Appendix
Do measures of risk attitude in the laboratory predict behavior under risk in and outside of the laboratory?

Gary Charness*, Thomas Garcia†, Theo Offerman‡
and Marie Claire Villeval§

A Instructions (original in Dutch)

*Department of Economics, University of California at Santa Barbara; charness@econ.ucsb.edu.

†Univ Lyon, Université Lumière Lyon 2, GATE UMR 5824, F-69130 Ecully, France; Banque de France; thomas.garcia@banque-france.fr.

‡CREED and Tinbergen Institute, University of Amsterdam, Amsterdam, Netherlands; T.J.S.Offerman@uva.nl.

§Univ Lyon, CNRS, GATE UMR 5824, F-69130 Ecully, France; IZA, Bonn, Germany; villeval@gate.cnrs.fr.

We thank you for participating in this experiment. This experiment consists of five parts in which we ask you to make decisions. Please read the instructions carefully as the earnings you will make depend mainly on your decisions and partly on chance. This questionnaire is about your own preferences. Always choose the option that you prefer.

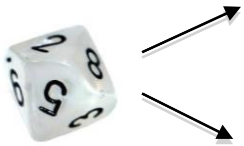
To determine your earnings in this experiment, we will randomly draw one of the first four parts. Each of these parts has the same chance to be selected. Your earnings will be transferred to your bank account.

Part 1

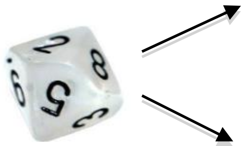
You have to manage a fund of **100 Euros**. You can invest the 100 Euros in a single project, in two projects or in three projects. Each project is characterized by various opportunities for earnings.

- Project 1: You will earn **6 Euro-cents** for each Euro invested.

- Project 2: A fair ten-sided die is rolled. If the roll of the die is 1, 2, 3, 4, or 5 you will earn **2 Euro-cents** for each Euro invested. If the roll of the die is 6, 7, 8, 9 or 10, you will earn **14 Euro-cents** for each Euro invested.

	1,2,3,4,5	You earn **2 Euro-cents** * number of Euros invested
	6,7,8,9,10	You earn **14 Euro-cents** * number of Euros invested

- Project 3: A fair ten-sided die is rolled. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, or 8 you will earn **2 Euro-cents** for each Euro invested. If the roll of the die is 9 or 10, you will earn **42 Euro-cents** for each Euro invested.

	1,2,3,4,5,6,7,8	You earn **2 Euro-cents** * number of Euros invested
	9, 10	You earn **42 Euro-cents** * number of Euros invested

If this part is drawn for actual payment, you will earn **the sum of the returns** earned on the investments made in the three projects.

Please indicate below how many Euros you invest in each project. Put 0 if you do not invest in a specific project. The total amount invested must equal 100 Euros.

I invest ______ Euros in Project 1
I invest ______ Euros in Project 2
I invest ______ Euros in Project 3

TOTAL: 100 Euros

Part 2

You receive 10 Euros. A fair ten-sided die is rolled. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9 you will keep these **10 Euros.** If the roll of the die is 10, you will lose your **10 Euros**.

	1,2,3,4,5,6,7,8,9	You keep your 10 Euros
	10	You lose your 10 Euros

However, you can insure yourself against this risk. Five different options are offered to you with varying degrees of protection. Please choose your favorite option.

- **Option 1**: you do not buy any insurance. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9, you earn **10 Euros.** If the roll of the die is 10, you earn **0 Euro**.

	1,2,3,4,5,6,7,8,9	You earn **10 Euros**
	10	You earn **0 Euro**

- **Option 2**: this insurance costs you **0.5 Euros**. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9, you earn **9.5 Euros.** If the roll of the die is 10, you earn **1.5 Euros**.

	1,2,3,4,5,6,7,8,9	You earn **9.5 Euros**
	10	You earn **1.5 Euro**

- **Option 3**: this insurance costs you **1 Euro**. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9, you earn **9 Euros.** If the roll of the die is 10, you earn **3 Euros.**

	1,2,3,4,5,6,7,8,9	You earn **9 Euros**
	10	You earn **3 Euros**

- **Option 4**: this insurance costs you **1.5 Euro.** If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9, you earn **8.5 Euros.** If the roll of the die is 10, you earn **4.5 Euros**.

	1,2,3,4,5,6,7,8,9	You earn **8.5 Euros**
	10	You earn **4.5 Euros**

- **Option 5**: this insurance costs you **2.5** Euros. If the roll of the die is 1, 2, 3, 4, 5, 6, 7, 8, or 9, you earn **7.5 Euros.** If the roll of the die is 10, you earn **7.5** Euros.

	1,2,3,4,5,6,7,8,9	You earn **7.5 Euros**
	10	You earn **7.5 Euros**

At the end of the experiment, if this part is drawn for actual payment, you will earn the money corresponding to your insurance choice and to the roll of the die.

Please choose your preferred option.

Option 1 O
Option 2 O
Option 3 O
Option 4 O
Option 5 O

Part 3

Imagine the following scenario: You borrow 10 Euros that must be repaid after ten 'years'.

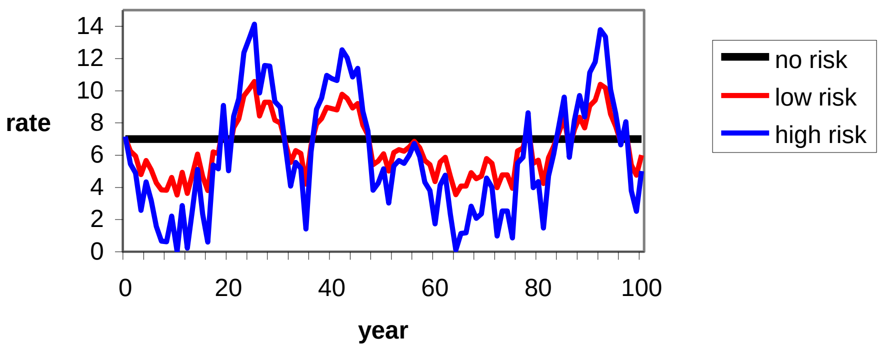
Every year you receive an income of 1.5 Euros and you have to pay the interest on your loan.

You have to choose one of three interest-rate options for your loan.

Please choose your favorite option among the three following options:

- **Option 1**: You pay a fixed interest rate.
  Every year, the interest rate amounts to **7%** of your loan, i.e. 70 Euro-cents are deducted from your income.
- **Option 2**: You pay an annually adjustable interest rate that can change slightly from year to year. The first year, the interest rate amounts to **6%**, i.e. 60 Euro-cents are deducted from your income. Any following year, this rate may vary, **up to 2% below** its value of the previous year and **up to 2% above** its value of the previous year.
- **Option 3**: You pay an annually adjustable interest rate that can change more substantially from year to year, but has a lower initial rate. The first year, the interest rate amounts to **5%**, i.e. 50 Euro-cents are deducted from your income. Any following year, this rate may vary, **up to 4% below** its value of the previous year and **up to 4% above** its value of the previous year.

The following figure shows how the interest rates developed in the previous 100 years (this year you are in year 100). The black line corresponds to Option 1, the red line to Option 2, and the blue line to Option 3.



Please choose your preferred option.

Option 1 O
Option 2 O
Option 3 O

At the end of the experiment, if this part is drawn for actual payment, you will earn the sum of (1,5 Euros – interest) for each of the ten years.

Part 4a

In the Table below, you make 10 choices between “option A” and “option B”.

- Option A is a lottery that pays you either **8 Euros or 6.4 Euros**.
- Option B is a lottery that pays you either **15.4 Euros or 0.4 Euro**.

Look at Decision 1. A ten-sided die is rolled. If the roll of the die is 1, you earn 8 Euros with option A and 15.4 Euros with option B. If the roll of the die is 2,3,4,5,6,7,8,9, or 10, you earn 6.4 Euros with option A and 0,4 Euro with option B.

Look at Decision 2. If the roll of the die is 1 or 2, you earn 8 Euros with option A and 15.4 Euros with option B. If the roll of the die is 3,4,5,6,7,8,9, or 10, you earn 6.4 Euros with option A and 0.4 Euro with option B.

As you move down the table, the chances of the higher prize for each option increase.

Please decide if you prefer option A or option B for each decision.

Decision number	If the roll of the die is	You earn in Euros		Your choice	
		Option A	**Option B**	Option A	Option B
1	 1 2,3,4,5,6,7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
2	 1,2 3,4,5,6,7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
3	 1,2,3 4,5,6,7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
4	 1,2,3,4 4,5,6,7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
5	 1,2,3,4,5 6,7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
6	 1,2,3,4,5,6 7,8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
7	 1,2,3,4,5,6,7 8,9,10	**8** **6,4**	**15,4** **0,4**	O	O
8	 1,2,3,4,5,6,7,8 9,10	**8** **6,4**	**15,4** **0,4**	O	O
9	 1,2,3,4,5,6,7,8,9 10	**8** **6,4**	**15,4** **0,4**	O	O
10	All cases	**8**	**15,4**	O	O

At the end of the experiment, if this part is drawn for actual payment, the computer program will randomly select one of the 10 decisions. For the option chosen in this decision, the “roll of a die” by the program will determine your earnings.

Part 4b

You receive 800 Euro-cents (8 Euros). You decide how many of these Euro-cents (between 0 and 800, inclusive) to invest. Those Euro-cents not invested are yours to keep.

The investment has a 50% chance of success. To determine if your investment is a success, a fair coin is tossed.

- If the coin comes up heads, your investment pays 2.5 times the amount you invested.
- If the coin comes up tails, you lose the amount invested.

At the end of the experiment, if this part is drawn for actual payment, your earnings are determined as indicated in the following figure.

	Heads	You earn: **800 – the Euro-cents invested + 2,5 * the Euro-cents invested**
	Tails	You earn: **800 – the Euro-cents invested**

Please indicate how many Euro-cents you want to invest: ________ Euro-cents.

Part 4c

We display two tables successively. If this part is drawn for payment at the end of the experiment, the program will select randomly one decision in one of the two tables for payment.

In Table 1, you make 14 choices between “option A” and “option B”.

- **Option A** is a lottery that pays you **8 Euros** if the roll of a ten-sided die is 1, 2, or 3 **or 2 Euros** if the roll of the die is 4, 5, 6, 7, 8, 9, or 10. **Option A is identical in the 14 decisions**.

	1,2,3	You earn **8 Euros**
	4,5,6,7,8,9,10	You earn **2 Euros**

- **Option B** is a lottery that pays you either **1 Euro** if the roll of the die is 2, 3, 4, 5, 6, 7, 8, 9, or 10, **or an amount increasing from 13.6 Euros to 340 Euros along the 14 decisions** if the roll of the die is 1. For example, in decision 1, if the roll of the die is 1, it pays 13.6 Euros; in decision 2, it pays 15 Euros; finally in decision 14, it pays 340 Euros.

	1	You earn **x Euros** (with x=13.6 Euros in decision 1 to 340 Euros in decision 14)
	2,3,4,5,6,7,8,9,10	You earn **1 Euro**

Please decide if you prefer option A or option B for each of the 14 following decisions. As soon as you click option B in one decision, the option A is automatically selected in all the decisions up to the top of the table and the option B is automatically selected in all the following decisions down to the bottom of the table. In other words, **you simply need to identify the decision from which you prefer option B.**

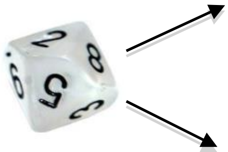
Table 1

Decision Number	Option A		Option B		You choose	
	 If the die indicates	You earn in Euros	 If the die indicates	You earn in Euros	Option A	Option B
1	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**13.6** **1**	O	O
2	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**15** **1**	O	O
3	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**16.6** **1**	O	O
4	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**18.6** **1**	O	O
5	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**21.2** **1**	O	O
6	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**25** **1**	O	O
7	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**30** **1**	O	O
8	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**37** **1**	O	O
9	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**44** **1**	O	O
10	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**60** **1**	O	O
11	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**80** **1**	O	O
12	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**120** **1**	O	O
13	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**200** **1**	O	O
14	1,2,3 4,5,6,7,8,9,10	**8** **2**	1 2,3,4,5,6,7,8,9,10	**340** **1**	O	O

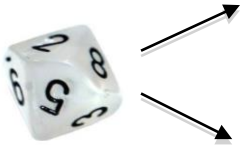
(After decisions have been made in table 1)

In Table 2, you make also 14 choices between “option A” and “option B”.

- **Option A** is a lottery that pays you **8 Euros** if the roll of a fair ten-sided die is 1, 2, 3, 4, 5, 6, 7, 8, or 9 and it pays **6 Euros** if the roll of the die is 10. **Option A is identical in the 14 decisions**.

	1,2,3,4,5,6,7,8,9	You earn **8 Euros**
	10	You earn **6 Euros**

- **Option B** is a lottery that pays you either **1 Euro** if the roll of the die is 8, 9, or 10, and it pays **an amount increasing from 10,8 Euros to 26 Euros along the 14 decisions** if the roll of the die is 1, 2, 3, 4, 5, 6, or 7. For example, in decision 1, it pays 10.8 Euros; in decision 2, it pays 11.2 Euros; finally in decision 14, it pays 26 Euros.

	1,2,3,4,5,6,7	You earn **x Euros** (with x=10.8 Euros in decision 1 to 26 Euros in decision 14)
	8,9,10	You earn **1 Euro**

Please decide if you prefer option A or option B for each of the 14 following decisions. As for Table 1, you simply need to identify the decision from which you prefer option B.

Table 2

Decision Number	Option A		Option B		You choose	
	 If the die indicates	You earn in Euros	 If the die indicates	You earn in Euros	Option A	Option B
1	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**10.8** **1**	O	O
2	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**11.2** **1**	O	O
3	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**11.6** **1**	O	O
4	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**12** **1**	O	O
5	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**12.4** **1**	O	O
6	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**13** **1**	O	O
7	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**13.6** **1**	O	O
8	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**14.4** **1**	O	O
9	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**15.4** **1**	O	O
10	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**16.6** **1**	O	O
11	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**18** **1**	O	O
12	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**20** **1**	O	O
13	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**22** **1**	O	O
14	1,2,3,4,5,6,7,8,9 10	**8** **6**	1,2,3,4,5,6,7 8,9,10	**26** **1**	O	O

Part 4d

- How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?

Please give a value between 0 and 10, with 0 for “not at all willing to take risks” and 10 for “very willing to take risks”.

0 1 2 3 4 5 6 7 8 9 10

- How would you rate your willingness to take risks concerning financial matters?

0 1 2 3 4 5 6 7 8 9 10

Part 4e

Please choose your favorite option among the six options displayed in the table below.

In each option, a fair coin is tossed. Each option pays two possible payoffs depending on the outcome. The only exception is option 1 in which the payoff is always 7.

Option	If the coin indicates	You earn in Euros	Your choice
1	 Head Tail	**7** **7**	O
2	 Head Tail	**9** **6**	O
3	 Head Tail	**11** **5**	O
4	 Head Tail	**13** **4**	O
5	 Head Tail	**15** **3**	O
6	 Head Tail	**17.5** **0.5**	O

At the end of the experiment, if this part is drawn for actual payment, you will receive the amount stated for the option you have chosen, depending on the coin toss by the computer.

Part 5

Please answer the three following questions.

(1) A bat and a ball cost 1.10 Euro in total. The bat costs 1 Euro more than the ball.
How much does the ball cost?

_____ Euro-cents

(2) If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?

_____ minutes

(3) In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

_____ days

B Additional figures

Figure A1 gives a visual summary of our design.

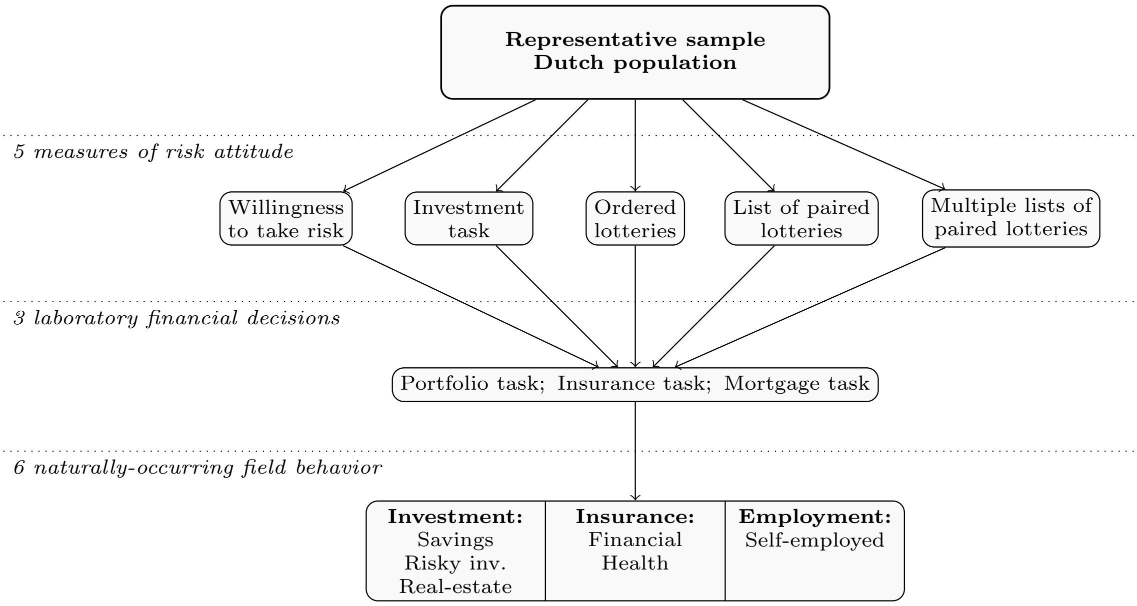


Figure A1: Design summary

Notes: We conducted our experiment on a representative sample of the Dutch population. The risk attitude of each subject is measured using a single procedure among five. All subjects make decisions for three laboratory financial tasks and six measures of risk exposure in the field.

C Estimation of CRRA parameters

We provide details on how we estimate risk-aversion. We first describe the general methodology. Then, we discuss special cases.

C.1 General methodology

For each decision, a parameter interval is associated with each decision. The upper (respectively lower) bound of the parameter interval associated with the decision is the parameter implying indifference between this decision and the choice with a risk level just below (respectively above). When the decision is the least risky (alternatively riskiest) of the risk-elicitation procedure, there is no choice with a risk level just below (respectively above). The interval is thus unbounded. To estimate a single parameter, we consider the centroids of each interval when the interval is bounded following Reynaud and Couture (2012). When the interval is unbounded, we take the closest integer value from the existing bound that is included in the interval.

C.2 Special cases

For two measures of risk attitude (GP and HL), we apply corrections to some of the decisions to increase the quality of our estimations.

GP: Rounding correction

For GP, the number of decisions available is much higher than for the other incentivized preferences (801 compared to 10 for HL, 14 for each question of TCN and 6 for EG). Facing such a large decision set, participants may have used heuristics to reduce the decision set (Heiner, 1983; Simon, 1955). It is essential to identify such reductions of the decision set as estimated parameters rely not only on the chosen decision but also on the decisions with a risk level just above and just below in the decision set. When analyzing untreated decisions, we find that most subjects have not considered the whole decision space but have rounded their answers to the nearest 50 cents. Indeed, 93.2% of the subjects' answers are multiple of 0.5. In order to have the highest likelihood of estimating the risk-aversion accurately, we thus apply the previously described method by rounding possible decisions to the nearest 50 cents. Without this correction, estimated parameters lie between -69 and 2. It is difficult to impute such extreme levels of risk-aversion to something else than a methodological problem. With the rounding correction, estimated parameters lie between -1 and 2. This interval is comparable to the parameter range of the other measures of risk attitude.

HL: multiple switching points

For HL, subjects' decisions are not constrained such that they should have a unique switching point. In our experiment, however, 23.1% of the subjects switch multiple times. For these subjects, we consider that their true switching point is their mean switching point. Not excluding these subjects enables us to have a comparable sample size for the different measures of risk attitude. We test the robustness of our results in Appendix E.

D Data plots

We report the histograms of the measures of risk attitude and the laboratory financial decisions. We display the histograms of the decisions in the risk-elicitation procedures before those of the estimated parameter.

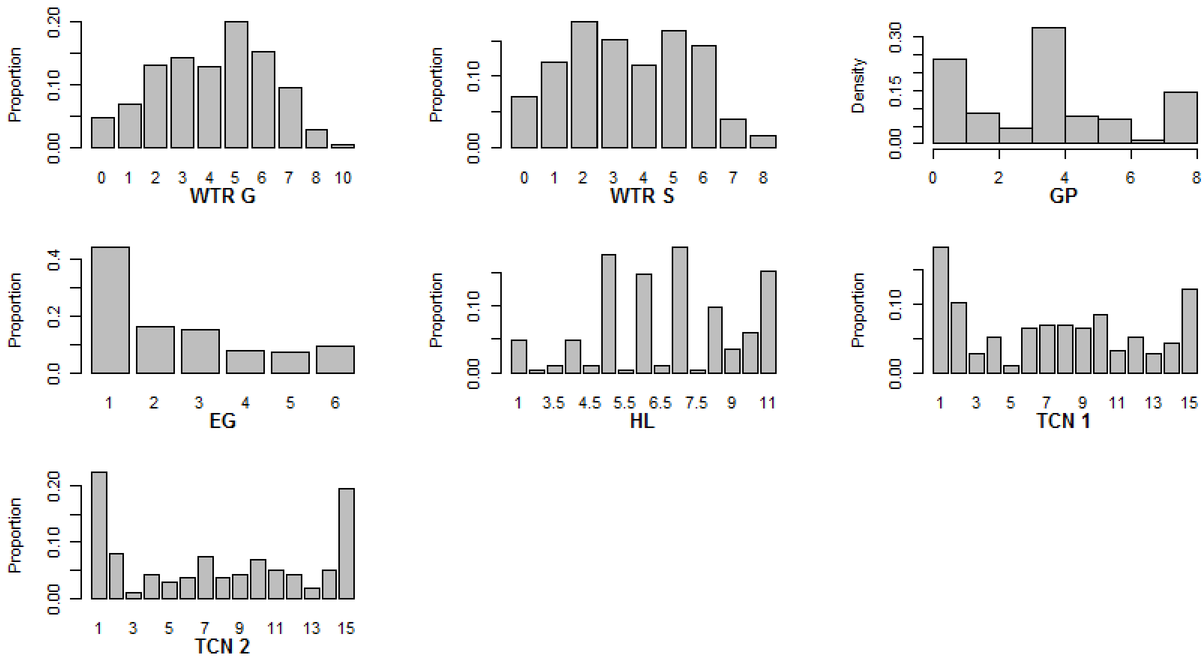


Figure A2: Measures of risk attitude - Observed decisions

Notes: These graphs plot the distribution of decisions for each measure of risk attitude. The decision is equal to the reported number for WTR G and WTR S, the lottery number for EG and the invested amount for GP. For TCN, the decision is equal to the number of the row at which they switch from option A to option B (it is equal to 15 if the subjects have always chosen option B). For HL, the decision is equal to the mean switching point. For all measures except GP, we consider that the decision is a categorical variable and bars present the proportion of each category. For GP, the decision is considered as continuous and each bar presents the density of observations within the corresponding range.

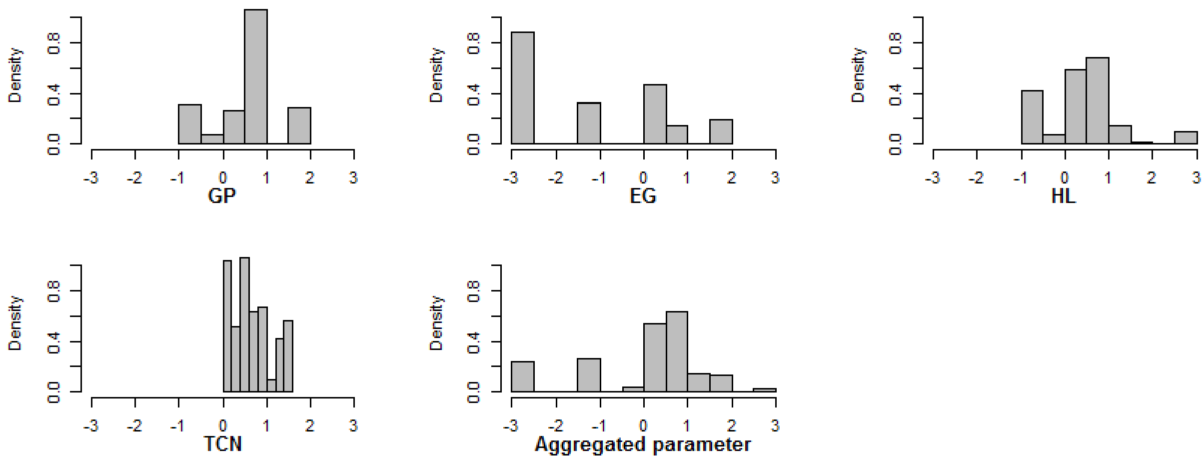


Figure A3: Measures of risk attitude - estimated risk-aversion parameter

Notes: These histograms plot the distribution of estimated risk-aversion parameters for each incentivized measure of risk attitude independently (GP, EG, HL and TCN) and jointly (aggregated parameter).

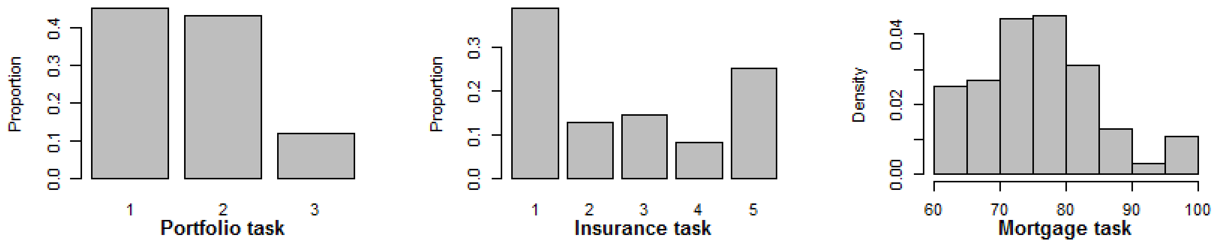


Figure A4: Laboratory financial decisions

Notes: These graphs plot the distribution of decisions for each laboratory financial decision. The decision is equal to the chosen option for the portfolio task and the insurance task. Bars present the proportion of each category. The decision is equal to the expected value of the decision in the mortgage task. Bars present the density of observations within each range.

E Robustness

We report below several robustness analyses.

E.1 Probability sensitivity in TCN

In the core of the paper, we analyze how decisions in TCN explain other behaviors under risk using only the utility curvature parameter. However, this method is richer and allows us to measure the individuals' sensitivity to probabilities. This sensitivity is associated in the gain domain with risk-seeking for low probabilities and risk-aversion for high probabilities (Tversky and Kahneman, 1992). Such distortion decreases with the value of α.

In this appendix, we also consider the probability-sensitivity parameter to test the robustness of our previous findings. We first assess whether the probability sensitivity parameter is related to behavior under risk (independently of the utility curvature). Then, we assess whether both parameters can jointly explain this behavior, using a predictive approach based on the cumulative prospect theory.

Neither of the two methods identifies a significant relationship between decisions in TCN and behavior under risk. We conclude that the independence between these two types of behavior is not due to the lack of consideration of the probability sensitivity.

We thus follow the same methodology than the one used in Section 3 to test the probability sensitivity against behavior under risk. Results are reported in Table A1. We find that the probability sensitivity is related neither to behavior in laboratory financial decisions nor to field behavior.

The theory predicts that the decision is driven by both the utility-curvature and the probability-sensitivity parameters. In order to assess jointly these two parameters, we use a predictive approach. We first compute the value of the other tasks' different options based on the parameters estimated in TCN. This value is computed following cumulative prospect theory, consistently with the approach of Tanaka et al. (2010). Formally, for the lottery $P = (x_1, p_1; ...; x_n, p_n)$ such that

	Dependent variable: Laboratory financial decisions			*Dependent variable: Field measures*					
	Mor.	**Ins.**	**Por.**	**Sav.**	**Ris. Inv.**	**Real Est.**	**Ins.**	**Ded.**	**Self-emp.**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Prob. sensitivity	−0.533	−0.583	−1.831	−13.892	−4.498	−3.112	−0.647	0.632	0.500
	(0.489)	(0.455)	(2.320)	(12.415)	(5.175)	(2.327)	(0.828)	(0.693)	(1.217)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	200	200	200	91	96	142	142	165	200
R^2	-	-	0.006	0.144	0.046	-	-	-	-
Log Likelihood	−194.115	−276.000	-	-	-	−15.104	−69.470	−76.990	−27.439

Table A1: Laboratory financial decisions and field measures explained by the probability sensitivity estimated with TCN

Notes: Ordered logistic regressions: (1) and (2). OLS regressions: (3) to (5). Logistic regressions (6) to (9). "Mor.": mortgage taks, "Ins.": insurance task, "Por.": portfolio task, "Sav.": savings, "Ris. Inv.": risky investments, "Real. est.": real estate, "Ins.": insurance, "Ded.": deductibles", and "Self-emp.": self-employed. Controls are "age", "male", "income".

outcomes are ranked, i.e., $x_1 \leq x_2 \leq ... \leq x_n$:

$$V(P) = \sum_{i=1}^{n} h_i(p_i) \times U(x_i)$$

with:

$$h_i(p) = \pi(\sum_{j=1}^{i} p_i) - \pi(\sum_{j=1}^{i-1} p_i)$$

Second, we order all options from the one with the highest value (rank of 1) to the one with the lower value (maximal rank). Finally, we compute the rank of the chosen option. The quality of the prediction is decreasing with the rank of the chosen option.

We apply this method to the insurance task and the portfolio task. Indeed, it can be applied only to lottery decisions; so, neither the mortgage task nor, obviously, field behavior can be written in a lottery form. There are five options in the insurance task and 5151 options in the portfolio task. To estimate the quality of the prediction, we report two performance indices. First, we report the average number of options with a higher value than the chosen option (rank of the chosen option minus one). Second, we report the proportion of decisions precisely predicted. For the insurance task, we consider that the value is precisely predicted if the observed decision has the highest value. For the portfolio task, we allow a less conservative definition of precisely predicted decisions since the number of possible decisions is much larger (5151 in portfolio task against five in the insurance task). We thus consider that a decision is precisely predicted if the chosen option is in the top 5% of the options with the higher value.

For the insurance task, we find that, on average, 2.4 decisions are better ranked than the chosen option. In addition, 20.94% of the decisions are correctly predicted. For the portfolio task, on average 2657 options have a higher value than the chosen option. 6.51% of all chosen options are ranked in the top 5% of the options with the highest value. We use binomial tests to evaluate if the proportions of precisely predicted decisions are higher than random guesses (5% for the portfolio task and 20% for the insurance task). We find that TCN does not perform better than random guesses (p=0.733 for the insurance task and p=0.274 for the portfolio task).

The results reported in Section 3 are thus robust to the analysis of the probability sensitivity parameter. We conclude that behavior in TCN is related neither to behavior in the laboratory financial decisions, nor to field behavior.

E.2 Independent regressions of measures of risk attitude on field measures

When regressing the risk parameter obtained in each of the measures of risk attitude on field behavior, we do not find any statistically significant relationship at a 10% level (Table A2). The lack of explanatory power of the measures of risk attitude is thus confirmed when regressing measures independently on field behavior.

E.3 Alternative specifications of the willingness-to-take-risk measures

In the previous analyses, we have considered the answers to the test of Dohmen et al. (2011) as a dummy variable. In this section, we test two different approaches: i) we consider subjects' answers as a series of binary variables, ii) we consider subjects' answers as quantitative measures.

In the first approach, we construct one dummy variable for each level of the scale. Then, we regress all dummy variables, as well as our controls, on the laboratory financial measures and the field measures. Finally, for each regression, we test if the dummy variables are jointly significant, using an analysis of variance (ANOVA). Results are in Table A3. Regarding laboratory financial decisions, the effect of the willingness-to-take-risk measures on the mortgage task and the portfolio task is robust. While the absence of effect of WTR–S on the insurance task is also robust, the p-value associated with WTR–G is slightly below the 10% threshold. Regarding field measures, the absence of effect of the willingness-to-take-risk measures is robust for eleven relations out of twelve. Indeed, we only find one weakly significant effect of WTR–S on the fact of being insured.

In the second approach, we consider the willingness-to-take-risk as cardinal measures. It allows us to regress these two measures on the laboratory financial measures and the field measures. We use the specifications implemented for the other risk attitude measures. Results are reported in Table A4. The statistical significance of the effect of the willingness-to-take-risk measures on each of the explained variables is exactly the same than the one obtained when considering these measures as two dummy variables.

To summarize, considering answers to the test of Dohmen et al. (2011) as a series of binary variables or as a cardinal variable confirms all the effects previously found. In addition, we find two weakly significant effects out of 28 effects tested. Given the number of tests implemented and the proximity with the 10% threshold, we consider that it does not provide enough evidence either to strengthen Result 2 or to weaken

	HL (r)	GP (r)	TCN (r)	EG (r)	WTR G	WTR S
	Dependent variable: Savings					
Risk attitude	−16.336	2.258	−3.850	−1.430	−7.158	−15.884
	(11.816)	(4.523)	(8.289)	(1.614)	(29.587)	(31.606)
	Dependent variable: Risky investments					
Risk attitude	−3.060	−3.624	0.482	0.074	1.545	2.325
	(2.127)	(2.538)	(3.317)	(0.997)	(3.557)	(3.707)
	Dependent variable: Real estate					
Risk attitude	−0.097	0.303	0.227	−0.247	−0.891	−0.480
	(0.669)	(0.419)	(1.110)	(0.189)	(1.166)	(1.173)
	Dependent variable: Insurance					
Risk attitude	−0.073	−0.223	−0.679	−0.102	−0.294	0.096
	(0.352)	(0.283)	(0.510)	(0.115)	(0.588)	(0.594)
	Dependent variable: Deductible					
Risk attitude	−0.031	0.100	0.470	0.104	−0.445	−0.188
	(0.200)	(0.232)	(0.255)	(0.466)	(0.475)	(0.506)
	Dependent variable: Self-employed					
Risk attitude	0.140	−0.117	0.271	−0.495	0.329	0.095
	(0.363)	(0.370)	(0.981)	(0.310)	(0.785)	(0.859)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes
Observations (savings)	90	86	91	104	117	117
R^2 (savings)	0.507	0.174	0.134	0.278	0.133	0.134
Observations (risk inv.)	100	95	96	106	110	110
R^2 (risk inv.)	0.112	0.102	0.038	0.021	0.081	0.083
Observations (real estate)	141	147	142	165	165	165
Akaike Inf. Crit. (real estate)	34.605	74.674	41.903	83.298	59.135	59.630
Observations (insurance)	141	147	142	165	165	165
Akaike Inf. Crit. (insurance)	80.492	131.887	147.716	165.312	120.803	121.034
Observations (deductible)	157	168	165	188	174	174
Akaike Inf. Crit. (deductible)	189.050	186.239	186.239	211.775	172.882	173.659
Observations (self-emp.)	198	201	200	231	234	234
Akaike Inf. Crit. (self-emp.)	82.667	90.484	64.967	64.590	78.773	78.932

Table A2: Field measures explained by measures of risk attitude

Notes: For each column, the independent variable "Risk attitude" comes from a different measure of risk attitude. (r) means that the "Risk attitude" is an estimated parameter. Otherwise, it is the decision itself. The other independent variables are age, male, income and an intercept. The dependent variables vary in each block of the table. When the dependent variable is continuous, we use OLS regressions (savings and investments). Otherwise, we use logistic regressions. The number of observations, R^2 for OLS regressions and Akaike Information criterion for logistic regressions are displayed in the last block of the Table and referred to by the name of the corresponding dependent variable.

Result 4. We thus conclude that the effects of WTR–G and WTR–S are robust to a change of specification.

		Lab financial dec.			*Field measures*					
		Mor. (1)	**Ins.** (2)	**Por.** (3)	**Sav.** (4)	**Ris. Inv.** (5)	**Real Est.** (6)	**Ins.** (7)	**Ded.** (8)	**Self-emp.** (9)
WTR G	*Df*	9	9	9	9	8	9	9	8	9
	Test statistic	42.415	14.825	2.163	0.411	1.008	9.568	7.081	9.004	12.072
	P Value	0.000003	0.096	0.026	0.927	0.435	0.387	0.629	0.342	0.209
WTR S	*Df*	8	8	8	8	8	8	8	8	8
	Test Statistic	32.246	8.129	3.516	0.720	0.749	4.915	13.872	12.623	4.426
	P Value	0.0001	0.421	0.001	0.674	0.648	0.767	0.085	0.125	0.817

Table A3: Laboratory financial decisions and field measures explained by WTR - ANOVA using series of dummy variables.

Notes: Df: degrees of freedom; Test statistic: F-test for OLS regressions (3 to 5), Likelihood-ratio χ^2 *for ordered logistic regressions (1 and 2) and logistic regressions (6 to 9). "Mor.": mortgage task, "Ins.": insurance task, "Por.": portfolio task, "Sav.": savings, "Ris. Inv.": risky investments, "Real. est.": real estate, "Ins.": insurance, "Ded.": deductibles", and "Self-emp.": self-employed.*

	Dependent variable: Lab financial dec.			*Dependent variable: Field measures*					
	Mor. (1)	**Ins.** (2)	**Por.** (3)	**Sav.** (4)	**Ris. Inv.** (5)	**Real Est.** (6)	**Ins.** (7)	**Ded.** (8)	**Self-emp.** (9)
WTR G	0.377^{***}	0.079	1.064^{***}	4.757	0.072	0.063	−0.030	0.045	0.174
	(0.074)	(0.062)	(0.312)	(6.525)	(0.798)	(0.220)	(0.134)	(0.099)	(0.193)
WTR S	0.365^{***}	−0.005	1.354^{***}	−3.040	0.668	0.126	−0.054	0.160	0.033
	(0.071)	(0.062)	(0.309)	(6.705)	(0.780)	(0.219)	(0.133)	(0.101)	(0.184)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	234	234	234	117	110	165	165	174	234
R^2 (WRT G)	-	-	0.083	0.136	0.079	-	-	-	-
Log Likelihood (WRT G)	472.691	472.562	-	-	-	−24.864	−55.505	−81.797	−34.054
R^2 (WRT S)	-	-	0.111	0.134	0.086	-	-	-	-
Log Likelihood (WRT S)	734.464	736.076	-	-	-	−24.741	−55.447	−80.633	−34.456

Table A4: Laboratory financial decisions and field measures explained by WTR - WTR as cardinal variable.

Notes: Ordered logistic regressions: (1) and (2). OLS regressions: (3) to (5). Logistic regressions (6) to (9). "Mor.": mortgage task, "Ins.": insurance task, "Por.": portfolio task, "Sav.": savings, "Ris. Inv.": risky investments, "Real. est.": real estate, "Ins.": insurance, "Ded.": deductibles", and "Self-emp.": self-employed. Controls are "age", "male", "income". $^{**}p < 0.05$, $^{*}p < 0.1$.

E.4 HL: Exclusion of subjects with multiple switching points

The previous analyses include the subjects who switched multiple times by considering their mean switching point. To evaluate if this methodology influences our results, we also analyze the data after excluding these subjects. We report these regressions in Table A5. Regressions (1) to (3) reproduce regressions of Table 8 regarding the influence of the measures of risk attitude on the laboratory financial decisions. We find that regardless of whether we include or exclude these subjects, HL explains decisions in the insurance task and the portfolio task but not in the mortgage task. Regressions (4) to (9) reproduce regressions of Table A2 regarding the influence of the measures of risk attitude on field behavior. We also find that excluding multiple switchers does not change our results since there is no statistically significant relationship between HL and any of the field measures. We conclude that our results are robust to the exclusion of subjects with multiple switching points.

	Dependent variable: Lab financial dec.			*Dependent variable: Field measures*					
	Mor. (1)	**Ins.** (2)	**Por.** (3)	**Sav.** (4)	**Ris. Inv.** (5)	**Real Est.** (6)	**Ins.** (7)	**Ded.** (8)	**Self-emp.** (9)
HL parameter	0.080	0.344^{**}	1.514^{*}	−0.006	−2.540	−0.010	−0.101	−0.020	0.268
	(0.152)	(0.163)	(0.774)	(0.017)	(2.069)	(0.629)	(0.345)	(0.200)	(0.336)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	153	153	153	109	88	109	109	120	153
R^2	-	-	0.054	0.226	0.121	-	-	-	-
Log Likelihood	-147.770	-202.561	-	-	-	−11.771	−32.168	−73.633	−31.002
Mul. Swi.	No	No	No	No	No	No	No	No	No

Table A5: Laboratory financial decisions and field measures explained by HL - Subjects switching multiple times are excluded.

Notes: Ordered logistic regressions: (1) and (2). OLS regressions: (3) to (5). Logistic regressions (6) to (9). "Mor.": mortgage task, "Ins.": insurance task, "Por.": portfolio task, "Sav.": savings, "Ris. Inv.": risky investments, "Real. est.": real estate, "Ins.": insurance, "Ded.": deductibles", and "Self-emp.": self-employed. Controls are "age", "male", "income". $^{**}p < 0.05$, $^{*}p < 0.1$.

E.5 Non-linear effects

Our previous analyses conclude that the measures of risk attitude are linearly related to behavior in the laboratory while they are not linearly related to field measures. We now investigate the existence of non linear relationships.

Precisely, we estimate the quadratic effects of risk attitude on financial laboratory measures and field measures. We cannot estimate quadratic effects for the non-incentivized measures (WTR G and WTR S) as, consistently with the previous encoding, these variables are not considered as continuous measures. To consider the quadratic effects of the incentivized measures, we use the aggregated measure as it gathers all of these measures. We center and reduce this measure to reduce the collinearity between the linear and quadratic terms. We thus estimate the following specifications:

$$y_i = \beta_0 + \beta_1\, Agg.Red.Cent._i + \beta_2 (Agg.Red.Cent.)_i^2 + \beta_3\, Age_i + \beta_4\, Male_i + \beta_5 Income_i + \epsilon_i$$

with $Agg.Red.Cent.$ being the reduced and centered aggregated measure of risk attitude and y either a financial laboratory measure or a field measure.

These estimations are reported in Table A6. Regarding laboratory financial measures, we find that the statistical significance of the linear effects is the same as the significance obtained without the quadratic term (see Table 8). In addition, the quadratic terms are never statistically significant. These estimations thus provide strong evidence against quadratic effects. Regarding field measures, we find the same number of statistically significant linear effects (though not for the same dependent variables) and one significant quadratic effect. Being insured is still negatively impacted by risk aversion. However, risk aversion has no longer a statistically significant impact on owing real-estate, while it negatively impacts risky investments. Risk aversion has a non-linear effect on risky investments. Finding only one quadratic effect (out of 6 tested) does not provide consistent evidence for quadratic effects of the aggregated measure of risk attitudes on field measures.

To sum up, we find the same number of statistically significant linear effects with and without quadratic terms. In addition, we find only one significant quadratic effect. We thus conclude that our findings are robust when adding a quadratic term to our regressions.

	Dependent variable: Lab financial dec.			*Dependent variable: Field measures*					
	Mor.	**Ins.**	**Por.**	**Sav.**	**Ris. Inv.**	**Real Est.**	**Ins.**	**Ded.**	**Self-emp.**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Agg. Red. Cent.	0.354***	0.083	1.849***	−6.037	−2.226*	−0.106	−0.362**	0.136	0.143
	(0.088)	(0.084)	(0.426)	(4.636)	(1.187)	(0.227)	(0.167)	(0.117)	(0.196)
Agg. Red. Cent.^{2}	0.029	0.016	0.187	−2.848	−1.640**	0.172	−0.156	0.061	0.179
	(0.057)	(0.055)	(0.277)	(3.043)	(0.765)	(0.147)	(0.107)	(0.076)	(0.129)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	830	830	830	371	397	595	595	678	830
R^2	-	-	0.043	0.259	0.059	-	-	-	-
Log Likelihood	-794.811	-1201.521	-	-	-	−102.560	−250.475	−360.617	−140.345

Table A6: Quadratic effects of risk preference measures on laboratory financial decisions and field measures.

*Notes: Ordered logistic regressions: (1) and (2). OLS regressions: (3) to (5). Logistic regressions (6) to (9). "Agg. Red. Cent.": reduced and centered aggregated measure of risk attitude, "Agg. Red. Cent.^{2}": reduced and centered aggregated measure of risk attitude squared. "Mor.": mortgage task, "Ins.": insurance task, "Por.": portfolio task, "Sav.": savings, "Ris. Inv.": risky investments, "Real. est.": real estate, "Ins.": insurance, "Ded.": deductibles", and "Self-emp.": self-employed. Controls are "age", "male", "income". ***$p < 0.05$, **$p < 0.05$, *$p < 0.1$.*

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