Legal Risks and Social Bonds:

How Does Information About Risks Affect the Willingness to Grant a Third-Party Loan Guarantee?

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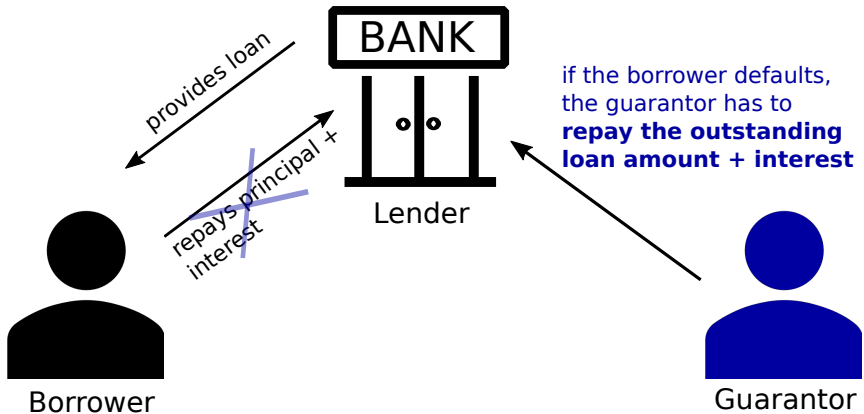
August 27, 2025

Views presented are those of the authors and not necessarily those of the OeNB or the Eurosystem.

Concept of Loan Guarantee



Motivation

- Research on loan guarantees has predominantly focused on credit access for firms, individual guarantees are mostly overseen
- Shed light on underexplored aspect of household finance, which may play a significant role for household indebtedness and financial vulnerability.
- 10% of individuals in UK have experience as being a guarantor. (YouGov, 2021)
- Loan guarantees are especially widespread in high-cost credit market (FCA, 2017).
- In 2016, the FCA introduced amendments to guarantor lending to strengthen consumer protections.

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- Loan guarantees are especially widespread in high-cost credit market (FCA, 2017).
- In 2016, the FCA introduced amendments to guarantor lending to strengthen consumer protections.

Research Question:

How does providing information about the risks associated with a third-party guarantee for a loan impact an individual's willingness to grant such a guarantee?

Household debt

⇒ Overall debt burden in advanced economies increased significantly (Christelis et al., 2021; Mian and Sufi, 2011)

⇒ Drivers: greater credit availability, intensified loan product marketing, rising housing prices, and shifts in demographic structure (Zinman, 2015)

⇒ Higher debt levels among adults entering retirement (Lusardi et al., 2020; Angrisani et al., 2023)

⇒ Overconfident individuals wrt. income expectations lead to increased borrowing (Grohmann et al., 2024)

Financial Literacy

⇒ ...

Household Debt

$\Rightarrow$ ...

Financial Literacy

- $\Rightarrow$ FinLit $\Uparrow \rightarrow$ Borrowing $\Downarrow$ (Stango and Zinman, 2009), high-cost debt $\Downarrow$ & costly mortgages $\Downarrow$ (Almenberg et al., 2020; Disney and Gathergood, 2013; Lusardi and Tufano, 2015), default on sub-prime loans $\Downarrow$ (Gerardi et al., 2013)
- $\Rightarrow$ Understanding risks of financial products is linked to better financial outcomes (Beckmann and Stix, 2015; Gathergood and Weber, 2017; Van Ooijen and van Rooij, 2016)
- $\Rightarrow$ Higher guarantee literacy leads to lower provision of guarantees (Beckmann et al., 2022)

Data and Sample

- Online Survey
- Adults living in the UK, who take financial decisions and manage their own finances
- Points based incentive depending on length of questionnaire
- No imputation of missing data and 'Don‘t Know' treated as missing data

Conceptual Framework

One can describe the risk of granting a guarantee as perceived by person i in terms of expected loss:

$$E(Loss)_i = K_i * E(LGD)_i * E(PD)_i * (EAD) \tag{1}$$

Where:

$E(Loss)_i$ is the expected loss for person i

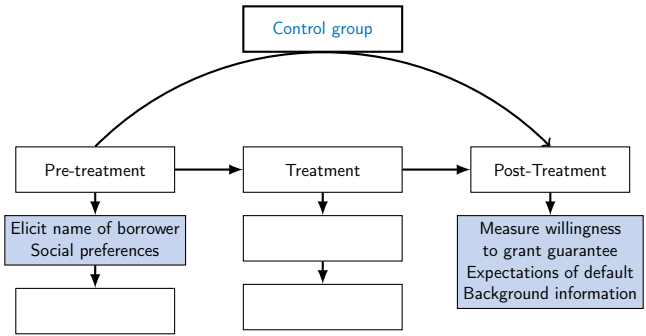
K_i is the knowledge about the contingent liability in granting a guarantee i

$E(LGD)_i$ is the guarantors expected loss given default

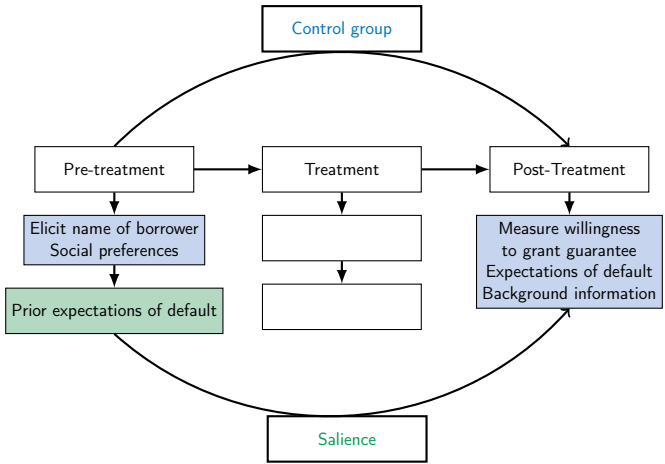
$E(PD)_i$ is the expected probability of default on the loan

EAD is the exposure at default

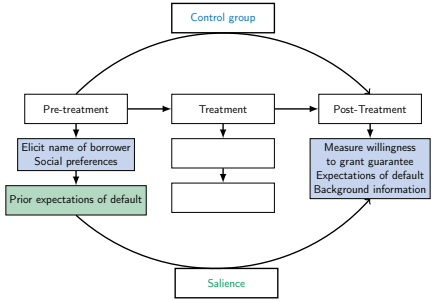
Experimental Design



Experimental Design



Experimental Design



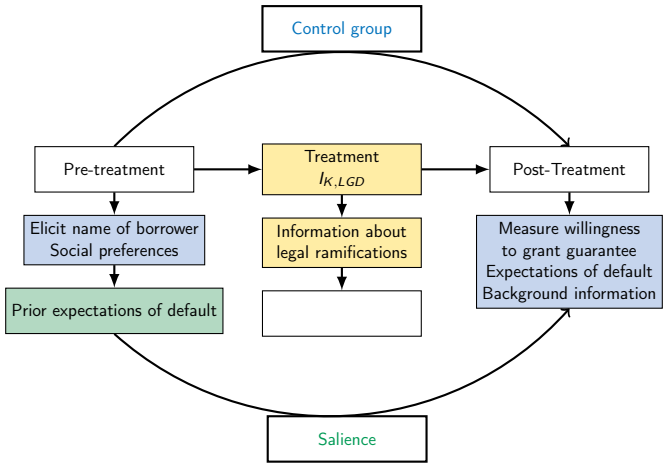
All Treatment Groups

Let's now think about retail bank loans[1] to **private individuals** in the UK. There are borrowers who repay their loans, others struggle with loan repayments, and some borrowers do not repay, i.e., **default** on their loan.

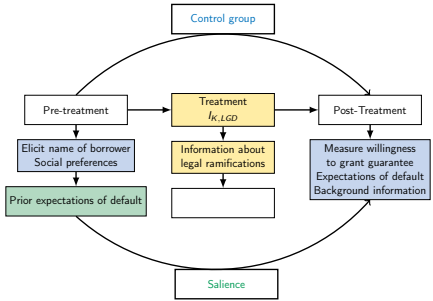
What is the **likelihood, expressed in percent, that** [insert **name** from 3.1] would default on a bank loan?

_____%

Experimental Design



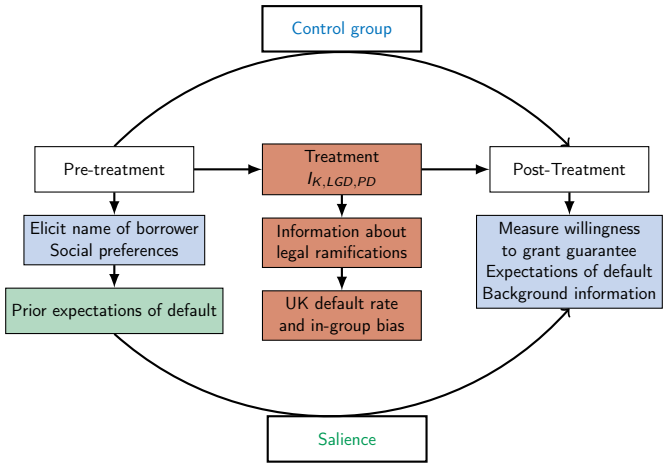
Experimental Design



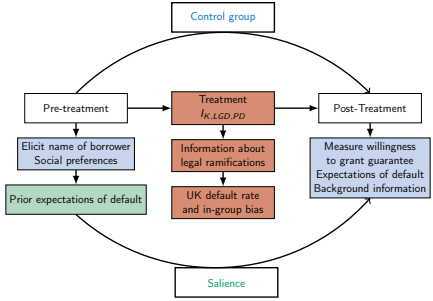
T2 Salience and Legal Information

Loans can be secured by a third-party guarantee. Legally, by signing a guarantee, a guarantor promises to repay the loan including interest to the bank if the borrower defaults.

Experimental Design



Experimental Design



Loans can be secured by a third-party guarantee. Legally, by signing a guarantee, a guarantor promises to repay the loan including interest to the bank if the borrower defaults.

According to the Financial Conduct Authority, the percentage of private individuals who default on their loans is 12 percent in the UK.[1] This means that one in eight borrowers default on their loans. You said that you think the percentage is [insert respondent's stated prior beliefs].

A 2020 YouGov survey shows that the vast majority of people think their relatives and friends are much less likely to default on a loan than the average person in the UK. The tendency to have far too good an opinion of your relatives and friends is one example of what psychology calls "in-group bias."

Estimation Strategy

OLS Regression

$$y_i = \alpha_0 + \sum_j \alpha_{1j} T_i^j + \epsilon_i \ , \ \text{with } j \in \{S, I_{K,LGD}, I_{K,LGD,PD}\} \tag{2}$$

Where:

- y_i: willingness to act as guarantor
- T_i^j: treatment indicator(s)
- ϵ_i: error term

Results - Average Treatment Effect

	Willingness to act as guarantor for a bank loan of		
	£5,000	£10,000	£150,000
	(1)	(2)	(3)
S	-0.296	0.061	-0.655
	(1.411)	(1.403)	(1.373)
$I_{K,LGD}$	-2.647*	-3.104**	-5.155***
	(1.423)	(1.408)	(1.353)
$I_{K,LGD,PD}$	-2.985**	-3.671***	-5.743***
	(1.401)	(1.387)	(1.334)
Control mean	57.5	51.3	37.1
adj. R-squared	0.001	0.002	0.005
N	5384	5384	5384

Notes: Estimates are obtained from OLS regressions with robust standard errors. *Notes:* * p<0.10, ** p<0.05, *** p<0.01

⇒ *Salience* alone does not suffice to reduce willingness, providing information about legal ramifications, default rates and in-group bias is most effective

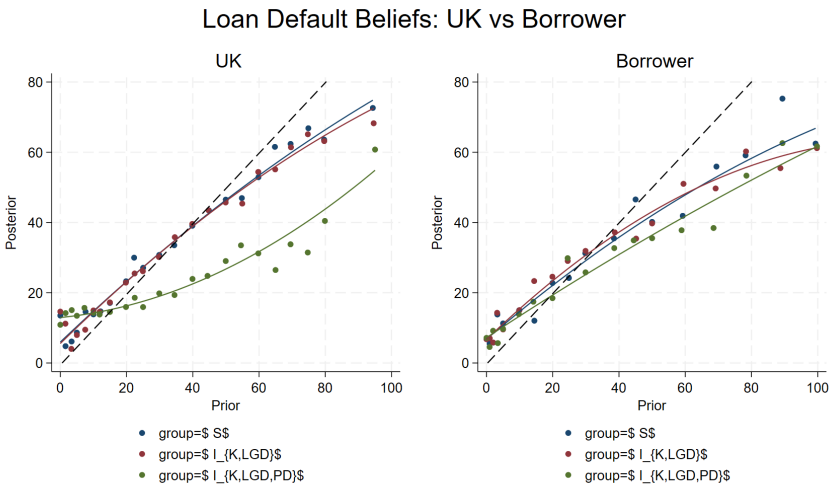
Results - Heterogeneity by Loan-Default Expectations

	Willingness to act as guarantor for a bank loan of		
	£5,000	£10,000	£150,000
	(1)	(2)	(3)
$I_{K,LGD}$	-2.184	-3.086**	-4.639***
	(1.443)	(1.447)	(1.408)
$I_{K,LGD,PD}$	-3.120**	-4.133***	-5.383***
	(1.421)	(1.422)	(1.379)
Perception Gap	-0.307***	-0.276***	-0.116***
	(0.040)	(0.040)	(0.040)
$I_{K,LGD}$ × Perception Gap	0.006	0.020	0.043
	(0.055)	(0.055)	(0.053)
$I_{K,LGD,PD}$ × Perception Gap	0.048	0.047	0.057
	(0.057)	(0.057)	(0.055)
Control mean	54.5	47.6	31.4
adj. R-squared	0.041	0.033	0.007
N	4052	4052	4052

Notes: Estimates are obtained from OLS regressions with robust standard errors.
Notes: * p<0.10, ** p<0.05, *** p<0.01

⇒ For example, a respondent who thinks that the default rate of the borrower is 15 percent is 0.9 percentage points less likely to act as a guarantor of £5,000

Results - Updating of Loan-Default Expectations



Results - Updating of Loan-Default Expectations

	Expectation Updating	
	Updating UK	Updating Borrower
	(1)	(2)
$I_{K,LGD}$	-0.100	0.113
	(0.725)	(0.698)
$I_{K,LGD,PD}$	-2.560***	-0.817
	(0.728)	(0.664)
Perception Gap of Default Rate in UK	-0.247***	
	(0.024)	
$I_{K,LGD}$ × Perception Gap of Default Rate in UK	-0.001	
	(0.036)	
$I_{K,LGD,PD}$ × Perception Gap of Default Rate in UK	-0.399***	
	(0.039)	
Perception Gap of Default Rate of Borrower		-0.344***
		(0.030)
$I_{K,LGD}$ × Perception Gap of Default Rate of Borrower		-0.049
		(0.044)
$I_{K,LGD,PD}$ × Perception Gap of Default Rate of Borrower		-0.069
		(0.044)
Control mean	0.4	1.0
adj. R-squared	0.334	0.215
N	4052	4052

Notes: Estimates are obtained from OLS regressions with robust standard errors. *Notes:* * p<0.10, ** p<0.05, *** p<0.01

⇒ no updating of expectations about the borrower's default rate

⇒ in-group bias?

Robustness

	Willingness to grant an informal loan of			Willingness to grant rental payments
	£5,000	£10,000	£150,000	
	(1)	(2)	(3)	(4)
S	1.557	2.192	-0.217	-0.865
	(1.443)	(1.397)	(1.278)	(1.431)
$I_{K,LGD}$	0.553	0.598	-1.115	-2.278
	(1.443)	(1.405)	(1.275)	(1.437)
$I_{K,LGD,PD}$	1.160	0.469	-3.069**	-2.419*
	(1.419)	(1.378)	(1.243)	(1.402)
Control mean	48.6	39.8	24.8	51.7
adj. R-squared	-0.000	-0.000	0.001	0.000
N	5384	5384	5384	5384

Notes: Estimates are obtained from OLS regressions with robust standard errors. *Notes:* * p<0.10, ** p<0.05, *** p<0.01

$\Rightarrow$ no effect of treatment on alternative measures

Conclusion

- **Legal risk awareness reduces willingness to guarantee loans**, especially for larger amounts.
- **Combined information on legal risks, default rates, and in-group bias** further decreases willingness to act as guarantor.
- **In-group bias limits belief updating**—individuals trust acquaintances more than national statistics.
- Future Research
  - at the moment we show hypothetical decisions. External Validity is limited

THANK YOU!

Latest Version of the Paper: click here

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Appendix

Summary Statistics

	Treatment group			
	S	$I_{K,LGD}$	$I_{K,LGD,PD}$	C
N	1,368 (25.4%)	1,339 (24.9%)	1,345 (25.0%)	1,332 (24.7%)
a) *Sociodempgraphics*				
Female	0.506 (0.500)	0.497 (0.500)	0.498 (0.500)	0.522 (0.500)
Age	44.24 (14.252)	44.34 (14.157)	43.54 (14.423)	43.27 (14.241)
Household Size	2.667 (1.290)	2.704 (1.350)	2.819 (1.404)	2.728 (1.395)
Married	0.543 (0.498)	0.528 (0.499)	0.548 (0.498)	0.529 (0.499)
Number of children	2.061 (1.207)	2.051 (1.181)	2.042 (1.173)	2.033 (1.181)
b) *Education*				
Low	0.018 (0.131)	0.010 (0.102)	0.009 (0.094)	0.010 (0.098)
Medium	0.430 (0.495)	0.430 (0.495)	0.447 (0.497)	0.419 (0.494)
High	0.553 (0.497)	0.559 (0.497)	0.544 (0.498)	0.571 (0.495)
c) *Employment Status*				
Employed	0.589 (0.492)	0.597 (0.491)	0.585 (0.493)	0.590 (0.492)
Self Employed	0.100 (0.300)	0.105 (0.306)	0.094 (0.293)	0.095 (0.294)
Unemployed	0.045 (0.206)	0.049 (0.215)	0.047 (0.211)	0.042 (0.201)
Student	0.034 (0.180)	0.030 (0.170)	0.045 (0.208)	0.041 (0.199)
d) *Income*				
Personal Income: Low	0.444 (0.497)	0.438 (0.496)	0.440 (0.497)	0.447 (0.497)
Personal Income: Medium	0.432 (0.496)	0.414 (0.493)	0.404 (0.491)	0.411 (0.492)
Personal Income: High	0.124 (0.329)	0.148 (0.355)	0.156 (0.363)	0.141 (0.348)
Household Income: Low	0.403 (0.491)	0.409 (0.492)	0.406 (0.491)	0.408 (0.492)
Household Income: Medium	0.460 (0.499)	0.437 (0.496)	0.431 (0.495)	0.440 (0.497)
Household Income: High	0.087 (0.282)	0.096 (0.295)	0.104 (0.305)	0.104 (0.305)
e) *Relationship to Borrower*				
Partner	0.175 (0.380)	0.168 (0.374)	0.178 (0.383)	0.170 (0.376)
Parent	0.135 (0.341)	0.128 (0.335)	0.149 (0.357)	0.132 (0.339)
Child	0.078 (0.269)	0.078 (0.268)	0.059 (0.237)	0.076 (0.265)
Sibling	0.106 (0.308)	0.111 (0.314)	0.098 (0.298)	0.124 (0.330)
Relative	0.079 (0.270)	0.084 (0.277)	0.097 (0.296)	0.076 (0.265)
Friend	0.408 (0.492)	0.415 (0.493)	0.398 (0.490)	0.402 (0.491)
Other	0.018 (0.134)	0.016 (0.127)	0.020 (0.140)	0.020 (0.138)

Pooled Treatment

	Willingness to act as guarantor for a bank loan of		
	£5,000	£10,000	£150,000
	(1)	(2)	(3)
Treatment (pooled)	-1.966*	-2.223**	-3.831***
	(1.143)	(1.132)	(1.105)
Constant	57.498***	51.296***	37.137***
	(0.982)	(0.971)	(0.956)
Control mean	57.5	51.3	37.1
adj. R-squared	0.000	0.000	0.002
N	5384	5384	5384

Notes: *Notes:* * p<0.10, ** p<0.05, *** p<0.01

All Controls

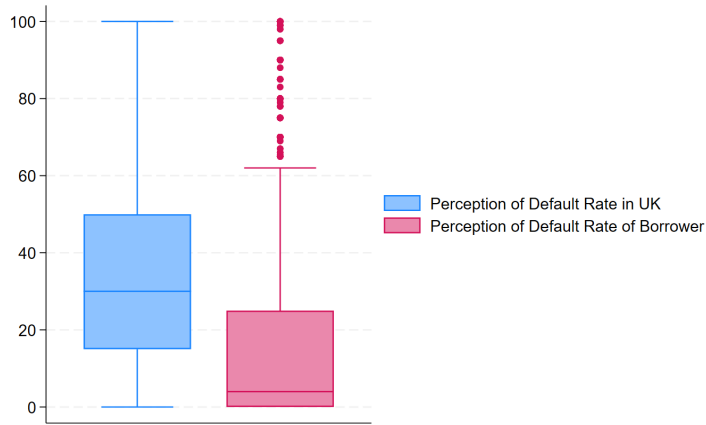
	Willingness to act as guarantor for a bank loan of		
	£5,000 (1)	£10,000 (2)	£150,000 (3)
S	-0.504	-0.129	-0.132
	(1.488)	(1.487)	(1.474)
I_{K_LGD}	-2.457	-2.214	-3.734**
	(1.499)	(1.487)	(1.468)
$I_{K\_LGD\_PD}$	-2.999**	-3.582**	-6.458***
	(1.491)	(1.478)	(1.442)
Female	-0.463	-0.783	0.418
	(1.160)	(1.147)	(1.112)
Married	2.582**	3.910***	4.699***
	(1.296)	(1.292)	(1.254)
Age	0.023	-0.027	-0.274***
	(0.054)	(0.054)	(0.051)
Household Size	-0.636	-0.998**	-0.391
	(0.492)	(0.481)	(0.477)
Number of children	-0.172	-0.090	0.459
	(0.649)	(0.646)	(0.644)
Education Low (ref.)			
Middle	-3.074	-4.288	-7.979*
	(4.288)	(4.190)	(4.465)
High	1.609	-1.081	-7.142
	(4.245)	(4.161)	(4.442)
Employed (ref.)			
Self Employed	3.427**	3.236**	2.086
	(1.653)	(1.632)	(1.586)
Unemployed	-1.100	0.070	3.429
	(2.413)	(2.320)	(2.302)
Student	4.562*	2.383	2.085
	(2.634)	(2.590)	(2.506)
Personal Income Low (ref.)			
Middle	5.108***	5.733***	4.124***
	(1.359)	(1.347)	(1.282)
High	10.296***	13.349***	14.238***
	(1.994)	(1.977)	(1.944)
Household Income Low (ref.)			
Middle	3.554***	2.454*	2.045
	(1.311)	(1.309)	(1.265)
High	8.121***	6.556***	5.337**
	(2.143)	(2.132)	(2.104)
Stated Name: Partner (ref)			
Parent	4.917***	6.580***	3.795*
	(1.785)	(1.822)	(1.956)
Child	-2.023	-1.285	-1.216
	(2.566)	(2.612)	(2.594)
Sibling	-3.939**	-4.069**	-5.624***
	(1.993)	(2.029)	(2.081)
Relative	-8.780***	-8.203***	-7.867***
	(2.321)	(2.333)	(2.311)
Friend	-18.030***	-18.289***	-17.365***
	(1.535)	(1.535)	(1.547)
Other	-37.880***	-33.064***	-23.902***
	(4.262)	(4.334)	(3.826)
Control mean	57.5	51.3	37.1
adj. R-squared	0.102	0.109	0.112
N	4148	4148	4148

Tobit Regression

	Willingness to act as guarantor for a bank loan of		
	£5,000	£10,000	£150,000
	(1)	(2)	(3)
S	0.375	0.219	-1.759
	(1.840)	(1.834)	(1.968)
$I_{K,LGD}$	-3.039	-4.555**	-8.223***
	(1.850)	(1.846)	(1.986)
$I_{K,LGD,PD}$	-3.346*	-4.707**	-8.565***
	(1.844)	(1.841)	(1.982)
Log Likelihood	-22931.4	-22812.0	-20698.7
Chi-Squared	6.805	13.316	29.549
Pseudo R-squared	.0001	.0003	.0007
N	5384	5384	5384

Notes: Estimates are obtained from Tobit estimation with robust standard errors. *Notes:* * p<0.10, ** p<0.05, *** p<0.01

Perception of Default



Elicit Name of Borrower

3.1 Name of "Person You Know Well"

Control Group and All Treatment Groups

For the following questions, please think of a person that you know well and who would ask you for help in financial matters. Please write down the person's first name or a nickname. Please do not provide the surname.

Name _____

[Soft prompt 1:] Please provide a name. It does not have to be the real name _____

[Soft prompt 2:] We will refer to this person as ***Alex***.

Prior and Posterior Beliefs

All Treatment Groups

Let's now think about retail bank loans[1] to **private individuals** in the UK. There are borrowers who repay their loans, others struggle with loan repayments, and some borrowers do not repay, i.e., **default** on their loan.

What is the **likelihood, expressed in percent, that** [insert **name** from 3.1] would default on a bank loan?

_____%

Control Group and All Treatment Groups

What do you think is the **likelihood, expressed in percent**, that the following people do not repay, i.e., **default** on their bank loan?

a. [insert **name** from 3.1] ____ %
b. Private individuals in the UK in general ____ %

Don't know/Refused -1

Outcome Variable

Control Group and All Treatment Groups

What do you think is the **likelihood, expressed in percent**, that the following people do not repay, i.e., **default** on their bank loan?

a. [insert **name** from 3.1] ____ %
b. Private individuals in the UK in general ____ %

Don't know/Refused -1