

Internet Appendix

to

“Mandatory Governance Reform and Corporate Risk Management”

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Table IA.1: Summary statistics: Corporate governance and risk management

Panel A: Median Governance Indices by firm size								(7)
	(1)	(2)	(3)	(4)	(5)	(6)		(7)
	2002	2003	2004	2005	2006	2007		Rank sum test, small vs large
REG10 Small	3.00	4.00	4.00	8.00	8.00	8.00		12.57*
REG10 Large	4.00	5.00	5.00	9.00	9.00	9.00		
REG10 COMPL Small	10.00	13.00	15.00	16.00	15.00	16.00		15.96*
REG10 COMPL Large	11.00	15.50	17.00	18.00	17.00	18.00		
BOARD&COMP15 Small	5.00	6.00	8.00	10.00	10.00	10.00		23.50*
BOARD&COMP15 Large	6.00	8.00	10.00	12.00	12.00	12.00		
BOARD&COMP22 Small	7.00	9.00	12.00	14.00	14.00	14.00		21.94*
BOARD&COMP22 Large	9.00	12.00	14.00	17.00	16.00	17.00		
MANDATE-INDUCED	8.00	11.00	13.00	16.00	16.00	16.00		19.70*
MANDATE-INDUCED	7.00	9.00	11.00	14.00	14.00	14.00		
MANDATE-INDUCED COMPL Small	6.00	9.00	9.00	10.00	10.00	11.00		12.50*
MANDATE-INDUCED COMPL Large	5.00	8.00	8.50	9.00	9.00	10.00		
GOV41 Small	14.00	20.00	22.00	26.00	26.00	27.00		18.32*
GOV41 Large	13.00	17.00	19.50	23.00	23.00	24.00		

Panel B: Derivatives Use by governance index over time													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Low	High		Low	High		Low	High		Low	High		
Year	REG10	REG10	<i>t</i> -stat.	REG10	REG10	<i>t</i> -stat.	BOARD&COMP15	BOARD&COMP15	<i>t</i> -stat.	BOARD&COMP22	BOARD&COMP22	T-stat.	
2000	0.29	0.49	-2.73 (0.00)*	0.31	0.15	1.19 (0.23)	0.26	0.54	-5.12 (0.00)*	0.27	0.54	-4.70 (0.00)*	
2001	0.34	0.58	-3.20 (0.00)*	0.36	0.23	0.96 (0.34)	0.32	0.55	-4.08 (0.00)*	0.32	0.57	-4.05 (0.00)*	
2002	0.38	0.55	-2.51 (0.00)*	0.41	0.31	1.31 (0.50)	0.36	0.64	-4.86 (0.00)*	0.36	0.67	-4.99 (0.00)*	
2003	0.32	0.46	-2.57 (0.00)*	0.25	0.43	-4.47 (0.00)*	0.25	0.46	-5.13 (0.00)*	0.26	0.42	-4.03 (0.00)*	
2004	0.35	0.46	-2.37 (0.04)†	0.28	0.43	-3.48 (0.00)*	0.24	0.43	-4.13 (0.00)*	0.24	0.43	-3.65 (0.00)*	
2005	0.21	0.44	-4.64 (0.00)*	0.27	0.43	-3.34 (0.00)*	0.25	0.42	-2.85 (0.00)*	0.19	0.42	-3.37 (0.00)*	
2006	0.30	0.42	-1.86 (0.09)‡	0.29	0.44	-3.31 (0.00)*	0.31	0.41	-1.61 (0.11)	0.31	0.41	-1.44 (0.14)	
2007	0.26	0.44	-2.63 (0.00)*	0.29	0.45	-2.73 (0.00)*	0.22	0.44	-3.00 (0.00)*	0.20	0.44	-2.92 (0.00)*	

	Low	High		Low	High		Low	High		All	Small	Large	<i>t</i> -stat.
Year	MAN-IND	MAN-IND	<i>t</i> -stat.	MAN-IND	MAN-IND	<i>t</i> -stat.	GOV41	GOV41	<i>t</i> -stat.	firms	firms	firms	
2000	0.29	0.45	-1.99 (0.01)†	0.31	0.24	0.71 (0.28)	0.30	0.38	-0.78 (0.12)	0.3	0.2	0.44	-6.16 (0.00)*
2001	0.34	0.55	-2.62 (0.00)*	0.36	0.32	0.39 (0.84)	0.35	0.48	-1.17 (0.11)	0.36	0.25	0.48	-5.60 (0.00)*
2002	0.38	0.61	-2.70 (0.00)*	0.40	0.40	-0.02 (0.28)	0.39	0.57	-1.66 (0.03)†	0.4	0.28	0.54	-6.16 (0.00)*
2003	0.29	0.44	-3.34 (0.00)*	0.32	0.36	-1.09 (0.11)	0.29	0.41	-3.04 (0.00)*	0.34	0.26	0.42	-4.00 (0.00)*
2004	0.29	0.45	-3.75 (0.00)*	0.34	0.42	-1.77 (0.08)‡	0.28	0.44	-3.86 (0.00)*	0.39	0.27	0.50	-5.65 (0.00)*
2005	0.20	0.42	-3.47 (0.00)*	0.31	0.44	-2.87 (0.00)*	0.12	0.43	-4.66 (0.00)*	0.39	0.29	0.48	-4.52 (0.00)*
2006	0.31	0.41	-1.63 (0.11)	0.34	0.43	-2.06 (0.04)†	0.27	0.42	-2.33 (0.04)†	0.4	0.29	0.49	-4.78 (0.00)*
2007	0.25	0.44	-2.81 (0.00)*	0.32	0.43	-1.57 (0.29)	0.22	0.43	-2.48 (0.03)†	0.42	0.3	0.51	-4.95 (0.00)*

Notes: Panel A presents the median *REG10*, *REG10 COMPL.*, *BOARD&COMP15*, *BOARD&COMP22*, *MANDATE-INDUCED*, *MANDATE-INDUCED COMPL.* and *GOV41* governance indices respectively for small and large firms for the 2002-2007 period. Column (7) displays the Wilcoxon rank sum z-statistic for the test of overall difference in medians between small and large firms. Small (large) firms are classified as having total assets less than or equal to (greater than) the overall median value of \$1,374.2 million for the period 2000 to 2007. Panel B presents the mean proportion of derivatives use for firms in high and low governance groups. Low and high *REG10*, *REG10 COMPL.*, *BOARD&COMP15*, *BOARD&COMP22*, *MANDATE-INDUCED*, *MANDATE-INDUCED COMPL.* and *GOV41* governance groups are defined as having values less than or equal to (greater than) the overall median index values of 5, 15, 8, 11, 11, 8 and 22 respectively. The rank sum Z (*t*-test) statistic presents the significance tests for the difference in median (mean) values. *p*-values are reported in parentheses. The governance variables are defined in the Appendix. *, † and ‡ indicate significance at the 1, 5 and 10 percent levels respectively

Table IA.2: Lead-and-lag model for tests of parallel trends in the pre- and post-SOX periods

	(1) Panel A	(2) Panel B
REG10 GAP	0.284*** (0.002)	-0.857 (0.143)
REG10 GAP ×2000	0.004 (0.971)	-1.101 (0.151)
REG10 GAP ×2001	0.086 (0.486)	-0.117 (0.880)
REG10 GAP ×2003	-0.365*** (0.000)	1.048* (0.065)
REG10 GAP ×2004	-0.488*** (0.000)	1.021* (0.076)
REG10 GAP ×2005	-0.406*** (0.000)	1.998*** (0.006)
REG10 GAP ×2006	-0.207* (0.078)	1.599** (0.036)
Constant	0.829*** (0.000)	-1.823*** (0.002)
Control variables	Y	Y
Observations	4,050	4,050
R-squared	0.129	0.366

Notes: Panel A of this table presents the results for the fixed effects panel regression analysis where the dependent variable is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|a'_2|}$, with a'_2 , estimated in equation (1). Panel B of this table presents the results for the fixed effects panel regression analysis where the dependent variable is *Derivatives Mentions*. We include the time trend interaction terms, whereby the *REG10 GAP* index, operationalized as (1 - REG10 index), is interacted with year dummies. Industry and time dummies are included in the analysis, and dependent variables are winsorized. Robust *p*-values are reported in parentheses below the coefficients. The governance and control variables are defined in the Appendix. ***, **and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.3
Multivariate analysis with Forwards/Futures Derivatives Mentions and Derivatives Use

Panel A: Governance gap							
Dep. var. Forwards/ Futures Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	1.298*** (0.000)						
REG10 COMPL.		1.801*** (0.001)					
BOARD&COMP15			1.108*** (0.000)				
BOARD&COMP22				1.298*** (0.001)			
MANDATE-INDUCED					1.387*** (0.000)		
MANDATE-INDUCED COMPL.						1.740*** (0.002)	
GOV41							2.160*** (0.000)
Constant	-0.212** (0.016)	-0.329** (0.018)	-0.147* (0.082)	-0.192** (0.045)	-0.206** (0.028)	-0.348** (0.020)	-0.409*** (0.002)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	2,547	2,547	2,547	2,547	2,547	2,547	2,547
R-squared	0.102	0.099	0.100	0.100	0.100	0.099	0.101
Panel B: Governance gap							
Dep. var. Derivatives Use	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.181*** (0.010)						
REG10 COMPL.		0.377*** (0.004)					
BOARD&COMP15			0.190*** (0.009)				
BOARD&COMP22				0.241*** (0.006)			
MANDATE-INDUCED					0.230*** (0.007)		
MANDATE-INDUCED COMPL.						0.351*** (0.007)	
GOV41							0.386*** (0.002)
Constant	-0.001 (0.964)	-0.046 (0.152)	0.001 (0.957)	-0.045** (0.043)	-0.008 (0.721)	-0.046 (0.178)	-0.048 (0.117)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	2,586	2,586	2,586	2,586	2,586	2,586	2,586
R-squared	0.035	0.035	0.035	0.035	0.035	0.035	0.036

Panel C: Actual implem. Dep. var. Forwards/ Futures mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.457*** (0.007)						
REG10 COMPL.		0.837*** (0.002)					
BOARD&COMP15			0.478** (0.014)				
BOARD&COMP22				0.518** (0.025)			
MANDATE-INDUCED					0.693*** (0.001)		
MANDATE-INDUCED COMPL.						0.767*** (0.004)	
GOV41							0.978*** (0.000)
Constant	0.097* (0.079)	0.013 (0.818)	0.044 (0.432)	0.044 (0.425)	0.046 (0.400)	0.040 (0.470)	0.034 (0.539)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.066	0.067	0.066	0.065	0.067	0.066	0.067
Panel D: Actual implem. Dep. var. Derivatives Use	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.109*** (0.007)						
REG10 COMPL.		0.132* (0.099)					
BOARD&COMP15			0.115** (0.015)				
BOARD&COMP22				0.146** (0.014)			
MANDATE-INDUCED					0.131** (0.018)		
MANDATE-INDUCED COMPL.						0.145* (0.080)	
GOV41							0.204** (0.011)
Constant	-0.064*** (0.000)	-0.069*** (0.000)	-0.067*** (0.000)	-0.063*** (0.001)	-0.064*** (0.001)	-0.068*** (0.000)	-0.056*** (0.004)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,374	3,374	3,374	3,374	3,374	3,374	3,374
R-squared	0.028	0.027	0.027	0.028	0.027	0.027	0.028

Notes: This table replicates the results for the panel regression analysis using deviations from means presented in Tables 3 and 4. Panels A and B examine the initial governance gap. Panel C and D examine the actual governance implementation. The dependent variable in Panels A and C is Hoberg and Moon (2017)'s variable *Forwards and Futures Mentions*, a text-based variable that specifically counts the number of mentions of forward and future contracts for FX hedging. The dependent variable in Panels B and D is *Derivatives Use*. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. Industry and time dummies are included in the analysis. *p*-values are shown in the parenthesis below the coefficients. Please see the appendix for variable definitions. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.4 Analysis of indices and their complements in one joint regression

	(1)	(2)	(3)	(4)
	FX Exposure		Derivatives Mentions	
REG10	0.018 (0.803)		0.712** (0.011)	
REG10 COMPL.	-0.781*** (0.000)		1.227*** (0.005)	
MANDATE-INDUCED		-0.335*** (0.001)		1.105*** (0.004)
MANDATE-INDUCED COMPL.		-0.403*** (0.001)		0.830* (0.078)
Constant	-0.134*** (0.000)	-0.161*** (0.000)	0.110 (0.237)	0.080 (0.350)
Control variables	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325
R-squared	0.067	0.065	0.086	0.086

Notes: This table replicates the main regressions of the panel regression analysis presented in Table 4, using deviations from means, by including both the REG10 and MANDATE-INDUCED variables and their complements in a single regression. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. Regressions (1) and (2) present the results for a panel fixed effects regression where the dependent variable is FX Exposure, operationalized as the square root of the absolute exposure coefficient $\sqrt{|\alpha_2^i|}$, with α_2^i as estimated in equation (1). Regressions (3) and (4) present the results for a panel fixed effects regression where the dependent variable is Derivatives Mentions. Industry and time dummies are included in the analysis presented in panels A and B. *p-values* are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively

Table IA.5 Multivariate analysis of governance implementation: Derivatives Use by firm size, pre-reform Q, and G-index

Panel A: By Firm size	(1) Large	(2) Small	(3) Large	(4) Small	(5) Large	(6) Small
REG10	0.103* (0.096)	0.100* (0.058)				
MANDATE-INDUCED			0.079 (0.340)	0.175** (0.015)		
GOV41					0.054 (0.662)	0.344*** (0.001)
Constant	-0.042 (0.108)	-0.088*** (0.000)	-0.048* (0.075)	-0.079*** (0.001)	-0.053* (0.072)	-0.059** (0.020)
Control Variables	Y	Y	Y	Y	Y	Y
Observations	1,864	1,510	1,864	1,510	1,864	1,510
R-squared	0.022	0.066	0.021	0.067	0.021	0.071
Panel B: By Tobin's Q	(1) High Q	(2) Low Q	(3) High Q	(4) Low Q	(5) High Q	(6) Low Q
REG10	0.187*** (0.010)	0.110** (0.043)				
MANDATE-INDUCED			0.266*** (0.009)	0.149** (0.037)		
GOV41					0.378** (0.017)	0.228** (0.024)
Constant	-0.010 (0.764)	-0.085*** (0.000)	-0.000 (0.995)	-0.082*** (0.001)	0.009 (0.802)	-0.074*** (0.003)
Control Variables	Y	Y	Y	Y	Y	Y
Observations	907	2,143	907	2,143	907	2,143
R-squared	0.062	0.034	0.063	0.034	0.061	0.034
Panel C: By G-Index	(1) High G-index	(2) Low G-index	(3) High G-index	(4) Low G-index	(5) High G-index	(6) Low G-index
REG10	0.002 (0.978)	0.153** (0.016)				
MANDATE-INDUCED			-0.030 (0.730)	0.211** (0.019)		
GOV41					-0.081 (0.521)	0.335** (0.011)
Constant	-0.083*** (0.001)	-0.055** (0.050)	-0.088*** (0.001)	-0.048 (0.102)	-0.095*** (0.001)	-0.036 (0.255)
Control Variables	Y	Y	Y	Y	Y	Y
Observations	1,595	1,418	1,595	1,418	1,595	1,418
R-squared	0.024	0.044	0.024	0.043	0.024	0.044

Notes: This table presents the results for the panel regression analysis using deviations from means. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. The dependent variable is *Derivatives Use*. Panel A, B and C present results for small and large firm, high and low growth firms and firms with high and low pre-reform G-index values (Gompers, Ishi, and Metrick, 2003), respectively. Small (large) firms are defined as having total assets less (greater) than the overall median value of \$1,374.2 million for the period 2000 to 2007. Low (high) growth firms are defined as having a Tobin's Q value less (greater) than the overall median value of 2.43 for the pre-reform period of 2000 to 2002. Low (high) entrenched firms are defined as having a G-index value less (greater) than the overall median value of 8.64 for the pre-reform period of 2000 to 2002. Industry and time dummies are included in the analysis. *p*-values are reported in parentheses below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.6 Cross-sectional test on the pre-reform managerial bias in financial hedges

	(1) Panel A: Mean anti-takeover index	(2) Panel B: Anti-takeover index	(3) Panel C: GOV41
Assets	0.127** (0.039)	0.085 (0.193)	0.125** (0.047)
R&D	-0.106 (0.736)	-0.121 (0.706)	-0.128 (0.684)
Quick ratio	-0.069 (0.684)	-0.080 (0.646)	-0.165 (0.338)
M/B ratio	0.208 (0.222)	0.288* (0.092)	0.155 (0.354)
Leverage	0.401 (0.317)	0.329 (0.419)	0.336 (0.389)
Foreign sales	0.026*** (0.000)	0.026*** (0.000)	0.026*** (0.000)
ABHK	0.152 (0.576)	0.161 (0.575)	0.197 (0.470)
ABHK ²	0.007 (0.819)	0.006 (0.862)	0.001 (0.965)
Mean anti-takeover index	2.915*** (0.003)		
Anti-takeover index		3.632*** (0.001)	
GOV41			2.554*** (0.003)
Constant	-1.244* (0.084)	-1.090 (0.145)	-1.635** (0.029)
Year controls	Y	Y	Y
Observations	1,018	1,018	1,018
R-squared	0.225	0.216	0.226

Notes: This table presents the results for fixed effects regression analysis. Panels A and B include the mean and original value of the anti-takeover index of Cain, McKeon, and Davidoff Solomon (2017) for the pre-reform period of 2000-2002, respectively. Panel C includes the mean *GOV41* index value for the pre-reform period of 2000-2002. The dependent variable is *Derivatives Use*. Industry and time dummies are included in the analysis. Robust *p*-values are reported in parentheses below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.7 CEO Characteristics

Panel A: Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
REG10	-0.141*	-0.115	-0.068						
	(0.087)	(0.162)	(0.482)						
MANDATE-INDUCED				-0.536***	-0.479***	-0.487***			
				(0.000)	(0.000)	(0.000)			
GOV41							-0.824***	-0.723***	-0.738***
							(0.000)	(0.000)	(0.000)
CEO Duality	0.508*		0.533*	0.521*		0.553*	0.497*		0.531*
	(0.072)		(0.072)	(0.064)		(0.061)	(0.076)		(0.072)
CEO Age		-0.000	-0.001		-0.000	-0.000		-0.001	-0.001
		(0.875)	(0.813)		(0.914)	(0.890)		(0.795)	(0.728)
Constant	-0.193***	-0.188***	-0.186***	-0.166***	-0.165***	-0.166***	-0.153***	-0.155***	-0.155***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Control variables	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	2,416	2,547	1,893	2,416	2,547	1,893	2,416	2,547	1,893
R-squared	0.056	0.054	0.055	0.065	0.061	0.063	0.069	0.064	0.066
Panel B: Dep. var. Derivatives Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
REG10	1.109***	0.979***	1.177***						
	(0.000)	(0.001)	(0.002)						
MANDATE-INDUCED				1.381***	1.258***	1.322***			
				(0.000)	(0.001)	(0.004)			
GOV41							1.807***	1.741***	1.712***
							(0.000)	(0.001)	(0.005)
CEO Duality	-1.952***		-2.164***	-1.982***		-2.219***	-1.925***		-2.159***
	(0.000)		(0.000)	(0.000)		(0.000)	(0.000)		(0.000)
CEO Age		0.011	0.007		0.010	0.006		0.011	0.007
		(0.355)	(0.671)		(0.403)	(0.729)		(0.364)	(0.661)
Constant	0.212*	0.257**	0.234	0.098	0.157	0.120	0.078	0.137	0.101
	(0.068)	(0.027)	(0.115)	(0.387)	(0.166)	(0.405)	(0.492)	(0.230)	(0.486)
Control variables	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	2,416	2,547	1,893	2,416	2,547	1,893	2,416	2,547	1,893
R-squared	0.083	0.084	0.087	0.083	0.084	0.086	0.083	0.085	0.086

Notes: This table replicates the main regressions of the panel regression analysis presented in Table 4, and includes the CEO characteristics *CEO Duality* and *CEO Age* control variables. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. Panel A presents the results for a panel fixed effects regression where the dependent variable is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|a^i_2|}$, with a^i_2 , estimated in equation (1). Panel B presents the results for a panel fixed effects regression where the dependent variable is *Derivatives Mentions*. Industry and time dummies are included in the analysis presented in panels A and B. *p*-values are located in the parenthesis below the coefficients. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively. The governance and control variables are defined in the Appendix.

Table IA.8 Time trend analysis of governance implementation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: Dep. var. FX Exposure				Panel B: Dep. var. Derivatives Mentions			
REG10 COMPL.	-0.356*** (0.000)				0.817 (0.146)			
REG10 COMPL.×02	-0.328*** (0.001)				1.120 (0.101)			
REG10 COMPL.×03	-0.524*** (0.000)				0.766* (0.066)			
REG10 COMPL.×04	-0.551*** (0.000)				0.456 (0.271)			
REG10 COMPL.×05	-0.392*** (0.000)				0.687* (0.075)			
REG10 COMPL.×06	-0.287*** (0.000)				0.504 (0.195)			
BOARD&COMP15		-0.202*** (0.001)				1.113*** (0.002)		
BOARD&COMP15×02		-0.229*** (0.002)				1.224** (0.015)		
BOARD&COMP15×03		-0.512*** (0.000)				1.037*** (0.002)		
BOARD&COMP15×04		-0.452*** (0.000)				0.340 (0.263)		
BOARD&COMP15×05		-0.259*** (0.000)				0.255 (0.330)		
BOARD&COMP15×06		-0.196*** (0.000)				0.195 (0.461)		
BOARD&COMP22			-0.274*** (0.000)				1.058** (0.012)	
BOARD&COMP22×02			-0.272*** (0.001)				1.163** (0.044)	
BOARD&COMP22×03			-0.535*** (0.000)				0.894** (0.021)	
BOARD&COMP22×04			-0.488*** (0.000)				0.371 (0.298)	
BOARD&COMP22×05			-0.283*** (0.000)				0.374 (0.224)	
BOARD&COMP22×06			-0.206*** (0.000)				0.254 (0.411)	
MANDATE-INDUCED COMPL.				-0.198** (0.013)				-0.240 (0.643)
MANDATE-INDUCED COMPL.×02				-0.288** (0.019)				0.651 (0.415)
MANDATE-INDUCED COMPL.×03				-0.588*** (0.000)				0.828* (0.075)
MANDATE-INDUCED COMPL.×04				-0.681*** (0.000)				0.566 (0.243)
MANDATE-INDUCED COMPL.×05				-0.485*** (0.000)				0.880** (0.041)
MANDATE-INDUCED COMPL.×06				-0.321*** (0.000)				0.622 (0.143)
Constant	1.374*** (0.000)	1.292*** (0.000)	1.331*** (0.000)	1.182*** (0.000)	-2.999*** (0.000)	-4.123*** (0.000)	-3.094*** (0.000)	-2.629*** (0.000)
Control variables	Y	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.170	0.165	0.168	0.116	0.355	0.479	0.356	0.354

Notes: Panel A of this table presents the results for the fixed effects panel regression analysis where the dependent variable is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|ai2|}$, with *ai2*, estimated in equation (1). Panel B presents the results for the fixed effects panel regression analysis where the dependent variable is *Derivatives Mentions*. We include the time trend interaction terms, whereby the *REG10 COMPL.*, *BOARD&COMP15*, *BOARD&COMP22* and the *MANDATE-INDUCED COMPL.* indexes are interacted with year dummies. Industry dummies are included in the analysis. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, **and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.9 Multivariate analysis: Initial governance short fall with firm fixed effects

Panel A: Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.564*** (0.000)						
REG10 COMPL.		-0.805*** (0.000)					
BOARD&COMP15			-0.519*** (0.000)				
BOARD&COMP22				-0.596*** (0.000)			
MANDATE-INDUCED					-0.592*** (0.000)		
MANDATE-INDUCED COMPL.						-0.936*** (0.000)	
GOV41							-0.778*** (0.000)
Constant	0.494* (0.068)	0.528* (0.050)	0.504* (0.062)	0.503* (0.063)	0.491* (0.069)	0.557** (0.039)	0.522* (0.053)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.070	0.079	0.071	0.074	0.075	0.078	0.078
Panel B Dep. var. Derivatives Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.581** (0.030)						
REG10 COMPL.		1.499*** (0.000)					
BOARD&COMP15			0.766*** (0.002)				
BOARD&COMP22				1.005*** (0.000)			
MANDATE-INDUCED					0.938*** (0.000)		
MANDATE-INDUCED COMPL.						1.640*** (0.000)	
GOV41							1.288*** (0.000)
Constant	0.309 (0.765)	0.204 (0.843)	0.272 (0.792)	0.261 (0.800)	0.286 (0.782)	0.163 (0.875)	0.231 (0.823)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.087	0.092	0.089	0.090	0.090	0.091	0.091

Notes: This table re-estimates our main regressions analysis presented in Table 3 examining initial governance gap with firm fixed effects in lieu of deviations-from-means. The dependent variable in Panel A is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|\alpha^i_2|}$, with α^i_2 , estimated in equation (1). The dependent variable in Panel B is *Derivatives Mentions*. Time dummies are included in the analysis presented in panels A and B. *p*-values are reported in the parenthesis below the coefficients. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively. The governance and control variables are defined in the Appendix.

Table IA.10 Multivariate analysis: Actual governance implementation with firm fixed effects

Panel A: Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.440*** (0.000)						
REG10 COMPL.		-0.585*** (0.000)					
BOARD&COMP15			-0.459*** (0.000)				
BOARD&COMP22				-0.501*** (0.000)			
MANDATE-INDUCED					-0.517*** (0.000)		
MANDATE-INDUCED COMPL.						-0.582*** (0.000)	
GOV41							-0.591*** (0.000)
Constant	0.369 (0.172)	0.408 (0.129)	0.426 (0.115)	0.407 (0.131)	0.392 (0.145)	0.400 (0.138)	0.392 (0.145)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.075	0.081	0.075	0.077	0.081	0.075	0.080
Panel B Dep. var. Derivatives Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.878*** (0.000)						
REG10 COMPL.		1.114*** (0.000)					
BOARD&COMP15			0.878*** (0.000)				
BOARD&COMP22				0.946*** (0.000)			
MANDATE-INDUCED					0.992*** (0.000)		
MANDATE-INDUCED COMPL.						1.125*** (0.000)	
GOV41							1.137*** (0.000)
Constant	0.509 (0.621)	0.428 (0.677)	0.395 (0.701)	0.429 (0.677)	0.459 (0.655)	0.445 (0.665)	0.460 (0.655)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.091	0.093	0.092	0.092	0.093	0.092	0.093

Notes: This table re-estimates our main regressions analysis presented in Table 4 examining actual governance implementation with firm fixed effects in lieu of deviations-from-means. The dependent variable in Panel A is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|\alpha^i_2|}$, with α^i_2 , estimated in equation (1). The dependent variable in Panel B is *Derivatives Mentions*. Time dummies are included in the analysis presented in panels A and B. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.11 Robustness when using industry-time fixed effects

Panel A: Governance gap Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.573*** (0.000)						
REG10 COMPL.		-0.803*** (0.000)					
BOARD&COMP15			-0.530*** (0.000)				
BOARD&COMP22				-0.605*** (0.000)			
MANDATE-INDUCED					-0.598*** (0.000)		
MANDATE-INDUCED COMPL.						-0.929*** (0.000)	
GOV41							-0.781*** (0.000)
Constant	0.537** (0.048)	0.575** (0.034)	0.550** (0.043)	0.551** (0.043)	0.537** (0.048)	0.603** (0.026)	0.568** (0.036)
Industry-time FE	Y	Y	Y	Y	Y	Y	Y
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.081	0.088	0.082	0.084	0.085	0.087	0.088
Panel B: Governance gap Dep. var. Derivatives Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.485* (0.071)						
REG10 COMPL.		1.391*** (0.000)					
BOARD&COMP15			0.682*** (0.005)				
BOARD&COMP22				0.912*** (0.001)			
MANDATE-INDUCED					0.851*** (0.001)		
MANDATE-INDUCED COMPL.						1.513*** (0.000)	
GOV41							1.178*** (0.000)
Constant	-0.003 (0.998)	-0.110 (0.916)	-0.039 (0.970)	-0.054 (0.959)	-0.029 (0.978)	-0.146 (0.888)	-0.080 (0.938)
Industry-time FE	Y	Y	Y	Y	Y	Y	Y
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.096	0.101	0.098	0.099	0.099	0.100	0.100

Panel C: Actual implementation							
Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.449*** (0.000)						
REG10 COMPL.		-0.583*** (0.000)					
BOARD&COMP15			-0.464*** (0.000)				
BOARD&COMP22				-0.504*** (0.000)			
MANDATE-INDUCED					-0.518*** (0.000)		
MANDATE-INDUCED COMPL.						-0.583*** (0.000)	
GOV41							-0.592*** (0.000)
Constant	0.422 (0.121)	0.448* (0.098)	0.473* (0.081)	0.453* (0.095)	0.442 (0.103)	0.438 (0.107)	0.436 (0.108)
Industry-time FE	Y	Y	Y	Y	Y	Y	Y
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.081	0.091	0.085	0.087	0.091	0.085	0.090
Panel D: Actual implementation							
Dep. var. Derivatives Mentions	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	0.825*** (0.000)						
REG10 COMPL.		1.039*** (0.000)					
BOARD&COMP15			0.810*** (0.000)				
BOARD&COMP22				0.878*** (0.000)			
MANDATE-INDUCED					0.926*** (0.000)		
MANDATE-INDUCED COMPL.						1.052*** (0.000)	
GOV41							1.062*** (0.000)
Constant	0.164 (0.875)	0.113 (0.913)	0.067 (0.948)	0.102 (0.921)	0.125 (0.904)	0.132 (0.898)	0.136 (0.896)
Industry-time FE	Y	Y	Y	Y	Y	Y	Y
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.100	0.102	0.101	0.101	0.102	0.101	0.102

Notes: This table replicates the main regressions of Tables 3 and 4, but including a full set of industry-time fixed effects in the regressions instead of separate industry and time fixed effect variables in the analysis. Panels A and B examine the initial governance gap, and Panels C and D examine the actual governance implementation. In Panels A and C, the dependent variable is *FX Exposure*. In Panels B and D, the dependent variable is *Derivatives Mentions*. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. Time dummies are included in the analysis. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.12 FX Risk Exposure estimation with Russell 1000 market-weighted index

Panel A: Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.309*** (0.000)						
REG10 COMPL.		-0.571*** (0.000)					
BOARD&COMP15			-0.329*** (0.000)				
BOARD&COMP22				-0.392*** (0.000)			
MANDATE-INDUCED					-0.395*** (0.000)		
MANDATE-INDUCED COMPL.						-0.615*** (0.000)	
GOV41							-0.529*** (0.000)
Constant	0.511* (0.056)	0.573** (0.032)	0.533** (0.046)	0.539** (0.044)	0.534** (0.046)	0.579** (0.030)	0.562** (0.035)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.091	0.097	0.093	0.094	0.095	0.096	0.096
Panel B: Dep. var. FX Exposure	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.251*** (0.000)						
REG10 COMPL.		-0.402*** (0.000)					
BOARD&COMP15			-0.280*** (0.000)				
BOARD&COMP22				-0.330*** (0.000)			
MANDATE-INDUCED					-0.324*** (0.000)		
MANDATE-INDUCED COMPL.						-0.435*** (0.000)	
GOV41							-0.411*** (0.000)
Constant	0.482* (0.071)	0.521* (0.051)	0.478* (0.073)	0.488* (0.067)	0.472* (0.077)	0.563** (0.035)	0.519* (0.051)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.093	0.097	0.094	0.095	0.096	0.097	0.098

Notes: This table re-estimates our main regressions analysis presented in Table 3 (Panel A) and Table 4 (Panel B) examining initial governance gap and actual governance implementation respectively, with firm fixed effects in lieu of deviations-from-means. The dependent variable is *FX Exposure* operationalized as the square root of the absolute exposure coefficient $\sqrt{|\alpha^i_2|}$, with α^i_2 , estimated in equation (1) with the Russell 1000 market index. Time dummies are included in the analysis presented in panels A and B. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.13 FX Risk Exposure estimation with CRSP market-weighted index

Panel A: Governance gap	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.402*** (0.000)						
REG10 COMPL.		-0.636*** (0.000)					
BOARD&COMP15			-0.358*** (0.000)				
BOARD&COMP22				-0.427*** (0.000)			
MANDATE-INDUCED					-0.426*** (0.000)		
MANDATE-INDUCED COMPL.						-0.773*** (0.000)	
GOV41							-0.610*** (0.000)
Constant	0.809*** (0.003)	0.868*** (0.001)	0.821*** (0.003)	0.828*** (0.002)	0.819*** (0.003)	0.896*** (0.001)	0.860*** (0.002)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.085	0.090	0.084	0.086	0.086	0.091	0.089
Panel B: Actual implementation	(1)	(2)	(3)	(4)	(5)	(6)	(7)
REG10	-0.219*** (0.000)						
REG10 COMPL.		-0.501*** (0.000)					
BOARD&COMP15			-0.287*** (0.000)				
BOARD&COMP22				-0.368*** (0.000)			
MANDATE-INDUCED					-0.357*** (0.000)		
MANDATE-INDUCED COMPL.						-0.528*** (0.000)	
GOV41							-0.474*** (0.000)
Constant	0.758*** (0.005)	0.821*** (0.002)	0.759*** (0.005)	0.773*** (0.004)	0.755*** (0.005)	0.870*** (0.001)	0.812*** (0.003)
Control variables	Y	Y	Y	Y	Y	Y	Y
Observations	3,325	3,325	3,325	3,325	3,325	3,325	3,325
R-squared	0.081	0.094	0.084	0.088	0.088	0.092	0.092
Number of ISIN groups	504	504	504	504	504	504	504

Notes: This table re-estimates our main regressions analysis presented in Table 3 (Panel A) and Table 4 (Panel B) examining initial governance gap and actual governance implementation respectively, with firm fixed effects in lieu of deviations-from-means. The dependent variable is *FX Exposure* operationalized as the square root of the absolute exposure coefficient $\sqrt{|\alpha'_2|}$, with α'_2 , estimated in equation (1) with the CRSP market-weighted index. Time dummies are included in the analysis presented in panels A and B. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Table IA.14 Examining a single SOX measure: Board independence

	(1)	(2)
	FX Exposure	Derivatives Mentions
Assets	0.000 (0.243)	-0.000** (0.014)
R&D	0.024 (0.531)	-0.076 (0.235)
Quick ratio	-0.003 (0.677)	-0.012 (0.487)
M/B ratio	0.044*** (0.000)	-0.134*** (0.002)
Leverage	0.196 (0.171)	1.007* (0.051)
Foreign sales	-0.001 (0.636)	0.019*** (0.000)
ABHK	0.067 (0.257)	-0.156 (0.508)
ABHK ²	-0.010 (0.167)	0.048* (0.095)
Derivatives Mentions	-0.005 (0.401)	
Board Independence	-0.092 (0.390)	0.763* (0.055)
Constant	-0.181*** (0.000)	0.150 (0.130)
Observations	2,425	2,425
R-squared	0.052	0.076

Notes: This table replicates tests for the panel regression analysis, by using a single mandatory SOX measure (board independence) in lieu of our governance indexes. All variables are expressed as differences from the firm's means and thus absorb firm fixed effects. The dependent variable in regression (1) is *FX Exposure*, operationalized as the square root of the absolute exposure coefficient $\sqrt{|a^i_2|}$, with a^i_2 , estimated in equation (1). The dependent variable in regression (2) is *Derivatives Mentions*. *Board Independence* is the proportion of independent directors on the board. Industry and time dummies are included in the analysis presented in panels A and B. *p*-values are reported in the parenthesis below the coefficients. The governance and control variables are defined in the Appendix. ***, ** and * indicates significance at the 1, 5 and 10 percent level respectively.

Appendix Figures: Additional parallel trends

Figure A1: Graphical analysis of the parallel trends assumption (*REG10 COMPL.* governance index)

The graphs present the complementary set of plots (to those in Figure 1) to examine the validity of the parallel trends assumption in the pre-reform period. We plot the governance index for the top tercile of firms (blue dashed line) and the governance index for the two remaining terciles of firms (red line), using the initial governance gap in *REG10 COMPL.* as measure. We plot the two groups for the evolution of the mean *Derivatives Mentions* (Figure A1.A) and mean absolute *FX Exposure* (Figure A1.B), in the period prior and after the year of SOX implementation (2003).

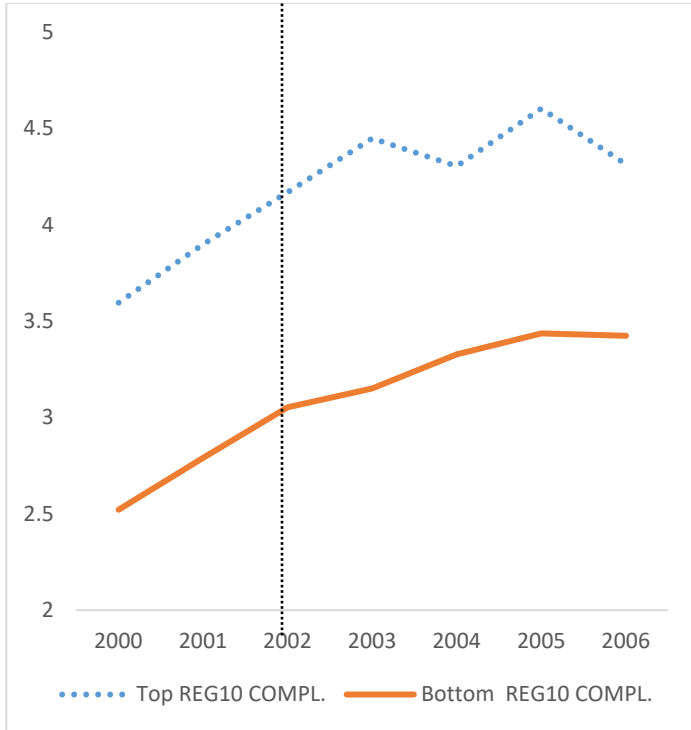


Figure A1.A: *Derivatives Mentions* by REG10 COMPL.

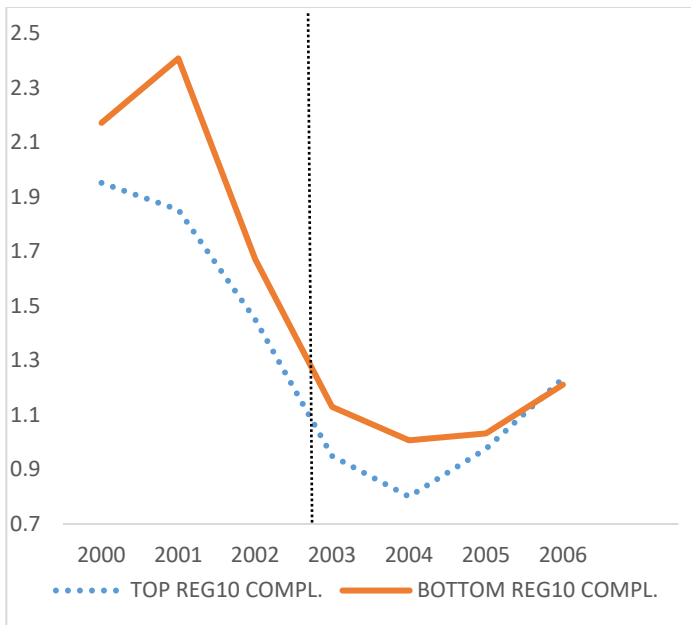


Figure A1.B: *FX Exposure* by REG10 COMPL.

Definition of Variables (Internet Appendix)

Additional dependent variables

Forward and Futures Mentions

For robustness when use an alternative specification of Hoberg and Moon's text-based variable, forwards and futures mentions, that specifically counts the number of mentions of forward and future contracts for FX hedging (*Siznumfxfutfor*).

Derivatives Use

The binary variable takes a value of one if the firm uses foreign currency derivatives and zero otherwise. The data were collected from item 7a "quantitative and qualitative disclosures about market risk" in the firm's annual 10-K report filed with the SEC.