

Internet Appendix
“Inside Debt and Bank Risk”

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Table O.1: Replicating results from text without variables suspicious to collinearity problems
 Robust regressions as in the tables of the main text, after dropping the variables that are most suspicious to collinearity problems (i.e., leverage and total annual compensation). All remarks from Tables 2-5 apply. Reported in parentheses are p -values (two-tailed except for the variable of interest, in italics) based on standard errors that are adjusted for heteroskedasticity. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively.

Panel A: Reproduction of Table 2

	Stock market losses		Total volatility		Idiosyncratic volatility		Systematic volatility	
	CEO	CFO	CEO	CFO	CEO	CFO	CEO	CFO
<i>Log of inside debt ratio</i>	-4.417*** (0.000)	-4.477*** (0.000)	-0.217*** (0.000)	-0.208*** (0.000)	-0.237*** (0.000)	-0.225*** (0.002)	-0.021 (0.267)	-0.010 (0.417)
Equity vega	0.166 (0.815)	1.124 (0.457)	-0.032 (0.600)	0.027 (0.815)	-0.038 (0.573)	-0.017 (0.879)	0.027 (0.313)	0.084 (0.104)
Equity delta	-2.179*** (0.002)	-1.148 (0.164)	-0.158*** (0.001)	-0.069 (0.180)	-0.120** (0.010)	-0.039 (0.405)	-0.114*** (0.000)	-0.083** (0.030)
Log of equity market value	-0.383 (0.712)	0.020 (0.988)	0.073 (0.303)	0.120 (0.192)	-0.277*** (0.000)	-0.228** (0.012)	0.595*** (0.000)	0.591*** (0.000)
Market-to-book	-6.441** (0.014)	-4.793 (0.104)	-0.351** (0.014)	-0.236 (0.163)	-0.399*** (0.005)	-0.357** (0.025)	0.033 (0.762)	0.159 (0.252)
Return on assets	4.119* (0.068)	5.534** (0.043)	0.001 (0.994)	0.120 (0.506)	0.055 (0.766)	0.211 (0.216)	-0.088 (0.416)	-0.126 (0.311)
Depository bank (0/1)	0.517 (0.948)	-0.365 (0.968)	-0.428 (0.475)	-0.426 (0.541)	-0.932 (0.185)	-1.016 (0.214)	0.680** (0.044)	0.748* (0.051)
Intercept	65.395*** (0.000)	50.028*** (0.003)	6.310*** (0.000)	5.000*** (0.000)	7.773*** (0.000)	6.605*** (0.000)	-1.180 (0.101)	-1.511** (0.041)
Observations	286	228	286	228	286	228	286	228
Adj. r ² :	0.150	0.113	0.114	0.0818	0.116	0.0785	0.557	0.535

Table O.1: Replicating results from text without variables suspicious to collinearity problems (Continued)

Panel B: Reproduction of Table 3

	VaR			ES			CoVaR			Financial distress (0/1)		
	CEO	CFO	CEO	CEO	CFO	CEO	CEO	CFO	CEO	CFO	CEO	CFO
<i>Log of inside debt ratio</i>	-0.304*** (0.000)	-0.275*** (0.003)	-0.462*** (0.000)	-0.471*** (0.003)	-0.288** (0.049)	-0.353* (0.067)	-0.212*** (0.000)	-0.168*** (0.005)				
Equity vega	-0.027 (0.746)	0.049 (0.739)	-0.034 (0.793)	0.136 (0.601)	-0.122 (0.401)	0.269 (0.477)	-0.465 (0.303)	-0.065 (0.447)				
Equity delta	-0.204*** (0.001)	-0.062 (0.367)	-0.327*** (0.001)	-0.127 (0.240)	-0.546*** (0.000)	-0.312* (0.059)	-0.126*** (0.004)	-0.121*** (0.010)				
Log of equity market value	-0.005 (0.955)	0.019 (0.845)	0.176 (0.271)	0.256 (0.172)	1.433*** (0.000)	1.391*** (0.000)	0.083 (0.169)	0.078 (0.202)				
Market-to-book	-0.439** (0.024)	-0.265 (0.214)	-0.920*** (0.005)	-0.619* (0.090)	-0.634 (0.191)	-0.068 (0.906)	-0.395** (0.016)	-0.369** (0.023)				
Return on assets	0.142 (0.575)	0.358 (0.159)	0.110 (0.778)	0.363 (0.379)	-0.396 (0.426)	-0.237 (0.666)	-0.054 (0.697)	-0.005 (0.978)				
Depository bank (0/1)	-0.727 (0.370)	-0.743 (0.407)	-1.113 (0.398)	-1.209 (0.409)	0.965 (0.478)	1.537 (0.324)	-0.255 (0.565)	-0.397 (0.457)				
Intercept	9.320*** (0.000)	7.529*** (0.000)	13.905*** (0.000)	11.082*** (0.000)	9.147*** (0.004)	5.954* (0.059)	0.327 (0.697)	0.306 (0.748)				
Observations	286	228	286	228	286	228	286	228				
Adj. r2:	0.116	0.0769	0.121	0.102	0.220	0.188	0.178	0.148				

Table O.1: Replicating results from text without variables suspicious to collinearity problems (Continued)

Panel C: Reproduction of Table 4

	Low-quality real estate		Writedowns		Repo growth		Non-interest income	
	CEO	CFO	CEO	CFO	CEO	CFO	CEO	CFO
<i>Log of inside debt ratio</i>	-0.104*** (0.002)	-0.093*** (0.007)	-0.359*** (0.000)	-0.300*** (0.003)	-7.585*** (0.002)	-7.123** (0.013)	-8.209*** (0.002)	-8.285*** (0.005)
Equity vega	-0.344* (0.095)	0.050 (0.755)	-2.650*** (0.001)	-0.197 (0.775)	-22.313 (0.364)	-30.050 (0.174)	-1.199 (0.964)	41.101* (0.076)
Equity delta	-0.0533** (0.033)	-0.031 (0.233)	-0.213*** (0.001)	-0.171** (0.019)	5.905 (0.169)	2.043 (0.489)	2.487 (0.334)	-1.237 (0.677)
Log of equity market value	-0.143*** (0.005)	-0.154*** (0.002)	0.017 (0.886)	-0.005 (0.970)	-7.075 (0.102)	-2.224 (0.578)	12.957*** (0.000)	12.331*** (0.000)
Market-to-book	0.009 (0.961)	0.095 (0.581)	-0.856*** (0.009)	-0.666** (0.049)	-2.999 (0.744)	6.859 (0.435)	-2.822 (0.756)	1.522 (0.890)
Return on assets	0.157 (0.113)	0.204* (0.063)	0.500 (0.145)	0.693* (0.053)	47.680** (0.050)	21.460 (0.176)	-56.357*** (0.000)	-61.229*** (0.000)
Depository bank (0/1)	0.501** (0.026)	0.740*** (0.000)	2.062*** (0.000)	3.094*** (0.000)			4.507 (0.948)	93.961*** (0.000)
Intercept	0.815** (0.041)	0.146 (0.671)	2.972** (0.013)	0.563 (0.541)	-78.998 (0.159)	-47.105 (0.397)	34.935 (0.646)	-47.556 (0.148)
Observations	146	116	256	201	100	67	214	168
Adj. r ² :	0.105	0.0519	0.146	0.0574	0.125	0.0484	0.301	0.314

Table O.1: Replicating results from text without variables suspicious to collinearity problems (Continued)

Panel D: Reproduction of Table 5

	Stock market losses		Total volatility		VaR		ES		CoVaR	
	CEO	CFO	CEO	CFO	CEO	CFO	CEO	CFO	CEO	CFO
<i>Log of inside debt ratio</i>	-1.577 (0.280)	-9.544** (0.016)	0.096 (0.315)	-0.457* (0.082)	0.013 (0.478)	-0.666* (0.056)	0.215 (0.302)	-0.959* (0.083)	-0.002 (0.499)	-0.668 (0.223)
Equity vega	-0.200 (0.838)	2.583 (0.152)	-0.099 (0.214)	0.104 (0.409)	-0.067 (0.523)	0.189 (0.249)	-0.157 (0.367)	0.323 (0.265)	-0.166 (0.448)	0.296 (0.445)
Equity delta	-2.341*** (0.001)	-1.172 (0.191)	-0.172*** (0.001)	-0.062 (0.247)	-0.214*** (0.001)	-0.059 (0.411)	-0.353*** (0.001)	-0.117 (0.290)	-0.571*** (0.000)	-0.319** (0.047)
Log of equity market value	0.946 (0.461)	-0.768 (0.652)	0.155* (0.087)	0.022 (0.869)	0.131 (0.267)	-0.058 (0.719)	0.395** (0.044)	0.107 (0.676)	1.562*** (0.000)	1.344*** (0.000)
Market-to-book ratio	-8.436** (0.014)	-2.330 (0.595)	-0.542*** (0.004)	-0.009 (0.976)	-0.691** (0.010)	-0.042 (0.903)	-1.394*** (0.002)	-0.263 (0.645)	-0.810 (0.148)	0.056 (0.944)
Return on assets	4.072* (0.073)	7.889*** (0.002)	-0.109 (0.621)	0.142 (0.481)	0.195 (0.460)	0.558** (0.016)	0.013 (0.977)	0.550 (0.191)	-0.484 (0.430)	-0.176 (0.762)
Depository bank (0/1)	8.157 (0.351)	23.415** (0.029)	-0.965 (0.265)	-0.079 (0.927)	0.325 (0.717)	1.443* (0.066)	-0.953 (0.589)	0.969 (0.551)	1.225 (0.674)	1.697 (0.537)
Intercept	58.062*** (0.001)	16.890 (0.440)	7.303*** (0.000)	4.415*** (0.004)	8.219*** (0.000)	4.560*** (0.004)	14.327*** (0.000)	8.125*** (0.007)	9.140* (0.091)	5.505 (0.269)
Observations	284	226	284	226	284	226	284	226	284	226

Table O.2: Bank risk measured in changes in risk from before to after the crisis
Robust regression analysis of changes in volatility, value-at-risk (VaR), expected shortfall (ES), and CoVaR, regressed against CEO or CFO inside debt and control variables. Changes are calculated as the spread between volatility, VaR, ES, and CoVaR in July 2007 and volatility, VaR, ES, and CoVaR in March 2009, respectively. All dependent variables are in percentages, all independent variables are measured at the end of 2006 and defined in Table 1. Reported in parentheses are *p*-values (two-tailed except for the variable of interest, in italics) based on standard errors that are adjusted for heteroskedasticity. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively.

	Change in volatility		Change in VaR		Change in ES		Change in CoVaR	
	CEO	CFO	CEO	CFO	CEO	CFO	CEO	CFO
<i>Log of inside debt ratio</i>	-0.156*** (0.004)	-0.156** (0.021)	-0.228*** (0.002)	-0.204** (0.015)	-0.313*** (0.006)	-0.352** (0.016)	-0.182 (0.166)	-0.296 (0.11)
Equity vega	0.000 (0.999)	0.032 (0.778)	-0.007 (0.939)	0.083 (0.575)	-0.018 (0.901)	0.150 (0.569)	-0.122 (0.486)	0.223 (0.543)
Equity delta	-0.102** (0.026)	-0.038 (0.412)	-0.116** (0.041)	-0.022 (0.721)	-0.201** (0.033)	-0.062 (0.515)	-0.432*** (0.004)	-0.272* (0.079)
Log of total annual compensation	0.499** (0.014)	0.285 (0.426)	0.615** (0.022)	0.667** (0.023)	0.999** (0.020)	0.975 (0.159)	0.975 (0.133)	0.842 (0.333)
Log of equity market value	-0.058 (0.659)	0.136 (0.524)	-0.108 (0.510)	-0.025 (0.873)	-0.038 (0.888)	0.165 (0.675)	0.837** (0.033)	0.952* (0.067)
Market-to-book ratio	0.016 (0.915)	0.071 (0.691)	0.026 (0.900)	0.160 (0.486)	0.021 (0.951)	0.172 (0.651)	0.317 (0.556)	0.517 (0.411)
Return on assets	-0.025 (0.895)	0.165 (0.357)	0.119 (0.652)	0.370 (0.143)	0.068 (0.869)	0.432 (0.309)	-0.524 (0.277)	-0.230 (0.650)
Market leverage	0.101*** (0.000)	0.108*** (0.000)	0.126*** (0.000)	0.136*** (0.000)	0.241*** (0.000)	0.240*** (0.000)	0.205*** (0.005)	0.171** (0.039)
Depository bank (0/1)	0.160 (0.767)	0.495 (0.408)	0.157 (0.827)	0.783 (0.300)	0.238 (0.828)	1.255 (0.323)	1.892 (0.120)	3.170** (0.039)
Intercept	-11.328*** (0.001)	-11.142** (0.023)	-13.722*** (0.002)	-17.162*** (0.001)	-25.937*** (0.000)	-28.877*** (0.003)	-24.687*** (0.010)	-23.284* (0.071)
Observations	286	228	286	228	286	228	286	228
Adj. / Pseudo R-squared	0.181	0.158	0.186	0.170	0.203	0.191	0.208	0.172