ONLINE APPENDIX

Appendix A Additional Results

Table A.1: Descriptive Statistics: Online subjects (Prolific + TSE) with number of correct answers ≤ 11

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
$Pr(A \text{ perceived predictive} \mid \text{predictable})$	39	0.76	0.80	0.19	0.40	1
$Pr(A \text{ perceived useless} \mid i.i.d)$	39	0.25	0.20	0.19	0	0.7
Predict	39	0.76	0.75	0.18	0.35	1
Forecast (in %)	780	13.2	9	15.8	-25	100
Forecast Distance (in %)	780	13.0	8.6	14.2	0.0	95.3
Invest (in ECU)	780	40.2	33.5	33.0	0	100
			Predict=1			
Forecast (in %)	590	13.5	9	15.8	-25	100
Upper prob. (in %)	568	27.6	20	26.5	0	100
Lower prob. (in %)	568	22.0	12	23.1	0	100
Forecast Distance (in %)	590	12.9	8.5	14.3	0.1	95.3
Invest (in ECU)	590	43.2	40	33.0	0	100
			Predict=0			
Forecast (in %)	190	12.4	9.5	15.8	-15	100
Upper prob. (in %)	172	19.4	10	20.9	0	90
Lower prob. (in %)	172	24.6	12	27.2	0	100
Forecast Distance (in %)	190	13.3	9.0	14.1	0.0	87.5
Invest (in ECU)	190	30.6	20	31.2	0	100

NOTE: "Predict" is a dummy equal to one if the subject perceives "Variable A" is useful to predict returns. ""Variable A" is revealed predictive" and "Variable A" is revealed not predictive" correspond to treatments where subjects are told explicitly if "Variable A" is useful or not.

Table A.2: Forecast and Investments: Online subjects (Prolific + TSE) with number of correct answers ≤ 11

Dep Variable	Forecast						Investments		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
a(t)	0.65	0.64	0.69						
	(0.49)	(0.42)	(0.41)						
a(t) × Predict	-0.54	-0.51	-0.59						
	(0.51)	(0.44)	(0.43)						
r(t)				0.12	0.08	0.08			
				(0.10)	(0.09)	(0.09)			
r(t) × Predict				-0.05	-0.00	-0.00			
				(0.10)	(0.12)	(0.11)			
Forecast							-0.05	0.31	0.33
							(0.13)	(0.24)	(0.24)
Forecast × Predict							0.15	0.13	0.15
							(0.15)	(0.11)	(0.14)
Predict	4.19	3.86	4.51*	1.18	0.83	1.01	10.71*	4.96	4.33
	(3.67)	(2.55)	(2.55)	(2.28)	(0.78)	(1.06)	(5.69)	(3.11)	(3.03)
N	780	780	780	780	780	780	780	780	780
R^2	0.01	0.63	0.64	0.00	0.63	0.64	0.03	0.55	0.57
Individual FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Round FE	No	No	Yes	No	No	Yes	No	No	Yes

NOTE: This table reports the results of OLS regressions. The dependent variable is the forecast of next period returns in percentage points, and the endowment invested in the risky asset in ECU respectivement. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. a(t) denotes the last realization of "Variable A". r(t) denotes the last realization of "Index Return". "Forecast" is the forecast of next period returns in percentage points. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A.3: Demographic characteristics of Prolific subjects

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
Age	56	39.1	38	11.9	19	71
FinLit (# of correct answer)	57	2.4	3	0.9	0	3
Female	26/56					
Education						
High School Degree/GED or less	16/56					
Two or four-year college degree	28/56					
Master's degree or above	12/56					
Annual income						
Less than $50,000	20/57					
From $50,000 to $110,000	26/57					
Above $110,000	11/57					

Table A.4: Forecast and Investment, Gender

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.44***	0.03				
	(0.07)	(0.10)				
a(t) × Female	-0.13*	-0.07				
	(0.07)	(0.14)				
r(t)			-0.06	0.14***		
			(0.04)	(0.04)		
r(t) × Female			0.12**	0.05		
			(0.05)	(0.06)		
Forecast					2.07***	1.81***
					(0.18)	(0.22)
Forecast × Female					-0.71**	-0.67*
					(0.30)	(0.33)
Forecast × Predict						0.34*
						(0.19)
Forecast × Predict × Female						0.11
						(0.28)
Predict						5.12**
						(1.90)
Predict × Female						-1.21
						(2.75)
N	1,865	1,475	1,865	1,475	3,340	3,340
R^2	0.16	0.27	0.14	0.30	0.58	0.59
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "Female" is a dummy equal to one if the subject is a woman. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.5: Forecast and Investment, High versus Low Risk Investment

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.38***	-0.11				
	(0.07)	(0.07)				
a(t) × High Investments	-0.02	0.27**				
	(0.09)	(0.12)				
r(t)			-0.01	0.20***		
			(0.04)	(0.05)		
r(t) × High Investments			0.02	-0.06		
			(0.06)	(0.07)		
Forecast					1.74***	1.41***
					(0.18)	(0.19)
Forecast × High Investments					-0.13	-0.07
					(0.36)	(0.36)
Forecast × Predict						0.48**
						(0.20)
Forecast × Predict × High Investments						0.01
						(0.28)
Predict						5.03***
						(1.03)
Predict × High Investments						-1.65
						(1.94)
N	1,888	1,492	1,888	1,492	3,380	3,380
R^2	0.16	0.27	0.13	0.30	0.58	0.59
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High θ" is a dummy equal to one if the subject takes larger or equal risk investments, on average, than the median, for the same wave and the same round-type, in both types of rounds. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.6: Forecast and Investment, High versus Low Ability

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.32***	0.02				
	(0.08)	(0.13)				
a(t) × High Ability	0.10	-0.02				
	(0.10)	(0.15)				
r(t)			0.04	0.17**		
			(0.04)	(0.06)		
r(t) × High Ability			-0.09*	0.01		
			(0.05)	(0.07)		
Forecast					1.47***	1.17***
					(0.26)	(0.26)
Forecast × High Ability					0.45	0.47
					(0.30)	(0.32)
Forecast × Predict						0.53**
						(0.19)
Forecast × Predict × High Ability						-0.10
						(0.27)
Predict						2.63*
						(1.36)
Predict × High Ability						2.89
						(1.70)
N	1,888	1,492	1,888	1,492	3,380	3,380
R^2	0.16	0.27	0.14	0.30	0.58	0.59
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High Ability" is a dummy equal to one if the subject is better or equal to the median, in the same wave, in identifying when "Variable A" is useful or not, as measured by $Pr(A \text{ perceived predictive} \mid \text{predictable}) + Pr(A \text{ perceived useless} \mid i.i.d)$. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.7: Forecast and Investment, Age

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.38***	0.33				
	(0.09)	(0.20)				
a(t) × Young	-0.06	-0.39				
	(0.12)	(0.28)				
r(t)			-0.06	-0.02		
			(0.07)	(0.10)		
r(t) × Young			0.10	0.26*		
			(0.09)	(0.12)		
Forecast					1.09**	1.05**
					(0.46)	(0.45)
Forecast × Young					0.13	-0.10
					(0.56)	(0.57)
Forecast × Predict						0.00
						(0.08)
Forecast × Predict × Young						0.51
						(0.32)
Predict						9.04***
						(2.36)
Predict × Young						-4.85*
						(2.42)
N	660	480	660	480	1,140	1,140
R^2	0.20	0.38	0.18	0.40	0.59	0.60
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "Young" is a dummy equal to one if the subject is younger or of same age as the median of 38 years old. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave four of the experiment implementation (Prolific online, July 2023).

Table A.8: Forecast and Investment, Income

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.32***	0.06				
	(0.11)	(0.23)				
a(t) × High Income	0.05	0.05				
	(0.06)	(0.25)				
r(t)			0.02	0.15		
			(0.07)	(0.11)		
r(t) × High Income			-0.05	-0.06		
			(0.09)	(0.15)		
Forecast					1.80***	1.79***
					(0.39)	(0.48)
Forecast × High Income					-0.87*	-0.98*
					(0.47)	(0.52)
Forecast × Predict						0.01
						(0.49)
Forecast × Predict × High Income						0.17
						(0.58)
Predict						3.88
						(3.44)
Predict × High Income						5.11
						(4.97)
N	649	471	649	471	1,120	1,120
R^2	0.20	0.38	0.18	0.39	0.59	0.61
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High Income" is a dummy equal to one if the subject has income above or equal to $50,000 per year. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave four of the experiment implementation (Prolific online, July 2023).

Table A.9: Forecast and Investment, Education

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.23	0.23				
	(0.16)	(0.18)				
a(t) × High Education	0.20	-0.20				
	(0.12)	(0.21)				
r(t)			-0.02	0.16		
			(0.08)	(0.10)		
r(t) × High Education			0.02	-0.09		
			(0.10)	(0.14)		
Forecast					1.52***	1.37***
					(0.28)	(0.42)
Forecast × High Education					-0.55	-0.49
					(0.42)	(0.47)
Forecast × Predict						0.18
						(0.41)
Forecast × Predict × High Education						0.01
						(0.47)
Predict						5.39
						(3.29)
Predict × High Education						2.17
						(4.85)
N	649	471	649	471	1,120	1,120
R^2	0.20	0.38	0.18	0.39	0.59	0.60
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High Education" is a dummy equal to one if the subject has a 4-year college degree or above. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave four of the experiment implementation (Prolific online, July 2023).

Table A.10: Forecast and Investment, High Financial Literacy

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.40**	0.03				
	(0.16)	(0.32)				
a(t) × High Fin. Literacy	-0.08	0.13				
	(0.17)	(0.38)				
r(t)			0.07	0.08		
			(0.08)	(0.14)		
r(t) × High Fin. Literacy			-0.13	0.05		
			(0.10)	(0.16)		
Forecast					0.61**	0.57**
					(0.25)	(0.22)
Forecast × High Fin. Literacy					1.25***	1.20***
					(0.38)	(0.40)
Forecast × Predict						0.15
						(0.16)
Forecast × Predict × High Fin. Literacy						-0.09
						(0.31)
Predict						8.19***
						(2.62)
Predict × High Fin. Literacy						-2.99
						(4.09)
N	660	480	660	480	1,140	1,140
R^2	0.20	0.38	0.18	0.39	0.61	0.62
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High Fin. Literacy" is a dummy equal to one if the subject has correct answers on all three financial literacy questions. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave four of the experiment implementation (Prolific online, July 2023).

Table A.11: Forecast and Investment, Grades

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.38***	-0.05				
	(0.09)	(0.11)				
a(t) × High Grades	-0.05	-0.03				
	(0.15)	(0.14)				
r(t)			0.02	0.20***		
			(0.05)	(0.07)		
r(t) × High Grades			0.01	-0.01		
			(0.07)	(0.09)		
Forecast					1.69***	1.32***
					(0.26)	(0.32)
Forecast × High Grades					0.99**	1.13**
					(0.35)	(0.48)
Forecast × Predict						0.67
						(0.43)
Forecast × Predict × High Grades						-0.33
						(0.52)
Predict						2.72
						(2.67)
Predict × High Grades						1.95
						(3.02)
N	959	801	959	801	1,760	1,760
R^2	0.15	0.16	0.13	0.22	0.60	0.61
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "High Grades" is a dummy equal to one if the subject has average grades at or above her/his cohort's median in TSE Master's program. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. Because grading was affected by the COVID period, these results are specific to TSE students in the lab implementation (TSE lab, January 2019, 2020).

Table A.12: Forecast and Investment, Fast versus Slow

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.46***	-0.08				
	(0.10)	(0.12)				
a(t) × Slow	-0.20	0.03				
	(0.16)	(0.16)				
r(t)			0.01	0.23***		
			(0.03)	(0.05)		
r(t) × Slow			0.03	-0.05		
			(0.06)	(0.07)		
Forecast					2.38***	1.70***
					(0.32)	(0.41)
Forecast × Slow					-0.44	0.18
					(0.38)	(0.45)
Forecast × Predict						1.20**
						(0.44)
Forecast × Predict × Slow						-1.12**
						(0.53)
Predict						0.21
						(2.51)
Predict × Slow						5.17
						(3.16)
N	959	801	959	801	1,760	1,760
R^2	0.15	0.16	0.13	0.22	0.59	0.60
Sample	Predict = 1	Predict = 0	Predict = 1	Predict = 0	All	All
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "Slow" is a dummy equal to one if the subject is as slow or slower, on average, than the median seconds in answering each round's questions. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. Because the time spent on the experiment may be affected by external constraints for online subjects, we report these results solely for the lab implementation (TSE lab, January 2019, 2020).

Table A.13: Subjects Characteristics – Correlation Matrix

	High Investments	Fast	High Ability	Female	High Grades	Young	High Educ.	High Income	High Fin. Lit.
High Investments	1.00								
Fast	0.04	1.00							
High Ability	-0.05	-0.07	1.00						
Female	0.13	0.06	0.10	1.00					
High Grades	0.15	-0.32	0.09	0.05	1.00				
Young	-0.08		-0.09	-0.06		1.00			
High Educ.	0.04		-0.07	-0.06		-0.25	1.00		
High Income	-0.14		0.04	-0.24		-0.01	0.43	1.00	
High Fin. Lit.	0.14		0.12	-0.35		-0.08	0.18	0.27	1.00

NOTE: This table reports the correlations between the characteristics dummies: "High θ" is a dummy equal to one if the subject takes larger risk investments, on average, than the median; "Fast" is a dummy equal to one if the subject is faster, on average, than the median of 61 seconds in answering each round's questions, which we apply only to the TSE lab implementations; "High Ability" is a dummy equal to one if the subject is better than the median in identifying when "Variable A" is useful or not; "High Grades" is a dummy equal to one if the subject has average grades above her/his cohort's median in TSE Master's program; "Female" is a dummy equal to one if the subject is a woman. The variables "Young", "High educ", "High income" and "High FinLit" only apply to Prolific subjects. "Young" is a dummy equal to one if the subject's age is less than the median of all Prolific subjects. "High Educ." is a dummy equal to one if the subject has a 4-year college degree. "High Income" is dummy equal to one if the subject has annual income above $50,000. "High Fin. Lit." is a dummy equal to one if the subjects answer correctly three financial literacy questions.

Table A.14: Forecast and Investment, Long Horizon

Dep Variable	Forecast (5)				Investment (5)	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	-0.07	-0.08				
	(0.10)	(0.09)				
a(t) × Predict	0.05	0.09				
	(0.11)	(0.09)				
r(t)			0.07**	0.08***		
			(0.03)	(0.03)		
r(t) × Predict			-0.03	-0.06		
			(0.05)	(0.05)		
Forecast (5)					0.74**	1.39**
					(0.27)	(0.50)
Forecast (5) × Predict						-0.90
						(0.61)
Predict	1.03	0.81*	1.33**	1.48**		7.20
	(0.62)	(0.46)	(0.58)	(0.53)		(4.48)
N	1,080	1,080	1,080	1,080	1,080	1,080
R^2	0.01	0.15	0.01	0.16	0.51	0.52
Individual FE	No	Yes	No	Yes	Yes	Yes
Round FE	No	Yes	No	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the forecast of the average returns over the next five periods, in percentage points. In columns (5)-(6), the dependent variable is the ECU investment in the risky asset for the next five periods. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. a(t) denotes the last realization of "Variable A". r(t) denotes the last realization of "Index Return". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave one of the experiment implementation (TSE lab, January 2019).

Table A.15: Forecast and Investment, Revealed Predictability

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.11	0.10				
	(0.10)	(0.11)				
a(t) × R.Predictive	0.24**	0.24**				
	(0.10)	(0.10)				
r(t)			0.21***	0.22***		
			(0.04)	(0.04)		
r(t) × R.Predictive			-0.33***	-0.38***		
			(0.06)	(0.05)		
Forecast					2.49***	2.11***
					(0.27)	(0.29)
Forecast × R.Predictive						0.83**
						(0.33)
R.Predictive	-1.19	-1.25	1.34**	1.49**		-0.32
	(1.07)	(0.95)	(0.58)	(0.53)		(3.23)
N	920	920	920	920	920	920
R^2	0.01	0.16	0.06	0.21	0.62	0.63
Individual FE	No	Yes	No	Yes	Yes	Yes
Round FE	No	Yes	No	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset. "R.Predictive", for "revealed predictive", is a dummy equal to one when subjects are told, before they form their forecasts and investments, that "Variable A" is useful to predict returns. a(t) denotes the last realization of "Variable A". r(t) denotes the last realization of "Index Return". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave two and three of the experiment implementation (TSE lab, January 2020 and TSE online, 2021).

Table A.16: Forecast and Investment, Revealed Model

Dep Variable	Forecast				Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	-0.04	-0.04				
	(0.15)	(0.19)				
a(t) × Predict	0.62***	0.64**				
	(0.18)	(0.23)				
r(t)			0.01	-0.01		
			(0.09)	(0.11)		
r(t) × Predict			-0.06	-0.04		
			(0.10)	(0.11)		
Forecast					3.10***	2.59***
					(0.34)	(0.79)
Forecast × Predict						0.71
						(0.70)
Predict	-3.03**	-2.50	1.20	1.94**		1.95
	(1.06)	(1.55)	(0.72)	(0.83)		(5.21)
N	238	238	238	238	240	238
R^2	0.10	0.28	0.01	0.19	0.72	0.73
Individual FE	No	Yes	No	Yes	Yes	Yes
Round FE	No	Yes	No	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions for our third wave of experiment (March 2021). In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(6), the dependent variable is the ECU next-period investment in the risky asset."Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. a(t) denotes the last realization of "Variable A". r(t) denotes the last realization of "Index Return". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively. These results were obtained during wave three of the experiment implementation (TSE online, March 2021).

Table A.17: Forecast and Investment, Learning

Dep Variable	Forecast		Investment	
	(1)	(2)	(3)	(4)
a(t)	0.00			
	(0.08)			
a(t) × Late Rounds	0.02			
	(0.08)			
a(t) × Predict	0.27***			
	(0.08)			
a(t) × Predict × Late Rounds	0.18**			
	(0.08)			
r(t)		0.21***		
		(0.05)		
r(t) × Late Rounds		-0.05		
		(0.05)		
r(t) × Predict		-0.18***		
		(0.06)		
r(t) × Predict × Late Rounds		0.00		
		(0.06)		
Forecast			1.50***	1.25***
			(0.18)	(0.24)
Forecast × Late Rounds			0.33	0.24
			(0.29)	(0.35)
Forecast × Predict				0.42*
				(0.23)
Forecast × Predict × Late Rounds				0.15
				(0.26)
Predict	-0.94*	1.74***		4.15***
	(0.48)	(0.40)		(0.87)
Late Rounds	-0.58	0.35	6.20***	6.11***
	(0.61)	(0.32)	(1.98)	(1.86)
N	3,380	3,380	3,380	3,380
R^2	0.15	0.16	0.57	0.58
Individual FE	Yes	Yes	Yes	Yes
Round FE	No	No	No	No

NOTE: This table reports the results of OLS regressions. In columns (1)-(3), the dependent variable is the next-period forecast of returns, in percentage points. In columns (4)-(5), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "Late Rounds" is a dummy equal to one for rounds 11-20, the second half of the baseline treatment. a(t) denotes the last realization of "Variable A". r(t) denotes the last realization of "Index Return". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.18: Forecasts – Time Series Information other than $\{a_t, r_t\}$

Dep Variable	Forecast					
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.37***	0.39***	0.44***			
	(0.06)	(0.09)	(0.08)			
a(t-1)		-0.42***	-0.41***			
		(0.06)	(0.05)			
a(t-2)		-0.21***	-0.19**			
		(0.07)	(0.07)			
$\overline{a}$		17.94	11.11			
		(24.28)	(24.97)			
r(t)				0.17***	0.18***	0.18***
				(0.03)	(0.03)	(0.04)
r(t-1)					0.08*	0.09**
					(0.04)	(0.04)
r(t-2)					0.03	0.03
					(0.02)	(0.02)
$\overline{r}$					40.63***	41.35***
					(9.81)	(11.81)
N	1,888	1,888	1,888	1,492	1,492	1,492
R^2	0.16	0.09	0.22	0.30	0.05	0.31
Adj. R^2	0.07	0.09	0.14	0.20	0.05	0.21
Sample	Predict=1			Predict=0		
Individual & Round FE	Yes	No	Yes	Yes	No	Yes

NOTE: The dependent variable is the next-period forecast of returns, in percentage points. Columns (1)-(2) are restricted to rounds perceived as predictable by "Variable A". Columns (3)-(4) are restricted to rounds perceived as unpredictable by "Variable A". a_t, a_{t-1}, a_{t-2} and r_t, r_{t-1}, r_{t-2} are the last three realizations of "Variable A" and "Index Return" in the current round; $\overline{a}$ and $\overline{r}$ are their average values in the current round's full time series. "Predict" is a dummy equal to one if the subject declares that "Variable A" is useful to predict returns. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.19: Forecast, Past Rounds Returns

Dep Variable	Forecast						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$a_1(t)$	-0.00		-0.00				0.03
	(0.06)		(0.06)				(0.06)
$a_1(t)$ × Predict	-0.05		-0.06				-0.01
	(0.08)		(0.08)				(0.09)
$r_1(t+1)$		0.04*	0.04*				0.02
		(0.02)	(0.02)				(0.03)
$r_1(t+1)$ × Predict		-0.04	-0.04				-0.04
		(0.03)	(0.03)				(0.03)
$\overline{a_1(t)}$				-0.19		-0.19	-0.23
				(0.18)		(0.17)	(0.18)
$\overline{a_1(t)}$ × Predict				-0.32		-0.31	-0.31
				(0.20)		(0.20)	(0.23)
$\overline{r_1(t+1)}$					0.14***	0.14***	0.11*
					(0.04)	(0.04)	(0.06)
$\overline{r_1(t+1)}$ × Predict					-0.07	-0.09	-0.05
					(0.06)	(0.07)	(0.08)
Predict	1.70**	1.66***	2.01***	3.31**	1.85***	3.81**	3.82**
	(0.61)	(0.40)	(0.64)	(1.32)	(0.52)	(1.52)	(1.51)
Round number	0.04	0.04	0.04	0.04	0.03	0.04	0.04
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
N	3,211	3,211	3,211	3,211	3,211	3,211	3,211
R^2	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Round FE	No	No	No	No	No	No	No

NOTE: This table reports the results of OLS regressions. The dependent variable is the forecast of next period returns in percentage points in any given round $k > 1$. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns in round k. $a_{-1}(t)$ and $r_{-1}(t+1)$ denote the final realization of "Variable A" and of "Index Returns" in the previous round $k-1$. $\overline{a_{-}(t)}$ and $\overline{r_{-}(t+1)}$ denote the average of all final realizations of "Variable A" and of "Index Returns" in rounds 1 to $k-1$. The "Round number" variable is added to detect possible trends. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A.20: Forecast and Investment, Anchoring

Dep Variable	Forecast				Investment			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Past Forecast	0.14	-0.01	0.13	0.00			-0.83***	-0.24***
	(0.15)	(0.08)	(0.12)	(0.07)			(0.17)	(0.07)
Past Forecast × Predict	-0.06	-0.05	-0.05	-0.05			0.04	-0.01
	(0.11)	(0.07)	(0.09)	(0.06)			(0.18)	(0.10)
Past Error			0.17*	0.10*			0.34**	0.17*
			(0.09)	(0.05)			(0.14)	(0.08)
Past Error × Predict			-0.13*	-0.10**			-0.08	-0.17
			(0.07)	(0.04)			(0.19)	(0.12)
Past Investment			-0.02	-0.02**	0.44***	0.02	0.51***	0.05
			(0.01)	(0.01)	(0.04)	(0.04)	(0.04)	(0.04)
Past Investment × Predict			0.01	0.01	0.06*	0.03	0.07**	0.04
			(0.01)	(0.01)	(0.03)	(0.03)	(0.03)	(0.03)
Past Profit			0.05	0.03			-0.05	-0.08
			(0.05)	(0.05)			(0.18)	(0.18)
Past Profit × Predict			-0.03	-0.02			-0.14	-0.14
			(0.06)	(0.06)			(0.24)	(0.23)
Predict	1.80**	1.67***	2.29**	2.11***	6.77***	8.20***	6.81**	9.58***
	(0.71)	(0.53)	(0.87)	(0.68)	(2.04)	(1.64)	(2.73)	(2.26)
Round number	0.04*	0.04	0.04*	0.05	0.38***	0.80***	0.33***	0.78***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.04)	(0.11)	(0.04)	(0.10)
N	3,211	3,211	3,211	3,211	3,211	3,211	3,211	3,211
R^2	0.02	0.15	0.04	0.16	0.24	0.48	0.27	0.48
Individual FE	No	Yes	No	Yes	No	Yes	No	Yes
Round FE	No	No	No	No	No	No	No	No

NOTE: This table reports the results of OLS regressions. In columns (1)-(4), the dependent variable is the next-period forecast of returns, in percentage points. In columns (5)-(8), the dependent variable is the ECU next-period investment in the risky asset. "Predict" is a dummy equal to one if the subject declares "Variable A" is useful to predict returns. "Past Forecast", "Past Error", "Past Investment" and "Past Profit" are, respectively, the next-period forecast of returns, the error between the realized next-period return and the forecast, the ECU next-period investment in the risky asset, and the ECU profit made on the risk investment in the preceding round. The "Round number" variable is added to detect possible trends. Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.21: Information and Investment – Outside Forecasts

Dep Variable	Investment "Noise"					
	(1)	(2)	(3)	(4)	(5)	(6)
a(t)	0.43***	0.40*	0.39	0.31**	0.34**	0.40**
	(0.15)	(0.22)	(0.23)	(0.14)	(0.14)	(0.16)
r(t)	-0.05	-0.07	-0.12	0.08	0.04	0.06
	(0.09)	(0.08)	(0.08)	(0.09)	(0.08)	(0.05)
N	1,888	1,888	1,888	1,492	1,492	1,492
R^2	0.00	0.00	0.01	0.00	0.00	0.00
Adj. R^2	0.00	-0.09	-0.10	-0.00	-0.13	-0.14
Sample	Predict=1			Predict=0		
Individual FE	No	Yes	Yes	No	Yes	Yes
Round FE	No	No	Yes	No	No	Yes

NOTE: This table reports the results of OLS regressions. The dependent variable is the residual of the regression of ECU next-period investment in the risky asset on subjects' stated forecasts. a_t is the last realization of "Variable A" and r_t the last realization of "Index return". Columns (1)-(3) are restricted to rounds perceived as predictable by "Variable A". Columns (4)-(6) are restricted to rounds perceived as unpredictable by "Variable A". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table A.22: Investment and Information

Dep Variable	Investment							Forecast	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
r(t)	0.13	0.13*	0.12				0.24***		0.17***
	(0.08)	(0.07)	(0.07)				(0.04)		(0.03)
a(t)				0.86***	0.86***	0.88***	1.06***	0.37***	
				(0.13)	(0.16)	(0.16)	(0.18)	(0.06)	
N	3,380	3,380	3,380	3,380	3,380	3,380	3,380	1,888	1,492
R^2	0.00	0.43	0.46	0.01	0.44	0.47	0.47	0.16	0.30
Adj. R^2	0.00	0.40	0.43	0.01	0.41	0.43	0.44	0.07	0.20
Sample	All	All	All	All	All	All	All	Predict = 1	Predict = 0
Individual FE	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Round FE	No	No	Yes	No	No	Yes	Yes	Yes	Yes

NOTE: The dependent variable is the ECU next-period investment in the risky asset in column (1) - (7) and the stated forecast in column (8) and (9). r_t is the last realization of "Index Return". a_t is the last realization of "Variable A". Two-way clustered standard errors (round and individual levels) are in parenthesis. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Appendix B Return Process

Case with Predictable Returns.

We simulate predictable annual returns according to the VAR process:

$$r^p_{1,t+1} = \alpha x_{1,t} + \varepsilon_{1,t+1}, \tag{B.1}$$
$$x_{1,t+1} = \beta x_{1,t} + \delta_{1,t+1},$$

where $r^p_{1,t}$ is the demeaned annual excess log return and $x_{1,t}$ is a state variable, estimated from the demeaned annual log dividend yield. The two shocks ε_1 and δ_1 follow normal distributions with mean 0 and standard deviation $\sigma(\varepsilon_1)$ and $\sigma(\delta_1)$ respectively, and have correlation $\rho_{\varepsilon,\delta}$. We use the estimated parameters from Cochrane (2009) on US equity (CRSP, 1927-1998): $\alpha = 0.16$, $\beta = 0.92$, $\sigma(\delta_1) = 15.2\%$, $\sigma(\varepsilon_1) = 19.2\%$, $\rho_{\varepsilon,\delta} = -0.72$.

The returns in the predictable process (2) displayed to subjects in the experiment correspond to a compounded 5-year average of returns simulated from annual process (B.1) above. For any simulated series from process (B.1) of length $5\times T$: $\{x_{1,1}, x_{1,2}...x_{1,5\times T}\}$ and $\{r^p_{1,2}, r^p_{1,3}...r^p_{1,5\times T+1}\}$, we extract the returns $\{r^p_2, r^p_3, ..., r^p_{T+1}\}$ where $r^p_2 = \mu + \frac{r^p_{1,2}+r^p_{1,3}+r^p_{1,4}+r^p_{1,5}+r^p_{1,6}}{5}$; $r^p_3 = \mu + \frac{r^p_{1,7}+r^p_{1,8}+r^p_{1,9}+r^p_{1,10}+r^p_{1,11}}{5}$;...; $r^p_{T+1} = \mu + \frac{r^p_{1,5T-4}+r^p_{1,5T-2}+r^p_{1,5T-1}+r^p_{1,5T}+r^p_{1,5T+1}}{5}$, where $\mu = 6.07\%$ (again from Cochrane (2009)). Iterating from $r^p_{1,t+1}$, we obtain

$$r^p_{t+1} = \underbrace{\mu + \frac{1}{5}\alpha\frac{1-\beta^5}{1-\beta}x_{1,t}}_{\text{expected return } a_t} + \underbrace{\frac{1}{5}\left[\alpha\frac{1-\beta^{5-1}}{1-\beta}\delta_{1,t+1} + \alpha\frac{1-\beta^{5-2}}{1-\beta}\delta_{1,t+2} + .. + \alpha\delta_{1,t+5-1} + \sum_{i=1}^{5}\varepsilon_{1,t+1}\right]}_{\text{shock } \epsilon^p_{t+1}},$$

corresponding to the predictable returns process (2).

From a simulated series from process (B.1): $\{r^p_{1,2}, r^p_{1,3}...r^p_{1,5\times T+1}\}$ and $\{x_{1,1}, x_{1,2}...x_{1,5\times T}\}$, we also extract the conditional expectations $\{a_1, a_2...a_T\}$ for the predictable returns $\{r^p_2, r^p_3...r^p_{T+1}\}$ where $a_1 = \mu + \frac{1}{5}\alpha\frac{1-\beta^5}{1-\beta}x_{1,1}$; $a_2 = \mu + \frac{1}{5}\alpha\frac{1-\beta^5}{1-\beta}x_{1,6}$;...; $a_T = \mu + \frac{1}{5}\alpha\frac{1-\beta^5}{1-\beta}x_{1,5T-4}$, where

$\mu = 6.07\%$ as above. The predictive variable a thus constructed is such that $(a - \mu)$ follows an AR(1) process with persistence β^5.

Case with i.i.d. returns.

We simulate i.i.d. annual returns according to process:

$$r_{1,t+1} = \mu + e_{1,t+1}, \tag{B.2}$$

where $\mu = 6.07\%$ as in (B.1) and $e_1 \sim N(0, \sigma^2(e_1))$. We set $\sigma(e_1) = 20.18\%$ so that the unconditional variance is the same as for $r^p_{1,t+1}$ in (B.1). The returns in i.i.d. process (1), displayed to subjects in the experiment, correspond to a compounded 5-year average of returns simulated from annual process (B.2).

Conditional Variance of Returns.

Let $r_{N,t}$ be the N-year demeaned average return in the i.i.d. case

$$r_{N,t} = \frac{r_{1,t} + r_{1,t+1} + ... + r_{1,t+N}}{N}.$$

The conditional variance (equal to the unconditional variance) of $Nr_{N,t}$ is

$$Var_t(Nr_{N,t+1}) = N\sigma^2(e_1). \tag{B.3}$$

Let $r^p_{N,t}$ be the N-year demeaned average return in the predictable case:

$$r^p_{N,t} = \frac{r^p_{1,t} + r^p_{1,t+1} + ... + r^p_{1,t+N}}{N},$$

such that:

$$Nr^p_{N,t+1} = \underbrace{\alpha \frac{1-\beta^N}{1-\beta} x_{1,t}}_{\text{expected return } Nx_{N,t}} + \underbrace{(\alpha \sum_{i=1}^{N-1} \frac{1-\beta^i}{1-\beta} \delta_{1,t+i} + \sum_{i=1}^{N} \varepsilon_{1,t+i})}_{\text{shock } N\varepsilon^P_{t+1}},$$

with conditional variance:

$$\begin{aligned} Var_t(Nr^p_{N,t+1}) &= N\sigma^2(\varepsilon_1) + \alpha^2\sigma^2(\delta_1)\sum_{i=1}^{N-1}(\frac{1-\beta^i}{1-\beta})^2 \\ &\quad +2\alpha\rho_{\varepsilon,\delta}\sigma(\varepsilon_1)\sigma(\delta_1)\sum_{i=1}^{N-1}\frac{1-\beta^i}{1-\beta}. \end{aligned}$$

Given our estimated parameters, the negative term in $\rho_{e,\delta}$ dominates the positive term in α^2, so that $Var_t(r^p_{N,t+1}) < Var_t(r_{N,t+1})$, for N sufficiently low. For our experiment, we are interested in $N = 5$ for the one-period returns and $N = 25$ for the five-period averages, for which we have $Var_t(r^p_{5,t+1}) = 0.67Var_t(r_{5,t+1})$; $Var_t(r^p_{25,t+1}) = 0.61Var_t(r_{25,t+1})$.

Appendix C Experimental Protocol

Appendix C.1 Baseline treatment

The experiment starts with the instruction page (Figure C.1), then an example page (Figure 1), followed by 20 rounds of Question Page / Result Page (Figures C.2 and C.3).[48] Each round corresponds to a new simulation of returns, 10 rounds for the i.i.d. process (1) and 10 rounds for the predictable process (2). Subjects "play" the 20 rounds in a randomized order.

For the predictable rounds, we obtain the simulated returns of process (2) via a simulation of length 225 of the VAR process (B.1), averaged over 5-year periods to obtain 45 points for the expected return process r^p_{t+1} and 45 points for the conditional expectations a_t. We repeat this procedure to get 1,000 simulations, among which we choose the 10 simulations that have a statistical correlation between the simulated returns r^p_{t+1} and the conditional expectations a_t closest to 0.57, the theoretical correlation between the returns process and the predictive variable a.

For the i.i.d. rounds, we obtain the simulated returns of process (1) via a simulation of length 225 of the annual i.i.d. process (B.2), averaged over 5-year periods to obtain 45 points for the expected return process r_{t+1}. In addition, and independently, we add a simulation of length 225 of the state variable $x_{1,t}$ from VAR process (B.1) to obtain 45 points with same distribution as the variable a_t in the predictable rounds. We repeat this procedure to get 1,000 simulations, among which we choose the 10 simulations that have a statistical correlation between the simulated returns r_{t+1} and the variable a_t closest to 0, the theoretical correlation between the returns process and the variable a in the i.i.d. case.

We verify for each of the 20 rounds displayed to our subjects, the statistical regressions of the returns r_t on the variable a_{t-1}, and on past returns r_{t-1}. The results are displayed in Online Appendix Table C.1. In all rounds, the graph displayed in the Question page shows the first 40 points for the returns r_t, from $t = -40$ to $t = -1$ in red, and the first 41 points for variable a_{t-1}, from $t = -40$ to $t = 0$ in blue (shifted so that r_t and a_{t-1} are one above the other); with a_{-1},

[48] Figure C.1, C.2 and C.3 correspond to the first wave of our experiment implementation, in the TSE Lab (January 2019).

the best predictor for next-period returns r_0 displayed as a fat yellow dot at $t = 0$. Descriptive statistics for the 20 rounds are provided in Online Appendix Table C.2.

Appendix C.2 Additional questions/treatments

The instruction page in Figure C.1, as well as the Question Page / Result Page in Figures C.2 and C.3 add to the baseline treatment the solicitation of 5-period ahead forecasts and investments. In another implementation of our experiment, we asked subjects to provide, instead, their 80% confidence intervals via the two questions of Figure C.4. In yet another implementation, we asked subjects to provide their upper and lower bound probabilities via the two questions of Figure C.5.

In a separate treatment, subjects were asked to play another 20 rounds after they had completed the baseline treatment, where we revealed in the first 10 rounds that "Variable A" was predictive and in the last 10 rounds that it was useless to preduct returns. We used exactly the same 10 predictive and 10 i.i.d rounds as in the baseline treatment, each set in a new randomized order, to ensure subjects' answers can be compared across treatments.

Finally, in another treatment, subjects were asked to play another 10 rounds, after they had completed the baseline treatment. Before they had to choose their forecasts and investments in the new treatment, we revealed the simulation processes (1) and (2). The 10 rounds simulations were chosen randomly from the 20 rounds of the baseline treatment, 5 from i.i.d simulations, 5 from predictable simulations. The order of the 10 rounds was random across subjects.

Appendix C.3 Prolific: demographics, individual characteristics

For the online implementation of our experiment, we recruited subjects from Prolific.

To make sure these subjects understood and were paying attention to the experiment, they were asked two comprehension and two attention questions, standard to online experiments on such platforms (Figure C.6).

At the end of the experiment, we asked subjects to answer demographics questions on their gender, age, income, and education. In addition, we asked three questions related to their financial literacy. The Prolific survey questions, including financial literacy, are provided in Figure C.7.

Table C.1: Regression Coefficients of r_t on a_{t-1} and r_{t-1}.

Graph no.	Predictable	a(t-1)	p-value	R-squared	r(t-1)	p-value	R-squared
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	No	0.07	0.79	0	-0.13	0.45	0.02
2	No	-0.05	0.88	0	-0.01	0.96	0.00
3	No	0.09	0.78	0	0.16	0.34	0.02
4	No	-0.02	0.95	0	0.02	0.89	0.00
5	No	-0.27	0.4	0.02	0.13	0.44	0.02
6	No	-0.12	0.58	0.01	0.58	0.6	0.01
7	No	-0.02	0.94	0	-0.1	0.52	0.01
8	No	-0.05	0.91	0	-0.3	0.06	0.09
9	No	0.01	0.96	0	-0.34	0.04	0.11
10	No	-0.01	0.98	0	-0.04	0.81	0.00
11	Yes	1.17	0	0.34	0.21	0.21	0.04
12	Yes	1.53	0	0.38	-0.07	0.67	0.01
13	Yes	1.19	0	0.38	0	0.99	0.00
14	Yes	1	0	0.36	0.03	0.87	0.00
15	Yes	0.96	0	0.33	0.07	0.64	0.01
16	Yes	0.99	0	0.32	0.04	0.79	0.00
17	Yes	1.11	0	0.4	0	0.99	0.00
18	Yes	1.09	0	0.35	0.14	0.4	0.02
19	Yes	1.06	0	0.35	-0.11	0.5	0.01
20	Yes	0.85	0	0.32	-0.14	0.39	0.02

NOTE: This table reports the results of OLS regressions. The dependent variable is the returns r_t either for the i.i.d process (1) or the predictable process (2). Columns (3), (4) and (5) report the coefficient, p-value and R^2 of the regression on a_{t-1}. Column (6), (7) and (8) report the coefficient, p-value and R^2 of the regression on r_{t-1}.

Table C.2: Descriptive Statistics

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
a(t)	20	6.04	5.48	3.32	2.06	12.17
r(t)	20	3.16	2.95	8.90	-11.79	19.04
r(t+1)	20	6.62	5.94	8.45	-7.75	30.92
"Variable A" predictive						
a(t)	10	5.99	5.36	3.40	2.11	11.88
r(t)	10	4.82	3.82	8.15	-11.79	16.76
r(t+1)	10	4.93	3.78	4.13	-0.19	11.34
"Variable A" useless						
a(t)	10	6.08	5.70	3.42	2.06	12.17
r(t)	10	1.49	-2.44	9.73	-10.51	19.04
r(t+1)	10	8.31	6.72	11.29	-7.75	30.92

NOTE: This table reports the statistics for the last realizations of "Variable A" and of "Index Return", $a(t)$ and $r(t)$, that subjects observe, each round, in the "Question page".

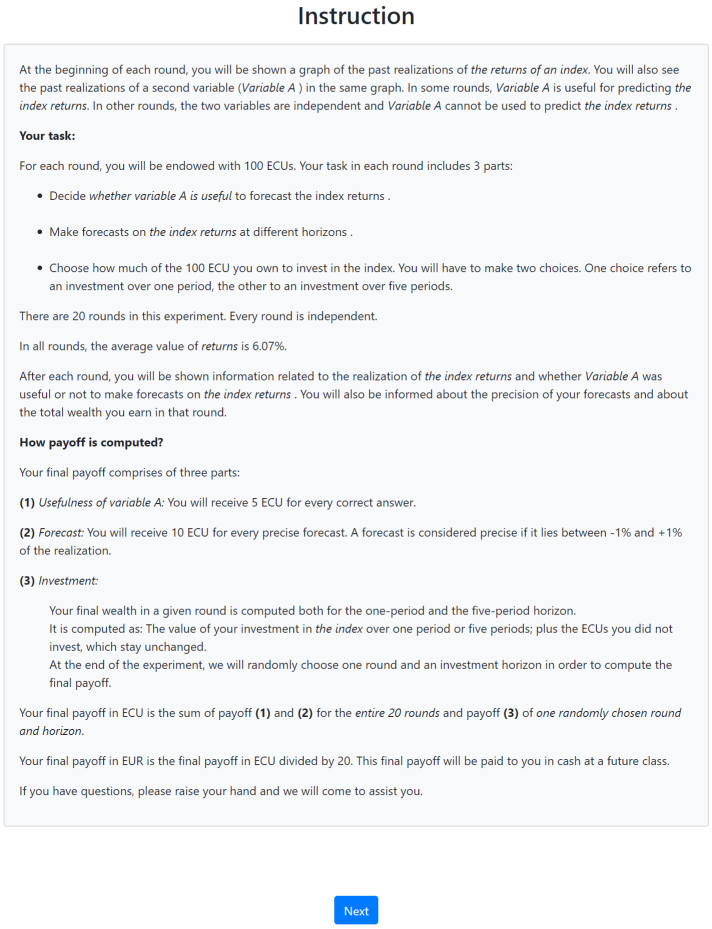


Figure C.1: **Instruction page:** This page is provided to subjects before they start playing the investment game and provides instructions.

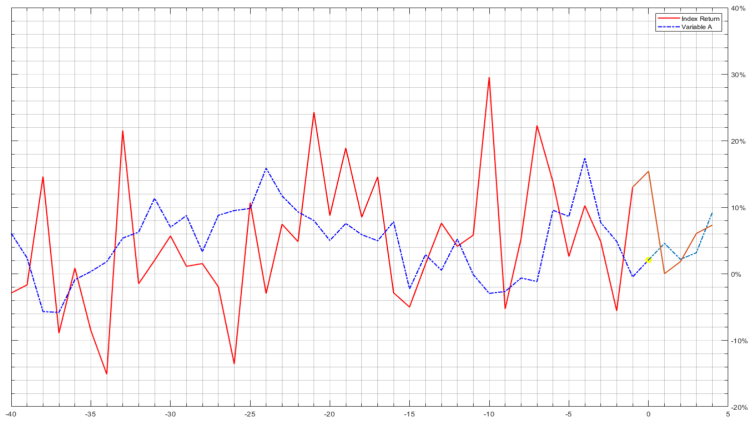
Figure C.2: **Question page:** Example of the question page where subjects write their answers on.

See General Instruction

See Examples

Round 1: Realization

The graph below shows the realizations of *the index returns* for the next 5 periods.
In this round, *Variable A* was **not useful** to predict *the index returns* .



Forecasting and investment result

HORIZON: 1 PERIOD

Description	Index Return (Next period)	Forecast result	Value before realization	Value after realization
Investment in *the index*	15.39 %	imprecise	50	58.32
Total Wealth	---	---	100	108.32

HORIZON: 5 PERIODS

Description	Index Return (average over 5 periods)	Forecast result	Value before realization	Value after realization
Investment in *the index*	6.11 %	precise	50	67.86
Total Wealth	---	---	100	117.86

Click the "Next Button" to go to the next round.

Next

Figure C.3: **Answer page:** Example of the answer page where subjects are told the realization of "Index returns", and how well they did this round.

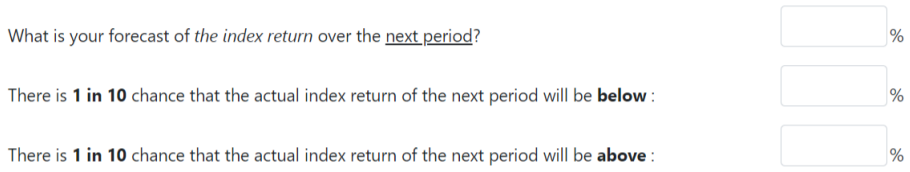


Figure C.4: **Confidence Intervals:** We elicit subjects' confidence intervals via the questions above.

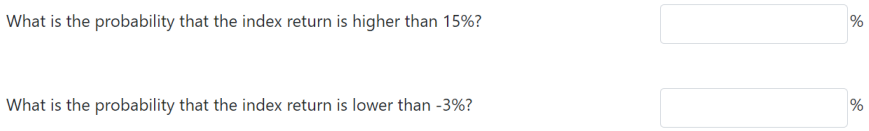


Figure C.5: **Upper and Lower Bound probabilities:** We elicit subjects' upper and lower Bound probabilities via the questions above.

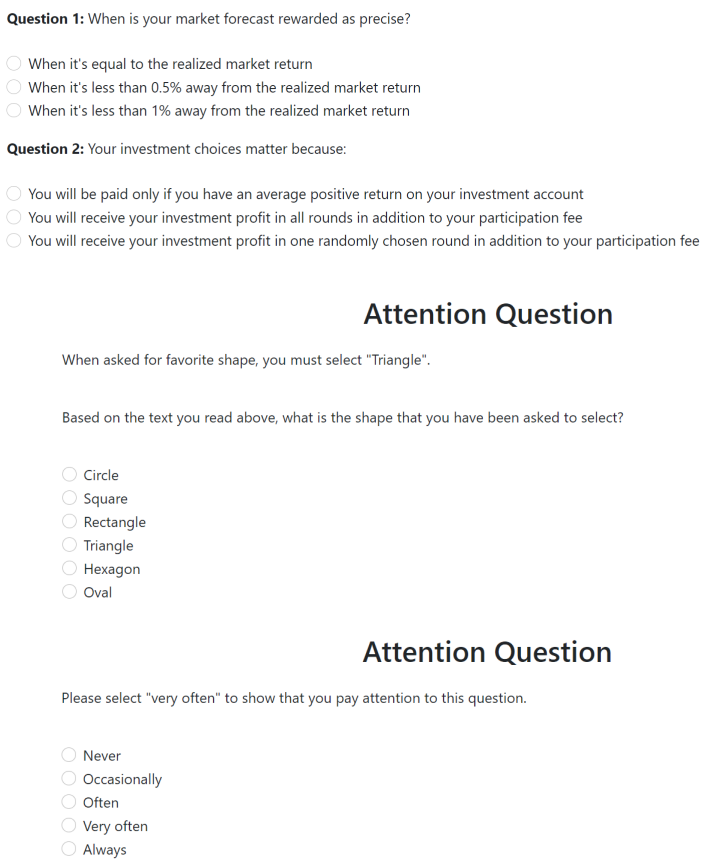


Figure C.6: **Comprehension and attention:** We verify subjects' comprehension and attention to the game via the questions above.

Figure C.7: **Survey page:** The questions above allow us to obtain demographics information from online subjects.

Appendix D Models

Appendix D.1 Forecast Model

In the model described in Section 4.1, subjects want to use expectation model $\mathbb{E}^u(r_{t+1})$ when "Variable A" is useless, and expectation model $\mathbb{E}^p(r_{t+1})$ when "Variable A" is predictive, s.t.:

$$\begin{cases} \mathbb{E}_t^u(r_{t+1}) & = \lambda_u r_t + (1-\lambda_u)\bar{\mu} \\ \mathbb{E}_t^p(r_{t+1}) & = \lambda_p a_t + (1-\lambda_p)\bar{\mu} \end{cases},$$

where r_t is the last realization of "Index Return", a_t is the last realization of "Variable A", and $\bar{\mu} = \mathbb{E}(r_{t+1})$ is the unconditional subjective expectation.

Because subjects take their risks of mistake when identifying "Variable A" as useful or not, their forecasts follow:

$$\begin{cases} \mathbb{E}\left(r_{t+1} \mid_{A \text{ perceived useless}}\right) & = \pi_u \mathbb{E}^u(r_{t+1}) + (1-\pi_u)\mathbb{E}^p(r_{t+1}) \\ \mathbb{E}\left(r_{t+1} \mid_{A \text{ perceived predictive}}\right) & = \pi_p \mathbb{E}^p(r_{t+1}) + (1-\pi_p)\mathbb{E}^u(r_{t+1}) \end{cases},$$

where the weights π_u and π_p correspond to the probabilities that a given subject assigns to the fact that "Variable A" is indeed useless or predictive, conditional on the fact that she perceives it as such.

Given these assumptions, forecasts are given by:

$$\begin{aligned} F_{i,k} = \alpha_1^m + \alpha_2^m \text{Predict}_{i,k} + \beta_1^m a_{t,k} + \beta_2^m a_{t,k} \times \text{Predict}_{i,k} \\ + \delta_1^m r_{t,k} + \delta_2^m r_{t,k} \times \text{Predict}_{i,k}, \end{aligned}$$

where $F_{i,k}$ is the forecast of subject i for next-period returns in round k; $\text{Predict}_{i,k}$ is a dummy taking value 1 if subject i perceives "Variable A" as useful to predict returns in round k and taking value 0 otherwise; $a_{t,k}$ and $r_{t,k}$ are the last realizations of "Variable A" and "Index Return" in round

k. The coefficients $\{\alpha_1^m, \alpha_2^m, \beta_1^m, \beta_2^m, \delta_1^m, \delta_2^m\}$ are fully determined by parameters $\{\bar{\mu}, \lambda_u, \lambda_p, \pi_u, \pi_p\}$:

$$\begin{cases} \alpha_1^m & = (\pi_u (1-\lambda_u) + (1-\pi_u)(1-\lambda_p))\,\bar{\mu} \\ \alpha_1^m + \alpha_2^m & = (\pi_p (1-\lambda_p) + (1-\pi_p)(1-\lambda_u))\,\bar{\mu} \\ \beta_1^m & = (1-\pi_u)\,\lambda_p \\ \beta_1^m + \beta_2^m & = \pi_p \lambda_p \\ \delta_1^m & = \pi_u \lambda_u \\ \delta_1^m + \delta_2^m & = (1-\pi_p)\,\lambda_u \end{cases}$$

As described in Section 4.1, we set $\bar{\mu} = \mu = 6.07\%$ the true statistical average and $\lambda_u = 0.32$ as in Landier, Ma, and Thesmar (2019); Afrouzi et al. (2023). We assume that subjects do not overestimate nor underestimate on average their ability to correctly detect whether or not "Variable A" is predictive: we set π_u, π_p as the true posterior probabilities

$$\pi_p = \Pr\left(\textit{predictable} \mid \textit{A perceived predictive}\right)$$
$$\pi_u = \Pr\left(\textit{i.i.d} \mid \textit{A perceived useless}\right),$$

which we observe in the data for each individual subject.

To set λ_p, we assume that subjects have no systematic bias, i.e., they do not overestimate nor underestimate on average the value of the loadings of $\{r_{t+1}\}$ on $\{a_t\}$, and take into account their risk of mistakes in identifying "Variable A" as predictive.

Let λ_p^p and λ_p^u be the estimated loadings of $\{r_{t+1}\}$ on $\{a_t\}$ in rounds perceived as predictable and as useless, respectively. The unbiased estimates of λ_p^p and λ_p^u are:

$$\begin{cases} \lambda_p^p & = \frac{\bar{\pi}_p \times 1 + (1-\bar{\pi}_u)\times 0}{\bar{\pi}_p + (1-\bar{\pi}_u)} \\ \lambda_p^u & = \frac{\bar{\pi}_u \times 0 + (1-\bar{\pi}_p)\times 1}{\bar{\pi}_u + (1-\bar{\pi}_p)} \end{cases}$$

where $\bar{\pi}_p = Pr(A \textit{ perceived predictive} \mid \textit{predictable})$ is the true fraction of predictable graphs

perceived as such and $\bar{\pi}_u = Pr(A \text{ perceived useless} \mid i.i.d)$ is the true fraction of i.i.d. graphs perceived as such, i.e., $\pi_p = \frac{\bar{\pi}_p}{\bar{\pi}_p+(1-\bar{\pi}_u)}$ and $\pi_u = \frac{\bar{\pi}_u}{\bar{\pi}_u+(1-\bar{\pi}_p)}$.

Taking into account their probability of mistakes in identifying "Variable A" as predictive corresponds to setting parameter λ_p to:

$$\lambda_p = \frac{\pi_p \lambda_p^p + (1-\pi_u)\lambda_p^u}{\pi_p + (1-\pi_u)},$$

such that we obtain:

$$\lambda_p = \frac{\pi_p^2 + (1-\pi_u)^2}{\pi_p + (1-\pi_u)}.$$

The forecast model of Section 4.1 is *entirely* specified by setting parameters $\{\mu, \lambda_u, \pi_u, \pi_p\}$.

Appendix D.2 Investment Model

In Section 3.3, we show that subjects rely on their own forecasts differently across rounds, with a more limited "trust" accorded to extrapolative belief variations. We verify whether formalizing such a notion may be achieved via ambiguity averse agents, as in the classic Ellsberg Paradox (Ellsberg, 1961). Extending the classical Merton-Samuelson model of Equation (13) to allow for ambiguous returns predictability, in the one-period static case of our experiment, i) lowers the average risk investment, for a given level of return volatility; and ii) leads to a lower pass-through to investment from positive predictive signals than from negative ones, the well-known "worst case scenario" over-weighting specific to such models.[49] Both the decrease in the average risk taking and the asymmetry in the impact of "good" versus "bad" signals are amplified by greater ambiguity.

In our estimates, however, we do not find evidence of a systematically higher pass-through from forecasts to investment decisions when subjects receive "bad" versus "good" predictive signals, in either round type (Online Appendix Tables D.1 and D.2). Moreover, as shown in Section 4.3, our subjects' average investments are consistent with the classical Merton-Samuelson model: they do

[49] See, e.g., the theoretical results of Chen, Ju, and Miao (2014) who derive optimal risk taking decisions under ambiguous returns predictability in a dynamic framework.

not reflect potential differences in model uncertainty across round types.

Models in which our subjects would view their own forecasts as noisier, and hence riskier, in rounds without a predictive "Variable A" can be rejected for the same reason. If greater noise risk were perceived when subjects extrapolate from past returns, it would depress average portfolio investments in these rounds, and the difference in risk taking across round types would no longer match the return variances unbiased estimates of Equation (12), under $\mathbb{E}\left(Var_t^u(r_{t+1})\right) = \sigma^2$ and $\mathbb{E}\left(Var^p(r_{t+1})\right) = \sigma_p^2$.

Finally, though measurement errors play an important role, as evidenced by the differential impact of the "instrumented forecasts" of Equation 5 relative to the outright forecasts of Equation (4) in rounds where "Variable A" is perceived as useful, they cannot explain why forecasts "instrumented" by "Variable A" signals, in rounds where they are perceived as predictive, are treated differently from forecasts "instrumented" by extrapolation elsewhere, our core investment result.

Table D.1: Ambiguity aversion – Asymmetry test I

Dep Variable	Investment			
	(1)	(2)	(3)	(4)
Forecast	1.62***	2.00***	1.41***	1.43***
	(0.19)	(0.15)	(0.22)	(0.23)
N	1,018	866	447	1,029
R^2	0.70	0.65	0.75	0.65
Sample	Predict = 1 Below = 0	Predict = 1 Below = 1	Predict = 0 Below = 0	Predict = 0 Below = 1
Subject FE	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. The dependent variable is the ECU next-period investment in the risky asset. "Forecast" is the forecast of next period returns in percentage points. "Predict" is a dummy equal to one if the subject declares that "Variable A" is useful to predict returns. "Below" in the column (1), (2) take value of 1 if a_t is equal or below the true mean 6.07% and 0 otherwise. "Below" in the column (3), (4) take value of 1 if r_t is equal or below the true mean 6.07% and 0 otherwise. Clustered standard errors (round level) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.

Table D.2: Ambiguity aversion – Asymmetry test II

Dep Variable	Investment			
	(1)	(2)	(3)	(4)
Forecast	1.49***	1.94***	1.48***	1.29***
	(0.28)	(0.13)	(0.15)	(0.22)
N	743	1,142	603	874
R^2	0.72	0.63	0.73	0.66
Sample	Predict = 1 Below = 0	Predict = 1 Below = 1	Predict = 0 Below = 0	Predict = 0 Below = 1
Subject FE	Yes	Yes	Yes	Yes
Round FE	Yes	Yes	Yes	Yes

NOTE: This table reports the results of OLS regressions. The dependent variable is the ECU next-period investment in the risky asset. "Forecast" is the forecast of next period returns in percentage points. "Predict" is a dummy equal to one if the subject declares that "Variable A" is useful to predict returns. "Below" in the column (1), (2) take value of 1 if a_t is equal or below the average realization of "Variable A" in the same round and 0 otherwise. "Below" in the column (3), (4) take value of 1 if r_t is equal or below the average realization of "Index Return" in the same round and 0 otherwise. Clustered standard errors (round level) are in parenthesis. *, ** and *** denotes significance at 10%, 5% and 1% level, respectively.