


The Changing Nature of Corporate Board Activity



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Death by Committee?

An Analysis of Delegation in Corporate Boards



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Boards are often blamed for problems...

- Enron, Worldcom, Tyco, Global Crossing, Qwest, and others.
- Proposed Shareholder Bill of Rights (Cantwell and Schumer, 2009, Section 2) : “...among the central causes of the financial and economic crisis that the United States faces today has been a widespread failure of corporate governance”
- OECD steering group on corporate governance (Kirkpatrick, 2009): “The financial crisis can be to an important extent attributed to failures and weaknesses in corporate governance arrangements.”

...despite the fact that regulations already “fixed” them

- Majority of independent directors (exchange listing requirement)
- Independent audit committee (SOX) of at least three members (exchange), of which one is a financial expert (SOX)
- Independent nominating/corporate governance committees (exchange)
- Independent compensation committee (exchange)

Questions

- How is board structure related to what boards actually do?
- How important is delegation (to committees)?
- Is more delegation (to committees) necessarily better?
- Is more delegation to independent directors necessarily better?

Some tentative answers

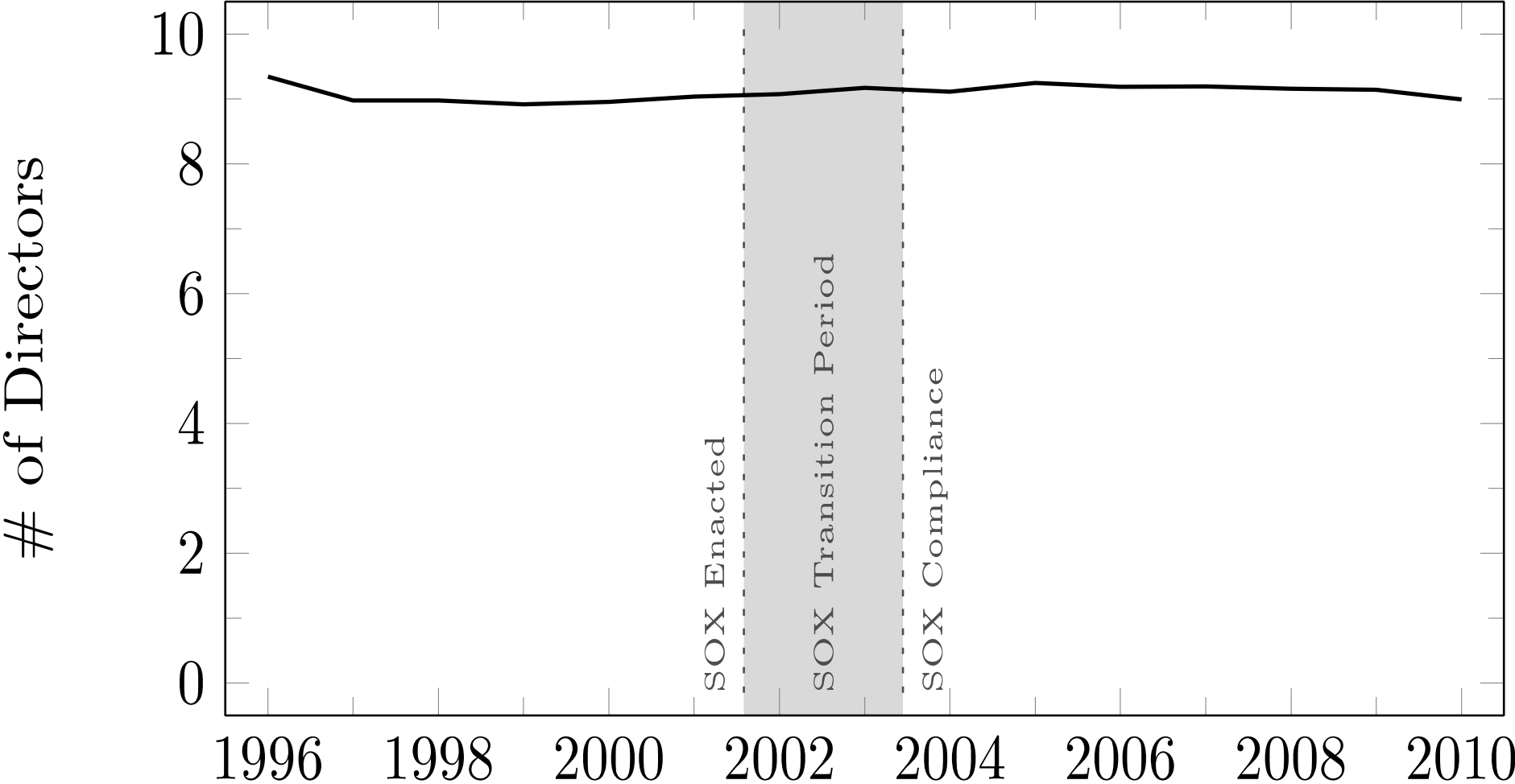
- How is board structure related to what boards actually do?
 - We don't really know. Our paper tries to construct more precise measures of board activity.
- How important is delegation (to committees)?
 - Very. We estimate almost 50% of board activity takes place in committees post-SOX.
- Is more delegation (to committees) necessarily better?
 - Our intuition-and the data-suggest not.
- Is more delegation to independent directors necessarily better?
 - Our intuition-and the data-suggest not.

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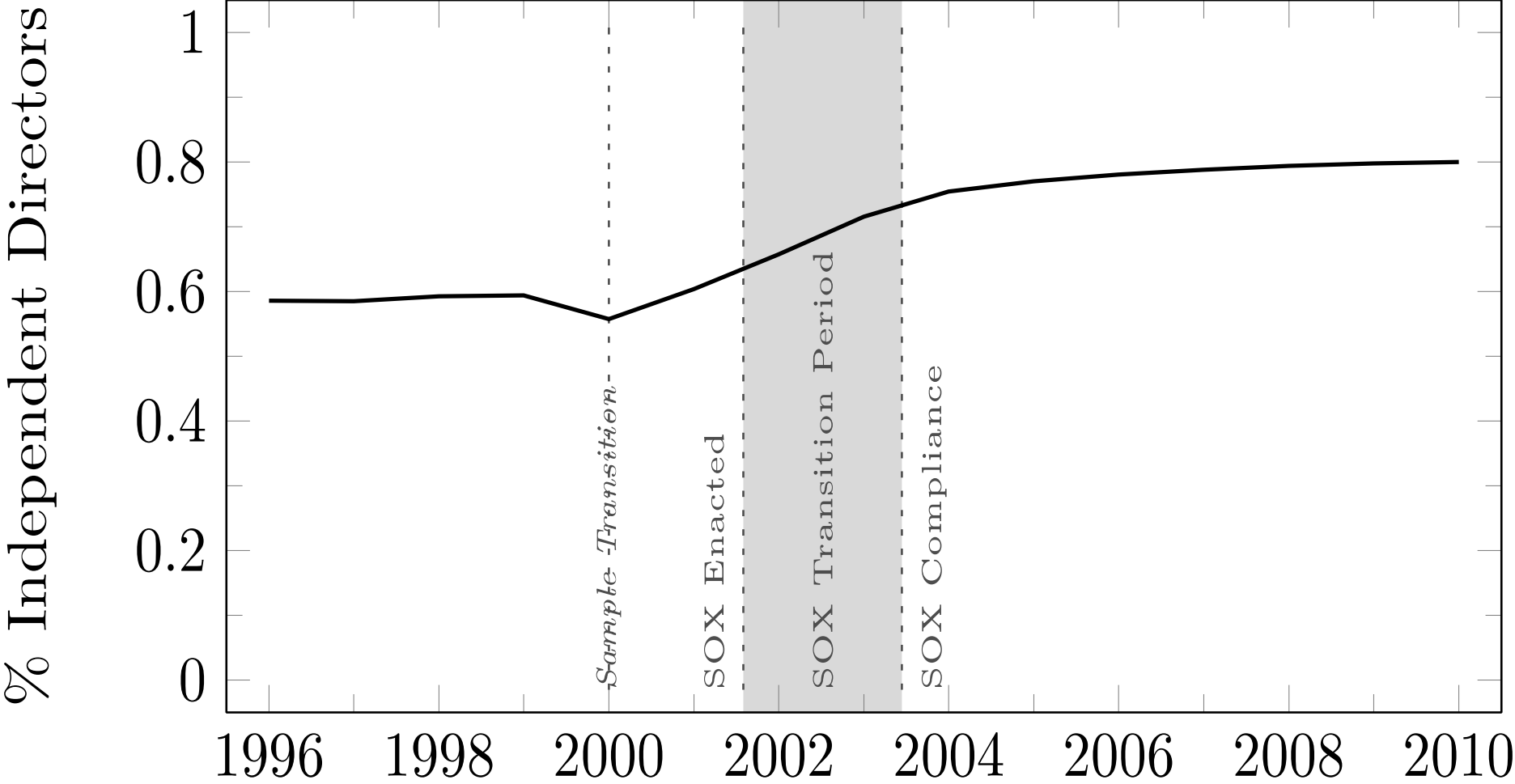
A visual history of boards 1996-2010



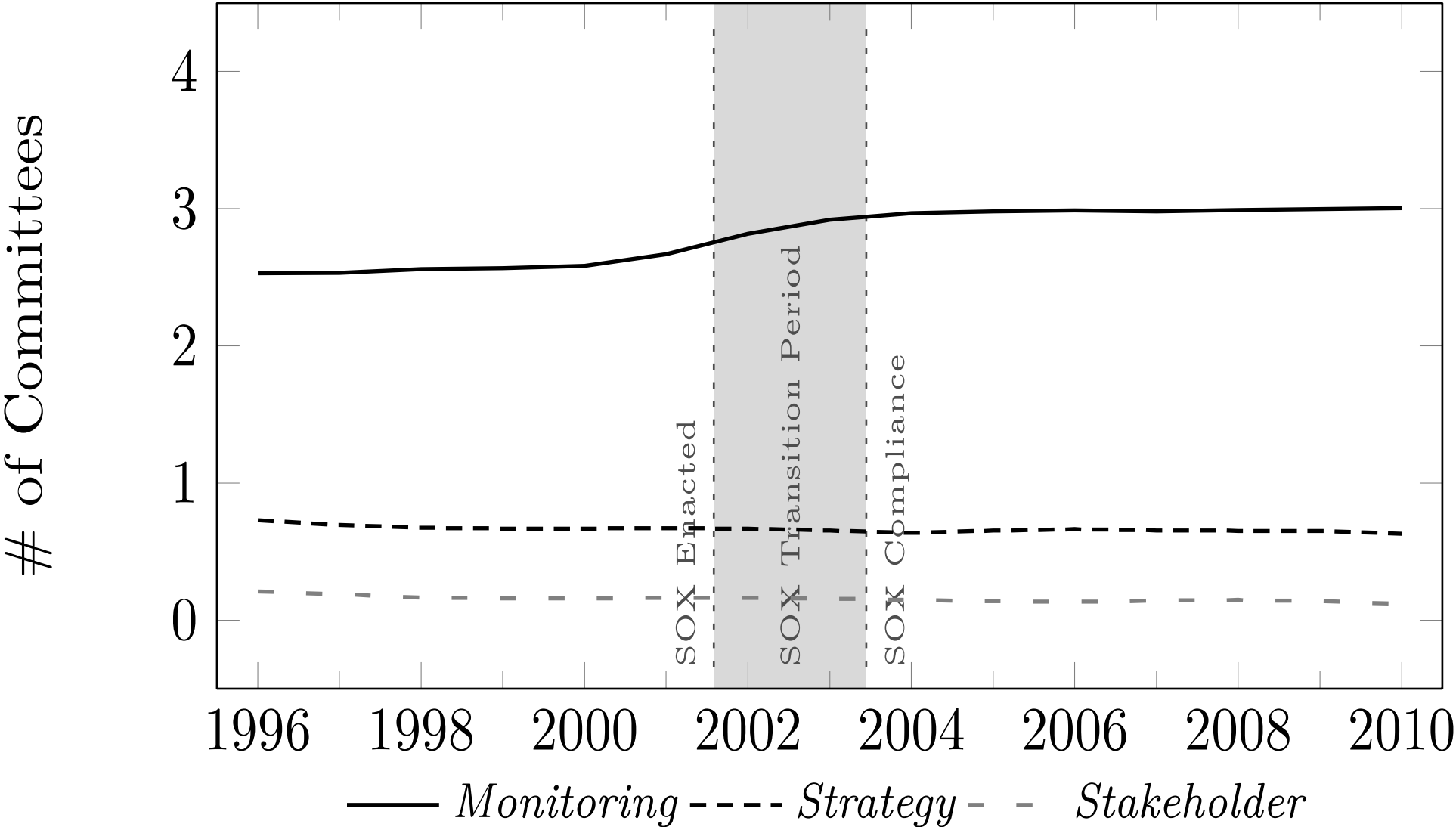
Board Size



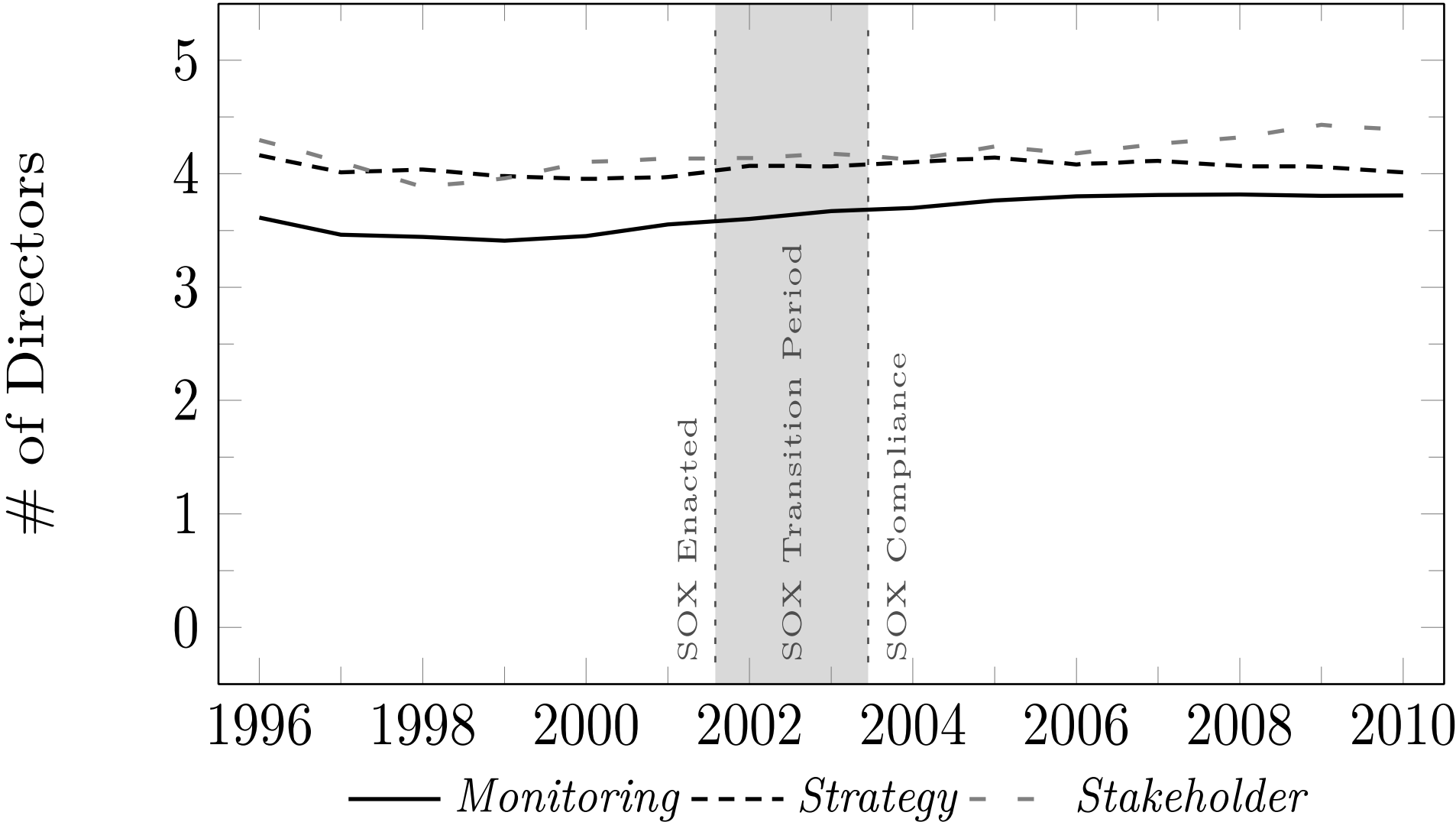
Board Independence



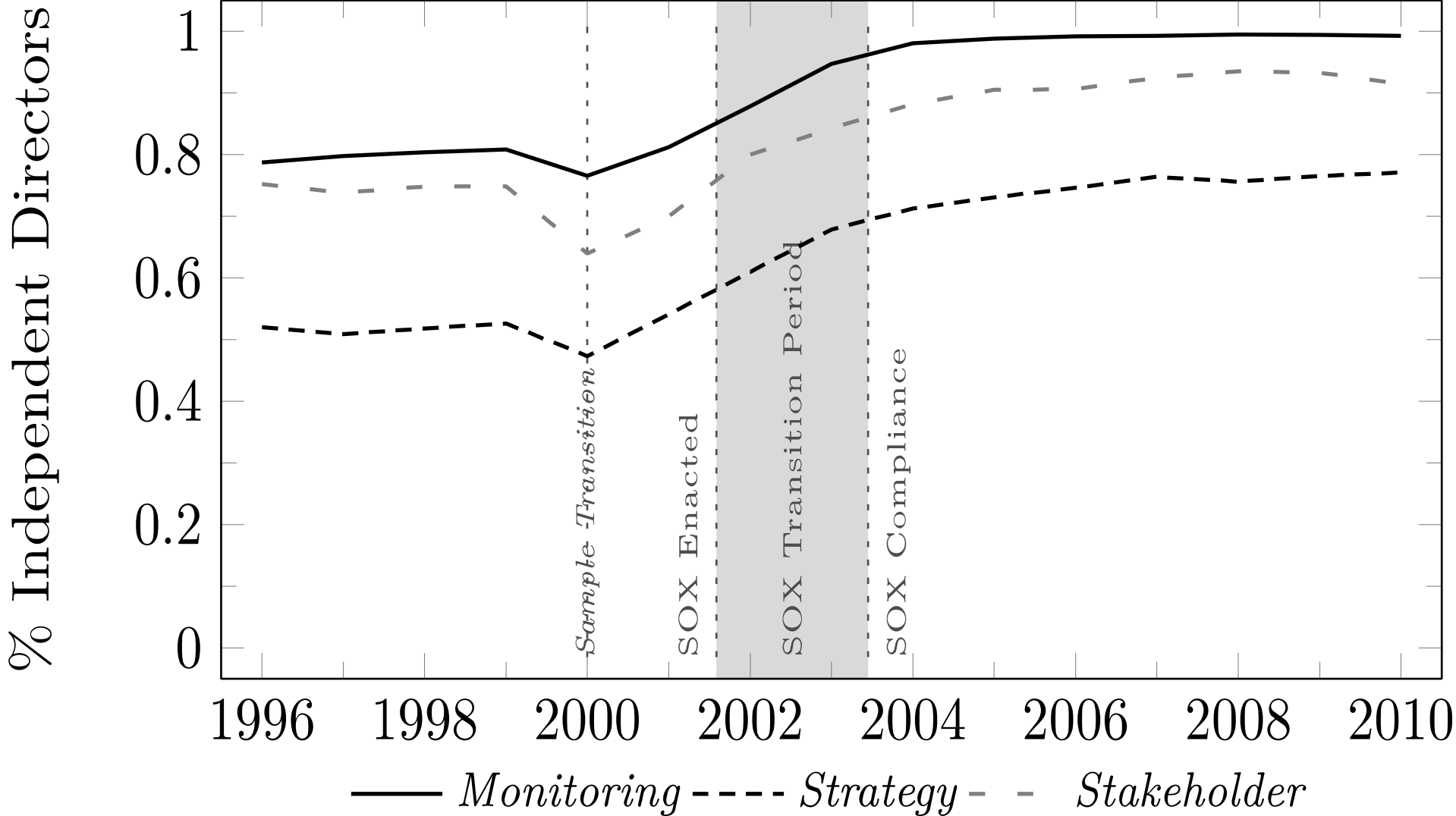
Committee Function



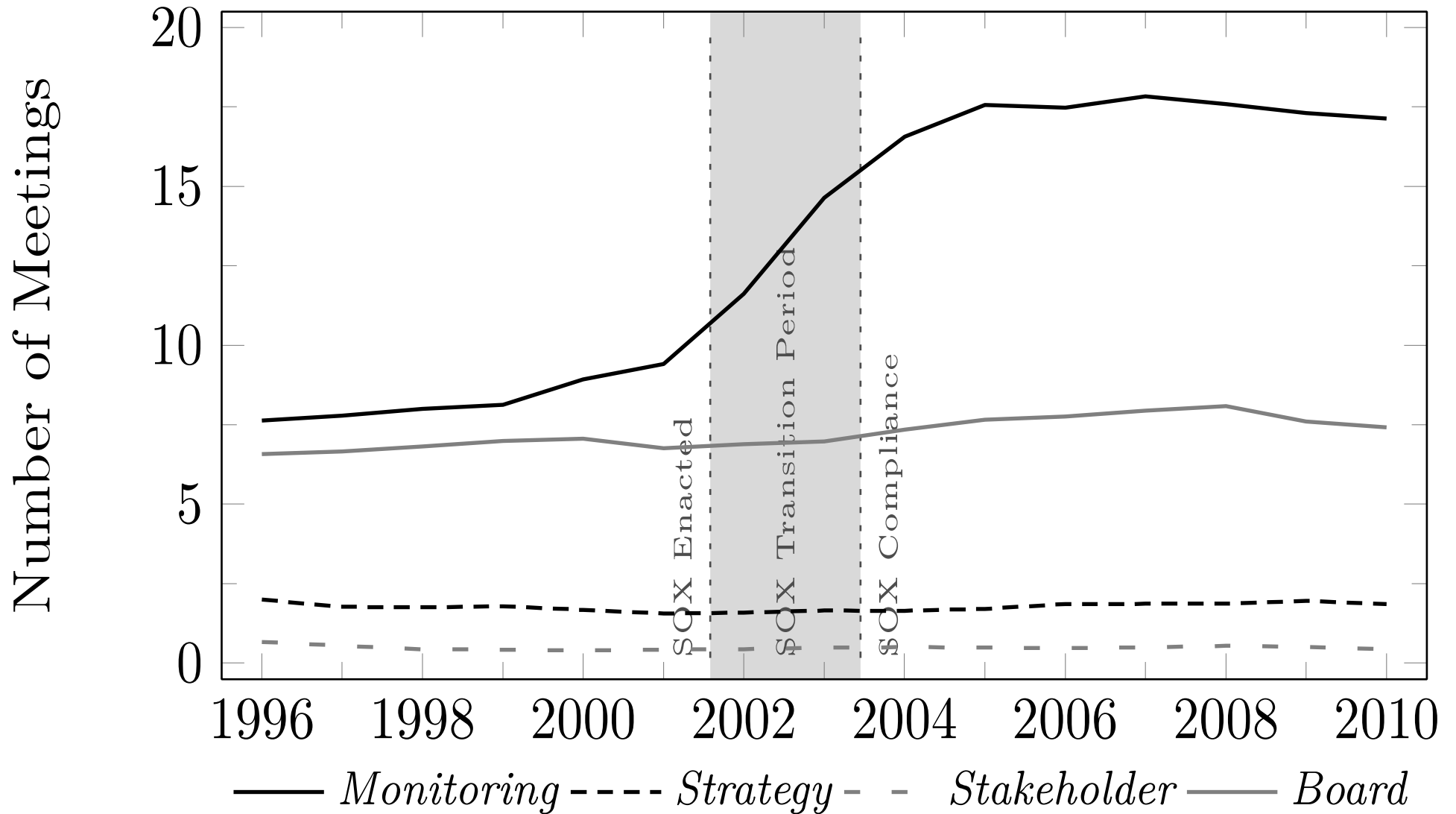
Committee Size



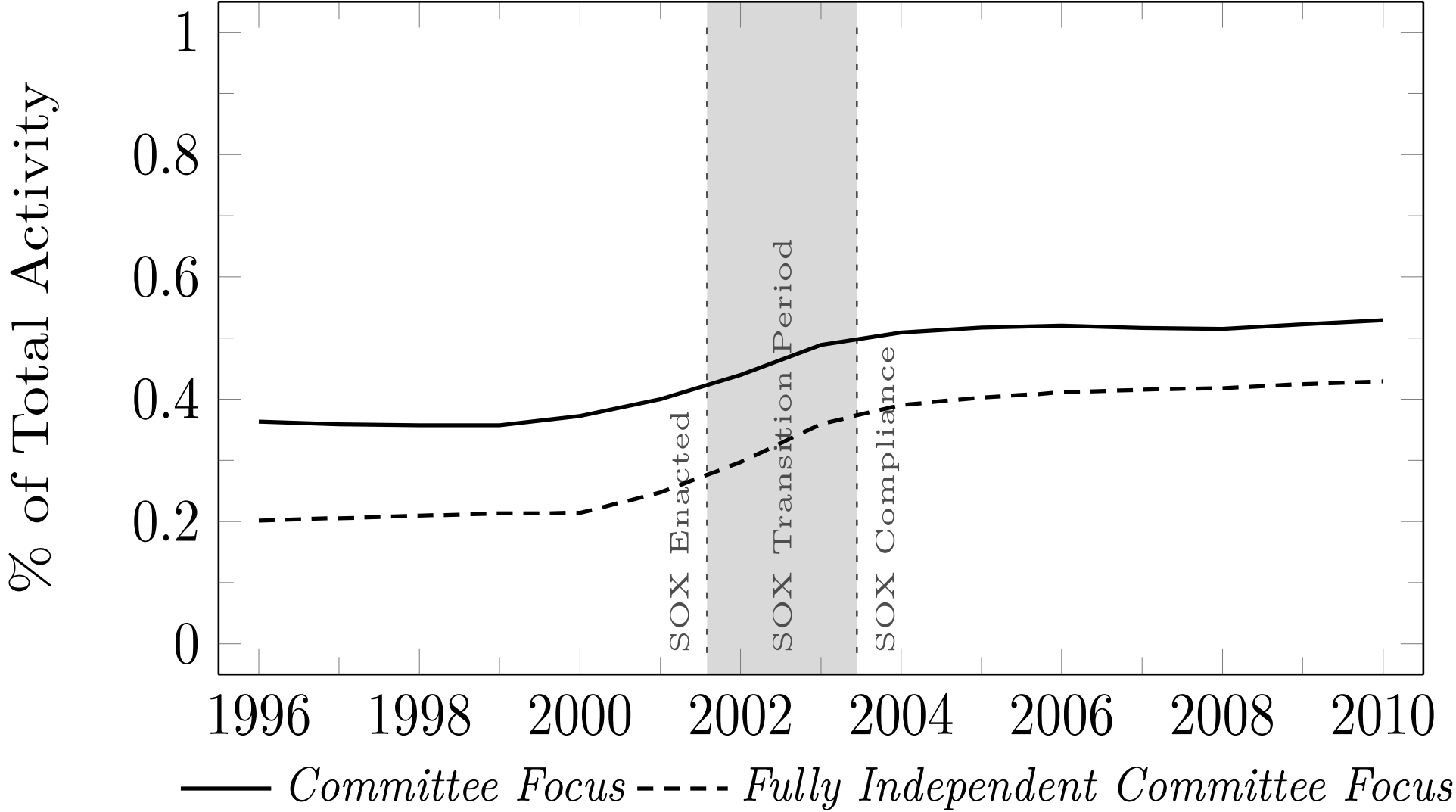
Committee Independence



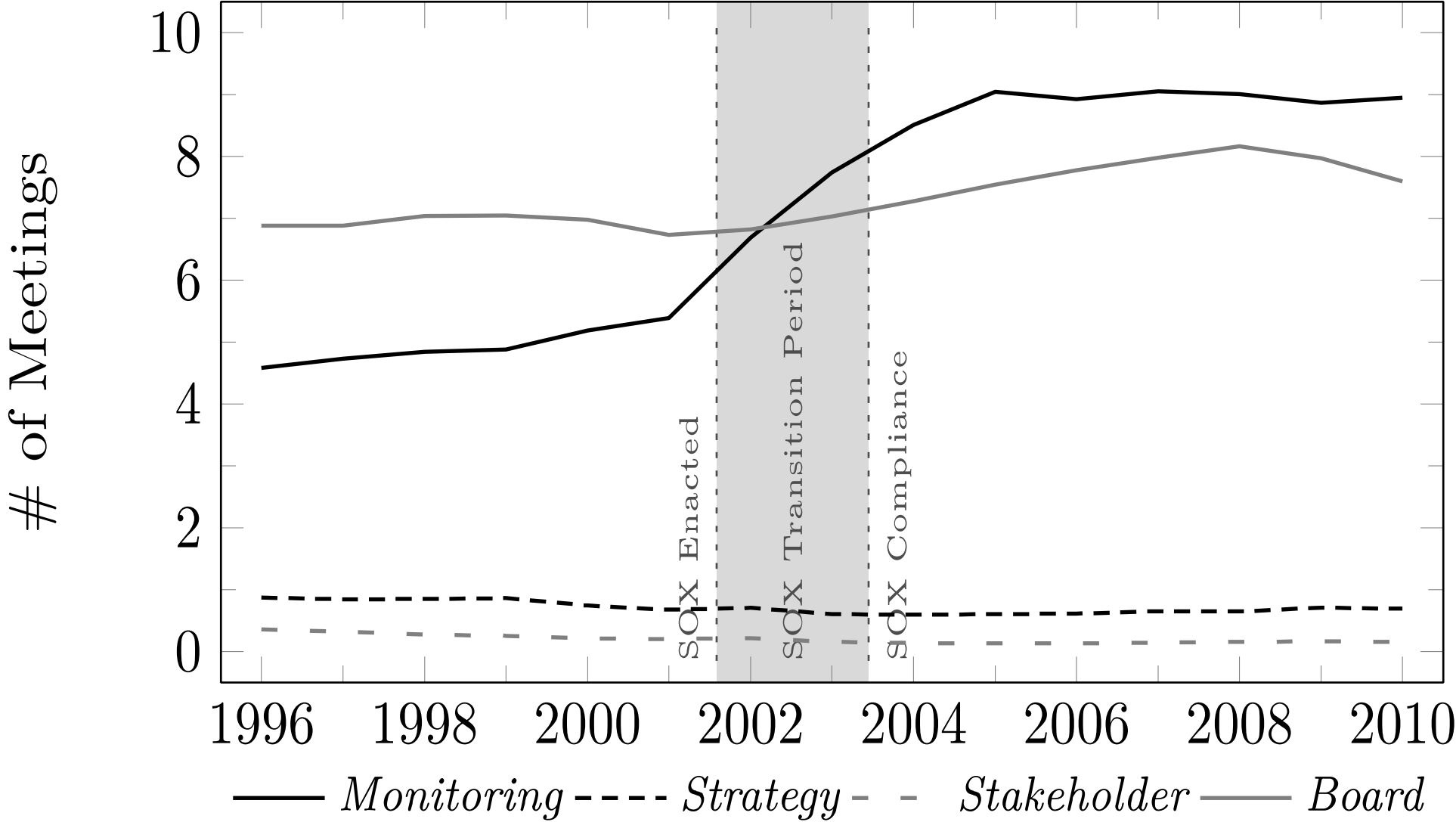
Total Annual Meetings by Function



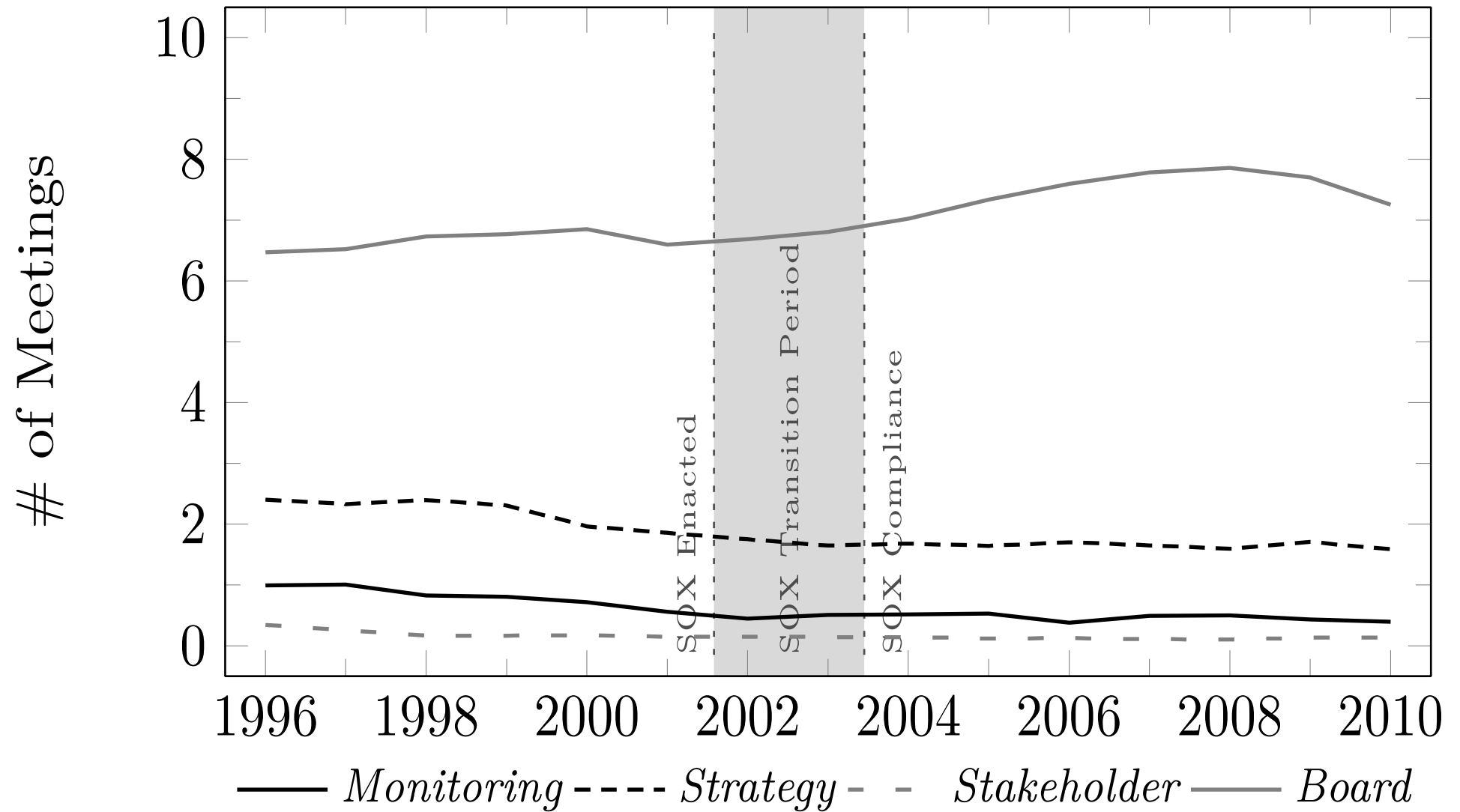
Committee Focus (Board Average)



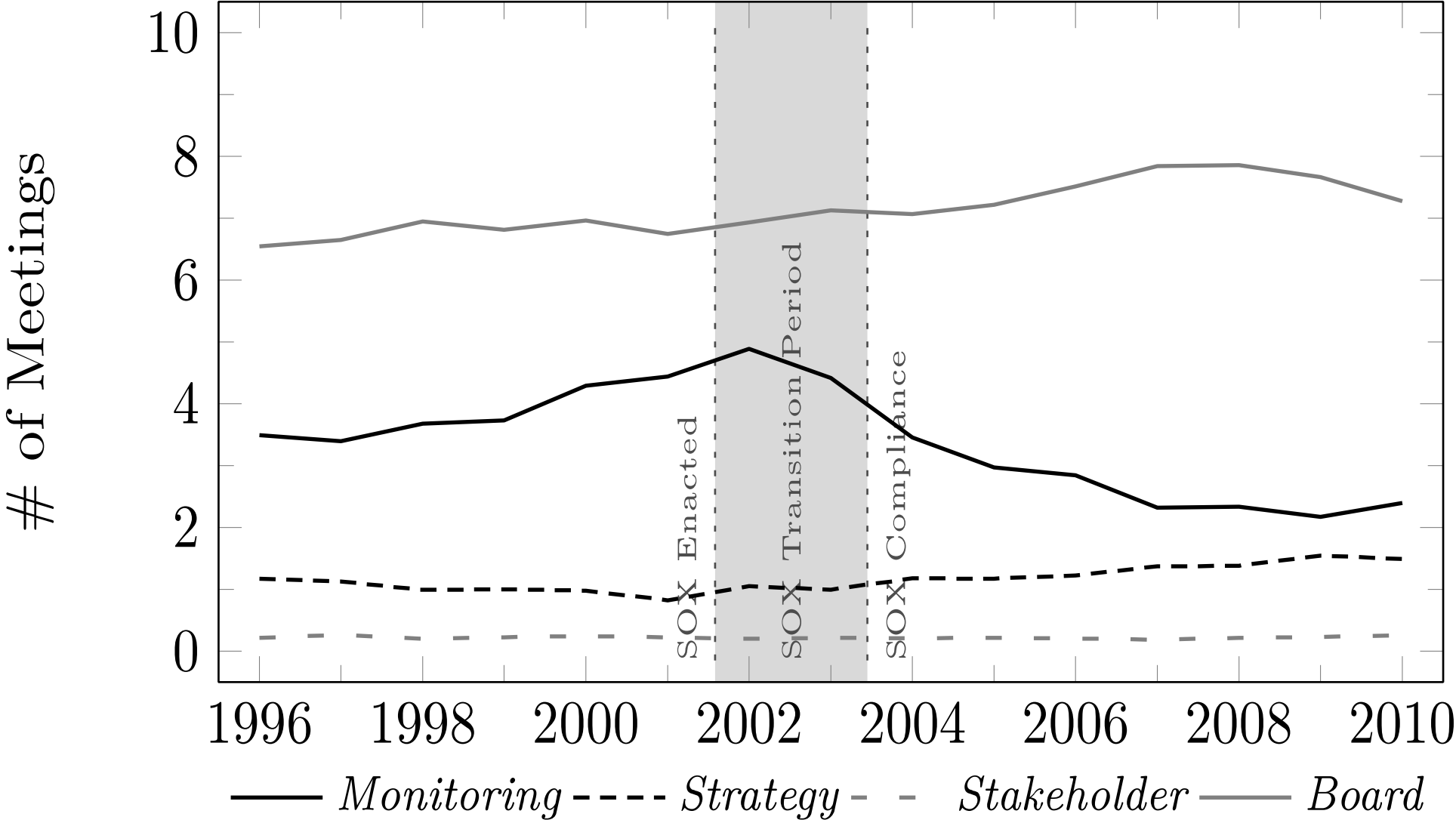
Independent Director Activity



Inside Director Activity



Affiliated Director Activity



Observations

- Boards are working harder over time
- Boards are working differently over time
 - More delegation
 - More monitoring
 - Insiders are becoming less involved
- No economically significant differences in standard board structure variables over time

Measuring board activity



Data Overview

- Board and committee-level data (BoardEx, RiskMetrics, and “hand” collected)
 - Directorial appointments
 - Committees and their composition
 - Meetings held by the board and each committee
 - 35,000 firm-year observations, 150,000 board/committee-firm-year observations
- Firm-level data
 - Financials (Compustat)
 - Stock returns (CRSP)
 - Acquisitions (SDC)
 - CEO Turnover (Execucomp)

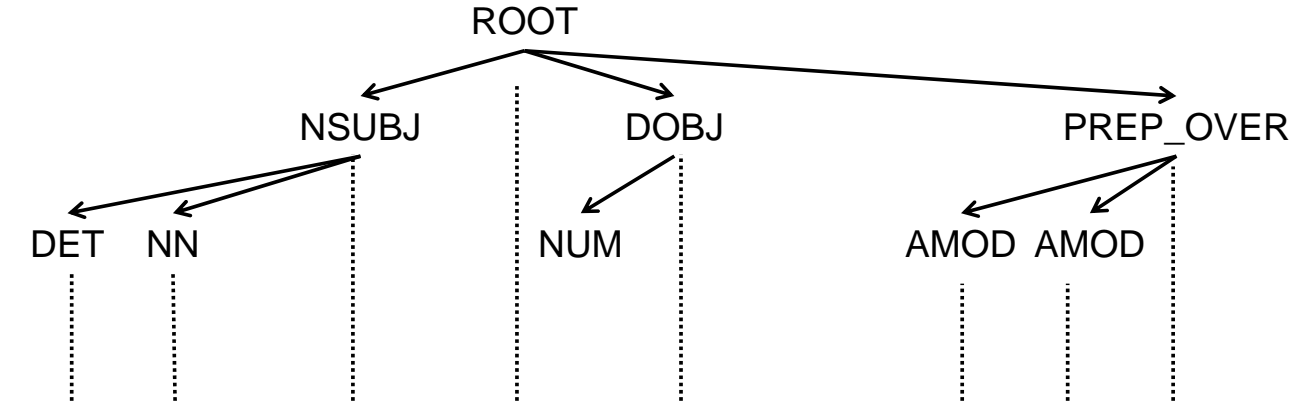
Problems with Riskmetrics

- Riskmetrics does not collect all committees (only Audit, Compensation, Governance, Nominating)
 - Sometimes makes wrong choices because committee names are not standardized in proxies
 - Example: For United Airlines, Riskmetrics reports the Outside Public Director Nomination Committee but NOT the Independent Director Nomination Committee
- Riskmetrics inflates committee numbers
 - Example: Briggs and Stratton's Nominating, Compensation and Governance committee reported as separate Nominating committee, Compensation committee and Governance committee

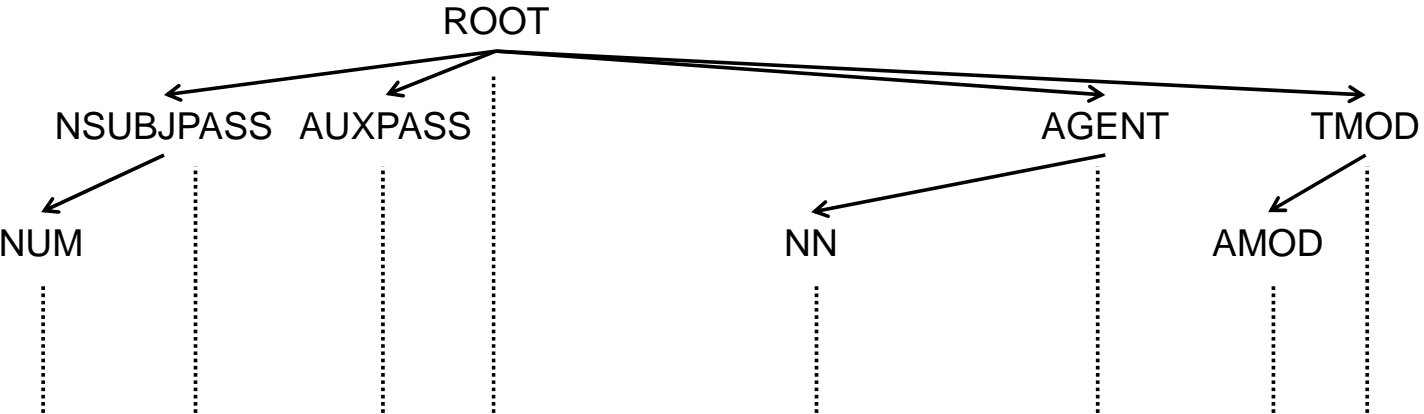
Sample

Year	Number of Observations		
	Total	BoardEx	RiskMetrics
1996	1085	0	1085 (1085)
1997	1278	0	1278 (1278)
1998	1301	0	1301 (1301)
1999	1297	51	1296 (1246)
2000	1630	1062	1362 (568)
2001	1650	1337	1158 (313)
2002	1640	1385	1115 (255)
2003	2666	2532	1113 (134)
2004	3132	3072	1113 (60)
2005	3205	3174	1090 (31)
2006	3145	3142	1032 (3)
2007	3147	3143	1045 (4)
2008	2859	2855	1028 (4)
2009	2768	2760	1090 (8)
2010	2246	2246	953 (0)
Total	33049	26759	17059 (6290)

Grammatical parsing example

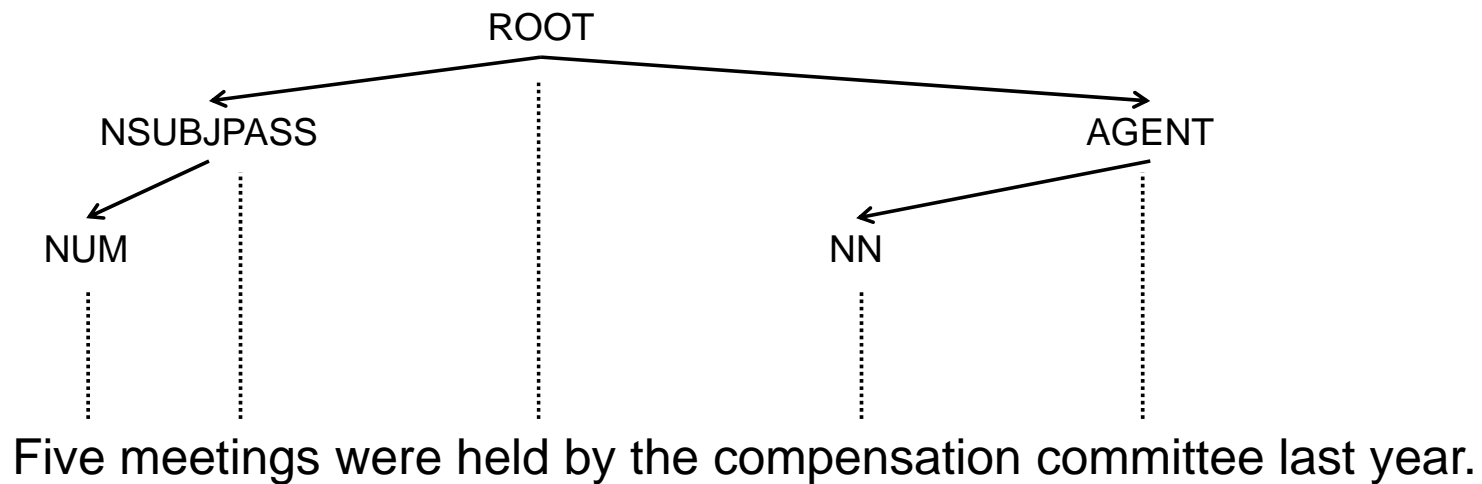
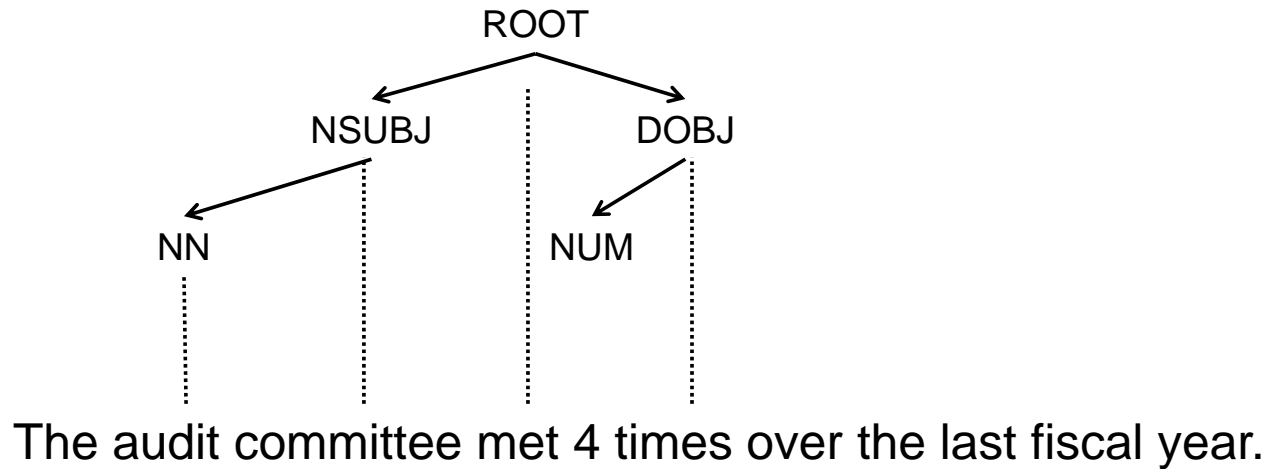


The audit committee met 4 times over the last fiscal year.



Five meetings were held by the compensation committee last year.

Grammatical parsing example



Grammar parsing example

The Audit Committee of the Board of Directors, which is currently comprised of Brenda J. Furlong, Collin J. D'Silva and Richard A. Packer, each of whom satisfy the applicable independence requirements of the SEC rules and regulations and NASDAQ Marketplace Rules, met six times during the 2008 fiscal year.

Pfizer Inc. (PFE) “Activity”

Entity	Size	# of meetings	Activity
Committee activity:			
<i>Monitoring activity:</i>			-
Audit committee	4	14	56
Compensation committee	4	15	60
Corporate Governance committee	4	8	32
Total monitoring activity			148
<i>Strategy activity:</i>			
Science & Technology committee	6	2	12
Executive committee	3	0	0
Total strategy activity			12
<i>Stakeholder activity:</i>			
N/A	-	-	-
Total stakeholder activity			0
Total committee activity			160
Board activity:			
Board of directors	14	11	154
Total activity (committee + board)			314
Fraction Committee activity (committee/total)			0.51

Board- and committee-level measures

- Activity:
 - Board activity and committee activity by type of function: monitoring, strategy, stakeholder
- Delegation:
 - Committee focus: board-level average of directors' percent activity in committees
 - Independent committee focus: board-level average of directors' percent activity in fully independent committees

Descriptive Statistics

	Full Sample		Pre-SOX		Post-SOX	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<i>Panel A: Activity (Board Total)</i>						
<i>Board</i>	60.484	32.816	61.462	33.655	60.159	32.526
<i>Commmittee</i>	50.098	33.493	37.702	29.820	54.213	33.632
<i>Total</i>	110.610	56.986	99.171	55.162	114.407	57.075
<i>Panel B: Activity (Per Director)</i>						
<i>Board</i>	7.312	3.350	6.822	2.960	7.475	3.455
<i>Commmittee</i>	5.966	3.405	4.047	2.629	6.604	3.394
<i>Total</i>	13.279	5.421	10.869	4.461	14.079	5.474
<i>Panel C: Committee Activity (Total)</i>						
Monitoring	43.910	26.918	29.173	19.453	48.801	27.267
Strategy	5.029	12.208	6.810	14.674	4.438	11.209
Stakeholder	1.159	4.590	1.720	5.520	0.973	4.220
<i>Panel D: Committee Meetings</i>						
Monitoring	12.531	6.587	8.184	4.346	13.973	6.570
Strategy	0.286	1.180	0.430	1.600	0.238	0.997
Stakeholder	1.233	2.884	1.612	3.348	1.108	2.701
<i>Panel E: Committee Focus Measures (Board Average)</i>						
<i>Committee Focus</i>	0.438	0.142	0.360	0.139	0.464	0.133
<i>Fully Independent</i>	0.315	0.131	0.208	0.109	0.350	0.118
<i>Panel F: Board Structure</i>						
<i>Log Board Size</i>	2.070	0.287	2.148	0.301	2.045	0.277
<i>Percent Independent Directors</i>	0.683	0.168	0.575	0.191	0.719	0.143

An Analysis of Delegation in Corporate Boards



SOX, Board, Committee, and Director Activity

	Total Annual Director-Meetings per Firm			Annual Meetings per Director		
	Board	Committee	Total	Board	Committee	Total
	(1)	(2)	(3)	(4)	(5)	(6)
SOX	2.344*** (3.881)	16.735*** (24.856)	19.213*** (18.888)	0.224*** (3.101)	1.858*** (24.176)	2.082*** (17.821)
Stock Return	-4.014*** (-8.461)	-1.646*** (-4.571)	-5.510*** (-8.421)	-0.482*** (-4.557)	-0.211*** (-3.765)	-0.693*** (-5.113)
Return on Assets	-0.819 (-1.586)	-0.506 (-1.436)	-1.324* (-1.842)	-0.145 (-1.628)	-0.080 (-1.299)	-0.225* (-1.771)
Log Board Size	60.106*** (40.560)	31.682*** (22.746)	91.851*** (40.244)	-0.268 (-1.408)	-1.430*** (-7.917)	-1.698*** (-5.791)
Percent Independent Directors	3.365* (1.819)	32.964*** (16.914)	36.567*** (12.454)	0.407* (1.746)	1.549*** (6.675)	1.956*** (5.560)
Book Leverage	4.078** (2.170)	-0.810 (-0.556)	3.251 (1.133)	0.698*** (3.007)	0.266 (1.344)	0.964*** (2.684)
Log Assets	5.906*** (4.315)	10.238*** (8.443)	15.965*** (7.687)	0.837*** (4.255)	1.446*** (8.793)	2.283*** (7.949)
Log Firm Age	8.673*** (7.701)	18.071*** (17.062)	26.735*** (15.436)	1.381*** (8.808)	2.539*** (17.917)	3.920*** (16.701)
Log # of Employees	-3.163** (-2.153)	0.021 (0.016)	-3.100 (-1.399)	-0.555*** (-2.664)	-0.248 (-1.444)	-0.803*** (-2.685)
Log # of Segments	-0.617* (-1.905)	-0.453 (-1.275)	-1.086** (-2.011)	-0.088** (-2.246)	-0.030 (-0.782)	-0.118* (-1.939)
R&D Indicator	1.300 (1.018)	-1.031 (-0.634)	-0.010 (-0.004)	0.094 (0.636)	-0.278 (-1.591)	-0.183 (-0.711)
R&D	1.074 (1.629)	-0.728** (-2.070)	0.263 (0.343)	0.077 (0.878)	-0.127** (-2.027)	-0.050 (-0.454)
Stock Volatility	7.226*** (6.425)	0.459 (0.992)	7.709*** (5.821)	1.003*** (6.072)	-0.004 (-0.057)	0.999*** (5.457)
N	31999	31999	31999	268023	268023	268023
R ²	0.163	0.386	0.338	0.576	0.649	0.656

SOX and Delegation

	Delegation per Firm		Delegation to Independent Directors	
	Committee Focus	Fully Independent Committee Focus	Committee Focus	Fully Independent Committee Focus
	(1)	(2)	(3)	(4)
SOX	0.073*** (24.519)	0.025*** (9.565)	0.086*** (24.564)	0.100*** (28.292)
Stock Return	0.004* (1.846)	<0.001 (-0.131)	0.005** (2.093)	0.004* (1.784)
Return on Assets	0.006*** (2.702)	0.001 (0.858)	0.005** (2.031)	0.006** (2.018)
Stock Volatility	-0.022*** (-5.703)	<0.001 (0.226)	-0.020*** (-4.982)	-0.017*** (-4.588)
Log Board Size	-0.070*** (-10.969)	-0.014*** (-3.074)	-0.067*** (-8.994)	-0.072*** (-9.529)
Percent Independent Directors	0.132*** (13.854)	0.906*** (135.733)	-0.011 (-1.068)	0.003 (0.260)
Book Leverage	-0.026*** (-3.763)	-0.010** (-2.418)	-0.022*** (-3.051)	-0.025*** (-3.403)
Log Assets	0.019*** (3.023)	-0.006 (-1.115)	0.027*** (3.946)	0.030*** (4.386)
Log Firm Age	0.087*** (16.129)	0.005 (1.364)	0.101*** (15.164)	0.104*** (14.991)
Log # of Employees	0.023*** (3.306)	0.008 (1.226)	0.020*** (2.639)	0.019** (2.497)
Log # of Segments	0.001 (0.893)	0.004*** (3.237)	0.004** (2.251)	0.006*** (3.592)
R&D Indicator	-0.005 (-0.713)	0.002 (0.363)	-0.011 (-1.484)	-0.005 (-0.671)
R&D	-0.007** (-2.151)	<0.001 (0.113)	-0.006 (-1.412)	-0.005 (-1.244)
N	31863	31778	183861	183861
R ²	0.266	0.790	0.589	0.591

Performance and activity

- We interact activity with committee focus to examine the role of delegation on firm performance

$$\text{Log } q_{i,t} = \beta_1 \text{Board Meetings}_{i,t} \times \text{Delegation}_{i,t} + \beta_2 \text{Board Meetings}_{i,t} + \beta_3 \text{Delegation}_{i,t} + \beta_4 \text{Controls}_{i,t} + c_i + u_{it}$$

- Standard errors are clustered by firm

Firm Value: Committee Focus and Board Effectiveness (OLS Specifications)

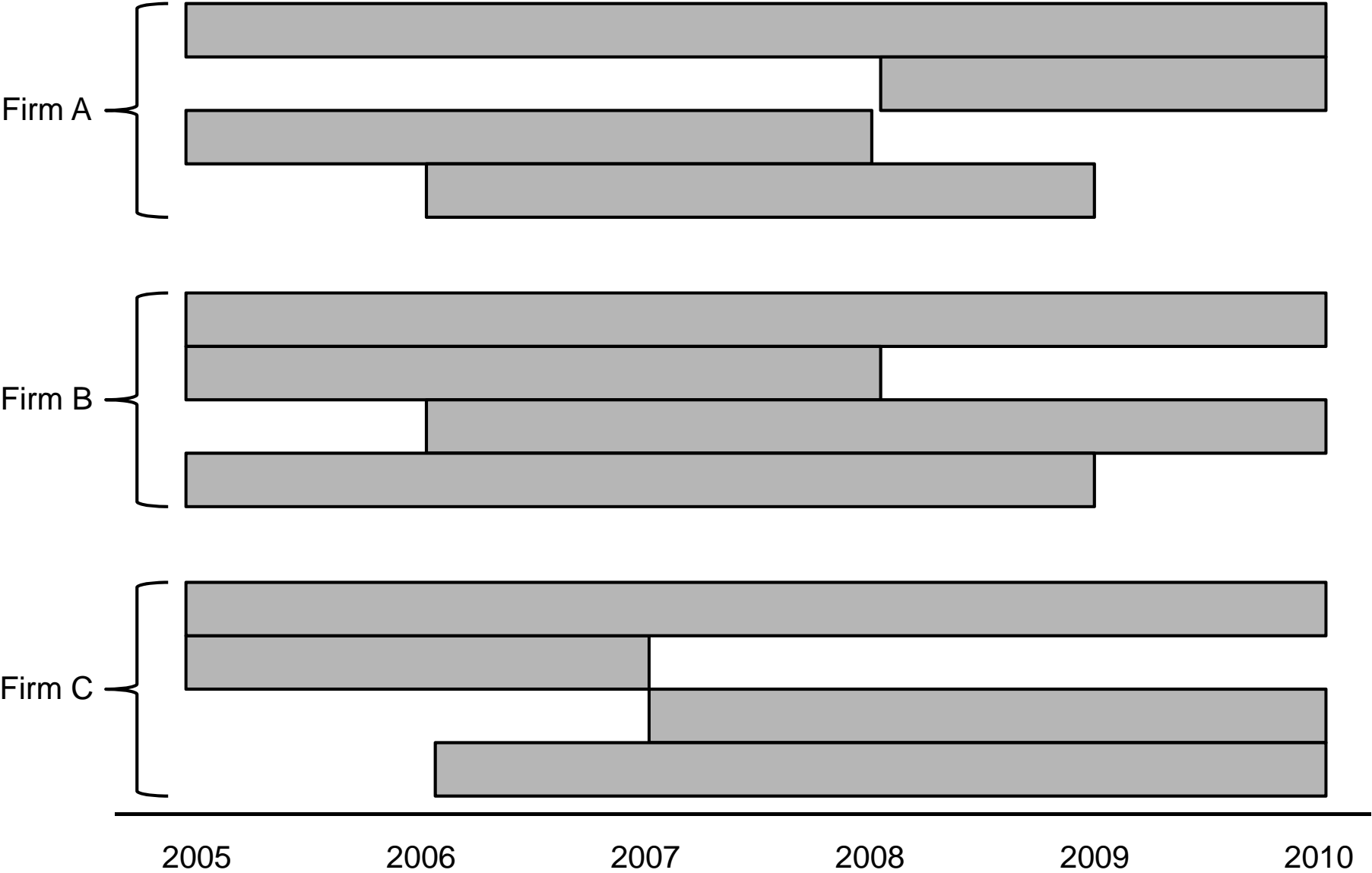
Dependent Variable: Log Tobin's q

	Committee Focus			Fully Independent Committee Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
Board Meetings × Committee Focus		-0.032*** (-4.700)	-0.029*** (-3.317)		-0.035*** (-4.170)	-0.027*** (-2.968)
Board Meetings	-0.013*** (-9.302)	-0.002 (-0.776)	-0.002 (-0.787)	-0.012*** (-9.237)	-0.003 (-1.115)	-0.003 (-1.158)
Committee Focus	-0.142*** (-4.059)	0.047 (0.896)	0.063 (0.961)	-0.148*** (-3.329)	0.064 (0.964)	0.117* (1.688)
Committee Activity			-0.001 (-0.440)			-0.005** (-2.546)
Log Board Size	-0.034 (-1.419)	-0.036 (-1.520)	-0.037 (-1.531)	-0.034 (-1.415)	-0.036 (-1.515)	-0.037 (-1.530)
Percent Independent Directors	0.097*** (2.918)	0.104*** (3.131)	0.104*** (3.134)	0.131*** (3.642)	0.144*** (3.977)	0.118*** (3.109)
Book Leverage	-0.071 (-1.494)	-0.069 (-1.453)	-0.069 (-1.449)	-0.074 (-1.554)	-0.072 (-1.511)	-0.071 (-1.497)
Log Assets	-0.433*** (-14.097)	-0.433*** (-14.111)	-0.433*** (-14.111)	-0.434*** (-14.084)	-0.434*** (-14.122)	-0.433*** (-14.069)
Log Firm Age	-0.322*** (-9.627)	-0.317*** (-9.518)	-0.318*** (-9.529)	-0.329*** (-9.926)	-0.326*** (-9.882)	-0.323*** (-9.757)
Log # of Employees	0.112*** (3.726)	0.112*** (3.751)	0.112*** (3.748)	0.110*** (3.695)	0.110*** (3.692)	0.110*** (3.684)
Log # of Segments	-0.004 (-0.532)	-0.004 (-0.558)	-0.004 (-0.558)	-0.003 (-0.446)	-0.003 (-0.513)	-0.003 (-0.511)
R&D Indicator	0.004 (0.169)	0.005 (0.197)	0.005 (0.190)	0.005 (0.213)	0.006 (0.257)	0.005 (0.212)
R&D	0.119* (1.689)	0.118* (1.693)	0.118* (1.693)	0.119* (1.698)	0.119* (1.702)	0.118* (1.698)
Return on Assets	0.121*** (3.692)	0.121*** (3.705)	0.121*** (3.702)	0.121*** (3.701)	0.121*** (3.717)	0.121*** (3.710)
Stock Volatility	-0.063*** (-3.961)	-0.065*** (-4.066)	-0.065*** (-4.066)	-0.063*** (-3.964)	-0.065*** (-4.063)	-0.065*** (-4.058)
N	31863	31863	31863	31999	31999	31999
R ²	0.728	0.729	0.729	0.728	0.729	0.729

Performance and activity

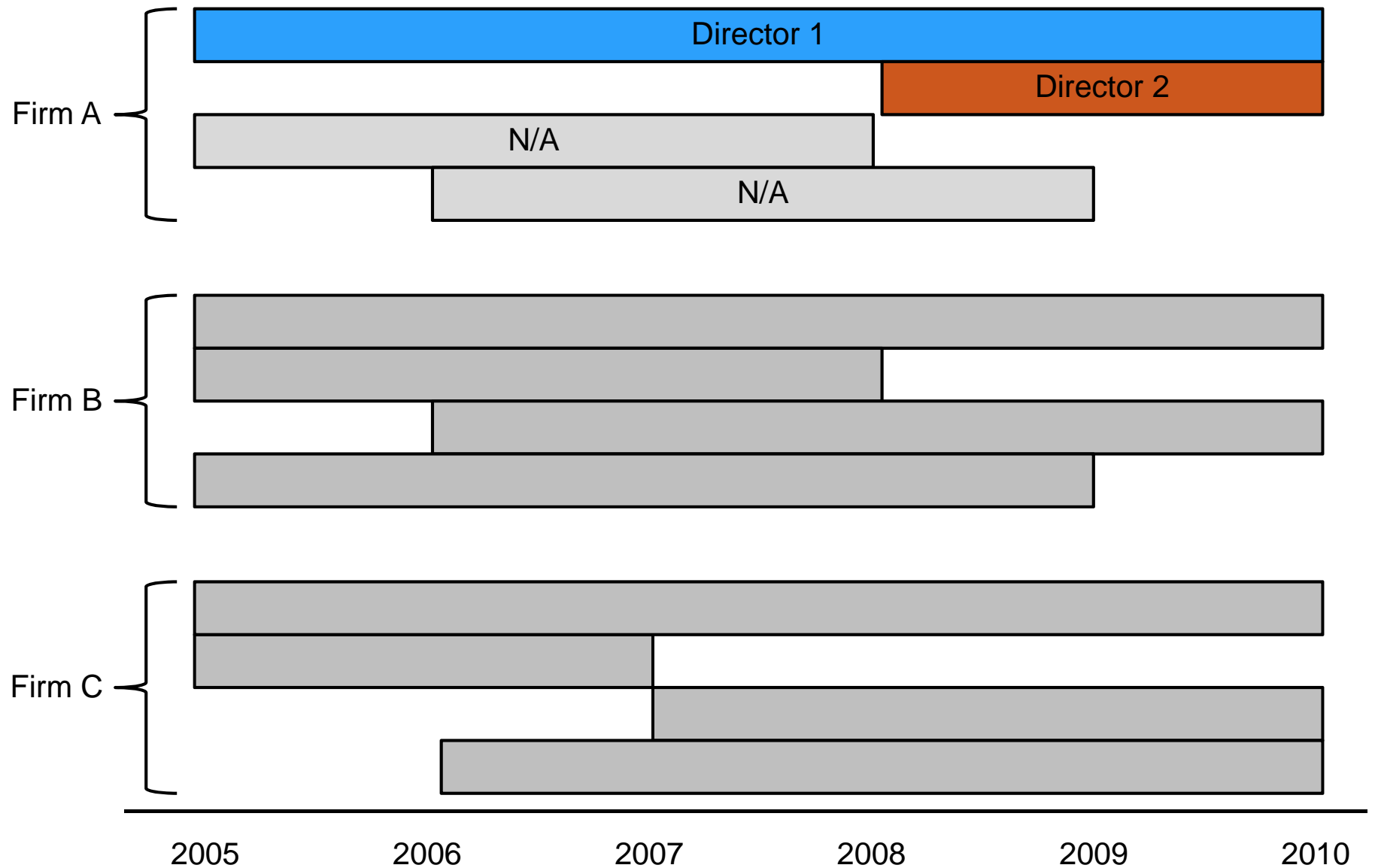
- Clear endogeneity problems
 - Firm performance and board activity are determined simultaneously
- Instrumental variables approach
 - We instrument activity using directors' past activity history at other firms in the sample
 - Reduces sample to 87% of full observations
 - Plausibly correlated with board activity
 - Plausibly satisfies exclusion restriction after controlling for firm fixed effects and other controls

Instrument Construction



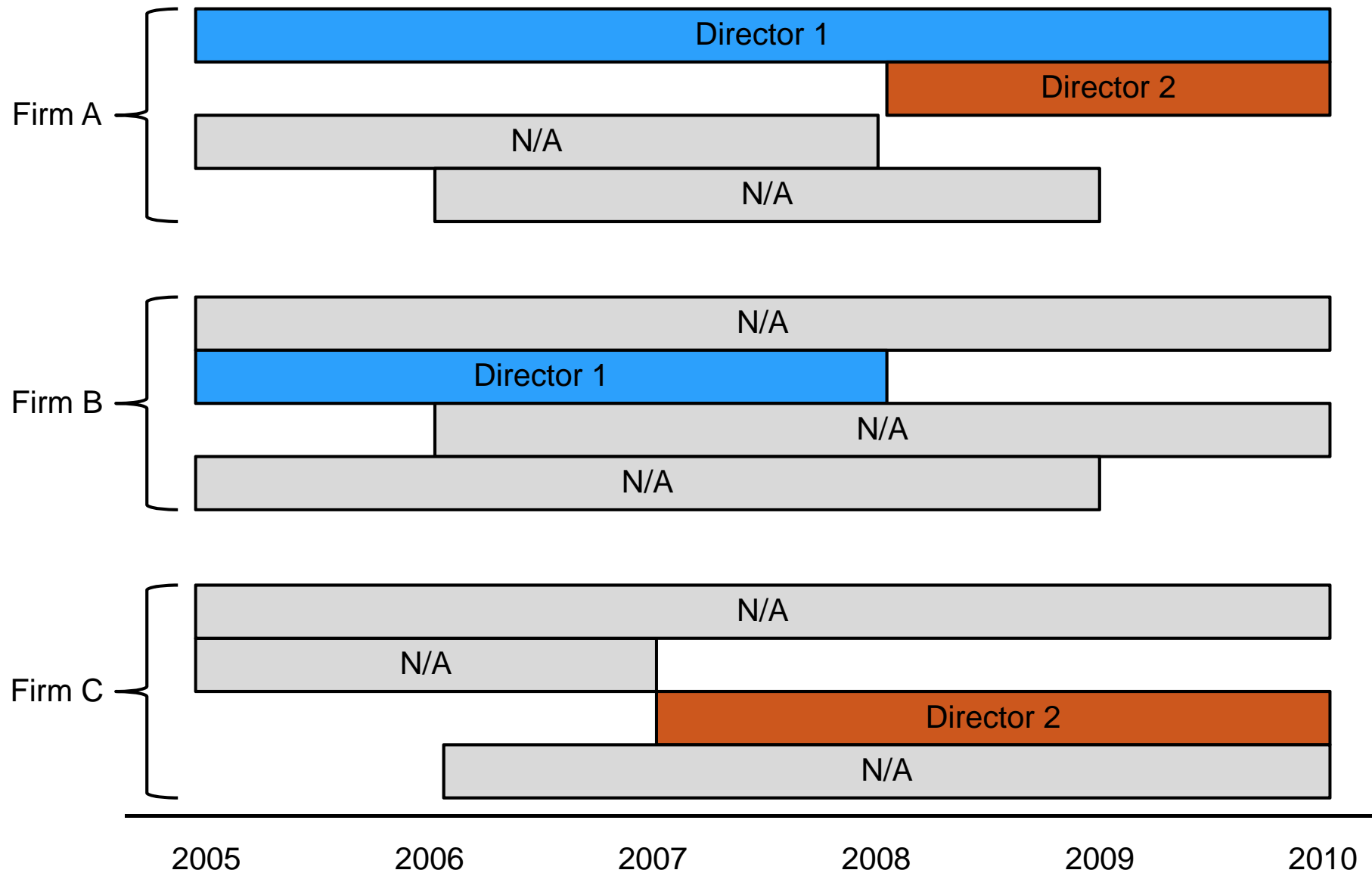
Each horizontal bar represents a director of firm.

Instrument Construction



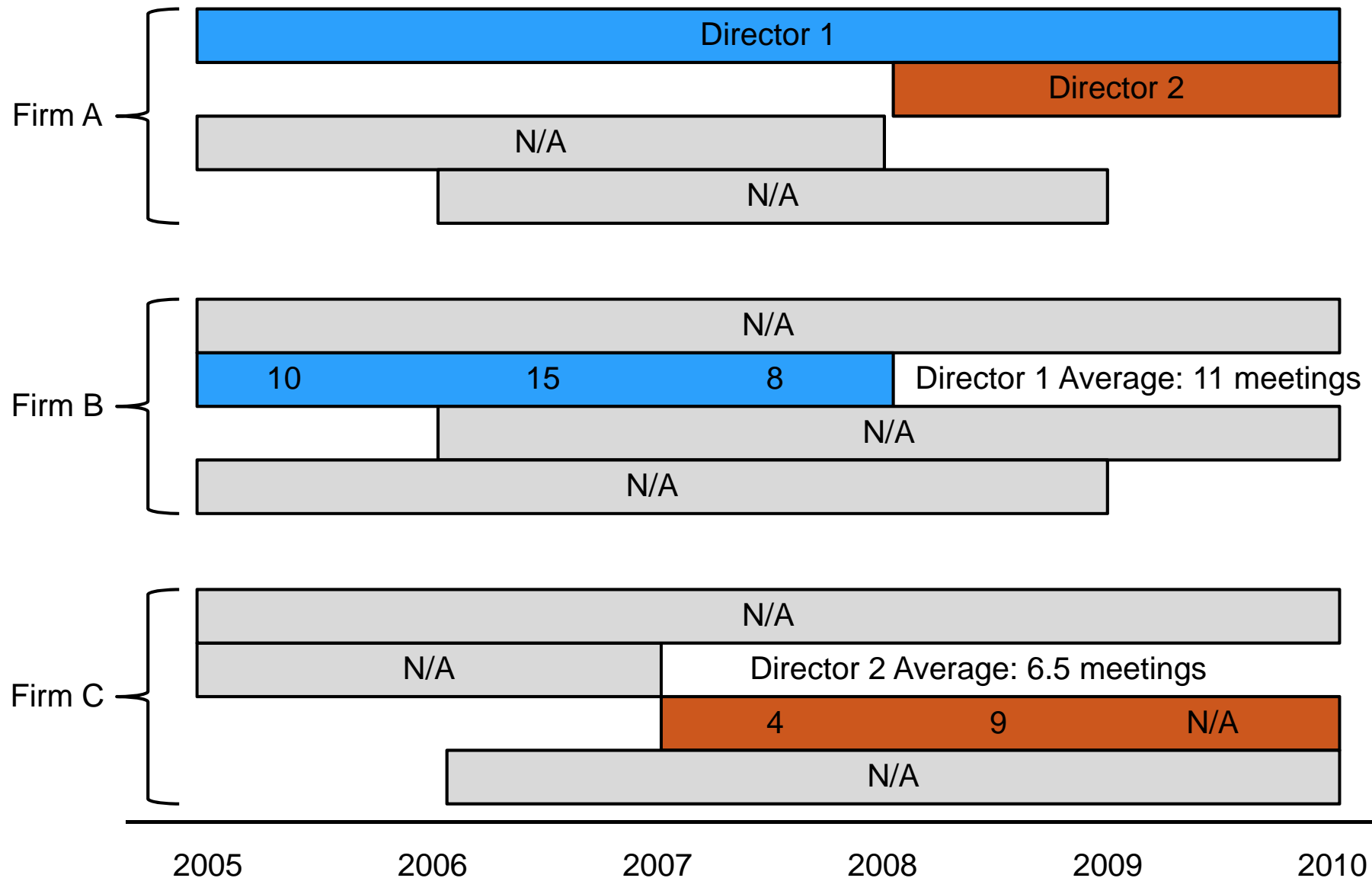
Instrumentation of Firm A activity in 2010:
First, identify directors of that firm in the fiscal year.

Instrument Construction



Instrumentation of Firm A activity in 2010:
Identify the board experience outside firm A for these directors.

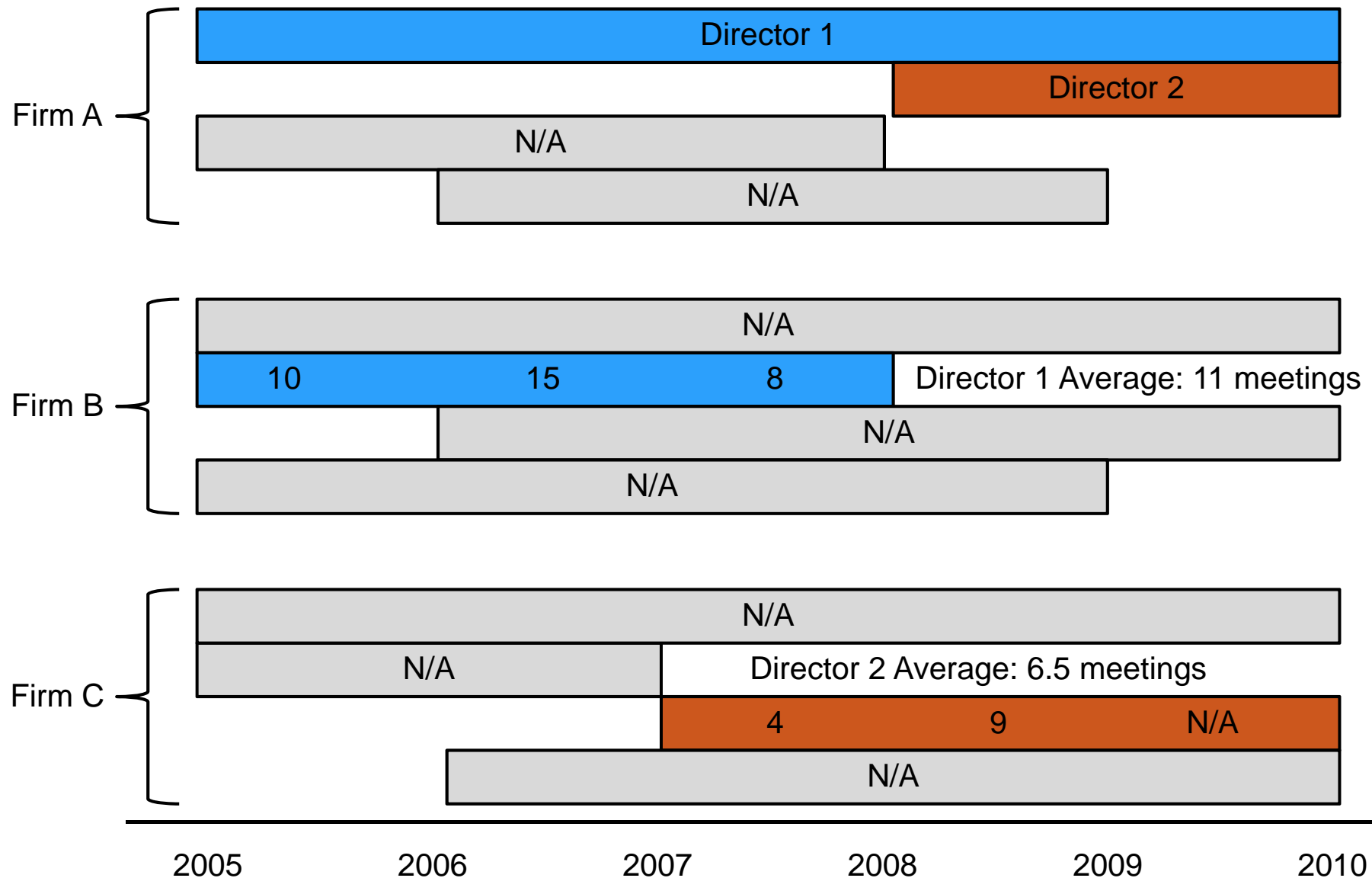
Instrument Construction



Instrumentation of Firm A activity in 2010:

For each director with outside board experience, compute the average prior other board activity.

Instrument Construction



Instrumentation of Firm A activity in 2010:
 The instrument is the average of the directors average prior other board experience.
 For firm A in 2010, this is 8.75 meetings per year.

Firm Value: Committee Focus and Board Effectiveness (IV Specifications)

Dependent Variable: Log Tobin's q

	Committee Focus			Fully Independent Committee Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
Board Meetings × Committee Focus		-0.647** (-2.210)	0.412 (0.175)		-0.631*** (-2.654)	0.352 (0.233)
Board Meetings	-0.105* (-1.780)	0.129** (2.412)	-0.031 (-0.086)	-0.116* (-1.709)	0.085* (1.952)	0.017 (0.138)
Committee Focus	-1.555* (-1.745)	2.534** (2.474)	3.164 (1.423)	-2.158* (-1.679)	2.351** (2.463)	4.009 (1.194)
Committee Activity			-0.310 (-0.419)			-0.289 (-0.585)
Log Board Size	-0.150** (-1.971)	-0.176* (-1.760)	-0.189 (-1.558)	-0.210* (-1.859)	-0.190* (-1.681)	-0.075 (-0.457)
Percent Independent Directors	0.239** (2.376)	0.336** (2.135)	0.224 (1.072)	0.852* (1.839)	0.828* (1.717)	-1.496 (-0.412)
Book Leverage	-0.041 (-0.862)	0.005 (0.101)	-0.010 (-0.179)	-0.047 (-0.975)	-0.006 (-0.119)	<0.001 (-0.001)
Log Assets	-0.415*** (-8.788)	-0.436*** (-9.058)	-0.405*** (-3.922)	-0.420*** (-8.956)	-0.450*** (-10.469)	-0.380*** (-2.605)
Log Firm Age	-0.112 (-0.885)	-0.059 (-0.350)	-0.326 (-0.599)	-0.155 (-1.443)	-0.172 (-1.575)	-0.096 (-0.406)

(Continued)

Delegation and Board Behavior



Delegation and Board Behavior

- If delegation reduces board effectiveness in general, then we should observe the effects of delegation around specific board decisions
 - Acquisitions
 - CEO turnover
- Effects should be seen in board activity and market returns

Acquisitions: Delegation and Board Meetings

Dependent Variable: Board Meetings

	Committee Focus			Fully Independent Committee Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
Acquisition		-0.750**	-1.043***		-1.142***	-1.389***
× Committee Focus		(-2.097)	(-3.173)		(-3.228)	(-4.077)
Acquisition	0.396***	0.718***	0.572***	0.489***	0.841***	0.794***
	(9.743)	(4.156)	(3.706)	(11.449)	(6.424)	(6.212)
Committee Focus	-14.649***	-14.541***	-26.001***	-17.276***	-17.133***	-25.623***
	(-61.704)	(-60.476)	(-94.331)	(-48.739)	(-48.313)	(-59.284)
Committee Activity			0.904***			0.595***
			(73.238)			(38.395)
Stock Return	-0.422***	-0.422***	-0.193***	-0.427***	-0.427***	-0.287***
	(-8.101)	(-8.101)	(-5.508)	(-7.592)	(-7.591)	(-5.986)
Return on Assets	-0.026	-0.026	0.064	-0.037	-0.038	0.015
	(-0.337)	(-0.342)	(1.164)	(-0.493)	(-0.497)	(0.241)
Log Board Size	-1.185***	-1.186***	-0.275***	-1.456***	-1.457***	-0.997***
	(-8.146)	(-8.151)	(-2.658)	(-9.665)	(-9.676)	(-7.532)
Percent Independent Directors	1.550***	1.551***	0.377**	6.104***	6.114***	7.541***
	(7.478)	(7.480)	(2.530)	(25.067)	(25.111)	(32.170)
Book Leverage	0.118	0.120	-0.168	0.101	0.104	-0.082
	(0.618)	(0.629)	(-1.571)	(0.505)	(0.521)	(-0.534)
Log Assets	0.516***	0.516***	0.199*	0.393**	0.398**	0.125
	(3.217)	(3.216)	(1.819)	(2.481)	(2.509)	(0.923)
Log Firm Age	2.012***	2.020***	1.160***	1.501***	1.508***	0.649***
	(11.437)	(11.498)	(9.088)	(8.533)	(8.587)	(4.293)
Log # of Employees	0.159	0.161	0.109	0.170	0.173	0.145
	(0.987)	(0.999)	(1.023)	(1.106)	(1.122)	(1.083)
Log # of Segments	-0.033	-0.031	-0.004	-0.034	-0.031	-0.011
	(-0.820)	(-0.779)	(-0.140)	(-0.814)	(-0.745)	(-0.277)
R&D Indicator	0.009	0.004	0.084	0.055	0.051	0.145
	(0.058)	(0.029)	(0.842)	(0.388)	(0.362)	(1.234)
R&D	<0.001	-0.002	0.036	0.033	0.031	0.080
	(0.003)	(-0.035)	(0.710)	(0.460)	(0.425)	(1.325)
Stock Volatility	0.909***	0.908***	0.540***	0.998***	0.996***	0.798***
	(5.469)	(5.468)	(5.321)	(5.447)	(5.447)	(5.321)
N	31863	31863	31863	31999	31999	31999
R ²	0.679	0.679	0.842	0.644	0.644	0.730

Acquisitions: Delegation and Positive CARs

Dependent Variable: Positive CAR dummy

	Committee Focus		Fully Independent Committee Focus	
	(1)	(2)	(3)	(4)
Committee Focus	-0.018*** (-2.696)	-0.018*** (-2.653)	-0.018* (-1.815)	-0.017* (-1.752)
Return on Assets	0.016* (1.950)	0.015* (1.899)	0.016* (1.946)	0.015* (1.894)
Log Board Size	-0.003 (-0.802)	-0.003 (-0.784)	-0.004 (-0.860)	-0.004 (-0.821)
Percent Independent Directors	-0.007 (-1.164)	-0.008 (-1.294)	-0.002 (-0.309)	-0.003 (-0.443)
Book Leverage	0.020*** (3.780)	0.020*** (3.638)	0.019*** (3.728)	0.020*** (3.596)
Log Assets	-0.009*** (-4.140)	-0.008*** (-2.907)	-0.009*** (-4.156)	-0.008*** (-2.860)
Log Firm Age	0.001 (0.748)	0.001 (0.828)	0.001 (0.703)	0.001 (0.766)
Log # of Employees	0.003 (1.205)	0.002 (0.522)	0.002 (1.113)	0.001 (0.392)
Log # of Segments	0.002** (2.314)	0.002** (2.040)	0.002** (2.248)	0.002** (1.988)
R&D Indicator	<0.001 (0.207)	0.001 (0.386)	<0.001 (0.242)	0.001 (0.331)
R&D	-0.025*** (-3.292)	-0.023*** (-3.100)	-0.025*** (-3.266)	-0.023*** (-3.087)
Stock Volatility	0.012 (0.998)	0.012 (0.978)	0.013 (1.080)	0.013 (1.071)
Industry Fixed Effects	-	Yes	-	Yes
N	9770	9770	9813	9813
R ²	0.020	0.024	0.020	0.023

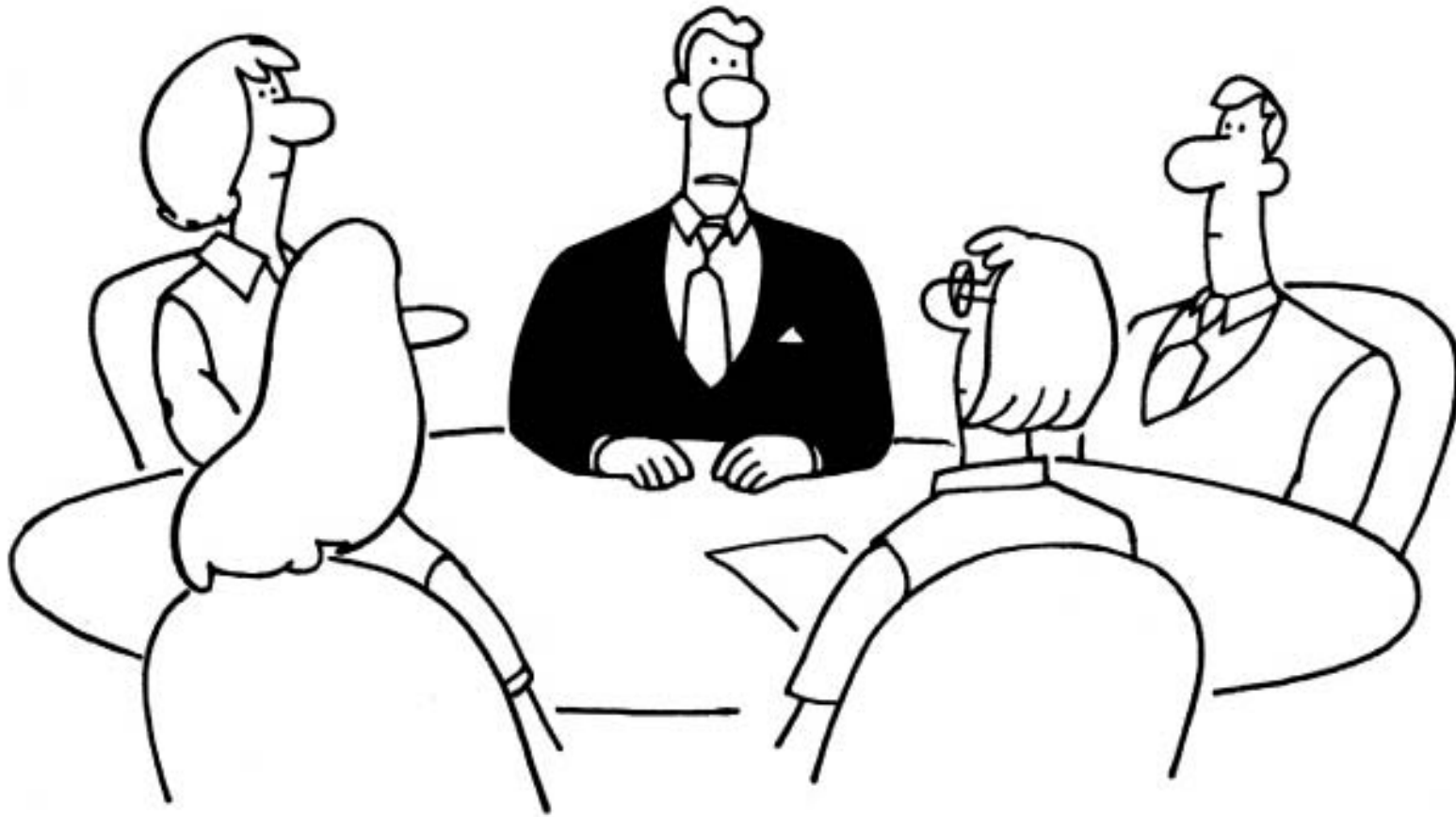
CEO Turnover: Delegation and Board Meetings

Dependent Variable: Board meetings

	Committee Focus			Fully Independent Committee Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
CEO Turnover		-1.218**	-2.308***		-1.053**	-1.878***
× Committee Focus		(-2.455)	(-5.199)		(-2.099)	(-3.864)
CEO Turnover	0.508***	1.041***	1.277***	0.558***	0.884***	1.009***
	(8.749)	(4.214)	(5.906)	(9.120)	(4.749)	(5.521)
Committee Focus	-14.709***	-14.624***	-26.012***	-17.363***	-17.297***	-25.761***
	(-62.125)	(-61.940)	(-95.144)	(-49.029)	(-49.056)	(-59.731)
Committee Activity			0.905***			0.596***
			(73.676)			(38.664)
Stock Return	-0.404***	-0.405***	-0.184***	-0.408***	-0.408***	-0.272***
	(-7.767)	(-7.785)	(-5.295)	(-7.228)	(-7.235)	(-5.662)
Return on Assets	-0.010	-0.009	0.075	-0.020	-0.019	0.031
	(-0.140)	(-0.117)	(1.357)	(-0.267)	(-0.254)	(0.494)
Log Board Size	-1.199***	-1.193***	-0.269***	-1.472***	-1.465***	-0.996***
	(-8.274)	(-8.231)	(-2.613)	(-9.796)	(-9.763)	(-7.535)
Percent Independent Directors	1.602***	1.599***	0.394***	6.185***	6.187***	7.596***
	(7.756)	(7.740)	(2.651)	(25.446)	(25.459)	(32.387)
Book Leverage	0.137	0.137	-0.165	0.125	0.126	-0.067
	(0.717)	(0.717)	(-1.546)	(0.622)	(0.627)	(-0.433)
Log Assets	0.582***	0.583***	0.221**	0.476***	0.474***	0.178
	(3.665)	(3.669)	(2.033)	(3.026)	(3.016)	(1.317)
Log Firm Age	1.969***	1.961***	1.114***	1.449***	1.439***	0.580***
	(11.199)	(11.156)	(8.748)	(8.227)	(8.165)	(3.831)
Log # of Employees	0.153	0.149	0.095	0.163	0.162	0.135
	(0.955)	(0.931)	(0.891)	(1.066)	(1.060)	(1.004)
Log # of Segments	-0.036	-0.036	-0.008	-0.037	-0.038	-0.018
	(-0.900)	(-0.903)	(-0.274)	(-0.909)	(-0.914)	(-0.448)
R&D Indicator	0.022	0.023	0.096	0.071	0.072	0.163
	(0.153)	(0.154)	(0.968)	(0.508)	(0.512)	(1.391)
R&D	0.013	0.015	0.047	0.049	0.050	0.097
	(0.218)	(0.244)	(0.881)	(0.710)	(0.726)	(1.586)
Stock Volatility	0.892***	0.893***	0.537***	0.977***	0.978***	0.785***
	(5.462)	(5.463)	(5.323)	(5.439)	(5.439)	(5.312)
N	31863	31863	31863	31999	31999	31999
R ²	0.679	0.679	0.843	0.644	0.644	0.730

Closing thoughts

Conclusion



“Whew! That was close!
We almost decided something!”

Closing thoughts

- We don't know as much as we would like about boards and the relationships among board structure, activity, and effectiveness
- The measures of board activity we develop suggest that there may be no easy solution to supposed governance failures
 - Changing board structures may alter board activity and effectiveness
 - These changes may not be value enhancing