Cultural Stereotypes of Multinational Banks

Teaching Material

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Introduction

- Cultural stereotypes are historically determined and change very slowly
 - "It is harder to crack prejudice than an atom." (Einstein)
- Grain of truth? Hard to differentiate between biases and fundamentals!
- This paper: Cultural stereotypes lead us to trust or distrust in other nations, ethnicities, etc.



Culture & Finance

- Cultural closeness is crucial for financial markets but is it because of <u>trust-related biases</u> (i.e., <u>stereotypes</u>) or information-<u>related problems</u>?
 - Historical example: a concentration of commercial and financial transactions among individuals with a common cultural background (see e.g. Greif 1989, 1991)
 - Modern investors underweighting culturally distant foreign markets (Karolyi, 2016);
 - and overweighting firms whose CEOs are of a common cultural background (Grinblatt and Keloharju 2001)
 - Also, many corporate activities decline with cultural distance:
 - less frequent corporate acquisitions (Kogut and Singh, 1988)
 - diminished bond/equity issuance by firms (Siegel, Licht & Schwartz, 2011)
 - lower syndicated bank loans (Giannetti and Yafeh, 2012)
 - reduced merger volumes (Ahern, Daminelli and Fracassi, 2015)

This paper

- In this paper: Does "cultural trust" matter for bank lending to governments?
 - Focus on an ideal laboratory: bank exposures of sovereign debt in Europe
 - Supranational supervision of banks & homogenous regulatory treatment of gov't bonds
 - □ Cultural trust measure from *Eurobarometer* surveys (Guiso et al., 2009) as well as our <u>new online survey</u> (15x15 vs. 30x30)
 - How much each country's residents "trust" in people from another country
 - Merge with a unique bi-annual dataset collected from EBA and CEBS between 2010 and 2021.
 - More detailed than ECB supervisory confidential data
 - Construct a bank-level trust measure by leveraging bank branch networks
 - A full mapping of bank branches across Europe for each bank from SNL Financial (as of 2016)
 - Identification: compare banks headquartered in the same country at the same point in time and with regards to their exposures towards the same target country/sovereign
 - **Mechanisms**: (1) Delegation, (2) information, (3) human capital

Literature

Bilateral trust in international econ and finance:

- A higher level of trust at the country level has a positive impact on levels of economic exchange such as trade, portfolio investment and foreign direct investment (Guiso, Sapienza and Zingales, 2009 QJE).
- Greater trust leads to more decentralisation of multinational firms (Bloom, Sadun and Van Reenen, 2012 QJE).
- International investment decisions of venture firms are influenced by bilateral trust (Bottazzi, Da Rin and Hellmann, 2016 RFS).
- Equity analysts' stock recommendations are biased in favour of firms in foreign countries more trusted by the analysts' home country (Pursiainen, 2022 JF)

Cultural attitudes and investment biases:

- Cultural proximity and investments: Kogut & Singh (1988 JIBS); Grinblatt and Keloharju (2001 JF); Siegel, Licht and Schwartz (2011 JFE); Giannetti and Yafeh (2012 MS); Ahern, Daminelli and Fracassi (2015 JFE); Karolyi (2016 JCF).
- □ U.S. banks whose CEOs immigrated from countries with high average levels of trust charge lower syndicated loan rates (Hagendorff, Lim and Nguyen, 2022 MS).

Determinants of banks' sovereign exposures:

 Mostly to explain why banks' home bias in gov't exposures increases during crises (Broner, Martin and Ventura, 2010 AER; Saka, 2020 JMCB; Crosignani, 2021 JFE)

Data

Eurobarometer:

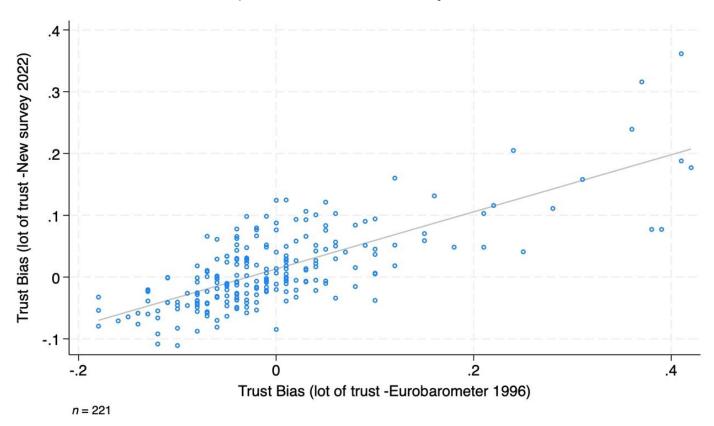
- Latest trust question in 1996.
- "I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust, or no trust at all"
- Country-level bilateral trust: Percentage of people in home country who express "a lot of trust" towards people in target country (Pursiainen, 2022)

Appendix Table A.5: Trust by Home and Target Countries

								<u>Ta</u>	rget count	ries						
		Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Norway	Portugal	Spain	Sweden	GB
	Austria	0.65	0.25	0.21	0.24	0.17	0.36	0.15	0.15	0.12	0.23	0.27	0.14	0.14	0.29	0.15
	Belgium	0.18	0.40	0.23	0.18	0.23	0.19	0.09	0.15	0.08	0.24	0.19	0.10	0.11	0.20	0.18
	Denmark	0.34	0.30	0.48	0.34	0.19	0.29	0.13	0.27	0.11	0.40	0.54	0.13	0.12	0.47	0.35
	Finland	0.41	0.29	0.42	0.73	0.23	0.27	0.15	0.25	0.10	0.33	0.55	0.13	0.12	0.47	0.34
	France	0.11	0.22	0.18	0.16	0.33	0.16	0.09	0.13	0.07	0.18	0.19	0.11	0.12	0.20	0.09
es	Germany	0.32	0.18	0.25	0.22	0.22	0.55	0.11	0.13	80.0	0.24	0.25	0.10	0.13	0.29	0.17
countries	Greece	0.08	0.17	0.18	0.10	0.25	0.17	0.51	0.16	0.12	0.18	0.09	0.16	0.21	0.13	0.15
	Ireland	0.14	0.16	0.18	0.13	0.15	0.18	0.09	0.44	0.11	0.19	0.14	0.10	0.11	0.13	0.18
Home	Italy	0.11	0.09	0.13	0.16	0.12	0.18	0.07	0.08	0.20	0.14	0.16	0.05	0.11	0.18	0.11
H	Netherlands	0.15	0.29	0.36	0.30	0.11	0.15	80.0	0.15	0.04	0.36	0.35	0.09	80.0	0.37	0.21
	Norway		0.31	0.57		0.22	0.27	0.14	0.27	0.12	0.37		0.13	0.13		0.38
	Portugal	0.05	0.10	0.10	0.06	0.21	0.11	0.06	0.06	0.07	0.11	0.07	0.44	0.13	0.06	0.12
	Spain	0.13	0.16	0.17	0.14	0.13	0.20	0.12	0.13	0.15	0.20	0.19	0.14	0.49	0.20	0.10
	Sweden	0.58	0.42	0.63	0.59	0.34	0.41	0.31	0.45	0.28	0.48	0.69	0.33	0.29	0.64	0.53
	Great Britain	0.15	0.17	0.27	0.18	0.08	0.15	0.11	0.15	0.08	0.30	0.22	0.12	0.09	0.20	0.39

Data

- Eurobarometer (1996) vs. our new online survey (2022):
 - □ In collaboration with Respondi. 30 x 30 country matrix.



Data

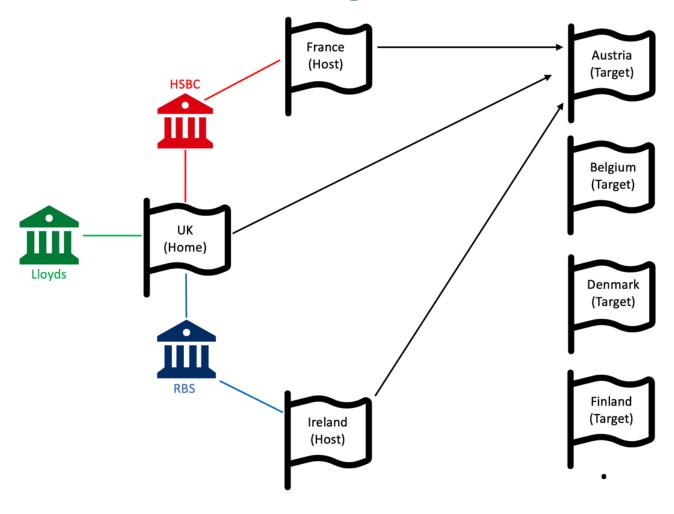
European Banking Authority (EBA) and CEBS:

- Stress-tests, capital exercises, transparency exercises between 2010-2021.
- Consolidated bank-level exposures to up to 200 sovereigns (restricted to 30 European sovereigns)
- □ Banks manually traced over time due to mergers, closures, name changes, etc.
- Result: 159/108 banks located in 27 European countries across 22 points in time (11 years) with exposures to 30 European gov'ts

Appendix Table A.1: Data Disclosure Details from the European Banking Authority (EBA)

Disclosure Name	Disclosure Date	Information Date	Banks covered	Banks with sovereign breakdown
2010 EU-wide stress testing exercise	23/07/2010	2010-Q1	91	91
2011 EU-wide stress testing exercise	15/07/2011	2010-Q4	90	90
EU Capital exercise 2011	08/12/2011	2011-Q3	65	65
EU Capital exercise 2012	03/10/2012	2011-Q4; 2012-Q2	62	62
2013 EU-wide transparency exercise	16/12/2013	2012-Q4; 2013-Q2	64	64
2014 EU-wide stress testing exercise	26/10/2014	2013-Q4	123	123
2015 EU-wide transparency exercise	24/11/2015	2014-Q4 & 2015-Q2	105	105
2016 EU-wide transparency exercise	02/12/2016	2015-Q4 & 2016-Q2	131	87
2017 EU-wide transparency exercise	24/11/2017	2016-Q4 & 2017-Q2	132	91
2018 EU-wide transparency exercise	14/12/2018	2017-Q4 & 2018-Q2	130	130
2019 EU-wide transparency exercise	29/11/2019	2018-Q4 & 2019-Q2	131	131
2020-1 EU-wide transparency exercise	08/06/2020	2019-Q4	127	127
2020-2 EU-wide transparency exercise	11/12/2020	2020-Q2	129	129
2021 EU-wide transparency exercise	03/12/2021	2020-Q4 & 2021-Q2	120	117

Identification strategy (bank-level)



Empirical setting – LPM

Country-level trust bias is proxied by 3 in:

Country-level Bilateral Trust_{hc} = $\alpha_1 \theta_h + \alpha_2 \theta_c + 3_{hc}$

Bank-level trust bias becomes:

Bank-level Trust Bias $b, c = \sum_{i=1}^{n} (Weight_{b,i} x CountryLevel Trust Bias_{i,c})$

■
$$SoxExp_{bhct} = \beta_1 Bank-level\ trust\ bias_{bc}$$

+ $\beta_2 BankBranches_{bc}$ + $\beta_3 \Omega_{bt}$
+ $\beta_4 \mu_{ct}$ + $\beta_5 \rho_{hct}$ + ε_{bhct}

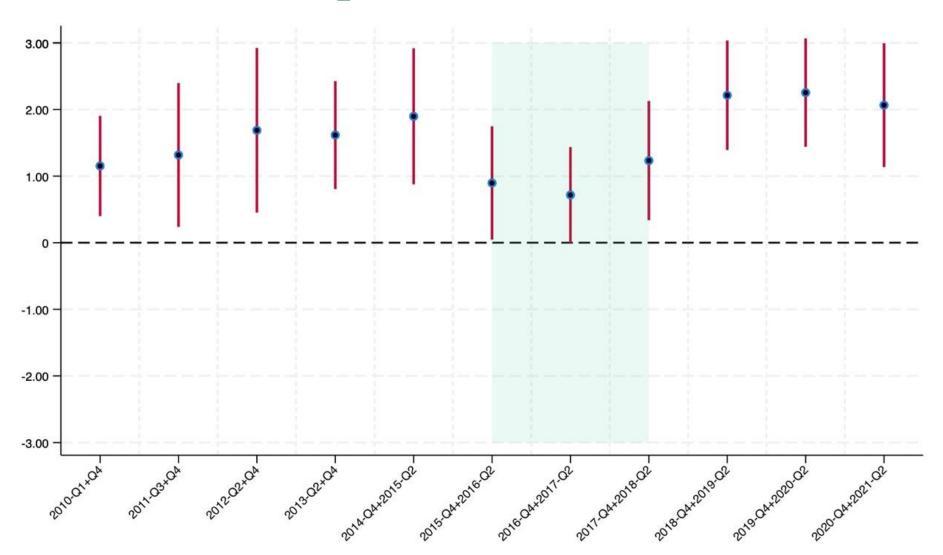
Main results (baseline)

Table 2: Bank-level Trust Bias and Probability of Sovereign Exposure

	(1)	(2)	(3)	(4)	(5)
Outcome -	Sovereign	Sovereign	Sovereign	Sovereign	Sovereign
	Exposure	Exposure	Exposure	Exposure	Exposure
Bank-level Trust Bias	1.353***	1.757***	1.604***	1.630***	1.562***
	[0.110]	[0.329]	[0.301]	[0.300]	[0.310]
Bank-level Branches			-0.090***	-0.153***	-0.163***
			[0.027]	[0.053]	[0.056]
Bank-level Branches (squared)				0.014	0.016
				[0.011]	[0.012]
Bank x Time FEs	Yes	Yes	Yes	Yes	Yes
Target Country x Time FEs	Yes	Yes	Yes	Yes	No
Home Country x Target Country FEs	No	Yes	Yes	Yes	No
Home Country x Target Country x Time FEs	No	No	No	No	Yes
Observations	23,760	23,760	23,760	23,760	21,615

Economic magnitude: One standard deviation rise in bank-level trust bias increases the probability of investing in a target country by 14 per cent (compared to unconditional probability of %58)

Main results (persistency)



Main results (other relationships)

Table 4: Bank-level Trust Bias and Probability of Sovereign Exposure when Controlling for Bank-level Relationships with Target country.

Table 4: Bank-level Trust bias and Probability of Sover	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome →	Sovereign							
	Exposure							
Bank-level Trust Bias	1.562***	1.638***	1.732***	1.381***	1.371***	1.287***	1.309***	1.290***
	[0.281]	[0.368]	[0.384]	[0.460]	[0.467]	[0.458]	[0.442]	[0.451]
Bank-level Branch Relationship		-0.004	0.000	-0.004	-0.010	-0.012	-0.013	-0.013
		[0.009]	[0.012]	[0.014]	[0.015]	[0.014]	[0.015]	[0.014]
Bank-level Merger Relationship			-0.370	-0.447	-0.418	-0.396	-0.402	-0.366
			[0.641]	[0.609]	[0.642]	[0.622]	[0.620]	[0.638]
Bank-level Media Relationship				0.496	0.472	0.394	0.359	0.394
				[0.358]	[0.360]	[0.383]	[0.381]	[0.393]
Bank-level Political Relationship					0.929	0.872	0.827	0.844
•					[0.806]	[0.806]	[0.790]	[0.769]
Bank-level Distance Relationship						-0.071	-0.084	-0.079
						[0.088]	[0.093]	[0.091]
Bank-level Legal Origin Relationship							-0.048	-0.051
							[0.059]	[0.061]
Bank-level Religious Relationship								0.042
								[0.244]
Control for Bank-level Branches	Yes							
Control for Bank-level Branches (squared)	Yes							
Bank x Time FEs	Yes							
Home Country x Target Country x Time FEs	Yes							
Observations	21,615	21,615	21,615	21,615	21,615	21,615	21,615	21,615

Main results (IV)

Table 5: Instrumented Bank-level Trust Bias and Probabilit	v of Sovereign Exposure

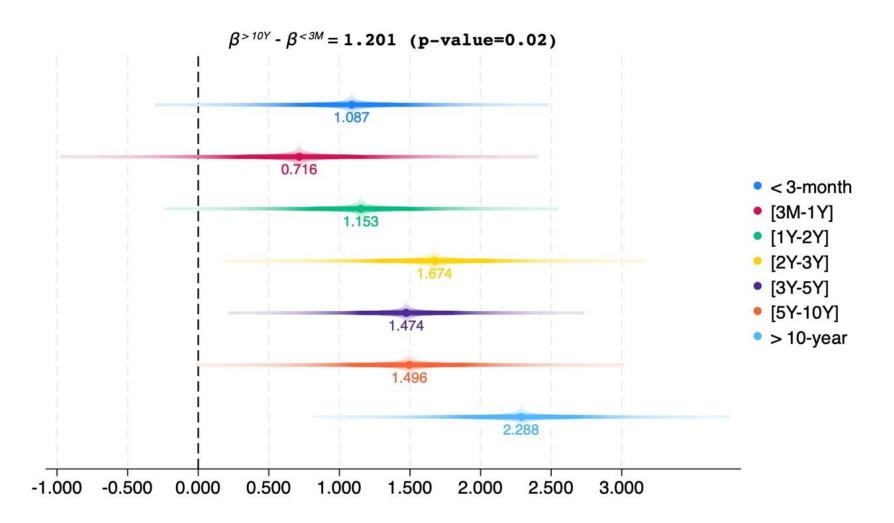
	(1) (2SLS)	(2) (<u>First-stage</u>)	(3) (2SLS)	(4) (<u>First-stage</u>)
Outcome →	Sovereign	Bank-level Trust Bias	Sovereign	Bank-level Trust Bias
Panel A	Exposure	Trust Bias	Exposure	Trust Bias
Bank-level Trust Bias	3.014***		4.491***	
	[0.871]		[1.608]	
Bank-level Branches	-0.167***	0.007	-1.113**	0.149**
	[0.055]	[0.013]	[0.453]	[0.066]
Bank-level Branches (squared)	0.020**	-0.003	1.015*	-0.123
	[0.009]	[0.003]	[0.516]	[0.089]
Bank-level Genetic Distance		-13.676***		-7.619***
		[1.229]		[0.882]
First-stage Kleibergen-Paap F-stat		123.84		74.65
First-stage Montiel-Pflueger F-stat		125.93		54.49
Panel B			9	
Bank-level Trust Bias	2.037***		2.658***	
	[0.531]		[0.874]	
Bank-level Branches	-0.164***	0.004	-0.786**	0.105**
	[0.055]	[0.010]	[0.396]	[0.045]
Bank-level Branches (squared)	0.017*	-0.002	0.724	-0.081
	[0.010]	[0.003]	[0.459]	[0.061]
Bank-level Somatic Distance		-0.043***		-0.027***
		[0.003]		[0.003]
First-stage Kleibergen-Paap F-stat		220.99		69.15
First-stage Montiel-Pflueger F-stat		206.19		118.39
Bank x Time FEs	Yes	Yes	Yes	Yes
Home Country x Target Country x Time FEs	Yes	Yes	Yes	Yes
Observations	21,615	21,615	20,241	20,241
Bank Sample	All	All	Foreign	Foreign

Main results (validity: new survey)

Table 7: External Validity - Bank-level Trust Bias (from Online Survey) and Probability of Sovereign Exposure

Table 7. External validity - Bank-level 11 ust Bi	as (ii oiii oiiiiic si	ui vey) ana i i obab	inty of bovereign E	L POSUI C	
-	(1)	(2)	(3)	(4)	(5)
Outcome →	Sovereign	Sovereign	Sovereign	Sovereign	Sovereign
	Exposure	Exposure	Exposure	Exposure	Exposure
Panel A					
Bank-level Trust Bias (online – lot of trust)	1.439***	1.531***	1.549***	1.508***	1.561***
	[0.176]	[0.428]	[0.427]	[0.419]	[0.470]
Panel B					
Bank-level Trust Bias (online – graded)	0.486***	0.664***	0.679***	0.664***	0.682**
	[0.075]	[0.222]	[0.223]	[0.224]	[0.266]
Control for Bank-level Branches	No	No	Yes	Yes	Yes
Control for Bank-level Branches (squared)	No	No	No	Yes	Yes
Bank x Time FEs	Yes	Yes	Yes	Yes	Yes
Target Country x Time FEs	Yes	Yes	Yes	Yes	No
Home Country x Target Country FEs	No	Yes	Yes	Yes	No
Home Country x Target Country x Time FEs	No	No	No	No	Yes
Observations	47,520	47,520	47,520	47,520	43,230

Main results (long vs. short maturities)



Main results (salience shocks: crises)

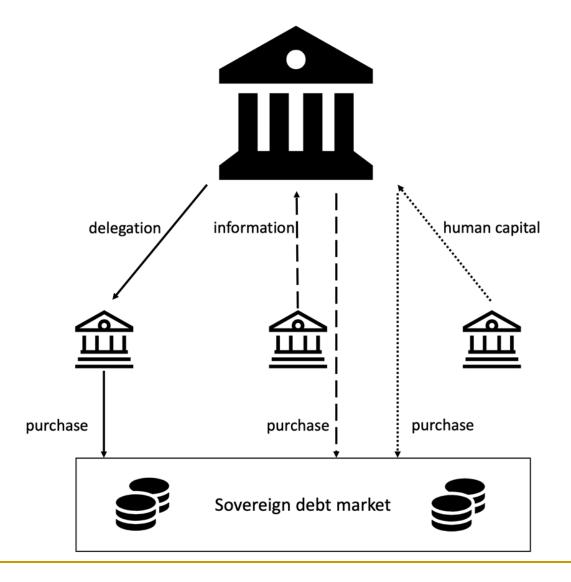
Panel A	(1)	(2)	(3)	(4)
Outcome →	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure
	(dummy)	(dummy)	(dummy)	(dummy)
Bank-level Trust Bias x Eurozone Crises	3.178**	5.438***	3.370**	5.541***
	[1.528]	[1.675]	[1.568]	[1.788]
Bank-level Trust Bias	1.438***	1.404***	1.177***	1.245**
	[0.308]	[0.481]	[0.380]	[0.583]
Panel B				
Outcome →	Sovereign Exposure (log nominal)			
Bank-level Trust Bias x Eurozone Crises	9.642	21.367*	13.411*	25.955**
	[7.597]	[10.863]	[7.811]	[11.281]
Bank-level Trust Bias	11.361***	8.305**	10.093***	7.496*
	[2.688]	[4.171]	[2.690]	[4.501]
Control for Bank-level Branches	Yes	Yes	Yes	Yes
Control for Bank-level Branches (squared)	Yes	Yes	Yes	Yes
Bank x Time FEs	Yes	Yes	Yes	Yes
Home Country x Target Country x Time FEs	Yes	Yes	Yes	Yes
Observations	21,615	20,241	7,455	6,979
Bank Sample	Áll	Foreign	All	Foreign
Event window	Full	Full	±2-year	±2-year

Main results (salience shocks: Brexit)

Table 10: Interaction be	etween Bank-level T	Trust Bias and	Brexit Salience
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Panel A	(1)	(2)	(3)	(4)
Outcome ->	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure
	(dummy)	(dummy)	(dummy)	(dummy)
Bank-level Trust Bias x Brexit Salience	0.638	0.604	1.225	1.311
	[1.821]	[1.948]	[2.077]	[2.206]
Bank-level Trust Bias	1.536***	1.632***	1.168***	1.469**
	[0.335]	[0.530]	[0.387]	[0.635]
Panel B				
Outcome →	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure	Sovereign Exposure
	(log nominal)	(log nominal)	(log nominal)	(log nominal)
Bank-level Trust Bias x Brexit Salience	29.788***	25.945**	37.097***	35.027***
	[10.691]	[10.268]	[11.111]	[10.774]
Bank-level Trust Bias	10.546***	7.638*	9.544***	7.923
	[2.589]	[4.124]	[3.227]	[4.826]
Control for Bank-level Branches	Yes	Yes	Yes	Yes
Control for Bank-level Branches (squared)	Yes	Yes	Yes	Yes
Bank x Time FEs	Yes	Yes	Yes	Yes
Home Country x Target Country x Time FEs	Yes	Yes	Yes	Yes
Observations	21,615	20,241	8,445	7,909
Bank Sample	Áll	Foreign	Ál1	Foreign
Event window	Full	Full	±2-year	±2-year

Potential mechanisms



Mechanism results (information)

Table 11: Country-level Trust Bias and Managers' Country-specific Sentiments during Earning Calls

Table 11. Country-level 11 ust bias and Managers	(1)	(2)	(3)	(4)
Outcome →	Managerial Sentiments	Managerial Sentiments		Managerial Sentiments
Panel A	_			
Country-level Trust Bias (a lot of trust – Eurobarometer)	1.612***	0.838**	1.046***	0.571***
	[0.288]	[0.365]	[0.121]	[0.145]
Observations	11,465	10,750	12,212	11,459
Panel B	_			
Country-level Trust Bias (graded – Eurobarometer)	0.593***	0.153*	0.406***	0.125***
	[0.141]	[0.087]	[0.076]	[0.045]
Observations	11,465	10,750	12,212	11,459
Panel C				
Country-level Trust Bias (a lot of trust – Online Survey)	2.173***	0.594**	1.823***	0.322**
	[0.626]	[0.262]	[0.506]	[0.152]
Observations	18,956	17,988	21,910	20,869
Panel D				
Country-level Trust Bias (graded – Online Survey)	0.481**	0.060	0.494**	0.026
	[0.189]	[880.0]	[0.192]	[0.042]
Observations	18,956	17,988	21,910	20,869
Home Country x Time FEs	Yes	Yes	Yes	Yes
Target Country x Time FEs	Yes	Yes	Yes	Yes
Aggregated Over	Financial Firms	Financial Firms	All Firms	All Firms
Country-Pair Sample	All	H-Country≠T-Country	All	H-Country≠T-Country

Country-level trust biases predict the tone of the managerial sentiments during quarterly earning calls.

Mechanism results (human capital)

Table 12: Bank-level Branch Networks and Nationalities of Directors/Managers at Bank Headquarters

	(1)	(2)	(3)	(4)	(5)
Outcome →	Nationality at				
	HQ	HQ	HQ	HQ	HQ
Panel A					
Bank Branches in Target Country	0.278***	0.281***	0.157***	0.156***	0.121**
	[0.043]	[0.042]	[0.024]	[0.024]	[0.053]
Panel B					
Log of Bank Branches in Target Country	0.110***	0.111***	0.074***	0.071***	0.046***
	[800.0]	[800.0]	[0.009]	[0.010]	[0.014]
Panel C					
Share of Bank Branches in Target Country	1.105***	1.105***	0.590***	0.590***	0.682**
	[0.087]	[0.087]	[0.096]	[0.096]	[0.282]
Bank FEs	No	Yes	No	Yes	Yes
Target Country FEs	No	No	Yes	Yes	No
Home Country x Target Country FEs	No	No	No	No	Yes
Observations	660	660	660	660	600

Bank branch networks predict the nationality of the high-level managerial teams at HQs.

Conclusions

- We aim to extend the econ/finance literature on cultural stereotypes by proposing a tighter identification strategy (from country to bank-level).
 - Our results imply an economically substantial effect of cultural trust biases (i.e., stereotypes) on European banks' cross-country investments.
 - Documenting information and human capital mechanisms supporting our bank-level measure.

Implications:

- Cultural trust (or lack of it) likely to create inefficiencies for sovereign debt markets.
- Diversity is key: Positive and negative stereotypes balance each other in diverse managerial groups.