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Mandatory gender quotas: the impact on board and committee meetings

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Abstract

Purpose – This study aims to test whether the introduction of a gender quota impacts functioning of boards of directors and internal committees thanks to female capacity in effort norms, cognitive conflicts and use of skills.

Design/methodology/approach – This paper uses a difference-in-differences method to trace the staggered mandatory adoption of gender quotas on boards on Italian listed firms, representing the regulative institution pillar of institutional theory.

Findings – This paper find that mandatory adopter firms have more frequent internal committee meetings and less frequent board of directors' meetings after the introduction of the law. This confirms that the regulation re-prioritizes work in internal committees, thanks to women effort, capacity to resolution and use of skills.

Originality/value – This research provides empirical evidence on female contribution and on the impact that a specific mandatory regulation, as regulative institutional pillar, can have on board organization, showing how gender characteristics influence board functioning in terms of meetings.

Keywords Women, Gender quota, Board of Directors, Institutional theory, Difference-in-difference method, Intra-board committees, Corporate Governance

Paper type Research paper

Introduction

Gender diversity can affect both communities and companies' corporate governance effectiveness. Many earlier studies focus on female presence in companies (Nielsen and Huse, 2010; see also Burke and Mattis, 2000) and on the characteristics of women as Board of Directors (BoD) members (Huse and Solberg, 2006; Kakabadse *et al.*, 2015; Joecks *et al.*, 2019; Ruigrok *et al.*, 2007). Some studies investigate why there are few women (Smith and Parrotta, 2015; Singh and Vinicombe, 2004; Hillman *et al.*, 2007), and others investigate the link between BoD gender diversity and firm performance (Adams and Ferreira, 2009; Pucheta-Martínez and Gallego-Álvarez, 2020; Lückerath-Rovers, 2013; Rose, 2007; Liu *et al.*, 2014; Brahma *et al.*, 2021).

Using the framework of Minichilli *et al.* (2012), we contribute to the literature by analysing whether the component of females on a BoD is relevant, and the effect of a mandatory gender quota introduced in Italy by the 2011 Gender Equality Law. We test the

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regulative institution pillar to investigate whether the staggered mandatory introduction of a gender quota meets the regulatory goal.

Empirical studies investigate board meeting attendance (Adams and Ferreira, 2008, 2012; Lawler and Finegold, 2006). Some suggest that directors spend more time on supervisory issues, with managerial concerns also taking up a non-negligible portion of their time (Schwartz-Ziv and Weisbach, 2013). Corporate boards often delegate tasks to standing board committees. An increase in the amount of delegation reduces board tasks but increases coordination activities (Vafeas, 1999; Adams *et al.*, 2015).

Our study tests whether the introduction of a gender quota impacts functioning of BoD and its internal committees thanks to female capacity in effort norms, cognitive conflicts and use of skills.

Firstly, we expect that gender quota will influence the organization of BoDs and internal committees. Secondly, we expect that female influence will be stronger in internal committees within BoDs, which are smaller, so that a minority group of women can raise the quality of debate and more frequent meetings (Burke and Mattis, 2000; Westphal and Milton, 2000; Forbes and Milliken, 1999). Thirdly, women are expected to improve the use of skills and knowledge and encourage cooperation and attention (Adams and Funk, 2010).

To take account of the staggered adoption, we use a difference-in-differences method, and we find that mandatory adopters have more frequent internal committee meetings after the introduction of the gender quota, which confirms that the regulation re-prioritizes work in internal committees, where the role of women has a stronger effect. We also confirm that institutional theory can be applied: a regulatory institution defined by law can explain why and how firms organise their BoD activities.

Literature review and hypothesis development

The regulatory institutional pillar of institutional theory

According to institutional theory, companies are influenced by social context and will thus adopt similar structures, organizations and behaviours (Krenn, 2016; Hillebrand *et al.*, 2011). Social processes, norms and expectations of the external environment play an important role in explaining firm behaviour (Meyer and Rowan, 1977). Institutional theory explains the organization of firms and considers the context as a set of constraints/pressures to which the company must conform to gain legitimacy (DiMaggio and Powell, 1983). There are three types of institutional pillars: regulatory, normative and cognitive.

The regulatory pillar reflects regulative aspects of institutions (North, 1990; Roe, 2004). It includes the definition of rules and mechanisms to enforce compliance and control, as well as the sanction system. The normative pillar relates to the prescriptive dimension of companies, which follow certain social obligations either as a duty or to meet community expectations (Scott, 2001). Often, these pressures are related to professional circles, such as membership of associations or networks, which define shared criteria for the evaluation of behaviour (DiMaggio and Powell, 1983). The cognitive-cultural pillar concerns the way in which reality is conceived. Companies may follow models of “correct behaviour” because they represent what people believe to be correct (Scott, 2001). They tend to align with other similar, successful and prestigious companies.

Corporate governance is a reflection of regulatory, normative and cognitive pillars rather than choices made between an unlimited number of options. Iannotta *et al.* (2016) find that a particular configuration of country-level conditions supports the existence of a joint causal relationship between given institutional arrangements and that board gender quota legislation is not sufficient.

To investigate the effects of public policy on female representation on BoDs, we focus on the regulatory institution pillar which supports and/or allows organizational actions and decisions.

Most prior literature evaluates the effects of the percentage of women on BoDs (Adams and Ferreira, 2009; Kakabadse *et al.*, 2015; Gordini and Rancati, 2017; Hossain *et al.*, 2017; Abu Qa'dan and Suwaidan, 2019; Joecks *et al.*, 2019; Hartmann and Carmenate, 2020; Sarabi and Smith, 2021), but there is little literature on its mandatory introduction. Adams and Ferreira (2009) present a brief analysis of initiatives worldwide to encourage female directors. Rigolini and Huse (2021) analyze the unexpected consequences of introducing gender quota on BoD, and Mensi-Klarbach *et al.* (2021) study the effectiveness of self-regulation in increasing gender diversity on BoD and show that self-regulation requires additional instruments in order to be effective.

Focussing on the staggered introduction of gender quotas in the Italian context, we investigate the effect of mandatory regulation on female representation.

An integrated model of board effectiveness for board task performance

Our analysis is based on the integrated model of board effectiveness (Minichilli *et al.*, 2012), where the three determinants of board task performance are effort norms, cognitive conflicts, and skills and knowledge. Effort norms are a "group-level construct that refers to the group's shared beliefs regarding the level of effort each individual is expected to put toward a task" (Forbes and Milliken, 1999). BoD members put a lot of effort into the preparation of meetings (Hambrick *et al.*, 2008), but this effort varies across groups and depends on gender. Cognitive conflicts are task-oriented differences in judgment between group members, often manifested in "disagreements about the content of the tasks being performed, including differences in viewpoints, ideas and opinions" (Jehn, 1995). It is suggested that where cognitive conflict takes place, the quality of meetings is higher, and women may help in managing this conflict. The third component of the model is "the board's ability to tap the knowledge and skills available to it and then apply them to its tasks". This component is related to coordination of BoD members' contributions and the division of tasks and responsibilities (Forbes and Milliken, 1999), known as female characteristics.

The underrepresentation of women at higher levels is often discussed with reference to the concepts of the glass ceiling and gender stereotyping (Mensi-Klarbach, 2014; Vasconcelos, 2018; Cimirotić *et al.*, 2017). Gender-centred perspectives, sex-specific models and gender-specific concepts of social construction show differences between men and women (Davis *et al.*, 2006; Harding, 2003). We connect these differences to the three pillars of the integrated model of board effectiveness (Minichilli *et al.*, 2012).

Regarding effort norms, women on BoDs are positively associated with social responsiveness (Galbreath, 2011; Bernardi *et al.*, 2006; Duehr and Bono, 2006; Walfisch *et al.*, 2013). Smith *et al.* (2006) point to the different experiences of women in their lives compared to men. They affect time and effort used for meeting preparation. Regarding cognitive conflicts, women give greater attention to problem solving (Burke and Mattis, 2000; Bilimoria and Wheeler, 2000; Westphal and Milton, 2000; Hoffman and Maier, 1961). And in the use of skills and knowledge, females tend to be more inclusive and interactive, rely more on cooperation and collaboration and show higher scores on self-awareness, empathy and social skills (Singh *et al.*, 2008; Adams and Funk, 2010; Jamali *et al.*, 2008).

Effects on organizational forms: Board of Director meetings

Meetings are the most frequent opportunities for the exchange of ideas, and meeting time gives BoD members the opportunity to discuss and monitor business (Hossain *et al.*, 2017; De Andres *et al.*, 2005; Cai *et al.*, 2009; Shan, 2013). BoDs holding frequent meetings perform better and are more in tune with shareholder interests (Conger *et al.*, 1998). Firms often react to poor performance by increasing the frequency of meetings (Vafeas, 1999); meetings make explicit the degree to which boards are motivated to participate in business operations (Wijethilake and Ekanayake, 2019). Board meetings are a key source of information for independent directors and improve efficiency (Masulis *et al.*, 2012; Liu *et al.*, 2016). Previous studies use the frequency of board meetings as a proxy for board activity and director involvement (Carter *et al.*, 2003; Xie *et al.*, 2003; Brick and Chidambaran, 2010; Ntim and Osei, 2011; Mayur and Saravanan, 2017).

More meetings do not necessarily imply better monitoring (De Andres *et al.*, 2005). Lipton and Lorsch (1992) argue that the main problem facing directors is the lack of time to manage firms, although Conger *et al.* (1998) suggest that board effectiveness improves with the frequency of board meetings. Vafeas (1999) suggests that more frequent board meetings lead managers to better follow shareholder interests. However, Vafeas (1999) finds that boards are active when firms face problematic situations.

According to previous literature, we assume that BoD meetings may be a proxy of BoD functioning. On the basis of the integrated model of board effectiveness, we expect the regulatory requirement of the mandatory introduction of a gender quota to influence the organization of firm governance.

Therefore, we hypothesise as follows:

H1. The mandatory introduction of a gender quota is positively related to the number of BoD meetings.

Effects on organizational forms: internal committees

We assume that a regulatory change re-prioritizes aspects of work, and focus here on meetings of intra-board committees.

Intra-board committees make an in-depth examination of operational problems, which are subsequently considered by BoDs in plenary sessions. Some codes recommend a particular number of meetings (Méndez and García, 2007), and a positive relationship between internal board committees and accounting information quality has been identified (Xie *et al.*, 2003; Abbott *et al.*, 2004; Deli and Gillan, 2000). However, the frequency of the meetings is largely a matter of free choice.

We assume that with the introduction of a gender quota, the functioning of internal committees benefits from the effort made by women in preparing for and taking part in meetings in terms of higher quality of debate and levels of awareness. We thus expect a re-prioritization of work with more granulated division of work and greater use of committees. Internal committees are groups comprising different professionals facing competing demands on their time and efforts in task performance. The greater effort made by women, the higher quality decisions and capacity to use knowledge and skills thanks to women's awareness are expected to have an impact.

H2. The mandatory introduction of a gender quota is positively related to the number of internal committee meetings.

Sample and staggered adoption

Table 1, presents the sample selection process. We start with 308 Italian-listed companies for the period 2010–2018. We exclude financial and insurance companies and firms with a two-tier or one-tier governance system due to differences in internal committee compositions. We exclude BoDs with retirement, death or resignations. The selection process leads to a final (unbalanced) sample of 113 companies and 952 firm-year observations. We hand-collect data from corporate governance reports and financial statement data from Compustat Global.

Table 2, presents the sample composition. Adopters are divided into three steps staggered according to the time of adoption. In Italy, BoDs are renewed every three years between March and May. Firms with BoD renewal between March and May 2012 had to comply with minimum 20% women on BoDs at the first renewal after 12 August 2012 (at BoD renewal between March and May 2015; *third adopters 2015–2017* = 370 firm-year observations). Companies with BoD renewal between March and May 2013 had to comply with minimum 20% women on BoDs in 2013 (*first adopters* = 268 and *second adopters* = 314

Description	*N*
Italian listed companies	308
Delete: firms in the financial industry and with a two or one-tier system	−54
Delete: companies with missing data and with a BoD engagement term different than three years	−141
Number of companies	113
Number of firms-year observations (unbalanced sample)	952

Source: Authors' own creation

Table 1. Sample selection

Adopter	First BoDs engagement period	Firm-year observations	Renewal	BoDs engagement period	Firm-year observations	Mean BoDs gender
First	2013–2015	268	Before first renewal	2010–2012	100	0.10
			First renewal	2013–2015	84	0.27
			Second renewal	2016–2018	84	0.40
Second	2014–2016	314	Before first renewal	2010–2013	145	0.11
			First renewal	2014–2016	99	0.27
			Second renewal	2017–2019 (2017–2018 in the sample)	70	0.36
Third	2015–2017	370	Before first renewal	2010–2014	211	0.13
			First renewal	2015–2017	118	0.27
			Second renewal	2018–2020 (2018 in the sample)	41	0.33
Total		952	Total		952	

Source: Authors' own creation

Table 2. Sample description by adoption and renewal

firm-year observations). In 2018, firms could have renewed their BoDs less than three times after the Gender Equality Law of 2011. At the most, third adopters are on their *second renewal* in 2018–2020. Table 2 presents the resulting sample variation in the *post* variable.

Before the Gender Equality Law, on average, there were around 10% women on BoDs. On the first renewal, the firms met and surpassed the 20% threshold, with an average of 27%. On the second renewal, the first adopters had in general a significantly higher mean average of women on BoDs (40%) than third adopters (33%).

Regression model

We follow the *staggered adoption design* proposed by Athey and Imbens (2018), which makes it possible to track concurrent but unrelated market-wide events, alleviating concerns that results are spuriously driven by other economic shocks or institutional changes (Leuz and Wysocki, 2016; Rauter, 2017). Literature on difference-in-differences has increasingly used staggered adoption (Borusyak and Jaravel, 2017; De Chaisemartin and d'Haultfoeuille, 2018; Strezhnev, 2018; Cao and Lu, 2019).

The research method compares changes in the outcome variables before and after the "event". We use a difference-in-differences method, where we perform an analysis between treated and control firms in combination with the pre–post analysis. The treated firms are *mandatory adopters* only after the introduction of the Gender Equality Law. Control firms are *voluntary adopters* of a high gender quota before the introduction of the law. Given that all public limited firms were required to meet a quota of female directors, those firms that had a greater proportion of female directors before the quota faced a smaller constraint. We estimate the following regression model and expect that the introduction of gender quota in BoDs (*post*) will increase the outcome variable only for *mandatory adopters*. In other words, we expect a significant positive coefficient for *post *mandatory adopters*:

$$Outcome = \beta_0 + \beta_1 Post*Mandatory\,Adopters + \beta_n Control\,variables + e \qquad (1)$$

Appendices 1 and 2 show the variables and codes. Our dependent variables are *BoD meetings*, the number of board meetings in a fiscal year. *AuC meeting* is the number of audit committee meetings, and *RemC meeting* is the number of remuneration committee meetings in a fiscal year.

The test variable is *mandatory adopters*, a dummy variable coded 1 if a firm before quota regulation had a gender quota lower than the quota specified by the law (20%) and 0 otherwise. Next, we substitute *mandatory adopters* using the test variable *first adopters*, a dummy variable coded 1 if the firm had a BoD renewal after 12 August 2012 (after 12 August and before 31 December 2012). We use the variable *post* equal to 1 if the firm has a BoD renewed after 12 August 2012 and 0 otherwise.

Based on the literature (Méndez and García, 2007; Bianco *et al.*, 2015), at the governance level, we control for the number of directors (*BoD size*), independent and executive directors (*BoD independence* and *BoD executive*), CEO age (*CEO age*) and the overlap between CEO and Chairman (*CEO duality*). To control at the firm level, we compute *firm size* as the natural logarithm of total assets, *leverage* as equity on total assets, *Loss* $t-1$ as equal to 1 if the firm had a loss in year $t-1$ and 0 otherwise, *sales growth* showing the sales increase (sales t–sales $t-1$)/sales $t-1$ and lastly, the level of return on asset (*ROA*) computed as operating profit/total assets.

Descriptive statistics and correlation matrix

Table 3 shows the descriptive statistics. On average, BoDs meet around nine times a fiscal year. Looking at internal committees, meetings are more frequent for audit committees

Variables	Mean	SD	25% percentile	Median	75% percentile	Minimum	Maximum
BoDs meeting	9.249	3.924	6.000	8.000	11.000	1.000	29.000
AuC meeting	5.649	3.873	3.000	5.000	7.000	0.000	29.000
RemC meeting	3.165	2.655	1.000	3.000	5.000	0.000	19.000
AuC adoption	0.913	0.282	1.000	1.000	1.000	0.000	1.000
RemC adoption	0.908	0.290	1.000	1.000	1.000	0.000	1.000
BoDs size (number)	9.654	2.945	8.000	9.000	11.500	3.000	21.000
BoDs size (logarithm)	2.219	0.319	2.079	2.197	2.441	1.099	3.045
BoDs independence (number)	4.383	2.261	3.000	4.000	6.000	1.000	17.000
BoDs independence (percentage)	0.450	0.163	0.333	0.429	0.556	0.143	0.929
BoDs executive (number)	2.739	1.486	2.000	3.000	4.000	1.000	11.000
BoDs executive (percentage)	0.298	0.152	0.167	0.286	0.400	0.048	0.800
CEO age	56.246	8.332	50.000	55.000	62.000	36.000	78.000
CEO duality	0.315	0.465	0.000	0.000	1.000	0.000	1.000
CEO female	0.044	0.205	0.000	0.000	0.000	0.000	1.000
Chair female	0.086	0.281	0.000	0.000	0.000	0.000	1.000
AuC size (number)	2.884	1.105	3.000	3.000	3.000	0.000	9.000
AuC size (logarithm)	1.031	0.374	1.099	1.099	1.099	0.000	2.197
RemC size (number)	2.842	1.085	3.000	3.000	3.000	0.000	8.000
RemC size (logarithm)	1.021	0.368	1.099	1.099	1.099	0.000	2.079
Firm size (millions of euros)	6,184	22,908	164	449	1,904	3	171,656
Firm size (logarithm)	6.466	1.940	5.100	6.108	7.552	2.842	11.955
Leverage	0.366	0.201	0.251	0.364	0.487	−0.418	0.842
Loss $t-1$	0.272	0.445	0.000	0.000	1.000	0.000	1.000
Sales growth	0.042	0.209	−0.040	0.030	0.100	−0.640	1.027
ROA	0.046	0.066	0.015	0.045	0.074	−0.151	0.266

Source: Authors' own creation

Table 3. Descriptive statistics

(AuCs) than for remuneration committee RemCs (six and three times, respectively). AuCs and RemCs are mandatory for 34% of the sample but exist in about 90% of the sample.

The number of BoD members ranges from 3 to 21 (9 on average). BoDs comprise a maximum of 92.9% independent and 80% executive directors. The mean is higher for independent (45%) than executives (29.8%). CEO are 36–78 years old with average–high experience (56 years old). In 31.5% of the sample, they are also the board chair. The percentage of women in top positions is still low: 4.4% for CEOs and 8.6% for chairpersons.

Table 4 illustrates the correlation matrix. We exclude AuC and RemC sizes because they are correlated with each other and with BoD size. Moreover, firm size and BoD size, loss and

Table 4.
Correlation matrix

No.	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	BoDs meeting	1.00																	
2	AuC meeting	0.37	1.00																
3	RemC meeting	0.37	0.56	1.00															
4	Post	0.08	0.10	0.17	1.00														
5	Mandatory adopters	0.01	0.12	0.04	0.10	1.00													
6	First adopters	−0.03	−0.04	−0.01	0.13	0.17	1.00												
7	BoDs size	−0.01	0.36	0.32	0.05	0.03	0.07	1.00											
8	BoDs independence	0.27	0.36	0.37	0.17	0.16	−0.10	0.09	1.00										
9	BoDs executive	−0.29	−0.40	−0.36	−0.10	−0.10	−0.06	−0.32	−0.45	1.00									
10	CEO age	−0.15	0.02	−0.13	0.02	0.02	−0.02	0.10	−0.02	0.04	1.00								
11	CEO duality	−0.03	−0.19	−0.25	−0.09	0.00	−0.01	−0.20	−0.17	0.11	0.26	1.00							
12	CEO female	−0.06	−0.05	−0.07	0.03	−0.15	−0.09	−0.09	−0.02	0.08	−0.17	−0.15	1.00						
13	Chair female	−0.01	0.07	0.03	0.12	−0.21	−0.01	−0.11	0.02	−0.05	−0.04	−0.21	−0.07	1.00					
14	Firm size	0.25	0.62	0.54	0.04	0.13	0.05	0.51	0.40	−0.49	−0.03	−0.24	−0.08	0.05	1.00				
15	Leverage	−0.26	0.04	−0.02	0.03	−0.02	−0.07	0.13	−0.06	0.10	0.00	−0.01	0.10	0.00	0.00	1.00			
16	Loss $t-1$	0.05	−0.14	−0.14	−0.07	−0.02	−0.01	−0.19	−0.03	0.04	−0.03	−0.01	0.03	−0.03	−0.24	−0.31	1.00		
17	sales growth	−0.06	0.02	0.03	−0.03	−0.02	0.05	0.09	−0.04	−0.02	0.00	0.05	−0.03	−0.05	0.07	0.13	−0.11	1.00	
18	ROA	−0.17	0.14	0.20	0.01	−0.01	−0.02	0.24	0.01	−0.08	−0.03	0.01	−0.04	−0.07	0.20	0.44	−0.47	0.29	1.00

Source: Authors' own creation

return on assets show high correlation, but the variance inflation factor shows no problems of multicollinearity.

Results and discussion

Table 5 shows a negative and significant coefficient (−0.669) for the interaction between post-mandatory adopters in relation to BoD meetings. Thus, mandatory adopters have less frequent board meetings after introduction of the regulation than before, controlling for the difference between mandatory and voluntary adopters.

Table 6 shows positive and significant coefficients (0.996) for the interaction post-first adopters for AuC and RemC meetings. Thus, first adopters in 2013 hold more frequent internal committee meetings after the gender quota, controlling for the difference between first and second–third adopters in 2014–2015. Regression results show that first adopters had fewer AuC meetings before the law came into force (−0.912); the effect of the law is thus even stronger for AuC.

In summary, the Gender Equality Law led to less frequent board meetings but more internal committee meetings. This result cannot itself be interpreted as a decline in corporate governance quality (Carcello *et al.*, 2002; Liu *et al.*, 2016; Min and Chizema, 2018). The law led to an increase in both AuC and RemC meetings for first adopters. The reduction in BoD meetings needs to be interpreted together with the increase in internal committee meetings.

Our findings taken together suggest that the Gender Equality Law had an important impact. It appears to enhance the role of internal committees, which are able to prepare items

	BoD meeting			
	OLS regression		OLS regression	
Variables	Estimate	*p*-value	Estimate	*p*-value
*Post*mandatory adopters*	*−0.669*	*0.099*		
Mandatory adopters	0.006	0.985		
*Post*first adopters*			0.520	0.389
First adopters			−0.645	0.218
BoDs size	−1.566	0.001	−2.309	0.000
BoDs independence	2.583	0.002	3.653	0.001
BoDs executive	−4.222	0.000	−7.486	0.000
CEO age	−0.067	0.000	−0.073	0.000
CEO duality	0.539	0.050	0.733	0.056
CEO female	−1.231	0.063	−5.436	0.000
Chair female	−0.947	0.017	−0.320	0.728
Firm size	0.412	0.000	0.311	0.008
Leverage	−2.750	0.000	−4.206	0.000
Loss $t-1$	−0.275	0.341	−0.199	0.614
Sales growth	−0.412	0.471	−0.272	0.749
ROA	−8.116	0.000	−6.424	0.039
Intercept	15.370	0.000	18.312	0.000
Industry and years fixed effects	included		included	
Adjusted R^2	0.244		0.339	
Observations	952		536	

Note: *P*-values are based on asymptotic *z*-statistic using White (1980) standard error robust to heteroscedasticity
Source: Authors' own creation

Table 5. Multivariate results for *H1*

Table 6.
Multivariate results for *H2*

Variables	AuC meeting OLS regression Estimate	*p*-value	RemC meeting OLS regression Estimate	*p*-value	AuC meeting OLS regression Estimate	*p*-value	RemC meeting OLS regression Estimate	*p*-value
*Post*mandatory adopters*	−0.891	0.112	0.194	0.414				
Mandatory adopters	0.801	0.006	−0.429	0.017				
*Post*first adopters*					*0.996*	*0.094*	*1.139*	*0.003*
First adopters					−0.912	0.064	−0.067	0.805
BoDs size	0.940	0.014	0.550	0.062	0.059	0.911	0.113	0.789
BoDs independence	2.375	0.002	2.358	0.000	4.307	0.000	4.389	0.000
BoDs executive	−1.895	0.009	−0.957	0.061	−2.513	0.013	−1.107	0.099
CEO age	0.026	0.029	−0.033	0.000	0.019	0.254	−0.034	0.030
CEO duality	−0.280	0.220	−0.596	0.000	0.012	0.972	−0.105	0.634
CEO female	−0.015	0.972	−0.917	0.000	−3.624	0.000	−1.507	0.001
Chair female	0.713	0.134	−0.221	0.368	3.114	0.016	0.978	0.105
Firm size	0.921	0.000	0.493	0.000	0.832	0.000	0.430	0.000
Leverage	0.831	0.161	−0.979	0.008	1.829	0.021	−0.727	0.228
Loss $t-1$	0.251	0.312	0.061	0.731	−0.008	0.980	−0.210	0.362
Sales growth	−0.477	0.394	−0.168	0.590	−0.049	0.943	0.414	0.406
ROA	2.342	0.187	5.502	0.000	1.015	0.692	5.575	0.005
Intercept	−5.973	0.000	−0.164	0.860	−4.116	0.022	−0.204	0.883
Industry and years fixed effects	included		included		included		included	
Adjusted R^2	0.421		0.390		0.445		0.382	
Observations	952		952		536		536	

Note: *P*-values are based on asymptotic z-statistic using White (1980) standard error robust to heteroscedasticity
Source: Authors' own creation

for discussion before BoD meetings and put forward a “semi-finished product”. This means that boards of directors can meet less frequently.

All the above may also be read together with the strand of literature on the boards’ composition and its efficiency, with particular reference to studies showing that bigger groups work worse than smaller ones. Women in smaller groups like internal committees, by improving the use of skills and knowledge and encouraging cooperation and attention, can raise the quality of debate and request more frequent meetings.

So, supporting institutional theory, a regulatory institution implemented in a law has a significant effect on firm organization of BoDs and committees.

Robustness

Robustness tests confirm our findings. To show that they are driven by the new law rather than firm characteristics, we repeat the analysis on a sample of similar firms. Untabulated findings show very robust results for RemC meetings. To show that findings don’t reflect the method used, we present them using a generalised difference-in-differences method (Jacobson *et al.*, 1993). We drop the variable *post* and include the interactions of *mandatory adopters* with the full set of year-fixed effects. Untabulated results show that for RemC meetings before the regulation, the coefficients for interactions are negative, while from 2015 they become positive. For AuC meeting, before the regulation the coefficients, for the interactions are negative, while from 2014 on, they become less negative. Results confirm main results for internal committee meetings about more frequent internal committee meetings after the introduction of the gender quota: higher for RemC and less negative for AuC.

Finally, to show that our results are not affected by the smallness of the sample, we perform a three-way interaction term regression. We include additional interactions to incorporate all observations to avoid regressions on subsamples. Results show that, for RemC meetings, first adopters have a significantly higher frequency of RemC meetings after the regulation when compared to the control group of voluntary adopters before the law, although they were not significantly different before it.

We also use the percentage of women on BoD as independent variable. Mandatory adopters increase the percentage of women on BoD, decrease BoD meetings and increase AuC and RemC meetings in the sample. Data are statistically significant for RemC meetings.

Conclusion, limitations and further steps

Our results confirm the importance of female characteristics. They show that gender quota regulation led mandatory adopter companies to re-prioritize activities, holding fewer BoD meetings and more internal committee meetings, with very robust results for RemC meetings. We conclude that the law is a determinant of the increase in RemC meetings.

In other words, the gender quota appears to enhance the role of internal committees, the organization of meetings and the *modus operandi* of the BoD. The findings can usefully be linked to studies on board composition and efficiency and on smaller versus larger groups of people.

Our research has various implications. It is useful as a learning case; it shows how research can connect conceptual thinking with practice to produce stronger evidence for policy recommendations. In fact, firms may gain advantage by increasing female representation as first-movers and by creating long-term gender-diverse boards. Our study indicates that first adopters hold more frequent internal committee meetings and that moves towards gender equality improve firms’ internal functioning.

Our study is not without limitations. Characteristics are in some cases country-specific; different proxies may be chosen. The study investigates mandatory thresholds but does not consider a minimum number of women. Furthermore, the sample includes only firms making public disclosure.

Future research could investigate whether the reduction in the number of board meetings would increase their duration. Coordination and alignment of board member agendas, where a large number of positions held by women interlock (with fewer women involved), are pressing issues. It would be interesting to investigate the extent to which women decide meeting agendas and whether meeting time is wasted on unproductive tasks.

References

Abbott, L.J., Parker, S. and Peters, G.F. (2004), "Audit committee characteristics and restatements", *AUDITING: A Journal of Practice and Theory*, Vol. 23 No. 1, pp. 69-87, doi: 10.2308/aud.2004.23.1.69.

Abu Qa'dan, M.B.A. and Suwaidan, M.S. (2019), "Board composition, ownership structure and corporate social responsibility disclosure: the case of Jordan", *Social Responsibility Journal*, Vol. 15 No. 1, pp. 28-46, doi: 10.1108/SRJ-11-2017-0225.

Adams, R.B. and Ferreira, D. (2008), "Do directors perform for pay?", *Journal of Accounting and Economics*, Vol. 46 No. 1, pp. 154-171.

Adams, R.B. and Ferreira, D. (2009), "Women in the boardroom and their impact on governance and performance", *Journal of Financial Economics*, Vol. 94 No. 2, pp. 291-309, doi: 10.1016/j.jfineco.2008.10.007.

Adams, R.B. and Ferreira, D. (2012), "Regulatory pressure and bank directors' incentives to attend board meetings", *International Review of Finance*, Vol. 12 No. 2, pp. 227-248.

Adams, R. and Funk, P. (2010), "Beyond the glass ceiling: does gender matter?", *Management Science*, Vol. 58 No. 2, pp. 219-235.

Adams, R.B., Ragunathan, V. and Tumarkin, R. (2015), "Death by committee? An analysis of delegation in corporate boards", Working Paper.

Athey, S. and Imbens, G. (2018), "Design-based analysis in difference-indifferences settings with staggered adoption", National Bureau of Economic Research, w24963.

Bernardi, R.A., Bosco, S. and Vassill, K. (2006), "Does female representation on boards of directors associate with fortune's 100 'best companies' list?", *Business and Society*, Vol. 45 No. 2, pp. 235-248.

Bianco, M., Ciavarella, A. and Signoretti, R. (2015), "Women on corporate boards in Italy: the role of family connections", *Corporate Governance: An International Review*, Vol. 23 No. 2, pp. 129-144, doi: 10.1111/corg.12097.

Bilimoria, D. and Wheeler, J.V. (2000), "Women corporate directors: current research and future directions", in Davidson M.J. and Burke R.J. (Eds), *Women in Management: Current Research Issues*, Paul Chapman Publishers, London, Vol. II.

Borusyak, K. and Jaravel, X. (2017), "Revisiting event study designs", available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2826228

Brahma, S., Nwafor, C. and Boateng, A. (2021), "Board gender diversity and firm performance: the UK evidence", *International Journal of Finance and Economics*, Vol. 26 No. 4, pp. 5704-5719, available at: https://onlinelibrary.wiley.com/doi/10.1002/ijfe.2089

Brick, I.E. and Chidambaran, N.K. (2010), "Board meetings, committee structure, and firm value", *Journal of Corporate Finance*, Vol. 16 No. 4, pp. 533-553, doi: 10.1016/j.jcorpfin.2010.06.003.

Burke, R. and Mattis, M. (2000), *Women on Corporate Boards of Directors: International Challenges and Opportunities*, Kluwer Academic Publishers, Dordrecht.

Cai, J., Garner, J.L. and Walkling, R.A. (2009), "Electing directors", *The Journal of Finance*, Vol. 64 No. 5, pp. 2389-2421, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.2009.01504.x

Cao, J. and Lu, S. (2019), "Synthetic control inference for staggered adoption: estimating the dynamic effects of board gender diversity policies", arXiv Preprint ArXiv:1912.06320, pp. 1-30.

Carcello, J.V., Hermanson, D.R., Neal, T.L. and Riley, R.A. (2002), "Board characteristics and audit fees", *Contemporary Accounting Research*, Vol. 19 No. 3, pp. 365-384, doi: 10.1506/CHWK-GMQ0-MLKE-K03V.

Carter, D.A., Simkins, B.J. and Simpson, W.G. (2003), "Corporate governance, board diversity, and firm value", *The Financial Review*, Vol. 38 No. 1, pp. 33-53, available at: https://onlinelibrary.wiley.com/doi/10.1111/1540-6288.00034

Christensen, H.B., Hail, L. and Leuz, C. (2013), "Mandatory IFRS reporting and changes in enforcement", *Journal of Accounting and Economics*, Vol. 56 Nos 2/3, pp. 147-177.

Cimirotić, R., Duller, V., Feldbauer-Durstmüller, B., Gärtner, B. and Hiebl, M.R. (2017), "Enabling factors that contribute to women reaching leadership positions in business organizations: the case of management accountants", *Management Research Review*, Vol. 40 No. 2, pp. 165-194.

Conger, J.A., Finegold, D. and Lawler, E.E. (1998), "Appraising boardroom performance", *Harvard Business Review*, Vol. 76 No. 1, pp. 136-148.

Davis, K., Evans, M. and Lorber, J. (Eds) (2006), *Handbook of Gender and Women's Studies*, Sage, London.

De Andres, P., Azofra, V. and Lopez, F. (2005), "Corporate boards in OECD countries: size, composition, functioning and effectiveness", *Corporate Governance*, Vol. 13 No. 2, pp. 197-210, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2005.00418.x

Deli, D.N. and Gillan, S.L. (2000), "On the demand for independent and active audit committees", *Journal of Corporate Finance*, Vol. 6 No. 4, pp. 427-445, doi: 10.1016/S0929-1199(00)00016-X.

DiMaggio, P.J. and Powell, W.W. (1983), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, Vol. 48 No. 2, pp. 147-160, doi: 10.2307/2095101.

Duehr, E. and Bono, J.E. (2006), "Men, women, and managers: are stereotypes finally changing?", *Personnel Psychology*, Vol. 59 No. 4, pp. 815-846.

Forbes, D.P. and Milliken, F.J. (1999), "Cognition and corporate governance: understanding boards of directors as strategic decision-making groups", *The Academy of Management Review*, Vol. 24 No. 3, pp. 489-505.

Galbreath, J. (2011), "Are there gender-related influences on corporate sustainability? A study of women on boards of directors", *Journal of Management and Organization*, Vol. 17 No. 1, pp. 17-38, doi: 10.5172/jmo.2011.17.1.17.

Gordini, N. and Rancati, E. (2017), "Gender diversity in the Italian boardroom and firm financial performance", *Management Research Review*, Vol. 40 No. 1, pp. 75-94, doi: 10.1108/MRR-02-2016-0039.

Hambrick, D.C., Werder, A. and Zajac, E.J. (2008), "New directions in corporate governance research", *Organization Science*, Vol. 19 No. 3, pp. 381-385.

Harding, N. (2003), *The Social Construction of Management: Texts and Identities*, Routledge, London.

Hartmann, C.C. and Carmenate, J. (2020), "Does board diversity influence firms' corporate social responsibility reputation?", *Social Responsibility Journal*, Vol. 17 No. 8, doi: 10.1108/SRJ-04-2020-0143.

Hillebrand, B., Nijholt, J.J. and Nijssen, E.J. (2011), "Exploring CRM effectiveness: an institutional theory perspective", *Journal of the Academy of Marketing Science*, Vol. 39 No. 4, pp. 592-608, doi: 10.1007/s11747-011-0248-3.

Hillman, A., Shropshire, C. and Cannella, A.A. (2007), "Organizational predictors of women in top management teams and corporate boardrooms", *Academy of Management Journal*, Vol. 50 No. 4, pp. 941-952, doi: 10.5465/amj.2007.26279222.

Hoffman, L.R. and Maier, N.R. (1961), "Quality and acceptance of problem solutions by members of homogeneous and heterogeneous groups", *The Journal of Abnormal and Social Psychology*, Vol. 62 No. 2, pp. 401-407, doi: 10.1037/h0044025.

Hossain, M., Al Farooque, O.A., Momin, M.A. and Almotairy, O. (2017), "Women in the boardroom and their impact on climate change related disclosure", *Social Responsibility Journal*, Vol. 13 No. 4, pp. 828-855, doi: 10.1108/SRJ-11-2016-0208.

Huse, M. and Solberg, A.G. (2006), "Gender related boardroom dynamics: how women make and can make contributions on corporate boards", *Women in Management Review*, Vol. 21 No. 2, pp. 13-130, doi: 10.1108/09649420610650693.

Iannotta, M., Gatti, M. and Huse, M. (2016), "Institutional complementarities and gender diversity on boards: a configurational approach", *Corporate Governance: An International Review*, Vol. 24 No. 4, pp. 406-427, available at: https://onlinelibrary.wiley.com/doi/10.1111/corg.12140

Jacobson, L.S., Lalonde, R.J. and Sullivan, D.G. (1993), "Earnings losses of displaced workers", *American Economic Review*, Vol. 83 No. 4, pp. 685-709.

Jamali, D., Sidani, Y. and Abu-Zaki, D. (2008), "Emotional intelligence and management development implications: insights from the Lebanese context", *Journal of Management Development*, Vol. 27 No. 3, pp. 348-360.

Jehn, K. (1995), "A multimethod examination of the benefits and detriments of intragroup conflicts", *Administrative Science Quarterly*, Vol. 40 No. 2, pp. 256-282.

Joecks, J., Pull, K. and Scharfenkamp, K. (2019), "Board faultlines and firm innovativeness: the bridging role of women directors", *Academy of Management Proceedings*, Vol. 2019 No. 1, p. 14715.

Kakabadse, N.K., Figueira, C., Nicolopoulou, K., Hong Yang, J., Kakabadse, A.P. and Özbilgin, M.F. (2015), "Gender diversity and board performance: women's experiences and perspectives", *Human Resource Management*, Vol. 54 No. 2, pp. 265-281.

Krenn, M. (2016), "Convergence and divergence in corporate governance: an integrative institutional theory perspective", *Management Research Review*, Vol. 39 No. 11, pp. 1447-1471, doi: 10.1108/MRR-05-2014-0103.

Lawler, E.E. and Finegold, D. (2006), "Who's in the boardroom and does it matter: the impact of having non-director executives attend board meetings", *Organizational Dynamics*, Vol. 35 No. 1, pp. 106-115.

Leuz, C. and Wysocki, P.D. (2016), "The economics of disclosure and financial reporting regulation: evidence and suggestions for future research", *Journal of Accounting Research*, Vol. 54 No. 2, pp. 525-622, available at: https://onlinelibrary.wiley.com/doi/10.1111/1475-679X.12115

Lipton, M. and Lorsch, J.W. (1992), "A modest proposal for improved corporate governance", The Business Lawyer, pp. 59-77.

Liu, H., Wang, H. and Wu, L. (2016), "Removing vacant chairs: does independent directors' attendance at board meetings matter?", *Journal of Business Ethics*, Vol. 133 No. 2, pp. 375-393, doi: 10.1007/s10551-014-2402-6.

Liu, Y., Wei, Z. and Xie, F. (2014), "Do women directors improve firm performance in China?", *Journal of Corporate Finance*, Vol. 28, pp. 169-184, doi: 10.1016/j.jcorpfin.2013.11.016.

Lückerath-Rovers, M. (2013), "Women on boards and firm performance", *Journal of Management and Governance*, Vol. 17 No. 2, pp. 491-509, doi: 10.1007/s10997-011-9186-1.

Masulis, R.W., Wang, C. and Xie, F. (2012), "Globalizing the boardroom – the effects of foreign directors on corporate governance and firm performance", *Journal of Accounting and Economics*, Vol. 53 No. 3, pp. 527-554, doi: 10.1016/j.jacceco.2011.12.003.

Mayur, M. and Saravanan, P. (2017), "Performance implications of board size, composition and activity: empirical evidence from the Indian banking sector", *Corporate Governance: The International Journal of Business in Society*, Vol. 17 No. 3, pp. 466-489, doi: 10.1108/CG-03-2016-0058.

Méndez, C.F. and García, R.A. (2007), "The effects of ownership structure and board composition on the audit committee meeting frequency: Spanish evidence", *Corporate Governance: An International Review*, Vol. 15 No. 5, pp. 909-922, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2007.00619.x

Mensi-Klarbach, H. (2014), "Gender in top management research: towards a comprehensive research framework", *Management Research Review*, Vol. 37 No. 6, pp. 538-552, doi: 10.1108/MRR-03-2013-0066.

Mensi-Klarbach, H., Leixnering, S. and Schiffinger, M. (2021), "The carrot or the stick: self-regulation for gender-diverse boards via codes of good governance", *Journal of Business Ethics*, Vol. 170 No. 3, pp. 577-593, doi: 10.1007/s10551-019-04336-z.

Meyer, J.W. and Rowan, B. (1977), "Institutionalized organizations: formal structure as myth and ceremony", *American Journal of Sociology*, Vol. 83 No. 2, pp. 340-363, available at: www.journals.uchicago.edu/doi/10.1086/226550

Min, B.S. and Chizema, A. (2018), "Board meeting attendance by outside directors", *Journal of Business Ethics*, Vol. 147 No. 4, pp. 901-917, doi: 10.1007/s10551-015-2990-9.

Minichilli, A., Zattoni, A., Nielsen, S. and Huse, M. (2012), "Board task performance: an exploration of micro- and macro-level determinants of board effectiveness", *Journal of Organizational Behavior*, Vol. 33 No. 2, pp. 193-215.

Nielsen, S. and Huse, M. (2010), "The contribution of women on boards of directors: going beyond the surface", *Corporate Governance: An International Review*, Vol. 18 No. 2, pp. 136-148, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2010.00784.x

North, D.C. (1990), *Institutions, Institutional Change, and Economic Performance*, Princeton University Press, Princeton.

Ntim, C.G. and Osei, K.A. (2011), "The impact of corporate board meetings on corporate performance in South Africa", *African Review of Economics and Finance*, Vol. 2 No. 2, pp. 83-100.

Pucheta-Martínez, M.C. and Gallego-Álvarez, I. (2020), "Do board characteristics drive firm performance? An international perspective", *Review of Managerial Science*, Vol. 14 No. 6, pp. 1251-1297, doi: 10.1007/s11846-019-00330-x.

Rauter, T. (2017), "Disclosure regulation, corruption, and investment: evidence from natural resource extraction", *SSRN Electronic Journal*, Vol. 1, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3049941

Rigolini, A. and Huse, M. (2021), "Women and multiple board memberships: social capital and institutional pressure", *Journal of Business Ethics*, Vol. 169 No. 3, pp. 443-459.

Roe, M.J. (2004), "The institutions of corporate governance", in Menard, C. and Shirley, M.M. (Eds), *Handbook for New Institutional Economics*, Kluwer Academic Publishers, Norwell, MA.

Rose, C. (2007), "Does female board representation influence firm performance? The Danish evidence", *Corporate Governance: An International Review*, Vol. 15 No. 2, pp. 404-413, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2007.00570.x

Ruigrok, W., Peck, S. and Tacheva, S. (2007), "Nationality and gender diversity on Swiss Corporate Boards", *Corporate Governance: An International Review*, Vol. 15 No. 4, pp. 546-557, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2007.00587.x

Sarabi, Y. and Smith, M. (2021), "Busy female directors: an exploratory analysis of the impact of quotas and interest groups", *Gender in Management: An International Journal*, Vol. 36 No. 3, pp. 368-385, doi: 10.1108/GM-07-2019-0129.

Schwartz-Ziv, M. and Weisbach, M.S. (2013), "What do boards really do? Evidence from minutes of board meetings", *Journal of Financial Economics*, Vol. 108 No. 2, pp. 349-366.

Scott, W.R. (2001), *Institutions and Organizations*, Sage Publications, Thousand Oaks, CA.

Shan, Y.G. (2013), "Can internal governance mechanisms prevent asset appropriation? Examination of type I tunneling in China", *Corporate Governance: An International Review*, Vol. 21 No. 3, pp. 225-241, available at: https://onlinelibrary.wiley.com/doi/10.1111/corg.12022

Singh, V. and Vinicombe, S. (2004), "Why so few women directors in top UK boards? Evidence and theoretical explanations", *Corporate Governance*, Vol. 12 No. 4, pp. 479-488, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2004.00388.x

Singh, V., Terjesen, S. and Vinnicombe, S. (2008), "Newly appointed directors in the boardroom: how do women and men differ?", *European Management Journal*, Vol. 26 No. 1, pp. 48-58, doi: 10.1016/j.emj.2007.10.002.

Smith, N. and Parrotta, P. (2018), "Why so few women on boards of directors? Empirical evidence from Danish companies in 1998–2010", *Journal of Business Ethics*, Vol. 147, pp. 445-467.

Smith, N., Smith, V. and Verner, M. (2006), "Do women in top management affect firm performance? A panel study of 2500 Danish firms", *International Journal of Productivity and Performance Management*, Vol. 55 No. 7, pp. 569-593.

Strezhnev, A. (2018), "Semiparametric weighting estimators for multi-period difference-indifferences designs", Paper presented at the Annual Conference of the American Political Science Association, Boston, MA, 30 August – 2 September.

Vafeas, N. (1999), "Board meeting frequency and firm performance", *Journal of Financial Economics Board Meeting Frequency and Firm Performance*, Vol. 53 No. 1, pp. 113-142, doi: 10.1016/S0304-405X(99)00018-5.

Vasconcelos, A.F. (2018), "Gender and leadership stereotypes theory: is it reaching the boundaries?", *Management Research Review*, Vol. 41 No. 11, pp. 1336-1355.

Walfisch, T., Van Dijk, D. and Kark, R. (2013), "Do you really expect me to apologize? The impact of status and gender on the effectiveness of an apology in the workplace", *Journal of Applied Social Psychology*, Vol. 43 No. 7, pp. 1446-1458.

Westphal, J.D. and Milton, L.P. (2000), "How experience and network ties affect the influence of demographic minorities on corporate boards", *Administrative Science Quarterly*, Vol. 45 No. 2, pp. 366-398, doi: 10.2307/2667075.

White, H. (1980), "A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity", *Econometrica*, Vol. 48 No. 4, pp. 817-838, available at: www.jstor.org/stable/1912934?origin=crossref

Wijethilake, C. and Ekanayake, A. (2019), "CEO duality and firm performance: the moderating roles of CEO informal power and board involvements", *Social Responsibility Journal*, Vol. 16 No. 8, pp. 1453-1474, doi: 10.1108/SRJ-12-2018-0321.

Xie, B., Davidson, W.N. and DaDalt, P.J. (2003), "Earnings management and corporate governance: the role of the board and the audit committee", *Journal of Corporate Finance*, Vol. 9 No. 3, pp. 295-316, doi: 10.1016/S0929-1199(02)00006-8.

Further reading

Chen, K.D. and Wu, A. (2016), *The Structure of Board Committees*, Harvard Business School, Boston, MA.

Conde-Ruiz, J.I., García, M. and Yáñez, M. (2019), "Does a 'soft' board gender quotas policy work?", *Applied Economic Analysis*, Vol. 28 No. 82, pp. 46-68, doi: 10.1108/AEA-09-2019-0029.

De Chaisemartin, C. and d'Haultfoeuille, X. (2018), "Fuzzy differences-in-differences", *The Review of Economic Studies*, Vol. 85 No. 2, pp. 999-1028, doi: 10.1093/restud/rdx049.

Ferris, S.P., Jagannathan, M. and Pritchard, A.C. (2003), "Too busy to mind the business? Monitoring by directors with multiple board appointments", *The Journal of Finance*, Vol. 58 No. 3, pp. 1087-1111, available at: https://onlinelibrary.wiley.com/doi/10.1111/1540-6261.00559

Fich, E.M. and Shivdasani, A. (2006), "Are busy boards effective monitors?", *The Journal of Finance*, Vol. 61 No. 2, pp. 689-724, available at: https://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.2006.00852.x

Gregorič, A., Oxelheim, L., Randøy, T. and Thomsen, S. (2017), "Resistance to change in the corporate elite: female directors' appointments onto Nordic boards", *Journal of Business Ethics*, Vol. 141 No. 2, pp. 267-287, doi: 10.1007/s10551-015-2703-4.

Machold, S., Huse, M., Hansen, K. and Brogi, M. (Eds) (2013), *Getting Women on to Corporate Boards: A Snowball Starting in Norway*, Edward Elgar Publishing, Cheltenham.

Rigolini, A., Gabrielsson, J., Barriuso, M.I. and Huse, M. (2019), "Rethinking boards and governance in the digital era: implications for practice and research", *Research Handbook on Boards of Directors*, Edward Elgar Publishing, Cheltenham.

Shivdasani, A. and Yermack, D. (1999), "CEO involvement in the selection of new board members: an empirical analysis", *The Journal of Finance*, Vol. 54 No. 5, pp. 1829-1853, doi: 10.1111/0022-1082.00168.

Terjesen, S., Aguilera, R.V. and Lorenz, R. (2015), "Legislating a woman's seat on the board: institutional factors driving gender quotas for boards of directors", *Journal of Business Ethics*, Vol. 128 No. 2, pp. 233-251, doi: 10.1007/s10551-014-2083-1.

Appendix 1

Dependent variables	
BoDs meeting	Number of BoD meetings in a fiscal year
AuC meeting	Number of AuC meetings in a fiscal year
RemC meeting	Number of RemC meetings in a fiscal year
Test variables to identify firms	
Mandatory adopters	1 if firm had a gender quota lower than the quota defined by the law before its implementation 0 otherwise
First adopters	1 if firm renewed the BoDs for the first time after 12 August 2012 in the year 2012 (after 12 August and before 31 December 2012) 0 otherwise
Test variables to identify periods	
Post	1 if in the year of analysis, the firm has a BoD renewed after 12 August 2012 0 otherwise
Control variables	
BoDs size	Ln (number of BoD members)
BoDs independence	Number of independent/number of BoD's members
BoDs executive	Number of executive/number of BoD's members
CEO age	Year of birth – current year
CEO duality	1 if the CEO is also Chair; 0 otherwise
CEO female	1 if CEO is a woman; 0 otherwise
Chair female	1 if Chair is a woman; 0 otherwise
AuC size	Ln (number of AuC members)
RemC size	Ln (number of RemC members)
Firm size	Ln (total assets)
Leverage	Total equity/total assets
Loss $t-1$	1 if year $t-1$ has a loss; 0 otherwise
Sales growth	(sales t–sales $t-1$)/sales $t-1$
ROA	Operating profit/total assets

Source: Authors' own creation

Table A1.
Variable definition

Appendix 2

Test variables	Introduction of gender quota at the first renewal of the board of directors 2012	2013	2014	2015	2016	2017	2018
FIRM 1 – First mandatory adopter, Industry X							
Mandatory gender quota	NO	YES	YES	YES	YES	YES	YES
Post	0	1	1	1	1	1	1
Mandatory adopters	1	1	1	1	1	1	1
First adopters	1	1	1	1	1	1	1
FIRM 2 – First voluntary adopter, Industry Y							
Mandatory gender quota	NO	YES	YES	YES	YES	YES	YES
Post	0	1	1	1	1	1	1
Mandatory adopters	0	0	0	0	0	0	0
First adopters	–	–	–	–	–	–	–
FIRM 3 – Second mandatory adopter, Industry Z							
Mandatory gender quota	NO	NO	YES	YES	YES	YES	YES
Post	0	0	1	1	1	1	1
Mandatory adopters	1	1	1	1	1	1	1
First adopters	0	0	0	0	0	0	0
FIRM 4 – Second voluntary adopter, Industry V							
Mandatory gender quota	NO	NO	YES	YES	YES	YES	YES
Post	0	0	1	1	1	1	1
Mandatory adopters	0	0	0	0	0	0	0
First adopters	–	–	–	–	–	–	–
FIRM 5 – Third mandatory adopter, Industry W							
Mandatory gender quota	NO	NO	NO	YES	YES	YES	YES
Post	0	0	0	1	1	1	1
Mandatory adopters	1	1	1	1	1	1	1
First adopters	0	0	0	0	0	0	0
FIRM 5 – Third voluntary adopter, Industry R							
Mandatory gender quota	NO	NO	NO	YES	YES	YES	YES
Post	0	0	0	1	1	1	1
Mandatory adopters	0	0	0	0	0	0	0
First adopters	–	–	–	–	–	–	–
	Year fixed effects: control for average level of corporate governance quality in each year						
	Industry fixed effects: control for average level of corporate governance quality in Industries X, Y, Z, V, W and R						

Note: Following Christensen *et al.* (2013)
Source: Authors' own creation

Table A2. Identification strategy and variable coding

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