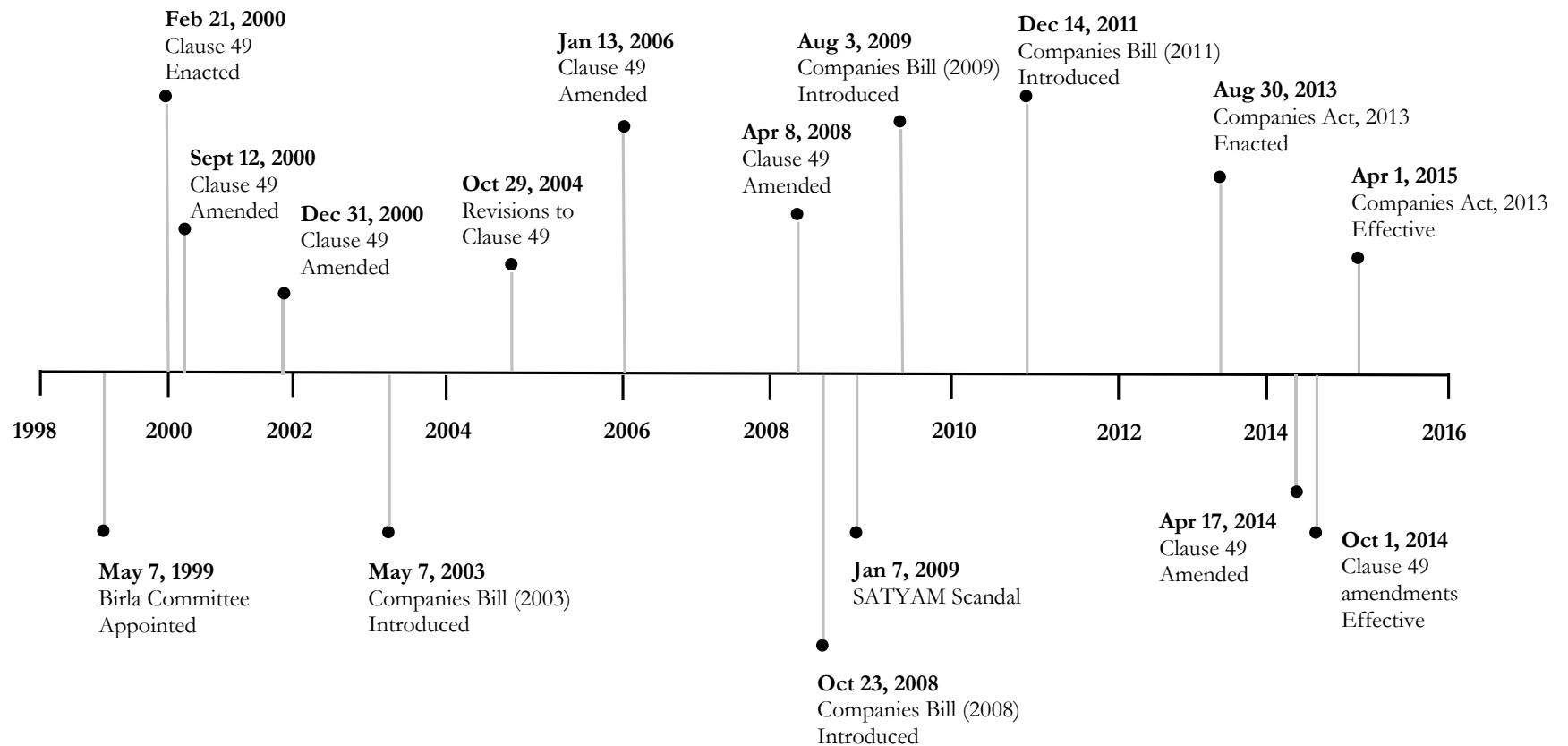


Online Appendix

“Does personal liability deter individuals from serving as independent directors?”

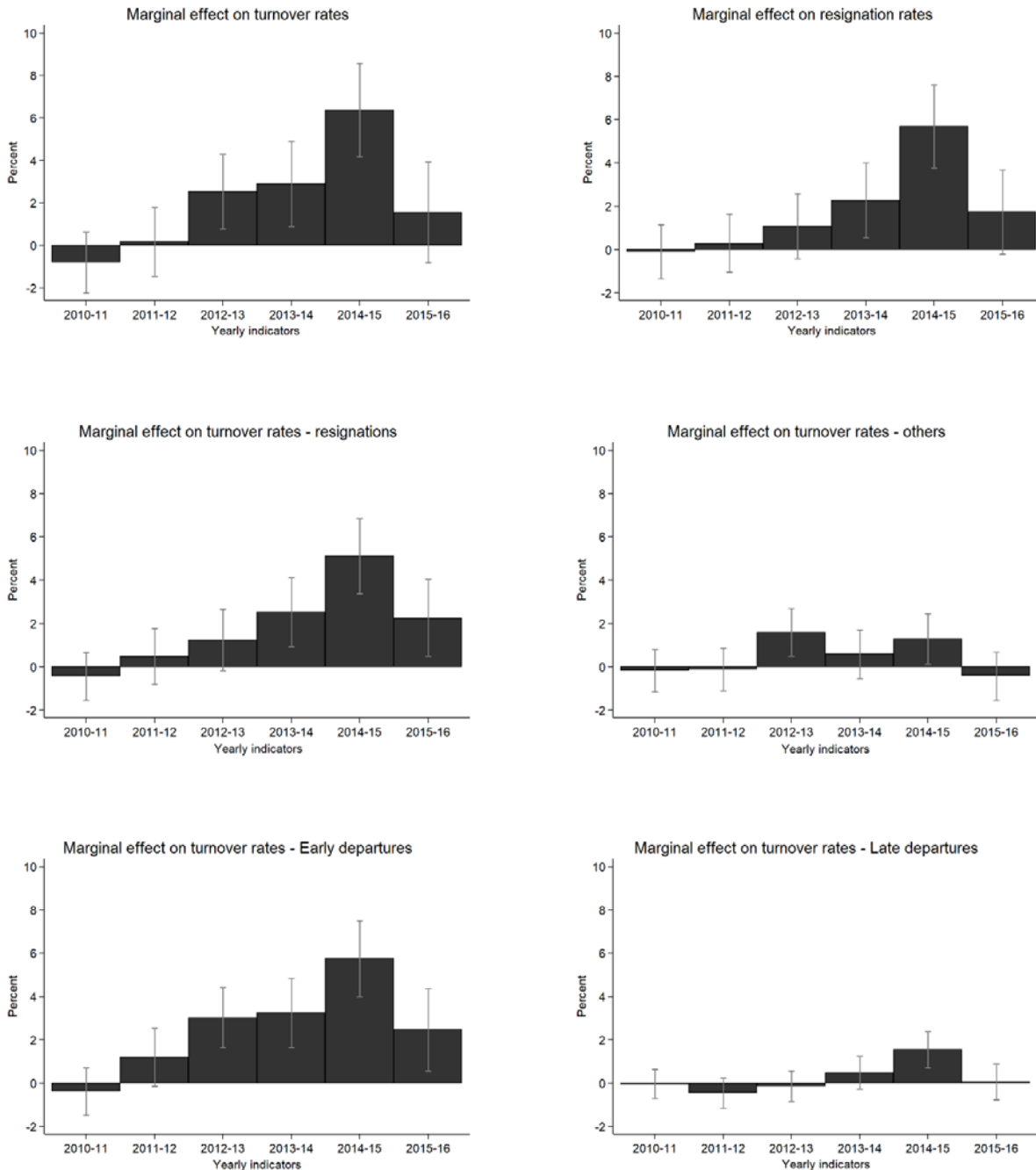
S. Lakshmi Naaraayanan and Kasper Meisner Nielsen

Appendix Figure A1: Timeline of corporate governance reforms in India



Appendix Figure A2: Marginal effects by year

The figures in the top row show the marginal changes in turnover (resignation) rates by financial year with 95% confidence intervals displayed on top. The figures in the middle row display the marginal changes in turnover rates due to resignation (other reasons) by financial year with 95% confidence intervals displayed on top. Other reasons include demise, term expired, and retirement. The figures in the bottom row present the marginal changes in early (late) turnover rates by financial year with 95% confidence intervals displayed on top. We classify independent director leaving in the middle of their term (i.e. within 0 to 3 years) as early departures while independent directors leaving in the last year of their term are defined as late departures. Marginal effects are coefficients from an ordinary least squares regression of independent director turnover on yearly indicators in a specification that controls for firm-fixed effects.



Appendix Table A1: Details of amendments to Clause 49

Particulars	Clause 49, 2008	Revised Clause 49, 2014
Board composition	i. 50% (33%) independent directors if chairman is executive director or promoter (neither executive nor promoter)	ii. 50% (33%) independent directors if chairman is executive director or promoter (neither executive nor promoter) iii. <i>At-least one woman director.</i>
Directorships	i. No limitation on number directorships ii. No limitation on the number of terms	i. Individuals can serve as an independent director for max. 7 companies. The max. number is 3 for whole-time directors. ii. Term of an independent director limited to two terms of five years each. Individuals serving as independent director for 5 years or more in a company as on October 1st, 2014, are eligible for one more term of up to 5 years only. iii. An Independent director is eligible for reappointment as an independent director only after a 3-year cooling-off period, after completion of two terms.
Committee requirements & limitations	i. A director can at maximum be a member (chairman) of 10 (5) committees. ii. Audit committee size limited to 3. Chairman and one other director should be independent.	i. A director can at maximum be a member (chairman) of 10 (5) committees. ii. Audit committee size limited to 3. Chairman and one other director should be independent. iii. Nomination and remuneration committee sizes are at-least three members. Chairman and at-least half of the members should be independent directors.
Liability of independent directors	i. No explicit liability imposed	i. Held liable, only in respect of such acts of omission or commission by a company which had occurred with his knowledge, attributable through Board processes, and with his consent or connivance or where he had not acted diligently with respect of the provisions contained in the Listing Agreement.
Stock options	i. Maximum number of stock options granted to be specified through shareholder resolution.	i. Independent directors are not entitled to any stock option.
Performance evaluation of independent directors	i. Non-mandatory requirement	i. Mandatory requirement

Appendix Table B1: Firm, board and Independent director remuneration characteristics

We report descriptive statistics for the sample of NSE-listed firms from April 1, 2009 to March 31, 2016. Panel A reports the following firm characteristics: *Market capitalization* (INR billions), *market-to-book value* of assets, and *firm age* (measured in years). Both market capitalization and market-to-book ratio are winsorized at 1% tails. Panel B reports board characteristics: *Board size*, number of *insider & nominee directors*, number of *independent directors*, number of *unclassified directors*, and number of *female directors*. Panel C reports the descriptive statistics of Independent director remuneration for an unbalanced panel of the 200 largest firms (by market capitalization) from April 1, 2009 to March 31, 2016. The panel reports the following characteristics: *Total remuneration* (1,000 INR), *sitting fees* (1,000 INR), *commission* (1,000 INR) and *bonus and stock options* (1,000 INR). Director remuneration are in constant 2010 INR.

	Mean	Std dev.	Min.	P25	P50	P75	Max.
<i>Panel A: Firm characteristics</i>							
Market cap. (INR billions)	63.1	194.1	0.1	1.4	5.5	29.3	1378.1
Market-to-book value	1.1	1.1	0.1	0.6	0.8	1.1	6.8
Firm age (years)	36.2	23.4	3.0	20.0	28.0	48.0	153.0
<i>Panel B: Board characteristics</i>							
Board size	9.6	3.2	1.0	7.0	9.0	11.0	25.0
Inside/Nominee directors	4.8	2.4	0.0	3.0	4.0	6.0	23.0
Independent directors	4.7	2.0	0.0	3.0	5.0	6.0	16.0
Unclassified directors	0.5	1.4	0.0	0.0	0.0	1.0	23.0
Female directors	0.7	0.7	0.0	0.0	1.0	1.0	4.0
<i>Panel C: Independent director remuneration</i>							
Total remuneration (1,000 INR)	907	1,719	0	110	396	1,097	53,973
Sitting fees (1,000 INR)	176	207	0	52	121	226	3,115
Commission (1,000 INR)	700	1,417	0	0	13	919	39,918
Bonus and stock options (1,000 INR)	7	177	0	0	0	0	9,901

Appendix Table B2: Director and turnover characteristics

We report descriptive statistics: mean and standard deviation for our sample of directors of NSE-listed firms from April 1, 2009 to March 31, 2016. Panel A reports the following director characteristics: *Age* (measured in years), *gender* (indicator taking the value one if the director is female), and *tenure* (measured in years). We measure expertise for each director in two ways. Under *Specialization*, we classify each director based on his educational qualification as well as his occupation. We create an indicator for directors who possess an *accounting, finance & law degree* or is a chartered accountant, CPA, CFA, JD, LLB or LL.M. *Business management & MBA* is an indicator for general business degrees and MBAs. *Academics* is an indicator for professors. Under *Highest degree*, for each director we extract their highest educational qualification and classify them into “*Graduate or below*”, “*Post-graduate*”, and “*Doctorate*”. Panel B reports the number of turnovers and turnover characteristics based on reason of cessation as extracted from annual reports. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	All	Type of director		Difference (2) - (1)	t-Stat.
		Independent (1)	Inside (2)		
Number of director-years	52,972	27,775	25,197		
<i>Panel A: Director characteristics</i>					
Age (years)	60.7 (12.0)	64.8 (11.1)	56.1 (11.3)	-8.7 (0.09)	-85.2***
Gender (1=female)	0.07 (0.26)	0.06 (0.24)	0.08 (0.3)	0.02 (0.001)	6.9***
Tenure (years)	9.6 (9.1)	8.0 (7.3)	11.5 (10.4)	3.5 (0.07)	44.9**
<i>Specialization</i>					
Accounting, finance & law	0.31	0.36	0.26	-0.10	-26.2***
Business & MBA	0.21	0.18	0.25	0.07	20.4***
Academics	0.14	0.18	0.10	-0.07	-25.6***
Unknown	0.15	0.15	0.10	-0.05	-17.1***
<i>Highest degree attained</i>					
Graduate or below	0.02	0.01	0.02	0.02	17.3***
Post-graduate	0.86	0.84	0.87	0.03	11.9***
Doctorate	0.07	0.10	0.04	-0.06	-24.2***
Unknown	0.05	0.05	0.05	-0.00	-1.4
<i>Panel B: Turnover characteristics</i>					
Number of turnovers	5,338	2,648	2,690		
Turnover reason (%)					
Resigned	0.54	0.58	0.49		
Retired	0.21	0.20	0.22		
Term expired	0.10	0.06	0.14		
Demise	0.05	0.08	0.04		
Others	0.02	0.02	0.02		
Reason unknown	0.08	0.06	0.09		
χ^2 -statistic					199.8***

Appendix Table C1: Independent director remuneration by financial year

The table reports the descriptive statistics of Independent director remuneration for an unbalanced panel of the 200 largest firms (by market capitalization) from April 1, 2009 to March 31, 2016. The panel reports the following characteristics: *Total remuneration* (1,000 INR), *sitting fees* (1,000 INR), *commission* (1,000 INR) and *bonus and stock options* (1,000 INR) for each financial year. All values are in constant 2010 INR.

	All	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total remuneration (1,000 INR)	907	720	863	859	757	813	1,090	1,223
Sitting fees (1,000 INR)	176	147	146	132	119	120	254	310
Commission (1,000 INR)	700	558	646	646	621	685	815	901
Bonus and stock options (1,000 INR)	31	16	71	81	17	8	21	12

Appendix Table C2: Compensation and turnover

This table reports the effect of compensation on independent director turnover for the period from 2010 to 2016. The unit of analysis is a director-firm-year. The dependent variable is an indicator that takes the value of one if an independent director vacates the office within the financial year. In columns 1 and 2, we examine total pay where *Total Pay_{t,t}* is the sum of sitting fees, commission fees and bonus for each independent director in the previous financial year. In columns 3 and 4 (5 and 6), we examine: *Sitting fee_{t,t}* (*Commission_{t,t}*) which is the total annual sitting fee (commission) for each director as extracted from annual reports. *Post liability* is an indicator equal to one for financial years 2014-15 and 2015-16 as Companies Act became effective in the financial year 2014-15. For each firm, we compute compensation as a fraction of market capitalization in the previous financial year. We then split the sample into *Low (High)* based on median value each year. *Compensation rank* is the rank of each independent director within a board based on compensation in the previous financial year. The sample is restricted to top 200 firms by market capitalization in each financial year. To ensure that we are able rank directors within the board, we only keep firms with more than two independent directors in the sample. All the regressions include the following control variables: *Firm size* is the log of book value of assets, *Market-to-book value* is the market-to-book ratio of assets, defined as market value of equity plus book value of debt over book value of assets. *Return on assets* is the ratio of profit after tax to book value of assets. *Stock return* is the annualized return and *Stock return volatility* is the annualized standard deviation of the firm's daily stock returns during the year. In addition, we control for the *ownership of the controlling shareholder* and *fraction of independent directors on the board*. All controls are lagged by one year. We use ordinary least squares (OLS) regression specification to estimate the coefficients. All regressions include director fixed effects using standard errors clustered at the firm-year level. Standard errors are in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% level, respectively.

Compensation variable	Total remuneration		Sitting fees		Commission	
	(1)	(2)	(3)	(4)	(5)	(6)
Post liability	0.089*** (0.014)	0.225*** (0.026)	0.109*** (0.015)	0.228*** (0.026)	0.094*** (0.013)	0.218*** (0.032)
Low compensation _{t,t}	-0.037* (0.019)		-0.014 (0.019)		0.071*** (0.023)	-
Low compensation _{t,t} x Post liability	0.117*** (0.026)		0.065** (0.025)		0.062** (0.031)	-
Compensation rank _{t,t}	-	0.006 (0.004)		0.007* (0.004)		0.002 (0.005)
Compensation rank _{t,t} x Post liability	-	-0.026*** (0.006)		-0.027*** (0.006)		-0.025*** (0.008)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Director fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.164	0.197	0.159	0.197	0.170	0.195
Observations	6,506	5,566	6,506	5,566	6,506	5,566

Appendix Table C3: Changes in compensation and turnover

This table reports the results examining independent director turnover and changes in compensation for the period from 2010 to 2016. The unit of analysis is a director-firm-year. In columns 1 through 3, the dependent variable is the within-firm change in total remuneration (Δ Compensation) while in columns 4 through 6 it is an indicator that takes the value of one if independent director vacates the office within the financial year. Director remuneration are in constant 2010 INR. *Total remuneration* is the sum of sitting fees, commission fees and bonus for each independent director in a particular financial year. *Sitting fee (Commission)* is the annual sitting fee (commission) for each director as reported in annual reports. *Post liability* is an indicator equal to one for the financial years 2014-15 and 2015-16 as Companies Act became effective in the financial year 2014-15. The sample is restricted to top 200 firms by market capitalization in each financial year. All the regressions include the following control variables: *Firm size* is the log of book value of assets, *Market-to-book value* is the market-to-book ratio of assets, defined as market value of equity plus book value of debt over book value of assets. *Return on assets* is the ratio of profit after tax to book value of assets. *Stock return* is the annualized return and *Stock return volatility* is the annualized standard deviation of the firm's daily stock returns during the year. In addition, we control for the *ownership of the controlling shareholder* and *fraction of independent directors on the board*. All controls are lagged by one year. We use ordinary least squares (OLS) regression specification to estimate the coefficients. All regressions include firm fixed effects using standard errors clustered at the firm-year level. ***, **, * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent variable Compensation variable	Δ Compensation			Turnover		
	Total remuneration	Sitting fees	Commission	Total remuneration	Sitting fees	Commission
	(1)	(2)	(3)	(4)	(5)	(6)
Post liability	0.163** (0.083)	0.119*** (0.015)	-0.011 (0.067)	0.070*** (0.015)	0.102*** (0.017)	0.060*** (0.015)
Δ Compensation	-	-	-	-0.031** (0.015)	-0.908*** (0.233)	-0.049*** (0.014)
Post x Δ Compensation	-	-	-	-0.021 (0.019)	0.551** (0.241)	-0.000 (0.018)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.017	0.128	0.035	0.132	0.191	0.129
Observations	5,553	5,553	5,553	5,553	5,553	5,553

Appendix Table D1: Appointment characteristics

We report descriptive statistics for the sample of NSE-listed firms from April 1, 2009 to March 31, 2016. Panel A reports the gender characteristics of the newly appointed independent directors. Panel B reports the following director characteristics for male independent directors: *Age* (average age at the time of appointment), *Boards per director* (average number of directorships on other boards prior to appointment), *At least one directorship* (fraction with at least one directorship prior to appointment) and *Board tenure* (measured as total tenure across all other boards prior to appointment). Panel C reports director specialization. We measure expertise for each director in two ways. Under *Specialization*, we classify each director based on his educational qualification as well as his occupation. We create an indicator for directors who possess an *accounting, finance & law degree* or is a chartered accountant, CPA, CFA, JD, LLB or LLM. *Business & MBA* is an indicator for general business degrees and MBAs. *Academics* is an indicator for professors. Under *Highest degree*, for each director we extract their highest educational qualification and classify them into “Graduate or below”, “Post-graduate”, and “Doctorate”.

	Financial year							
	All	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Independent directors								
Total (#)	3,826	579	459	485	479	502	871	451
Male (#)	3,097	556	435	451	447	431	449	328
Female (#)	729	23	24	34	32	71	422	123
Male independent directors								
B. Characteristics								
Age (years)	59.3	59.0	58.7	58.3	58.8	59.7	60.6	60.9
Boards per director (#)	0.55	0.93	0.59	0.57	0.55	0.36	0.34	0.30
At least one directorship (%)	25	40	28	26	25	17	19	17
Board tenure (years)	3.9	4.7	3.8	4.1	4.4	3.2	3.5	3.2
C. Specialization (%)								
Accounting, finance, & law	50	45	49	49	53	54	53	50
Academics	29	28	29	29	29	30	26	30
Business & MBA	24	19	19	27	28	24	27	27
D. Highest degree attained (%)								
Graduate or below	0	1	0	0	0	0	0	0
Post-graduate	85	83	83	81	87	87	85	89
Doctorate	15	16	17	19	13	13	15	11

Appendix Table D2: Director expertise and appointments

This table reports the results examining characteristics of appointments of independent director on boards for the period from 2010 to 2016. The unit of analysis is a director-firm-year. The dependent variable is a dummy variable which equals 1 if an expert independent director is appointed on the board in a financial year. We measure expertise for each director in two ways. Under *Specialization*, we classify each director based on his educational qualification as well as his occupation. We create an indicator for directors who possess an *accounting, finance & law degree* or is a chartered accountant, CPA, CFA, JD, LLB or LL.M. *Business & MBA* is an indicator for general business degrees and MBAs. *Academics* is an indicator for professors. Under *Highest degree*, for each director we extract their highest educational qualification and classify them into “*Graduate or below*”, “*Post-graduate*”, and “*Doctorate*”. *Post liability* is an indicator equal to one for financial years 2014-15 and 2015-16 as Companies Act became effective in the financial year 2014-15. All the regressions include the following control variables: *Firm size* is the log of book value of assets, *Market-to-book value* is the market-to-book ratio of assets, defined as market value of equity plus book value of debt over book value of assets. *Return on assets* is the ratio of profit after tax to book value of assets. *Stock return* is the annualized return and *Stock return volatility* is the annualized standard deviation of the firm's daily stock returns during the year. In addition, we control for the *ownership of the controlling shareholder* and *fraction of independent directors on the board*. All controls are lagged by one year. We use ordinary least squares (OLS) regression specification to estimate the coefficients. All regressions include firm fixed effects using standard errors clustered at the firm-year level. ***, **, * denote significance at the 1%, 5%, and 10% level, respectively.

Director expertise	Specialization			Highest degree		
	Accounting, finance & law (1)	Academics (2)	Business & MBA (3)	Graduate or below (4)	Post-graduate (5)	Doctorate (6)
Post liability	0.032 (0.038)	0.035 (0.033)	-0.008 (0.039)	-0.000 (0.001)	0.003 (0.039)	-0.006 (0.024)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.064	0.047	0.070	0.116	0.089	0.047
Observations	2,281	2,158	2,029	1,955	1,955	1,955

Appendix Table E: Board meeting characteristics

We report descriptive statistics for the sample of NSE-listed firms from April 1, 2009 to March 31, 2016. Panel A reports the mean of the following board meeting characteristics: *Board meetings held* (#), and *Board attendance* (%). Panel B reports absenteeism characteristics of independent directors as a percentage.

	Financial year							
	All	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel A: Board meeting characteristics</i>								
Board meetings held (#)	6.2	6.7	6.4	6.2	5.9	5.9	6.2	6.0
Board attendance (%)								
All directors	76.8	76.8	78.1	77.8	77.5	77.0	73.8	76.4
Independent directors	75.5	74.7	76.3	76.3	75.4	75.7	72.5	77.1
Inside directors	78.3	79.1	80.0	79.4	80.0	78.3	75.2	75.6
<i>Panel B: Absenteeism characteristics</i>								
Fraction of independent directors (%)								
Absent from 1 or more meetings	59.9	62.7	60.8	58.8	60.7	58.3	62.5	55.0
Absent from 25% or more meetings	34.7	37.3	34.0	33.7	34.5	32.6	39.4	31.3
Absent from 50% or more meetings	16.7	17.2	15.2	16.0	16.2	17.0	20.3	15.3

Appendix Table F1: Shareholder dissent in independent director elections and turnover

The table reports descriptive statistics of IiAS recommendations and shareholder voting outcomes around director elections for the sample of firms from April 1, 2013 to March 31, 2016. Panel A reports unique firms and the match rate to our sample of NSE-listed firms. Panel B presents the number of recommendations by director type. Panel C reports the shareholder voting outcomes on independent director elections. Panel D reports the cessation rates by shareholder votes in independent director elections.

	Financial year		
	2013-14	2014-15	2015-16
<i>Panel A: Coverage</i>			
Firms in our sample	741	799	836
Firms covered by IiAS	131	461	570
Firms in our sample covered by IiAS	104	327	376
<i>Panel B: Number of resolutions on director elections by type</i>			
Independent directors	0	711	305
Inside directors	390	594	648
<i>Panel C: Shareholder votes in independent director elections</i>			
Votes “for”	-	97.6%	99.2%
Votes “Against”	-	2.4%	0.8%
<i>Panel D: Cessation rates by shareholder votes in independent director elections</i>			
No dissent (Votes “against” = 0)	-	5.4%	2.4%
Dissent (Votes “against” >0)	-	4.0%	2.4%

Appendix Table F2: IiAS recommendations around independent director elections

The table reports descriptive statistics of IiAS recommendations around independent director elections for the sample of firms from April 1, 2013 to March 31, 2016. Panel A reports the voting recommendations made by IiAS on independent director elections. Panel B reports the independent director election pass percentage by IiAS recommendations. Panel C reports the vote percentage in favor of independent director election broken down by IiAS recommendations and Panel D reports the cessation rates by IiAS recommendations.

	Financial year		
	2013-14	2014-15	2015-16
<i>Panel A: IiAS recommendation on independent director elections</i>			
For	0	409	270
Against	0	298	35
Others (abstain, no, withdrawn)	0	4	0
<i>Panel B: Independent director election pass percentage by IiAS recommendation</i>			
For	-	100%	100%
Against	-	100%	100%
Others (abstain, no, withdrawn)	-	-	-
<i>Panel C: Percentage of votes "for" in independent director election by IiAS recommendation</i>			
For	-	99%	99%
Against	-	96%	93%
<i>Panel D: Cessation rates by IiAS recommendation</i>			
For	-	2.5%	2.7%
Against	-	7.0%	0.0%