Financial Literacy and the Demand for Financial Advice

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PRELIMINARY – PLEASE DO NOT QUOTE

Abstract

The fact that households display low financial literacy does not imply that they will make poor financial decisions, as long as they receive advice from qualified sources. Using the 2007 Unicredit Customers' Survey, this paper investigates the role of investors' financial literacy on two aspects of the demand for financial advice: which sources of information and advice are chosen, and to what extent customers rely on the advice of professional financial advisors. First, financial literacy is related to the use of 'formal' rather than 'informal' sources of advice. Second, when looking at the relationship between investors and professionals, financial literacy increases the probability of consulting the bank/financial advisor, as opposed to investing without consulting any professional or delegating them. This suggests that advisors are seldom used by investors that need them the most, providing a rationale for financial education policies.

Keywords: financial literacy, financial advice, delegation, trust
JEL codes: D12, D8, D91, G11

1 Introduction

The growing research on financial literacy suggests that consumers' knowledge of basic financial principles and products is quite scarce, and that it may not be sufficient to guarantee that households make sound financial decisions. For instance, more financially illiterate households are more prone to high-cost borrowing (Lusardi and Tufano, 2008), lack of planning and saving for retirement (Lusardi and Mitchell, 2006, 2007), portfolio under-diversification (Guiso and Jappelli, 2008; Kimball and Shumway, 2007), and so on.

However, one may argue that a low level of households' financial literacy does not necessarily imply that they will make poor financial decisions. In principle, households could seek advice and guidance from qualified sources, such as independent financial advisors, bankers, brokers, and other professionals. As long as households can resort to the advice of experts for their financial decisions, the lack of financial literacy may look less worrisome, as external advice could act as a substitute for learning by one's self.

In practice, a number of factors may limit consumers' willingness to consult professionals and rely on their recommendations. Financial decisions are not only difficult because of the skills and technical knowledge required, but also because potential sources of information and advice may not be completely fair and may not act in the consumers' interest. For instance, in markets for technically complex products, such as financial ones, consumers often rely on the advice provided by representatives of the seller, who perform the conflicting tasks of advising customers and selling financial products (European Commission, 2009).

Conflicts of interest and misselling practices, i.e. selling a product that may not match a customer's needs, have been the focus of some theoretical research. Conflicts of interest typically arise from the structure of advisor's incentives and from market imperfections (Bolton et al., 2007; Daniel et al., 2002; Inderst and Ottaviani, 2009; Krausz and Paroush, 2002), and may affect consumers' demand for advice through different channels. For instance, investor's may be less willing to seek and follow advice if they are more aware of advisors' conflict of interest (Hackethal, Inderst, and Meyer, 2010), or if they know they will receive more or less 'informative' advice according to their own financial literacy.

The previous literature on the use of external sources of advice suggests that the use of 'experts' is not uniformly distributed in the population. Some papers report evidence of the preferred sources of information and advice among US and European consumers (Lusardi, 2003; Lusardi and Mitchell, 2006; EBRI, 2007; van Rooij et al., 2007). In general, they find that higher financial literacy investors are more likely to use 'formal' sources of information and advice (e.g., newspapers, internet and financial advisors), as opposed to 'informal' ones, such as friends, relatives, colleagues and neighbors.

This is consistent with the findings of Hackethal, Haliassos, and Jappelli (2009), who devote part of their analysis to the demand for financial advice and argue that advisors are consulted by those who need them relatively less, since they are matched with wealthier and older investors, rather than with poorer and inexperienced ones.

This paper contributes to the literature by investigating the role of financial literacy on the demand for financial advice. In particular, I will study which investors seek advice, from whom, and to what extent they rely on advice.

This is relevant for consumers, scholars and policy-makers. Consumers are affected by (whether and) which advice they demand because investment performance and households' wealth accumulation depend on who ultimately takes portfolio management decisions. Moreover, the concerns expressed by scholars and policy-makers about the lack of financial literacy would look less worrying if individual gaps were compensated by external advice coming from reliable and qualified sources.

The analysis explores empirically the choice among sources of financial information and advice, and the extent to which customers rely on the advice provided by their bank (or their financial advisor), using the 2007 Unicredit Customers' Survey (UCS). Even though not representative of the Italian population as a whole, the survey is a representative sample of the customers of one of the largest Italian banks and contains detailed information on socio-demographic characteristics, wealth holdings, and portfolio composition. The 2007 survey also contains additional information on financial literacy, trust and investment attitudes.

The rationale for concentrating on relations with intermediaries has to do with the fact that they represent the main source of financial information in Italy. Figure 1 reports evidence from a survey of Italian investors' behavior (Beltratti, 2007), showing that banks are the main source of financial information and advice, both with respect to professional sources of advice and overall. The same is true in Figure 2 from the UCS, showing that banks are the sources of advice visited most often. This preference for intermediaries among professional sources of advice is in part explained by the fact that the supply of independent financial advice (fee-based) is very limited in Italy.

This paper improves upon the existing literature in several ways. Some of the previous papers (Lusardi, 2003; Lusardi and Mitchell, 2006; EBRI, 2007; van Rooij et al., 2007) provide only descriptive evidence based on univariate statistics, while I am able to investigate the issue in a multivariate framework. Moreover, this paper extends the analysis beyond the choice of preferred sources of advice, by focusing on the relationship between investors and professional financial advisors and by studying how much individuals rely on the advice of experts. In doing this, I extend the analysis of Hackethal, Haliassos, and Jappelli (2009) by including other important factors,

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such as financial literacy and trust, which are missing in their analysis (due to the use of administrative data). Finally, the paper addresses potential endogeneity issues regarding financial literacy and trust.

The results indicate that, even controlling for a number of important factors such as trust towards one's advisor, self-confidence in own financial ability, wealth and opportunity cost of time, financial literacy is an important factor in the demand for financial advice. First, the positive association between financial literacy and the use of formal sources of advice previously found in the literature is confirmed. Second, financial literacy increases the probability of consulting the bank/financial advisor, while at the same time it reduces that of delegating. In a context where the supply of independent financial advice is extremely limited, this may be the wisest choice. These findings confirm previous theoretical results that advisors are less used by investors who need them the most. This implies that the presence of qualified sources of advice may not be enough to counteract the effects of the low level of financial literacy and that further policy measures may be need to ensure sound financial decision-making.

The rest of the paper is organized as follows. Section 2 discusses the previous literature, highlighting the potential determinants of the demand for financial advice and the role of financial literacy. Section 3 presents the dataset and the construction of the main variables used in the analysis. Section 4 describes the empirical strategy for estimation, while section 5 presents the results for the use of financial advisors in comparison to informal sources, and for the extent of reliance on on financial advisors. Section 7 concludes.

2 Background

2.1 Financial literacy and financial advice

Deciding how to allocate one's savings in risky investments is not an easy task for households and financial literacy is likely to have a role in this decision. However, the literature studying specifically financial literacy has explored the demand for financial advice only incidentally, even though the ability "to know where to go for help" is recognized as an important element for financial well-being (OECD, 2008; President's Advisory Council on Financial Literacy, 2008).[1]

As financially literate investors have a better understanding of financial

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[1] "Financial education is the process by which financial consumers/ investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (OECD, 2005, 2008)".

products and concepts, one might expect them to have an easier access to financial markets, suggesting that they may have a lower need for financial advisors. Financial knowledge can be interpreted as a way to reduce participation costs, since it has to do with "understanding basic investment principles as well as acquiring enough information about risks and returns to determine the household's optimal mix between stocks and riskless assets" (Vissing-Jorgensen, 2004, p. 179), which is typically identified as one of the main costs to stock market participation.[2] van Rooij et al. (2007) show that financial literacy is related to higher stock market participation among Dutch households. If financial literacy increases stock market participation, then it may also increase the probability of investing autonomously and having less of a need for external support.

However, much of the existing literature suggests the opposite, i.e. that advice is demanded by knowledgeable investors and not by financially illiterate ones.

Earlier works provide some descriptive evidence about the demand for financial advice. Lusardi (2003) shows that according to the 1995 Survey of Consumer Finances financial planners/brokers are among the sources of information used most often by 50-61 years-olders to make decisions about saving and investments (together with relatives/ friends and magazines/ newspapers). However, respondents in the 2007 Retirement Confidence Survey show some reluctance in the use of formal sources of advice for retirement planning (EBRI, 2007).

Further empirical (but mainly descriptive) evidence on financial literacy suggests that it may affect the choice of financial advisors and information sources (Bernheim, 1998). Lusardi and Mitchell (2006) show that individuals who are correct about three financial literacy questions tend to use formal tools for retirement planning (attend retirement seminar; use calculator/worksheet; consult a financial planner) rather than informal ones (talk to family, friends, coworkers). At the same time, those who used more sophisticated tools were always more likely to get the literacy questions right, as compared to those who relied on personal communications. Similar evidence is found in the Netherlands, where those who display high levels of basic and advanced financial literacy are less likely to rely on informal sources of information (family, friends) and are more likely to rely on formal sources (read newspapers, consult financial advisors, and seek information on the internet) (van Rooij et al., 2007).[3] Moreover, Hackethal, Haliassos,

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[2]Clearly, information barriers to stock market participation have to do also with cognitive abilities (Christelis et al., 2010).

[3]One may argue that also 'formal' sources may act misleadingly, and that not necessarily resorting to them is a guarantee of sound financial decisions. For instance, investors may follow unscrupulous financial 'gurus', or use unreliable internet advisory websites and financial press. However, these sources are still more likely to provide valuable information than non-professional sources, such as friends, neighbors and relatives. This can be the

and Jappelli (2009) show that advisors are matched with wealthier and older investors, rather than with poorer and inexperienced ones, suggesting that the demand for advice might be a complement rather than a substitute to financial literacy.

Finally, the idea that advice is demanded by more knowledgeable investors is shared also by the psychological research. This literature points to the fact that individuals who do not know much about (any) subject tend not to recognize their ignorance, and so fail to seek better information. Relatively less knowledgeable people are more likely to overestimate their abilities, and as a consequence of their incompetence they also lack the metacognitive ability to realize it (Kruger and Dunning, 1999). This effect appears to be there also in the financial domain (Forbes and Kara, 2010).

Overall, this evidence suggests that a further investigation of the effect of financial literacy on the demand for advice – especially in the relation with professional sources of advice, such as banks, brokers and financial advisors – is needed.

2.2   Other determinants of the demand for financial advisors

Even though self-assessed financial knowledge is often correlated with more objective measures (Guiso and Jappelli, 2008; van Rooij et al., 2007), it is likely to drive the demand for financial advice independently from the latter. Georgarakos and Inderst (2010) study from a theoretical point of view the effect of investors' (perceived) financial capability on their decision to participate to the stock market and whether to do so by relying on a professional advisor or on their own judgment. As expected, when perceived financial capability is higher the investor is more likely to hold risky assets and to rely on her own knowledge instead of an advisor.

Moreover, it is important to disentangle self-assessed and test-based financial literacy also because financial education initiatives aiming at improving financial literacy may have the side-effect of raising self-confidence without improving ability, leading to worse decisions (Willis, 2008).

Another potentially important factors is trust in advisors. As was argued before, there are reasons to believe that the market for financial advice is imperfect. Not only advisors do not appear to correct investors' behavioral biases (Mullainathan et al., 2010; Shapira and Venezia, 2001), but it is apparent that conflicts of interest may affect the supply of financial advice (European Commission, 2009). As a matter of fact, cheating does happen in financial markets. Data from the European Social Survey 2004 show that,

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case especially if individuals pair with similar people in terms of education and financial literacy (i.e, if low financial literacy investors have low financial literacy friends), and if investment knowledge is shared through social interaction with peers (Hong et al., 2004; Duflo and Saez, 2002).

when asked how many times they had been cheated by a bank or insurance company in the last 5 years, non-negligible shares of the population reported of having experienced cheating more than once. Figure 3 shows the distribution to this answer for some European countries.

In all the situations where investors may be afraid of being treated unfairly by their advisor or broker, trust becomes important for the investment to take place. Gambetta (1998) defines trust as "the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action (p. 217)". Recent research has shown that lack of trust in the financial system and financial intermediaries reduces the probability of investing in the stock market. Guiso et al. (2008) show that individuals who think that most people can be trusted are more likely to buy stocks, and conditional on participation to the stock market they hold more. Moreover, they show that personalized trust (i.e. trust in one's own bank or financial advisor) has a positive role in stockholding. Similarly, Pasini and Georgarakos (2009) report evidence of a positive effect of trust in financial institutions on stock market participation across countries. This is because when the investor perceives a high probability of being cheated she reduces her expected return from a financial investment, and if this is not high enough she will be better off staying out of the stock market. Trust in financial institutions appears to matter also for participation in 401(k) plans. Agnew et al. (2007) find that (lack of) trust is related to the decision to quit the plan in the presence of automatic enrollment.

Last but not least, wealth and the opportunity cost of time are also important. Hackethal, Haliassos, and Jappelli (2009) study the investment behaviour of the customers of a large German brokerage firm and investigate the probability that investors have their accounts run by an independent financial advisor. They show that advisors tend to be matched with wealthier and older investors, who presumably delegate their investment decisions (also) because of a high opportunity cost of time.

3   Data and descriptives

The Unicredit Customers' Survey is a representative sample of the customers of one of the largest Italian banks (Unicredit group). Eligible interviewees are account holders with at least 10,000 euro in the bank at the end of 2006. The 2007 UCS survey samples 1,686 individuals. Even though sample selection is based on individual Unicredit customers, the survey has detailed information on demographic characteristics of all components of account holders' households, including their labour market position, income, and household wealth (financial wealth, real assets, insurance policies and pen-

sions).[4] Additionally, the account holder is asked about her relations with the bank, her attitudes towards investments, and her level of financial literacy. The only information available based on the bank's administrative records is related to financial wealth holdings, while other (potential) pieces of administrative information – for instance about portfolio allocation, risk profile, advisors fixed effects, etc. – are not available.

Table 1 describes the construction of the main UCS variables used in the analysis, and contains description and data sources for the variables not contained in the Unicredit dataset.

Summary statistics for the variables used in the analysis are reported in Table 2. Bank customers are on average 55 years of age and about one third are females; 32% are employees, 28% are self-employed and 33% are retired; they earn an average (total) individual income of 50,000 euro per year and 45% of the sample has been a customer of Unicredit for at least 20 years.

In addition, Table 3 shows a comparison between the UCS and the Bank of Italy's Survey on Household Income and Wealth (SHIW), which is a nationally representative sample. To improve comparability, I selected three sub-samples from the SHIW: the sample of household heads (because in the SHIW financial literacy tests are asked only to household heads), the sample of those who hold an account at a bank or at a post office (because the UCS only samples account holders), and finally the sub-sample of household heads who hold a bank/post account. In general, the Unicredit sample is older, more educated, more likely to live in the North, and with higher family income. Given that financial literacy is correlated with education, income and is usually higher in northern regions, it is reasonable to expect the UCS sample to display higher financial literacy than the SHIW one. However, it is hard to make financial literacy comparisons. First, it is not possible to compare single items since tests are different.[5] Second, it is not easy to make comparisons even by looking at the overall performance. On average UCS respondents report more correct answers, display a considerably lower number of "do not know"s and a lower fraction of individuals gave zero correct answers. Nevertheless, in the UCS there is a higher share of incorrect answers than in the SHIW.

Let us now describe in more detail the main variables used in the analysis. The dependent variables refer to the use of various sources of advice, and

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[4]Analyzing respondents who are customers of the same bank has advantages and shortcoming. One drawback is that the choice of the bank is certainly not random and it might be driven by the same factors that affect the extent of reliance on the bank as a source of advice. This selection, however, cannot be controlled for. Moreover, cross-bank heterogeneity cannot be used to explore, for instance, cost effects. On the positive side, analyzing customers of the same bank reduces unobserved heterogeneity (for instance in terms the cost and type of advice provided, etc.).

[5]The questions about inflation is similar, even though with a slightly different wording. On this questions the share of correct answers is much higher in the nationally representative SHIW sample than in the Unicredit one.

of professional advisors in particular. Descriptives about the use of different sources are reported in Table 4. Banks and brokers (*promotori finanziari*) are those visited most often, while friends/ relatives/ colleagues and internet are rarely used.[6] As for the extent of reliance on advice from a professional about financial investments decisions, respondents' choice between investing autonomously or delegating is reported in Table 5. About 12% of the respondents with risky assets decide completely by themselves, 68% ask for their banks's / advisors' advice before forming their own decisions, while almost 20% rely mostly or completely on advisors' indications.

Other variables of interest are financial literacy and trust. The financial literacy measure is constructed as in Guiso and Jappelli (2008) and equals the number of correct answers to eight questions on interest, inflation, understanding risk diversification and understanding the riskiness of various financial products. The wording of the tests is reported in Table 1 and the answers are displayed in Table 6. The average index corresponds to 4.7 correct questions out of 8 and less than 1% of the sample can answer all of them correctly; the overall distribution of correct answers is displayed in Figure 4.

The measure of personalized trust is based on how much trust the respondent has in his advisor concerning his financial investments. The average answer is 3.8 on a scale from 1 to 5, where higher values indicate higher trust.

4   Empirical strategy

To assess the impact of financial literacy on the demand for financial advice, I conduct two sets of analyses. In the first one, I analyze in a multivariate model investors' use of different sources of financial information and advice and their preferences for professional sources over informal ones, such as friends, relatives and colleagues. This allows to verify whether the positive relation between financial literacy and use of formal sources, shown in the US (Lusardi and Mitchell, 2006) and the Netherlands (van Rooij et al., 2007), holds also in the Italian data. In the second part, I concentrate on the relation between investors and professional financial advisors, and I analyze the extent of reliance on financial advisors. As about 6% of the sample reports that Unicredit is not their main bank, these observations are dropped from the analysis, and only observations were Unicredit is the main or only bank are used.

Descriptives about the use of various sources of advice are reported in

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[6]In Italy trade unions too can be considered as a source of financial advice, especially in relation to occupational pension funds. However, I will not consider their role in the present study, both because the focus here is not on retirement savings and, above all, because no information about workers' relations with trade unions is present in the data.

Table 4. Banks and brokers are those visited most often, while friends/ relatives/ colleagues and internet are seldom used.

The empirical specification used to assess the preference among different sources of advice is the following probit model with selection

$$P_{jk} = 1[X_1\beta_1 + u_1 > 0]$$
$$S = 1[X\delta_2 + v_2 > 0]$$

where P_{jk} is a dummy taking value one when source j is used very often or when source j is preferred to source k, depending on specifications. I define a source j to be preferred to source k when source j is used more often than source k. Informal sources include family, friends, and colleagues. Explanatory variables in X_1 include gender, age, years of education, occupational status, (macro) regions of residence, log individual income, financial wealth categories,[7] experience, whether the respondent works in the financial sector, length of bank relationship, financial literacy, self-confidence and trust, and X includes X_1 plus some variables serving as exclusion restrictions. (u_1, v_2) is assumed to be distributed as a bivariate normal. Source use/preference is observed only when investors hold risky assets and devote a positive amount of time to becoming informed about financial issues (this defines the sample selection, i.e. $S = 1$). The exclusion restrictions used are risk preferences and zero saving rate, because they affect the propensity to hold risky assets while they are not related to the frequency of use of any source of advice. It is more difficult to find credible exclusion restrictions affecting the propensity to spend at least some time to gather financial information. The selection turns out to be not significant (i.e., not statistically different from random) in most specifications.

In the second part of the analysis I analyze the effect of financial literacy on the extent of investors reliance on their financial advisor. Descriptive statistics about the choice between investing autonomously or delegating are reported in Table 5.

Table 7 reports the financial literacy distribution across modes of investment, showing that investors choosing an intermediate level of delegation

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[7]Financial wealth (dummies) are based on the bank's administrative records (indicating the amount of financial wealth held by the customer at the end of the year 2006) and are 'augmented' with self-reported financial wealth when the self-report exceeds the administrative information. This is to allow for the possibility that respondents hold additional financial assets outside their Unicredit account. Basing this variable on administrative data corrects the heavy item non-response and under-reporting of the 'subjective' financial wealth measure, where about 54% of the sample refuses to indicate in which range their wealth is included and the remaining respondents who provide an answer often under-report their holdings (i.e., indicate a lower bracket with respect to the administrative data).

(i.e., those who ask for the bank/advisor's opinion before investing) have higher financial literacy than those on the two extremes (i.e., those either investing by themselves, or fully delegating). To see whether this is confirmed in a more thorough analysis, I estimate an ordinal response model of the probability of choosing one of the five possible values.

Since the question about the extent of reliance on financial advice is asked only to a sub-sample of the survey (i.e., those who hold risky assets), the relation is first estimated by ordered probit controlling for the selection bias, and using the same exclusion restrictions as before (i.e., risk preferences and zero saving rate). As the selection is not significant,[8] I proceed with the econometric analysis disregarding the selection issue.

I then estimate the following generalized ordered probit model of chosen delegation level[9]

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\begin{aligned}
P(D_i = 1) &= F(-X\beta_1) \\
P(D_i = j) &= F(\kappa_j - X\beta_j) - F(\kappa_{j-1} - X\beta_{j-1}), \quad j = 2, ..., J-1 \quad (1) \\
P(D_i = J) &= 1 - F(\kappa_J - X\beta_J)
\end{aligned}
$$

where $J = 5$, $F(\cdot)$ is the cumulative normal distribution, X is the vector of independent variables (which includes gender, age, years of education, occupational status, (macro) regions of residence, log individual income, financial wealth, experience, whether the respondent works in the financial sector, length of bank relationship, financial literacy, self-confidence and trust), and D_i is the delegation level chosen by individual i, where:

$D_i = 1 :$ investor i decides completely by herself, the bank simply executes her decisions

$D_i = 2 :$ investor i tells the bank/advisor how she intends to invest and asks their opinion before deciding

$D_i = 3 :$ investor i considers bank/advisor's proposals before deciding

$D_i = 4 :$ investor i relies mainly on bank/advisor for her investment decision

$D_i = 5 :$ investor i lets the bank/advisor decide everything

In the generalized ordered probit model, the parameters β_j are allowed to vary across alternatives by generalizing the threshold parameters and making them dependent on covariates

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\kappa_j = \tilde{\kappa}_j + X\gamma_j
$$

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[8]Results for the estimation by ordered probit controlling for the selection bias are in Table 9. Future research will be devoted at estimating the same generalized ordered probit regression controlling for the selectivity bias.

[9]See Greene and Hensher (2010); Boes and Winkelmann (2006); Terza (1985).

Hence, the parameters β_j in (1) are defined as $\beta_j = \beta - \gamma_j$. In practice, equality of coefficients $\beta_1 = ... = \beta_J$ is not imposed when statistical tests reject the null of equality at the 5% level, implying that for these variables the parallel-lines assumption is violated; otherwise equality is imposed. In the present case, the parallel-lines assumption is violated for financial literacy and trust in advisors.

5 Results

5.1 Use of advisors and other sources

A common results found in the previous literature is that high financial literacy is usually associated with a preference for formal sources of information and advice rather than for informal ones (Bernheim, 1998; Lusardi and Mitchell, 2006; van Rooij et al., 2007). However, so far these results have been reported in univariate analyses.

Table 8 reports the marginal effects of financial literacy on the probability of using the bank often or very often as source of advice (Column I); on the probability of using the bank or a broker often or very often (Column II); on the probability of using informal sources often or very often (Column III); on the probability of using the bank more often than informal sources (Column IV); on the probability of using the bank or a broker more often than informal sources (Column V). The results in the fourth and fifth columns show that financial literacy increases the probability of preferring professional advisors to informal sources (i.e., friends/relatives/colleagues) by about 4-5 percentage points. As the first three columns show, however, this effect is determined by a tendency of more literate customers to avoid informal sources, rather than preferring formal ones. It appears that financial literacy is not associated with the use of professional financial advisors, while it is related with a more infrequent use of friends/family/colleagues.

5.2 How much to rely on advisors

This section investigates the effect of financial literacy on the extent of reliance on advice from a professional financial advisor.

Table 10 reports the marginal effects from a generalized ordered probit regression on the probability of choosing one the five options about autonomous investment/delegation. The most interesting result is that the effect of financial literacy is non-monotonic across delegation levels, thus confirming the descriptive evidence found in Table 7.[10] Higher financial literacy reduces the probability of choosing to invest autonomously and it also reduces the probability of delegating financial decisions mostly or completely

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[10]The same result about financial literacy, also quantitatively, is found estimating a non-ordinal model, such as a multinomial logistic regression (not reported here).

to the advisor. On the contrary, financial literacy increases the probability of choosing the intermediate option, i.e. consulting the advisor, while at the same time maintaining the final decision over investments. This is consistent with the general finding that financial literacy is associated with a tendency to consult professionals, and lends support to the results of Hackethal, Haliassos, and Jappelli (2009) showing that advice is demanded by older and wealthier investors, rather than by poorer and inexperienced ones. The fact that more knowledgeable investors are *more* likely to consult an advisor but *less* likely to delegate is also consistent with the finding of Hackethal, Inderst, and Meyer (2010) that investors more interested in financial matters (and presumably more knowledgeable) are less likely to follow advisor's recommendations, conditional on receiving advice.

Other interesting results emerge from Table 10. More educated investors and those working in the financial sector are less likely to delegate and more likely to invest by themselves. The same is true for investors who have higher perception of their own financial knowledge. This supports the theoretical predictions of Georgarakos and Inderst (2010), who argue that investors with higher perceived financial capability should be more likely not only to hold risky assets, but also to invest relying on their own judgment instead of an advisor.

The fact that women are more likely to delegate is not easy to interpret. It may be seen as an indirect effect of self-confidence: as women are typically found to be less overconfident than men (Barber and Odean, 2001), they might be less prone to invest by themselves. Other explanations, however, may be equally valid (e.g., they are less used than men to manage household's finances). As expected, trust towards one's own advisor increases the likelihood of delegation and reduces that of autonomous investment. On the other hand, the length of the relationship with the bank does not have a clear effect on the delegation choice.

Some variables that might be considered to proxy for investors' opportunity cost of time – such as their occupational status, or their individual income – do not affect the probability of delegating or investing autonomously. This is in contrast with the previous findings of Hackethal, Haliassos, and Jappelli (2009), maybe because the Unicredit sample is richer than the national average. This may reduce the heterogeneity across the variables that are related to the opportunity cost. Finally, financial wealth appears to be related to a tendency to delegate (even if not all wealth categories are significant), consistently with Hackethal, Haliassos, and Jappelli (2009).

6 Robustness checks

6.1 Financial literacy indices

As discussed in section 3, the financial literacy index is constructed as in Guiso and Jappelli (2008). This equals the number of correct answers to four questions about interest, inflation and risk diversification, plus four questions based on understanding the riskiness of various financial products. This index may be problematic not only because it involves some degree of arbitrariness, but also because it may be overly dependent on some specific question(s).

In this section I estimate again model (1) with alternative financial literacy indices, showing that results remain qualitatively the same. For ease of exposition let us define the following variables, corresponding to the single 'items' constituting the indices (detailed wording is in Table 1):

- *Inflation*: correct on quiz about inflation
- *Interest*: correct on quiz about interest
- *Diversif1*: correct on first quiz about risk diversification (definition of diversification)
- *Diversif2*: correct on second quiz about risk diversification (choose better diversified portfolio)
- *Risk1*: correct on first quiz about risk (Private bonds are at least as risky as deposits)
- *Risk2*: correct on second quiz about risk (Stocks at least are as risky as government bonds)
- *Risk3*: correct on third quiz about risk (Stocks mutual funds are at least as risky as bonds mutual funds)
- *Risk4*: correct on fourth quiz about risk (Housing is at least as risky as deposits)

The following indices will be employed (all of them are re-scaled so as to range between 0 an 10):

- Financial literacy 1. It is the same the main index (Guiso and Jappelli, 2008), rescaled: $10 \times (Inflation + Interest + Diversif1 + Diversif2 + Risk1 + Risk2 + Risk3 + Risk4)/8$

- Financial literacy 2. Since quizzes $Risk1 - Risk4$ are highly correlated among themselves, this index gives them a lower weight: $10 \times [Inflation + Interest + Diversif1 + Diversif2 + (Risk1 + Risk2 + Risk3 + Risk4)/4]/5$

- Financial literacy 3. It is the same as the previous one with the difference that the inflation question is eliminated, because it shows a

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very low correct response rate (34%) – much lower than a similar question in the SHIW (60%) – which might be related to a misinterpretation of the question rather than to financial illiteracy. The index is: $10 \times [Interest + Diversif1 + Diversif2 + (Risk1 + Risk2 + Risk3 + Risk4)/4]/4$

- Financial literacy 4: $10 \times [Interest + Diversif1 + Diversif2]/3$

Table 11 reports estimation results, showing that the effect of financial literacy is qualitatively the same across indices 1 to 3, while results for 'Financial literacy 4' are insignificant on almost all values of the dependent variable.

6.2 Financial literacy endogeneity

The fact that financial literacy is associated with the preference for formal sources of advice and with the tendency to consult rather than delegate to professional advisors does not necessarily provide indications on the direction of causality. Financial literacy may be positively correlated with a preference for advisors because individuals *learn* from formal sources, rather than because financially literate individuals *choose* formal sources of advice. Similarly, investors who consult professional advisors are more likely to learn from them than those who delegate or invest by themselves.

To address this issue, I concentrate on potential learning from the bank and I consider various sub-samples of respondents who should be more likely to learn from the bank (i.e. those who use the bank often or prefer the bank to friends, and those who report $D_i = 3$). Then I check whether financial literacy increases with the length of bank relationship, under the assumption that if there is learning from the bank, it should be related to the length of relationship. Table 12 shows that financial literacy is not related to being a long-time customer of Unicredit in any of the sub-samples considered.

As it is arguable that financial literacy may still be endogenous in spite of this evidence, the same relation of model (1) is estimated controlling for endogeneity via the control function approach (Rivers and Vuong, 1988).[11] The instruments for financial literacy are the average financial literacy at regional level (taken from the Bank of Italy's Survey on Household Income and Wealth, SHIW) and experience with financial products (from UCS). Financial literacy at regional level is likely to increase individual knowledge through social interaction. The measure of previous experience is based on

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[11]When estimating a probit model with a continuous endogenous variable, the two-step approach due to Rivers and Vuong (1988) consists in saving the residuals from the first stage regression and then plugging them into the structural probit equation. This procedure can be easily extended to ordered probit response models (Wooldridge, 2007), and can analogously be extended to a generalized ordered probit model, since the generalization does not affect the error term of the discrete choice equation.

a question asking at what age the individual first traded a given financial product (either government bonds, stocks or mutual funds). This is strongly related to financial literacy, while it is not related to the extent of delegation (controlling for age and length of bank relationship, see Table 10). Estimates from a first stage regression are reported in Table 13, together with statistics about instruments validity. Both experience and regional financial literacy positively and significantly affect the financial knowledge of Unicredit customers, and taken together produce an F statistic of over 18, indicating that the instruments have sufficient explanatory power. Moreover, the Hansen's J test does not reject the null of instruments validity (p-value 0.169).

Results from Table 14 show that the positive relation between financial literacy and the propensity to consult an advisor is robust to controlling for endogeneity and is even stronger than in Table 10. The effect of financial literacy on investing autonomously and on delegating turns insignificant, even though it carries the same (negative) sign as before.

6.3 Relations with banks and brokers

As was previously mentioned, the estimation sample includes only observations where Unicredit is the main or only bank (excluding about 6% of the total sample). A further check uses alternative sample selections, showing that results are robust to a more stringent selection of the sample. Table 15 reports estimates of model (1) based on the following sub-samples:

- Unicredit is the main or only bank (i.e., the baseline), with N = 1,116

- Unicredit is the only bank, with N = 802

- Unicredit is the main or only bank and the respondents uses brokers for advice never, seldom or sometimes, with N = 847

- Unicredit is the main or only bank and the respondent never or seldom uses brokers for advice, with N = 705

Estimates from Table 15 show that results in all rows are quantitatively very similar, even though in the third and fourth rows the effect of literacy on investing autonomously becomes insignificant (potentially also because of a reduction in sample size).

6.4 Trust endogeneity

Trust towards financial advisors can be endogenous with respect to the choice of delegating if an investor increases her trust because she delegated in the past and was satisfied with the advice received, or if respondents try to rationalize ex-post their delegation behavior when answering to the trust question.

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To verify the robustness of the results of Table 10 with respect to the potential endogeneity of trust, its effect on delegation is estimated using instrumental variables. Table 16 provides evidence about potential candidates to be used as instrumental variables.[12]

Table 17 reports the estimates from the first stage regression (Column I) and from various second stages regressions: a probit model for delegation (with control function, Column II), a linear probability model for a dichotomous indicator of delegation (estimated by GMM, Column III), and a linear model for for the continuous indicator of delegation (estimated by GMM, Column IV). Trust towards advisors is instrumented with average trust towards banks at the regional level and turnout at the 2006 referendum at the provincial level (controlling for provincial GDP growth), which should not have any relation with financial delegation.[13] Even if referendum turnout significantly affects trust towards advisors, the F test on excluded instruments reported at the bottom of the table is very low, suggesting a weak instrument problem. The Hansen's J test supports the null hypothesis of instruments validity. Unfortunately, once trust is instrumented its effect on delegation becomes insignificant, probably due to instruments weakness. This does not change when the second stage follows a binary response model or a linear one (and when the dependent variable is the probability of delegating mostly or completely, $D_i \geq 4$, and the extent of delegation, D_i). For most of the other covariates the sign and significance remain the same as without instrumenting.

To partially overcome the problem of instruments weakness, I estimate

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[12]Table 16 provides evidence about instruments, based on previous literature. First, Column I reports the effect of generalized trust expressed by UCS respondents, showing that generalized and specific trust are positively correlated. Then, Column II reports the effect of trust in banks at the regional level, which is positively related to trust in advisors in the UCS.

Further instruments are sought in the social capital literature. Guiso et al. (2004) argue that participation to referenda is related to social capital and trust. Column III shows that the turnout (at provincial level) at the 2006 referendum significantly affects trust towards advisors. Other attempts to include among the instruments other variables drawn from the social capital literature were not successful. These variables included blood donations at the provincial level (Guiso et al., 2004), income inequality at regional level (Zak and Knack, 2001; Knack and Keefer, 1997), and the regional participation rate to associations (Putnam, 1993). Finally, since previous research showed the existence of a link between cross-country generalized trust and economic growth, the GDP growth rate at the province level is added as a control (Dincer and Uslaner, 2010; Knack and Keefer, 1997; Zak and Knack, 2001).

[13]As one may argue, in Italy the decision to participate or not to a referendum has a strategic component, since the referendum is valid only if at least the majority of electors goes to the polling station. However, the 2006 one was a 'constitutional referendum', which does not require a minimum turnout to be valid. Moreover, the analysis was repeated using the provincial participation rates to political elections – in particular, participation to the 2006 elections for the Senate – as an alternative to referendum participation (not reported). Results are almost the same, as the two participation rates are highly correlated.

separate regressions for newer and older customers, based on the idea that newer clients have had less time to update their trust priors.[14] Table 18 reports the marginal effects on the probability of delegation ($D_i \geq 4$) from two generalized ordered probit regressions run on the two sub-samples of relatively more recent (at most five years) and relatively older customers of the bank (more than five years). As Table 18 shows, trust is an important factor in explaining delegation also for customers who have had less time to learn about their bank trustworthiness (the effect is almost the same for the two groups). This suggests that the endogeneity of trust should not be too serious a problem.

6.5   Effect of trust across financial literacy levels

Finally, it is interesting to note whether (and how) financial literacy and trust interact in affecting the demand for advisors. Guiso et al. (2004, 2008) find that the effect of trust on financial development (use of checks, percent of portfolio non in cash, etc.) and on stock market participation is higher for respondents with education below the median.

It is quite natural to expect trust to have a different impact across financial knowledge also on the use and reliance on advisors. Indeed Georgarakos and Inderst (2010) argue that trust in advice should affect the decision to participate in risky assets (through the use of an advisor) only when investor's perceived own capability is low, and this is consistent with their empirical findings, where trust increases participation only for investors with less than college education.

In this case, however, as Table 19 shows, the effect of trust is almost the same across the two sub-samples of investors with above average and below average financial literacy, and analogous results are obtained splitting the sample by education level (not reported).

7   Concluding remarks

I investigate the role of financial literacy on the demand for financial advice, looking at both the use of financial advisors in comparison to informal sources, and at the extent of reliance on financial advisors for portfolio management. Given the lack of nationally representative datasets about this issues, the empirical analysis exploits the 2007 Unicredit Customer's Survey, which is representative of the customers of one of the largest Italian commercial banks.

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[14]Clearly, it would make more sense to restrict this sub-sample to much more recent customers (e.g. less than one year), because five years might be a long enough span to revise one's priors. However, the number of such respondents is too low (< 20) to allow this estimation.

The results indicate that, controlling for a number of factors including trust towards one's own advisor, self-confidence in own financial ability, wealth and opportunity cost of time, financial literacy is important in explaining the demand for financial advice, and the relationship between private investors and financial intermediaries providing advice. First, the positive association between financial literacy and a preference for financial advisors over informal sources previously found in the literature is confirmed. Second, financial literacy increases the probability of consulting the bank/financial advisor, as opposed to investing without consulting any professional or delegating. In a context where the supply of independent (fee-based) financial advice is extremely limited, consulting one's bank without delegating may be the wisest choice. These findings suggest that advisors are used less often by investors who need them the most. This implies that the presence of qualified sources of advice may not be enough to counteract the effects of the low level of financial literacy, and that further policy measures may be need to ensure sound financial decision-making.

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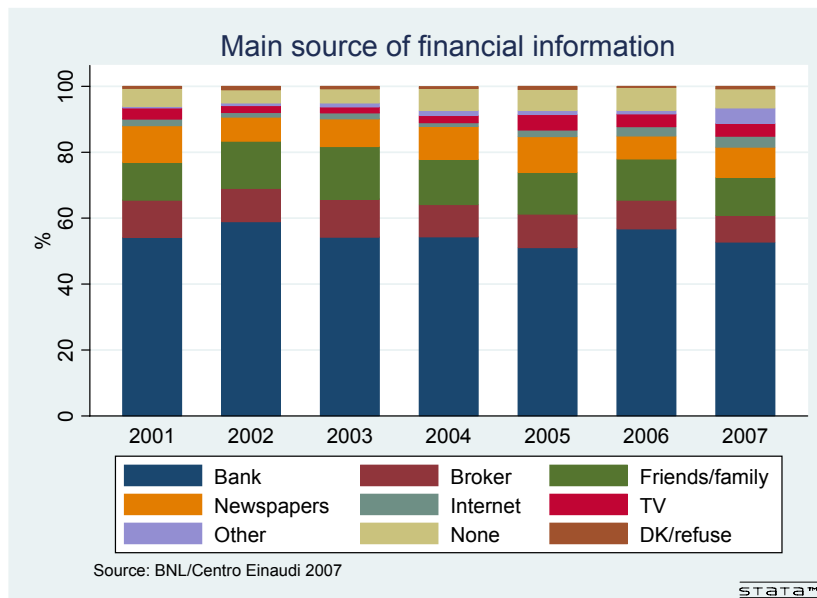
Figure 1: Main source of financial information
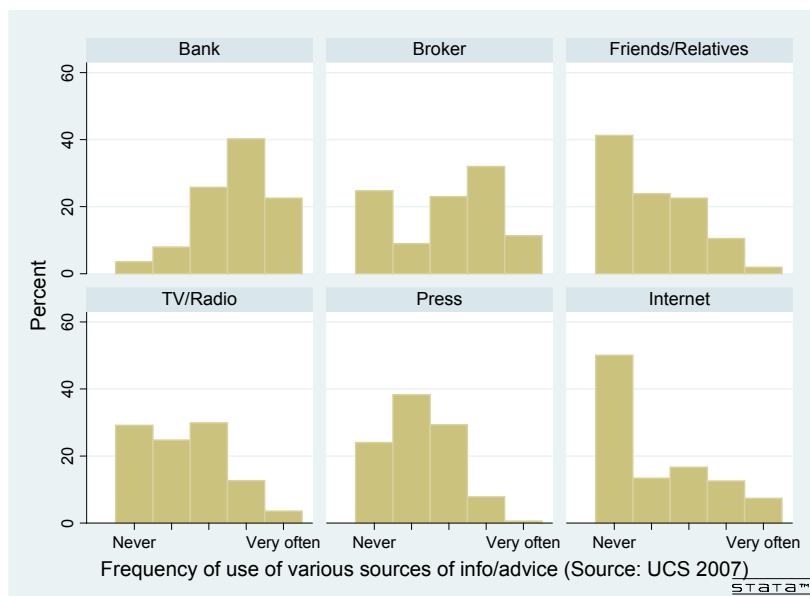
Figure 2: Frequency of use of sources of information/advice

Figure 3: Frequency of cheating by bank/insurance company
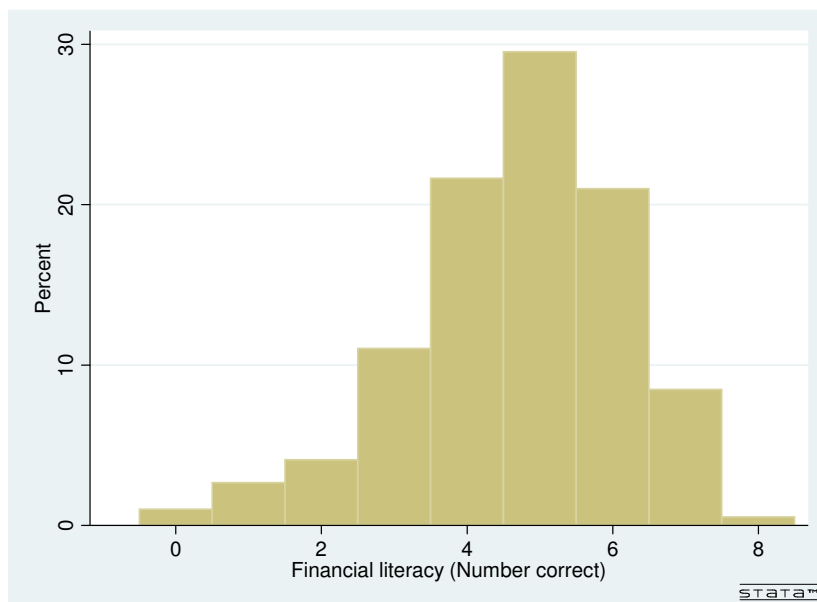
Figure 4: Financial literacy distribution (baseline definition)

Table 1: Variable Description and Data Sources

Variable	Description	Source
Financial Literacy	The financial literacy measure is constructed as in Guiso and Jappelli (2008). One point is given if the respondent can answer correctly to each of the following questions:	UCS

- *Inflation*: Imagine an account yields 2% yearly (net of costs and taxes). With inflation at 2% per year, how much do you think you will be able to buy after two years (without moving funds in the account)? More than what I could buy today | Less | The same | Do not know;

- *Interest*: Imagine you know with certainty that in six months interest rates will rise. Do you think you should buy fixed rate bonds today? Yes | No | Do not know

- *Diversif1*: What do you think having correctly diversified investments means? Having in one's own portfolio both bonds and stocks | Do not invest for too long in the same financial product | Invest in as many assets as possible | Invest in several assets at the same time, in order to limit exposure to risks linked to single assets | Do not invest in very risky products | Do not know

- *Diversif2*: Which of these portfolios is better diversified? 70% T-bills, 15% European equity fund, 15% in 2-3 Italian stocks | 70% T-bills, 30% European equity fund | 70% T-bills, 30% in 2-3 Italian stocks | 70% T-bills, 30% in stocks of companies I know well | Do not know

Four other indicators are based on the question "How risky do you think these products are?" The answers can be from 1 (Not risky at all) to 5 (Very risky) and 'Do not know' is always an option. One point is given if the respondent can correctly state that

- *Risk1*: Private bonds are at least as risky as deposits

- *Risk2*: Stocks at least are as risky as government bonds

- *Risk3*: Stocks mutual funds are at least as risky as bonds mutual funds

- *Risk4*: Housing is at least as risky as deposits

Variable	Description	Source
Self-confidence (Self-assessed financial knowledge)	It is based on the question: "For each of these ten assets I would like you to tell me how much you think you know it", where the answer can be in the range 1 (I do not know it at all) to 5 (I know it very well). The assets are: government bonds, repurchase agreements, private bonds, mutual funds, derivatives, unit-linked or index-linked life insurance, ETFs, managed portfolios, structured products. The self-confidence index used in the analysis is the average of these ten measures, and ranges from 1 to 5.	UCS

<div align="center">Continues</div>

Variable	Description	Source
Experience	Three questions are used in measuring experience in assets trading. If the respondent has ever invested in either bonds, stocks or mutual funds, then the UCS asks at which age the respondent first invested in each of bonds, stocks and mutual funds. Experience in each asset is computed as the difference between current age and age of first investment. Overall experience is computed as the maximum of these three numbers. If the respondent has never invested in any of the three assets, experience is set to zero.	UCS
Finance sector	A dummy variable taking value of one if the respondent works in the sector related to "monetary and financial intermediation, and insurances"	UCS
Financial wealth categories	Given the categorical variable $fpatrim$ based on administrative data and indicating in which class the financial holdings (at the bank) of each respondent fall, and given the categorical variable $selfw$ indicating the self reported category in which the (total) financial holdings of each respondent fall, I build a categorical variable $finw$ that is $$finw = \begin{cases} fpatrim & \text{if} \quad selfw \leq fpatrim \\ selfw & \text{if} \quad selfw > fpatrim \end{cases}$$ Since about 54% of the observations in $selfw$ are missing, it is likely that $finw$ is still under-reported with respect to the true financial wealth.	UCS
Zero saving rate	It is captured by a question asking "On average, in the year 2006 which percentage of your income did you save? More then 50% of your annual income | 30-50% | 20-30% | 10-20% | 5-10% | 1-5% | 0%, I did not save anything". The variable used in the analysis is a dummy variable taking the value of one if the answer is "0%, I did not save anything"	UCS
Risk preferences	It is based on the question "In managing your financial investments which of these attitudes do you usually have? When I invest I usually look for: Very high returns, even with a high risk of losing part of your principal | High returns with a fair degree of principal safety | Fair returns with high safety of your principal | Low returns without risk of losing your principal"	UCS
Trust towards own financial advisors	It is based on the question "Overall, how much trust do you have in your bank advisor or financial advisor concerning your financial investments?" with the answers ranging from 1 (No trust at all) to 5 (I trust a lot).	UCS
Generalized trust	It is a dummy based on the World Values Survey question "Generally speaking, do you think that most people can be trusted or that you have to be very careful in dealing with people?". The dummy takes the value of 1 if the respondent answers "I think that most people can be trusted"	UCS
Trust in banks	This variable is based on the Fondazione Rodolfo Debenedetti's 'TFR Survey'. This is an *ad hoc* survey of private sector employees conducted in 2007 to investigate the effects of a pension reform. The survey asks "Do you trust banks? Fully | A lot | Little | Not at all". The variable is the share of respondents answering 'Fully' within each region, weighted with the weights provided with the survey	FRDB TFR Survey
GDP growth	GDP growth rate in 2006 at provincial level	Eurostat
Referendum 2006	Voter turnout at the provincial level for the 2006 constitutional referendum	Ministry of Interior

Table 2: Summary statistics

	Mean	Median	Std. Dev.	Min	Max
Female	0.30	0	0.46	0	1
Age	54.81	57	12.27	25	89
Years schooling	12.47	13	4.04	0	20
Employee	0.32	0	0.47	0	1
Self-employed	0.28	0	0.45	0	1
Unemployed	0.01	0	0.07	0	1
Retired	0.33	0	0.47	0	1
Other out of the labor force	0.07	0	0.25	0	1
Total individual income (th.)	50.72	31	67.85	0.2	822
Fin Wealth $10-50,000$ euro	0.15	0	0.36	0	1
Fin Wealth $50-100,000$ euro	0.22	0	0.41	0	1
Fin Wealth $100-150,000$ euro	0.19	0	0.39	0	1
Fin Wealth $150-250,000$ euro	0.18	0	0.38	0	1
Fin Wealth $250-500,000$ euro	0.19	0	0.39	0	1
Fin Wealth $500,000+$ euro	0.07	0	0.25	0	1
Experience	13.37	12	12.82	0	53
Years at Unicredit: < 1	0.01	0	0.11	0	1
Years at Unicredit: $1-5$	0.10	0	0.31	0	1
Years at Unicredit: $6-10$	0.19	0	0.39	0	1
Years at Unicredit: $11-20$	0.24	0	0.43	0	1
Years at Unicredit: $20+$	0.45	0	0.50	0	1
Trust towards advisor	3.78	4	0.91	1	5
Financial literacy	4.68	5	1.48	0	8
Self-assessed fin knowledge	2.90	2.9	0.85	1	5
Very risk tolerant	0.02	0	0.13	0	1
Risk tolerant	0.28	0	0.45	0	1
Risk averse	0.52	1	0.50	0	1
Very risk averse	0.19	0	0.39	0	1
Saving: $> 50\%$	0.03	0	0.17	0	1
Saving: $30-50\%$	0.09	0	0.28	0	1
Saving: $20-30\%$	0.16	0	0.37	0	1
Saving: $10-20\%$	0.20	0	0.40	0	1
Saving: $5-10\%$	0.17	0	0.38	0	1
Saving: $1-5\%$	0.13	0	0.34	0	1
Saving: 0%	0.22	0	0.42	0	1

Data: Unicredit 2007. N = 1,686

Table 3: Comparison between UCS and SHIW datasets

| | UCS 2007 | SHIW 2006 | | |
	Account holder	Household head (answering FL tests)	Account holder at bank or post office	Household head and account holder
Male	69.9	62.8	49.1	65.0
Age: ≤ 30	2.5	3.4	29.7	3.3
$31 - 40$	12.9	13.8	13.0	14.3
$41 - 50$	21.6	19.8	15.4	20.4
$51 - 65$	38.3	28.4	22.0	29.4
66+	24.6	34.6	20.0	32.6
No education	0.4	5.7	11.0	4.0
Primary	8.7	25.8	20.0	23.7
Secondary	20.9	27.9	28.9	28.2
High school	43.7	31.8	31.1	34.3
University degree or more	26.4	8.8	9.0	9.8
North-west	22.8	25.9	25.5	28.2
North-east	28.5	22.0	22.8	23.5
Center	24.3	19.7	21.0	20.5
South	16.9	20.9	19.9	17.7
Isles	7.5	11.6	10.9	10.1
Household income (avg.)	71,324.6	31,659.5	37,850.9	33,653.1
$< 20,000$	7.4	32.5	19.9	27.2
$20 - 50,000$	44.5	53.3	60.0	57.1
$50 - 100,000$	31.7	12.5	17.9	14.0
$100,000+$	16.4	1.6	2.2	1.8
Financial Literacy				
Inflation	34.2			
Interest	52.0			
Diversification 1	39.9			
Diversification 2	13.0			
Risk 1 (Private bond vs. deposit)	83.8			
Risk 2 (Stocks vs. gov bonds)	89.1			
Risk 3 (Equity fund vs. bond fund)	81.0			
Risk 4 (Housing vs. deposits)	75.0			
Account statement		50.8		54.7
Inflation		60.5		64.1
Compare returns		27.2		29.5
Interest compounding		39.6		42.5
Equity fund		51.3		54.3
Mortgage		53.6		56.9
N correct (%)	58.5	47.2		50.3
N don't know (%)	11.9	34.2		30.4
N incorrect (%)	29.6	18.6		19.2
Zero correct	1.0	18.9		15.2
N	1,686	3,992	17,688	3,574

Data: Unicredit 2007 and SHIW 2006

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Table 4: How much do you use each of these sources to have information about your financial investments?

	Bank	Broker	Friends, relatives, colleagues	Econ TV/radio programs	Econ pages in non-econ newspapers
Never	3.5	24.7	41.2	29.2	26.1
Seldom	8.0	9.0	23.9	24.7	20.6
Sometimes	25.8	23.0	22.5	29.9	29.8
Often	40.2	32.0	10.5	12.7	19.3
Very often	22.5	11.3	1.9	3.5	4.3
	Econ inserts in non-econ newspapers	Econ newspapers	Non-econ magazines	Econ magazines	Econ websites
Never	36.8	30.8	45.8	50.4	50.1
Seldom	21.7	19.6	21.8	20.3	13.4
Sometimes	24.6	25.9	21.8	17.7	16.6
Often	14.0	15.6	8.5	9.6	12.5
Very often	3.0	8.1	2.1	2.1	7.4
Total	100	100	100	100	100

Unicredit 2007. N = 679. Conditional on spending at least some time to gather information about how to manage savings and investments.

Table 5: Which of these statements best describes your behaviour in deciding how to invest your savings?

	Unconditional	Conditional on having risky assets
I decide completely autonomously, the bank executes my decisions	8.60	12.03
I tell bank/advisor how I intend to invest and ask for their opinion	21.59	30.21
I consider bank/advisor proposals before deciding	27.16	38.01
I mostly rely on bank/advisor for my investment decisions	11.51	16.10
I let bank/advisor decide everything	2.61	3.65
Non-participation	28.53	
Total	100	100
N	1,686	1,205

Unicredit 2007.

Table 6: Answers to financial literacy tests (N = 1,686)

	Freq.	Percent
Inflation:		
More than today	39	2.3
Less than today	881	52.3
Same as today (correct)	577	34.2
Do not know	189	11.2
Interest:		
Yes	388	23.0
No (correct)	876	52.0
Do not know	422	25.0
Diversification 1:		
To have both bonds and stocks	282	16.7
Do not hold same asset for too long	111	6.6
Invest in as many assets as possible	144	8.5
Invest in more assets to limit risk exposure of single ones (correct)	672	39.9
Do not invest in very risky assets	292	17.3
Do not know	185	11.0
Diversification 2:		
70% T-bills, 15% European equity fund, 15% in 2-3 Italian stocks	688	40.8
70% T-bills, 30% European equity fund (correct)	219	13.0
70% T-bills, 30% in 2-3 Italian stocks	117	6.9
70% T-bills, 30% in stocks of companies I know well	149	8.8
Do not know	328	19.5
Correct on risk 1	1,413	83.8
Correct on risk 2	1,502	89.1
Correct on risk 3	1,365	81.0
Correct on risk 4	1,264	75.0

Unicredit 2007.

Table 7: Financial literacy by degree of reliance on advice

	Freq	Mean	Std. Dev.
I decide completely autonomously, the bank executes my decisions	145	4.97	1.33
I tell bank/advisor how I intend to invest and ask for their opinion	364	4.98	1.25
I consider bank/advisor proposals before deciding	458	5.09	1.32
I mostly rely on bank/advisor for my investment decisions	194	4.63	1.48
I let bank/advisor decide everything	44	4.30	1.19
Total	1205	4.94	1.34

Unicredit 2007.

Table 8: The determinants of preference among sources of information and advice

	Dep Var: Pr use bank (very) often	Dep Var: Pr use bank/broker (very) often	Dep Var: Pr use informal (very) often	Dep Var: Pr use bank more often than informal	Dep Var: Pr use bank/broker more often than informal
	(I)	(II)	(III)	(IV)	(V)
Female	0.079	0.109**	0.055	-0.024	-0.018
	(0.06)	(0.05)	(0.03)	(0.05)	(0.05)
Age	-0.021	-0.026	0.000	-0.023	-0.008
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)
Age squared	0.000	0.000*	-0.000	0.000*	0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Years school	-0.014**	-0.014**	0.001	-0.004	-0.003
	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)
FinW 100-150 th	0.016	0.035	-0.060**	0.153***	0.155***
	(0.06)	(0.06)	(0.03)	(0.04)	(0.05)
FinW 150-250 th	-0.017	-0.025	-0.037	0.067	0.070
	(0.06)	(0.06)	(0.03)	(0.05)	(0.05)
FinW 250-500 th	-0.018	0.012	-0.038	0.034	0.035
	(0.06)	(0.06)	(0.03)	(0.05)	(0.05)
FinW 500+ th	0.144*	0.106	-0.073***	0.148***	0.128**
	(0.08)	(0.08)	(0.02)	(0.05)	(0.06)
Financial literacy	0.020	0.020	-0.028***	0.044***	0.047***
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
Self-confidence	0.125***	0.187***	0.047**	-0.015	0.008
	(0.04)	(0.04)	(0.02)	(0.03)	(0.03)
Finance sector	-0.198*	-0.175	-0.023	-0.185	-0.191
	(0.12)	(0.11)	(0.05)	(0.12)	(0.12)
Trust advisor	0.186***	0.200***	-0.010	0.082***	0.097***
	(0.03)	(0.03)	(0.01)	(0.02)	(0.02)
Years at UC: 6-10	-0.192*	-0.180*	0.029	-0.128	-0.080
	(0.10)	(0.11)	(0.07)	(0.11)	(0.11)
Years at UC: 11-20	-0.109	-0.083	0.058	-0.102	-0.060
	(0.10)	(0.10)	(0.07)	(0.10)	(0.10)
Years at UC: > 20	-0.154	-0.138	0.035	-0.088	-0.085
	(0.10)	(0.10)	(0.06)	(0.09)	(0.10)
			Dep Var: Pr(Selection=1)		
Very risk tolerant	0.384***	0.387***	0.401***	0.409***	0.408***
	(0.11)	(0.11)	(0.10)	(0.10)	(0.10)
Risk tolerant	0.131**	0.142***	0.147***	0.141***	0.138***
	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)
Risk averse	0.103**	0.110**	0.109***	0.107**	0.107**
	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
Saving: 0%	-0.126***	-0.125***	-0.117***	-0.127***	-0.123***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
N obs	1540	1540	1540	1540	1540
Wald test (ρ=0)	1.95	1.58	4.39	1.98	1.99
Wald test p-value	0.163	0.209	0.036	0.160	0.159

Unicredit 2007. Dep Var: Column I, probability of using the bank often or very often as a sources of financial information; Column II, probability of using the bank or a broker often or very often as a sources of financial information; Column III, probability of using informal sources (i.e. friends, relatives and colleagues) often or very often as a sources of financial information; Column IV, probability of using the bank more often than informal sources; Column V, probability of using the bank or a broker more often than informal sources. Model: heckman probit (Marginal effects reported). Exclusion restrictions (reported in bottom part of the table) are risk preferences; zero saving rate. Standard errors are robust to heteroskedasticity. Other regressors not reported: macro-regions, individual income, occupational status, experience. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 9: Investing autonomously or delegating financial decisions

	$D_i = 1$	$D_i = 2$	$D_i = 3$	$D_i = 4$	$D_i = 5$	Selection
Female	-0.035***	-0.047***	0.028***	0.042***	0.012**	-0.002
	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.03)
Age	-0.001	-0.001	0.000	0.001	0.000	0.007
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)
Age squared	-0.000	-0.000	0.000	0.000	0.000	-0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Years school	0.005***	0.006***	-0.004***	-0.005***	-0.001**	0.008**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Self-employed	-0.000	-0.000	0.000	0.000	0.000	0.018
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)	(0.03)
Retired	0.008	0.010	-0.007	-0.009	-0.002	-0.034
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.04)
North	0.022*	0.027*	-0.018*	-0.024*	-0.006*	0.019
	(0.01)	(0.02)	(0.01)	(0.01)	(0.00)	(0.03)
Log tot ind income	-0.008	-0.010	0.007	0.009	0.002	-0.002
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
FinW 50-100 th	-0.050**	-0.071**	0.037**	0.064**	0.019**	0.105***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.03)
FinW 100-150 th	-0.032	-0.043	0.025	0.039	0.011	0.131***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.03)
FinW 150-250 th	-0.053**	-0.078***	0.038**	0.071**	0.022**	0.149***
	(0.02)	(0.03)	(0.01)	(0.03)	(0.01)	(0.03)
FinW 250-500 th	-0.048**	-0.069**	0.035**	0.063**	0.019*	0.162***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.03)
FinW 500+ th	-0.026	-0.036	0.020	0.032	0.009	0.173***
	(0.03)	(0.04)	(0.02)	(0.03)	(0.01)	(0.04)
Financial literacy	-0.000	-0.001	0.000	0.000	0.000	0.046***
	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)
Self-confidence	0.026***	0.032***	-0.022***	-0.029***	-0.007**	0.028*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.02)
Experience	-0.000	-0.000	0.000	0.000	0.000	0.008***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Finance sector	0.111**	0.079***	-0.097**	-0.077***	-0.016***	0.054
	(0.05)	(0.02)	(0.04)	(0.02)	(0.00)	(0.06)
Trust advisor	-0.076***	-0.093***	0.063***	0.084***	0.022***	0.046***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
Years at UC: 6-10	0.019	0.021	-0.016	-0.019	-0.005	0.089**
	(0.03)	(0.03)	(0.02)	(0.03)	(0.01)	(0.04)
Years at UC: 11-20	0.031	0.035	-0.027	-0.031	-0.008	0.208***
	(0.03)	(0.03)	(0.02)	(0.03)	(0.01)	(0.03)
Years at UC: > 20	0.018	0.022	-0.015	-0.020	-0.005	0.218***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.04)
Very risk tolerant						0.225***
						(0.02)
Risk tolerant						0.127***
						(0.03)
Risk averse						0.138***
						(0.03)
Saving: 0%						-0.138***
						(0.03)
N						1581
Log-Lik						-2173.711
ρ						0.188
ρ std. err.			33			(0.168)

Data: Unicredit 2007. Dependent variable: columns I-V, probability of delegating financial decisions ($D_i = 1, ..., 5$); Column VI, probability of holding risky assets. Model: Ordered Probit with selection. Exclusion restrictions (Column VI) are risk preferences; zero saving rate. Standard errors are robust to heteroskedasticity. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 10: Investing autonomously or delegating financial decisions

	$D_i = 1$	$D_i = 2$	$D_i = 3$	$D_i = 4$	$D_i = 5$
Female	-0.030***	-0.056***	0.026***	0.049***	0.011**
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)
Age	0.000	0.000	-0.000	-0.000	-0.000
	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)
Age squared	-0.000	-0.000	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Years school	0.004***	0.008***	-0.004***	-0.007***	-0.001***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Self-employed	0.000	0.000	-0.000	-0.000	-0.000
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)
Retired	0.005	0.008	-0.004	-0.007	-0.001
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)
North	0.016	0.029	-0.015	-0.025	-0.005
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)
Center	-0.006	-0.011	0.006	0.010	0.002
	(0.01)	(0.02)	(0.01)	(0.02)	(0.00)
Log tot ind income	-0.007	-0.012	0.007	0.011	0.002
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
FinW 50-100 th	-0.035**	-0.070**	0.029***	0.062**	0.014*
	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)
FinW 100-150 th	-0.021	-0.039	0.018	0.034	0.008
	(0.02)	(0.03)	(0.01)	(0.03)	(0.01)
FinW 150-250 th	-0.038***	-0.078**	0.031***	0.069**	0.017*
	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)
FinW 250-500 th	-0.033**	-0.065**	0.028***	0.058**	0.013*
	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)
FinW 500+ th	-0.015	-0.028	0.013	0.024	0.005
	(0.02)	(0.04)	(0.02)	(0.04)	(0.01)
Financial literacy	-0.012**	-0.003	0.037***	-0.017**	-0.005**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Self-confidence	0.022***	0.039***	-0.021***	-0.033***	-0.007***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Experience	0.000	0.001	-0.000	-0.000	-0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Finance sector	0.104**	0.105***	-0.104**	-0.091***	-0.014***
	(0.05)	(0.02)	(0.04)	(0.02)	(0.00)
Trust advisor	-0.085***	-0.018	-0.009	0.086***	0.026***
	(0.01)	(0.02)	(0.02)	(0.01)	(0.00)
Years at UC: 6-10	0.024	0.038	-0.024	-0.032	-0.006
	(0.02)	(0.03)	(0.02)	(0.03)	(0.00)
Years at UC: 11-20	0.037*	0.057**	-0.036*	-0.048**	-0.009**
	(0.02)	(0.03)	(0.02)	(0.02)	(0.00)
Years at UC: > 20	0.024	0.042	-0.023	-0.036	-0.007
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)
N obs	1116				
Log-Lik	-1419.615				

Unicredit 2007. Dep Var: probability of delegating financial decisions ($D_i = 1, ..., 5$), where D_i=1: I decide completely autonomously, the bank executes my decisions; D_i=2: I tell bank/advisor how I intend to invest and ask for their opinion; D_i=3: I consider bank/advisor proposals before deciding; D_i=4: I mostly rely on bank/advisor for my investment decisions; D_i=5: I let bank/advisor decide everything. Model: Generalized Ordered Probit (marginal effects reported). Sub-sample of investors holding risky assets. Standard errors reported in parentheses are robust to heteroskedasticity. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 11: Investing autonomously or delegating – Robustness on financial literacy index

	$D_i = 1$	$D_i = 2$	$D_i = 3$	$D_i = 4$	$D_i = 5$
Financial literacy 1	-0.0100**	-0.0023	0.0298***	-0.0137**	-0.0039**
	(0.005)	(0.009)	(0.008)	(0.006)	(0.002)
Financial literacy 2	-0.0070*	-0.0019	0.0208***	-0.0084	-0.0035**
	(0.004)	(0.007)	(0.008)	(0.006)	(0.002)
Financial literacy 3	-0.0033	0.0027	0.0141**	-0.0096*	-0.0040***
	(0.004)	(0.007)	(0.007)	(0.005)	(0.002)
Financial literacy 4	-0.0016	0.0023	0.0078	-0.0054	-0.0031**
	(0.003)	(0.005)	(0.005)	(0.004)	(0.001)

Unicredit 2007. Dep Var: probability of delegating financial decisions ($D_i = 1, ..., 5$), where D_i=1: I decide completely autonomously, the bank executes my decisions; D_i=2: I tell bank/advisor how I intend to invest and ask for their opinion; D_i=3: I consider bank/advisor proposals before deciding; D_i=4: I mostly rely on bank/advisor for my investment decisions; D_i=5: I let bank/advisor decide everything. Model: Generalized Ordered Probit (marginal effects reported). Definition of financial literacy indices: Financial literacy 1: the baseline (Guiso and Jappelli, 2008), re-scaled ($10 \times (Inflation + Interest + Diversif1 + Diversif2 + Risk1 + Risk2 + Risk3 + Risk4)/8$; Financial literacy 2: $10 \times [Inflation + Interest + Diversif1 + Diversif2 + (Risk1 + Risk2 + Risk3 + Risk4)/4]/5$; Financial literacy 3: $10 \times [Interest + Diversif1 + Diversif2 + (Risk1 + Risk2 + Risk3 + Risk4)/4]/4$; Financial literacy 4: $10 \times [Interest + Diversif1 + Diversif2]/3$. Sub-sample of investors holding risky assets. Regressors not reported: same covariates as in Table 10. Standard errors reported in parentheses are robust to heteroskedasticity. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 12: Financial literacy and length of bank relationship

	Whole sample	Use bank often or very often	Use bank more often than friends	$(D_i = 3)$	$(D_i = 3)$ and do not use brokers
Years at UC: 6-10	-0.243	-0.295	-0.412*	-0.102	0.144
	(0.15)	(0.27)	(0.25)	(0.25)	(0.28)
Years at UC: 11-20	-0.102	0.019	-0.035	-0.036	0.090
	(0.15)	(0.27)	(0.24)	(0.23)	(0.26)
Years at UC: > 20	-0.018	0.006	0.070	-0.036	0.010
	(0.15)	(0.26)	(0.23)	(0.21)	(0.26)
N obs	1116	393	475	429	320
Adj. R^2	0.121	0.089	0.127	0.129	0.149

Unicredit 2007. Dep Var: Financial literacy (baseline). Model: linear regression model estimated by OLS. Standard errors are robust to heteroskedasticity. Regressors not reported: gender, age, education, occupational status, macro-regions, log income, financial wealth categories, trust, self-confidence, experience, working in the financial sector. Significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 13: First stage for financial literacy endogeneity

	Dep var: Fin Lit (UCS)
Experience	0.018***
	(0.00)
Regional Fin Lit (SHIW)	0.426**
	(0.15)
N obs	1116
F excl instr	18.71
Hansen J	1.893
Hansen J p-val	0.169
Endog test	0.200
Endog test p-val	0.655

Unicredit 2007. Dep Var: Financial Literacy (baseline). Model: linear model estimated by GMM (only the first stage is reported). Standard errors reported in parentheses are robust to heteroskedasticity and clustering on regions. Regressors not reported: gender, age, education, occupational status, macro-regions, financial wealth categories, log individual income, self-confidence, financial sector dummy, trust, length of bank relationship. Significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 14: Investing autonomously or delegating (controlling for financial literacy endogeneity)

	$D_i = 1$	$D_i = 2$	$D_i = 3$	$D_i = 4$	$D_i = 5$
Financial literacy	-0.018	-0.026	0.085**	-0.028	-0.013
	(0.03)	(0.05)	(0.04)	(0.04)	(0.01)
Fitted residuals	0.007	0.028	-0.057	0.012	0.010
	(0.03)	(0.05)	(0.04)	(0.04)	(0.01)
N obs	1116				
Log-Lik	-1417.376				

Unicredit 2007. Dep Var: probability of delegating financial decisions ($D_i = 1, ..., 5$), where D_i=1: I decide completely autonomously, the bank executes my decisions; D_i=2: I tell bank/advisor how I intend to invest and ask for their opinion; D_i=3: I consider bank/advisor proposals before deciding; D_i=4: I mostly rely on bank/advisor for my investment decisions; D_i=5: I let bank/advisor decide everything. Model: Generalized Ordered Probit, controlling for financial literacy endogeneity via control function approach (marginal effects reported). Instruments for financial literacy: average financial literacy at regional level (SHIW) and experience with financial products (UCS). Bootstrapped standard errors (200 repetitions) are robust to heteroskedasticity and clustering at regional level. Regressors not reported: same covariates as in Table 10. Sub-sample of investors holding risky assets. Significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 15: Investing autonomously or delegating – Robustness on bank/broker relationships

	$D_i = 1$	$D_i = 2$	$D_i = 3$	$D_i = 4$	$D_i = 5$
Sample: Unicredit main or only bank (baseline) (N = 1,116)					
Financial literacy	-0.012**	-0.003	0.037***	-0.017**	-0.005**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Sample: Unicredit only bank (N = 802)					
Financial literacy	-0.016**	0.005	0.033***	-0.017*	-0.005
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Sample: Unicredit main/only bank and use broker never/seldom/sometimes (N = 847)					
Financial literacy	-0.012	0.002	0.032***	-0.016*	-0.005**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Sample: Unicredit main/only bank and use broker never/seldom (N = 705)					
Financial literacy	-0.012	0.001	0.037***	-0.019*	-0.007**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)

Unicredit 2007. Dep Var: probability of delegating financial decisions ($D_i = 1, ..., 5$), where D_i=1: I decide completely autonomously, the bank executes my decisions; D_i=2: I tell bank/advisor how I intend to invest and ask for their opinion; D_i=3: I consider bank/advisor proposals before deciding; D_i=4: I mostly rely on bank/advisor for my investment decisions; D_i=5: I let bank/advisor decide everything. Model: Generalized Ordered Probit. Regressors not reported: same covariates as in Table 10. Standard errors are robust to heteroskedasticity. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 16: Trust in own financial advisor/bank advisor

	(I)	(II)	(III)	(IV)	(V)	(VI)
Female	0.185***	0.182***	0.183***	0.178***	0.181***	0.178***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Age	0.007	0.007	0.005	0.004	0.004	0.004
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age squared	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Years school	0.003	0.003	0.006	0.006	0.004	0.005
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Log tot ind income	-0.066**	-0.063**	-0.058**	-0.058**	-0.060**	-0.060**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
FinW 50-100 th	0.043	0.030	0.050	0.042	0.042	0.038
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
FinW 100-150 th	0.118	0.112	0.123	0.122	0.122	0.122
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
FinW 150-250 th	0.149*	0.129	0.139	0.135	0.132	0.130
	(0.08)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
FinW 250-500 th	0.286***	0.267***	0.273***	0.276***	0.267***	0.270***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
FinW 500+ th	0.543***	0.501***	0.508***	0.505***	0.494***	0.495***
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Financial literacy	-0.013	-0.009	-0.013	-0.008	-0.009	-0.006
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Self-confidence	0.053	0.053	0.050	0.042	0.050	0.043
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Experience	0.003	0.003	0.003	0.002	0.002	0.002
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Finance sector	-0.332*	-0.309*	-0.293*	-0.278	-0.291*	-0.279
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Years at UC: 6-10	-0.126*	-0.121	-0.136*	-0.137*	-0.130*	-0.132*
	(0.07)	(0.07)	(0.08)	(0.07)	(0.08)	(0.07)
Years at UC: 11-20	-0.124*	-0.126*	-0.128*	-0.120*	-0.128*	-0.121*
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Years at UC: > 20	-0.146**	-0.134**	-0.140**	-0.129*	-0.126*	-0.120*
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Generalized trust	0.181***					
	(0.06)					
Trust in banks		2.287**			1.767*	1.409
		(1.00)			(1.01)	(1.04)
GDP growth			0.016	0.012	0.016	0.012
			(0.01)	(0.01)	(0.01)	(0.01)
Referendum 2006			0.022***		0.017**	
			(0.01)		(0.01)	
Senate 2006				0.041***		0.035***
				(0.01)		(0.01)
Constant	3.838***	3.811***	2.795***	0.567	3.036***	1.078
	(0.52)	(0.51)	(0.63)	(0.91)	(0.59)	(0.92)
N obs	1581	1581	1581	1581	1581	1581
Adj. R-Squared	0.051	0.051	0.052	0.058	0.056	0.060

Data: Unicredit 2007. Dep Var: Trust in own financial advisor/bank official. Model: linear model estimated by OLS. Standard errors reported in parentheses are robust to heteroskedasticity and clustering on provinces. Regressors not reported: occupational status, macro region, Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 17: Delegating financial decisions (controlling for trust endogeneity)

	First Stage	Second Stage		
	Trust	$Pr(D_i \geq 4)$		D_i
Dep Var:				
Model:		Probit	LPM	
	(I)	(II)	(III)	(IV)
Trust in banks	1.784*			
	(0.99)			
Referendum 2006	0.019***			
	(0.01)			
Trust advisor		0.089	-0.024	0.096
		(0.16)	(0.21)	(0.45)
Fitted residuals		0.025		
		(0.16)		
N obs	1581	1116	1116	1116
F excl instr			4.629	4.629
Hansen J			0.516	0.342
Hansen J p-value			0.472	0.559
Endog test			0.307	0.298
Endog test p-val			0.580	0.585

Unicredit 2007. First column: first stage regression, where the dependent variable is trust towards advisor and the model is estimated by OLS. Second column: second stage regression, where the dependent variable is the probability of delegating ($D_i \geq 4$) and a probit model is estimated, instrumenting trust with a control function (Bootstrapped standard errors with 200 repetitions). Third column: second stage regression, where the dependent variable is the probability of delegating ($Pr(D_i \geq 4)$) and a linear probability model is estimated by GMM. Fourth column: second stage regression, where the dependent variable is delegation (D_i) and the model is estimated by GMM. Regressors not reported: gender, age, education, occupational status, macro-regions, log individual income, financial wealth categories, financial literacy, self-confidence, experience, financial sector dummy, length of bank relationship. Standard errors reported in parentheses are robust to heteroskedasticity and clustering on provinces. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 18: Delegating financial decisions (effect of trust across length of relationship)

	Unicredit customers for ≤ 5 years (Dep Var: $Pr(D_i \geq 4)$)	Unicredit customers for > 5 years (Dep Var: $Pr(D_i \geq 4)$)
Trust advisor	0.102***	0.114***
	(0.04)	(0.02)
N obs	82	1034
Log-Lik	-82.135	-1218.851

Unicredit 2007. Dep Var: Probability of Delegating Financial Decisions ($Pr(D_i \geq 4)$). Model: Generalized Ordered Probit. Regressors not reported: gender, age, education, occupational status, macro-regions, log individual income, financial wealth categories, financial literacy, self-confidence, experience, financial sector dummy. Standard errors reported in parentheses are robust to heteroskedasticity. Significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 19: Delegating financial decisions (effect of trust across financial literacy levels)

	Financial Literacy Below average (≤ 4) (Dep Var: $Pr(D_i \geq 4)$)	Financial Literacy Above average (> 4) (Dep Var: $Pr(D_i \geq 4)$)
Trust advisor	0.109***	0.109***
	(0.03)	(0.02)
N obs	384	732
Log-Lik	-467.370	-841.552

Unicredit 2007. Dep Var: Probability of Delegating Financial Decisions ($Pr(D_i \geq 4)$). Model: Generalized Ordered Probit. Regressors not reported: gender, age, education, occupational status, macro-regions, log individual income, financial wealth categories, self-confidence, experience, financial sector dummy, length of bank relationship. Standard errors reported in parentheses are robust to heteroskedasticity. Significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.