

Financial advice and trust

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Abstract

This article exploits new questions in the National Financial Capability Study to examine the determinants of trust in financial professionals and the impact of trust on the use of five types of financial advice. We find that trust declines with age and increases with willingness to take investment risk. Having some financial literacy increases trust, but having too much decreases it. Controlling for financial exposure, trust and cost are the two most important determinants of financial advice-seeking behavior. Saving advice is most affected with use increasing from 17% for the least trusting group to 44% for the most trusting group. © 2012 Academy of Financial Services. All rights reserved.

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1. Introduction

Trust plays a ubiquitous role in many facets of life, from personal relationships to international trade. For financial advisors, establishing and maintaining clients' trust is critical. Surveys conducted by the Certified Financial Planner Board of Standards (2004) and State Street Global Advisors (2007) rank trustworthiness as the most important criterion when choosing a financial adviser. Several factors make trust paramount in a financial context: large sums of money are entrusted to advisors, significant investment risk is present, sales-based incentives can create conflicts of interest, and fee schedules often lack transparency. With the recent financial crisis and the Madoff scandal, investors are now more acutely aware of these issues. This trend is captured by the General Social Survey (GSS) with the

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proportion of people with hardly any confidence in banks and financial institutions doubling from 21% in 2008 to 41% in 2010. In addition, the latest installment of the Financial Trust Index in December 2011 shows that trust levels have not yet recovered from the 2008 crisis (Sapienza and Zingales, 2012). Needless to say, repairing trust is a key concern for financial professionals and institutions.

The importance of trust has long been recognized by scholars in a variety of research areas including sociology (Luhmann, 1979), marketing (Morgan and Hunt, 1994), organizational behavior (Kramer and Tyler, 1996), and online commerce (Gefen et al., 2003). The attention to this topic in finance is relatively more recent with Guiso et al. (2008) showing that stock market participation increases with trust. From this multidisciplinary effort, several views of trust have emerged. Trust is in part a personal trait shaped by experiences, personality, and culture (Mayer et al., 1995). It is also context-specific and influenced by the characteristics of the trustee (competence, benevolence, and integrity) and the institutional environment. Rousseau et al. (1998) emphasize that trust is a multilevel concept, for example one might trust his banker but not the bank's officers.

While the importance of trust is widely acknowledged, previous studies on the use of financial advice have not considered the role of trust because of data limitations. The literature on the determinants of financial advice-seeking behavior has largely focused on demographic and socio-economic factors; a few studies have also analyzed additional factors such as risk tolerance, positive/negative financial behaviors, and financial literacy.¹ The recent release of the 2009 National Financial Capability Study (NFCS) gives us a unique opportunity to fill this gap in the literature. Specifically, this dataset assesses trust with the question "I would trust financial professionals and accept what they recommend." It also asks respondents whether they received financial advice in the last five years for five categories: savings and investments, tax planning, insurance, mortgage or loan, and debt counseling. The NFCS data are particularly useful because it has both depth and breadth: it boasts over 28,000 observations and features questions on a wide range of financial topics including banking, credit cards, mortgages, insurance, and retirement savings.

Before the NFCS, the trust question most commonly used in large scale surveys was: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"² This question has been part of the World Values Survey since 1982 and the American GSS since 1972, making it the cornerstone of a large body of research on trust. The NFCS question brings incremental information over the GSS one because it captures the institution-based dimension of trust. Presenting side-by-side regression analyses using the NFCS and GSS datasets, we provide new empirical evidence that trusting financial professionals is fundamentally different from trusting people. These results point out to the importance of using a context-based measure of trust when analyzing financial problems. By asking a direct question, the NFCS dataset provides a more meaningful measure of financial trust.

We investigate further the determinants of trust in financial professionals with regression analysis. In that regression, the five most statistically significant variables are: age, willingness to take investment risk, getting any financial advice, financial satisfaction, and financial literacy. Similarly to what Hall et al. (2001) report in a medical context, demographic factors other than age have only a weak effect on trust in professionals. We find that our results are

in part driven by “finance averse” respondents who express distrust, unwillingness to take investment risk, and use little financial advice. We also observe that trust relationships are often nonlinear, for example, trust is lower both for those at the top and the bottom of the financial literacy scale.

As discussed in Mayer et al. (1995), trust should translate into behavioral manifestations of trust. In our case, trust in financial professionals should lead to higher use of their services. Regressing trust on the use of financial advice, our key findings are: (1) trust significantly increases use for each of the five types of advice, (2) the category most affected by trust is savings and investments, and (3) controlling for financial exposure, trust and cost are the two most important determinants of advice use; in particular, they have more impact than any of the demographic controls. For the demographic variables, our results concur with previous studies that have typically found that women, those more educated, and those wealthier consume more financial advice. It is worth mentioning that the NFCS data also replicates the nonlinear patterns that Hanna (2011) finds in the Survey of Consumer Finances data for the relationships between advice use and age and willingness to take investment risk. We offer a new interpretation for these results based on the connection of these variables with trust.

The article is structured as follows. Section 2 describes the data and Section 3 analyses the NFCS trust question. Section 4 analyses the regressions of trust on financial advice and Section 5 concludes.

2. Data

The primary source of individual-level data for this article is the state-by-state version of the NFCS commissioned by the Investor Education Foundation of the Financial Regulatory Authority (FINRA). The survey comprises three samples: a national representative telephone survey (1,488 observations), a state-by-state online survey with about 500 respondents in each state (28,146 observations), and a military online survey (800 observations). Interviews for all three samples were conducted between May and October 2009. Questions cover topics such as banking, credit cards, mortgages, insurance, and retirement savings. The survey also features five questions that assess financial literacy (see Appendix for questions and distribution of answers) and we construct a financial literacy score by adding up the number of correct answers.

The demographic composition of the NFCS data for the state-by-state sample used in this article is given in Table 1. The data are fairly representative of the population, with the exception of the group with less than a high school degree that is underrepresented (2010 American Community Survey). Table 1 also breaks down the use of financial advice by type of advice and group. In the last five years, 33% of the sample received savings and investment advice, 19% tax planning, 35% insurance, 28% mortgage or loan, and 10% debt counseling. Tabulating these results separately for the groups with the lowest and highest trust levels gives us an early indication that financial advice use is highly related to trust; this connection will be established more formally in Section 4 with multivariate regression analysis. Gender does not create major differences in univariate statistics, but this relationship may eventually change with the appropriate controls because women tend to have less

Table 1 NFCS summary statistics (state-by-state version)

	Average use of advice (in %)					Proportion in sample (in %)
	Saving and investment	Tax planning	Insurance	Mortgage or loan	Debt counseling	
All	32.5	19.1	35.0	27.5	10.4	
Lowest trust	16.7	11.6	22.4	15.5	6.8	9.0
Highest trust	44.1	29.0	40.0	31.3	16.7	6.3
Age						
Less than 35	27.9	17.2	32.4	28.8	12.0	29.2
Between 35 and 54	30.6	18.5	37.3	30.6	12.0	40.2
55 and over	39.1	21.7	34.4	22.2	6.6	30.6
Women	31.6	18.7	35.3	27.9	10.6	53.2
Married	36.8	23.4	40.0	33.5	10.5	56.3
Race						
White	33.6	19.6	35.4	28.1	9.1	75.5
Black	27.9	15.8	33.3	23.1	16.3	9.2
Hispanic	28.1	17.8	32.9	26.3	13.7	8.4
Asian	35.1	22.0	31.6	24.8	10.9	2.9
Education						
Less than high school	13.0	7.9	21.1	12.2	8.1	2.9
High school	21.0	11.6	27.5	19.6	9.4	23.9
Some college	29.8	16.4	34.1	26.0	11.2	35.2
College degree	38.8	23.5	39.3	33.3	10.8	24.2
Graduate	51.4	33.3	45.2	37.3	9.3	13.9
Income						
\$0–\$25,000	17.7	8.5	23.6	13.6	9.7	24.9
\$25,000–\$50,000	27.9	14.6	33.7	24.7	12.2	28.3
\$50,000–\$100,000	38.3	23.0	39.3	34.4	11.0	30.9
\$100,000+	51.9	35.9	46.3	40.3	6.8	15.9
Retired	37.6	21.0	32.9	19.7	5.8	16.4

Note: 28,146 observations, 873 missing values for using financial advice.

exposure to investments. With the exception of debt counseling, the use of advice increases with income and education. Age effects seem to reflect life-cycle factors: older respondents consume more saving and investment advice while mortgage advice is more prevalent in midlife. Advice use tends to be higher for married people and lower for Blacks and Hispanics.

To compare the NFCS trust question with the more traditional measure of trust, our secondary source of data is the GSS. The GSS features the generalized trust in people question and it has been conducted since 1972 with a sample of about 1,500 respondents each year.³ Many of its questions have been kept the same, permitting useful comparisons over time. Another useful feature of the GSS is that, starting in 1975, it asks a set of questions about confidence in institutions (including banks and financial institutions). The question is worded as follows: “As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?” We code those who answer “hardly any” as 0, “only some” as 0.5, and “a great deal” as 1. Fig. 1 graphs the average answers by year and show that both trust in people and confidence in financial institutions have declined since the 70s. In the last two waves, we observe an unprecedented drop in confidence in banks and financial institutions from an

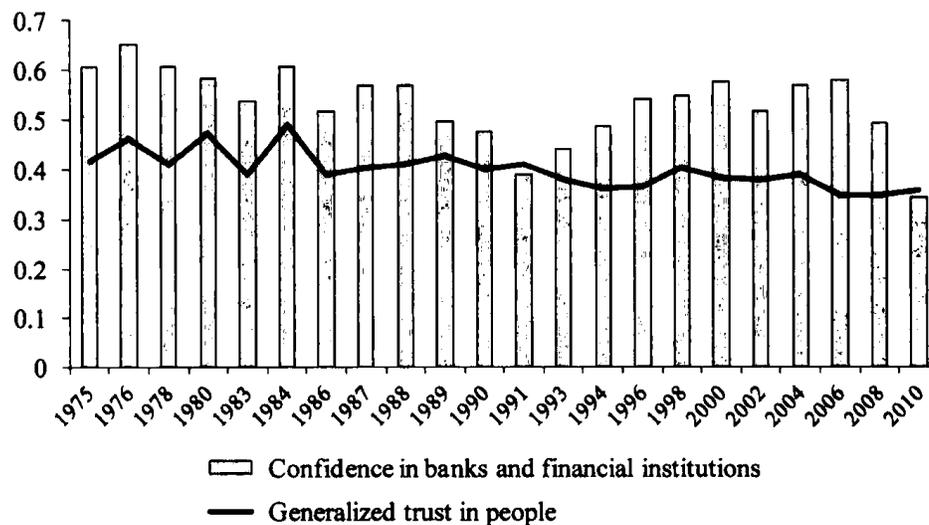


Fig. 1. Evolution of trust/confidence in the GSS from 1975 to 2010.

Note: Author's computation with General Social Survey data. Note that the two series are not on the same scale. Trust in people is measured with the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?", with answers coded as follows: "Most people can be trusted" (1), "Depends" (0.5), and "Can't be too careful" (0). Confidence in banks and financial is measured with the question "As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?" Answers are coded as follows: "A great deal" (1), "Only some" (0.5), "Hardly any" (0). The trust/confidence questions were not asked every year.

average of 49% in 2008 to an all-time low of 35% in 2010. While the recent financial crisis may not be directly comparable to previous ones, we note that the time-series is very cyclical and that confidence did recover after the previous low in 1991.

3. Trust determinants

Since this is the first study to focus on the NFCS trust question, we start by getting a better understanding of this variable by (1) comparing it with the GSS trust/confidence measures and (2) regressing it against other variables in the NFCS.

3.1. NFCS versus GSS data

To assess how the NFCS trust question stacks up against the GSS measures, Table 2 presents side-by-side regression results for: generalized trust in people (GSS), confidence in banks and financial institutions (GSS), and trust in financial professionals (NFCS). The regressions include variables that are common to both surveys, including standard demographic controls and financial satisfaction. The GSS variables are coded to be on the same scale as the NFCS variables. To facilitate the comparison between variables, we report standardized coefficients that are measured in standard deviations. All coefficients are multiplied by 100 and retired respondents are excluded from both datasets (we verified that including retirees does not affect the conclusions).

Table 2 Trust regressions

	General Social Survey		NFCS	
	Generalized trust in people	Confidence in banks and financial institutions	Trust in financial professionals	
			(1)	(2)
Financial variables				
Willingness to take investment risk				17.88 (22.95)**
Receive any financial advice				11.95 (16.61)**
Satisfied with financial condition	6.29 (10.42)**	13.88 (21.77)**	8.88 (12.57)**	5.28 (6.92)**
Financial literacy				-4.62 (-5.76)**
Wealth				2.61 (2.74)**
Demographic variables				
Age	11.03 (19.13)**	1.15 (1.89)	-16.76 (-24.26)**	-14.12 (-18.80)**
Female	-2.90 (-5.09)**	4.01 (6.68)**	0.71 (1.06)	2.97 (4.12)**
Married	1.18 (1.87)	-2.21 (-3.34)**	-0.21 (-0.28)	-0.02 (-0.02)
Black	-12.26 (-20.81)**	-2.92 (-4.70)**	2.79 (4.02)**	1.47 (2.04)
Education	22.48 (35.40)**	-0.88 (-1.32)	4.59 (6.21)**	2.36 (2.97)**
Income	7.23 (10.20)**	-2.11 (-2.83)**	3.51 (4.07)**	-2.56 (-2.61)*
Constant	3.03 (1.99)*	49.23 (45.91)**	54.33 (57.19)**	48.58 (43.55)**
R ²	0.1400	0.0669	0.0408	0.0863
N	27,429	26,790	21,802	19,622

Note: Ordinary Least Square regression with standardized coefficients. Coefficients are multiplied by 100. A * indicates statistical significance at the five percentage level and ** at the one percentage level. Regressions include dummies for census region and year (GSS only). The wealth measure is computed by adding the answers for the values of non-retirement and retirement accounts.

Table 2 reveals that financial satisfaction has a similar positive effect on all measures of trust and confidence. However, demographic profiles differ dramatically: race, education, and gender have highly significant effects on trust in people, but their impact on banks and financial professionals is comparatively limited. Furthermore, the age and gender coefficients display opposite signs. The gender gap is small and shows that women trust financial institutions and professionals more than they trust people. Age differences are more pronounced, with age increasing trust in people and decreasing trust in financial professionals and a majority of institutions.⁴ Although the age effect for confidence in banks and financial institutions for the period 1975–2010 is not significant in Table 2, it should be noted that the age coefficient is significantly negative (-9.31) when the regression is performed with 2010 data only.

3.2. Trust in the NFCS data

The NFCS features a variety of questions related to banking, credit cards, mortgages, insurance, retirement savings, risk tolerance, and financial literacy. We use regression analysis to identify which of these variables are most strongly associated with trust in financial professionals (without implying that they are causal). The last column of Table 2

presents the regression results where we include the most statistically significant financial variables (willingness to take investment risk, receiving any advice, financial satisfaction, and financial literacy) along with controls for wealth and the previous demographic factors. The possible answers to the trust question range from 1 (strongly disagree) to 7 (strongly agree). To make the results easier to interpret, we rescale this variable between 0 and 1 in our tables and figures.

Overall, the three variables that have the most effect on trust in Table 2 are: willingness to take investment risk, age, and receiving any financial advice. The connection with age, financial literacy, and willingness to take investment risk is discussed in more detail in Sections 3.3 through 3.5. While income and wealth are often key determinants of financial measures, we observe that they play only a secondary role in explaining trust. In other words, trust is not simply a proxy for being in a good financial situation. Using financial advice is one of the main markers for trust and the relationship between the two variables can go both ways: people may trust more as a positive reaction to getting advice or they are more likely to get advice because they are more trusting in the first place. The data are not detailed enough to rule in or rule out these hypotheses. The relationship between trust and advice will be analyzed further in Section 4.

3.3. Trust and age

The most statistically significant demographic factor in Table 2 is age, which has a negative impact on trust in financial professionals. It is worth mentioning that this result is in line with a recent audit study by Mullanaitan, Nöth, and Schoar (2011) where financial advisers are more likely to mention fees spontaneously to older prospective clients. We can speculate that financial advisers assume that older clients are less trusting, or at least more critical, and in consequence are more forthcoming with them.

A possible explanation for the age effect is that, with experience, people may become more skeptical of the value proposition offered by financial professionals. We provide some indirect evidence of this by exploiting the question “Financial professionals are too expensive for me,” with answers ranging from 1 (strongly disagree) to 7 (strongly agree). Fig. 2A illustrates how average trust varies as a function of age for (1) the full sample and (2) the more critical group who strongly agrees that financial professionals are too expensive (that represents 30% of the full sample). The figure shows that the declining age trend is much more pronounced for the more cost-conscious group.

3.4. Trust and financial literacy

Table 2 indicates that financial literacy is negatively related with trust. This result merits some clarification: the relationship of trust with financial literacy actually follows an inverse U-shape pattern as illustrated in Fig. 2B.⁵ Finding lower levels of trust at lower levels of financial literacy is not surprising if we think that familiarity breeds trust. However, as with the age effect, it is also possible that people with higher levels of financial literacy become more critical. As with age, greater experience may also explain the negative coefficient for financial literacy. In Fig. 2B we repeat the Fig. 2A exercise and compare the

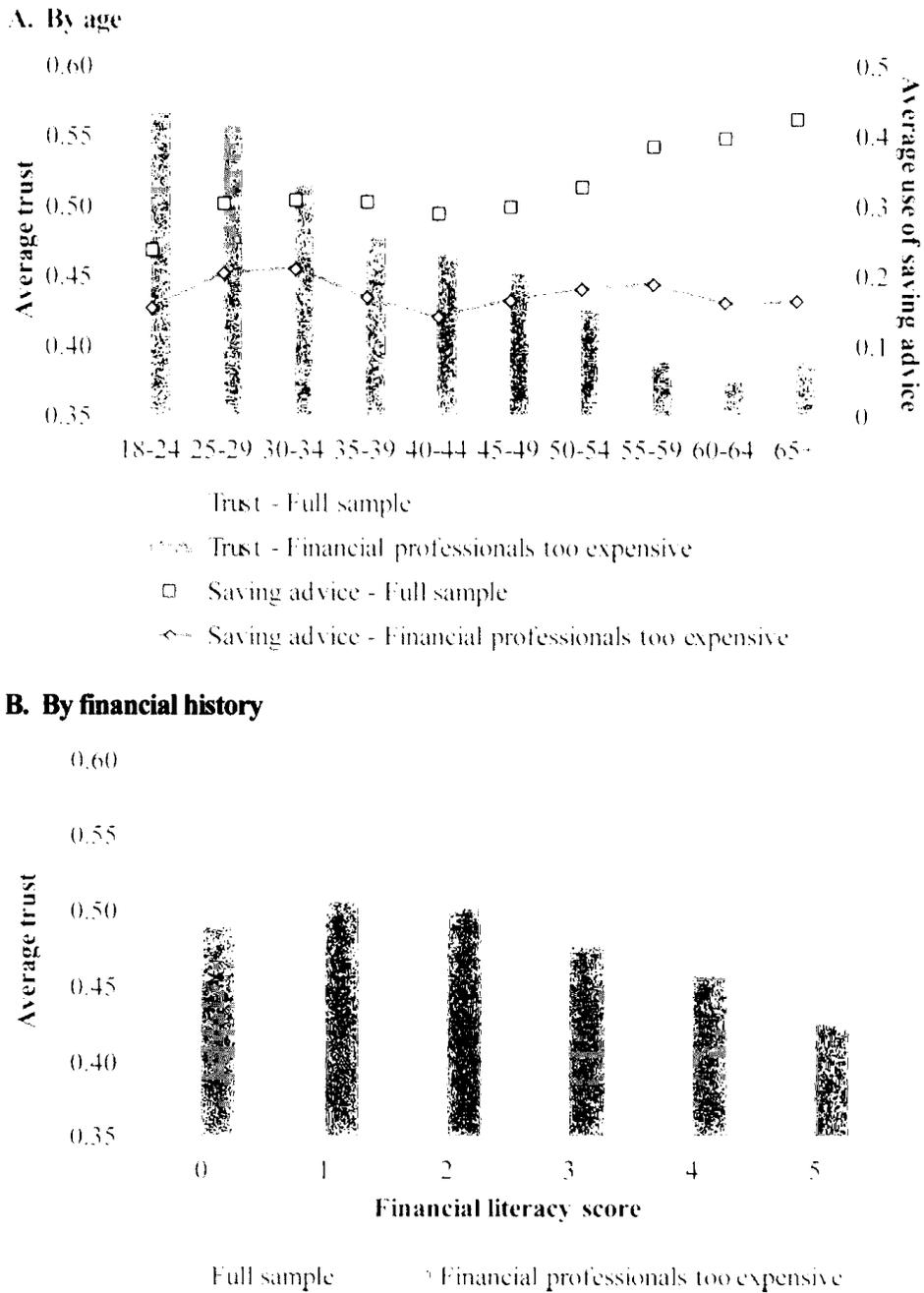


Fig. 2. Trust in financial professionals and use of saving advice.

decline in trust for the full sample with the group that strongly agrees that financial professionals are too expensive. Again, we find that the decline in trust with financial literacy is much more pronounced for the most cost-critical group. In fact, if we repeat the Table 2 regression only with those who do not perceive financial professionals as being too expensive (i.e., those who answer 1 or 2), the age and financial literacy effects in Table 2 are not present.

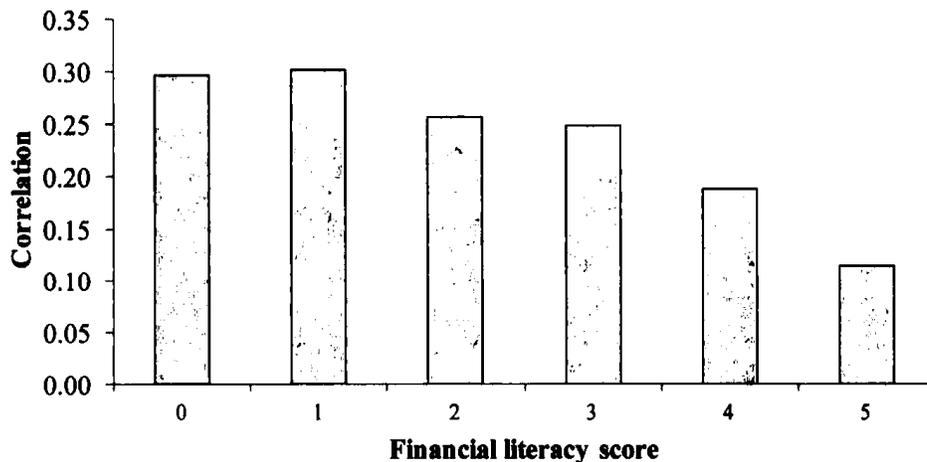


Fig. 3. Correlation between trust and willingness to take risk (as a function of financial literacy).

3.5. Trust and risk

Going back to the results in Table 2, the most statistically significant variable is willingness to take investment risk. The wording of this question in the NFCS is “When thinking of your financial investments, how willing are you to take risks?” and possible answers range from 1 (not at all willing) to 10 (very willing). Does this result in Table 2 mean that more risk tolerant people are more trusting? Not necessarily. While the NFCS risk question captures in part risk aversion, the answers can also be shaped by life-cycle factors and beliefs about risky investments. The influence of risk aversion in this question seems quite evident as women (the traditionally more risk averse group) provide much lower scores. Furthermore, having a greater proportion of savings invested in stocks is associated with higher scores. In contrast, trust is much less affected by gender and has only a small impact on the proportion of investments allocated to stocks.⁶ This leads us to conclude that risk aversion is probably not the main factor explaining trust, although it might be positively correlated with it.

To elucidate the connection between risk and trust, we offer an alternative explanation: a common set of beliefs applies to both risky investments and financial professionals. Of course, the nature of these two questions is quite different: investments involve widely fluctuating returns while trusting financial professionals is more of a competency/integrity judgment. However, those with less financial expertise may be less nuanced in their judgments. Indeed, Fig. 3 shows that the answers to the risk and trust questions are much more correlated for those with lower financial literacy. Furthermore, tabulating trust for each level of willingness to take risk in Fig. 4, we find a much sharper decline for those with the lowest risk score and this drop does not disappear with control variables.

A possible interpretation for the nonlinearity in Fig. 4 is that some of the answers at the very bottom of the risk scale may not only signal risk aversion, but also what we can call, for want of a better expression, “finance aversion.” In other words, some respondents may express strong negative views about everything related to finance. This can also affect behavior: Fig. 4 shows that there is a particularly high drop in the use of financial advice for

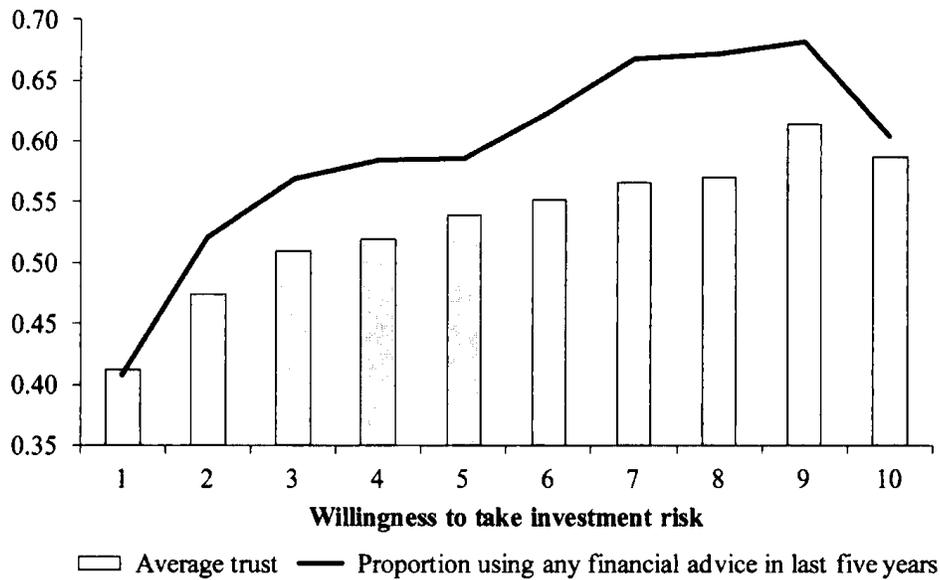


Fig. 4. Trust, willingness to take investment risk, and financial advice use.

the lowest risk group. For researchers, the implication is that the line between results because of beliefs and those because of preferences may be sometimes blurred.

Interestingly, the results in Fig. 4 are very much in line with Hanna (2011) who examines the connection between the use of financial planners and willingness to take investment risk with the Survey of Consumer Finances (SCF) data. The SCF question is also framed in terms of willingness to take investment risk, with a scale ranging from 1 (willing to take substantial risk) to 4 (not willing to take any risk). Similarly to the results in Fig. 4, he finds that those unwilling to take risk are also a lot less likely to use financial planners, even controlling for income, net worth, and other factors. He also points out that there is a reduction in the use of advice for those in the highest risk category. Remarkably, we also observe this decline in Fig. 4 for those who score 10 on the risk scale. Our finer scale allows us to suggest an explanation for this result by comparing those who score 10 to those who score 8 or 9. We find that the two groups have very different demographic composition: those who score 10 have much lower wealth, education, income, and financial literacy. This should be investigated in future research.

4. Trust and financial advice

This section turns to Probit regressions to examine the impact of trust on the consumption of financial advice in the last five years. The results are presented separately for each type of advice, namely, savings and investment, tax planning, insurance, mortgage or loan, and debt counseling. The regressions take into account the respondent's exposure to specific financial products and services. For example, someone with multiple saving vehicles is more likely to seek investment advice, someone who recently purchased a house is more likely to get mortgage advice, someone who just went through bankruptcy is more likely to get debt

Table 3 Determinants of financial exposure by type of advice: Probit regressions

	Savings or investments	Tax planning	Insurance	Mortgage or loan	Debt counseling
Have saving account, CDs, stocks, bonds, mutual funds	14.31 (13.68)		5.01 (4.75)		
Have retirement savings outside employer	14.67 (14.70)	5.33 (6.85)	5.56 (6.77)		
Value of investments	31.56 (17.95)	20.06 (15.29)			
Emergency fund	6.64 (8.00)	2.49 (3.84)			
College savings	7.47 (7.53)	6.15 (8.01)	8.09 (8.31)		
Business or other real estate		10.66 (14.62)	9.96 (11.60)	8.45 (11.43)	
Self employed		5.74 (6.22)			
Life or home insurance			9.03 (8.66)		
Any insurance outside employer			14.01 (16.95)		
Bought home in the last five years				20.06 (26.15)	
Mortgage, equity, or auto loan				19.73 (28.64)	
Credit cards balance				10.20 (10.37)	3.39 (5.23)
Loan/withdrawal from retirement account				6.08 (4.97)	6.21 (7.88)
Check credit report or credit score last year				13.09 (21.06)	4.20 (10.31)
Bankruptcy in last 2 years					38.79 (22.68)
Overdraw					5.00 (10.51)
Difficulty paying bills					9.08 (14.93)
Late with mortgage or credit card payments					6.06 (11.51)
Pseudo- R^2	0.1294	0.1064	0.0453	0.1425	0.1359
N	18,628	19,652	19,182	22,578	20,435

Note: Coefficients are multiplied by 100 and measure the change in probability corresponding to a change in the independent variable. Z-statistics are in parenthesis. All coefficients are statistically significant at the one percentage level.

counseling, and so forth. To control for this, we introduce five measures of “financial exposure” connected with the type of advice sought. The NFCS data has the benefit of providing several variables that can be used for this purpose. We retain a set of five to seven variables for each type of advice and present the results of the corresponding Probit regressions in Table 3. To make the coefficients comparable, non-dummy variables are rescaled to be between 0 and 1. There is some overlap for the variables for saving, tax, and insurance advice, but the set for mortgage, loan, and debt counseling is quite different.

Including this set of about 20 financial variables in the advice regressions complicates the analysis of the results. To simplify the exposition, we first regress each type of advice on its explanatory variables and use the predicted regression values as a single “financial exposure” variable. We verified that our conclusions are not affected if the original set of variables is used instead of the predicted values. The other control variables include standard demo-

Table 4 Probit regressions: Use of financial advice in the last five years

	Saving and investment	Tax planning	Insurance	Mortgage or loan	Debt counseling
I. Trust only					
Trust	29.44 (19.75)**	17.21 (14.35)**	18.28 (12.16)**	15.62 (11.92)**	8.47 (8.98)**
Pseudo-R ²	0.0185	0.0120	0.0064	0.0058	0.0063
II. Trust with control variables					
Trust	24.44 (15.15)**	12.78 (10.60)**	14.94 (9.42)**	10.02 (7.19)**	6.84 (7.69)**
Financial Variables					
Financial exposure	81.36 (30.14)**	58.45 (22.54)**	87.17 (21.21)**	90.51 (43.66)**	61.05 (36.15)**
Financial professionals too expensive	-27.45 (-19.92)**	-13.00 (-12.69)**	-11.29 (-8.32)**	-5.34 (-4.50)**	-0.40 (-0.53)
Willingness to take investment risk	10.39 (6.75)**	4.43 (3.81)**	5.27 (3.47)**	3.78 (2.87)**	1.74 (2.12)*
Drop in income	7.90 (9.67)**	6.30 (10.12)**	10.42 (13.00)**	3.98 (5.63)**	3.89 (8.42)**
Financial literacy	7.18 (4.21)**	1.27 (0.99)	4.70 (2.78)**	9.99 (6.84)**	-1.64 (-1.80)**
Demographic Variables					
Age	-1.81 (-1.24)	-6.88 (-6.09)**	-8.46 (-5.81)**	-11.81 (-9.32)**	-2.74 (-3.39)**
Female	2.93 (3.60)**	1.92 (3.12)**	3.74 (4.65)**	4.11 (5.78)**	-0.74 (-1.61)
Married	-0.25 (-0.28)	2.78 (4.14)**	3.64 (4.12)**	4.14 (5.30)**	0.54 (1.10)
Black	3.39 (2.34)*	1.70 (1.53)	1.96 (1.35)	-0.33 (-0.26)	5.00 (6.08)**
Education	11.58 (6.71)**	7.79 (5.98)**	5.68 (3.35)**	8.24 (5.53)**	2.83 (2.97)**
Income	-2.68 (-1.45)	9.10 (6.48)**	4.14 (2.27)*	5.52 (3.45)**	-1.41 (-1.44)
Pseudo-R ²	0.1634	0.1346	0.0642	0.1547	0.1494
N	16,756	17,546	17,317	19,991	18,350

Note: Coefficients are multiplied by 100 and measure the change in probability corresponding to a change in the independent variable. Z-statistics are in parenthesis. A * indicates statistical significance at the five percentage level and ** at the one percentage level. Regressions include dummies for census region.

graphic factors (age, gender, marital status, race, education, income, and region), a measure of whether financial professionals are too expensive, willingness to take investment risk, income drop in the last 12 months, and financial literacy.

4.1. Probit regressions: Trust versus advice

Table 4 displays the Probit results by type of advice for two specifications: Panel I (without control variables) and Panel II (with control variables). We find that in both cases trust is highly statistically significant for all five types of advice. Comparing the five types of advice, trust matters the most for saving and investment and the least for debt counseling. Because investments involve more risk than taxes or insurance, one interpretation for this result is that trust matters more when there is greater uncertainty. Not surprisingly, our constructed measure of financial exposure has the most impact on use of advice. Controlling for exposure, trust and cost are the two most important determinants of advice, with *t* statistics much higher than those for the demographic variables. We verified that this result is robust when including any of the other variables in the NFCS dataset.⁷ The next most significant variable is a drop in income, which affects positively the use of all types of advice. This result was also observed by Collins (2010) on a smaller scale with the national version of the NFCS data.

Demographic variables may be significant for two reasons: they may be capturing greater need (exposure) or they may reflect a greater appreciation of the value of advice. For example, the positive results for “married” can be explained by a more complex tax situation, a greater need for insurance for dependents, or requiring a mortgage. Similarly, the income effect for tax planning can arise because of greater benefits in higher tax brackets. Use of mortgage and debt is more prevalent earlier in life, which can explain the negative age coefficients in these columns. The positive coefficients for education could be because of greater exposure or greater appreciation of the value of advice.

On the other hand, exposure does not offer an easy explanation for the positive coefficients for women. Note that this result is found in most advice studies (Joo and Grable, 2001; Bluethgen et al., 2008; Hackethal et al., 2011; Finke et al., 2011; Gerhardt and Hackethal, 2009; Collins, 2010) and some of these studies have suggested that men are less likely to seek advice because of overconfidence (Barber and Odean, 2001). For financial literacy, as in Collins (2010) we find a positive effect on the use of advice with the exception of debt counseling. It is worth mentioning that if we use dummy variables for each level of financial literacy, we still observe an inverse U-shape pattern for all types of advice.

4.2. Willingness to take investment risk and age

Not only trust is important because of its direct impact on advice, but also because it helps us understand some results that are not evident at first for age and willingness to take investment risk. Table 4 shows that willingness to take investment risk is positively associated with all advice, with coefficients and *t* statistics about one-third of those for trust. This positive relationship has also been observed in other studies such as Joo and Grable (2001), Bluethgen et al. (2008), and Hanna (2011). A priori, it is difficult to justify why the use of advice should increase with risk tolerance. For instance, according to Hanna and Lindamood’s (2010) theoretical analysis, more risk averse households should value advice more. Another possible explanation then is that the coefficient for willingness to take investment risk is not necessarily caused by risk aversion, it can also be related to beliefs. As we discussed in Section 3.4, the high correlation between the trust and risk measures can reflect common beliefs. If this is the case, it makes sense that the explanatory power would be split between the two variables, with more weight on trust because it is more directly related to beliefs.

Considering the effect of trust also helps us reconcile the curious life-cycle pattern observed for the use of saving advice. The actual relationship between use of advice and age is highly nonlinear and it is useful to depict it graphically in Fig. 2A. After a material increase at age 25, the use of saving advice remains flat or slightly declining until age 50 and only starts picking up afterwards. Similar up-and-down-and-up age patterns are observed in Hanna (2011) with SCF data and in Hackethal et al. (2011) with German brokerage data. The pattern before age 50 is puzzling in the sense that wealth increases in that phase and we would normally expect that the use of saving advice would increase correspondingly. Examining Fig. 2A more closely, we see that for the full sample trust declines significantly from age 25 to 50 and then remains stable. In other words, it is possible that the positive impact of exposure is offset by the negative impact of trust during the age 25–50 phase.

Table 5 Trusting people versus confidence in banks and financial institutions

	Trust in people		Confidence in banks and financial institutions	
	Coefficient	<i>t</i> statistic	Coefficient	<i>t</i> statistic
Personal satisfaction				
Happy	7.65	12.63**	6.32	9.90**
Healthy	8.45	11.37**	4.69	5.84**
Satisfied with place lives in	8.35	10.49**	8.77	11.16**
Perception of other people				
Think people are fair	33.87	59.40**	7.41	11.13**
Think people are helpful	29.91	52.94**	5.66	8.69**
Political, religious, and other views				
Conservative	−3.96	−6.45**	4.67	7.52**
Republican	1.11	1.92	5.98	9.80**
Strength of religious affiliation	−0.57	−0.91	5.01	8.05**
Upper class	3.15	4.85**	5.97	8.73**
Spend too little on the military	−4.10	−5.12**	5.25	6.65**
Spend too little on environment	−0.85	−1.09	−5.23	−6.77**
Favor legalization of marijuana	1.14	1.81	−8.59	−12.81**

Note: Regressions include control variables from Table 2. Separate regressions are conducted for each variable. Coefficients are multiplied by 100. A * indicates statistical significance at the five percentage level and ** at the one percentage level. Regressions include dummies for census region and year. Number of observations ranges from 14,944 to 27,344.

Because trust does not decrease much after age 50, these headwinds disappear, leaving only the positive effect of quickly increasing exposure on advice use. By contrast, for the group who perceives that financial professionals are too expensive, trust still declines after age 50 and this prevents an increase in advice use.

5. Conclusion

This article contributes to the literature on trust and financial advice in several ways. Because of the paucity of relevant data, previous studies on the determinants of financial advice-seeking behavior have not examined the impact of trust. The recent release of the NFCS allows us to fill this gap in the literature by exploring the influence of various factors on financial advice use. Our Probit regressions of trust on advice confirm that trust increases the use of advice convincingly. This result is robust to the inclusion of control variables and holds for the five types of advice in the NFCS, with saving and investment advice increasing most with trust.

Examining the trust variables in the NFCS and GSS further, we establish that trusting financial professionals is fundamentally different from trusting people. We observe that financial literacy has an inverse U-shape connection with trust: not only those who lack financial knowledge do not trust, but also those who know seem to know better. Additionally, trust in financial professionals is strongly associated with age and willingness to take

investment risk. For willingness to take investment risk, we offer a fresh interpretation: while it clearly captures risk aversion, it may also reflect beliefs.

We suggest two directions for future research. First, it will be interesting to evaluate whether the decline in trust that followed the financial crisis is a permanent shock. Several sources of data will make this possible. For instance, the next wave of the GSS in 2012 will show whether confidence in banks and financial institutions has improved since the 2010 low point. Another source of data is the Chicago Booth–Kellogg School Financial Trust Index that measures trust quarterly since December 2008. Last, FINRA's (2009) report mentions their intention to repeat the NFCS survey in the next three to five years.

The second direction that we propose for future research is to better understand the root of financial distrust. For that purpose, surveys should consider adding variables related to beliefs, attitudes, and past experience with financial professionals or investments. We provide some early evidence that this can be a fruitful approach by showing in Table 5 that selected social variables from the GSS affect confidence in banks and financial institution more so than demographic factors. Positive perception of oneself (happy, healthy, satisfied with place lives in) or others (view people as fair or helpful) leads to across-the-board increases in trust and confidence. Further, confidence in banks and financial institutions is significantly higher among those who are conservative, religious, republicans, or support military spending. Conversely, negative coefficients are observed for those who favor environment spending and the legalization of marijuana. These preliminary results suggest that personal views and cultural factors might be a piece of the puzzle when it comes to understanding why some people have a greater affinity with financial services.

Notes

- 1 This literature includes, among others, Grable and Joo (1999), Miller and Montalto (2001), Elmerick et al. (2002), Bluethgen et al. (2008), Gerhard and Hackethal (2009), Collins (2010), Haslem (2010), Salter et al. (2010), Hackethal et al. (2011), Finke et al. (2011), and Hanna (2011).
- 2 Besides in surveys, trust has also been measured experimentally with variations of Berg, Dickhaut, and McCabe's (1995) trust game. In the trust game, subject A receives \$10 and decides how much of this money to send to subject B. Subject A is told that the money sent will be tripled and that subject B will then decide to return some or none of the money to A. Because this approach typically involves college students, it is difficult to apply it to life-cycle financial decisions.
- 3 From 1972 to 1993, the GSS has been administrated every year except for 1979, 1981, and 1992. Starting in 1994, the survey is conducted every other year. Some questions are not asked every year, the trust question was not asked in 1974, 1977, 1982, and 1985 and the confidence in institutions question was not asked in 1985. See Alesina and La Ferrara (2002) for further analysis of the generalized trust in people question.
- 4 Repeating the regression in Table 2 for the other institutions included in the GSS, the age coefficients are: major companies 0.52, organized religion 3.71**, education -2.13**, executive branch of the federal government -1.67**, organized labor

–12.36**, press –3.12**, medicine –10.36**, television –3.86**, Supreme Court –5.41**, scientific community –3.97**, congress –5.37**, and military 1.92**;
** indicates significance at the 1% level.

- 5 To verify that this is not a spurious result in our dataset, we repeat the exercise with the national version of the NFCS and find the same profile. Additionally, we observe the same shape if we redo the regression in Table 2 with dummy variables for the different levels of financial literacy. Related to this, we also see small declines in trust for those with the highest levels of education, income, and wealth.
- 6 Regressing willingness to take investment risk on the same demographic controls as in Table 2, the coefficient for women is –21.22 (*t* statistic –34.52). Regressing the proportion invested in stocks on willingness to take risk and demographic controls, the coefficient for the risk variable is 27.11 (*t* statistic 24.64). Adding trust to this last regression, the trust coefficient is only 0.72 (*t* statistic 0.68). Note that this is different from the result in Guiso et al. (2008) where in a similar regression trust is significant but not risk aversion; these differences may be explained by the fact that they used the GSS trust in people question and a pure risk aversion measure.
- 7 The only variable that can materially reduce the trust coefficients is receiving any other type of advice. Because getting other advice is highly correlated with trust, in that case part of the trust effect is captured by the other advice variable. A few variables related to good planning behavior (e.g., computing how much to save for retirement, comparing credit cards or insurance) are very statistically significant. We did not include them because they are likely to be a result of getting advice, rather than being a cause.

Appendix

The NFCS includes five standard questions on financial literacy developed by Lusardi and Mitchell (2009). The questions are listed below along with the distribution of the answers for the full NFCS state-by-state sample. We compute a financial literacy score by adding the number of correct answers; those who answer “don’t know/prefer not to say” are coded 0.

Compound interest question. Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? 1) more than \$102 (80%), 2) exactly \$102 (5%), 3) less than \$102 (4%), and 4) don’t know/prefer not to say (11%).

Inflation question. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account? 1) more than today (7%), 2) exactly the same (7%), 3) less than today (68%), and 4) don’t know/prefer not to say (19%).

Bond question. If interest rates rise, what will typically happen to bond prices? 1) they will rise (18%), 2) they will fall (30%), 3) they will stay the same (5%), 4) there is no relationship between bond prices and the interest rate (10%), and 5) don’t know/prefer not to say (38%).

Mortgage question. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less. 1) true (79%), 2) false (8%), and 3) don't know/prefer not to say (13%).

Diversification question. Buying a single company's stock usually provides a safer return than a stock mutual fund. 1) true (5%), 2) false (56%), and 3) don't know/prefer not to say (38%).

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