Appendix A
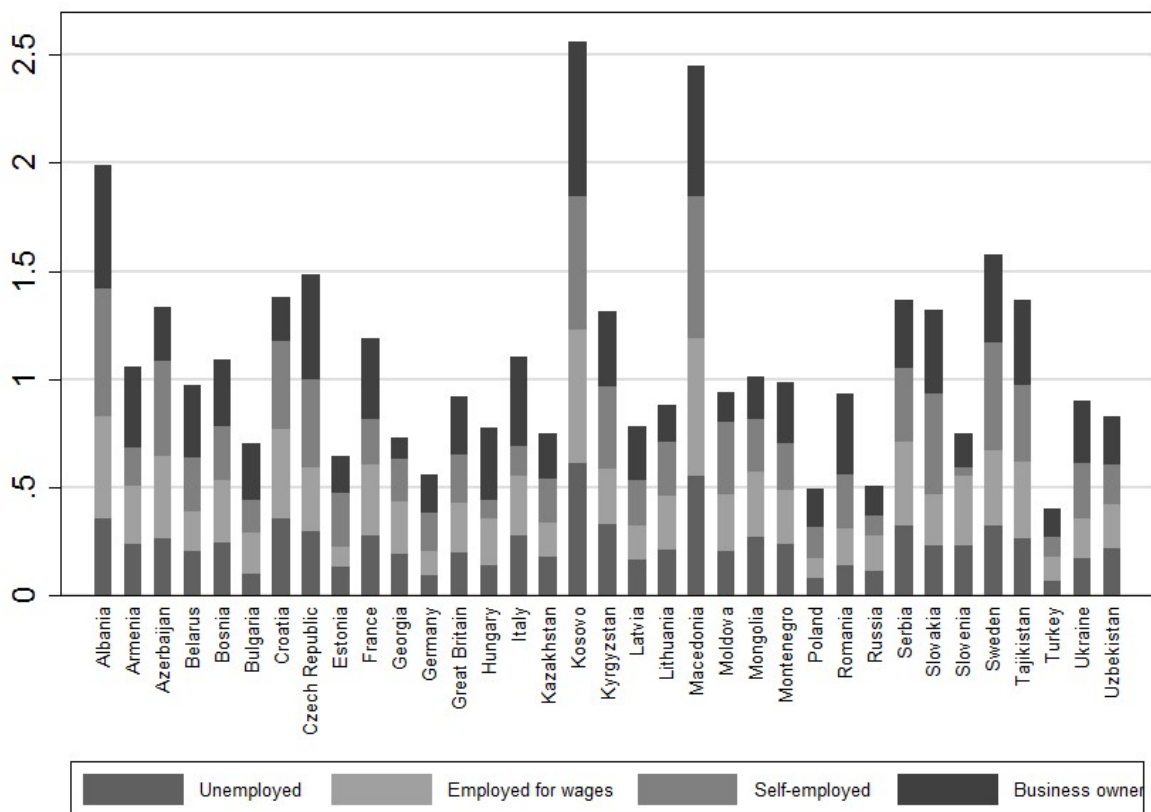
Figure A1: Contact with government bureaucracy by employment category in percentages

Source: EBRD LiTS 2010, authors' calculations.

Appendix B

Table B1: Incidence of corruption by country and occupational status

Country	Incidence of corruption (% of the occupational category)			
	Unemployed	Employed	Self-employed	Business owner
Albania	39.60	34.09	36.17	47.83
Armenia	12.40	3.28	0.00	66.67
Azerbaijan	67.09	62.24	52.94	60.00
Belarus	5.88	5.94	0.00	25.00
Bosnia and Herzegovina	7.25	3.70	25.00	0.00
Bulgaria	0.00	4.41	0.00	16.67
Croatia	0.79	2.27	0.00	0.00
Czech Republic	5.88	4.24	2.94	0.00
Estonia	4.76	2.94	0.00	0.00
France	2.56	2.63	20.00	0.00
Georgia	2.33	0.00	0.00	0.00
Germany	15.00	11.29	16.67	50.00
Great Britain	8.89	4.72	0.00	0.00
Hungary	0.00	0.00	0.00	11.11
Italy	1.02	0.00	0.00	0.00
Kazakhstan	20.31	31.51	0.00	33.33
Kosovo	5.01	6.45	8.33	0.00
Kyrgyzstan	72.81	46.00	90.48	66.67
Latvia	6.52	5.88	0.00	0.00
Lithuania	7.94	6.98	33.33	0.00
Macedonia	8.97	5.46	0.00	11.76
Moldova	24.14	18.39	33.33	66.67
Mongolia	21.77	21.33	17.39	14.29
Montenegro	10.23	13.64	40.00	16.67
Poland	2.27	3.70	0.00	22.22
Romania	12.73	7.27	16.67	33.33
Russia	6.12	8.96	0.00	20.00
Serbia	7.41	13.55	10.00	7.14
Slovakia	9.38	5.88	3.70	0.00
Slovenia	8.33	1.63	0.00	0.00
Sweden	1.72	0.54	0.00	0.00
Tajikistan	46.88	44.23	41.38	33.33
Turkey	4.76	0.00	0.00	0.00
Ukraine	25.27	37.84	0.00	61.90
Uzbekistan	42.77	37.35	61.54	35.71
Mean	**14.82**	**13.10**	**14.57**	**20.01**

Appendix C

Table C1: Definitions of the variables and descriptive statistics

Variable	LiTS question	Obs.	Mean	Std. Dev.	Min	Max
Dependent						
Contact with government bureaucracy	Q6.02: During the past 12 months have you or any member of your household used these services: request official documents (e.g. passport, visa, birth or marriage certificate, land register, etc.?) from authorities? (=1 if answered 'yes', =0 otherwise)	38118	0.232	0.422	0	1
Corruption	Q6.04: During the past 12 months have you or any household member made an unofficial payment or gift when using these services? (=1 if answered 'yes', =0 otherwise)	8560	0.166	0.372	0	1
Independent						
Employed for wages	Q5.08: In this job, did you work…? 1) For wages; 2) As self-employed; 3) As independent farmer (= 1 if first answer, =0 otherwise)	32133	0.436	0.496	0	1
Employed for wages (PSU mean)		38709	0.435	0.079	0	1
Self-employed	Q5.08: In this job, did you work…? 1) For wages; 2) As self-employed; 3) As independent farmer Q5.13: How many people do you employ, excluding any household members? (= 1 if first answer to Q5.08 & zero employees reported to Q5.13, and =0 otherwise)	32133	0.043	0.203	0	1
Self-employed (PSU mean)		38709	0.043	0.024	0	0.5
Business owner	Q5.08: In this job, did you work…? 1) For wages; 2) As self-employed; 3) As independent farmer Q5.13: How many people do you employ, excluding any household members? (= 1 if first answer to Q5.08 & more than zero employees reported to Q5.13, and =0 otherwise)	32133	0.035	0.185	0	1

Business owner (PSU mean)		38709	0.036	0.020	0	0.25
Technological access	Q2.25: Do you or anyone in your household own any of the following? mobile phone; computer; access to Internet at home. (A scale of all three questions is constructed)	38705	0.599	0.371	0	1
Technological access (PSU mean)	Averaged at PSU level	38709	0.599	0.085	0.33	1
LN city size	Population based on data in Wikipedia	38399	10.6	2.5	2.83	16.5
Capital	Capital city	38709	0.136	0.343	0	1
Institutional trust (Society) (PSU mean)	Q3.03: To what extent do you trust the following institutions… (a) The Presidency; (b) The Government/Cabinet Ministers; (c) Regional Government; (d) Local Government; (e) The Parliament; (f) Courts; (g) Political Parties; (h) Armed Forces; (i) The Police (A scale of all these questions is constructed, and the variable is aggregated to the PSU-level)	38709	2.93	.15	1.69	3.81
Bonding trust (Community) (PSU mean)	Q3.04: To what extent do you trust friends and acquaintances (=1 'complete distrust' thought to 5='complete trust'), aggregated to a psu-level.	38709	0.79	0.06	.43	1
Controls						
Consumption	Q2.22: Approximately how much does your household spend on each of these items per month: Food, beverage, tobacco; Utilities; Transportation (added together)	32647	2627	10442	0	181818
Consumption (PSU mean)	Consumption variable aggregated to a psu-level	38709	2816	1771	221	12034
Gender	Q1.02: Gender of each member of the family (=1 if 'female', and 0='male'	38665	0.604	0.489	0	1
Gender (PSU mean)	Gender variable aggregated to a psu-level	38709	0.604	0.046	0	1
Age	Q1.04: How old was … at the last birthday?	38697	45.870	17.374	16	99
Age squared	Age variable squared	38697	2406	1712	256	9801
Age (PSU mean)	Age variable aggregated to a psu-level	38709	45.889	2.394	22.75	64.714
Higher Education	Q5.15: What is the highest level of education you already completed?	38699	0.202	0.402	0	1
Higher education	Higher education variable aggregated to a psu-level	38709	0.202	0.0507	0	1

(PSU mean)						

Appendix D
Table D1: City size, residing in capital city and trust: core regression results

Variables	Model 1		Model 2	
	Corruption	Contact with government	Corruption	Contact with government
Employed for wages	-	-0.0225 (0.0324)	-	-0.0230 (0.0323)
Employed for wages (PSU mean)	-	-0.742** (0.333)	-	-0.381 (0.411)
Self-employed	-	0.0429 (0.0553)	-	0.0416 (0.0552)
Self-employed (PSU mean)	-	-0.163 (0.639)	-	0.306 (0.696)
Business owner	-	0.181*** (0.0578)	-	0.179*** (0.0577)
Business owner (PSU mean)	-	-0.681 (0.797)	-	-0.499 (0.809)
LN city size	0.0996*** (0.0248)	-0.0383*** (0.00944)	0.0926*** (0.0263)	-0.0388*** (0.00958)
Capital city	-0.442*** (0.153)	0.248*** (0.0891)	-0.450** (0.180)	0.224*** (0.0696)
Institutional trust (PSU mean)	0.291 (0.373)	-0.0250 (0.135)	0.158 (0.389)	-0.0699 (0.137)
Trust in friends (PSU mean)	-4.080*** (0.849)	-0.151 (0.389)	-2.155* (1.193)	0.254 (0.434)
Control variables				
Technological access	-0.718*** (.0986)	0.398*** (0.0446)	-0.691*** (0.101)	0.405*** (0.0448)
Technological access (PSU mean)	-	-	-2.107*** (0.798)	-0.569* (0.309)
Consumption	-3.94e-06	6.52e-06*** (1.51e-06)	-1.61e-06 (3.96e-06)	6.97e-06*** (1.53e-06)
Consumption (PSU mean)	-	-	5.00e-07 (3.14e-05)	-1.92e-05 (1.21e-05)
Gender	-0.0321 (0.0564)	-0.0231 (0.0243)	-0.0273 (0.0567)	-0.0226 (0.0242)
Gender (PSU mean)	0.898 (1.135)	0.0541 (0.415)	0.105 (1.244)	0.0429 (0.409)
Age	0.00810 (0.0100)	0.0120** (0.00581)	0.00737 (0.0102)	0.0121** (0.00581)
Age squared	-0.000186 (0.000113)	-0.000196*** (6.89e-05)	-0.000174 (0.000115)	-0.0002*** (6.89e-05)

Age (PSU mean)	-0.00765 (0.0219)	-0.0166* (0.00873)	-0.0196 (0.0261)	-0.0167* (0.00892)
Higher Education	-0.0187 (0.0673)	0.223*** (0.0286)	-0.00507 (0.0688)	0.216*** (0.0282)
Higher education (PSU mean)	-	-	0.434 (1.092)	0.540 (0.373)
Constant	-1.478 (1.159)	-0.0530 (0.500)	0.573 (1.521)	-0.0394 (0.517)
Level 2: PSU				
St dev (Corruption)	1.39*** (0.06)		1.49*** (0.08)	
St dev (Contact with government)	0.75*** (0.02)		0.75*** (0.02)	
Cross-eq correlation	0.127*** (0.06)		0.143*** (0.05)	
Level 1: Individuals				
Cross-eq correlation	-0.039 (0.055)		-0.02 (0.06)	
Observations	20504		20504	
Log Likelihood	-11553		-11540	
df	30		36	

Appendix E

Table E1: City size, residing in capital city and trust: interaction regression results

Variables	Model 3		Model 4		Model 5	
	Corruption	Contact with government	Corruption	Contact with government	Corruption	Contact with government
Employed for wages	-	-0.022 (0.032)		-0.022 (0.032)		-0.0223 (0.0324)
Employed for wages (PSU mean)	-	-0.309 (0.408)		-0.342 (0.409)		-0.340 (0.410)
Self-employed	-	0.045 (0.055)		0.0454 (0.0552)		0.0442 (0.0553)
Self-employed (PSU mean)	-	.346 (0.693)		0.299 (0.694)		0.191 (0.699)
Business owner	-	0.182*** (0.058)		0.183*** (0.0577)		0.182*** (0.0578)
Business owner (PSU mean)	-	-0.422 (0.807)		-0.403 (0.813)		-0.264 (0.825)
LN city size	0.095*** (.034)	-0.039*** (.009)	0.076*** (0.0237)	-0.0395*** (0.0094)	0.109*** (0.0276)	-0.0387*** (0.00952)
Capital city	-0.578*** (.208)	0.246*** (.067)	-0.472*** (0.146)	0.251*** (0.0681)	-0.544*** (0.158)	0.258*** (0.0685)
Institutional trust (PSU mean)	0.114 (.391)	-0.051 (.145)	-	-	0.602 (0.460)	-0.0373 (0.162)
Trust in friends (PSU mean)	-	-	-2.045** (1.004)	0.307 (0.438)	-3.481*** (1.107)	0.336 (0.451)
Interaction results						
LN city size x Institutional trust (PSU)	-0.420* (0.251)	-0.169 (.064)	-	-	-0.408 (0.266)	-0.0267 (0.0738)
Capital city x Institutional trust (PSU)	0.339 (1.37)	0.015 (.490)	-	-	-0.0757 (1.496)	0.351 (0.565)
LN city size x Trust in friends (PSU)	- -	- -	-0.746** (0.318)	0.0709 (0.158)	-0.380 (0.337)	0.0927 (0.164)
Capital city x Trust in friends (PSU)	- -	- -	4.57 (2.881)	-0.235 (1.272)	4.709 (3.182)	-0.119 (1.278)
Institutional Trust x Trust in friends (PSU)	- -	- -	-	-	-3.151 (4.139)	-0.625 (1.360)
LN city size_x_Instit Trust_x_ Trust in friends (PSU)	-	-	-	-	-3.823 (2.499)	0.0929 (0.786)
Capital city_x_Instit Trust_x Trust in friends (PSU)	-	-	-	-	12.00 (19.37)	-7.061 (5.605)

Control variables						
Technological access	-0.8*** (.0.099)	0.403*** (.045)	-0.736*** (0.0972)	0.403*** (0.045)	-0.721*** (0.0974)	0.406*** (0.0447)
Technological access (PSU mean)	-2.8*** (.769)	-0.498* (.281)	-2.34*** (0.75)	-0.588* (0.309)	-1.862** (0.759)	-0.564* (0.312)
Consumption	-2.89e-06 (4.8e-06)	6.8e-06*** (1.52e-06)	-3.66e-06 (4.49e-06)	6.8e-06*** (1.52e-06)	-3.29e-06 (4.64e-06)	6.8e-06*** (1.52e-06)
Consumption (PSU mean)	-.000 (.000)	-0.000 (.000)	-2.33e-05 (3.00e-05)	-1.74e-05 (1.20e-05)	-1.41e-05 (3.12e-05)	-1.87e-05 (1.21e-05)
Gender	-0.049 (.057)	-0.022 (.024)	-0.0448 (0.0564)	-0.0224 (0.0242)	-0.0424 (0.0560)	-0.0222 (0.0242)
Gender (PSU mean)	-.136 (1.41)	-0.066 (.402)	0.566 (1.034)	-0.0116 (0.405)	0.509 (1.042)	0.00682 (0.406)
Age	0.011 (.010)	0.012** (.006)	0.0106 (0.01)	0.0119** (0.0058)	0.00851 (0.0100)	0.0120** (0.00580)
Age squared	-0.00** (.000)	-0.000*** (.000)	-0.00022* (0.00011)	-0.0002*** (6.89e-05)	-0.000192* (0.000113)	-0.0002*** (6.89e-05)
Age (PSU mean)	-0.037 (.027)	-0.016* (.008)	-0.0151 (0.0222)	-0.0181** (0.0087)	-0.0123 (0.0222)	-0.0182** (0.00887)
Higher Education	-0.024 (.069)	0.218*** (.028)	-0.0295 (0.0692)	0.219*** (0.0282)	-0.0186 (0.0677)	0.219*** (0.0282)
Higher education (PSU mean)	1.27 (1.16)	0.588 (.361)	1.052 (1.001)	0.637* (0.367)	0.490 (1.028)	0.612* (0.370)
Constant	2.0 (1.40)	-.092 (.494)	0.319 (1.357)	0.0192 (0.511)	0.0354 (1.335)	0.00490 (0.517)
St dev (Corruption)	1.44*** (0.09)		1.48*** (0.07)		1.44*** (0.07)	
St dev (Contact with government)	0.75*** (0.02)		0.75*** (0.02)		0.75*** (0.02)	
Cross-eq correlation	0.09*(0.05)		0.08*(0.05)		0.108** (0.0499)	
Cross-eq correlation	-0.06 (0.05)		-0.06 (0.05)		-0.04(0.05)	
Observations	20504		20504		20504	
Log Likelihood	-11545		-11542		-11537	
df	38		38		50	

Appendix F

Table F1: Average marginal effects results (based on models in Appendices D and E)

Core Independent variables	Model 1 dy/dx	Model 2 dy/dx	Model 3 dy/dx	Model 4 dy/dx	Model 5 dy/dx
LN city size	0.008*** (0.002)	0.006*** (0.002)	.008** (.004)	.007*** (.002)	.009*** (.003)
Capital city=0	0.046*** (0.008)	0.035*** (0.008)			
Capital city=1	0.018*** (0.006)	0.013** (0.005)	-	-	-
LN city size conditional on Institutional trust (PSU)	-	-	.008** (0.003)	-	-
LN city size conditional on Trust in friends (PSU)	-	-	-	.006*** (.002)	-
LN city size conditional on Institutional Trust & Trust in friends (PSU)	-	-	-	-	0.008*** (0.002)

Note: Ln city size, bonding, and bridging trust variables are centered. The 'dy/dx' indicates the average marginal effect of the respective variable (i.e. margins of derivative) on the change in the probability of corruption. In case of interaction terms, this shows the marginal effect of city size conditional on a mean value of the respective trust variable. Note for models 1 and 2 we report the margins for capital city=0 and capital city=1.

Appendix G

Table G1: City size, residing in capital city and trust: robustness checks

Variables	Model 6		Model 7		Model 8	
	Corruption	Contact with government	Corruption	Contact with government	Corruption	Contact with government
Employed for wages	-	-0.0223 (0.0324)		-0.0222 (0.0324)		-0.0220 (0.0324)
Employed for wages (PSU mean)	-	-0.298 (0.415)		-0.344 (0.409)		-0.324 (0.417)
Self-employed	-	0.0440 (0.0553)		0.0455 (0.0552)		0.0433 (0.0553)
Self-employed (PSU mean)	-	0.189 (0.723)		0.278 (0.695)		-0.0163 (0.731)
Business owner	-	0.182*** (0.0577)		0.183*** (0.0577)		0.182*** (0.0578)
Business owner (PSU mean)	-	-0.435 (0.818)		-0.379 (0.811)		-0.219 (0.839)
Ln city size	0.0904*** (0.0330)	-0.0389*** (0.00947)	0.0793*** (0.0241)	-0.0385*** (0.00963)	0.119*** (0.0308)	-0.0371*** (0.00980)
Capital	-0.611*** (0.201)	0.247*** (0.0681)	-0.544*** (0.177)	0.234*** (0.0765)	-0.683*** (0.193)	0.237*** (0.0781)
Institutional Trust (PSU mean)	-4.096 (3.661)	1.050 (1.304)	-	-	-2.446 (3.151)	1.015 (1.311)
Trust in friends (PSU mean)		-	-13.17 (15.55)	-2.322 (5.488)	-22.68 (15.90)	-2.952 (5.747)

Interactive effects with trust variables						
Ln city size_x Institutional Trust	-0.351 (0.250)	-0.0143 (0.0649)	-	-	-0.453 (0.293)	-0.0223 (0.0752)
Capital city_x Institutional Trust	-0.157 (1.429)	0.0115 (0.494)	-	-	0.207 (1.584)	0.336 (0.576)
Ln city_size_x_ Trust in friends	-	-	-0.745** (0.317)	0.0700 (0.158)	-0.347 (0.340)	0.101 (0.165)
Capital city_x Trust in friends	-	-	4.369 (2.842)	-0.258 (1.266)	4.271 (3.269)	-0.135 (1.284)
Institutional Trust_ x_Trust in friends	-	-	-	-	-2.238 (4.462)	-0.804 (1.501)
Ln_city_size_x Institut. Trust_x Trust in friends	-	-	-	-	-4.050 (2.652)	-0.00833 (0.812)
Capital city_x Institut. Trust_x Trust in friends	-	-	-	-	9.059 (19.84)	-6.650 (5.765)
Fitted Residuals from Stage one (institution. trust)	4.323 (3.758)	-1.111 (1.313)	-	-	2.969 (3.173)	-1.059 (1.314)
Fitted Residuals from Stage one (trust in friends)	-	-	11.25 (15.68)	2.657 (5.526)	19.26 (15.87)	3.334 (5.801)
Technological access	-0.750*** (0.0986)	0.402*** (0.0449)	-0.735*** (0.0970)	0.403*** (0.0448)	-0.716*** (0.0972)	0.405*** (0.0448)
Technological access (PSU mean)	-1.892* (0.984)	-0.745* (0.383)	1.503 (5.387)	0.308 (1.889)	5.544 (5.546)	0.328 (1.999)
Consumption	-2.38e-06 (4.76e-06)	6.76e-06*** (1.52e-06)	-3.29e-06 (4.54e-06)	6.86e-06*** (1.54e-06)	-2.58e-06 (4.65e-06)	6.90e-06*** (1.54e-06)
Consumption (PSU mean)	-6.27e-05 (5.47e-05)	-6.62e-06 (1.84e-05)	-2.79e-05 (3.08e-05)	-1.85e-05 (1.22e-05)	-5.72e-05 (4.85e-05)	-9.17e-06 (1.86e-05)
Gender	-0.0480 (0.0565)	-0.0217 (0.0243)	-0.0436 (0.0565)	-0.0223 (0.0242)	-0.0409 (0.0561)	-0.0210 (0.0243)
Gender (PSU mean)	-0.926 (1.643)	0.133 (0.473)	-0.916 (2.311)	-0.391 (0.888)	-2.402 (2.371)	-0.281 (0.950)
Age	0.00751 (0.0105)	0.0126** (0.00586)	0.00903 (0.0102)	0.0115** (0.00585)	0.00440 (0.0104)	0.0123** (0.00591)
Age squared	-0.000185 (0.000117)	-0.000202*** (6.94e-05)	-0.000202* (0.0001)	-0.000191*** (6.92e-05)	-0.0002 (0.0001)	-0.000199*** (6.98e-05)
Age (PSU mean)	-0.00579 (0.0457)	-0.0256* (0.0154)	0.0507 (0.0937)	-0.00283 (0.0328)	0.125 (0.0989)	-0.00768 (0.0365)
Higher Education	-0.0196 (0.0688)	0.216*** (0.0283)	-0.0297 (0.0692)	0.219*** (0.0282)	-0.0160 (0.0679)	0.217*** (0.0282)

Higher education (PSU mean)	1.999 (1.261)	0.480 (0.401)	-0.680 (2.631)	0.224 (0.935)	-2.198 (2.687)	0.00290 (0.973)
Constant	0.540 (1.975)	0.340 (0.752)	-3.699 (5.717)	-0.888 (1.952)	-8.185 (5.964)	-0.742 (2.132)
Level 1						
St dev (Corruption)	1.44*** (0.081)		1.48*** (0.071)		1.44*** (0.074)	
St dev (Contact)	.752*** .022		.752*** .022		.752*** .022	
Cross-eq correlat.	0.0940* (0.0531)		0.0833* (0.0494)		0.108** (0.05)	
Level 2						
Cross-eq correlation	-0.0554 (0.0553)		-0.0582 (0.0539)		-0.0421 (0.0549)	
Observations	20479		20479		20479	
Log Likelihood	-11528		-11528		-11521	
Df	40		40		54	

Appendix H

Table H1: Summary of the core set of the marginal effect results based on Appendix G

Core Independent variables	Model 6 dy/dx	Model 7 dy/dx	Model 8 dy/dx
LN city size	.008** (.003)	.007*** (.004)	.010*** (.003)
LN city size conditional on Institutional trust (PSU)	.009** (0.004)	-	-
LN city size conditional on Trust in friends (PSU)	-	.007* (.004)	-
LN city size conditional on Institutional Trust & Trust in friends (PSU)	-	-	0.012*** (0.003)

Note: Ln city size, bonding and bridging trust variables are centered. The 'dy/dx' indicates the marginal effect of the respective variable (i.e. margins of derivative). In case of interaction terms, this shows the marginal effect of city size conditional on a mean value of the respective trust variable.

Appendix I: Robustness checks. Plotting marginal effects of city size on corruption conditional on bonding and bridging trust (based on Appendix G) with 90% confidence intervals

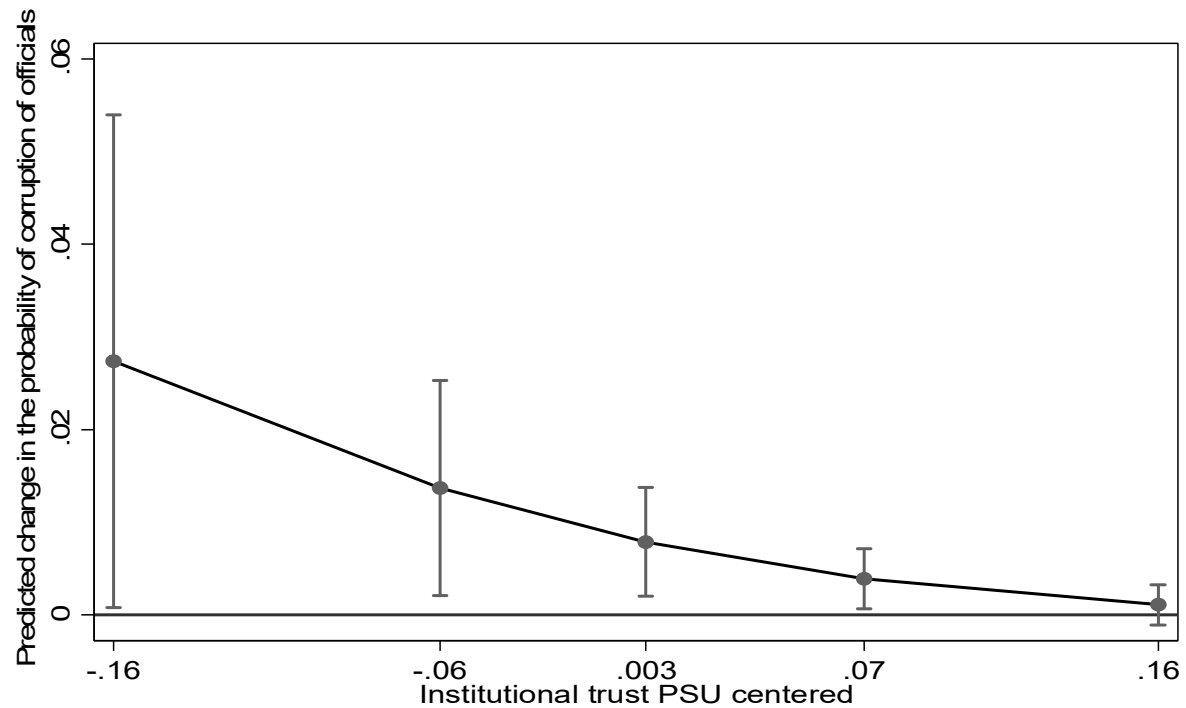**Figure I1a: The marginal effect of city size conditional on institutional trust (bridging) on corruption**

Figure I1b: The marginal effect of city size conditional on trust in friends (bonding) on corruption with 90 % confidence interval
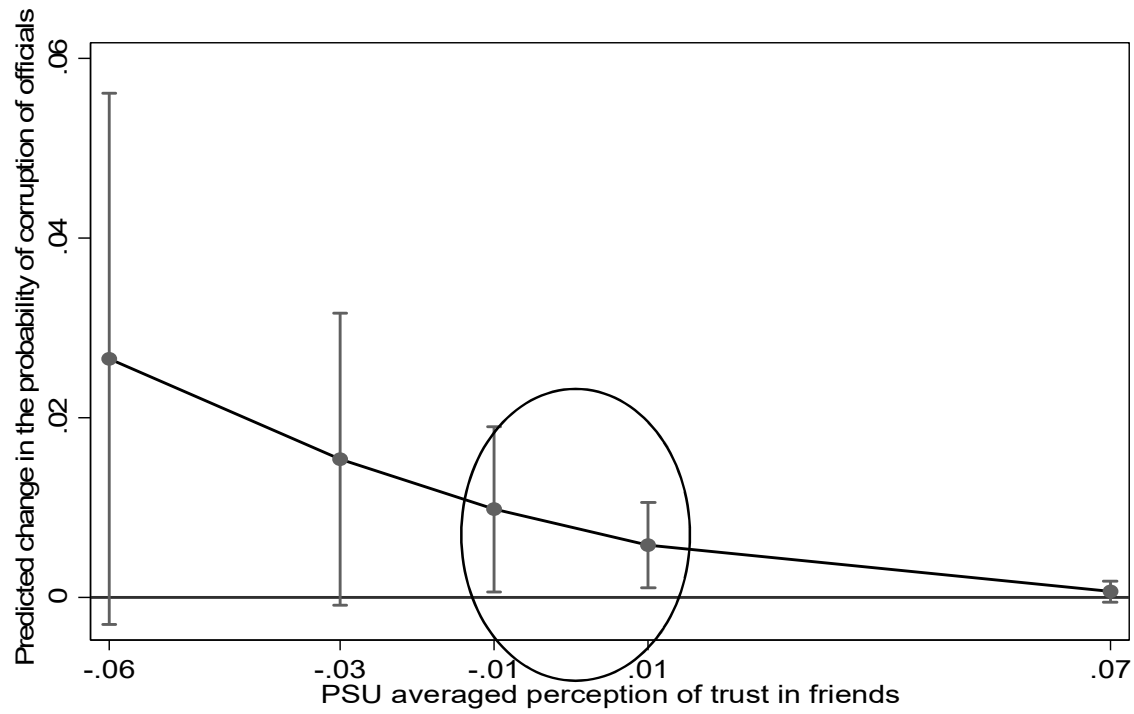
Figure I1c: The marginal effect of city size conditional on bridging-bonding trust jointly on corruption with 90% confidence interval