

# Online Appendix to “Trust in the Central Bank and Inflation Expectations”

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## A.1. Wording of the Questions Used in the Analysis

### A.1.1 Questions on Inflation Expectations

Respondents to the survey were asked about inflation expectations as follows:

We are interested in your opinion on what will happen to the general level of consumer prices in the next 12 months. What do you think will be the percentage change in the level of prices in the next twelve months? If you think prices on average will decrease, you can fill in a negative percentage.

- (a) Please give the minimum value: . . . . percent ( $y_m$ )
- (b) Please give the maximum value: . . . . percent ( $y_M$ )
- (c) What is the probability that the average increase in prices in the next 12 months is greater than X percent? (where X is automatically computed as  $(y_m + y_M) / 2$  and appears to the respondents' screen)

Please provide an answer on a scale from 0 to 100, where 0 means “absolutely no chance” and 100 means “absolutely certain”:

*Absolutely no chance* *Absolutely certain*  
[ ] 0 [ ] 10 [ ] 20 [ ] 30 [ ] 40 [ ] 50 [ ] 60 [ ] 70 [ ] 80 [ ] 90 [ ] 100

### A.1.2 *Question on ECB Trust*

How much do you trust the European Central Bank (ECB)? Please indicate your level of trust on a scale from 0 to 10, where 0 means you cannot trust at all and 10 means that you fully trust.

*Cannot trust at all* *Fully trust*  
 0  1  2  3  4  5  6  7  8  9  10

### A.1.3 *Question on Cheating by Repairmen*

How often, if ever, has it happened to you that a plumber, builder, car mechanic or other repair person overcharged you or did unnecessary work in the past five years?

Never    Once    Twice    3 or 4 times    5 times or more  
                                        

### A.1.4 *Question on General Trust*

The next question is about how you view other people. Generally speaking, would you say that most people can be trusted or that you cannot trust people and need to be very careful in dealing with people?

Please indicate your level of trust on a scale from 0 to 10, where 0 means “you cannot trust/need to be very careful” and 10 means “most people can be trusted.”

*Need to be very careful* *Most people can be trusted*  
 0  1  2  3  4  5  6  7  8  9  10

### A.1.5 *Questions about Knowledge on ECB Objectives*

Can you please indicate which of the statements below on the main objectives/tasks of the European Central Bank (ECB) are true or false?

The main objectives/tasks of the ECB are ...

	True	False	Do not know
... an unemployment of at most 5%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... setting the income tax rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... an inflation rate that is close to but below 2%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... an economic growth rate of at least 3%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... to keep interest rates constant across time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... supervision of large European banks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### A.1.6 Questions on Basic Financial Literacy

- 1) Suppose you have €100 in a savings account and the interest rate is 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than €102, exactly €102, less than €102?

- More than €102
- Exactly €102
- Less than €102
- Do not know
- Refuse to answer

- 2) Imagine you open a bank account that pays 1% interest and has no charges. Today, you put €1000 on this bank account and leave it there for a year. Imagine that inflation is running at 2%. If you withdraw the total amount of money from this bank account a year from now, would you then be able to buy the same amount of goods as if you spend the €1000 today?

- Yes, I would be able to buy the same amount
- No, a year from now I would be able to buy less
- No, a year from now I would be able to buy more
- Do not know
- Refuse to answer

3) Which of the two following investment strategies entails the greatest risk of losing your money?

- Investing in the shares of a single company
- Investing in the shares of several companies
- Do not know
- Refuse to answer

## A.2. The Subjective Distribution of Expected Inflation

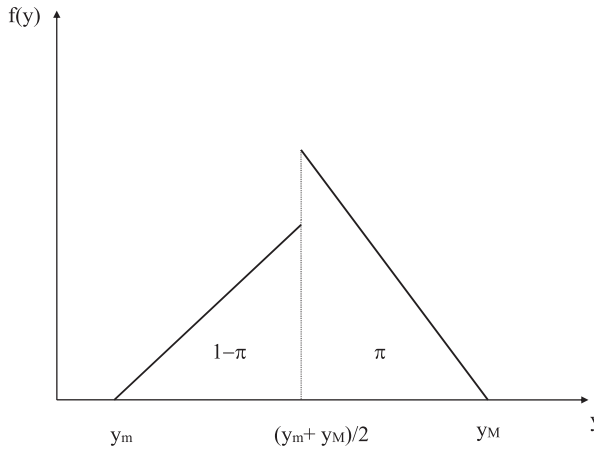
Let  $f(y)$  denote the distribution of expected inflation for each individual. The survey provides information on the support of the distribution  $[y_m, y_M]$  and on the probability mass to the right of the midpoint of the support  $\pi = Prob(y > (y_m + y_M) / 2)$ . Knowing the support of the distribution, the expected value and variance of  $y$  can be expressed as

$$E(y) = \int_{y_m}^{y_M} y f(y) dy \quad (\text{A.1})$$

$$Var(y) = \int_{y_m}^{y_M} y^2 f(y) dy - \left( \int_{y_m}^{y_M} y f(y) dy \right)^2. \quad (\text{A.2})$$

We assume that the distribution  $f(y)$  is triangular over each of the two intervals  $[y_m, (y_m + y_M) / 2]$  and  $[(y_m + y_M) / 2, y_M]$ , as shown in figure A.1. If  $\pi = 0.5$ , the distribution collapses to a simple triangular distribution over the interval  $[y_m, y_M]$ . Note that  $E(y)$  and  $Var(y)$  depend only on the three known parameters ( $y_m$ ,  $y_M$ , and  $\pi$ ). The triangular distribution is a plausible description of the probability distribution of expected inflation because outcomes farther from the midpoint receive less weight.

**Figure A.1. The Split Triangular Distribution**



**Table A.1. Results from First-Stage Regressions in IV Estimation**

Variable	Trust in the ECB – Expected Inflation Specification		Trust in the ECB – Expected Growth Specification	
	Coeff.	Std. Error	Coeff.	Std. Error
Age	-0.058	0.020***	-0.050	0.020**
Age Squared	0.001	0.000***	0.000	0.000**
Female	-0.189	0.090**	-0.177	0.089**
Couple	-0.161	0.143	-0.175	0.142
Household Size	0.015	0.057	0.025	0.055
High School Graduate	0.493	0.126***	0.500	0.122***
College Graduate	0.863	0.129***	0.836	0.125***
Logarithm of Household Net Income	0.055	0.058	0.046	0.051
Times Cheated by Repair Persons	-0.191	0.089**	-0.187	0.088**
Trust in Other People	0.358	0.028***	0.363	0.028***
Constant	3.723	0.729***	3.593	0.683***
Region/Wave Dummies	Yes		Yes	
F-test	86.433		92.332	
Observations	2,632		2,716	

**Notes:** This table shows first-stage results from IV regressions with expected inflation and its variance (columns 1–2) and expected growth and its variance (columns 3–4) as dependent variables in the second-stage regression. \*\*\*, \*\*, and \* denote statistical significance at 1 percent, 5 percent, and 10 percent, respectively.

**Table A.2. Quantile Regression Results**

Percentile	Quantile Regressions		IV Quantile Regressions	
	Coeff.	Std. Error	Coeff.	Std. Error
5	0.1109	0.0300***	0.7585	0.3220**
10	0.0742	0.0163***	0.1398	0.2909
15	0.0513	0.0136***	0.0215	0.2732
20	0.0373	0.0117***	0.1239	0.2756
25	0.0208	0.0111*	0.2344	0.2805
30	0.0080	0.0100	-0.4893	0.3033
35	0.0061	0.0096	-0.0613	0.2858
40	-0.0027	0.0107	-0.0334	0.2708
45	-0.0119	0.0110	-0.2041	0.2820
50	-0.0156	0.0113	-0.0846	0.2736
55	-0.0320	0.0115***	-0.4076	0.2731
60	-0.0428	0.0127***	-0.4148	0.2690
65	-0.0463	0.0133***	-0.2023	0.2616
70	-0.0666	0.0159***	-0.4650	0.2940
75	-0.0895	0.0209***	-0.5779	0.2981*
80	-0.1303	0.0202***	-0.7942	0.3206**
85	-0.1543	0.0274***	-1.2088	0.3876***
90	-0.2028	0.0450***	-2.0341	0.4797***
95	-0.3256	0.0841***	-2.5914	0.6097***

**Notes:** This table displays the coefficients of the variable denoting trust in ECB, estimated using both regular and IV quantile regressions and for various percentiles of the distribution of expected inflation. \*\*\*, \*\*, and \* denote statistical significance at 1 percent, 5 percent, and 10 percent, respectively.

**Table A.3. OLS and IV Results for Expected Inflation and Its Variance, Sample with Imputed Missing Values**

Variable	Average of Expected Inflation				Variance of Expected Inflation			
	OLS		IV		OLS		IV	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Trust in the ECB	-0.0384	0.0152**	-0.1258	0.0535**	-0.0120	0.0030***	-0.0200	0.0110*
Age	0.0238	0.0121*	0.0155	0.0147	-0.0050	0.0030	-0.0040	0.0030
Age Squared	-0.0002	0.0001	-0.0001	0.0001	0.0000	0.0000	0.0000	0.0000
Female	-0.0206	0.0597	-0.0446	0.0690	0.0140	0.0130	0.0080	0.0150
Couple	0.0113	0.0851	-0.0196	0.0964	-0.0020	0.0200	-0.0070	0.0210
Household Size	-0.1023	0.0297***	-0.1217	0.0346***	-0.0170	0.0080**	-0.0210	0.0080**
High School Graduate	0.1485	0.0824*	0.1953	0.1016*	0.0050	0.0170	0.0180	0.0200
College Graduate	0.0756	0.0776	0.1945	0.1082*	0.0160	0.0170	0.0350	0.0210*
Logarithm of Household Net Income	0.0083	0.0203	0.0076	0.0235	-0.0080	0.0090	-0.0060	0.0100
Constant	1.2195	0.3894***	1.8942	0.5417***	0.4920	0.1150***	0.5010	0.1390***
Region/Wave Dummies	Yes		Yes		Yes		Yes	
First-Stage F-Test			107.546				83.948	
Endogeneity Test			2.363				0.702	
P-value			0.124				0.402	
Test of Overidentifying Restrictions			0.232				0.348	
P-value			0.630				0.555	
Observations	4,248		3,372		3,199		2,745	

**Notes:** This table shows OLS and IV estimation results from models using expected inflation and its variance (both measured in percentage points) as dependent variables. Missing values on expected inflation and trust in the ECB in the original sample have been imputed. \*\*\*, \*\*, and \* denote statistical significance at 1 percent, 5 percent, and 10 percent, respectively.

**Table A.4. OLS and IV Results for Expected Inflation and Its Variance, Using a Split Triangular Distribution**

Variable	Average of Expected Inflation				Variance of Expected Inflation			
	OLS		IV		OLS		IV	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Trust in the ECB	-0.0609	0.0197***	-0.1924	0.0624***	-0.0100	0.0030***	-0.0180	0.0090**
Age	0.0119	0.0157	0.0071	0.0176	-0.0040	0.0030	-0.0040	0.0030
Age Squared	-0.0001	0.0001	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
Female	0.0216	0.0739	-0.0454	0.0842	0.0140	0.0120	0.0060	0.0130
Couple	0.1094	0.1045	0.0904	0.1149	0.0070	0.0170	0.0070	0.0180
Household Size	-0.1464	0.0363***	-0.1658	0.0411***	-0.0150	0.0070**	-0.0190	0.0080**
High School Graduate	0.1077	0.1018	0.1826	0.1211	0.0000	0.0150	0.0120	0.0170
College Graduate	0.0983	0.0957	0.2729	0.1305**	0.0250	0.0150	0.0470	0.0180**
Logarithm of Household Net Income	0.0049	0.0339	0.0254	0.0337	-0.0060	0.0070	-0.0020	0.0080
Constant	1.6918	0.5249***	2.2884	0.6448***	0.4070	0.1030***	0.4110	0.1180***
Region/Wave Dummies	Yes		Yes		Yes		Yes	
First-Stage F-Test			83.494				83.494	
Endogeneity Test			4.605				0.884	
P-value			0.032				0.347	
Test of Overidentifying Restrictions			0.707				0.619	
P-value			0.401				0.431	
Observations	2,981		2,572		2,981		2,572	

**Notes:** This table shows OLS and IV estimation results from models using expected inflation and its variance (both measured in percentage points) as dependent variables and assuming a split triangular distribution of future inflation. \*\*\*, \*\*, and \* denote statistical significance at 1 percent, 5 percent, and 10 percent, respectively.