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"Chiara Banti, Udichibarna Bose and Anna Sarkisyan"

Essex Business School, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ
Web site: http://www.essex.ac.uk/ebs/

Does personal liability of independent directors impact corporate misconduct?

Chiara Banti Udichibarna Bose Anna Sarkisyan*

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Abstract

In the wake of a series of corporate scandals in the early 2000s, including those linked to abusive use of related party transactions, regulators around the world introduced reforms to improve corporate conduct. Among those is the introduction of personal liability for independent directors in India as part of the Companies Act 2013. The paper examines the impact of the new rule on the independent directors' effectiveness in curbing misconduct captured by related party transactions. Related party transactions can be used by managers to transfer wealth to related parties at the cost of shareholders and are particularly relevant in the context of Indian firms. The study contributes to the literature by examining the impact of the personal liability reform on independent directors' monitoring effectiveness and by focusing on India, a representative emerging market where corporate governance issues have been under-researched due to limited publicly available data.

Keywords: Independent directors; board composition; personal liability; female directors; related party transactions.

JEL Codes: G30; G34; G38.

*Chiara Banti: cbanti@essex.ac.uk, University of Essex. Udichibarna Bose, ubose@essex.ac.uk, University of Essex. Anna Sarkisyan, asarkisyan@essex.ac.uk, University of Essex. We acknowledge financial support from the British Academy (Grant SRG24/241848).

1 Introduction

Following a series of corporate scandals in the early 2000s, including those linked to abusive use of related party transactions, regulators around the world introduced reforms to improve corporate conduct. Among those is the proposal of the Companies Bill of 2011 in India which aimed to enhance the provisions of the previous Companies Act of 1956. The Companies Bill was enacted in 2013 and became the Companies Act 2013. Among other changes, the Companies Act 2013 introduced personal liability for independent directors to increase their accountability, including criminal prosecution and attachment of personal property on governance failures where the independent directors are found to have not acted diligently on the information they received through the board process.

The principal aim of the project is to examine whether strengthened accountability for independent board directors improves their monitoring effectiveness and reduces corporate misconduct. To address this research question, the project uses the quasi-natural experiment from India in the form of the personal liability introduction under the Companies Act 2013, effective from October 1, 2014. Specifically, the project examines whether the introduction of personal liability for independent directors reduces firms' engagement in corporate misconduct, as proxied by related party transactions. Related party transactions (RPTs), that is, transactions between two entities connected by a prior relationship, used by managers to transfer wealth to related parties at the cost of shareholders are an example of corporate governance failure and are particularly relevant in the context of Indian firms (OECD, 2012).

In the empirical analysis the study uses a sample of 1,651 publicly-listed non-financial Indian firms over the period of 2010-2020. The results provide evidence to suggest that the introduction of personal liability improved the monitoring effectiveness of independent directors and thus effectively reduced the extent of corporate misconduct. The findings on the potential channels show that the reform aligned independent directors in their monitoring effectiveness regardless of their audit committee role or their gender.

The rest of the paper is structured as follows. Section 2 reviews the relevant literature

and presents the hypotheses. Section 3 describes the data. Empirical strategy and results are reported in section 4. Finally, section 5 concludes.

2 Literature review and hypothesis development

The project builds on the prior research on corporate governance and firm performance. Arnaboldi et al. (2021) find that board gender diversity increases board effectiveness in reducing misconduct, and that this impact stems from the ethicality and risk aversion of female directors. Casu et al. (2023) show that the boards' disciplining effect following misconduct (that is, dismissing the incumbent CEO) is stronger in boards that are more diverse in terms of directors' age and country of origin. Overall, the findings provide support for corporate governance reforms promoting board diversity and director accountability to improve boards' monitoring effectiveness. However,Arnaboldi et al. (2020) find that corporate governance reforms have a heterogeneous impact on firms depending on the type of reform (quota vs. affirmative action), country's institutional environment, and pre-existing board heterogeneity of firms. This project extends the prior work by examining the impact of the introduction of personal liability for independent directors on their monitoring of managers, and in particular the use of related party transactions associated with misconduct.

The monitoring effectiveness of independent directors is ambiguous. In theory, independent directors are better positioned to curb opportunistic behaviour of managers and reduce corporate misconduct (Zahra, Priem and Rasheed, 2005; Nekhili, Bennouri and Nagati, 2022). In practice, managers may influence independent directors' willingness and ability to exert strict monitoring, for example, by using their appointment-based connection with directors and director compensation (Khanna, Kim and Lu, 2015; Hope, Lu and Saiy, 2019).

The key driver for independent directors to perform their monitoring function effectively is their reputation in the labour market (Fama and Jensen, 1983; Yermack, 2004; Neville et al., 2019; Nekhili, Bennouri and Nagati, 2022). Introduction of personal liability for

independent directors should strengthen this mechanism by establishing directors' direct accountability. In the context of our study, after the introduction of legal liability for independent directors in India under the Companies Act 2013, independent directors' approval of questionable RPTs can lead to them being held liable and subsequently significantly damage their reputation, which in turn should increase their effort in monitoring RPTs. The opposite effect may occur if the introduction of legal liability for independent directors leads to more qualified directors exiting the labour market to avoid litigation risk, especially where firms have high litigation and regulatory risk (Naaraayanan and Nielsen, 2021).

Following this, our first hypothesis posits that:

H1: Introduction of personal liability increases independent directors' monitoring effectiveness and hence reduces the use of related party transactions.

The literature shows that directors considered to be in charge of monitoring and preventing financial misconduct, such as those serving on audit committees, tend to be penalised harsher by the labour market following misconduct (Brochet and Srinivasan, 2014). Given that audit committees bear the first responsibility in monitoring RPTs (OECD, 2012), we examine whether the impact of the personal liability reform on the monitoring effectiveness of directors with regards to RPTs is different for those serving on the audit committee.

Following this, our second hypothesis posits that:

H2: Introduction of personal liability has a stronger impact on the monitoring effectiveness of independent directors serving on audit committees.

Furthermore, the reputational risk associated with financial misconduct is likely to be higher for female directors because of their rarity and sensitivity to stereotyping (Nekhili, Bennouri and Nagati, 2022). Empirical evidence points to the existence of a gender punishment gap where women experience harsher penalty for oversight compared to male counterparts (Egan, Matvos and Seru, 2022). We examine the gender aspect and test whether the impact of the personal liability reform on the monitoring of RPTs is different for female independent directors.

Following this, our third hypothesis posits that:

H3: Introduction of personal liability has a stronger impact on the monitoring effectiveness of female independent directors.

The study makes several contributions. First, it adds to the discussion of corporate governance reforms by focusing on the impact of the introduction of personal liability for independent directors on their monitoring effectiveness. Second, it adds to the scarce literature on related party transactions and associated corporate misconduct (Nekhili, Bennouri and Nagati, 2022). Third, it contributes by focusing on India, a representative emerging market that is increasingly attracting global companies but where corporate governance issues have been under-researched due to limited publicly available data. Finally, the findings from this study provide policy-relevant implications for the ongoing discussion on governance reforms and improving corporate conduct.

3 Data

3.1 Sample

To test the research questions, we use data from two main sources. The first one is PRIME Infobase which is India's first and only database dedicated to providing comprehensive data and analytics on boards of listed companies and a few prominent unlisted financial sector companies. This database is updated daily with appointments and cessations of directors. PRIME Infobase has been used previously to study the introduction of personal liability in India (Naaraayanan and Nielsen, 2021).

We merge this dataset with the collection of balance sheet information for Indian firms from Prowess database. Prowess database compiled by the Centre for Monitoring Indian Economy (CMIE) covers both publicly listed and unlisted firms from a wide cross-section of manufacturing, services, utilities, and financial industries. The advantage of Prowess database is that it provides detailed balance sheet and ownership data for over 40,000 Indian

companies. Prowess dataset has been used in previous studies on corporate financing and investment decisions in India (Bose, Mallick and Tsoukas, 2020; Bose, Filomeni and Mallick, 2021; Banti and Bose, 2024).

Our final dataset comprises firm-level data on related party transactions and board and firm characteristics for 1,651 non-financial firms over the period of 2010-2020.

3.2 Related party transactions

Our dependent variable is the number of related party transactions (Nekhili, Bennouri and Nagati, 2022; Usman et al., 2022). We consider the number of transactions, as opposed to their monetary value, because the existence of any such transaction is indicative of potential misconduct, rather than its amount (Usman et al., 2022).

Following previous work, we consider separately transactions with key management personnel such as managers, directors, and other key shareholders (so-called Tone RPTs) and those with subsidiaries and other related companies (so-called Business RPTs). Indeed, the former type of transactions have been found to be more prone to abusive use than the latter types (Hope, Lu and Saiy, 2019; Nekhili, Bennouri and Nagati, 2022).

3.3 Board and firm characteristics

In order to determine whether the introduction of personal liability for independent directors improves their monitoring effectiveness, we consider the share of independent directors on the board, the share of independent directors on the audit committee, and the share of female independent directors on the board.

In our models, we control for a comprehensive set of variables that capture board characteristics known in the literature to affect corporate conduct.[1] We include the size of the board, the proportion of directors on the board that are female, foreign, and promoters, the size of the audit committee, and a dummy for busy boards (i.e., where 50% of more of the

[1]Table 1A in the Appendix reports the definition of each variable.

board's directors serve on three or more boards). Our models also include a dummy for CEO duality (i.e., the CEO acting as the chair of the board) and a dummy for female CEO.

We control for firm-level variables, including firm size as measured by the firm's total assets, firm age as measured by the years since incorporation, firm leverage calculated as total debt over total assets, and firm profitability as measured by the return on assets (ROA).

3.4 Descriptive statistics

We report descriptive statistics for our variables in Table 1. The sample firms engage in around 12 RPTs per year, on average. They tend to conduct more business transactions on average, with an annual average of nearly 6 RPTs related to business operations, and 5 to tone. Both types of transactions exhibit high variability, with standard deviations of 7.7 and 5.3, respectively.

Turning to the board characteristics, firms have just over 50% of independent directors on their boards. Female directors represent 11.6% of directors, on average, and 6.3% of independent directors. 3.4% of firms have a female CEO. On average, audit committees have just below 3 members, and 77% of them are independent directors. Foreign directors represent only 2.6% of board directors. Promoters tend to be more represented, at 22.3%. In 19.6% of firms at least half of the board directors sit on three or more boards. CEOs tend to chair the boards in 35.4% of firms.

Table 2 shows that total RPTs have been increasing over the sample period. Looking at its components, the increase is largely due to the monotonic increase in tone RPTs, that have increased from an annual average number of 2.3 per firm in 2011 to over 7.75 in 2020. In the same period, business RPTs have increased from 6 transactions per year on average in 2011 to nearly 7 in 2013, and have since declined to nearly 5 in 2020.

A correlation matrix is presented in Table 3. RPTs in the different categories tend to co-move, with a correlation coefficient of 14%. RPTs tend to decline with board independence, although the coefficient is not statistically significant. RPTs tend to increase with

board size, firm size, firm age, and firm profitability, whereas they tend to decline with firm leverage. Both tone and business RPTs decline with female board directors and the share of female independent directors. Promoter board directors and CEO duality are all negatively associated with RPTs, but negatively correlated with business RPTs. Conversely, RPTs tend to increase with board busyness and board foreignness.

4 Empirical analysis

4.1 Empirical specification

To test how the introduction of personal liability impacts the monitoring effectiveness of independent directors with respect to related party transactions, we first create a matched sample based on the nearest neighbour propensity score matching procedure without replacement using 1% caliper on a set of covariates including the board size, the proportion of directors on the board which are female, foreign or promoters, a dummy for busy boards, CEO duality dummy, female CEO dummy, firm size, firm age, firm leverage, firm profitability and financial year. The procedure yields 8,484 firm-year observations in the matched sample over the period of 2010-2020. Table 4 shows the balancing properties for all covariates after the matching procedure showing there are no significant mean differences between covariates for the treated and control groups after matching.

In a quasi-natural experiment setting, we test whether companies with a higher proportion of independent directors on the board after the introduction of personal liability for independent directors under the Companies Act 2013 are able to reduce the use of RPTs, as hypothesised in H1. The DID effect is given by an interaction term between a time dummy variable and the proportion of independent directors on the board. The time dummy variable captures the reform effect and takes the value of one for the post-reform period (2015-2020), and zero for the pre-reform period (2010-2014). We estimate a one-step system GMM estimation on the matched sample developed by Roodman (2009) for dynamic panel models with

lagged dependent variables. We treat all explanatory variables in the baseline model as endogenous and use two and deeper lags as instruments. To evaluate whether our instruments are legitimate and our model is correctly specified, we use the Sargan test for over-identifying restrictions and test for n-th order serial correlation in the differenced residuals using the m(n) test. We estimate the following equation:

$$\begin{aligned} RPT_{i,t} &= \beta_0 + \beta_1 BoardIndependence_{i,t} + \beta_2 (BoardIndependence \times Post)_{i,t} \\ &\quad + \beta_3 Xb_{i,t-1} + \beta_4 Xf_{i,t-1} + \beta_5 RPT_{i,t-1} + \gamma_i + \theta_t + \epsilon_{i,t} \end{aligned} \tag{1}$$

where $RPT_{i,t}$ are related party transactions for firm i in year t, $BoardIndependence_{i,t}$ is the share of independent directors on the board of firm i, and $Post_t$ is a time dummy variable taking value 1 in the post-reform period (2015-2020), and 0 in the pre-reform period (2010-2014). Board level controls $Xb_{i,t-1}$ include the board size, proportion of female, foreign, and promoter directors on the board, audit committee size, board business, CEO duality dummy, and CEO female dummy. The firm level controls $Xf_{i,t-1}$ include firm size, firm age, firm leverage, and firm profitability. In our main specification, we include time fixed effects to control for common factors. Our specification does not include $Post$ as its effect is absorbed by the time fixed effects. We control for time invariant factors via firm fixed effects in all models. Our models also include industry-year fixed effects. Standard errors are clustered at the firm level.

We start by estimating the equation with the total RPTs. Given the different implications for corporate governance, we then estimate the equation with tone and business RPTs separately. The impact of board independence on RPTs captured by β_1 measures the board's monitoring effectiveness. Our coefficient of interest is β_2 that captures the marginal effect on the board effectiveness of the introduction of personal liability for independent directors. If the reform has effectively reduced corporate misconduct, we expect to find a negative and significant coefficient on the number of RPTs.

Further, we study the role of independent directors' audit committee membership and gender as potential mediation channels that can influence the impact of the introduction of personal liability on their monitoring of related party transactions, as hypothesized in H2 and H3.

Starting with the role of the audit committee, we test whether a higher share of independent directors on the audit committee results in more stringent corporate governance and estimate the following equation on the matched sample:

$$\begin{aligned} RPT_{i,t} \quad &= \beta_0 + \beta_1 AuditIndependence_{i,t} + \beta_2 (AuditIndependence \times Post)_{i,t} + \\ &+ \beta_3 BoardIndependence_{i,t} + \beta_4 Xb_{i,t-1} + \beta_5 Xf_{i,t-1} + \beta_6 RPT_{i,t-1} + \gamma_i + \theta_t + \epsilon_{i,t} \end{aligned} \tag{2}$$

where $AuditIndependence$ measures the share of independent directors in the audit committee. We control for the general effect of independent directors by including the share of independent directors on the board, $BoardIndependence$. Moreover, our controls include the size of the audit committee. All other controls are described as above. If the impact of the reform is driven by the presence of independent directors on the audit committee, we expect to find a negative and significant β_2 coefficient.

Finally, we study the role of female independent directors, and interact the share of female independent directors on the board with the dummy for the introduction of the reform, and estimate the following equation:

$$\begin{aligned} RPT_{i,t} \quad &= \beta_0 + \beta_1 FemaleIndependence_{i,t} + \beta_2 (FemaleIndependence \times Post)_{i,t} + \\ &+ \beta_3 BoardIndependence_{i,t} + \beta_4 Xb_{i,t-1} + \beta_5 Xf_{i,t-1} + \beta_6 RPT_{i,t-1} + \gamma_i + \theta_t + \epsilon_{i,t} \end{aligned} \tag{3}$$

where $FemaleIndependence$ measures the share of independent female directors on the board. We control for the general effect of independent directors by including the share of independent directors on the board, $BoardIndependence$. Moreover, our controls include the number of female directors on the board. All other controls are described as above. If

the impact of the reform is driven by the presence of female independent directors, we expect to find a negative and significant β_2 coefficient.

4.2 Empirical results

We report the results of the estimation of equation (1) in Table 5. In column (1), we find that total RPTs are not associated with board independence, in general. However, the negative and significant coefficient on the interaction term suggests that RPTs tend to decline with higher board independence in the period post reform.

Turning to the categories of RPTs, we look at tone and business RPTs separately because while business RPTs are likely to originate from the operations of the business of the firm, tone RPTs are more commonly associated with misconduct (Hope, Lu and Saiy, 2019; Nekhili, Bennouri and Nagati, 2022).

Columns (2) and (3) of Table 5 presents the results for business and tone RPTs, respectively. Board independence in the post-reform period is negatively associated with both business and tone RPTs, as evidence for effective monitoring by the board. As expected, we find a stronger effect for tone RPTs, suggesting that board effectiveness has strengthened particularly for this type of transactions that are more prone to be associated with misconduct.

Next, we turn to the role of independent directors on the audit committee. In Table 6 we find that the coefficient on the interaction between audit independence and post-reform dummy is negative, as expected, but not statistically significant. This result suggests that the audit committee membership of independent directors does not play an important role.

Finally, we turn to the role of independent female directors and report the results of the estimation of equation (3) in Table 7. We find that the coefficient on the interaction between female independence and post reform dummy is not statistically significant, suggesting that the gender of independent directors do not play a crucial role in the effectiveness of the reform.

Overall, our results indicate that the personal liability reform has significantly affected the effectiveness of independent directors and thus effectively reduced the extent of corporate misconduct, as measured by the number of RPTs carried out by firms. Our findings on the potential channels show that the reform has aligned independent directors regardless of their audit committee role or their gender.

5 Conclusion

In the wake of a series of corporate scandals in the early 2000s, including those linked to abusive use of related party transactions, regulators around the world introduced reforms to improve corporate conduct. Among those is the introduction of personal liability for independent directors in India as part of the Companies Act 2013. The paper examines the impact of the new rule on the independent directors' effectiveness in curbing misconduct captured by related party transactions. Related party transactions can be used by managers to transfer wealth to related parties at the cost of shareholders and are particularly relevant in the context of Indian firms. The study contributes to the literature by examining the impact of the personal liability reform on independent directors' monitoring effectiveness and by focusing on India, a representative emerging market where corporate governance issues have been under-researched due to limited publicly available data.

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Appendix

Table 1A: Variable definitions

Variable	Definition
RPT Total	Number of total ("business" + "tone") related party transactions
RPT Business	Number of "business" related party transactions
RPT Tone	Number of "tone" related party transactions
Board Independence	Proportion of independent directors on the board
Board Size	Number of board directors
Audit Independence	Proportion of independent directors in the audit committee
Audit Committee Size	Number of directors in the audit committee
Board Female Independence	Proportion of independent female directors on the board
Board Female	Proportion of female directors on the board
Board Foreign	Proportion of foreign directors on the board
Board Promoter	Proportion of promoter directors on the board
Board Busyness	Dummy variable equal to 1 if more than 50% of the board directors are busy (i.e., serve on three or more boards)
CEO Duality	Dummy variable equal to 1 if the CEO serves as board chair, and 0 otherwise
CEO Female	Dummy variable equal to 1 if the CEO is female, and 0 otherwise
Firm Size	Total assets
Firm Age	Number of years of the firm being incorporated
Firm Leverage	Debt to total assets ratio
Firm ROA	Return to total assets

Table 1: Descriptive Statistics

Variables	N	Mean	SD	p25	Median	p75	Min	Max
RPT Total (number)	6,203	11.932	10.817	4	8	17	0	52
RPT Business (number)	6,203	5.888	7.711	1	3	8	0	37
RPT Tone (number)	6,203	4.959	5.274	1	3	6	0	25
RPT Business (share of total RPT)	6,203	0.447	0.334	0.045	0.5	0.75	0	1
RPT Tone (share of total RPT)	6,203	0.531	0.337	0.25	0.5	0.875	0	1
Board Independence	6,203	0.532	0.114	0.5	0.538	0.6	0.133	0.818
Board Size	6,203	8.832	2.912	7	8	11	3	18
Audit Independence	5,716	0.777	0.237	0.667	0.75	1	0	1
Audit Committee Size	6,189	2.849	1.462	2	3	4	0	9
Board Female Independence	6,203	0.063	0.075	0	0	0.118	0	0.286
Board Female	6,203	0.116	0.088	0.059	0.111	0.167	0	0.375
Board Foreign	6,203	0.026	0.071	0	0	0	0	0.417
Board Promoter	6,203	0.223	0.155	0.111	0.222	0.333	0	0.571
Board Busyness	6,203	0.196	0.397	0	0	0	0	1
CEO Duality	6,203	0.354	0.478	0	0	1	0	1
CEO Female	6,203	0.034	0.182	0	0	0	0	1
Firm Size	6,203	41,398.23	110,078.19	3,167.2	8,095.1	26,766	182.4	741,387.4
Firm Age	6,203	33.552	19.072	22	29	40	4	98
Firm Leverage	6,203	0.34	0.335	0.13	0.278	0.443	0	2.169
Firm ROA	6,203	0.22	0.176	0.097	0.19	0.308	-0.08	0.948

Notes: The table reports descriptive statistics for the related party transactions, board- and firm-level variables for the regression sample for the period 2010-2020. All (except dummy) variables are winsorised at the 1% and 99% levels.

Table 2: Time trend

	RPT Total	RPT Business	RPT Tone
2011	8.927	6.028	2.346
2012	10.061	6.863	2.506
2013	10.636	6.918	2.782
2014	10.756	6.852	3.019
2015	11.481	6.801	3.68
2016	11.793	6.116	4.738
2017	12.121	5.173	5.749
2018	13.055	4.824	6.955
2019	13.835	4.886	7.505
2020	14.411	5.141	7.75

Notes: The table reports the annual mean values for the related party transactions over the period 2010-2020.

Table 3: Correlation

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 RPT Total	1																
2 RPT Business (number)	0.74*	1															
3 RPT Business (share)	0.36*	0.81*	1														
4 RPT Tone (number)	0.67*	0.14*	-0.34*	1													
5 RPT Tone (share)	-0.20*	-0.72*	-0.90*	0.46*	1												
6 Board Independence	-0.01	-0.01	-0.01	0.01	0.04*	1											
7 Board Size	0.39*	0.32*	0.18*	0.24*	-0.10*	-0.06*	1										
8 Board Female	-0.02	-0.15*	-0.23*	0.15*	0.22*	0.02	-0.14*	1									
9 Board Female Indep.	0.06*	-0.07*	-0.14*	0.15*	0.14*	0.16*	-0.07*	0.60*	1								
10 Board Foreign	0.19*	0.23*	0.19*	0.01	-0.17*	-0.03	0.13*	0.03	0	1							
11 Board Promoter	-0.06*	-0.18*	-0.23*	0.18*	0.23*	0.03	-0.14*	0.07*	-0.03*	-0.17*	1						
12 Board Busyness	-0.02	0.13*	0.22*	-0.20*	-0.21*	0.02	0.01	-0.28*	-0.21*	-0.01	-0.11*	1					
13 CEO Duality	-0.05*	-0.13*	-0.18*	0.10*	0.18*	0.04*	-0.04*	0.10*	0.03	-0.06*	0.26*	-0.17*	1				
14 CEO Female	0.04*	-0.01	-0.05*	0.08*	0.05*	0.01	0.04*	0.13*	-0.09*	0.05*	0.02	-0.06*	-0.02	1			
15 Firm Size	0.47*	0.50*	0.35*	0.16*	-0.29*	-0.06*	0.47*	-0.08*	0.02	0.17*	-0.22*	0.07*	-0.08*	0	1		
16 Firm Age	0.14*	0.14*	0.10*	0.05*	-0.08*	-0.01	0.22*	-0.03	-0.02	0.08*	-0.11*	-0.01	-0.05*	0.04*	0.18*	1	
17 Firm Leverage	-0.25*	-0.20*	-0.11*	-0.16*	0.05*	-0.03	-0.22*	-0.01	0.03	-0.14*	0.02	-0.02	0.03*	-0.03	-0.09*	-0.07*	1
18 Firm ROA	0.19*	0.12*	0.06*	0.13*	-0.02	0.01	0.18*	-0.09*	-0.08*	0.14*	-0.01	0.07*	-0.05*	0.04*	-0.02	0.13*	-0.31*

Notes: The tables reports pairwise correlations for the variables used in this study. All (except dummy) variables are winsorised at the 1% and 99% levels. * shows significance at p<0.01.

Table 4: Balancing properties after matching

	Treated	Control	%bias	t	p>t	V(C)
Board Size	2.118	2.116	0.7	0.28	0.782	0.79*
Board Foreign	0.026	0.026	0.4	0.18	0.856	0.98
Board Promoter	0.222	0.219	1.5	0.63	0.526	0.62*
Board Busyness	0.249	0.242	1.5	0.68	0.494	.
CEO Duality	0.34	0.341	-0.3	-0.12	0.901	.
CEO Female	0.033	0.033	-0.5	-0.2	0.843	.
Firm Size	9.066	9.091	-1.6	-0.66	0.512	0.94
Firm Age	3.33	3.33	0	-0.01	0.994	1.03
Firm Leverage	0.334	0.329	1.3	0.52	0.6	0.93*
Firm ROA	0.223	0.224	-0.2	-0.1	0.918	0.90*
Year	2015.5	2015.6	-1.9	-0.81	0.419	0.92*

Notes: The table reports the t-test and p-values for the mean differences between covariates after the nearest neighbour propensity score matching procedure without replacement using 1% caliper.

Table 5: RPTs, board independence and reform

	RPT Total	RPT Business	RPT Tone
	(1)	(2)	(3)
Post × Board Independence	-1.5040**	-1.7378*	-2.6191**
	(-2.01)	(-1.86)	(-2.06)
Board Independence	-0.1635	-0.5061	0.7661
	(-0.29)	(-0.67)	(0.72)
Board Size	0.1407	-0.0645	0.2517
	(0.68)	(-0.37)	(1.10)
Board Female	-0.0338	0.0180	0.1593
	(-0.06)	(0.01)	(0.11)
Board Foreign	-1.1029*	-0.7463	-0.2180
	(-1.67)	(-0.60)	(-0.12)
Board Promoter	-0.6497	-0.2456	-0.1201
	(-1.59)	(-0.56)	(-0.23)
Board Busyness	-0.3980**	-0.5506**	0.3321
	(-2.25)	(-2.48)	(0.95)
Audit Committee Size	0.0831	0.0082	0.1757
	(1.13)	(0.08)	(1.52)
CEO Duality	0.0575	0.0966	0.0327
	(0.91)	(1.28)	(0.34)
CEO Female	-0.1230	0.0240	-0.1528
	(-0.74)	(0.13)	(-0.82)
Firm Size	0.0488	0.0629	0.0030
	(1.53)	(1.62)	(0.08)
Firm Age	-0.0874	-0.0289	-0.0394
	(-0.67)	(-0.72)	(-0.65)
Firm Leverage	-0.2711***	-0.3483***	0.0077
	(-2.60)	(-2.62)	(0.06)
Firm ROA	-0.0294	-0.3756	0.2977
	(-0.11)	(-1.06)	(0.62)
Lag RPT (see column)	0.8040***	0.8208***	0.8185***
	(10.52)	(13.09)	(13.11)
Constant	0.6269	0.9531	0.2194
	(0.84)	(1.17)	(0.24)
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes
Observations	6,203	6,203	6,203
Number of firms	1,022	1,022	1,022
AR(1) p-value	0.0000	0.0000	0.0000
AR(2) p-value	0.0226	0.0000	0.0000
AR(3) p-value	0.757	0.849	0.381
Sargan p-value	0.227	0.355	0.137

Notes: The table reports the estimation of equation (1). The dependent variable is the annual number of total RPTs in column (1), and then separately the number of business RPTs and tone RPTs in columns (2) and (3), respectively. *Board Independence* is the share of independent director on the board. *Post* is a dummy taking the value of 1 in the period post-2014, when the reform took place. Board- and firm-level controls are also included, together with time, firm, and industry×year fixed effects. The sample period is 2010-2020. Robust standard errors clustered at firm level are reported below the coefficients. Significance of the coefficients is reported as ***, **, and * for 1%, 5%, and 10% respectively.

Table 6: RPTs, audit committee composition and reform

	RPT Total	RPT Business	RPT Tone
	(1)	(2)	(3)
Post × Audit Independence	-0.3040	-0.7182	-0.3531
	(-0.63)	(-1.23)	(-0.67)
Audit Independence	-0.2814	1.2620**	-0.2880
	(-0.57)	(2.16)	(-0.59)
Board Independence	-0.0563	-0.1380	0.1250
	(-0.16)	(-0.30)	(0.35)
Board Size	0.0637	0.2444	0.0792
	(0.30)	(1.20)	(0.41)
Board Female	0.5573	0.1056	0.8962
	(0.52)	(0.10)	(0.88)
Board Foreign	-0.7797	-0.3940	-0.8693
	(-1.24)	(-0.58)	(-1.09)
Board Promoter	-0.2804	-0.1154	0.1895
	(-0.66)	(-0.28)	(0.51)
Board Busyness	-0.4173**	-0.6170***	-0.0013
	(-2.26)	(-2.72)	(-0.01)
Audit Committee Size	0.1759	-0.2626*	0.1272
	(1.47)	(-1.89)	(1.15)
CEO Duality	0.0697	0.1299*	-0.0142
	(0.88)	(1.76)	(-0.24)
CEO female	-0.1627	-0.0333	-0.0966
	(-0.88)	(-0.18)	(-0.60)
Firm Size	0.1362	0.0482	0.0079
	(1.52)	(1.36)	(0.32)
Firm Age	-0.0677	-0.0107	-0.1076
	(-1.57)	(-0.07)	(-0.83)
Firm Leverage	-0.3387	-0.1027	-0.1042
	(-1.14)	(-0.94)	(-1.11)
ROA	0.4468	0.4818	0.3438
	(0.88)	(1.04)	(0.81)
Lag RPT (see column)	0.7081***	0.8010***	0.8068***
	(7.79)	(11.57)	(13.39)
Constant	-0.8412	-0.4187	-0.2251
	(-0.78)	(-0.46)	(-0.30)
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes
Observations	6,189	6,189	6,189
Number of firm_id	1,022	1,022	1,022
AR(1) p-value	0.0000	0.0000	0.0000
AR(2) p-value	0.0351	0.0000	0.0000
AR(3) p-value	0.639	0.624	0.579
Sargan p-value	0.237	0.307	0.118

Notes: The table reports the estimation of equation (2). The dependent variable is the annual number of total RPTs in column (1), and then separately the number of business RPTs and tone RPTs in columns (2) and (3), respectively. *Audit Independence* is the share of independent director on the audit committee board. *Post* is a dummy taking the value of 1 in the period post-2014, when the reform took place. Board- and firm-level controls are also included, together with time, firm, and industry×year fixed effects. The sample period is 2010-2020. Robust standard errors clustered at firm level are reported below the coefficients. Significance of the coefficients is reported as ***, **, and * for 1%, 5%, and 10% respectively.

Table 7: RPTs, female board representation and reform

	RPT Total	RPT Business	RPT Tone
	(1)	(2)	(3)
Post × Board Female Independence	0.4043	-1.3163	2.1614
	(0.51)	(-1.02)	(1.37)
Board Female Independence	-0.9295	1.1190	-2.5220
	(-0.85)	(0.70)	(-1.38)
Board Independence	-0.3529	-0.1058	-0.1233
	(-1.05)	(-0.25)	(-0.18)
Board Female	0.2433	-0.1905	0.4735
	(0.37)	(-0.22)	(0.46)
Board Size	0.1449	-0.1006	0.2960
	(0.83)	(-0.52)	(1.48)
Board Foreign	-1.0000*	-0.3513	0.5818
	(-1.67)	(-0.57)	(0.95)
Board Promoter	-0.5601	-0.3468	-0.3165
	(-1.55)	(-0.85)	(-0.64)
Board Busyness	-0.4012**	-0.5867***	-0.1638
	(-2.27)	(-2.68)	(-0.51)
Audit Committee Size	0.0685	0.0318	0.1190
	(1.00)	(0.36)	(1.09)
CEO Duality	0.0645	0.1147	0.0509
	(1.14)	(1.64)	(0.55)
CEO Female	-0.0733	0.0367	-0.1618
	(-0.44)	(0.18)	(-0.88)
Firm Size	0.0410	0.0441	-0.0198
	(1.41)	(1.31)	(-0.52)
Firm Age	-0.1419	-0.0020	-0.0658*
	(-1.17)	(-0.01)	(-1.71)
Firm Leverage	-0.2060**	-0.2410**	-0.1474
	(-2.37)	(-2.42)	(-1.36)
Firm ROA	-0.0259	-0.2301	-0.0113
	(-0.10)	(-0.76)	(-0.02)
Lag RPT (see column)	0.8144***	0.8217***	0.8949***
	(11.31)	(12.78)	(12.97)
Constant	0.1090	0.0250	-0.4291
	(0.16)	(0.03)	(-0.55)
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes
Observations	6,203	6,203	6,203
Number of firm_id	1,022	1,022	1,022
AR(1) p-value	0.000	0.000	0.000
AR(2) p-value	0.00330	0.000	0.000
AR(3) p-value	0.721	0.761	0.613
Sargan p-value	0.129	0.595	0.0267

Notes: The table reports the estimation of equation (3). The dependent variable is the annual number of total RPTs in column (1), and then separately the number of business RPTs and tone RPTs in columns (2) and (3), respectively. *Board Female Independence* is the share of independent female directors on the board. *Post* is a dummy taking value of 1 in the period post 2014, when the reform took place. Board level controls and firm level controls are also included, together with time, firm, and industry×year fixed effects. The sample period is 2010-2020. Robust standard errors clustered at firm level are reported below the coefficients. Significance of the coefficients is reported as ***, **, and * for 1%, 5%, and 10% respectively.