Shared Parental Leave and Firm Performance in the UK: A Governance Perspective

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Abstract

We explore how shared parental leave policy is associated with the governance behaviour of *male* board directors and the performance of the firms they govern. Exploring male directors is important because, although female board directors possess essential governance skills, they have lower influential power relative to male directors. Merely increasing the proportion of female directors may thus not yield the governance and firm performance improvements desired. Analysing the effects of the 2015 UK shared parental leave policy in 1,930 UK firms, we find that financial performance increases in firms with predominantly male boards. Performance improvements are partially attributable to better corporate governance, indicating a tendency for male directors to adopt leadership traits traditionally associated with female directors after being exposed more gender equal parenting rights. With implications for strategic leadership and inclusive practices, our results suggest that egalitarian government policy can contribute to diverse leadership strategies among male directors with benefits for firm performance.

Keywords: Board Directors; Parental Leave; Gender Diversity; Firm Performance; Corporate Governance.

JEL codes: C33, G38, J16, L25

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1. Introduction

A burgeoning body of research investigates the influence of *women* board directors on corporate governance and firm performance (Girardone, Kokas and Wood, 2021). Extant literature draws on gender inclusive policy making sanctioned internationally, e.g., United Nations, and nationally through, for example, board gender quotas and parental leave provisions (Homroy and Mukherjee, 2021). The relationship between gender diversity and improved firm performance is conditional on normative and regulatory acceptance of equality measures within organisations and wider society (Zhang, 2020). However, forced gender diversification strategies that increase female directorships do not necessarily boost shareholder value, see Eckbo, Nygaard and Thorburn (2022) on the Norwegian board gender quota. However, little is known about the effect these policies have on the governance strategies of *male* board directors. This is important because, although female directorships are linked to positive firm outcomes, tokenistic appointment strategies are associated to women leaders being less influential on organisational strategy (Carter et al., 2010) compared to male leaders (Triana, Miller, Trzebiatowski, 2014). While scoring higher than men on positive leadership skills (McKinsey & Company, 2017), female directors' relatively lower influential power can make them less effective than male directors at improving governance for the benefit of their firms and its employees (Bertrand et al., 2019). There is therefore a need to broaden the scope to consider the impact of gender equal policy making on not only female, but also male, leaders. We address this in the current paper in which we investigate whether shared parental leave policy is associated with improved firm performance in companies with predominantly male board directors.

Different leadership styles are ascribed to men and women. Male leaders are found to be more *individualistic* in their decision making behaviour, using control and corrective action to a greater extent than female leaders who adopt a more *participative* decision making style that focuses on development, rewards, role modelling and inspirational leadership (McKinsey & Company, 2017). Homogeneous leadership and organisational group thinking practices are berated for their obstruction of effective board monitoring (Coles, Daniel and Naveen, 2014), contribution to long-term systematic malpractice and economic problems (Song and Thakor, 2019). On the contrary organisations are seen to thrive on diverse leadership. This underpins the continuing focus on enabling more equal opportunities for

people, regardless of their gender or background, to progress to leadership and directorship positions (Kossek and Buzzanell, 2018).

Our novel contribution to the literature about gender diversity on corporate boards and firm performance lies in studying the effect of more gender inclusive policy making on *male* board directors. We investigate whether the government facilitating more gender equal opportunities in the workplace - thus creating awareness at board level - can unlock more inclusive leadership traits among male leaders for the benefit of firm performance. We conduct our study in the UK where the introduction of the shared parental leave policy in 2015 entitles fathers to share 50 of the 52 weeks leave awarded to new parents. This compares to only two weeks previously available to fathers. We collect data on 1,930 UK firms between the years of 2000 and 2020 to examine if firm strategy is affected by the policy. Specifically, we examine whether male directors' impact on firm performance is different before and after 2015 and if this varies by board gender composition. The policy required corporate boards to deliberate more egalitarian parental leave policies and more diverse working conditions, something which we postulate has the possibility to influence the governance behaviour of male directors.

Our findings indicate that firms with more male directors on their boards enjoy better performance in the period following the policy introduction. This effect is particularly strong for firms with exclusively male directors. These firms have on average 2.7% (14.8%) higher return on assets (stock returns) compared to firms with mixed gender boards, performance benefits which rise with the male director ratio. We investigate whether these male directors exhibit more female leadership traits to provide better governance through improved monitoring. Firms with predominantly male boards increase the delta pay for firm executives, experience lower real earnings management, less free cash flow and fewer financial constraints, directly linked to improved performance. To allay concerns of endogeneity regarding reverse causality and omitted variables, we test our hypothesis using a propensity score-matched sample, a dynamic general methods of moments (GMM) approach, and a triple difference model using US listed firms as a control group. Further, given the long history of inclusive parenting policy in Sweden, we study Swedish firms which produces results consistent with our original findings. We therefore conclude that, following the policy introduction, increased male board

representation is associated with stronger financial performance, mainly explained through better governance and monitoring by male directors.

That raised awareness and commitment to gender equality are related to leadership improvements among male executives is not entirely new. For example, Cronqvist and Yu (2017) establish a relationship between male CEOs of S&P 500 firms having daughters and an increase of 9.1% in corporate social responsibility (CSR) ratings. The contribution of board gender quotas to gender equality in the workplace is explored by Bertrand et al. (2019) who link the 2003 Norwegian quota for 40% female board representation to reduced board director gender pay gap and more highly qualified women entering board positions. The latter, which is also present following the Italian board gender quota (Ferrari, Ferraro, Profeta and Pronzato, 2022), is seen to circumvent a decrease in firm value Eckbo, Nygaard and Thorburn (2022).

Homroy and Mukherjee (2021) show how the executive gender pay gap narrows significantly in countries with board gender quotas and shared parental leave provisions. Zhang (2020) documents how the positive impact of gender diversity on firm performance is contingent on normative and regulatory acceptance of equality measures. Giannetti and Wang (2020) link the attention given to gender equality in the public domain to increased board gender diversity in firms that embrace diverse practices. Ng and Sears (2020) show how CEO commitment to gender equal practices is critical for their successful implementation. Such findings underscore the importance of the broader social context when considering the relationship between diverse governance and firm performance – contextualised in signalling by governments and companies.

Against this backdrop we postulate that, by introducing shared parental leave, the UK government became stronger advocates for increased gender equality in the workplace, compelling firms to revise their policies. We conjecture that this reverse messaging (Duguid and Thomas-Hunt, 2015) has the potential to challenge stereotypical strategic leadership behaviour with male board directors adopting more egalitarian leadership traits for the benefit of their firms. We witness early evidence of this whereby the firms with male dominated boards successfully lowered the gender pay

gap among executives following the policy change.[4] We further note an accelerated increase in the proportion of female executives across all firms after the policy change. Such statistics provide comfort to our proposition that the introduction of shared parental leave may indeed impact governance practices of male directors.

The remainder of the paper is structured as follows. We discuss the background literature that motivates our research question and hypothesis in Section 2. We describe our data in Section 3 and report our empirical results in Sections 4 – 6. We summarise our conclusions in Section 7.

2. Related literature and hypothesis development

2.1. Policy making and board diversity

The board of directors governs the firm and is responsible for setting its strategic direction (Westphal and Fredrickson, 2001). By approving firm policies, directors have the power to influence and control the opportunities awarded to employees. In their capacity of representing shareholders the board is also important for the firm's reputation (Bear and Rahman, 2010). Government policy establishes the foundations for egalitarian practices in society, which firm board directors are obliged to align their firm policies to. The global financial crisis and latterly the COVID-19 pandemic, have highlighted the importance of the board's oversight and risk mitigating role (Nguyen, Hagendorff and Eshraghi, 2016). At the same time, diversity and inclusion are becoming increasingly important strategic considerations for firms who secure governance improvements by addressing gender imbalance. Female directorships are linked to positive market reactions (Ferrari, Ferraro, Profeta and Pronzato,, 2022) and reduced risk taking by banks post the global financial crisis (Mollah, Liljeblom and Mobarek, 2021). Conversely, homogeneous leadership and organisational group thinking are found to obstruct board monitoring (Coles, Daniel and Naveen, 2014) and contribute to financial crises (Benabou, 2013; Song and Thakor, 2019).

[4] The narrowing of the gender pay gap accelerates faster in these firms compared to firms with lower proportions of male directors while the increase of female executives affects all firms, see Figures IA.1 and IA.2 in Internet Appendix, respectively.

To reap economic benefits and foster social justice some nations have opted for board gender quotas. A 40% female quota was introduced in Norway in 2003, and by 2015 ten countries, including Finland, France, Belgium, Iceland, Italy, Norway and Spain in Europe had introduced quotas. Proportional requirement ranges from 33% (Belgium and Italy) to 40% (Finland, Iceland and Norway). Other countries, e.g., Austria, Denmark, Sweden and the UK, have instead opted for recommendations (Terjesen, Aguilera and Lorenz, 2015). While antagonism against quotas is present, e.g., Wiersema and Mors (2016), quotas are associated with the appointment of better qualified women directors and reduced director gender pay gap (Bertrand et al., 2019).

Governments have also turned their focus to parental leave policies. With the most generous parental leave provision globally, Sweden introduced paid leave for fathers in 1974 to support the dual earner and carer model. Fathers are required to take at least 90 of the total 480 days of parental leave. While fathers only took 0.5% of leave entitlement in 1974, this had risen to 30% in 2020 (Försäkringskassan, 2021). The UK introduced shared parental leave on 1 December 2014 for children born after 5 April 2015, entitling fathers to share 50 of the 52 weeks, compared to only 2 weeks previously. The intention for the policy is to be 'good for families, good for business and good for the economy', encourage cultural change in workplaces and make fathers feel more confident to take time off for childcare (UK Government, 2014).

Board gender quotas and shared parental leave are constituents of the legal environment for gender diverse business practice (Zhang, 2020). While board gender quotas *force* firms to increase female representation, shared parental leave ensures more equal opportunities that *facilitate* women's career progression. Since the normative acceptance of gender diversity enables its success (Giannetti and Wang, 2020), it is possible that this signalling by the UK government that business is also for women and parenting is also for men impact the thinking and behaviour of male directors.

2.2. Board gender diversity, governance and firm performance

To date the debate around gender diversity on corporate boards has centered around establishing links between increased *female* representation and firm performance (see Post and Byron, 2015). Women board directors are associated with positive firm outcomes, e.g., improved innovation (Griffin, Li and

Xu, 2021), and corporate governance, Environmental, Social and Governance (ESG) reporting (Bravo and Reguera-Alvarado, 2019). In their focus on long term performance (Manso, 2011), women directors are associated with reduced firm risk taking (Yang, Riepeb, Mosera, Pulla and Terjesen, 2019). However, although female representation (Cook and Glass, 2018) matters for firm outcomes, these are contingent on other factors, e.g., innovation (Dexsö and Gaddis Ross, 2012) and influential power (Triana, Miller, Trzebiatowski, 2014). Therefore, increased proportions of women on boards are not always directly linked to better financial performance (Zhang, 2020; Mollah, Liljeblom and Mobarek, 2021).

The literature provides more conclusive evidence regarding the link between corporate governance and financial performance. Prudent governance is associated with improved firm performance and female strategic leadership. For example, an increased proportion of female board directors yields more prudent financial risk policies that reduce volatility and improve performance in US firms (Bernile, Bhagwat and Yonker, 2018). Female directors fill the skills gap on corporate boards in several areas, e.g., corporate governance, human resources, risk management, regulatory, sustainability and political skills (Kim and Starks, 2016). In a review, Girardone, Kokas and Wood (2021) show how female directorships are associated with improved communication, transparency in financial reporting, improved monitoring and accountability for poor performance. Female directors challenge overconfident decision making, excessive risk taking and misconduct for the benefit of firm performance (Arnaboldi, Casu, Gallo, Kalotychou and Sarkisyan, 2021; Chen, Leung, Song, and Goergen, 2019). Therefore, the main contribution by female directors is to improve corporate governance and monitoring which in turn lead to stronger firm financial performance (Post and Byron, 2015).

However, there is a tendency for men and women tend to stick to their gender stereotypical leadership roles. Male opinions receive more airtime and are more influential. This manifests the position of the male as the powerful leader who can effect strategic change (Ritter and Yoder 2004). In contrast to how serving on several boards increases the influential power of male directors, serial female directorships do not necessarily translate into improved corporate governance (Benton, 2021). This is linked to influential power. Unless female board directors are powerful, their addition to the board is

not necessarily linked to strategic change or improved firm performance (Triana, Miller, Trzebiatowski, 2014), and their appointments may be indicative of firms pandering to gender targets instead of delegating power (Benton, 2021). So, the dominance of male strategic leadership extends to numbers of board seats and importantly also the influential power of male relative to female directors.

2.3. Gender roles and male leadership

While the conventional perspective on strategic leadership is that it is a male pursuit (Schein and Davidson, 1993), the conventional perspective on caring for children is that it is a female pursuit. Gender stereotype expectations affect the evaluation and behaviour of male and female leaders negatively (Deutsch, 2007; Hull and Umansky, 1996). Women leaders, particularly in male domains, tend to be judged by other to be unpalatable, cold, pushy and manipulative (Heilman and Wallen, 2010). Although where their performance is on par with men's, women leaders are often rated lower on competence, influencing and leadership skills (Heilman and Haynes, 2005). Encouragingly a growing body of research shows how reverse messaging and exposure to opposite gender values can positively impact perceptions and behaviour.

This literature shows how exposure to female socialisation and the desire for increased gender equality positively affect male leadership behaviour. Among CEOs of S&P 500 firms, Cronqvist and Yu (2017) find how firms with male CEOs whose first born child is a daughter, have 9.1% higher Corporate Social Responsibility (CRS) ratings compared to median firms. This is interpreted by how these CEOs align themselves more with female preferences, unlocking stronger focus on sustainability and inclusion - traits usually associated with female leaders. Dahl, Dezső and Ross (2012) show how male CEOs whose first born is a daughter reduce the gender pay gap among executives in their Danish firms. The 'first daughter effect' is supported by Sharrow, Rhodes, Nteta and Greenlee (2018) who find that American fathers of first born girls become more supportive of gender equality policies. Furthermore, fathers of school aged girls are seen to challenge traditional workplace gender norms more than dads of boys (Borrell-Porta, Costa-Font and Philipp 2019). Therefore, male leadership behaviour appears elastic with the potential for improved governance and more inclusive leadership practices

among gender equality aware male leaders, supporting previous findings that gender on its own insufficiently explains attitudes and behaviour (Baeckström, Marsh and Silvester, 2021).

2.4. Hypothesis

Although female directorships are associated with improved corporate governance and monitoring (Arnaboldi, Casu, Gallo, Kalotychou and Sarkisyan, 2021), extant literature demonstrates how the firm financial performance benefits that can be reaped by redressing board gender imbalance are limited. This is attributed to a number of factors including: the relative difficulty for women to secure board positions (Griffin, Li and Xu, 2021); tokenistic appointment strategies (Markoczy, Sun, Zhu, 2020), and the limited *influential power* of female directors (McDonald and Westphal, 2013). Merely addressing the physical gender imbalance on boards may therefore not unlock the desired benefits for firms, financial or otherwise (Bertrand et al., 2019; Post et al., 2020).

We need to consider alternative ways to induce more diverse strategic decision making that benefits firm performance. Extending current understanding, we therefore investigate how gender equal policy making affects the strategic leadership of male directors. This to ascertain whether - through increased strategic focus on inclusive parenting facilitated by government policy - female governance traits can be transposed onto male directors for the performance of the firms they govern. Specifically, we rely on the literature examining male leaders' exposure to gender equality through a (female) gendered socialisation process: e.g., female gender during childhood (Borrell-Porta, Costa-Font and Philipp 2019); having a daughter (Cronqvist and Yu, 2017) or spouses with careers (Hedge and Mishra, 2019). All which are shown able to unlock greater commitment to gender equal leadership practices. We postulate that the introduction of shared parental leave in the UK may be effective in signalling how parenting extends to the male gender and leadership to the female gender, thus challenging outdated gendered expectations. Therefore, apart from awarding greater equality to women leaders, shared parental leave may impact the behaviour of male leaders by unlocking their capacity to act outside of their gender normative framework and adopt more female leadership traits. Traits proven to contribute to stronger governance by improved monitoring (Girardone, Kokas and Wood, 2021), tame risk taking and reduce misconduct (Arnaboldi, Casu, Gallo, Kalotychou and Sarkisyan, 2021; Chen, Leung, Song,

and Goergen, 2019). Embracing female leadership traits can improve governance and monitoring among male directors which translate to stronger firm performance (Post and Byron, 2015). Building on extant research, we formulate our hypothesis:

Hypothesis 1. The shared parental leave policy introduced in the UK in 2015 is likely to lead to improved firm performance in firms governed by predominantly male board directors.

3. Data selection and empirical design

3.1. Data sample

We investigate our hypothesis using data from Compustat – Global and BoardEx – United Kingdom, which contains all available data for UK listed companies between 2000 and 2020. We require total assets to have a greater value than capital expenditures with positive values for both. We drop data where total liabilities are greater than total assets and where the sum of long- and short-term debt exceeds total assets. We exclude financial and utility firms as they are subject to different regulations and governance (Premuroso and Bhattacharya, 2007; Bigelli and Sanchez-Vidal, 2012). To avoid the influence of outliers, we winsorize variables with extreme values at 1% and 99% levels. The final sample comprises 16,223 firm–year observations across 1,930 firms.

Figure 1 provides details on industry distribution based on four-digit SIC codes and 30-industry classification. With 31% of firms operating in the services sector, they represent the biggest industry segment in our sample. Mining & natural resources, wholesale & retail, construction and manufacturing follow services in size representation.

[Insert Figure 1 here]

We define *Post* as a dummy equal to one from 5 April 2015 onward, zero otherwise. This accounts for the introduction of shared parental leave in the UK for children born after this date. We define two explanatory variables to capture the effect by the Board of Directors on firm performance. We focus on male directors because the policy explicitly targets male parents. Particularly, *Male Dummy* equals one for boards without female directors, zero otherwise. *Male Ratio* is the proportion of male board directors. These dummies allow us to examine whether male directors' impact on firm

performance is different before and after 2015 and whether this varies by proportion of male board representation. Hence, we construct *Male Dummy*×*Post* and *Male Ratio*×*Post* as the main explanatory variables in analyses through interaction of *Male Dummy*, *Male Ratio,* and *Post*. We use return on assets (ROA) and stock return to proxy accounting and financial performance of firms, respectively. *ROA* is calculated as cash flow from operations over total assets while *Stock Return* is annual stock returns[5].

Following the literature on corporate governance and firm performance (e.g., Bhagat and Bolton, 2008; Liu et al., 2015; Hu, Lin, and Tosun, 2022), we control for various firm-level attributes. *Firm Size* is the natural logarithm of total assets. *Leverage* is long-term debt plus debt in current liabilities scaled by total assets. *Growth* is capital expenditures over total assets. *Cash Ratio* is cash over total assets. *Stock Volatility* is the standard deviation of daily equally weighted stock returns in a year. *Tangibility* is net plant, property and equipment scaled by total assets. *M/B* is market value over book value of total assets. *Dividend Ratio* is total dividends scaled by the market value. *Board Size* is the natural logarithm of total number of directors on the board. *Board Tenure* is the natural logarithm of average tenure of directors on the board. *Busy Board* is a dummy equal to one if the proportion of directors sitting on more than two other boards is at least 50%, and zero otherwise. *Board Delta* is the natural logarithm of one plus the average delta pay (in £ Thousand) of directors on the board.

Table 1 provides summary statistics for all variables. The median ROA and stock return in the sample are about 6.4% and 0.3%, respectively. Males make up 92.2% of board directors in our sample and 61.6% of firms have fully male boards. An average firm has total assets of £90.468 million (see *Firm Size*). While leverage and cash ratio are 16.4% and 15.6%, respectively, M/B and dividend ratio are about 1.47 and 1.6%. On average, there are about six directors on the board (see *Board Size*).

[Insert Table 1 here]

3.2. Methodology

The period for the main analysis is years 2000 – 2020. To examine the relation between parental leave law and firm performance through corporate governance, we use the following difference-in-difference (DID) model:

[5] We also use risk-adjusted stock returns through Sharpe Ratio and obtain robust results in Table IA.9 of Internet Appendix.

$$Firm\ Performance_{i,t} = \alpha + \beta_1 Male\ Representation_{i,t-1} + \beta_2 (Male\ Representation \times Post)_{i,t-1} + \Theta X_{i,t-1} + \eta_i + \phi_t + \varepsilon_{i,t-1} \quad (1)$$

where $Firm\ Performance_{i,t}$ represents *ROA* and *Stock Return* of firm *i* in year *t*. $Male\ Representation_{i,t-1}$ denotes two different proxies for firm *i* in year *t–1*: *Male Dummy* and *Male Ratio*. $Post_{i,t-1}$ equals one from 2015 onward, zero otherwise. $X_{i,t-1}$ is a vector of control variables (i.e., *Firm Size*, *Leverage*, *Growth*, *Cash Ratio*, *Stock Volatility*, *Tangibility*, *M/B*, *Dividend Ratio*, *Board Size*, *Board Tenure*, *Busy Board*, and *Board Delta*). η_i represents firm fixed effects while ϕ_t denotes year fixed effects to account for any time trends in firm performance. The model does not have an indicator for the post period separately because this is subsumed by the year fixed effects. We investigate whether, after the change in parental leave law, firms with more male directors outperform those with lower male representation through the interaction of *Male Dummy*, *Male Ratio,* and *Post,* i.e., the main explanatory variables in the model. To address the potential issue of causality and determine its direction, all explanatory variables are lagged by one year. Standard errors are clustered at the firm level, specifications common in empirical corporate finance studies (e.g., Adams and Ferreira, 2009; Guo and Masulis, 2015).

4. Results

4.1. Main findings

We conjecture that firms with more male board directors perform better after the change in parental leave policy. We conduct T-test to compare the average firm performance between the firms with male only boards and other firms with mixed gender boards. Table II gives statistically significant results. *ROA* is higher by 3.2% for companies with male only boards following the law change compared to firms with mixed gender boards. Similarly, *Stock Return* is higher by 11.7% in firms with male only boards. These initial findings provide suggestive evidence for improved firm performance in firms whose board composition is 100% male.

[Insert Table 2 here]

We proceed to test for the association between parental leave policy and firm performance with the main findings presented in Table 3. *Male Dummy×Post* has statistically significant and positive coefficients for *ROA* and *Stock Return*. Particularly, firms with male only boards have 2.7% (14.8%) higher return on assets (stock returns) compared to firms having mixed gender boards after the law changes. Further analyses with *Male Ratio×Post* reveal detailed results. A one standard deviation increase in the *Male Ratio* (about 11.2%), i.e., the addition of one male board member (see Table 1), increases *ROA* by 0.9% (= 0.084 × 0.112) and *Stock Return* by 6.2% (= 0.553 × 0.112).[6] This suggests that firms that increase their proportion of male board directors benefit through increased performance across a range of measures. Consistent with Cronqvist and Yu (2017), we thus confirm a link between more inclusive government and corporate policies and male leadership behaviour. Male directors appear to adopt more female leadership traits to provide better governance which leads to improvements in firm performance. H1 hypothesis is supported.[7]

[Insert Table 3 here]

We conduct a parallel analysis with Swedish firms and test the validity of our main analysis in a different setting. Globally, Sweden was the first country to extend parental leave to fathers in 1974, and the policy has since continuously been reformed to strengthen the dual earner and carer model. In 2002, the number of months reserved for fathers increased from one to two with total parental leave

[6] In untabulated results, we obtain similar and robust results when we replace time fixed effects with economic factors, i.e. unemployment rate and PPI, and include the *Post* dummy. One can further argue that male board representation could have been affected directly by the policy. To eliminate this concern, we base our independent variable on the pre-reform period by identifying firms with fully male boards in 2014, right before the reform, as *Male Dominant* throughout our sample. Replacing *Male Dummy* with this new binary variable, we obtain robust results in Table IA.1 of Internet Appendix. We argue that the parental leave policy affects all male directors across the UK; hence, director turnover in the boards is not an issue for our study while both predecessor and successor directors are exposed to and influenced by this new policy.

[7] Although our DID model addresses the concerns of endogeneity and causality, the control variables in the estimation model that capture linear relations could be inadequate if companies with male only boards are fundamentally different to firms with mixed gender boards. Under this assumption (unobserved heterogeneity), our results could be biased. To mitigate this concern, we propensity-match each firm with a fully male board with its nearest (maximum two) neighbor firms without a fully male board, i.e., the control group, for each of the ten industry groups in our sample. This is achieved using the characteristics i.e., firm size, market-to-book, leverage and stock volatility as matching criteria. In Table IA.2 of Internet Appendix, we conduct the main DID analysis using this refined sample and obtain robust results. Moreover, we use a dynamic panel system GMM estimator, a technique that enhances the efficiency of our main estimator and the explanatory power through introducing more instrumental variables in the estimation. We include the lags of male board representation measures and control variables. Our instruments are lagged using 7 to 14 and 10 to 18 year periods to reflect different levels of lagging. Consistent with main results, Table IA.3 in Internet Appendix gives robust findings.

increasing from 12 to 16 months (Sweden, 2007). If there is an impact by male board directors on firm performance due to change in parental leave law, it should arguably be most evident in Swedish firms given the long history of shared parental leave. We collect data from Compustat – Global and BoardEx – Europe for Sweden listed companies between 2000 and 2005. After a similar procedure of preparation in our original sample, we have 469 observations across 113 Swedish firms. We follow Equation (1) but focus on the 2002 Swedish policy change and define *Post* as a dummy equal to one for years of 2002-2005, and zero for 2000-2001.

The results from the DID analysis in Table 4 confirm the robustness of our original findings. Specifically, Swedish firms with male only boards have 4.6% (49.4%) higher ROA (stock returns) compared to firms with mixed gender boards. Overall, increased male representation is positively associated with firm performance following the increased provision for fathers, providing comfort to our conceptual setup.

[Insert Table 4 here]

4.2. Channel: governance

Through increased strategic focus on inclusive parenting facilitated by government policy, we examine how female governance traits can be transposed onto male directors for the performance of their firms. The literature provides evidence of such an effect on the strategic leadership of male directors: e.g., female gender during childhood (Borrell-Porta, Costa-Font and Philipp 2019); having a daughter (Cronqvist and Yu, 2017) or spouses with careers (Hedge and Mishra, 2019). Relying on these studies, we postulate that shared parental leave may impact the behaviour of male leaders by unlocking their capacity to act outside of their gender normative framework and adopt more female leadership traits. Traits proven to enhance governance by improved monitoring (Girardone, Kokas and Wood, 2021), tame risk taking and reduce misconduct (Arnaboldi, Casu, Gallo, Kalotychou and Sarkisyan, 2021; Chen, Leung, Song, and Goergen, 2019). We study these channels of strong governance with monitoring using four proxies.

First, we follow Roychowdhury (2006) to construct real earnings management (*REM*) through abnormal cash flow from operations. This denotes the level of real earnings management by the CEO, and thus, decreasing levels indicate reduced quality of firm monitoring and governance. Next, we define

Ln(Free Cash Flow), as the natural logarithm of cash flow from operations minus capital expenditures plus one. This follows Jensen (1986) who shows how free cash flows (FCF) encourage CEOs to fund low return projects and therefore deteriorate governance and monitoring. Third, we investigate how increasing executive delta pay can ensure stronger governance by tying the executives' wealth to company's stock performance (Core and Larker,2002: Edmans et al., 2009; Mehran, 1995). For this we use *Ln(Exec Delta)* as the natural logarithm of one plus average executive delta pay (in £ Thousand). Lastly, we follow Hadlock and Pierce (2010) and define *SA-Index* as a proxy for firm financial constraints. Well-governed firms with strong monitoring ought to make decisions that ease financial constraints to increase performance potential. We use our main model in Equation (1) and regress *REM, Ln(Free Cash Flow), Ln(Exec Delta),* and *SA-Index* on *Male Dummy×Post* and *Male Ratio×Post* along with the control variables; time and firm fixed effects. Explanatory variables are lagged by one year, and standard errors are clustered at the firm level.

Table 5 presents our results. In Panel A, our findings indicate that male dominant boards are linked to decreased real earnings management, free cash flow and financial constraints. Such firms also increase the delta pay for firm executives. In Columns I – IV, *REM, Ln(Free Cash Flow),* and *SA-Index* decrease by 2.1%, 17.9% and 7%, respectively, and *Ln(Exec Delta)* increases by 12.2% for firms with male only boards after the policy change. We find similar results using *Male Ratio×Post.* Our results suggest that higher male board representation is associated with better governance and monitoring in firms and that better firm performance can be explained through improved governance by boards with more male directors.

[Insert Table 5 here]

The shared parental leave policy requires corporate boards to deliberate more egalitarian parental leave policies and more diverse working conditions, something which we postulate has the possibility to impact the governance behaviour of male directors. If true, we expect boards with more male directors deliver decisions that are more socially responsible. This channel of socially responsible governance can then lead to improved firm performance, explained by Renneboog, Ter Horst, and Chang (2008), Karakas, Dimson, and Li (2015), and Ferrell, Liang, and Renneboog (2016). To test this "socially responsible governance" channel, we collect data on firms' ESG scores from Refinitive

Database[8]. Refinitiv captures and calculates over 630 company-level ESG measures which are grouped into 10 categories that reformulate the final ESG score. After thorough examination of these 10 categories, we also collect scores on "CSR Strategy" and "Management" groups. CSR Strategy Score is an evaluation of firms' CSR strategies and ESG reporting and transparency while Management Score measures firms' managerial and board attributes including independence, diversity, equality, and compensation. These criteria are directly related to how socially responsible the corporate governance strategy is. These scores are in percentage values. Using our main model in Equation (1) we regress *ESG-Score*, *Strategy-Score*, and *Management-Score* on *Male Dummy×Post* and *Male Ratio×Post)* along with the control variables; time and firm fixed effects. Explanatory variables are lagged by one year, and standard errors are clustered at the firm level.

Our results in Panel B of Table 5 imply that male dominant boards are linked to higher scores in overall ESG, CSR strategy and management. Specifically, companies with male only boards after the policy change experience an increase in *ESG-Score*, *Strategy-Score*, and *Management-Score* by 3%, 8.9%, and 9,2%. We obtain similar results using *Male Ratio×Post.* These results strengthen our findings directionally and show that, after the parental leave policy introduction, firms with more male dominant boards engage more in CSR activities and adopt better CSR strategies and improved board attributes including diversity and equality. Thus, better firm performance can be explained through more such socially responsible governance by boards with more male directors.

We acknowledge that other channels than monitoring by male directors embracing female governance traits may explain higher firm performance. Foreign exchange rate (FX) fluctuations increase firm risk, and companies exposed to FX risk may struggle operationally leading to poor performance (Allayannis et al., 2001). Moreover, as firms with reputable independent auditors (Elshandidy and Neri, 2015) or good audit results access funding from investors more easily (Frankel et al., 2002), audit may partially explain firm performance. Any of these conditions may justify improved firm performance. If this is true, we see that the relation between male board representation and firm performance differs with and without these conditions. We construct sub samples based on

[8] Due to high numbers of missing values for those scores, we have only 2,514 observations in this new sample.

whether a firm has positive FX cost, i.e., good FX risk management, is audited by top auditors, and has unqualified audits. Table IA.4 in Internet Appendix provides results that are consistently positive and statistically significant across all subgroups. Since none of these factors individually can explain improved firm performance, strong governance by male directors adopting female leadership traits remains the main channel for our findings.

5. Alternative methodological approaches

5.1. Triple difference

To provide a clean separation between a subset of firms subject to the policy introduction and non-subjected firms, we identify a US peer group of firms as a control group, a methodological choice that is gaining traction (e.g., Bernard et al., 2021). First, we exclude the possibility of similar reforms in or around 2015 in the US[9] to isolate for the effect of shared parental leave on UK firms. We duplicate our original data set with the US listed companies using Compustat and BoardEx databases for the period between 2000 and 2020. After merging this data set with our original sample, we obtain 59,872 firm–year observations across 1,930 UK (treatment) and 5,322 US (control) firms.

We construct a triple difference, i.e., difference-in-difference-in-difference model, where the main explanatory variable is *Male Dummy*×*Post*×*UK*. Our method measures the impact of the policy change on firm performance on affected UK firms with male only boards. *UK* is a binary variable equal to one for UK firms, and zero for US firms. This variable indicates whether the values for *Male Dummy* and *Post* belong to the treatment (UK) or the control group (US). We include *Male Dummy*×*Post*, *Male Dummy*×*UK*, *Post*×*UK*, and *Male Dummy* in the model. *Post* and *UK* are excluded to reflect how these are subsumed by time and country fixed effects. Country, year and firm fixed effects are included with standard errors clustered by firms. We repeat the model replacing *Male Dummy* with *Male Ratio*.

Table 6 provides statistically significant and positive coefficients for the triple interaction variables. Specifically, UK firms with male only boards have 3.4% (13.8%) higher return on assets

[9] Other unrelated governance reforms include Sarbanes-Oxley Act (2002), Dodd-Frank Act (2010), JOBS Act (2012). Only in 2018, California passed a local, state-level law regarding representation of female directors which should not impact our analysis in national level. Nevertheless, we also exclude firms operating in California in further analyses for robustness.

(stock returns) compared to policy unexposed US firms and firms with mixed gender boards. When disregarding the policy change, i.e., *Male Dummy×UK,* or the proportion of male directors, i.e., *Post×UK,* we obtain a negative influence on stock returns. This implies that the real positive effect on firm performance is derived *only* through the policy change and for firms with predominantly male directors. Additional analyses through *Male Ratio×Post×UK* disclose how UK firms with an additional male director, enjoy increased ROA and stock return by 1.02% (= 0.091 × 0.112) and 5.8% (= 0.519 × 0.112) respectively, compared to the US firms. Our triple difference model not only provides a cleaner setup to test our hypothesis but also confirms the robustness of our original findings.[10]

[Insert Table 6 here]

5.2. Detrending the data

As our sample contains data for a 20-year period a possible concern is that our findings might be under the influence of trends regarding male board representation throughout that period. To remove any potential trend effects in *Male Ratio* we detrend by regressing *Male Ratio* on time and firm fixed effects with standard errors clustered by firms. The residuals from this regression, i.e., *Male Ratio(detrended),* ought to be free from time related trends to provide more reliable estimations. We repeat the DID analysis using *Male Ratio(detrended)* in Table 7. In further support of our findings we obtain statistically significant and positive coefficients for *ROA* (0.086) and *Stock Return* (0.563) after removing the potential influence of trends.

[Insert Table 7 here]

6. Further analyses

If our claim is true, excess performance should also increase due to better monitoring by male directors in those firms after the change in policy. Following Faleye et al. (2011), we regress *ROA* and *Stock Return* on their determinants in the first stage. The residuals from these regressions proxy for excess firm performance used in the second stage analyses as the dependent variable, similar to Equation (1). Table IA.6 in Internet Appendix presents both first and second stage results. Statistically significant

[10] In Table IA.5 of Internet Appendix, we obtain insignificant results using only the US firms, which implies that there is no impact on firm performance if there is no law change. This serves as a further justification of the shared parental law regarding its influence on firm performance.

estimates in Panel A indicate that valid determinants explain the proxies for firm performance. The results in Panel B support our original findings. In particular, excess return on assets and excess stock return increase with proportion of male directors after the policy changes.

Thus far we provide evidence for performance increase in levels. However, this would not be relevant if its likelihood is low or insignificant. To examine this, we define *ROA Dummy* and *Stock Return Dummy* as binary variables, equal to one if the change in associated performance measure from last year is greater than zero, and zero otherwise. Using these new measures as dependent variables, we conduct logistic regressions with industry fixed effects where we include economic factors, i.e., unemployment rate and PPI. Betas and Odds Ratios (exponential of betas) are given in Table IA.7 of the Internet Appendix. In Panel A if firms have male only boards after the law change, it significantly increases the odds of rising *ROA* and *Stock Return* by a factor 1.13 and 1.23, respectively. We obtain similar results for *Male Ratio*. These findings strengthen our argument that improved firm performance is positively associated with firms having more male directors as they adopt female leadership characteristics after the change in policy; and subsequently, they can provide better and socially responsible monitoring.

Next, we consider additional variables to control for other possible features of the board and directors that may affect the proposed relation. We define: *Total Pay* as natural logarithm of average total pay (in £ Thousand) of directors, *Foreign Ratio* as the proportion of non-British directors on the board, *Titles* as the average number of titles owned by directors, *Committees* as the average number of committees affiliated with board directors, *Other Boards* as the average number of other boards affiliated with directors, and *Qualifications* as the average number of qualifications owned by directors. The results in Table IA.8 of Internet Appendix reveal how our original findings hold even after introducing these additional corporate governance controls.

We then focus on other commonly used proxies for performance. We define: *Earnings Ratio* as earning before tax, depreciation and amortization over total assets, *ROE* (return on equity) as net income before extraordinary items over shareholders' equity, and *NPM* (net profit margin) as net income before extraordinary items over sales. We also risk-adjust our main variable *Stock Return* by introducing *Sharpe Ratio* as annual stock return minus 10-year UK government bond rate, normalized

by annual standard deviation of the stock's daily returns. Table IA.9 in Internet Appendix presents statistically significant and positive coefficients for *Male Dummy*×*Post* and *Male Ratio*×*Post*. They indicate that firms with more male directors after the policy change have higher values for earnings ratio, return on equity, net profit margin, and Sharpe ratio - consistent with our original findings.

One can challenge whether a policy change that grants fathers more paternal leave could cause male directors to govern differently despite the directors themselves having passed the parental leave stage due to their age. However, as the 25th and 50th percentiles of male director age in our sample are 40 and 49, respectively, with a very high standard deviation of 13 years, directors in the bottom quartile age and/or one standard deviation less than median age could have benefitted from this policy change. Nevertheless, our conjecture in this paper does not require male directors to actually take parental leave. Instead we argue that the new work environment that embraces more gender egalitarian parental leave policy can influence male directors' behavior regardless whether they benefit from this new policy or not. However, we still test the robustness of our original findings by running the main model for a sub sample including observations for firms if the average male director age is in the bottom quartile across all firms per year. Table IA.10 in Internet Appendix confirms the robustness of original results with a sample of male directors who, based on their age, can actually benefit from this new shared parental leave policy.

Although the 2015 shared parental leave is the main shock we investigate, there was a small change in policy in 2011 that enabled fathers to spend time with children aged over 5 months for up to 26 weeks (but only where the mother went back to work)[11]. However, this smaller policy change falls in the "pre period" of our analyses and could arguably undermine the impact of the major shock. Moreover, our study includes two major exogenous shocks on businesses, i.e., Global Financial Crisis and the COVID-19 pandemic. These events had devastating impacts on many firms' operations and, subsequently, their performance. To eliminate potential effects of these shocks on our analyses, we repeat the main test by i) starting the sample from 2012, and ii) excluding observations from 2008,

[11] See: http://www.direct.gov.uk/en/Parents/Moneyandworkentitlements/WorkAndFamilies/Paternityrightsintheworkplace/DG_190788

2009, and 2020. Tables IA.11 and IA.12 in Internet Appendix, respectively, report robust results similar to our original findings which suggest that these events do not drive our main findings.

Finally, service, mining & natural resources, and wholesale & retail sectors compose 52% of the sample. To test the sector biasedness and ensure that these industries do not drive results, we repeat the main analysis excluding these sectors. Table IA.13 in Internet Appendix shows that original results still hold even after excluding the major industries. Our additional analyses therefore further strengthen the validity of our main results.

7. Summary and conclusion

The 2015 introduction of shared parental leave in the UK, intended to be 'good for families, good for business and good for the economy' (UK Government, 2014). It awarded fathers more right to care for their children and therefore signalled more gender equal distribution of parenting duties. This policy also forced promoted discussions about parental leave policies at board level and firms to implement shared parental leave policies in line with the regulatory change.

In a sample of 1,930 UK firms, we find how the policy introduction impacts firm performance positively in firms with predominantly male directors. Our results suggest that male board directors make better and socially responsible decisions for their firms after the introduction of shared parental leave. Financial performance increases in firms that are governed by more aware male directors, which can be attributed to improved and socially responsible governance. Our results are conceptually and methodologically robust when tested in different settings i.e., Sweden and the US, and when exposed to alternative methods. Our findings contribute to the growing literature that examines the relationship between increased board gender equality, governance and firm performance to show how gender attitudes and behaviour among male directors are adaptable to external stimuli.

Given how 61.6% of the firms in our sample have male only boards with males holding 92.2% of board positions, investigating the behaviour of male directors is necessary. Although the proportion of female directors on corporate boards continues to increase, female influence is largely regulated by more powerful male directors (Triana, Miller, Trzebiatowski, 2014). This is something which recruitment fails to rectify as this may instead pander to gender targets instead of power distribution

(Benton, 2021). Therefore, despite increased focus on diversity and inclusion, the ability of women directors to affect the strategic direction of firms is limited. However, while female governance is not always directly associated with better firm performance, women's leadership *traits* are typically shown to improve firm performance through better governance and monitoring (Girardone, Kokas and Wood, 2021; Post and Byron, 2015).

We argue that the exposure to egalitarian government policy can unlock female leadership, and therefore more egalitarian, traits among male board directors (Cronqvist and Yu 2017) to achieve diverse governance that benefits firm performance. An accelerated decrease in the gender pay gap among executives in our sample of UK firms governed by predominantly male directors provides early evidence of commitment to more gender equal practices. Egalitarian strategic change that less powerful female directors struggle to attain (Bertrand et al., 2019).

The research in this paper has implications for corporate governance in a society that is becoming more gender equality aware, underpinned by government and corporate polices. A society in which firms still struggle to address the gender representation and power imbalance in executive and non-executive leadership positions. In addition to focusing on strategies that increase board gender diversity, firms and other stakeholders need to focus on strategies that ensure that progressive government policy translates into improved and socially responsible governance regardless of director gender. These policies challenge outdated gender roles that dictate which parent has the right to care for children and who has the right to work, attention to which need to be given at board level. Shared parenting therefore not only removes a legal impediment to women progressing to leadership positions, it challenges the conventional perspective on business leadership as male gendered and caring as female gendered. Diverse governance that benefits firm performance can be achieved by encouraging directors to stretch their strategic leadership and governance behaviour outside gender expected norms for the benefits of their firms, financial and otherwise.

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Tables and Figures

Table 1. Descriptive statistics

This table provides descriptive statistics for the main variables. Sample contains 16,223 observations across 1,930 firms spanning years 2000 to 2020. Variables are winsorized at the 1% and 99% levels. *ROA* is return of assets calculated as cash flow from operations scaled by total assets. *Stock Return* is annual stock return. *Male Dummy* equals one for boards without female directors, zero otherwise. *Male Ratio* is the proportion of male directors. *Firm Size* is the natural logarithm of total assets. *Leverage* is long-term debt plus debt in current liabilities scaled by total assets. *Growth* is capital expenditures over total assets. *Cash Ratio* is cash over total assets. *Stock Volatility* is the standard deviation of daily equally weighted stock returns in a year. *Tangibility* is net plant, property, equipment scaled by total assets. *M/B* is market value over book value of total assets. *Dividend Ratio* is total dividends scaled by the market value. *Board Size* is the natural logarithm of total board directors. *Board Tenure* is the natural logarithm of average board director tenure. *Busy Board* equals one where the majority of directors serve on at least two additional boards, zero otherwise. *Board Delta* is the natural logarithm of one plus the average director delta pay (in £ Thousand).

	Mean	Std. Dev.	25th Percentile	Median	75th Percentile
ROA	0.016	0.209	-0.023	0.064	0.123
Stock Return	0.213	1.236	-0.296	0.003	0.333
Male Dummy	0.616	0.486	0.000	1.000	1.000
Male Ratio	0.922	0.112	0.857	1.000	1.000
Firm Size	4.505	2.221	2.872	4.313	5.987
Leverage	0.164	0.170	0.005	0.123	0.267
Growth	0.044	0.057	0.009	0.024	0.054
Cash Ratio	0.156	0.180	0.036	0.089	0.205
Stock Volatility	0.049	0.132	0.018	0.026	0.040
Tangibility	0.220	0.235	0.037	0.126	0.327
M/B	1.471	1.846	0.464	0.873	1.669
Dividend Ratio	0.016	0.023	0.000	0.000	0.027
Board Size	1.842	0.329	1.609	1.792	2.079
Board Tenure	1.348	0.841	0.934	1.482	1.917
Busy Board	0.044	0.206	0.000	0.000	0.000
Board Delta	2.329	1.508	1.204	2.259	3.276

Table 2. T-test analyses on firm performance for firms with a exclusively male boards

This table presents the T-test analyses that comparing mean performance of firms with exclusively male boards to the others in the post 2015 period. The analysis is conducted separately for ROA and stock return. The performance difference between two groups of firms and p-values from the T-tests are provided. The *** indicates statistical significance at the 1% level.

Post Period Fully Male Board:	**NO**	**YES**	***Difference***	**p-value**
ROA	0.018	0.050	*0.032***	0.000
Stock Return	0.201	0.318	*0.117***	0.001

Table 3. Effect of policy change on performance of firms with the predominantly male boards
This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with *Firm Size, Leverage, Growth, Cash Ratio, Stock Volatility, Tangibility, M/B, Dividend Ratio, Board Size, Board Tenure, Busy Board,* and *Board Delta* as control variables. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return. Male Dummy* is equal to one for boards without female directors, and zero otherwise. *Male Ratio* is the proportion of male directors. *Post* is equal to one from 2015 onwards, zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. *Post* is not included in the model separately as it is subsumed by year fixed effects. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.027***	0.148***		
	(0.008)	(0.058)		
Male Dummy	0.001	-0.058*		
	(0.005)	(0.033)		
Male Ratio × Post			0.084***	0.553**
			(0.030)	(0.243)
Male Ratio			0.001	-0.190
			(0.023)	(0.180)
Firm Size	0.010**	-0.373***	0.009**	-0.372***
	(0.004)	(0.028)	(0.004)	(0.028)
Leverage	0.060***	0.371**	0.061***	0.374**
	(0.017)	(0.151)	(0.017)	(0.151)
Growth	0.004	-0.677*	0.004	-0.675*
	(0.036)	(0.375)	(0.036)	(0.376)
Cash Ratio	-0.147***	-0.042	-0.147***	-0.042
	(0.021)	(0.124)	(0.020)	(0.124)
Stock Volatility	0.018*	-0.506***	0.019*	-0.505***
	(0.010)	(0.106)	(0.010)	(0.106)
Tangibility	0.031*	-0.095	0.033*	-0.093
	(0.018)	(0.193)	(0.018)	(0.194)
M/B	0.006***	-0.129***	0.005***	-0.129***
	(0.001)	(0.010)	(0.002)	(0.010)
Dividend Ratio	0.105*	2.715***	0.106**	2.729***
	(0.054)	(0.690)	(0.054)	(0.691)
Board Size	-0.026***	-0.125	-0.028***	-0.119
	(0.008)	(0.077)	(0.008)	(0.076)
Board Tenure	0.011***	0.012	0.011***	0.011
	(0.003)	(0.024)	(0.003)	(0.024)
Busy Board	0.002	0.054	0.002	0.054
	(0.006)	(0.063)	(0.005)	(0.062)
Board Delta	0.003***	-0.052***	0.004***	-0.052***
	(0.001)	(0.012)	(0.001)	(0.012)
Constant	0.021	2.274***	0.024	2.393***
	(0.023)	(0.183)	(0.033)	(0.261)
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.048	0.080	0.048	0.080
Observations	16,223	16,205	16,223	16,205

Table 4. Analyses with Swedish firms

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with *Firm Size, Leverage, Growth, Cash Ratio, Stock Volatility, Tangibility, M/B, Dividend Ratio, Board Size, Board Tenure, Busy Board,* and *Board Delta* as control variables. This sample includes Swedish firms only. The dependent variables are *ROA* and *Stock Return. Male Dummy* is a dummy equal to one if the board has no female directors, zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one for 2002-2005, and zero for 2000-2001. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Remaining variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. *Post* is not included in the model separately as it is subsumed by year fixed effects. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.046**	0.494***		
	(0.022)	(0.110)		
Male Dummy	-0.029	-0.353**		
	(0.018)	(0.147)		
Male Ratio × Post			0.177**	0.537***
			(0.088)	(0.086)
Male Ratio			-0.123	-0.553
			(0.093)	(0.494)
Firm Size	-0.059**	-0.700***	-0.059**	-0.667***
	(0.026)	(0.128)	(0.027)	(0.125)
Leverage	0.099	0.934	0.101	1.356**
	(0.105)	(0.625)	(0.107)	(0.616)
Growth	-0.198	-5.131***	-0.213	-4.486***
	(0.177)	(1.108)	(0.178)	(1.079)
Cash Ratio	-0.070	1.063**	-0.058	0.935*
	(0.088)	(0.532)	(0.091)	(0.542)
Stock Volatility	0.113*	1.217**	0.112*	1.247**
	(0.062)	(0.541)	(0.063)	(0.554)
Tangibility	0.008	1.113**	0.026	1.038**
	(0.094)	(0.455)	(0.090)	(0.444)
M/B	0.001	-0.230***	-0.001	-0.218***
	(0.012)	(0.032)	(0.012)	(0.036)
Dividend Ratio	-0.023	0.983	-0.029	0.971
	(0.048)	(1.487)	(0.051)	(1.404)
Board Size	0.001	0.209	0.002	0.193
	(0.056)	(0.358)	(0.055)	(0.345)
Board Tenure	0.009	-0.063	0.010	-0.117
	(0.011)	(0.089)	(0.013)	(0.082)
Busy Board	0.029*	0.215*	0.027*	0.181*
	(0.016)	(0.126)	(0.016)	(0.108)
Board Delta	-0.001	-0.009	-0.001	-0.055
	(0.014)	(0.087)	(0.015)	(0.085)
Constant	0.452**	5.083***	0.551**	5.054***
	(0.204)	(1.428)	(0.213)	(1.453)
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.146	0.349	0.140	0.364
Observations	469	469	469	469

Table 5. Analyses of the relationship between the policy change and firm performance: governance channel

This table reports estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. In Panel A, dependent variables are *REM*, as abnormal cash flow from operations, following Roychowdhury (2006); *Ln(Free Cash Flow)*, as natural logarithm of cash flow from operations minus capital expenditures plus one; *Ln(Exec Delta)*, as natural logarithm of one plus average delta pay (in £ Thousand) of executive officers; *SA-Index*, following Hadlock and Pierce (2010). Variable definitions are in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel A: Association between the policy change and corporate governance

	REM		Ln(Free Cash Flow)		Ln(Exec Delta)		SA-Index	
	I	II	III	IV	V	VI	VII	VIII
Male Dummy × Post	-0.021***		-0.179***		0.122***		-0.070***	
	(0.008)		(0.055)		(0.045)		(0.010)	
Male Dummy	0.002		0.044		0.038		-0.012*	
	(0.004)		(0.041)		(0.029)		(0.006)	
Male Ratio × Post		-0.062**		-0.748***		0.421**		-0.250***
		(0.029)		(0.263)		(0.187)		(0.041)
Male Ratio		0.015		0.258		0.206		-0.087***
		(0.022)		(0.207)		(0.148)		(0.032)
Firm Size	-0.001	-0.001	0.366***	0.367***	0.426***	0.419***	-0.291***	-0.291***
	(0.004)	(0.004)	(0.025)	(0.025)	(0.017)	(0.017)	(0.007)	(0.008)
Leverage	-0.048***	-0.049***	0.558***	0.555***	-0.816***	-0.843***	0.075***	0.072***
	(0.017)	(0.017)	(0.107)	(0.107)	(0.088)	(0.088)	(0.023)	(0.023)
Growth	-0.029	-0.028	-2.701***	-2.701***	1.048***	1.096***	-0.173***	-0.176***
	(0.037)	(0.038)	(0.321)	(0.321)	(0.223)	(0.223)	(0.055)	(0.055)
Cash Ratio	0.058***	0.058***	-0.408***	-0.410***	0.172**	0.164**	0.121***	0.121***
	(0.019)	(0.018)	(0.086)	(0.087)	(0.078)	(0.077)	(0.023)	(0.023)
Stock Volatility	-0.009	-0.008	-0.036	-0.037	-0.179***	-0.180***	-0.021	-0.019
	(0.011)	(0.011)	(0.063)	(0.064)	(0.069)	(0.069)	(0.018)	(0.018)
Tangibility	-0.025	-0.026	0.219	0.214	-0.386***	-0.406***	-0.001	-0.002
	(0.019)	(0.019)	(0.136)	(0.135)	(0.099)	(0.098)	(0.0292)	(0.022)
M/B	0.004**	0.005**	0.073***	0.073***	0.184***	0.184***	-0.027***	-0.028***
	(0.002)	(0.002)	(0.009)	(0.008)	(0.006)	(0.007)	(0.002)	(0.003)
Dividend Ratio	0.043	0.044	0.655	0.639	-2.605***	-2.441***	-0.012	-0.028
	(0.062)	(0.063)	(0.724)	(0.723)	(0.509)	(0.508)	(0.076)	(0.077)
Board Size	0.018**	0.019**	0.010	0.011	-0.158***	-0.170***	-0.006	-0.002
	(0.008)	(0.008)	(0.062)	(0.060)	(0.052)	(0.051)	(0.013)	(0.012)
Board Tenure	-0.008***	-0.009***	0.043**	0.044**	-0.018	-0.024	-0.008*	-0.007
	(0.002)	(0.003)	(0.020)	(0.021)	(0.017)	(0.016)	(0.005)	(0.005)
Busy Board	-0.009	-0.009	0.009	0.010	-0.001	-0.003	-0.002	-0.001
	(0.006)	(0.006)	(0.063)	(0.063)	(0.046)	(0.047)	(0.008)	(0.008)
Board Delta	-0.003*	-0.003*	0.046***	0.045***			-0.005**	-0.004**
	(0.001)	(0.001)	(0.012)	(0.012)			(0.002)	(0.002)
Time and Firm FE	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R^2	0.029	0.029	0.094	0.094	0.119	0.117	0.798	0.798
Observations	16,223	16,223	16,223	16,223	16,223	16,223	16,223	16,223

Table 5. Analyses of the relationship between the policy change and firm performance: governance channel (continued)

Panel B reports estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. Dependent variables are *ESG-Score*, as total Refinitive ESG score in %; *Strategy-Score*, as CSR strategy score in %; *Management-Score*, as firms' score in management criterion of total ESG in %. Variable definitions are in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel B: Association between the policy change and socially responsible governance

	ESG-Score		**Strategy-Score**		**Management-Score**	
	I	**II**	**III**	**IV**	**V**	**VI**
Male Dummy × Post	0.030**		0.089***		0.092*	
	(0.015)		(0.029)		(0.053)	
Male Dummy	-0.056***		-0.065***		-0.096***	
	(0.010)		(0.021)		(0.021)	
Male Ratio × Post		0.267***		0.435***		0.183***
		(0.020)		(0.038)		(0.050)
Male Ratio		-0.246***		-0.201**		-0.401***
		(0.032)		(0.077)		(0.078)
Firm Size	0.086***	0.039***	0.143***	0.075***	0.075***	0.040**
	(0.010)	(0.010)	(0.020)	(0.021)	(0.018)	(0.019)
Leverage	0.016	0.019	-0.068	-0.054	0.068	0.057
	(0.036)	(0.029)	(0.079)	(0.070)	(0.069)	(0.068)
Growth	-0.121	0.037	-0.476***	-0.226	-0.132	-0.086
	(0.114)	(0.098)	(0.180)	(0.173)	(0.230)	(0.227)
Cash Ratio	-0.035	-0.028	-0.111	-0.102	0.038	0.043
	(0.038)	(0.034)	(0.073)	(0.070)	(0.086)	(0.084)
Stock Volatility	-0.079**	-0.047	-0.021	0.022	-0.189***	-0.158***
	(0.032)	(0.036)	(0.074)	(0.078)	(0.055)	(0.058)
Tangibility	0.100**	0.070*	0.028	-0.018	0.244**	0.235**
	(0.046)	(0.041)	(0.095)	(0.088)	(0.111)	(0.115)
M/B	0.011***	0.008***	0.009	0.006	0.004	-0.001
	(0.003)	(0.003)	(0.006)	(0.005)	(0.008)	(0.007)
Dividend Ratio	-0.031	0.128	-0.435	-0.187	0.619*	0.707**
	(0.156)	(0.157)	(0.309)	(0.308)	(0.362)	(0.354)
Board Size	-0.001	0.032*	-0.003	0.041	0.022	0.052
	(0.018)	(0.018)	(0.043)	(0.042)	(0.047)	(0.047)
Board Tenure	0.004	0.002	0.018	0.012	0.010	0.008
	(0.007)	(0.006)	(0.013)	(0.012)	(0.015)	(0.016)
Busy Board	-0.006	0.001	0.001	0.014	0.002	0.010
	(0.008)	(0.008)	(0.021)	(0.020)	(0.025)	(0.025)
Board Delta	-0.008***	-0.002	-0.006	0.001	-0.006	0.001
	(0.002)	(0.002)	(0.005)	(0.004)	(0.005)	(0.006)
Time and Firm FE	YES	YES	YES	YES	YES	YES
Adj. R^2	0.483	0.565	0.419	0.478	0.112	0.128
Observations	2,514	2,514	2,514	2,514	2,514	2,514

Table 6. Triple difference analyses

This table presents the difference-in-difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* and *UK* along with control variables. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return*. *Male Dummy* is equal to one for boards without female directors, and zero otherwise. *Male Ratio* is the proportion of male directors. *Post* is equal to one from 2015 onwards, zero otherwise. *UK* is equal to one if a firm operates in the UK (the treatment group), zero if it is in the US (control group). *Male Dummy×Post×UK* and *Male Ratio×Post×UK* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Country, year and firm fixed effects are included. Post and UK are not included in the model separately as it is subsumed by year and country fixed effects, respectively. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post × UK	0.034***	0.138**		
	(0.009)	(0.063)		
Male Dummy × Post	-0.005	0.020		
	(0.005)	(0.026)		
Male Dummy × UK	0.003	-0.078**		
	(0.005)	(0.035)		
Male Dummy	0.001	0.002		
	(0.003)	(0.016)		
Male Ratio × Post × UK			0.091***	0.519**
			(0.035)	(0.250)
Male Ratio × Post			-0.005	0.158
			(0.018)	(0.106)
Male Ratio × UK			0.016	-0.387**
			(0.028)	(0.182)
Male Ratio			-0.003	0.073
			(0.018)	(0.085)
Post × UK	0.003	-0.091**	-0.062**	-0.490**
	(0.005)	(0.036)	(0.030)	(0.219)
Firm Size	0.015***	-0.377***	0.014***	-0.376***
	(0.002)	(0.014)	(0.002)	(0.014)
Leverage	0.014*	0.432***	0.014*	0.434***
	(0.008)	(0.056)	(0.008)	(0.056)
Growth	0.013	-0.762***	0.014	-0.760***
	(0.021)	(0.164)	(0.021)	(0.164)
Cash Ratio	-0.123***	-0.138**	-0.123***	-0.138**
	(0.011)	(0.056)	(0.011)	(0.056)
Stock Volatility	0.005	-0.455***	0.006	-0.455***
	(0.010)	(0.089)	(0.011)	(0.084)
Tangibility	0.018	0.158*	0.019	0.158*
	(0.012)	(0.090)	(0.013)	(0.091)
M/B	0.010***	-0.139***	0.010***	-0.139***
	(0.001)	(0.005)	(0.001)	(0.004)
Dividend Ratio	-0.004	1.886***	-0.004	1.891***
	(0.033)	(0.312)	(0.032)	(0.312)
Board Size	-0.020***	-0.089**	-0.021***	-0.086**
	(0.005)	(0.038)	(0.005)	(0.038)
Board Tenure	0.003*	0.019*	0.003*	0.018*
	(0.001)	(0.010)	(0.002)	(0.011)
Busy Board	-0.003	-0.014	-0.003	-0.015
	(0.002)	(0.019)	(0.003)	(0.018)
Board Delta	0.002**	-0.028***	0.002**	-0.028***
	(0.001)	(0.007)	(0.001)	(0.007)
Constant	-0.021	2.574***	-0.021	2.578***
	(0.017)	(0.111)	(0.022)	(0.139)
Country, Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.032	0.117	0.032	0.118
Observations	59,872	59,836	59,872	59,836

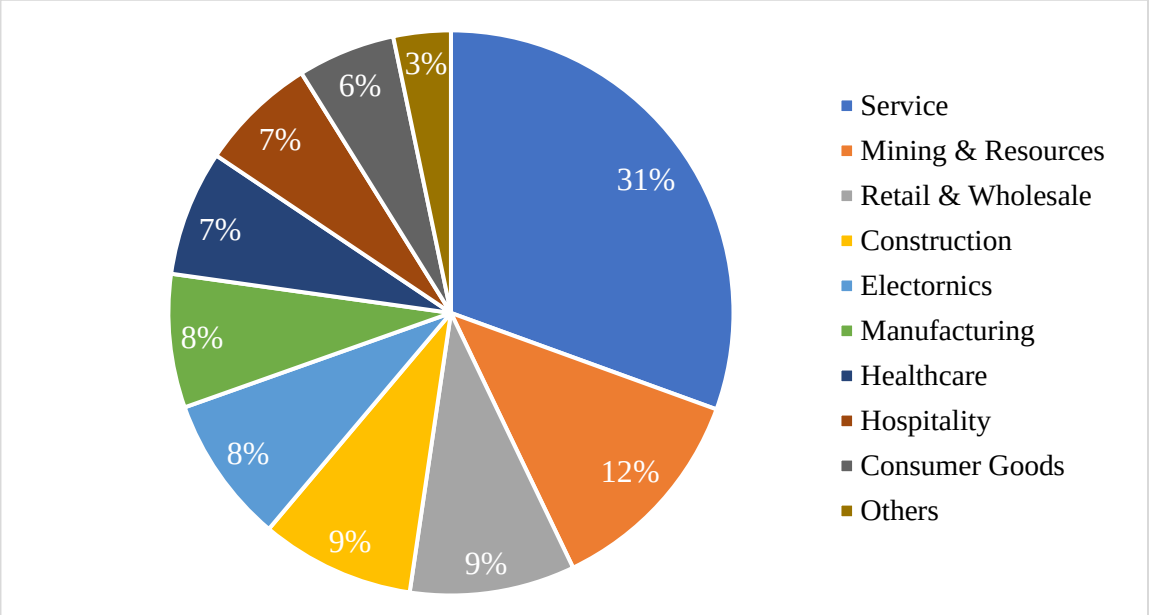
Table 7. Detrended male ratio analyses

This table presents the difference-in-difference analysis estimates for *Male Ratio(detrended)* and its interaction with *Post* along with control variables. The dependent variables are *ROA* and *Stock Return. Male Ratio* is the proportion of male directors. *Male Ratio(detrended)* is the residuals from regressing *Male Ratio* on time and firm fixed effects while standard errors are clustered by firms. *Post* is equal to one from 2015 onward, and zero otherwise. *Male Ratio(detrended)×Post* is the main explanatory variable. Variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. *Post* is not included in the model separately as it is subsumed by year fixed effects. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**
	I	**II**
Male Ratio(detrended) × Post	0.086***	0.563**
	(0.032)	(0.248)
Male Ratio(detrended)	0.003	-0.174
	(0.024)	(0.181)
Firm Size	0.010**	-0.372***
	(0.004)	(0.028)
Leverage	0.061***	0.374**
	(0.017)	(0.150)
Growth	0.004	-0.674*
	(0.036)	(0.376)
Cash Ratio	-0.147***	-0.042
	(0.020)	(0.124)
Stock Volatility	0.018*	-0.506***
	(0.010)	(0.106)
Tangibility	0.032*	-0.094
	(0.017)	(0.194)
M/B	0.005***	-0.129***
	(0.002)	(0.011)
Dividend Ratio	0.107**	2.730***
	(0.054)	(0.690)
Board Size	-0.027***	-0.118
	(0.008)	(0.077)
Board Tenure	0.011***	0.013
	(0.003)	(0.025)
Busy Board	0.002	0.055
	(0.006)	(0.063)
Board Delta	0.004***	-0.055***
	(0.001)	(0.012)
Constant	0.025	2.203***
	(0.022)	(0.218)
Firm & Year FE	YES	YES
Adj R^2	0.048	0.080
Observations	16,223	16,205

Figure 1. Industry distribution

This figure displays the distribution of industries in the sample. Industry aggregation is based on the four-digit SIC codes. The 30-industry classification codes are used to construct the industries as obtained from Kenneth French's website.



Appendix

Table A.1. Definition of variables

Variables	Description
ROA	Return of assets, calculated as cash flow from operations scaled by total assets.
Stock Return	Annual stock return.
Male Dummy	Dummy equal to one if the board has no female directors, and zero otherwise.
Male Ratio	Proportion of male directors on the board.
Post	Dummy equal to one from 2015 onward, and zero otherwise.
Firm Size	Natural logarithm of total assets.
Leverage	Long-term debt plus debt in current liabilities scaled by total assets.
Growth	Capital expenditures over total assets.
Cash Ratio	Cash over total assets.
Stock Volatility	Standard deviation of daily equally weighted stock returns in a year.
Tangibility	Net plant, property, equipment scaled by total assets.
M/B	Market value over book value of total assets.
Dividend Ratio	Total dividends scaled by the market value.
Board Size	Natural logarithm of total number of directors on the board.
Board Tenure	Natural logarithm of average tenure of directors on the board.
Busy Board	Dummy equal to one if the proportion of directors sitting on more than two other boards is at least 50%, and zero otherwise.
Board Delta	Natural logarithm of one plus the average delta pay (in £ Thousand) of directors on the board.

Internet Appendix

Table IA.1. Analyses with time-invariant male director representation

This table presents the difference-in-difference analysis estimates for *Male Dominant* and its interaction with *Post* along with control variables. The dependent variables are *ROA* and *Stock Return. Male Dominant* is a dummy equal to one for that firm throughout the sample if the board has no female directors in 2014, and zero otherwise. *Post* is equal to one from 2015 onward, and zero otherwise. *Male Dominant*×*Post* is the main explanatory variable. Variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. *Post* and *Male Dominant* are not included in the model separately as they are subsumed by year and firm fixed effects. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**
	I	**II**
Male Dominant × Post	0.027***	0.210***
	(0.009)	(0.056)
Firm Size	0.010**	-0.346***
	(0.004)	(0.027)
Leverage	0.060***	0.406***
	(0.017)	(0.151)
Growth	0.004	-0.739*
	(0.036)	(0.378)
Cash Ratio	-0.148***	-0.035
	(0.020)	(0.125)
Stock Volatility	0.018*	-0.513***
	(0.009)	(0.105)
Tangibility	0.032*	-0.076
	(0.018)	(0.196)
M/B	0.005***	-0.125***
	(0.002)	(0.011)
Dividend Ratio	0.107**	2.513***
	(0.054)	(0.688)
Board Size	-0.029***	-0.135*
	(0.008)	(0.077)
Board Tenure	0.011***	0.017
	(0.003)	(0.025)
Busy Board	0.002	0.054
	(0.006)	(0.062)
Board Delta	0.004***	-0.057***
	(0.001)	(0.012)
Constant	0.028	2.219***
	(0.022)	(0.177)
Firm & Year FE	YES	YES
Adj R^2	0.048	0.077
Observations	16,223	16,205

Table IA.2. Propensity-score matched sample analyses

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables using a propensity-score matched sample. For each of the 10 industry group, we propensity-match each firm with a fully male board with its nearest maximum two neighbour firms with mixed gender boards, i.e. control group, using characteristics explaining firm performance in Table 3, i.e. firm size, market-to-book, leverage and stock volatility as matching criteria. A firm in the control group can be matched to multiple firms with a fully male board. Unmatched firms are dropped from the sample. The dependent variables are *ROA* and *Stock Return*. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.025***	0.173***		
	(0.009)	(0.063)		
Male Dummy	-0.001	-0.057		
	(0.006)	(0.039)		
Male Ratio × Post			0.098**	0.244***
			(0.041)	(0.075)
Male Ratio			-0.010	0.007
			(0.030)	(0.199)
Firm Size	0.012**	-0.406***	0.011**	-0.407***
	(0.005)	(0.032)	(0.005)	(0.031)
Leverage	0.074***	0.438**	0.073***	0.438**
	(0.020)	(0.177)	(0.020)	(0.176)
Growth	-0.005	-0.679*	-0.006	-0.684*
	(0.038)	(0.398)	(0.039)	(0.398)
Cash Ratio	-0.153***	-0.012	-0.152***	-0.011
	(0.021)	(0.130)	(0.021)	(0.131)
Stock Volatility	0.015	-0.681***	0.016	-0.680***
	(0.010)	(0.097)	(0.011)	(0.095)
Tangibility	0.021	-0.081	0.022	-0.075
	(0.020)	(0.211)	(0.019)	(0.211)
M/B	0.005**	-0.139***	0.005**	-0.139***
	(0.002)	(0.012)	(0.002)	(0.011)
Dividend Ratio	0.121*	3.321***	0.121*	3.320***
	(0.066)	(0.772)	(0.067)	(0.771)
Board Size	-0.027***	-0.135	-0.029***	-0.127
	(0.010)	(0.087)	(0.009)	(0.088)
Board Tenure	0.012***	0.009	0.012***	0.008
	(0.004)	(0.029)	(0.003)	(0.029)
Busy Board	0.003	0.027	0.002	0.027
	(0.008)	(0.082)	(0.008)	(0.083)
Board Delta	0.005***	-0.055***	0.004***	-0.054***
	(0.002)	(0.014)	(0.001)	(0.012)
Constant	0.009	2.499***	0.020	2.389***
	(0.024)	(0.202)	(0.039)	(0.280)
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.052	0.084	0.052	0.084
Observations	13,606	13,589	13,606	13,589

Table IA.3. Dynamic panel GMM analysis of firm performance

This table presents the estimates from dynamic GMM regressions of firm performance measured by *ROA* and *Stock Return* on *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. Explanatory variables and controls are lagged by one year. The lags of *ROA* and *Stock Return*, and control variables are included as a part of the dynamic GMM model. Year dummies are also included. Variable definitions are available in Table A.1, Appendix. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level. AR(1) and AR(2) are the tests for the first- and second-order serial correlations in the first-differenced residuals, under the null of no serial correlation. The Hansen test of over-identification is under the null that all instruments are valid. The Diff-in-Hansen test of exogeneity is under the null that instruments used for the equations in levels are exogenous. *p*-values of these tests are provided.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
ROA_{t-1}	0.065		0.207*	
	(0.126)		(0.117)	
ROA_{t-2}	0.214**		0.223*	
	(0.107)		(0.115)	
Stock Return $_{t-1}$		-0.109		-0.181
		(0.144)		(0.130)
Stock Return $_{t-2}$		-0.120		-0.154
		(0.120)		(0.111)
Male Dummy × Post	0.025*	0.295*		
	(0.015)	(0.170)		
Male Dummy	-0.030	-0.025		
	(0.024)	(0.270)		
Male Ratio × Post			0.202**	1.963**
			(0.098)	(0.883)
Male Ratio			-0.132	-1.547
			(0.110)	(1.036)
Constant	-0.097	-0.522	0.076	3.756***
	(0.092)	(1.050)	(0.150)	(1.464)
Control Variables	YES	YES	YES	YES
Year Dummies	YES	YES	YES	YES
Observations	14,134	13,521	14,134	13,521
Lagging Period for Instruments	10-18 yrs	10-18 yrs	7-14 yrs	7-14 yrs
AR(1) Test (p-value)	0.006	0.002	0.004	0.002
AR(2) Test (p-value)	0.110	0.739	0.262	0.795
Hansen Over-Ident. (p-value)	0.506	0.564	0.649	0.189
Diff-in-Hansen Exog. Test (p-value)	13,606	13,589	13,606	13,589

Table IA.4. Analyses on other potential channels

This table presents the estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. A constant is included in the regression, unreported here for brevity. Subsamples are constructed based on whether a firm has positive FX cost, i.e. FX risk, (Panel A), whether a firm is audited by top auditors (Panel B) and whether a firm's audit result is unqualified (Panel C). *Male Dummy*×*Post* and *Male Ratio*×*Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. Explanatory variables are lagged by one year. Control variables, year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel A: Channel: Exchange Rate Risk								
	ROA		**Stock Return**		**ROA**		**Stock Return**	
FX Risk:	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
Male Dummy	0.028**	0.023***	0.270***	0.186***				
× Post	(0.014)	(0.009)	(0.103)	(0.067)				
Male Dummy	-0.006	0.003	-0.165**	-0.099***				
	(0.006)	(0.006)	(0.074)	(0.037)				
Male Ratio					0.119***	0.031***	0.948***	0.502***
× Post					(0.045)	(0.012)	(0.173)	(0.104)
Male Ratio					-0.042	0.032	-0.389	-0.303*
					(0.030)	(0.025)	(0.339)	(0.167)
Controls, Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R^2	0.053	0.052	0.103	0.079	0.053	0.052	0.109	0.079
Observations	3,815	12,408	3,812	12,393	3,815	12,408	3,812	12,393
Panel B: Channel: Auditors								
	ROA		**Stock Return**		**ROA**		**Stock Return**	
Top Auditor:	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
Male Dummy	0.0174*	0.025**	0.263***	0.199**				
× Post	(0.009)	(0.012)	(0.087)	(0.095)				
Male Dummy	0.001	-0.003	-0.013	-0.149**				
	(0.004)	(0.012)	(0.037)	(0.075)				
Male Ratio					0.041*	0.061***	0.694**	0.629***
× Post					(0.022)	(0.015)	(0.305)	(0.155)
Male Ratio					-0.003	-0.018	-0.078	-0.262
					(0.016)	(0.048)	(0.178)	(0.353)
Controls, Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R^2	0.069	0.062	0.091	0.086	0.068	0.064	0.090	0.088
Observations	9,603	6,620	9,593	6,612	9,603	6,620	9,593	6,612
Panel C: Channel: Audit Results								
	ROA		**Stock Return**		**ROA**		**Stock Return**	
Unqualified:	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
Male Dummy	0.026***	0.060**	0.138**	0.588**				
× Post	(0.008)	(0.028)	(0.064)	(0.261)				
Male Dummy	0.001	-0.013	-0.057	-0.216				
	(0.004)	(0.030)	(0.035)	(0.179)				
Male Ratio					0.084***	0.085***	0.579**	0.777***
× Post					(0.030)	(0.029)	(0.247)	(0.298)
Male Ratio					0.007	-0.009	-0.124	-0.948
					(0.021)	(0.101)	(0.186)	(0.704)
Controls, Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Adj R^2	0.052	0.088	0.082	0.112	0.052	0.085	0.082	0.112
Observations	14,167	2,056	14,154	2,051	14,167	2,056	14,154	2,051

Table IA.5. Main Analyses with the US firms

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The analyses are conducted using the firms operating in the US. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return. Male Dummy* is equal to one for boards without female directors, and zero otherwise. *Male Ratio* is the proportion of male directors. *Post* is equal to one from 2015 onwards, zero otherwise. *Male Dummy*×*Post* and *Male Ratio*×*Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. *Post* is not included in the model separately as it is subsumed by year fixed effects. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	-0.004	0.010		
	(0.004)	(0.020)		
Male Dummy	0.001	0.005		
	(0.003)	(0.013)		
Male Ratio × Post			-0.005	0.111
			(0.017)	(0.078)
Male Ratio			-0.001	0.046
			(0.017)	(0.065)
Firm Size	0.015***	-0.302***	0.015***	-0.302***
	(0.003)	(0.013)	(0.002)	(0.012)
Leverage	0.003	0.356***	0.004	0.357***
	(0.009)	(0.041)	(0.009)	(0.041)
Growth	0.014	-0.575***	0.015	-0.573***
	(0.025)	(0.119)	(0.025)	(0.119)
Cash Ratio	-0.113***	-0.129***	-0.113***	-0.129***
	(0.013)	(0.045)	(0.013)	(0.046)
Stock Volatility	-0.029	-0.171	-0.029	-0.172
	(0.027)	(0.119)	(0.028)	(0.119)
Tangibility	0.006	0.219***	0.005	0.218***
	(0.017)	(0.065)	(0.018)	(0.066)
M/B	0.012***	-0.120***	0.012***	-0.121***
	(0.001)	(0.004)	(0.002)	(0.004)
Dividend Ratio	-0.034	1.278***	-0.035	1.279***
	(0.038)	(0.243)	(0.039)	(0.243)
Board Size	-0.016**	-0.023	-0.016**	-0.025
	(0.007)	(0.030)	(0.006)	(0.029)
Board Tenure	-0.001	0.012	-0.001	0.011
	(0.002)	(0.008)	(0.003)	(0.009)
Busy Board	-0.004	-0.037***	-0.004	-0.037***
	(0.003)	(0.014)	(0.003)	(0.015)
Board Delta	0.002*	-0.007	0.002*	-0.007
	(0.001)	(0.006)	(0.001)	(0.007)
Constant	-0.047*	2.113***	-0.046	2.072***
	(0.024)	(0.119)	(0.030)	(0.138)
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.031	0.181	0.031	0.181
Observations	43,649	43,631	16,223	16,205

Table IA.6. Excess performance analyses

This table reports analysis of excess firm performance on the interaction between *Male Dummy*, *Male Ratio* and *Post*. A constant is included in the regression, but is not reported in this table for brevity. Panel

A presents first stage baseline regressions predicting *ROA* and *Stock Return* as a function of *Firm Size, Leverage, Growth, Cash Ratio, Stock Volatility, Tangibility, M/B, Dividend Ratio, Board Size, Board Tenure, Busy Board,* and *Board Delta.* Panel B presents second stage estimates for *Male Dummy×Post* and *Male Ratio×Post* from regressions of *Excess ROA* and *Excess Stock Return,* defined as residuals from the respective Panel A regressions. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel A: First Stage Results

	ROA	**Stock Return**
	I	**II**
Firm Size	0.009**	-0.374***
	(0.004)	(0.028)
Leverage	0.060***	0.371**
	(0.017)	(0.151)
Growth	0.002	-0.681*
	(0.036)	(0.376)
Cash Ratio	-0.147***	-0.045
	(0.020)	(0.124)
Stock Volatility	0.020**	-0.499***
	(0.010)	(0.106)
Tangibility	0.035**	-0.085
	(0.018)	(0.194)
M/B	0.005***	-0.130***
	(0.002)	(0.011)
Dividend Ratio	0.096*	2.685***
	(0.054)	(0.687)
Board Size	-0.029***	-0.119
	(0.008)	(0.077)
Board Tenure	0.012***	0.015
	(0.003)	(0.025)
Busy Board	0.002	0.056
	(0.006)	(0.063)
Board Delta	0.004***	-0.052***
	(0.002)	(0.012)
Firm & Year FE	YES	YES
Adj R^2	0.046	0.081
Observations	16,223	16,205

Panel B: Second Stage Results

	Excess ROA		**Excess Stock Return**	
Male Dummy × Post	0.026***		0.147**	
	(0.008)		(0.058)	
Male Dummy	0.002		-0.058*	
	(0.004)		(0.033)	
Male Ratio × Post		0.083***		0.548**
		(0.030)		(0.240)
Male Ratio		-0.001		-0.193
		(0.023)		(0.179)
Controls, Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.016	0.002	0.015	0.004
Observations	16,223	16,205	16,223	16,205

Table IA.7. Probability of firm performance improvement

This table presents logit and logistic regression estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The dependent variables are *ROA Dummy* and

Stock Return Dummy, that are equal to one if the change in associated performance measure from last year is greater than zero, and zero otherwise. *Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables in Panels A and B, respectively. Variable definitions are available in Table A.1, Appendix. Economic factors, i.e. unemployment rate and PPI, and industry fixed effects are included. Betas, Odds Ratios (exponential of betas) and standard errors of betas are reported. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel A: Analyses with Male Dummy

	β		**Odds Ratios (e^{β})**	
	ROA Dummy	**Stock Return Dummy**	**ROA Dummy**	**Stock Return Dummy**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.126**	0.209***	1.134**	1.232***
	(0.054)	(0.063)		
Male Dummy	-0.054	-0.079**	0.948	0.924**
	(0.035)	(0.039)		
Constant	0.730***	-0.335	2.076***	0.715
	(0.247)	(0.327)		
Control Variables	YES	YES	YES	YES
Econ Factors & Industry FE	YES	YES	YES	YES
Observations	16,173	15,605	16,173	15,605
Pseudo R^2	0.021	0.053	0.021	0.053

Panel B: Analyses with Male Ratio

	β		**Odds Ratios (e^{β})**	
	ROA Dummy	**Stock Return Dummy**	**ROA Dummy**	**Stock Return Dummy**
	I	**II**	**III**	**IV**
Male Ratio × Post	0.130*	0.416***	1.139*	1.515***
	(0.076)	(0.074)		
Male Ratio	-0.164	-0.286*	0.849	0.751*
	(0.159)	(0.159)		
Constant	0.778**	0.086	2.178**	1.090
	(0.350)	(0.383)		
Control Variables	YES	YES	YES	YES
Econ Factors & Industry FE	YES	YES	YES	YES
Observations	16,173	15,605	16,173	15,605
Pseudo R^2	0.021	0.054	0.021	0.054

Table IA.8. Analyses with additional control variables

This table presents estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with original and additional control variables, i.e. *Total Pay, Foreign Ratio, Titles, Committees,*

Other Boards, *Exec Ratio*, and *Qualifications*. *Total Pay* is natural logarithm of average total pay (in £ Thousand) of directors. *Foreign Ratio* is the proportion of non-British directors on the board. *Titles* is average number of titles owned by directors on the board. *Committees* is average number of committees affiliated with directors on the board. *Other Boards* is average number of other boards affiliated with directors on the board. *Qualifications* is average number of qualifications owned by directors on the board. The dependent variables are *ROA* and *Stock Return. Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Remaining variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.022***	0.153***		
	(0.006)	(0.059)		
Male Dummy	-0.001	-0.054		
	(0.004)	(0.033)		
Male Ratio × Post			0.072***	0.567**
			(0.025)	(0.243)
Male Ratio			0.001	-0.177
			(0.019)	(0.179)
Total Pay	-0.001	-0.004	-0.001	-0.005
	(0.001)	(0.013)	(0.001)	(0.013)
Foreign Ratio	-0.001	-0.099	-0.001	-0.102
	(0.011)	(0.107)	(0.010)	(0.107)
Titles	-0.012	-0.047	-0.013	-0.047
	(0.021)	(0.166)	(0.021)	(0.166)
Committees	-0.001	-0.019	-0.001	-0.020
	(0.002)	(0.021)	(0.003)	(0.022)
Other Boards	0.003	0.011	0.004	0.012
	(0.004)	(0.038)	(0.004)	(0.038)
Exec Ratio	0.008	0.030	0.007	0.029
	(0.014)	(0.134)	(0.013)	(0.135)
Qualifications	0.006	0.042	0.005	0.043
	(0.004)	(0.035)	(0.004)	(0.036)
Constant	0.057**	2.192***	0.057*	2.304***
	(0.023)	(0.219)	(0.030	(0.283)
Original Controls	YES	YES	YES	YES
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.147	0.082	0.147	0.082
Observations	16,216	16,198	16,216	16,198

Table IA.9. Analyses with other performance measures

This table reports estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The dependent variables are *Earnings Ratio*, i.e. earning before tax, depreciation and amortization over total assets; *ROE*, return on equity, as net income before extraordinary items, over shareholders' equity; *NPM*, net profit margin, as net income before extraordinary items over sales; *Sharpe Ratio*, as stock return minus 10-year UK government bond rate, normalized by annual standard deviation of the stock's daily return.Variable definitions are in Table A.1, Appendix. Explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

Panel A: Association between the policy change and corporate governance

	Earnings Ratio		**ROE**		**NPM**		**Sharpe Ratio**	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
Male Dummy × Post	0.023**		0.094**		0.614*		2.137***	
	(0.009)		(0.043)		(0.337)		(0.794)	
Male Dummy	-0.002		-0.034		-0.184		-0.781	
	(0.005)		(0.022)		(0.160)		(0.584)	
Male Ratio × Post		0.076**		0.190***		1.492***		6.512*
		(0.035)		(0.063)		(0.471)		(3.688)
Male Ratio		-0.020		-0.134		-0.131		-1.249
		(0.024)		(0.103)		(0.627)		(2.953)
Firm Size	0.006	0.005	-0.043**	-0.054***	-0.144	-0.245	-7.018***	-7.004***
	(0.004)	(0.005)	(0.018)	(0.019)	(0.167)	(0.178)	(0.403)	(0.402)
Leverage	0.056***	0.056***	-0.041	-0.036	1.049	1.127*	1.100	1.154
	(0.018)	(0.019)	(0.124)	(0.124)	(0.653)	(0.658)	(1.768)	(1.771)
Growth	-0.014	-0.015	0.116	0.142	3.419	3.688	-10.301**	-10.261**
	(0.044)	(0.042)	(0.209)	(0.209)	(2.560)	(2.574)	(4.536)	(4.542)
Cash Ratio	-0.084***	-0.083***	-0.154*	-0.156*	-1.684	-1.707	-0.475	-0.470
	(0.021)	(0.021)	(0.088)	(0.088)	(1.045)	(1.041)	(1.528)	(1.529)
Stock Volatility	0.019	0.020	0.060	0.069	-0.594	-0.547	0.051	0.0583
	(0.012)	(0.012)	(0.069)	(0.069)	(0.568)	(0.571)	(1.165)	(1.166)
Tangibility	0.038*	0.039*	-0.105	-0.079	1.581	1.755	1.789	1.807
	(0.022)	(0.022)	(0.101)	(0.102)	(1.287)	(1.295)	(2.302)	(2.300)
M/B	0.008***	0.007***	0.037***	0.036***	0.021	0.013	-2.711***	-2.706***
	(0.002)	(0.002)	(0.007)	(0.007)	(0.086)	(0.086)	(0.167)	(0.168)
Dividend Ratio	0.096*	0.097*	0.096	0.208	-1.113	-0.260	75.850***	76.030***
	(0.057)	(0.057)	(0.429)	(0.432)	(1.171)	(1.283)	(11.290)	(11.301)
Board Size	-0.032***	-0.033***	-0.134***	-0.121**	1.053**	1.176***	-0.876	-0.782
	(0.010)	(0.009)	(0.051)	(0.050)	(0.435)	(0.431)	(1.043)	(1.042)
Board Tenure	0.010***	0.010***	0.047***	0.045***	0.294*	0.257	-0.180	-0.195
	(0.003)	(0.004)	(0.016)	(0.016)	(0.172)	(0.171)	(0.314)	(0.314)
Busy Board	-0.001	-0.001	0.018	0.019	0.007	0.036	-0.650	-0.636
	(0.007)	(0.006)	(0.037)	(0.036)	(0.251)	(0.252)	(0.885)	(0.886)
Board Delta	0.006***	0.006***	0.001	0.004	-0.002	0.020	-0.595***	-0.598***
	(0.002)	(0.002)	(0.009)	(0.009)	(0.066)	(0.068)	(0.200)	(0.201)
Time and Firm FE	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R^2	0.026	0.026	0.013	0.013	0.010	0.011	0.149	0.149
Observations	16,213	16,213	16,222	16,222	15,522	15,522	16,199	16,199

Table IA.10. Analyses with younger directors

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. This sub sample includes observations for firms if the average male director age is in the bottom quartile across all firms per year. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return. Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.027**	0.215**		
	(0.013)	(0.102)		
Male Dummy	-0.005	-0.058		
	(0.009)	(0.066)		
Male Ratio × Post			0.103**	0.869**
			(0.049)	(0.414)
Male Ratio			-0.038	-0.116
			(0.038)	(0.378)
Constant	-0.016	2.174***	0.019	2.227***
	(0.044)	(0.390)	(0.058)	(0.558)
Control, Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.054	0.085	0.054	0.085
Observations	4,092	4,091	4,092	4,091

Table IA.11. Analyses over shorter time periods

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The time period for analyses is from 2012 to 2020. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return. Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.021***	0.164**		
	(0.008)	(0.075)		
Male Dummy	-0.002	-0.086		
	(0.007)	(0.067)		
Male Ratio × Post			0.075**	0.520*
			(0.032)	(0.312)
Male Ratio			-0.028	-0.191
			(0.031)	(0.315)
Constant	-0.037	3.092***	-0.008	3.208***
	(0.040)	(0.413)	(0.053)	(0.515)
Control, Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.059	0.069	0.058	0.068
Observations	6,859	6,849	6,859	6,849

Table IA.12. Analyses excluding date from the 2008-2009 financial crisis and the 2020 COVID-19 pandemic

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The analyses exclude observations from 2008-2009 Great Financial Crisis and 2020 Covid Crisis. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return. Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.026***	0.147**		
	(0.008)	(0.063)		
Male Dummy	0.002	-0.069*		
	(0.005)	(0.036)		
Male Ratio × Post			0.078**	0.454*
			(0.031)	(0.270)
Male Ratio			0.003	-0.212
			(0.025)	(0.207)
Constant	0.014	2.332***	0.017	2.460***
	(0.024)	(0.209)	(0.036)	(0.302)
Control Variables	YES	YES	YES	YES
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.049	0.070	0.048	0.069
Observations	13,567	13,552	13,567	13,552

Table IA.13. Analyses excluding top three sectors

This table presents the difference-in-difference analysis estimates for *Male Dummy* and *Male Ratio* and their interaction with *Post* along with control variables. The analyses exclude observations from top three industries in our sample, i.e. service, mining & natural resources, and wholesale & retail. The dependent variables are *ROA*, i.e. cash flow from operations over total assets, and *Stock Return*. *Male Dummy* is a dummy equal to one if the board has no female directors, and zero otherwise. *Male Ratio* is the proportion of male directors on the board. *Post* is a dummy that is equal to one from 2015 onward, and zero otherwise. *Male Dummy×Post* and *Male Ratio×Post* are main explanatory variables. Variable definitions are available in Table A.1, Appendix. All explanatory variables are lagged by one year. Year and firm fixed effects are included. Standard errors are clustered by firms and given in parentheses. The *** indicates statistical significance at the 1% level.

	ROA	**Stock Return**	**ROA**	**Stock Return**
	I	**II**	**III**	**IV**
Male Dummy × Post	0.031***	0.179**		
	(0.012)	(0.078)		
Male Dummy	-0.001	-0.021		
	(0.006)	(0.046)		
Male Ratio × Post			0.100**	0.175**
			(0.042)	(0.085)
Male Ratio			0.016	0.163
			(0.027)	(0.240)
Constant	0.006	2.356***	-0.009	2.168***
	(0.036)	(0.312)	(0.046)	(0.404)
Control Variables	YES	YES	YES	YES
Firm & Year FE	YES	YES	YES	YES
Adj R^2	0.045	0.076	0.045	0.075
Observations	7,869	7,858	7,869	7,858

Figure IA.1. Pay gap between male and female executives

This figure displays the distribution of the gap in total pay between male and female executives (in £1000) across years. It is calculated as the difference between average total pay of male and female executives in each firm. The change in parental law is indicated with a vertical black line. The pay gap distribution is given for two different sub groups, i.e. for the firms in the bottom (Q1) and top (Q4) quartile of male ratio. These represent groups of firms with high and low proportion of male directors.

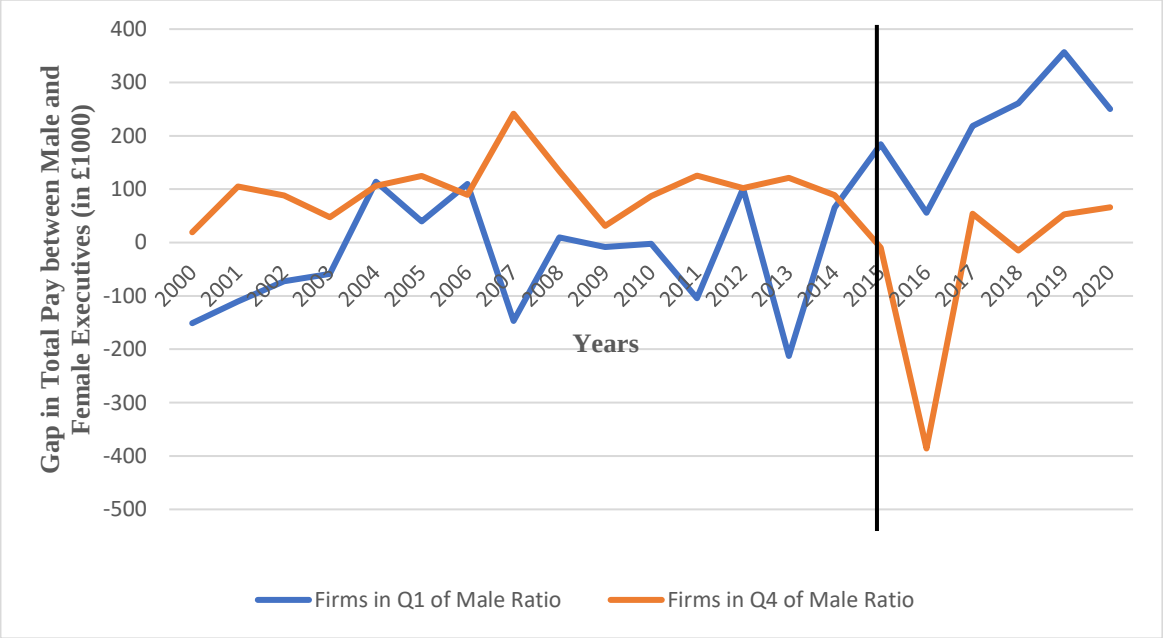


Figure IA.2. Proportion of female executives across years

This figure displays the distribution of the proportion of female executives in firms across years. The change in parental law is indicated with a vertical black line. The distribution before and after the law change in 2015 is given along with the associated trends with dotted lines.