources of information involving financial experts have better financial knowledge as measured by knowledge of the DICJ, and are willing to purchase high-yield financial products. Second, households choosing desirable sources involving financial experts and neutral institutions also have better financial knowledge. The result is consistent with the finding by von Gaudecker (2015) that Dutch households with better financial knowledge usually sought guidance from financial experts. Third, among households whose actual sources differ from their desirable sources, households that regard a financial expert and neutral institutions as a more desirable source tend to have better financial knowledge. Finally, it is unclear whether households that seek guidance from a financial expert have a higher ratio of stock to total financial assets than those selecting financial institutions as their source of financial information and knowledge.

The results in Fujiki (2018a) allowed us to assume that knowledge about the DICJ is a useful proxy measure of general financial knowledge; thus, an increase in the benefit or a decrease in the cost of seeking guidance from a financial adviser may induce more Japanese households to seek professional help. Note that we do not provide any causal evidence for this here and thus we should not overstate this claim. However, our evidence suggests that we need to match the various types of financial advisers and households if we wish more Japanese households to seek financial adviser guidance. Our evidence shows that some family households choosing desirable sources involving

E and NI tends to have better financial knowledge. However, if a family household is willing to purchase high-yield financial products, the household has a greater likelihood of choosing E and a lower chance of choosing NI. If we take these results at face value, family households willing to purchase risky assets would benefit from the guidance of a financial expert. However, a family household that would only like to receive information about a relatively safe investment would benefit most from a neutral institution independent from industry benefit. In Japan, this could be either the National Consumer Affairs Center of Japan or the CCFSI.

Unfortunately, one of the SHF questions highlighted that about 90% of respondents from 2010 to 2017 only came to know about the CCFSI when they were invited to complete the survey. Consequently, these institutions should consider a targeted financial education program for those needing information about relatively safe investments. In addition, households that chose FI exclusively or Other exclusively are likely to have poor financial knowledge and are generally unwilling to purchase high-yield financial products. If the FSA wishes to induce these households to hold riskier assets, as per its policy intent, the FSA should employ targeted financial education to allow them to gain better financial knowledge. As Inderst and Ottaviani (2012) have suggested, a mere reduction in the cost of purchasing financial products may not be sufficient in this regard, and the FSA may wish to pay closer attention to the results of laboratory experiments. For example, Ambuehl et al. (2018) find that peer-to-peer communication transmits financial decision-making skills most effectively when peers are equally uninformed, rather than when an informed decision-maker teaches an uninformed peer.

References

Ambuehl, Sandro, Douglas B. Bernheim, B. Fulya Ersoy, and Donna Harris. “Peer advice on financial decisions: A case of the blind leading the blind?” National Bureau of Economic Research Working Paper Series, No. 25034, 2018.

Atkinson, Adele, and Flore-Anne Messy. “Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) Pilot Study.” OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, 2012.

Bianchi, Milo. “Financial literacy and portfolio dynamics.” Journal of Finance 73 (2),831-859, 2018.

Calcagno, Riccardo, and Chiara Monticone. “Financial literacy and the demand for financial advice.” Journal of Banking & Finance 50, 363–380, 2015.

Clark, Robert, Rikiya Matsukura, and Naohiro Ogawa. “Low fertility, human capital, and economic growth: The importance of financial education and job retraining.” Demographic Research 29 (32), 865-884, 2013.

Collins, J. Michael. “Financial advice: A substitute for financial literacy?” Financial Services Review 21(4), 307–322, 2012.

Dubin, Jeffrey A., and Daniel L. McFadden. “An econometric analysis of residential electric appliance holdings and consumption.” Econometrica, 52(2), 345–362, 1984.

Fujiki, Hiroshi. “Imputation of a financial literacy index: A case study using Japanese survey data.” mimeo, 2018a.

Fujiki, Hiroshi. “Financial literacy and household asset choice: Evidence from Financial Literacy Survey 2016,” (in Japanese), mimeo, 2018b.

Fujiki, Hiroshi, and Migiwa Tanaka. “How do we choose to pay using evolving retail payment technologies? Evidence from Japan.” Journal of the Japanese and International Economies 49, 85–99, 2018.

Georgarakos, Dimitris, and Roman Inderst. “Financial advice and stock market participation.” mimeo, 2014.

Guiso, Luigi, and Tullio Jappelli. “Financial literacy and portfolio diversification.” CSEF Working Papers from the Centre for Studies in Economics and Finance, University of Naples, Italy, 2008.

Hastings, Justine, Ali Hortaçsu, and Chad Syverson. “Sales force and competition in financial product markets: The case of Mexico’s social security privatization.” Econometrica 85(6), 1723–1761, 2017.

Inderst, Roman, and Marco Ottaviani. “Financial advice.” Journal of Economic Literature 50(2), 494–512, 2012.

Ito, Yuichiro, Yasutaka Takizuka, and Shigeaki Fujiwara. “Portfolio selection by households: An empirical analysis using dynamic panel data models.” Bank of Japan Working Paper Series, 17-E-6, 2017.

Iwaisako, Tokuo, Arito Ono, Osamu Saito, and Hiedenobu Tokuda. “Residential property

and household stock holdings: Evidence from Japanese micro data." (in Japanese), The Economic Review 66(3), 242–264, 2015.

Iwaisako, Tokuo, Iichiro Uesugi, Arito Ono, Chihiro Shimizu, Michio Naoi, and Masahiro Hori. "Residential investment, savings and choice of financial products by households: Summary of 2017 Japan Household Panel Survey." (in Japanese), Hit-refined Working Paper Series No. 78, 2018.

Jappelli, Tullio, and Mario Padula. "Investment in financial literacy, social security, and portfolio choice." Journal of Pension Economics & Finance 14(4), 369–411, 2015.

Jappelli, Tullio, and Mario Padula. "Investment in financial literacy and saving decisions." Journal of Banking & Finance 37(8), 2779–2792, 2013.

Kadoya, Yoshihiko, and Mostafa Rabbani Naheed Khan. "What determines financial literacy in Japan?" ISER Discussion Paper, Institute of Social and Economic Research, Osaka University, 2016.

Kadoya, Yoshihiko, and Mostafa Rabbani Naheed Khan. "Can financial literacy reduce anxiety about life in old age?" Journal of Risk Research, DOI: 10.1080/13669877.2017.1313760, 2017a.

Kadoya, Yoshihiko, and Mostafa Rabbani Naheed Khan. "Does financial literacy affect stock market participation?" 2017b.

Kadoya, Yoshihiko, and Mostafa Rabbani Naheed Khan. "Explaining financial literacy in Japan: New evidence using financial knowledge, behavior, and attitude." 2017c.

Kim, Hugh Hoikwang, Raimond Maurer, and Olivia S. Mitchell. "Time is money: Rational life cycle inertia and the delegation of investment management." Journal of Financial Economics 121(2), 427-447, 2016.

Lusardi, Annamaria, Pierre-Carl Michaud, and Olivia S. Mitchell. "Optimal financial knowledge and wealth inequality." Journal of Political Economy 125(2), 431–477, 2017.

Lusardi, Annamaria, and Olivia S. Mitchell. "The economic importance of financial literacy: Theory and evidence." Journal of Economic Literature 52(1), 5–44, 2014.

Mori, Shunsuke. "Kakei no risk shisan hoyukodouno chiikisa, Kinyu literacy no takasaha risk shisan hoyu wo sokshinsuruka." (in Japanese) [Regional difference in household risk asset holdings: Does higher financial literacy promote risky asset holdings?]. Kikan Kozin Kinyu, Summer 25–37, 2017.

Nogata, Daisuke, and Toshihiko Takemura. “Koudou finance no shitenwo fumaeta kozin toushikano kikennsisan hoyuuhiritunikansuru zissou kenkyuu.” (in Japanese) [Risk asset holding of a personal investor based on behavioral finance]. Kikan Kozin Kinyu, Summer 17–24, 2017.

van Rooij, Maarten C. J., Annamaria Lusardi, and Rob J. M. Alessie. “Financial literacy and stock market participation.” Journal of Financial Economics, 101(2), 449–472, 2011.

van Rooij, Maarten C. J., Annamaria Lusardi, and Rob J. M. Alessie. “Financial literacy, retirement planning and household wealth.” Economic Journal, 122, 449–478, 2012.

von Gaudecker, Hans-Martin. “How does household portfolio diversification vary with financial literacy and financial advice?” Journal of Finance, 70(2) 489–507, 2015.

Shimizutani, Satoshi, and Hiroyuki Yamada. “Financial literacy of middle and older generations in Japan.” Keio-IES Discussion Paper Series 2018-010, Institute for Economics Studies, Keio University, 2018.

Sekita, Shizuka. “Financial literacy and retirement planning in Japan.” Journal of Pension Economics & Finance 10(4), 637–656, 2011.

Sekita, Shizuka. “Financial literacy and wealth accumulation: Evidence from Japan.” Discussion Paper, No. 2013-01, Graduate School of Economics, Kyoto Sangyo University, Kyoto, Japan, 2013.

Yamori, Nobuyoshi. “Chiikino kantenkaramita kinyukodo to kinyu literacy (1): Kinyukouhoucyuouiinkai Kakeino Kinyukodonikansuru Seronchosa ni motozuku yobitekikousatsu.” (in Japanese) [Financial behavior and financial literacy (1): Preliminary investigation based on the Survey of Finance conducted by the Central Council for Financial Services Information]. Kobe University RIEB Discussion Paper DP2014-J10, 2014.

Yoshino, Naoyuki, Peter J. Morgan, and Long Q. Trinh. “Financial literacy in Japan: Determinants and impacts.” ADBI Working Paper, No. 796, 2017.

Table 1 Investment decisions without guidance from a financial adviser

	Risky asset purchase
$v^* = 0$、$U^* = 0$	No
$v^* > 0$、$U^* < f(k)$	No
$v^* > 0$、$U^* > f(\mathrm{k})$	Yes

Table 2 Investment decisions with and without guidance from a financial adviser

		Risky asset	Advice
$v^*=0$、$U^*=0$		No	
$v^*(\mathrm{I}_A)=0$	$\phi(k)<f(k)$	No	No
$U^*(\mathrm{I}_A)=0$	$\phi(k)>f(k)$	No	Yes
$v^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)<f(k)$	No	No
$U^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)>f(k)$	Yes	Yes
$v^*>0$、$U^*<f(k)$		No	
$v^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)<f(k)$	No	No
$U^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)>f(k)$	Yes	Yes
$v^*>0$、$U^*>f(\mathrm{k})$		Yes	
$v^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)<U^*$	Yes	No
$U^*(\mathrm{I}_A)>0$	$U^*(\mathrm{I}_A)+\phi(k)>U^*$	Yes	Yes

Table 3 Summary statistics (1)

Family households		Single-person households	
Income_200	0.114	Income_20	0.111
Income_200_260	0.062	Income_20_100	0.111
Income_260_300	0.106	Income_100_160	0.095
Income_300_370	0.072	Income_160_200	0.132
Income_370_407	0.086	Income_200_250	0.102
Income_407_500	0.137	Income_250_300	0.142
Income_500_600	0.084	Income_300_360	0.071
Income_600_700	0.061	Income_360_400	0.074
Income_700_900	0.074	Income_400_500	0.080
Income_900_	0.071	Income_500_	0.081
Income_NA	0.134		
Asset_0	0.292	Asset_0	0.411
Asset_0_100	0.061	Asset_0_52	0.052
Asset_100_253	0.060	Asset_52_125	0.054
Asset_253_420	0.063	Asset_125_225	0.055
Asset_420_600	0.068	Asset_225_400	0.064
Asset_600_900	0.069	Asset_400_608	0.050
Asset_900_1200	0.063	Asset_608_980	0.059
Asset_1200_1670	0.061	Asset_980_1420	0.063
Asset_1670_2400	0.066	Asset_1420_2300	0.064
Asset_2400_3886	0.064	Asset_2300_4360	0.064
Asset_3886_	0.067	Asset_4360_	0.066
Asset_NA	0.067		
		Age25_29	0.178
Age30_34	0.048	Age30_34	0.095
Age35_39	0.074	Age35_39	0.111
Age40_44	0.095	Age40_44	0.075
Age45_49	0.092	Age45_49	0.066
Age50_54	0.100	Age50_54	0.094
Age55_59	0.106	Age55_59	0.058
Age60_64	0.126	Age60_64	0.126
Age65_69	0.117	Age65_69	0.070
Age70_74	0.093		
Age75_	0.118		
Age_NA	0.008		
N	30,359	N	20,000

Table 4 Summary statistics (2)

Family households		Single-person households	
Senior high	0.382	Senior high	0.240
Vocational college	0.074	Vocational college	0.098
Junior college	0.037	Junior college	0.094
University	0.260	University	0.451
Graduate	0.026	Graduate	0.089
Education_NA	0.115		
S_Senior high	0.379		
S_Vocational college	0.085		
S_Junior college	0.130		
S_University_Graduate_other	0.117		
S_Education_NA	0.097		
Know Deposit Insurance	0.388	Know Deposit Insurance	0.377
Heard of Deposit Insurance	0.381	Heard of Deposit Insurance	0.282
Dep_Ins_NA_	0.006		
Choice_advice	0.033	Choice_advice	0.021
Mattress	0.016	Mattress	0.013
Sbond	0.720	Sbond	0.743
Sbond_NA	0.360		
Sstock	3.145	Sstock	4.608
Sinv_trust	1.971	Sinv_trust	2.434
Sdcplan	1.569	Sdcplan	2.030
Sdcplan_NA	0.976		
Capitalloss_yes	0.248	Capitalloss_yes	0.319
Capitalloss_yes_NA	0.052		
Risk_yes	0.018	Risk_yes	0.093
Risk_alittle	0.145	Risk_alittle	0.271
Risk_NA	0.016		
Full-time	0.517	Full-time	0.556
Part-time	0.068	Part-time	0.106
Self-employed	0.121	Self-employed	0.092
Job_NA	0.061	Student	0.077
S_Full-time	0.147		
S_Part-time	0.247		
S_Self-employed	0.044		
S_No job-student	0.385		
S_Job_NA	0.060		
N	30,359	N	20,000

Table 5 Average imputed financial literacy index according to deposit insurance

The PPS 2010 family household and the SHF 2010 family household

Deposit Insurance	Know about it	Heard about it	Do not know about it	Refuse to answer	Average
Propensity-score matching	1.770	1.708	1.744	2.000	1.740
Propensity-score matching, Epanechnikov kernel function	1.801	1.785	1.728	1.109	1.779
Nearest-neighbor matching (Mahalanobis)	1.811	1.580	1.452	1.875	1.647
Multivariate-distance matching, Epanechnikov kernel function	1.745	1.655	1.583	1.642	1.677

The FLS 2016 and the SHF 2016 family household

Deposit Insurance	Know about it	Heard about it	Do not know about it	Refuse to answer	Average
Propensity-score matching	1.810	1.707	1.489	1.548	1.686
Propensity-score matching, Epanechnikov kernel function	1.761	1.698	1.640	1.769	1.706
Nearest-neighbor matching (Mahalanobis)	1.769	1.591	1.370	1.559	1.597
Multivariate-distance matching, Epanechnikov kernel function	1.445	1.377	1.273	1.291	1.374

The FLS 2016 and the SHF 2016 single-person household

Deposit Insurance	Know about it	Heard about it	Do not know about it	Refuse to answer	Average
Propensity-score matching	1.578	1.429	1.160		1.371
Propensity-score matching, Epanechnikov kernel function	1.481	1.402	1.250		1.368
Nearest-neighbor matching (Mahalanobis)	1.771	1.564	1.341		1.542
Multivariate-distance matching, Epanechnikov kernel function	1.609	1.563	1.480		1.545

Source: Fujiki (2018a). We assume that the observations from PPS 2010 and FLS 2016 are treated groups, whose outcome variable is *Financial Literacy Index* (*FLI*). We also assume that the SHF 2010 and 2016 data samples are nontreated groups, whose outcome variable is unobserved. We define that the propensity score $p(X_{it})$ for an individual is in the PPS 2010 or FLS 2016 data, rather than the SHF 2010 or 2016 data, given the common covariates X_{it}. We conduct propensity-score matching to estimate the treatment effects on *FLI* if the household is in PPS 2010 or FLS 2016, rather than SHF 2010 or 2016. Because we set the value of *FLI* in the SHF 2010 and 2016 data set to zero, the estimates of the treatment effects are natural candidates for imputing the values of *FLI* for individuals in SHF 2010 or 2016. We also use propensity-score matching with the Epanechnikov kernel function, nearest-neighbor matching, and nearest-neighbor matching with Epanechnikov kernel function. In the case of kernel matching, we employ the estimates of the potential outcome differences as the imputed value of *FLI* for the individuals in SHF 2010 or 2016.

Table 6 Summary Statistics (3)

Family households		Single-person households	
Male	0.920	Male	0.584
Male_NA	0.004		
H_size3	0.251		
H_size4	0.231		
H_size5	0.094		
H_size6	0.035		
H_size6_	0.053		
H_size_NA	0.012		
Homeowner	0.721	Homeowner	0.258
Homeowner_NA	0.011		
Debt	0.398	Debt	0.207
Debt_NA	0.010		
Hokkaido	0.051	Hokkaido	0.054
Tohoku	0.083	Tohoku	0.054
Hokuriku	0.054	Hokuriku	0.029
Chubu	0.149	Chubu	0.121
Kinki	0.153	Kinki	0.160
Chugoku	0.068	Chugoku	0.051
Shikoku	0.033	Shikoku	0.026
Kyushu	0.128	Kyushu	0.107
Top20cities	0.240		
Cities_40k_	0.405		
Cities_20k_40k	0.253		
N	30,359	N	20,000

Table 7 Risky asset holdings: Participation and conditional percentage shares

Participation in risky assets (% of household)

	Family households			Single-person households		
	With financial assets		No financial assets	With financial assets		No financial assets
Risky assets holdings	Yes	No	No	Yes	No	No
Stock	15.27	49.73	34.99	19.54	43.34	37.12
Investment trust	9.81	55.19	34.99	13.54	49.31	37.15
Bond	4.01	61	34.99	5.71	57.16	37.13
	Defined Contribution Plan			Defined Contribution Plan		
	Yes	No	NA	Yes	No	NA
Defined Contribution Plan	2.44	34.65	62.91	4.09	55.34	40.57

Percentage share of risky assets to total financial assets conditional on positive financial assets holdings

	Family households				Single-person households			
	Stock	Investment trust	Bond	DC plan	Stock	Investment trust	Bond	DC plan
mean	4.917	3.082	1.126	64.813	7.820	4.135	1.261	49.939
s.e.	13.886	11.004	6.390	745.033	18.035	12.391	6.052	528.335
minimum	0	0	0	0.012	0	0	0	0.022
maximum	100	100	100	20000	100	100	100	14000
N	19,418	19,418	19,418	735	11,787	11,787	11,787	813

Note: DC plan stands for Defined contribution plan. The amount of DC plan is not included in the total financial assets.
DC plan reports the figure for those who have positive outstanding amount of defined contribution plan.

Table 8 Actual and desirable sources of financial information and knowledge

Actual sources: Up to three choices

Family household		Single-person household	
Choice	Frequency	Choice	Frequency
FI	0.692	FI	0.487
FF	0.340	Other	0.332
E	0.242	FF	0.221
Other	0.176	E	0.196
NI	0.075	NI	0.109
No answer	0.018	School	0.025
School	0.003		

Actual sources: Top 10 choices

Family household		Single-person household	
Choice	Frequency	Choice	Frequency
Exclusively FI	0.312	Exclusively Other	0.264
FI and FF	0.160	Exclusively FI	0.258
Exclusively Other	0.096	Exclusively FF	0.090
FI and E	0.078	FI and FF	0.064
Exclusively FF	0.075	Exclusively E	0.054
Exclusively E	0.049	FI and E	0.051
FI, E and FF	0.041	Exclusively NI	0.030
FI and Other	0.030	FI and Other	0.026
E and FF	0.022	FI, E and NI	0.025
FI, E and NI	0.021	FI, E and FF	0.017

Desirable sources: Up to three choices

Family household		Single-person household	
Choice	Frequency	Choice	Frequency
FI	0.512	FI	0.408
NI	0.337	NI	0.316
E	0.322	E	0.273
Don't know	0.176	Don't know	0.261
FF	0.116	FF	0.114
Other	0.054	Other	0.085
School	0.022	School	0.037
No answer	0.010		

Desirable sources: Top 10 choices

Family household		Single-person household	
Choice	Frequency	Choice	Frequency
Exclusively FI	0.208	Don't know	0.261
Don't know	0.176	Exclusively FI	0.165
Exclusively NI	0.098	ExclusivelyNI	0.095
FI and E	0.082	FI, E and NI	0.071
FI, E and NI	0.071	FI and E	0.055
E and NI	0.064	E and NI	0.048
FI and NI	0.056	Exclusively E	0.044
Exclusively E	0.053	Exclusively Other	0.043
FI and FF	0.039	FI and NI	0.040
Exclusively FF	0.018	Exclusively FF	0.030

Note: FI, financial institutions; E, experts; NI, neutral institutions; FF, family and friends.

Table 9 Actual and desirable sources of financial information and knowledge

Actual and desirable sources of family households: Top 3 actual choices

Actual choice	Exclusively FI	Actual choice	FI and FF	Actual choice	Exclusively Other
Desirable choice	Conditonal Frequency	Desirable choice	Conditonal Frequency	Desirable choice	Conditonal Frequency
Exclusively FI	0.429	Exclusively FI	0.181	Don't know	0.504
Don't know	0.152	FI and FF	0.141	Exclusively Other	0.113
Exclusively NI	0.100	Don't know	0.114	Exclusively NI	0.111
FI and E	0.075	FI and E	0.097	ExclusivelyFI	0.087
FI and NI	0.064	FI and NI	0.081	Exclusively E	0.040
Exclusively E	0.046	Exclusively NI	0.070	E and NI	0.025
FI, E and NI	0.037	E and NI	0.063	FI and E	0.019
E and NI	0.036	FI, E and NI	0.060	FI, E and NI	0.014
FI and FF	0.018	Exclusively E	0.041	NI and Other	0.013
ExclusivelyFF	0.005	FI, E, and FF	0.031	FI and NI	0.012

Actual and desirable sources of single-person households: Top 3 actual choices

Actual choice	Exclusively Other	Actual choice	Exclusively FI	Actual choice	Exclusively FF
Desirable choice	Conditonal Frequency	Desirable choice	Conditonal Frequency	Desirable choice	Conditonal Frequency
Don't know	0.615	Exclusively FI	0.439	Don't know	0.225
Exclusively Other	0.116	Don't know	0.144	Exclusively FF	0.215
Exclusively NI	0.075	Exclusively NI	0.086	Exclusively NI	0.094
Exclusively FI	0.055	FI and E	0.068	Exclusively FI	0.091
E and NI	0.019	FI and NI	0.063	Exclusively E	0.050
Exclusively E	0.019	FI, E and NI	0.060	FI and FF	0.043
FI and E	0.017	ExclusivelyE	0.038	NI and FF	0.040
FI, E and NI	0.012	E and NI	0.027	E and NI	0.029
NI and Other	0.010	FI and FF	0.015	FI and E	0.028
FI_NI_	0.009	ExclusivelyOther	0.011	FI, E and NI	0.025

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.

Table 10 Choice of actual sources: Family households

	Multinomial logit model (base = Exclusively FI, actual source)					
	Exclusively E	FI and E	FI, E and FF	FI and FF	Exclusively FF	Exclusively Other
income_200_260	0.04	-0.008	0.289*	0.198**	0.025	-0.277***
income_260_300	0.005	0.171	0.263*	0.067	-0.097	-0.233***
income_300_370	0.043	0.132	0.235	0.262***	-0.051	-0.417***
income_370_407	-0.12	0.204*	0.144	0.114	0.025	-0.294***
income_407_500	-0.013	0.166	0.270*	0.161**	0.003	-0.352***
income_500_600	-0.031	0.288**	0.259*	0.231***	-0.154	-0.185*
income_600_700	-0.092	0.119	0.029	0.156	-0.239*	-0.199*
income_700_900	-0.002	0.109	0.412**	0.250***	0.023	-0.173
income_900_	0.278*	0.257**	0.394**	0.363***	0.372***	0.145
income_NA	-0.025	-0.008	0.213	0.048	0.106	0.025
asset_0	0.797	0.268	1.285	0.386	0.143	0.448
asset_100_253	0.098	0.149	-0.02	-0.069	-0.036	-0.235**
asset_253_420	-0.05	0.068	0.064	-0.142	-0.047	-0.426***
asset_420_600	-0.22	0.164	0.091	-0.024	-0.047	-0.493***
asset_600_900	-0.205	0.186	0.306*	0.096	-0.042	-0.453***
asset_900_1200	-0.132	0.264*	0.119	-0.043	-0.270*	-0.697***
asset_1200_1670	-0.212	0.433***	0.215	0.016	-0.476***	-0.774***
asset_1670_2400	-0.296*	0.479***	0.363**	0.091	-0.566***	-0.799***
asset_2400_3886	-0.390**	0.471***	0.233	0.016	-0.555***	-0.764***
asset_3886_	-0.445**	0.670***	0.108	-0.088	-0.921***	-0.807***
asset_NA	0.606	0.304	1.312	0.411	-0.052	-0.092
age30_34	-0.189	0.541*	-0.036	-0.083	-0.152	0.109
age35_39	-0.062	0.407	-0.282	-0.203	-0.269*	-0.068
age40_44	0.064	0.542*	-0.386	-0.424***	-0.657***	-0.004
age45_49	-0.148	0.588**	-0.322	-0.539***	-0.861***	-0.071
age50_54	-0.039	0.679**	-0.36	-0.581***	-1.048***	-0.211
age55_59	-0.145	0.46	-0.346	-0.687***	-1.037***	-0.128
age60_64	-0.29	0.665**	-0.375	-0.513***	-0.874***	-0.157
age65_69	-0.236	0.579**	-0.406	-0.555***	-0.987***	-0.048
age70_74	-0.199	0.570*	-0.312	-0.516***	-0.953***	-0.19
age75_	-0.207	0.629**	-0.114	-0.697***	-0.930***	-0.157
age_NA	-0.216	0.309	-0.264	-0.605**	-0.805**	-0.312
Senior high	0.03	-0.021	-0.075	-0.093	-0.281***	-0.079
Vocational college	0.159	-0.078	0	0.059	-0.407***	-0.067
Junior college	0.145	-0.021	0.196	-0.092	-0.272*	-0.312**
University	0.147	0.167	0.098	-0.108	-0.306***	0.134
Graduate	0.371*	0.234	0.135	-0.153	-0.312	-0.152
Education_NA	-0.088	0.101	-0.118	0.001	-0.207	0.022
S_Senior high	-0.241*	0.275**	-0.11	0.122	-0.298***	-0.195**
S_Vocational college	-0.17	0.183	0.084	0.137	-0.372***	-0.313**
S_Junior college	-0.400**	0.245*	-0.141	0.124	-0.227*	-0.224*
S_University_Graduate_other	-0.143	0.133	-0.197	0.161	-0.244*	-0.033
S_Education_NA	-0.18	0.11	-0.103	-0.129	-0.233	-0.241
Know Deposit Insurance	0.767***	0.864***	0.425***	-0.137***	-0.752***	-0.044
Heard of Deposit Insurance	0.333***	0.358***	0.241**	0.112**	-0.228***	-0.266***
Dep_Ins_NA	0.802**	0.072	0.273	0.085	0.143	-0.213
Choice_advice	-0.435**	0.586***	0.869***	0.206**	-0.599***	-1.238***
mattress	0.066	0.525***	0.662***	0.405***	-0.510*	-0.554**
sbond	0.008	0.008**	0.005	-0.006	-0.007	0.005
sbond_NA	-0.666	-0.128	-1.454	-0.542	-0.078	-0.378
sstock	0.013***	0.008***	0.001	-0.003	0.004	0.013***
sinv_trust	-0.006*	0.002	-0.012***	-0.011***	-0.012**	-0.007**
sdcplan	0.002	-0.007	0.001	0.001	0.002	0.002
sdcplan_NA	0.015	-0.196	-0.201	-0.071	0.002	0.034
capitallossyes	0.167**	0.124**	0.006	-0.214***	-0.261***	-0.028
capitallossyes_NA	0.133	-0.098	-0.441**	-0.135	0.06	0.124
riskyes	0.997***	0.612***	0.777***	-0.251	-0.165	0.082
riskalittle	0.419***	0.708***	0.576***	0.193***	-0.297***	-0.279***
risk_NA	-0.075	0.402*	-0.194	-0.178	-0.079	-0.311*
N						24580
pseudoRsq						0.053
LLR						-39700

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 11 Choice of actual sources: Family households (Marginal effects)

	Exclusively FF	Exclusively E	FI and E	FI, E and FF	FI and FF	Exclusively FF	Exclusively Other
income_200_260	-0.010	0.001	-0.004	0.013 *	0.033 ***	0.000	-0.034 ***
income_260_300	-0.003	0.000	0.014	0.012 *	0.012	-0.008	-0.027 ***
income_300_370	-0.010	0.001	0.009	0.010	0.046 ***	-0.006	-0.050 ***
income_370_407	-0.004	-0.008	0.017 *	0.006	0.020 *	0.002	-0.034 ***
income_407_500	-0.007	-0.002	0.012	0.012 *	0.027 **	0.000	-0.042 ***
income_500_600	-0.019	-0.005	0.020 **	0.010	0.036 ***	-0.017 *	-0.025 **
income_600_700	0.003	-0.005	0.011	0.001	0.032 **	-0.020 *	-0.021 *
income_700_900	-0.024	-0.004	0.004	0.017 **	0.036 ***	-0.003	-0.026 **
income_900_	-0.070 ***	0.006	0.007	0.010	0.035 **	0.017	-0.004
income_NA	-0.012	-0.003	-0.003	0.009	0.003	0.007	-0.001
asset_0	-0.107	0.030	-0.003	0.049	0.021	-0.012	0.020
asset_100_253	0.010	0.007	0.015	0.000	-0.008	0.000	-0.024 **
asset_253_420	0.029	0.001	0.012	0.006	-0.013	0.004	-0.040 ***
asset_420_600	0.023	-0.009	0.019	0.007	0.007	0.003	-0.049 ***
asset_600_900	0.007	-0.011	0.017	0.015 *	0.022	-0.001	-0.049 ***
asset_900_1200	0.035 *	-0.003	0.030 **	0.009	0.009	-0.013	-0.068 ***
asset_1200_1670	0.035 *	-0.008	0.044 ***	0.014 *	0.021	-0.031 ***	-0.076 ***
asset_1670_2400	0.031 *	-0.013	0.047 ***	0.020 **	0.034 **	-0.040 ***	-0.079 ***
asset_2400_3886	0.040 **	-0.018 *	0.049 ***	0.015 *	0.024	-0.037 ***	-0.073 ***
asset_3886_	0.059 ***	-0.018 *	0.070 ***	0.011	0.014	-0.064 ***	-0.071 ***
asset_NA	-0.075	0.024	0.007	0.054	0.042	-0.020	-0.031
age30_34	-0.008	-0.013	0.046 *	-0.003	-0.019	-0.014	0.011
age35_39	0.020	-0.001	0.040 *	-0.012	-0.028	-0.018 *	-0.001
age40_44	0.041	0.009	0.056 **	-0.015	-0.059 ***	-0.046 ***	0.014
age45_49	0.062 **	-0.001	0.065 ***	-0.009	-0.071 ***	-0.059 ***	0.013
age50_54	0.073 ***	0.007	0.075 ***	-0.010	-0.073 ***	-0.073 ***	0.000
age55_59	0.087 ***	0.003	0.059 ***	-0.007	-0.087 ***	-0.069 ***	0.014
age60_64	0.066 **	-0.008	0.073 ***	-0.011	-0.064 ***	-0.059 ***	0.004
age65_69	0.071 ***	-0.005	0.066 ***	-0.012	-0.069 ***	-0.069 ***	0.018
age70_74	0.071 **	-0.002	0.065 ***	-0.008	-0.062 ***	-0.065 ***	0.002
age75_	0.076 ***	-0.002	0.071 ***	0.003	-0.094 ***	-0.061 ***	0.007
age_NA	0.087 *	-0.001	0.045	-0.003	-0.072 *	-0.049 **	-0.008
Senior high	0.022 *	0.005	0.002	-0.001	-0.007	-0.020 ***	-0.002
Vocational college	0.012	0.011	-0.005	0.001	0.018	-0.033 ***	-0.003
Junior college	0.024	0.012	0.002	0.012	-0.005	-0.018	-0.028 *
University	0.002	0.008	0.014	0.005	-0.019 *	-0.026 ***	0.017 *
Graduate	0.010	0.023 **	0.021	0.007	-0.024	-0.024	-0.014
Education_NA	0.007	-0.004	0.010	-0.005	0.004	-0.017	0.005
S_Senior high	0.007	-0.013 *	0.026 ***	-0.005	0.028 **	-0.024 ***	-0.019 **
S_Vocational college	0.012	-0.008	0.018	0.005	0.033 **	-0.029 ***	-0.031 ***
S_Junior college	0.011	-0.022 ***	0.024 **	-0.006	0.030 **	-0.017 *	-0.021 *
S_University_Graduate_other	0.000	-0.009	0.012	-0.010	0.031 **	-0.021 **	-0.003
S_Education_NA	0.031	-0.006	0.016	-0.002	-0.009	-0.013	-0.018
Know Deposit Insurance	-0.018 **	0.041 ***	0.069 ***	0.017 ***	-0.033 ***	-0.067 ***	-0.008
Heard of Deposit Insurance	-0.014	0.017 ***	0.027 ***	0.009 **	0.015 **	-0.022 ***	-0.033 ***
Dep_Ins_NA	-0.028	0.043 **	-0.002	0.009	0.002	0.007	-0.033
Choice_advice	0.033	-0.021 **	0.056 ***	0.045 ***	0.056 ***	-0.041 ***	-0.128 ***
mattress	-0.021	0.000	0.039 ***	0.028 ***	0.068 ***	-0.047 **	-0.067 ***
sbond	0.000	0.000 *	0.001 **	0.000	-0.001 *	-0.001	0.001
sbond_NA	0.108 *	-0.022	0.016	-0.057	-0.050	0.018	-0.012
sstock	-0.001 ***	0.001 ***	0.000 ***	0.000	-0.001 ***	0.000	0.001 ***
sinv_trust	0.002 ***	0.000	0.001 ***	0.000 **	-0.001 ***	-0.001	0.000
sdcplan	0.000	0.000	-0.001 *	0.000	0.000	0.000	0.000
sdcplan_NA	0.014	0.003	-0.014	-0.008	-0.007	0.003	0.008
capitallossyes	0.018 **	0.012 ***	0.014 ***	0.002	-0.031 ***	-0.018 ***	0.003
capitallossyes_NA	0.011	0.010	-0.005	-0.020 **	-0.020	0.007	0.017 *
riskyes	-0.038	0.052 ***	0.042 ***	0.032 ***	-0.066 **	-0.021	-0.001
riskalittle	-0.038 ***	0.018 ***	0.052 ***	0.022 ***	0.019 **	-0.032 ***	-0.041 ***
risk_NA	0.021	-0.002	0.040 **	-0.008	-0.023	0.000	-0.029 *

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 12 Choice of actual sources: Single-person households

	Multinomial logit model (base =Exclusively FI, actual source)				
	Exclusively E	FI and E	FI and FF	Exclusively FF	Exclusively Other
income_20_100	-0.18	0.319*	0.204	-0.009	-0.491***
income_100_160	-0.299*	0.237	0.179	-0.248*	-0.531***
income_160_200	-0.329**	0.286	0.246	-0.118	-0.576***
income_200_250	-0.219	0.385*	0.196	0.022	-0.711***
income_250_300	-0.350**	0.233	0.284*	0.075	-0.601***
income_300_360	-0.425**	0.397*	0.406**	0.163	-0.535***
income_360_400	-0.453**	0.419**	0.196	0.005	-0.702***
income_400_500	-0.311*	0.329	0.345*	0.270*	-0.614***
income_500_	-0.393**	0.267	0.255	0.390**	-0.375***
asset_0	0.164	-0.043	-0.124	0.269**	0.262***
asset_52_125	0.043	-0.013	0.114	0.076	-0.223*
asset_125_225	-0.038	-0.183	0.227	0.313*	-0.138
asset_225_400	-0.049	0.153	0.316*	0.013	-0.227*
asset_400_608	-0.318	-0.058	0.359*	0.119	-0.176
asset_608_980	0.224	0.444**	0.169	0.122	-0.340**
asset_980_1420	0.11	0.317	0.391**	0.111	-0.148
asset_1420_2300	0.178	0.33	0.268	0.046	-0.449***
asset_2300_4360	-0.069	0.364*	0.082	0.038	-0.386***
asset_4360_	-0.244	0.400*	0.071	-0.231	-0.536***
age25_29	0.173	-0.103	-0.258**	-0.163	0.11
age30_34	0.134	-0.258	-0.508***	-0.358***	0.292***
age35_39	0.256	-0.13	-0.758***	-0.623***	0.391***
age40_44	0.304	-0.047	-0.778***	-0.879***	0.611***
age45_49	0.23	-0.11	-1.148***	-0.965***	0.538***
age50_54	0.285	0.118	-1.273***	-1.004***	0.521***
age55_59	0.353*	-0.088	-1.477***	-1.117***	0.497***
age60_64	0.615***	0.171	-1.322***	-1.058***	0.623***
age65_69	0.253	-0.028	-1.036***	-0.704***	0.704***
male	0.303***	-0.156**	-0.968***	-0.487***	0.529***
Know_Dep_Ins	0.226**	0.756***	0.258***	-0.767***	-0.452***
Hear_Dep_Ins	0.08	0.453***	0.241***	-0.167**	-0.516***
homeowner	-0.156*	0.095	0.019	0.059	0.044
debt	-0.116	0.344***	0.216***	-0.064	-0.110**
choice_advice	0.259	0.633***	0.089	-0.373	-0.922***
mattress	0.791***	1.207***	0.862***	0.963***	0.118
Senior high	-0.213	-0.203	-0.533**	-0.046	-0.324***
Vocational college	0.032	0.174	-0.252	0.122	-0.283**
Junior college	-0.06	-0.215	-0.326	0.303	-0.314**
University	0.037	0.041	-0.327	0.149	-0.302**
Graduate	-0.095	0.293	-0.204	0.206	-0.265*
sbond	-0.009	0.007	-0.008	-0.005	-0.005
sstock	0.013***	0.002	0.001	0.009***	0.015***
sinv_trust	0.001	0.001	-0.003	-0.006	-0.009***
sdcplan	0	0	0	-0.009	-0.007**
capitalloss yes	0.243***	0.188**	-0.042	-0.469***	-0.076
riskyes	0.665***	0.747***	-0.670***	-0.072	-0.117
riskalittle	0.429***	0.646***	0.038	-0.105	-0.280***
N					15626
pseudoRsq					0.083
LLR					-22200

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends. Parameter estimates for occupation, region, survey year are not reported.

Table 13 Choice of actual sources: Single-person households (Marginal effects)

	Exclusively FI	Exclusively E	FI and E	FI and FF	Exclusively FF	Exclusively Other
income_20_100	0.043 **	-0.003	0.027 **	0.024 **	0.014	-0.104 ***
income_100_160	0.061 ***	-0.008	0.025 **	0.027 **	-0.006	-0.099 ***
income_160_200	0.059 ***	-0.010	0.028 ***	0.031 ***	0.007	-0.114 ***
income_200_250	0.064 ***	-0.002	0.034 ***	0.027 **	0.024 **	-0.149 ***
income_250_300	0.055 ***	-0.012	0.024 **	0.032 ***	0.026 **	-0.125 ***
income_300_360	0.039 *	-0.020 *	0.031 ***	0.038 ***	0.030 **	-0.119 ***
income_360_400	0.068 ***	-0.016	0.038 ***	0.028 **	0.024 *	-0.142 ***
income_400_500	0.044 **	-0.011	0.028 **	0.034 ***	0.044 ***	-0.138 ***
income_500_	0.021	-0.022 **	0.021 *	0.022	0.049 ***	-0.090 ***
asset_0	-0.036 **	0.004	-0.009	-0.018 *	0.017	0.042 **
asset_52_125	0.017	0.007	0.002	0.012	0.014	-0.051 **
asset_125_225	0.002	-0.001	-0.011	0.016	0.033 **	-0.040 *
asset_225_400	0.012	-0.001	0.011	0.026 **	0.005	-0.054 **
asset_400_608	0.013	0.006	0.017	0.027 **	0.009	-0.050 **
asset_608_980	0.026	0.017	0.024 **	0.025 *	0.014	-0.107 ***
asset_980_1420	0.030	0.001	0.027 **	0.012	0.015	-0.085 ***
asset_1420_2300	0.059 **	-0.005	0.035 ***	0.018	-0.004	-0.102 ***
asset_2300_4360	0.030	0.001	0.027 **	0.012	0.015	-0.085 ***
asset_4360_	0.059 **	-0.005	0.035 ***	0.018	-0.004	-0.102 ***
age25_29	0.000	0.011	-0.007	-0.019 **	-0.017 **	0.031 *
age30_34	-0.001	0.008	-0.016	-0.037 ***	-0.038 ***	0.083 ***
age35_39	0.000	0.016	-0.008	-0.055 ***	-0.065 ***	0.113 ***
age40_44	-0.016	0.015	-0.006	-0.059 ***	-0.098 ***	0.164 ***
age45_49	0.008	0.015	-0.005	-0.082 ***	-0.098 ***	0.163 ***
age50_54	0.008	0.018	0.009	-0.092 ***	-0.102 ***	0.158 ***
age55_59	0.023	0.026 **	-0.002	-0.103 ***	-0.108 ***	0.164 ***
age60_64	-0.008	0.037 ***	0.008	-0.098 ***	-0.112 ***	0.173 ***
age65_69	-0.025	0.010	-0.006	-0.081 ***	-0.081 ***	0.182 ***
male	-0.014 *	0.016 ***	-0.012 ***	-0.075 ***	-0.055 ***	0.140 ***
Know_Dep_Ins	0.045 ***	0.023 ***	0.052 ***	0.032 ***	-0.066 ***	-0.086 ***
Hear_Dep_Ins	0.041 ***	0.013 **	0.034 ***	0.027 ***	-0.003	-0.112 ***
homeowner	-0.006	-0.012 **	0.005	0.000	0.004	0.008
debt	0.002	-0.008	0.022 ***	0.017 ***	-0.006	-0.028 ***
choice_advice	0.087 ***	0.034 ***	0.052 ***	0.025	-0.009	-0.190 ***
mattress	-0.118 ***	0.029 *	0.053 ***	0.037 **	0.066 ***	-0.067
Senior high	0.060 **	-0.002	-0.002	-0.028 *	0.016	-0.044 **
Vocational college	0.027	0.008	0.015	-0.015	0.024	-0.059 **
Junior college	0.037	0.004	-0.006	-0.019	0.045 **	-0.062 ***
University	0.033	0.009	0.008	-0.019	0.028	-0.060 ***
Graduate	0.021	-0.002	0.022	-0.013	0.031	-0.059 **
sbond	0.001	0.000	0.001 **	0.000	0.000	0.000
sstock	-0.002 ***	0.000 ***	0.000 **	0.000 *	0.000	0.002 ***
sinv_trust	0.001 ***	0.000 *	0.000	0.000	0.000	-0.002 ***
sdcplan	0.001 **	0.000 **	0.000 **	0.000 *	-0.001	-0.001
capitalloss yes	0.016	0.019 ***	0.013 ***	0.002	-0.044 ***	-0.006
riskyes	0.001	0.043 ***	0.045 ***	-0.052 ***	-0.003	-0.034 **
riskalittle	0.007	0.030 ***	0.040 ***	0.004	-0.007	-0.074 ***

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends. Parameter estimates for occupation, region, survey year are not reported.

Table 14 Choice of desirable sources: Family households

	Multinomial logit model (base Exclusively FI as the desirable source)							
	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	FI and FF	Don't know
income_200_260	-0.084	0.194	0.331**	0.164	0.267*	0.054	0.089	-0.083
income_260_300	0.006	-0.009	0.266**	0.196	0.248*	0.122	0.068	-0.042
income_300_370	0.169	0.208*	0.394***	0.508***	0.485***	0.212*	0.231	-0.057
income_370_407	0.063	0.297***	0.291**	0.340***	0.272**	0.013	0.218	-0.11
income_407_500	-0.081	0.177*	0.350***	0.320***	0.416***	-0.069	0.065	-0.139*
income_500_600	0.029	0.14	0.228*	0.274**	0.487***	0.086	0.292*	-0.169*
income_600_700	0.031	0.356***	0.280*	0.431***	0.631***	0.240**	0.309*	-0.018
income_700_900	0.131	0.14	0.369**	0.430***	0.484***	0.178	0.191	-0.036
income_900_	0.259*	0.235*	0.356**	0.471***	0.356**	0.072	0.436**	-0.08
income_NA	-0.017	0.068	0.071	0.066	0.045	-0.180*	-0.051	0.081
asset_0	0.31	0.641	0.603	1.056*	0.814	0.764	0.761	0.583
asset_100_253	0.23	0.389***	0.325*	0.267	0.222	0.231*	0.217	-0.038
asset_253_420	0.085	0.18	0.225	0.153	0.178	0.009	-0.18	-0.117
asset_420_600	0.235	0.249*	0.420***	0.184	0.09	0.161	0.055	-0.125
asset_600_900	0.144	0.364***	0.402**	0.448***	0.256	0.124	0.068	-0.032
asset_900_1200	0.331**	0.365**	0.498***	0.358**	0.279*	0.310**	0.243	-0.162
asset_1200_1670	0.193	0.527***	0.455***	0.517***	0.382**	0.196	-0.084	-0.13
asset_1670_2400	0.280*	0.586***	0.597***	0.395**	0.474***	0.236*	-0.058	-0.445***
asset_2400_3886	0.274	0.510***	0.660***	0.760***	0.636***	0.273**	-0.14	-0.284**
asset_3886_	0.216	0.714***	0.731***	0.815***	0.549***	0.299**	-0.194	-0.288**
asset_NA	0.284	0.895*	0.819	1.018	0.761	0.920*	0.791	0.248
age30_34	0.168	0.055	-0.224	-0.061	-0.267	0.133	-0.234	0.025
age35_39	0.22	0.101	-0.213	-0.158	-0.107	0.15	-0.246	0.204
age40_44	0.122	0.03	-0.301	-0.107	-0.049	0.166	-0.303	0.237*
age45_49	0.064	-0.049	-0.189	-0.011	0.102	0.176	-0.366*	0.309**
age50_54	-0.158	-0.106	-0.108	-0.002	-0.035	0.105	-0.631***	0.143
age55_59	-0.082	-0.104	-0.18	-0.117	0.127	0.231	-0.623***	0.147
age60_64	0.038	-0.101	-0.115	-0.056	0.222	0.401**	-0.291	0.238*
age65_69	0.047	-0.204	-0.178	-0.217	0.273	0.269	-0.157	0.124
age70_74	-0.271	-0.302	-0.338	-0.316	0.218	0.142	-0.029	0.113
age75_	-0.258	-0.13	-0.506**	-0.039	0.107	-0.036	0.081	0.1
age_NA	-0.195	-0.375	-0.268	-0.017	0.1	0.071	-0.165	0.055
Senior high	0.06	0.058	0.193	0.354***	0.194	0.229**	-0.028	-0.165**
Vocational college	0.265*	0.163	0.415***	0.703***	0.658***	0.411***	-0.101	-0.078
Junior college	0.137	-0.066	0.234	0.475***	0.545***	0.549***	-0.354	-0.414***
University	0.257*	0.195*	0.534***	0.709***	0.524***	0.480***	-0.021	-0.103
Graduate	0.277	0.143	0.631***	1.013***	0.713***	0.604***	-0.356	-0.06
Education_NA	-0.14	0.276	0.048	0.163	0.315	-0.19	0.480**	-0.098
S_Senior high	0.074	0.213*	0.025	0.021	0.05	-0.116	-0.035	-0.132
S_Vocational college	0.212	0.337**	0.17	0.12	-0.125	0.191	0.107	-0.026
S_Junior college	0.214	0.276*	0.367**	0.283*	0.069	0.208	0.069	-0.066
S_University_Graduate_other	0.233	0.171	0.523***	0.458***	0.317*	0.456***	-0.163	0.136
S_Education_NA	0.19	-0.066	0.001	0.106	-0.044	0.286	-0.500**	-0.116
Know Deposit Insurance	0.287***	0.326***	0.965***	0.924***	0.914***	0.975***	-0.286***	-0.421***
Heard of Deposit Insurance	0.112	0.166**	0.724***	0.589***	0.656***	0.662***	-0.061	-0.181***
Dep_Ins_NA	-0.548	-0.39	0.06	0.114	-0.261	0.782**	0.12	0.056
Choice_advice	0.01	0.772***	0.223	0.566***	0.275*	-0.779***	0.353**	-0.953***
mattress	0.689***	0.740***	0.501**	0.609***	0.859***	0.532***	0.802***	-0.283
sbond	0.01	0.010*	0.009	0.022***	0.009	0.019***	0	0.011**
sbond_NA	-0.045	-0.407	-0.39	-0.867	-0.635	-0.582	-0.746	-0.283
sstock	0.011***	0.006**	0.008***	0.009***	0.007***	0.011***	-0.006	0.007***
sinv_trust	0.002	0.005**	-0.001	-0.003	-0.006*	0.001	-0.023***	-0.002
sdcplan	-0.005	0.001	0	0.001	0.001	0.002	0	0.002
sdcplan_NA	-0.205	-0.052	-0.173	-0.138	-0.036	-0.103	-0.177	0.129
capitallossyes	0.297***	0.261***	0.263***	0.331***	0.082	0.216***	-0.104	-0.001
capitallossyes_NA	0.137	0.073	0.077	0.013	0.372***	0.385***	0.049	0.208**
riskyes	0.257	0.497***	0.063	0.104	-0.591**	-0.793***	0.073	-0.775***
riskalittle	0.352***	0.382***	0.477***	0.527***	0.294***	0.059	0.293***	-0.351***
risk_NA	0.003	-0.078	-0.243	0.012	-0.416	-0.056	-0.071	0.034
N								25722
pseudoRsq								0.054
LLR								-49700

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 15 Choice of desirable sources: Family households (Marginal effects)

	Exclusively FI	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	FI and FF	Don't know
income_200_260	-0.013	-0.009	0.012	0.019 **	0.006	0.013	-0.002	0.002	-0.026 **
income_260_300	-0.013	-0.004	-0.007	0.014 *	0.010	0.012	0.006	0.001	-0.018 *
income_300_370	-0.035 ***	0.000	0.003	0.015 *	0.026 ***	0.020 **	0.004	0.004	-0.037 ***
income_370_407	-0.020	-0.002	0.019 **	0.013	0.018 **	0.011	-0.010	0.006	-0.036 ***
income_407_500	-0.012	-0.009	0.010	0.020 **	0.019 **	0.022 ***	-0.016 *	0.001	-0.035 ***
income_500_600	-0.016	-0.003	0.005	0.009	0.014	0.026 ***	-0.001	0.010 *	-0.045 ***
income_600_700	-0.039 ***	-0.009	0.016	0.006	0.018 *	0.029 ***	0.006	0.007	-0.033 **
income_700_900	-0.031 **	-0.001	-0.001	0.015 *	0.021 **	0.021 **	0.003	0.003	-0.030 **
income_900_	-0.031 **	0.007	0.008	0.014	0.025 ***	0.013	-0.010	0.014 *	-0.039 ***
income_NA	-0.003	-0.002	0.005	0.005	0.005	0.002	-0.022 **	-0.003	0.013
asset_0	-0.122 **	-0.013	0.011	0.004	0.042	0.018	0.027	0.012	0.020
asset_100_253	-0.032 **	0.005	0.023 **	0.012	0.008	0.004	0.009	0.004	-0.032 **
asset_253_420	-0.006	0.003	0.013	0.013	0.008	0.009	-0.004	-0.009	-0.027 **
asset_420_600	-0.019	0.009	0.014	0.023 **	0.006	-0.001	0.007	-0.001	-0.038 ***
asset_600_900	-0.031 **	0.000	0.020 *	0.017 *	0.023 **	0.006	-0.004	-0.003	-0.029 **
asset_900_1200	-0.034 **	0.010	0.018	0.023 **	0.013	0.006	0.015	0.005	-0.057 ***
asset_1200_1670	-0.034 **	0.002	0.034 ***	0.019 *	0.025 **	0.013	0.002	-0.010	-0.050 ***
asset_1670_2400	-0.022	0.009	0.042 ***	0.031 ***	0.017	0.021 **	0.010	-0.006	-0.102 ***
asset_2400_3886	-0.039 **	0.004	0.028 **	0.030 ***	0.041 ***	0.027 ***	0.006	-0.013	-0.083 ***
asset_3886_	-0.044 **	0.000	0.045 ***	0.034 ***	0.043 ***	0.019 **	0.006	-0.017 *	-0.087 ***
asset_NA	-0.115 **	-0.014	0.036	0.020	0.038	0.015	0.045	0.015	-0.040
age30_34	0.003	0.011	0.007	-0.015	-0.003	-0.016	0.017	-0.010	0.007
age35_39	-0.010	0.012	0.007	-0.018	-0.015	-0.009	0.014	-0.013	0.032 *
age40_44	-0.009	0.006	0.001	-0.024 *	-0.010	-0.004	0.016	-0.016 *	0.039 **
age45_49	-0.015	0.001	-0.009	-0.018	-0.004	0.003	0.014	-0.020 **	0.048 ***
age50_54	0.004	-0.009	-0.008	-0.006	0.002	-0.001	0.014	-0.028 ***	0.032 *
age55_59	0.000	-0.005	-0.009	-0.013	-0.009	0.009	0.027	-0.028 ***	0.029
age60_64	-0.019	-0.002	-0.016	-0.014	-0.010	0.010	0.037 **	-0.017 *	0.032 *
age65_69	-0.005	0.002	-0.021	-0.014	-0.019	0.017	0.029	-0.008	0.019
age70_74	0.009	-0.014	-0.024	-0.020	-0.021	0.018	0.022	0.000	0.028
age75_	0.009	-0.013	-0.008	-0.033 **	0.002	0.011	0.002	0.005	0.026
age_NA	0.012	-0.009	-0.030	-0.016	0.004	0.010	0.014	-0.005	0.020
Senior high	-0.011	0.000	-0.001	0.008	0.022 **	0.008	0.018 **	-0.003	-0.040 ***
Vocational college	-0.042 ***	0.004	-0.005	0.013	0.038 ***	0.028 ***	0.022 *	-0.012 *	-0.046 ***
Junior college	-0.008	0.004	-0.014	0.009	0.029 **	0.029 ***	0.053 ***	-0.017 *	-0.085 ***
University	-0.044 ***	0.003	-0.003	0.021 **	0.037 ***	0.019 **	0.028 ***	-0.009	-0.053 ***
Graduate	-0.054 **	0.001	-0.013	0.023 **	0.057 ***	0.027 **	0.036 **	-0.026 *	-0.051 **
Education_NA	-0.008	-0.011	0.022 *	0.000	0.010	0.018	-0.026 *	0.020 **	-0.025
S_Senior high	0.003	0.005	0.021 **	0.002	0.002	0.004	-0.012	-0.001	-0.023 **
S_Vocational college	-0.019	0.008	0.024 **	0.006	0.002	-0.014	0.012	0.001	-0.019
S_Junior college	-0.024 *	0.006	0.015	0.017 *	0.012	-0.004	0.010	-0.001	-0.031 **
S_University_Graduate_other	-0.046 ***	0.001	-0.004	0.022 **	0.018 *	0.006	0.027 **	-0.016 **	-0.008
S_Education_NA	0.002	0.012	-0.007	-0.001	0.007	-0.004	0.032 *	-0.022 **	-0.020
Know Deposit Insurance	-0.056 ***	0.000	0.002	0.044 ***	0.045 ***	0.038 ***	0.074 ***	-0.023 ***	-0.123 ***
Heard of Deposit Insurance	-0.044 ***	-0.007	-0.006	0.034 ***	0.026 ***	0.027 ***	0.048 ***	-0.011 ***	-0.068 ***
Dep_Ins_NA	-0.007	-0.036	-0.040	0.002	0.006	-0.020	0.085 ***	0.004	0.005
Choice_advice	0.033 **	0.007	0.081 ***	0.021 **	0.050 ***	0.023 ***	-0.079 ***	0.022 ***	-0.158 ***
mattress	-0.067 ***	0.023 **	0.039 ***	0.010	0.019	0.034 ***	0.023	0.024 ***	-0.106 ***
sbond	-0.002 ***	0.000	0.000	0.000	0.001 ***	0.000	0.001 ***	0.000	0.001
sbond_NA	0.081	0.019	-0.005	-0.001	-0.040	-0.018	-0.025	-0.019	0.007
sstock	-0.001 ***	0.000 ***	0.000	0.000	0.000 *	0.000	0.001 ***	0.000 ***	0.000
sinv_trust	0.000	0.000	0.001 ***	0.000	0.000	0.000	0.000	-0.001 ***	0.000
sdcplan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 *
sdcplan_NA	0.008	-0.010	-0.001	-0.009	-0.007	0.001	-0.006	-0.007	0.031
capitallossyes	-0.026 ***	0.011 ***	0.013 ***	0.009 **	0.016 ***	-0.003	0.010 *	-0.009 **	-0.020 **
capitallossyes_NA	-0.033 **	0.000	-0.006	-0.005	-0.011	0.015 **	0.028 ***	-0.004	0.015
riskyes	0.054 **	0.028 ***	0.065 ***	0.019	0.023 **	-0.026 *	-0.067 ***	0.013	-0.109 ***
riskalittle	-0.021 **	0.015 ***	0.024 ***	0.024 ***	0.030 ***	0.010 **	-0.008	0.010 **	-0.084 ***
risk_NA	0.012	0.004	-0.002	-0.013	0.007	-0.023	0.001	-0.001	0.016

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 16 Choice of desirable sources: Single-person households

	Multinomial logit model (base FI desirable source)							
	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	Exclusively Other	Don't know
income_20_100	0.026	-0.239	0.107	-0.018	-0.294	0.069	-0.386**	-0.396***
income_100_160	-0.089	-0.238	0.105	-0.086	-0.205	-0.196	-0.568***	-0.449***
income_160_200	-0.245	-0.063	0.078	0.09	0.018	0.036	-0.536***	-0.458***
income_200_250	-0.029	0.155	0.333*	0.191	0.172	0.075	-0.540***	-0.609***
income_250_300	0.019	-0.003	-0.008	-0.205	0.043	-0.077	-0.465**	-0.488***
income_300_360	-0.13	0.168	0.312	0.09	0.207	0.053	-0.536**	-0.430***
income_360_400	-0.103	0.05	0	0.069	-0.043	-0.147	-0.696***	-0.501***
income_400_500	-0.106	0.024	-0.125	-0.189	-0.073	-0.102	-0.507**	-0.642***
income_500_	-0.09	-0.159	-0.01	-0.076	-0.18	-0.156	-0.19	-0.567***
asset_0	-0.067	-0.278*	-0.078	-0.404***	-0.141	-0.054	0.139	0.285**
asset_52_125	-0.236	-0.029	0.243	-0.011	0.069	-0.226	-0.2	-0.074
asset_125_225	0.04	-0.356*	0.188	0.074	0.102	-0.181	-0.346	-0.022
asset_225_400	0.069	0.076	0.191	-0.13	0.206	-0.19	-0.156	-0.103
asset_400_608	-0.016	-0.354*	-0.27	-0.325	-0.307	-0.372*	-0.252	-0.23
asset_608_980	0.013	-0.01	0.29	0.038	0.343	0.227	-0.282	0.021
asset_980_1420	-0.054	0.096	0.237	0.006	0.155	-0.009	-0.252	-0.01
asset_1420_2300	0.042	-0.12	0.197	0.194	0.037	-0.092	-0.478*	-0.142
asset_2300_4360	-0.207	-0.053	0.055	-0.166	0.226	-0.241	-0.430*	-0.166
asset_4360_	-0.358	-0.144	-0.052	0.071	0.103	-0.258	-0.366	-0.225
age25_29	-0.129	-0.089	0.119	-0.185	-0.365**	0.024	0.069	0.02
age30_34	-0.05	-0.238	0.21	-0.373**	-0.628***	0.092	0.033	0.134
age35_39	-0.026	-0.212	0.001	-0.251	-0.387*	0.273*	0.478**	0.371***
age40_44	-0.004	-0.198	0.135	-0.148	-0.382*	0.494***	0.632***	0.409***
age45_49	0.147	-0.505**	0.138	-0.086	-0.33	0.434**	0.638***	0.399***
age50_54	-0.28	-0.524***	0.377*	-0.458**	-0.218	0.567***	0.782***	0.344***
age55_59	-0.154	-0.510**	0.189	-0.253	-0.162	0.537***	0.548**	0.365***
age60_64	-0.067	-0.711***	0.274	-0.528***	-0.195	0.778***	0.958***	0.282**
age65_69	-0.232	-0.805***	0.076	-0.509**	-0.076	0.750***	1.073***	0.224
male	-0.308***	-0.362***	-0.628***	-0.346***	-0.06	-0.097	0.733***	0.055
Know_Dep_Ins	0.315***	0.555***	1.352***	1.228***	0.963***	0.964***	0.707***	-0.521***
Hear_Dep_Ins	0.261**	0.370***	0.914***	0.786***	0.648***	0.576***	0.251**	-0.244***
homeowner	0.171*	-0.164	-0.096	-0.034	-0.189*	-0.048	-0.252**	0.05
debt	0.198**	0.499***	0.426***	0.428***	0.442***	0.337***	0.024	-0.019
choice_advice	0.474**	0.527***	-0.112	0.201	0.139	-0.496**	-0.979**	-1.019***
mattress	0.469	0.613**	0.993***	0.705**	-0.127	0.507*	0.740**	-0.392
Senior high	-0.056	0.154	-0.12	-0.385	-0.096	-0.016	-0.37	-0.557***
Vocational college	0.064	0.594*	0.118	0.12	0.215	0.15	-0.119	-0.450***
Junior college	-0.006	0.382	-0.266	-0.21	-0.263	0.177	-0.076	-0.595***
University	0.139	0.491	0.369	0.022	0.274	0.375*	-0.151	-0.577***
Graduate	0.319	0.526	0.445	0.021	0.276	0.505**	-0.275	-0.558***
sbond	0.001	0.016**	0.014**	0.006	-0.007	0.004	0.01	0.002
sstock	0.010***	0	0.006**	-0.002	-0.002	0.006***	0.014***	0.009***
sinv_trust	0.007**	0.009***	0	0.003	-0.005	-0.004	0.001	-0.006*
sdcplan	-0.001	0	0	0	0	-0.001	0.001	0
capitalloss yes	0.138	0.043	0.313***	0.045	0.076	0.245***	0.197*	0.058
riskyes	0.233*	0.109	-0.035	0.101	-0.269*	-0.211*	0.257*	-0.836***
riskalittle	0.437***	0.311***	0.386***	0.596***	0.157	0.088	0.103	-0.471***
N								16425
pseudoRsq								0.068
LLR								-29900

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 17 Choice of desirable sources: Single-person households (Marginal effects)

	Exclusively FI	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	Exclusively Other	Don't know
income_20_100	0.033 **	0.009	-0.006	0.014	0.010	-0.007	0.024 **	-0.012	-0.064 ***
income_100_160	0.045 ***	0.007	-0.002	0.017 *	0.009	0.000	0.002	-0.018 **	-0.062 ***
income_160_200	0.035 **	-0.005	0.006	0.012	0.019 *	0.008	0.022 *	-0.019 **	-0.077 ***
income_200_250	0.033 **	0.005	0.018 *	0.024 **	0.024 **	0.014 *	0.023 *	-0.020 **	-0.121 ***
income_250_300	0.041 ***	0.011	0.012	0.009	-0.003	0.011	0.013	-0.014 *	-0.079 ***
income_300_360	0.024	-0.002	0.017	0.022 **	0.013	0.014	0.017	-0.022 **	-0.084 ***
income_360_400	0.042 **	0.005	0.015	0.010	0.020 *	0.007	0.005	-0.025 ***	-0.079 ***
income_400_500	0.055 ***	0.008	0.018 *	0.006	0.003	0.008	0.017	-0.012	-0.103 ***
income_500_	0.048 ***	0.007	0.004	0.011	0.011	0.002	0.007	0.002	-0.091 ***
asset_0	-0.005	-0.004	-0.018 **	-0.003	-0.033 ***	-0.007	-0.007	0.006	0.070 ***
asset_52_125	0.012	-0.010	0.002	0.017	0.003	0.006	-0.019	-0.007	-0.004
asset_125_225	0.009	0.005	-0.021 *	0.013	0.010	0.007	-0.015	-0.015	0.007
asset_225_400	0.009	0.006	0.007	0.013	-0.008	0.012	-0.017	-0.006	-0.016
asset_400_608	0.042 **	0.011	-0.009	-0.003	-0.009	-0.004	-0.017	-0.002	-0.008
asset_608_980	-0.010	-0.002	-0.005	0.013	-0.002	0.013	0.019	-0.017	-0.008
asset_980_1420	-0.001	-0.004	0.005	0.013	-0.001	0.007	-0.002	-0.013	-0.004
asset_1420_2300	0.012	0.005	-0.005	0.014	0.020	0.004	-0.005	-0.021 *	-0.022
asset_2300_4360	0.023	-0.005	0.004	0.010	-0.005	0.016	-0.014	-0.016	-0.014
asset_4360_	0.028	-0.012	-0.001	0.005	0.017	0.011	-0.014	-0.011	-0.023
age25_29	0.005	-0.005	-0.004	0.009	-0.013	-0.016 **	0.006	0.005	0.012
age30_34	0.003	-0.001	-0.014	0.014	-0.028 **	-0.029 ***	0.013	0.002	0.039 **
age35_39	-0.024	-0.007	-0.020 **	-0.004	-0.028 **	-0.023 ***	0.019	0.018 *	0.068 ***
age40_44	-0.036 **	-0.009	-0.023 **	-0.001	-0.025 **	-0.026 ***	0.036 **	0.023 **	0.062 ***
age45_49	-0.033 *	0.000	-0.043 ***	0.000	-0.019	-0.023 **	0.031 **	0.024 **	0.063 ***
age50_54	-0.027	-0.021 **	-0.041 ***	0.016	-0.047 ***	-0.016 *	0.049 ***	0.032 ***	0.056 ***
age55_59	-0.029	-0.015	-0.041 ***	0.004	-0.031 **	-0.014	0.045 ***	0.020 *	0.060 ***
age60_64	-0.027	-0.010	-0.054 ***	0.009	-0.054 ***	-0.015 *	0.072 ***	0.041 ***	0.037 **
age65_69	-0.020	-0.017	-0.058 ***	0.000	-0.049 ***	-0.008	0.073 ***	0.048 ***	0.030
male	0.013 *	-0.012 ***	-0.018 ***	-0.030 ***	-0.021 ***	0.001	-0.002	0.041 ***	0.029 ***
Know_Dep_Ins	-0.049 ***	-0.001	0.014 ***	0.054 ***	0.070 ***	0.029 ***	0.070 ***	0.020 ***	-0.206 ***
Hear_Dep_Ins	-0.036 ***	0.002	0.009	0.036 ***	0.043 ***	0.019 ***	0.038 ***	0.002	-0.113 ***
homeowner	0.004	0.011 **	-0.009	-0.004	0.000	-0.008 *	-0.002	-0.012 ***	0.019 **
debt	-0.031 ***	0.001	0.021 ***	0.013 ***	0.019 ***	0.012 ***	0.018 ***	-0.007 *	-0.046 ***
choice_advice	0.071 ***	0.041 ***	0.054 ***	0.009	0.039 ***	0.021 *	-0.020	-0.032 *	-0.182 ***
mattress	-0.028	0.015	0.027 *	0.043 ***	0.039 **	-0.016	0.034	0.029 **	-0.143 ***
Senior high	0.047 **	0.008	0.024	0.005	-0.016	0.006	0.023	-0.007	-0.090 ***
Vocational college	0.013	0.005	0.041 **	0.007	0.010	0.012	0.021	-0.004	-0.105 ***
Junior college	0.039 *	0.009	0.036 *	-0.007	-0.005	-0.005	0.040 **	0.005	-0.112 ***
University	0.016	0.009	0.034 *	0.021	0.002	0.014	0.046 **	-0.005	-0.137 ***
Graduate	0.009	0.017	0.035 *	0.023	-0.002	0.013	0.057 ***	-0.013	-0.140 ***
sbond	-0.001	0.000	0.001 **	0.001 **	0.000	-0.001	0.000	0.000	0.000
sstock	-0.001 ***	0.000 **	0.000 *	0.000	-0.001 ***	0.000 **	0.000	0.000 ***	0.001 ***
sinv_trust	0.000	0.000 ***	0.001 ***	0.000	0.000 *	0.000	0.000	0.000	-0.001 **
sdcplan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
capitalloss yes	-0.018 **	0.002	-0.003	0.012 ***	-0.005	-0.001	0.016 ***	0.005	-0.008
riskyes	0.053 ***	0.024 ***	0.022 ***	0.009	0.025 ***	-0.002	0.002	0.026 ***	-0.158 ***
riskalittle	0.003	0.022 ***	0.018 ***	0.018 ***	0.045 ***	0.006	0.007	0.005	-0.123 ***

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 18 Discrepancy between actual and desirable sources: Family households

	Choice of desirable sources given the choice of exclusively FI as the actual source						
	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	Don't know
income_200_260	-0.306	0.144	0.236	0.161	0.227	0.011	-0.152
income_260_300	-0.212	-0.044	-0.168	0.242	0.193	0.302*	-0.097
income_300_370	0.237	0.243	0.411	0.767**	0.421*	0.282	0.067
income_370_407	-0.01	0.267	0.508*	0.451	0.467**	0.279	-0.03
income_407_500	-0.229	0.266	0.209	0.663**	0.267	0.159	-0.147
income_500_600	-0.099	-0.023	0.283	0.092	0.328	0.255	-0.18
income_600_700	-0.027	0.434*	0.178	0.793**	0.539**	0.370*	0.063
income_700_900	-0.065	0.061	0.428	0.562*	0.695***	0.528***	0.045
income_900_	0.051	0.185	0	0.364	0.232	0.2	-0.068
income_NA	-0.17	0.289	-0.063	0.108	-0.142	-0.125	-0.092
asset_0	0.867	1.234	16.411	0.658	0.756	0.425	0.211
asset_100_253	0.244	0.435*	0.856*	0.13	-0.08	0.202	0.049
asset_253_420	0.282	0.41	1.142**	0.279	0.022	-0.032	-0.055
asset_420_600	0.366	0.493**	1.303***	0.292	-0.02	0.226	-0.022
asset_600_900	0.125	0.461*	1.310***	0.610*	0.327	0.184	0.008
asset_900_1200	0.750**	0.526**	1.510***	0.695*	0.472*	0.376*	-0.123
asset_1200_1670	0.122	0.677***	1.191**	0.742**	0.207	0.134	-0.09
asset_1670_2400	0.398	0.941***	1.244***	0.498	0.637**	0.28	-0.219
asset_2400_3886	0.091	0.553**	1.691***	0.895**	0.664**	0.179	-0.167
asset_3886_	0.307	0.779***	1.505***	0.996***	0.513*	0.213	0.007
asset_NA	0.666	1.585	17.036	0.691	0.805	0.893	-0.023
age30_34	0.646	0.021	0.209	0.261	0.303	0.650*	-0.017
age35_39	0.555	-0.221	0.623	0.298	0.434	0.453	0.146
age40_44	0.687	-0.071	0.322	0.495	0.378	0.669*	0.111
age45_49	0.634	-0.031	0.39	0.203	0.264	0.569	0.229
age50_54	0.491	-0.244	0.484	0.349	0.395	0.517	0.034
age55_59	0.293	-0.155	0.086	0.045	0.182	0.666*	0.16
age60_64	0.783	-0.326	0.265	0.216	0.518	0.738**	0.248
age65_69	0.821	-0.368	0.209	0.239	0.557	0.55	0.323
age70_74	0.268	-0.391	0.036	-0.085	0.579	0.522	0.171
age75_	0.551	-0.207	0.001	0.47	0.504	0.174	0.157
age_NA	0.229	-0.848	0.407	0.58	0.895	-0.073	0.057
Senior high	0.057	0.1	0.267	0.793**	-0.009	0.369**	-0.223*
Vocational college	0.377	0.179	0.066	1.176***	0.563**	0.456**	-0.139
Junior college	0.327	0.217	-0.04	0.961**	0.017	0.864***	-0.356*
University	0.346	0.29	0.383	0.945***	0.249	0.669***	-0.156
Graduate	0.091	-0.214	-0.23	1.432***	0.677**	0.754***	-0.144
Education_NA	-0.575	0.302	-0.538	0.641	0.131	0.215	-0.214
S_Senior high	0.005	-0.016	-0.167	0.097	0.187	-0.246	0.171
S_Vocational college	0.169	0.36	0.089	0.405	0.247	-0.019	0.342*
S_Junior college	0.409	0.301	0.364	0.282	0.368	0.085	0.097
S_University_Graduate_other	-0.01	-0.121	0.354	0.829**	0.590**	0.241	0.377**
S_Education_NA	0.649	-0.262	0.108	0.316	0.09	-0.122	0.291
Know Deposit Insurance	0.17	0.079	0.479**	0.505***	0.828***	0.862***	-0.289***
Heard of Deposit Insurance	0.260*	0.178	0.645***	0.583***	0.698***	0.721***	0.068
Dep_Ins_NA	-15.226	-0.645	-14.4	0.33	-14.055	1.019*	-0.179
Choice_advice	0.231	0.645***	0.338	0.037	0.227	-1.280***	-0.671***
mattress	0.925**	0.695**	0.536	0.151	0.630*	0.406	-0.263
sbond	0.002	0.017*	0.017	0.019*	0.018**	0.027***	0.009
sbond_NA	-0.408	-0.907	-15.349	-0.322	-0.645	-0.305	-0.005
sstock	0.007	0.002	0.005	0.006	0.007*	0.004	0.004
sinv_trust	0	0.007*	-0.002	-0.005	0.001	0.009**	0
sdcplan	-0.001	0.006	-0.012	0	0.002	0.001	-0.008
sdcplan_NA	-0.296	0.256	-0.569	-0.594	-0.362	0.02	-0.136
capitallossyes	0.211	0.384***	0.276*	0.459***	0.078	-0.022	-0.004
capitallossyes_NA	0.005	0.193	0.03	0.186	0.161	0.213	-0.132
riskyes	-0.043	0.09	-0.706	-0.417	-0.867*	-0.577	-0.770**
riskalittle	0.287*	0.086	0.405**	0.573***	0.142	0.084	-0.346***
risk_NA	0.428	-0.105	-0.442	-0.627	-14.75	0.008	-0.112
N							8891
pseudoRsq							0.054
LLR							-14100

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 19 Discrepancy between actual and desirable sources: Family households (Marginal effects)

	Exclusively FI	Exclusively E	FI and E	E and NI	FI, E and NI	FI and NI	Exclusively NI	Don't know
income_200_260	0.000	-0.015	0.011	0.008	0.005	0.014	0.000	-0.024
income_260_300	-0.007	-0.011	-0.005	-0.007	0.008	0.011	0.029 **	-0.017
income_300_370	-0.062 **	0.004	0.007	0.009	0.023 **	0.017	0.013	-0.010
income_370_407	-0.048 **	-0.006	0.011	0.014	0.012	0.022 *	0.016	-0.021
income_407_500	-0.022	-0.014	0.016	0.005	0.022 **	0.013	0.010	-0.030 *
income_500_600	-0.010	-0.006	-0.004	0.009	0.002	0.019	0.023	-0.032 *
income_600_700	-0.067 **	-0.009	0.021	0.000	0.023 **	0.024 *	0.021	-0.013
income_700_900	-0.064 **	-0.011	-0.007	0.009	0.014	0.035 **	0.037 **	-0.014
income_900_	-0.024	0.000	0.010	-0.003	0.011	0.011	0.014	-0.019
income_NA	0.010	-0.007	0.024 *	-0.002	0.005	-0.008	-0.011	-0.011
asset_0	-0.389	-0.006	0.019	0.578	-0.019	-0.021	-0.063	-0.098
asset_100_253	-0.047	0.006	0.025	0.028	0.000	-0.013	0.009	-0.008
asset_253_420	-0.038	0.009	0.024	0.039 **	0.006	-0.006	-0.014	-0.021
asset_420_600	-0.058 **	0.011	0.027	0.043 **	0.005	-0.012	0.008	-0.023
asset_600_900	-0.067 **	-0.002	0.023	0.042 **	0.016	0.010	0.001	-0.021
asset_900_1200	-0.091 ***	0.025 *	0.023	0.047 ***	0.016	0.015	0.014	-0.050 **
asset_1200_1670	-0.062 **	-0.002	0.040 **	0.038 **	0.021	0.002	-0.003	-0.035
asset_1670_2400	-0.083 ***	0.009	0.057 ***	0.038 **	0.009	0.027 *	0.006	-0.062 ***
asset_2400_3886	-0.077 **	-0.005	0.028	0.055 ***	0.025 *	0.030 *	-0.004	-0.052 **
asset_3886_	-0.098 ***	0.003	0.042 **	0.046 ***	0.027 **	0.017	-0.005	-0.032
asset_NA	-0.412	-0.019	0.042	0.598	-0.021	-0.023	-0.022	-0.143
age30_34	-0.059	0.024	-0.010	0.002	0.004	0.010	0.052	-0.023
age35_39	-0.063	0.020	-0.029	0.017	0.005	0.018	0.031	0.001
age40_44	-0.075	0.025	-0.020	0.005	0.011	0.012	0.050	-0.008
age45_49	-0.073	0.022	-0.016	0.008	0.001	0.006	0.041	0.011
age50_54	-0.052	0.018	-0.029	0.013	0.008	0.017	0.040	-0.013
age55_59	-0.051	0.009	-0.021	-0.002	-0.003	0.004	0.057 *	0.008
age60_64	-0.080 *	0.029	-0.040 *	0.002	0.000	0.021	0.056 *	0.011
age65_69	-0.077	0.031	-0.043 *	0.001	0.002	0.025	0.038	0.024
age70_74	-0.045	0.008	-0.039	-0.003	-0.008	0.031	0.043	0.012
age75_	-0.046	0.021	-0.025	-0.005	0.013	0.026	0.006	0.009
age_NA	-0.017	0.009	-0.070	0.013	0.020	0.056	-0.014	0.003
Senior high	-0.021	0.000	0.003	0.007	0.027 **	-0.006	0.031 **	-0.042 ***
Vocational college	-0.060 **	0.011	0.002	-0.004	0.038 ***	0.026 *	0.030	-0.042 **
Junior college	-0.041	0.010	0.008	-0.007	0.031 **	-0.008	0.077 ***	-0.070 ***
University	-0.064 ***	0.009	0.010	0.007	0.029 **	0.004	0.052 ***	-0.046 ***
Graduate	-0.056	-0.002	-0.028	-0.015	0.048 ***	0.034 *	0.062 **	-0.042
Education_NA	0.003	-0.028 *	0.023	-0.021	0.024	0.008	0.022	-0.032
S_Senior high	-0.006	0.000	-0.002	-0.007	0.003	0.012	-0.026	0.025
S_Vocational college	-0.056 *	0.002	0.018	-0.002	0.010	0.008	-0.015	0.035
S_Junior college	-0.051 *	0.014	0.014	0.009	0.006	0.016	-0.004	-0.002
S_University_Graduate_other	-0.071 **	-0.008	-0.022	0.007	0.025 *	0.028 *	0.007	0.035
S_Education_NA	-0.031	0.028	-0.026	0.002	0.010	0.002	-0.020	0.035
Know Deposit Insurance	-0.063 ***	0.001	-0.007	0.011	0.011	0.043 ***	0.071 ***	-0.067 ***
Heard of Deposit Insurance	-0.089 ***	0.002	-0.003	0.015 **	0.013 *	0.031 ***	0.051 ***	-0.020 **
Dep_Ins_NA	0.945	-0.626	0.132	-0.446	0.116	-0.778	0.362	0.295
Choice_advice	0.069 **	0.018	0.061 ***	0.018 *	0.007	0.026 *	-0.118 ***	-0.082 ***
mattress	-0.072	0.036 **	0.040 *	0.012	-0.002	0.029	0.022	-0.066
sbond	-0.004 ***	0.000	0.001	0.000	0.000	0.001	0.002 ***	0.000
sbond_NA	0.321	0.020	-0.006	-0.544	0.025	0.017	0.059	0.108
sstock	-0.001 *	0.000	0.000	0.000	0.000	0.000	0.000	0.000
sinv_trust	-0.001	0.000	0.000 *	0.000	0.000	0.000	0.001 **	0.000
sdcplan	0.000	0.000	0.001	0.000	0.000	0.000	0.000	-0.001
sdcplan_NA	0.035	-0.010	0.027	-0.018	-0.019	-0.018	0.012	-0.009
capitallossyes	-0.031 **	0.007	0.024 ***	0.007	0.014 ***	0.000	-0.010	-0.011
capitallossyes_NA	-0.015	-0.002	0.012	-0.001	0.005	0.008	0.018	-0.026
riskyes	0.125 **	0.012	0.029	-0.015	-0.004	-0.038	-0.029	-0.079
riskalittle	-0.006	0.013 *	0.004	0.014 **	0.020 ***	0.007	0.005	-0.057 ***
risk_NA	0.442	0.072	0.077	0.031	0.029	-0.908	0.129	0.129

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, gender, homeownership, debt, region, city size, survey year are not reported.

Table 20 Discrepancy between actual and desirable sources: Single-person households (1)

	Choice of desirable sources given the choice of Exclusively Other as the actual source					
	Exclusively E	FI and E	E and NI	Exclusively NI	Exclusively FI	Don't know
income_20_100	-0.344	-0.603	0.324	0.208	0.583*	-0.189
income_100_160	0.42	-0.321	0.254	0.06	1.008***	-0.047
income_160_200	0.325	-0.574	0.553	0.552*	0.544	-0.027
income_200_250	0.483	0.131	0.923*	0.383	0.813**	-0.146
income_250_300	0.236	-0.3	0.49	-0.003	0.545	-0.176
income_300_360	-0.262	0.175	0.498	0.165	0.178	-0.234
income_360_400	0.559	-0.555	0.972*	0.042	0.808*	0.08
income_400_500	-0.093	-0.612	0.511	-0.354	0.379	-0.391
income_500_	-0.178	-0.481	-0.828	-0.729**	0.498	-0.630***
asset_0	-0.491	1.102	-0.288	-0.208	-0.392	0.269
asset_52_125	-0.412	1.146	-0.212	-0.077	0.002	0.5
asset_125_225	0.107	0.471	0.977	0.376	0.024	0.574*
asset_225_400	-0.172	1.315	-0.294	-0.197	-0.176	0.1
asset_400_608	0.538	1.409	0.108	-0.103	0.188	0.242
asset_608_980	0.2	2.221**	-0.037	0.483	0.29	0.455
asset_980_1420	-0.174	1.966**	0.711	0.29	-0.149	0.585*
asset_1420_2300	-1.012	0.148	0.501	0.484	0.123	0.307
asset_2300_4360	-0.858	0.817	1.006	0.282	0.308	0.599*
asset_4360_	-0.399	0.98	-0.086	0.001	-0.326	0.322
age25_29	-0.576	-0.521	-0.503	0.202	-0.085	-0.046
age30_34	-0.045	0.315	0.046	0.44	0.092	0.157
age35_39	-0.727	-0.563	-1.861***	0.213	-0.515	-0.126
age40_44	-1.065*	-1.016*	-0.722	0.423	-0.294	-0.209
age45_49	-0.486	-0.768	-1.285*	0.267	-0.926**	-0.344
age50_54	-1.924***	-1.701**	-0.99	0.49	-0.953**	-0.375
age55_59	-0.98	-0.461	-1.066	0.201	-0.828*	-0.099
age60_64	-0.785	-1.784**	-0.828	0.44	-1.177***	-0.721***
age65_69	-1.547**	-15.602	-0.849	0.657	-0.801*	-0.559*
male	-1.180***	-1.031***	-1.154***	-0.674***	-0.658***	-0.575***
Know_Dep_Ins	-0.288	-0.611*	0.794**	0.697***	-0.488**	-1.489***
Hear_Dep_Ins	0.277	0.074	1.047***	0.635***	-0.343*	-0.630***
homeowner	0.287	-0.707*	-0.392	0.104	0.167	0.207*
debt	0.182	0.668**	0.708**	0.615***	0.16	0.092
choice_advice	-15.777	-0.183	-0.179	0.323	0.369	-0.939*
mattress	-16.518	-15.863	-0.345	-1.370*	-0.756	-1.091**
Senior high	0.737	-0.202	-0.438	-0.138	0.148	-0.187
Vocational college	0.134	0.058	-0.451	-0.415	-0.096	-0.328
Junior college	1	-0.303	-0.411	-0.341	-0.306	-0.342
University	0.903	0.447	-0.32	-0.135	0.034	-0.43
Graduate	0.561	0.688	0.078	0.507	-0.017	-0.289
sbond	-0.014	-0.043	-0.045	-0.02	-0.006	-0.001
sstock	-0.003	-0.021	-0.011	-0.014***	-0.027***	-0.007**
sinv_trust	0.008	-0.005	-0.005	-0.01	-0.004	-0.017***
sdcplan	-0.042	-0.167	-0.04	-0.002	0	-0.007
capitalloss yes	0.255	-0.243	0.052	-0.012	-0.198	-0.088
riskyes	-0.578	-0.306	0.103	-0.053	-0.438	-0.836***
riskalittle	0.124	0.087	0.113	-0.17	-0.03	-0.635***
N						4854
pseudoRsq						0.131
LLR						-4812.7

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 21 Discrepancy between actual and desirable sources: Single-person households (1), Marginal effects

	Exclusively Other	Exclusively E	FI and E	E and NI	Exclusively NI	Exclusively FI	Don't know
income_20_100	0.006	-0.006	-0.009	0.007	0.020	0.039 **	-0.058 **
income_100_160	-0.007	0.007	-0.007	0.004	0.000	0.057 ***	-0.053 *
income_160_200	-0.012	0.005	-0.012	0.009	0.035 **	0.028 *	-0.052 **
income_200_250	-0.007	0.009	0.002	0.017 *	0.025	0.046 ***	-0.091 ***
income_250_300	0.006	0.006	-0.004	0.011	0.003	0.036 **	-0.057 **
income_300_360	0.011	-0.003	0.005	0.012	0.019	0.017	-0.061 *
income_360_400	-0.016	0.008	-0.013	0.017	-0.008	0.040 **	-0.028
income_400_500	0.028	0.003	-0.006	0.015	-0.010	0.038 *	-0.068 **
income_500_	0.053 **	0.006	0.000	-0.008	-0.022	0.057 ***	-0.086 ***
asset_0	-0.012	-0.012	0.018	-0.008	-0.024	-0.031 **	0.069 **
asset_52_125	-0.033	-0.015	0.015	-0.010	-0.027	-0.019	0.089 **
asset_125_225	-0.049	-0.006	0.000	0.011	-0.003	-0.024	0.071 *
asset_225_400	-0.004	-0.004	0.023	-0.007	-0.018	-0.013	0.023
asset_400_608	-0.021	0.007	0.022	-0.002	-0.022	-0.001	0.017
asset_608_980	-0.045	-0.004	0.033 **	-0.009	0.009	-0.007	0.023
asset_980_1420	-0.048 *	-0.012	0.028 *	0.006	-0.009	-0.035	0.071 *
asset_1420_2300	-0.028	-0.025 *	-0.002	0.005	0.020	-0.007	0.036
asset_2300_4360	-0.050 *	-0.026 *	0.007	0.012	-0.011	-0.008	0.076 *
asset_4360_	-0.020	-0.012	0.014	-0.005	-0.012	-0.031	0.065
age25_29	0.005	-0.010	-0.008	-0.009	0.020	-0.002	0.005
age30_34	-0.018	-0.004	0.003	-0.002	0.023	-0.004	0.003
age35_39	0.019	-0.011	-0.007	-0.034 **	0.031	-0.020	0.023
age40_44	0.018	-0.018	-0.015	-0.012	0.045 *	-0.007	-0.013
age45_49	0.034	-0.003	-0.008	-0.020	0.044 *	-0.036 *	-0.011
age50_54	0.039	-0.031 **	-0.024 **	-0.013	0.064 **	-0.035 *	0.000
age55_59	0.018	-0.016	-0.005	-0.018	0.028	-0.040 *	0.033
age60_64	0.061 **	-0.004	-0.021 *	-0.006	0.074 ***	-0.036 **	-0.068 *
age65_69	0.074	-0.015	-0.270	-0.003	0.101	-0.003	0.116
male	0.063 ***	-0.013 ***	-0.008 *	-0.012 ***	-0.011	-0.006	-0.012
Know_Dep_Ins	0.095 ***	0.012 **	0.007	0.031 ***	0.114 ***	0.025 ***	-0.284 ***
Hear_Dep_Ins	0.033 **	0.012 **	0.008	0.026 ***	0.069 ***	-0.001	-0.147 ***
homeowner	-0.015	0.003	-0.015 **	-0.010 *	-0.001	0.002	0.037 **
debt	-0.020 *	0.000	0.009 *	0.010 **	0.034 ***	0.000	-0.034 **
choice_advice	0.105	-0.301	0.016	0.015	0.092	0.078	-0.005
mattress	0.182	-0.300	-0.258	0.028	0.011	0.052	0.284
Senior high	0.013	0.017	-0.002	-0.007	-0.002	0.016	-0.036
Vocational college	0.030	0.008	0.006	-0.004	-0.013	0.010	-0.036
Junior college	0.030	0.025	-0.001	-0.003	-0.007	-0.003	-0.041
University	0.028	0.023	0.013	-0.002	0.008	0.017	-0.087 **
Graduate	0.009	0.013	0.015	0.003	0.045 *	0.005	-0.091 **
sbond	0.001	0.000	-0.001	-0.001	-0.001	0.000	0.002
sstock	0.001 ***	0.000	0.000	0.000	0.000	-0.001 ***	0.001
sinv_trust	0.001 **	0.000 **	0.000	0.000	0.000	0.000	-0.002 **
sdcplan	0.001	-0.001	-0.003	-0.001	0.001	0.001	0.002
capitalloss yes	0.007	0.007	-0.003	0.002	0.004	-0.008	-0.009
riskyes	0.063 ***	0.000	0.006	0.013	0.036 **	0.008	-0.126 ***
riskalittle	0.045 ***	0.010 **	0.009 *	0.010 *	0.015	0.022 **	-0.112 ***

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 22 Discrepancy between actual and desirable sources: Single-person households (2)

	Choice of desirable sources given the choice of Exclusively FI as the actual source					
	Exclusively E	FI and E	FI, E and NI	FI and NI	Exclusively NI	Don't know
income_20_100	0.152	-0.394	0.294	-0.679**	0.191	0
income_100_160	-0.134	-0.316	0.005	-0.609**	0.071	-0.053
income_160_200	-0.031	-0.179	0.142	-0.345	0.255	0.04
income_200_250	-0.445	0.253	0.341	0.025	0.25	-0.269
income_250_300	0.111	-0.36	-0.484	-0.44	0.022	-0.086
income_300_360	0.106	0.032	0.056	-0.253	0.033	-0.114
income_360_400	0.211	0.062	0.138	-0.728**	0.137	-0.035
income_400_500	0.162	-0.16	-0.356	-0.994***	0.067	-0.093
income_500_	0.346	-0.381	-0.208	-0.707**	-0.116	-0.281
asset_0	0.302	-0.409	-0.542*	-0.137	-0.467*	0.231
asset_52_125	0.303	0.002	0.136	0.194	-0.288	0.11
asset_125_225	0.63	-0.139	0.011	-0.184	-0.454	-0.236
asset_225_400	0.232	0.111	0.033	0.309	-0.696**	-0.153
asset_400_608	-0.024	-0.620*	-0.538	-0.634	-0.867**	-0.192
asset_608_980	0.393	-0.307	0.314	0.401	-0.207	0.341
asset_980_1420	0.221	-0.418	0.597*	0.049	-0.269	0.135
asset_1420_2300	0.553	-0.351	0.482	0.133	-0.809**	0.026
asset_2300_4360	-0.185	-0.281	-0.248	0.354	-0.715**	0.118
asset_4360_	-0.015	-0.770*	0.259	0.247	-0.407	0.241
age25_29	-0.077	0.111	-0.342	-0.456*	-0.087	-0.169
age30_34	0.45	0.209	-0.309	-0.613*	0.375	-0.136
age35_39	0.21	0.27	-0.115	-0.311	0.534*	0.212
age40_44	0.853**	0.221	0.063	-0.53	0.533	-0.123
age45_49	0.222	0.119	-0.078	-0.23	0.262	-0.027
age50_54	0.102	-0.152	-0.48	-0.412	0.623*	-0.116
age55_59	0.543	-0.041	-0.296	0.147	0.756**	-0.176
age60_64	0.314	-0.528	-0.820**	-0.139	0.905***	-0.042
age65_69	0.483	-0.3	-0.634	0.043	0.691*	-0.32
male	-0.406**	-0.408***	-0.344**	-0.019	-0.175	-0.341***
Know_Dep_Ins	0.217	0.527***	0.871***	1.266***	0.966***	0.064
Hear_Dep_Ins	0.215	0.298*	0.577***	0.779***	0.595***	0.328***
homeowner	0.472**	-0.182	-0.134	-0.262	0.122	-0.092
debt	0.227	0.501***	0.568***	0.542***	0.413***	0.099
choice_advice	0.787**	0.873***	-0.4	-0.39	-0.699	-0.284
mattress	0.847	0.53	-13.73	-0.486	0.649	-0.283
Senior high	-0.369	0.494	0.284	0.209	0.541	-1.049***
Vocational college	-0.467	0.769	0.698	0.341	0.701	-1.196***
Junior college	-0.24	0.631	0.273	0.345	0.950*	-1.191***
University	-0.178	0.715	0.527	0.553	1.001*	-1.135***
Graduate	-0.39	0.662	0.872	0.572	1.135**	-1.210***
sbond	0.002	0.016	0.008	-0.008	0.004	-0.011
sstock	-0.01	-0.01	-0.017**	-0.007	0.001	-0.005
sinv_trust	0.006	0.006	0.005	-0.002	-0.001	0.002
sdcplan	-0.014	-0.003	-0.001	0.002	-0.006	-0.02
capitalloss yes	-0.116	0.032	-0.13	-0.01	0.175	0.161
riskyes	-0.404	-0.314	-0.041	-0.446*	-0.481**	-1.336***
riskalittle	0.279	0.218	0.424***	0.197	-0.009	-0.443***
N						4620
pseudoRsq						0.062
LLR						-6780.733

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 23 Discrepancy between actual and desirable sources: Single-person households (2), Marginal effects

	Exclusively FI	Exclusively E	FI and E	FI, E and NI	FI and NI	Exclusively NI	Don't know
income_20_100	0.015	0.008	-0.026	0.022	-0.044 **	0.021	0.005
income_100_160	0.034	-0.003	-0.017	0.006	-0.036 **	0.014	0.002
income_160_200	0.000	-0.001	-0.013	0.009	-0.024	0.024	0.006
income_200_250	-0.001	-0.019	0.018	0.021	0.000	0.022	-0.041
income_250_300	0.045	0.009	-0.019	-0.024	-0.023	0.012	0.001
income_300_360	0.010	0.005	0.004	0.005	-0.016	0.005	-0.014
income_360_400	0.009	0.009	0.006	0.011	-0.048 **	0.015	-0.003
income_400_500	0.049	0.011	-0.003	-0.015	-0.060 ***	0.017	0.001
income_500_	0.062	0.020	-0.018	-0.004	-0.039 *	0.002	-0.024
asset_0	0.032	0.016	-0.024	-0.029 *	-0.003	-0.036 *	0.045 *
asset_52_125	-0.012	0.012	-0.002	0.007	0.012	-0.029	0.013
asset_125_225	0.036	0.029	-0.005	0.006	-0.007	-0.035	-0.025
asset_225_400	0.022	0.012	0.011	0.005	0.025	-0.060 **	-0.016
asset_400_608	0.111 **	0.009	-0.027	-0.018	-0.025	-0.057 **	0.006
asset_608_980	-0.037	0.013	-0.028	0.016	0.022	-0.027	0.041
asset_980_1420	-0.008	0.009	-0.032	0.038 *	0.002	-0.027	0.018
asset_1420_2300	0.016	0.024	-0.024	0.034 *	0.012	-0.072 ***	0.010
asset_2300_4360	0.032	-0.005	-0.016	-0.011	0.030	-0.060 **	0.029
asset_4360_	0.011	0.001	-0.055 **	0.019	0.019	-0.036	0.041
age25_29	0.039	0.000	0.015	-0.016	-0.025	0.001	-0.013
age30_34	0.007	0.019	0.017	-0.019	-0.041 **	0.037	-0.019
age35_39	-0.040	0.005	0.014	-0.013	-0.027	0.042	0.019
age40_44	-0.024	0.033 **	0.013	0.001	-0.040 *	0.045	-0.027
age45_49	-0.008	0.008	0.008	-0.006	-0.017	0.023	-0.007
age50_54	0.013	0.005	-0.008	-0.029	-0.027	0.060 **	-0.015
age55_59	-0.025	0.020	-0.007	-0.023	0.006	0.064 **	-0.036
age60_64	0.006	0.013	-0.037	-0.052 **	-0.009	0.085 ***	-0.006
age65_69	0.013	0.021	-0.019	-0.039 *	0.004	0.066 **	-0.046
male	0.068 ***	-0.011 *	-0.019 **	-0.013	0.009	-0.003	-0.031 ***
Know_Dep_Ins	-0.137 ***	-0.003	0.016	0.035 ***	0.064 ***	0.060 ***	-0.034 **
Hear_Dep_Ins	-0.108 ***	-0.001	0.004	0.021 **	0.036 ***	0.032 **	0.016
homeowner	0.011	0.021 ***	-0.011	-0.007	-0.016	0.014	-0.011
debt	-0.083 ***	0.002	0.023 **	0.024 **	0.024 **	0.021 *	-0.011
choice_advice	0.030	0.035 **	0.069 ***	-0.022	-0.021	-0.057	-0.033
mattress	0.389	0.071	0.114	-0.828	0.034	0.145	0.075
Senior high	0.032	-0.013	0.040	0.020	0.016	0.055	-0.150 ***
Vocational college	0.011	-0.019	0.056	0.043	0.021	0.065	-0.179 ***
Junior college	0.013	-0.009	0.047	0.016	0.022	0.089 **	-0.178 ***
University	-0.012	-0.009	0.049	0.029	0.032	0.088 **	-0.177 ***
Graduate	-0.017	-0.018	0.044	0.050	0.032	0.099 **	-0.190 ***
sbond	0.000	0.000	0.001 *	0.001	-0.001	0.000	-0.002
sstock	0.002 **	0.000	0.000	-0.001 **	0.000	0.000	0.000
sinv_trust	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
sdcplan	0.002 *	0.000	0.000	0.000	0.000	0.000	-0.002
capitalloss yes	-0.015	-0.006	0.000	-0.010	-0.003	0.013	0.020
riskyes	0.158 ***	-0.003	0.001	0.018	-0.008	-0.013	-0.153 ***
riskalittle	0.002	0.012	0.015	0.027 ***	0.013	-0.001	-0.067 ***

Note: FI stands for financial institutions, E stands for experts, NI stands for neutral institutions, FF stands for family and friends.
Parameter estimates for occupation, region, survey year are not reported.

Table 24 Average treatment effects: Information sources and risky asset holdings

Family household

Base Exclusively FI (actual)	FI and FF	Exclusively Other	FI and E	Exclusively FF	Exclusively E	FI, E and FF
ATE on Sstock	-0.345**	1.453***	0.993***	0.049	1.153***	0.33
ATE on Sinv_trust	-0.714***	-0.456**	-0.053	-0.701*	-0.133	-0.686***
N	14323	12399	11846	11745	10957	10710
pseudoRsq	0.019	0.049	0.095	0.075	0.041	0.049
LLR	-8990.253	-6434.522	-5363.561	-5328.654	-4156.873	-3631.015
% ccorrectly classified	66.31%	76.62%	80.80%	80.57%	86.51%	88.50%
Area under ROC	0.5928	0.6513	0.7087	0.6924	0.6429	0.6655

Single person household

Base Exclusively FI (actual)	Exclusively Other	Exclusively FF	FI and FF	Exclusively E	FI and E
ATE on Sstock	2.123***	0.893**	0.623	1.933***	0.509
ATE on Sinv_trust	-0.835***	-0.192	-0.366	-0.139	-0.123
N	10439	6954	6428	6234	6175
pseudoRsq	0.062	0.047	0.1	0.079	0.09
LLR	-6786.548	-2742.458	-3580.82	-2951.628	-2525.055
% ccorrectly classified	61.6%	74.8%	80.1%	82.6%	83.6%
Area under ROC	0.6634	0.7167	0.6983	0.6513	0.7111