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Women's Activism, Corporate Identity, and Female Board Representation

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Abstract

While there is ample evidence documenting the positive effect of women's activism on female representation in politics, scholars know relatively little about its potential impact on gender diversity in the corporate world. We aim to fill this gap in the literature by providing the first empirical analysis of the relationship between women's activism and female representation on corporate boards. Drawing on the extensive scholarship on social movements as well as original, qualitative interviews with representatives of women's organizations, we argue that women's activists use various strategies – empowering, informing, and shaming – to increase the number of women on corporate boards. In addition, we posit that the effect of women's activism on female board representation is moderated by facets of corporate identity: it is greater for firms that are reputation-seeking and committed to corporate social responsibility, and it is smaller for firms with a right-wing political orientation. We test these propositions by analyzing firm- and country-level data on more than 3,000 companies from 35 countries over a period of ten years (2002-2011). Using linear regression models (i.e. OLS, Tobit, and 2SLS), we find support for all of our hypotheses. These results are reasonably robust to a variety of alternative model specifications, including an instrumental variable approach that mitigates concerns about reverse causality and omitted variable bias. Theoretical and practical implications are discussed.

Keywords: Women's activism; women's movement; social movements; female representation; gender diversity; corporate identity

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Introduction

Women remain woefully underrepresented in several social, political, and professional domains, including corporate leadership. A recent analysis of female board representation in 30 countries around five continents revealed that on average, only 16.9 percent of board members are women (Institutional Shareholder Services, Inc. 2017). In the United States, more than ten percent of companies in the Russell 3000 Index do not have a single female director (McGregor 2019). The lack of gender diversity in corporate leadership is not only problematic from a normative perspective (Franceschet and Piscopo 2013) but also detrimental to firms' economic, social, and environmental performance (e.g. Arayssi, Dah, and Jizi 2016; Banahan and Hasson 2018; Post and Byron 2015). As a result, companies in many countries have been facing pressure to improve female board representation from multiple stakeholders, including governments (Zillman 2017), investors (Mooney 2018), employees (Weissman 2018), and women's rights groups (Gannon 2018).

Over the past decades, women's activists and organizations around the world have been tirelessly championing for greater gender diversity in corporate leadership. An example of such an organization is *Women on Boards 2020*, a nongovernmental organization which has been operating throughout the United States since its inception in 2010. The stated goal of this organization is to "increase the percent of females on public-company boards to 20 percent by the year 2020" (Gannon 2018). To achieve this goal, *Women on Boards 2020* pursues several different strategies, including an annual event called *The National Conversation on Board Diversity*. In 2018, this event was held in 20 cities across the United States and brought together thousands of activists, academics, and senior-level executives to discuss the issue of boardroom gender diversity. As part

of this event, *Women on Boards 2020* honored companies which had achieved the 20 percent goal as well as some of its many corporate sponsors (Gannon 2018), among them big-name firms such as *Ernst & Young* and *FedEx*. Conversely, numerous firms have yet to achieve this benchmark, and some of them have been unresponsive to *Women on Boards 2020*'s outreach efforts.

This example illustrates that not all firms are equally receptive to women's activism, which raises two interesting and important questions: Does women's activism systematically affect female board representation? And if it does, which types of firms are most likely to increase the number of women on their board as a result of women's activism? To address these questions, we draw on the social movements literature (e.g. Murdie and Davis 2012; Mehra 1997) as well as original, qualitative interviews with representatives of women's organizations to develop a theoretical framework which details the various mechanisms through which women's activism can positively affect female board representation. We also build on the literature on corporate identity (e.g. Bravo, Matute, and Pina 2012; Wilts 2006) to identify three firm characteristics – reputation-seeking behavior, commitment to corporate social responsibility (CSR), and political orientation – that moderate the relationship between women's activism and female board representation.

From this framework, four hypotheses are derived. To test these hypotheses, we use the Asset4 database which allows us to access information on female board representation and other firm-level variables for more than 3,000 companies from 35 countries over a period of ten years (2002-2011). Using linear regression models (i.e. OLS, Tobit, and 2SLS), we find that the level of women's activism in a country is positively associated with the percentage of women on corporate boards. Our results also suggest that the effect of women's activism on female board representation is moderated by corporate identity characteristics: it is greater for firms that are reputation-seeking and committed to CSR, and it is smaller for firms with a right-wing political orientation.

This study provides the first systematic analysis of the impact of women's activism on female board representation, and therefore makes several important contributions. First, by developing a theoretical framework which specifies the mechanisms through which women's activism can improve female board representation as well as the conditions under which it is more likely to be successful at doing so, we contribute to the literatures on social movements, corporate identity, and boardroom gender diversity alike. As for the social movements literature, our framework can inform future scholarship and theorizing on the effects of women's activism, and advocacy in general, on corporate outcomes other than board diversity such as sexism and harassment of women in the workplace. Moreover, we add to an emerging scholarship (e.g. Gilad 2015; Pereira and Coelho 2013) which has been identifying corporate identity characteristics – and organizational identity characteristics more generally – as important moderators of relationships that are of interest to management scholars. Furthermore, we contribute to the literature on boardroom gender diversity by highlighting the importance of social and political institutions and actors such as social movements, which are factors that previous research on the determinants of female board representation has largely ignored.

Our second contribution is empirical in nature. By using a large dataset that is rich in temporal and cross-sectional variation and analyzing it via a variety of model specifications that include an instrumental variable approach, we are able to obtain estimates of the relationship between women's activism and female board representation that are both generalizable and lend themselves to a causal interpretation. Our results are therefore not only of interest to management scholars but also to women's activists and organizations across a range of different cultural and geographical contexts. Third, by integrating the literatures on boardroom gender diversity, corporate identity, and social movements to gain new insights into the determinants of female

board representation, this study demonstrates the fruitfulness of multidisciplinary research, that is, drawing on different academic disciplines such as management, political science, and sociology. Recently, management scholars have increasingly criticized the lack multidisciplinary scholarship in their field and called for more research of this nature (e.g. Terjesen and Politis 2015).

The remainder of this study proceeds as follows. First, we lay out our theoretical framework as well as the hypotheses derived from it. Second, we elaborate on the data and measures we use to test our hypotheses. Third, we describe our empirical results which include sample statistics, hypothesis tests, and robustness checks. A concluding section then summarizes the main findings of this study, discusses their implications and limitations, and indicates possible directions for future research on the subject.

Theoretical Framework

Women' Activism: Definition and Strategies

Definition

In theorizing the effect of women's activism on female board representation, we draw on social movements theory, which encompasses a vast and diverse body of scholarship that addresses the origins, composition, and consequences of social movements (see Walder 2009). Social movements are generally defined as "attempts by excluded groups to mobilize sufficient political leverage to advance collective interests" (McAdam 1982, 20). In the tradition of the strand of social movements theory which engages with the consequences of social movements, we study the effects of the women's movement, which encompasses a broad range of actors working toward

women's liberation and rights (Banaszak and Ondercin 2016; Hughes et al. 2018). One way in which social movements, including the women's movement, advance their collective interests is through activism, which is generally defined as legal activities by private citizens that are directly aimed at bringing about political or social change (Norris 2007).

Women's activism are those activities that that are directed at addressing political and social issues that primarily (but not exclusively) affect women such as sexual harassment and equal opportunity in the workplace. In other words, women's activism is defined by the issues that are being targeted, not by the gender of the activists. Activism can be carried out by a variety of private actors, including individual activists, groups of activists, and civil society organizations (CSOs). CSOs are generally defined as voluntary associations with formal legal status which provide services and advocate on behalf of the interests of their members (Boris and Mosher-Williams 1998). Women's CSOs are a subcategory of CSOs which provide services to or advocate on the behalf of women. To summarize, we define women's activism as *legal activities carried out by private actors (individuals, groups, and organizations) with the goal of advancing women's status in politics or society*; we use the term women's movement to refer to the aggregate of actors in a specific geographical context and time period working toward this goal.

To achieve their goals, activists and CSOs can use a variety of strategies, including mobilization (protests, etc.), educating the public, litigation, empowering individuals, informing and persuading decision makers, and shaming (e.g. Maney et al. 2012; Pease 2019, 37-40). Social movements employ different strategies depending on the nature of their cause, the institutional environment they operate in, and the resources available to them (e.g. Richards and Heard 2005). To determine which strategies are used by women's activists and CSOs to improve female board representation, we conducted qualitative interviews with representatives of eight women's

organizations in Pittsburgh, Pennsylvania, United States, including *Women on Boards 2020*, *Strong Women, Strong Girls*, and the *Women's Leadership Council*. These interviews took place in 2019 and were conducted over the phone or face-to-face; they lasted between twenty and forty minutes each. The interviews were semi-structured and included a variety of questions regarding the organizations' history, structure, and resources; their recent programs, initiatives, and projects; and their performance assessments, successes, and failures. According to the interviewees, women's activists and CSOs rely primarily on three strategies – empowering, informing, and shaming – in advocating for greater boardroom gender diversity; below, we describe each of these strategies in greater detail.

Strategy #1: Empowering

Half of the representatives we interviewed stated that their organization's primary goal was to empower women and aid their professional development. Empowerment, which is generally defined as “the restoration to individuals of a sense of their own value and strength and their own capacity to handle life's problems” (Bush and Folger 1994, 2), has long been emphasized as a crucial component of women's activism by the social movements literature (e.g. Dawson 1998; Handy and Kassam 2006; Mehra 1997). According to our interviewees, there are three different ways in which their organizations empower women: education, networking, and inspiration. As for education, several of the interviewees' organizations offer educational opportunities to women which provide them with knowledge and skills that can be of use as they try to advance their careers. These seminars are often led by women in corporate leadership positions who volunteer to share their expertise and personal experience with other women. As one interviewee put it: “We have about 100 to 125 professional women who are in what we call our ‘strong leaders community’

[...] who run our educational programs and events.” According to the same interviewee, the demand for such programs is high, with several hundred women participating annually.

In addition, these women’s organizations provide networking and mentoring opportunities, meaning they connect women with business leaders in the area and establish lasting relationships that can help them get their “foot in the door”. One of the organizations whose representatives we interviewed boasts more than 100 volunteer mentors. These mentors, who are all women in mid- and senior-level leadership positions, collectively provided more than 1,500 mentoring hours between 2016 and 2017 alone. Lastly, interviewees stressed that an important part of empowering women to become corporate leaders is to inspire them. Some women have become resigned to achieving less than their male counterparts as a result of sexist norms and practices, so instilling them with hope and determination by highlighting examples of female success is a critical first step toward their professional advancement. As one of the interviewees put it, a significant part of their organization’s efforts is geared toward encouraging women and girls to “dream big”. Another representative, whose organization – among other things – provides summer leadership programs for high school and college aged young women, used similar language when she stated that one of their primary goals is to motivate and train “the future leaders of America”.

Strategy #2: Informing

The second mechanism focused on by interviewees is informing. Several organizations whose representatives we interviewed either conduct their own research or gather and organize existing evidence on the state of boardroom gender diversity as well as its effects. While their findings are also available to the general public, the primary target audience for this information are corporate executives. The goal of providing business leaders with this kind of information is to convince

them of the benefits of boardroom gender diversity, primarily its financial benefits. Once executives understand these benefits, they are more likely to appoint women to their boards of directors. Such informational tactics are well-documented in the social movements literature, for example in the cases of the environmental movement (Sabbarwal 2017) and the international movement to abolish the death penalty (Kim 2016).

An example of an organization using information as a strategy to advance female board representation is *Women on Boards 2020*, which publishes the Gender Diversity Index (GDI), an annual review of female board representation for companies on the Russell 3000 Index and Fortune 1000 list. *Women on Boards 2020* relates the GDI to firm performance and disseminates their findings among business leaders, and we were told that many of them become more willing to engage in conversations about boardroom gender diversity when the discussion shifts from political and moral imperatives to arguments about financial benefits. As one of the interviewees put it: “Research has shown that diverse boards return better profits for the company, so a lot of it is just good business sense. Once the case was made for increased profits, it was only a matter of time before the pendulum started to swing.”

Strategy #3: Shaming

The third and last mechanism stressed by the interviewees is shaming, which is generally defined as the act of publicly criticizing and drawing attention to the actions of individuals or organizations with the goal of them ceasing or changing the actions in question (Murdie and Davis 2012). In the social movements literature, shaming has long been described as a popular strategy among many activists and CSOs. For example, *Greenpeace* and *Amnesty International* are well-known in this regard, and research has shown that their shaming efforts have been quite effective at helping them

achieve their goals (e.g. Murdie and Davis 2012). In the context of boardroom gender diversity, an organization which exemplifies this strategy is *Women on Boards 2020*. This organization gives ratings to all companies on the Russell 3000 Index and Fortune 1000 list. The worst rating a company can receive is a “Z”, which stands for “zero female board members”. These ratings are published online where they are readily accessible to the general public, and they are publicized during events such as *The National Conversation on Board Diversity*.

Having a “Z” rating or other poor grade is not a good look for a company, and in this day and age may very well result in reputational costs which in turn may be detrimental to a firm’s financial performance. Several interviewees stated that for some companies, such reputational costs (or even just the prospect of reputational costs) are enough of an impetus to work toward greater boardroom gender diversity. According to one of our interviewees, firms have a “fear of being called out or embarrassed”. In addition to these public shaming efforts, some women’s organizations also approach the companies directly. One of the interviewees stated that for companies with zero female directors, “an email is sent out each month to their investor relations department urging them to add women to their board”.

In summary, the social movements literature and our qualitative interviews suggest that women’s activism via empowering, informing, and shaming can lead to improved female board representation. Therefore, we expect firms that are located in countries with higher levels of women’s activism to exhibit greater boardroom gender diversity.

H1: Women’s representation on boards of directors will be greater in countries with higher levels of women’s activism.

The Moderating Role of Corporate Identity Characteristics

What Is “Corporate Identity”?

Our qualitative interviews also suggest that not all firms are equally likely to increase the number of women on their board as a result of women’s activism. When asked why firm reactions to women’s activism have ranged from enthusiastic to antagonistic, one of the interviewees replied: “It really depends on the company culture.” Other interviewees expressed similar sentiments, offering explanations such as firms’ “core values”, “image”, and “politics”. Taken together, these statements point to the importance of corporate identity, which is generally defined as the core characteristics of a firm “that represent its essence, its personality and the internal culture” (Bravo, Matute, and Pina 2012, 131). We argue that corporate identity characteristics moderate the effect of women’s activism on female board representation. Specifically, we posit that three core characteristics of a firm are relevant in this context: reputation-seeking behavior, commitment to corporate social responsibility (CSR), and political orientation. Figure 1 below provides a visual representation of our theoretical framework.

[Figure 1]

As indicated above, corporate identity is a set of defining characteristic that contribute to the distinctiveness and uniqueness of a firm (see Albert and Whetten 1985). While scholars generally agree on its definition, there is a considerable divergence in opinions concerning the fundamental components of corporate identity. Studies in this research area have identified dozens of such components (e.g. Melewar and Karaosmanoglu 2006), and there is considerable variation

across firms regarding the constitutive elements of their identity; one company's identity might include innovativeness, while another's might center on traditionalism (Flint, Signori, and Golicic 2018). Given this multitude of corporate identity characteristics, the most pertinent approach for scholars is to prioritize those components that appear to be pivotal in the context of a particular research question and theoretical framework. Therefore, in the study at hand we conceptualize reputation-seeking behavior, commitment to CSR, and political orientation as important elements of corporate identity, as our qualitative interviews suggest that these three elements moderate the relationship between women's activism and female board representation by rendering the strategies of women's activists and CSOs more or less effective. Specifically, shaming is more effective when targeting companies that are reputation-seeking; firms that are committed to CSR are more receptive to informing; and companies with a right-wing political orientation are less responsive to both informing and empowering.

Corporate Identity Characteristic #1: Reputation-Seeking Behavior

According to our qualitative interviews, one factor that moderates the effect of women's activism on female board representation is reputation-seeking behavior, which is defined as intentional and extensive efforts, however effective, to monitor or improve one's public image (Baekkeskov 2017). As one interviewee put it: "Some companies are very concerned about what gender issues might do to their public image, which provides an entry point for us." Statements such as this fit well with the corporate identity literature, where reputation-seeking behavior has been described as an integral part of many firms' identity (e.g. King and Whetten 2008). Studies have shown that some organizations are much more concerned with their public image and devote significantly

greater resources to reputation management than others; in fact, certain organizations draw their legitimacy primarily from their reputation (Waeraas and Byrkjeflot 2012).

Whether or not a firm is reputation-seeking has a number of behavioral consequences; for example, in their study on the drivers of sustainability efforts in New Zealand's wine industry, Gabzdylova, Raffensperger, and Castka (2009) argue that reputation-seeking wineries are more likely to be environmentally conscious and produce high quality products than their industry peers. In a similar vein, we posit that reputation-seeking firms are more likely to increase the number of women on their board in response to women's activism. As stated previously, one of the primary strategies of the women's movement in trying to improve female board representation is shaming, which is intended to put pressure on firms by imposing reputational costs. Therefore, we should observe a greater effect of women's activism on boardroom gender diversity for firms whose identity characteristics include a preoccupation with their reputation, as they are more inclined to care about such reputational costs.

H2: Women's activism will be more effective at improving women's representation on boards of directors for firms that are reputation-seeking.

Corporate Identity Characteristic #2: Commitment to CSR

Another moderator mentioned by interviewees is commitment to CSR, which is defined as private business self-regulation that helps a company be socially accountable – to itself, its stakeholders, and the public (Sheehy 2015). One of the representatives we interviewed stated that it is much easier to work with firms that have proven themselves to be “socially conscious”. Several studies (e.g. Bravo, Matute, and Pina 2012; Perez and Rodriguez del Bosque 2012) have identified

commitment to CSR as a fundamental component of corporate identity. For many companies, CSR is more than just something that they do; it is a value system that permeates all aspects of the firm, including its senior management, employees, and culture (Bravo, Matute, and Pina 2012). As such, social responsibility can be something that firms believe in and support beyond their own specific CSR initiatives.

As stated previously, one strategy that women's activists and CSOs use to increase the number of women on corporate boards is informing, that is, providing business leaders with research to convince them of the benefits of boardroom gender diversity. This strategy, however, can only work effectively if business leaders are open to receiving this kind of information, and if they possess the cognitive ability to accept and properly process new information. Studies have shown that information processing is dependent on prior beliefs: individuals and organizations have a tendency to accept new information that aligns with their existing ideas and values, and to reject new information that does not (e.g. Balcetis and Dunning 2006). As a result, companies that are committed to and value CSR are more likely to be receptive to information provided by women's activists and organizations, as they are more sympathetic to the cause of gender equality and therefore more inclined to both listen to and accept this kind of information.

H3: Women's activism will be more effective at improving women's representation on boards of directors for firms that are committed to CSR.

Corporate Identity Characteristic #3: Political Orientation

One final moderator that was brought up during our interviews is political orientation. When asked why some firms are more supportive of their organization's efforts than others, one of the

interviewees stated: “I often wonder if it’s about politics. [...] You can tell from the values of our organization that we are very progressive and it’s difficult to work with companies that don’t have similar values.” This statement is supported by the corporate identity literature, which has been arguing that political orientation is an integral part of corporate identity (e.g. Wilts 2006). Political orientation is defined as a set of beliefs, ideals, and principles held by individuals or groups which inform their attitudes and behavior toward the social and political arrangements and processes of their society (Jost, Nosek, and Gosling 2008). Political orientation is generally thought of as a linear, left-right spectrum.¹ On a very general level, left-wing politics are associated with advocating social change and promoting greater political, social, and economic equality; conversely, right-wing views are centered on a resistance to social change, a preference for a traditional, more or less hierarchical society, and an acceptance of inequality (Jost, Nosek, and Gosling 2008).

Given that right-wing politics involve a resistance to social change and an acceptance of inequality, such views are less compatible with greater boardroom gender diversity. As stated previously, information processing is dependent on prior beliefs (Balcetis and Dunning 2006). Therefore, firms with a right-wing political orientation are less likely to be receptive to information provided by women’s activists and organizations, as they are less sympathetic to the cause of gender equality and therefore less inclined to both listen to and accept such information. In addition, evidence indicates that it is more difficult for women to climb the corporate ladder in firms with a right-wing political orientation (Carnahan and Greenwood 2018). Thus, empowering as a strategy to increase female board representation is less effective for companies with a right-wing political orientation, as even empowered (i.e. educated, well-connected, and inspired) women will find it relatively difficult to penetrate the leadership ranks in those companies. Overall, then,

we expect to observe a smaller effect of women’s activism on female board representation for firms with a right-wing political orientation.

H4: Women’s activism will be less effective at improving women’s representation on boards of directors for firms that have a right-wing political orientation.

Data and Variable Definitions

To test these hypotheses, we primarily rely on the Asset4 ESG (“Environmental, Social, and Governance”) dataset from Thomas Reuters, which contains firm-level data on more than 250 indicators relating to companies’ economic, social, environmental, and corporate governance performance. We merge this dataset with country-level data provided by Hughes et al. (2017; 2018) as well as the World Development Indicators (WDIs) and the World Values Survey (WVS). The final dataset contains information on more than 3,000 companies from 35 countries² over a period of ten years (2002-2011). Following previous studies on the determinants of female board representation (e.g. Chizema, Kamuriwo, and Shinozawa 2015; Grosvold, Rayton, and Brammer 2016), we measure our dependent variable as the percentage of women on the board of directors.

Our main explanatory variable is women’s activism. We operationalize this variable as the number of women’s international non-governmental organizations (WINGOs) present in a country in a given year (Hughes et al. 2017; 2018). We divide this number by the respective country’s total population in the same year to ensure that our measure captures the strength of a country’s women’s movement, rather than acting as a proxy for country size. We argue that this variable is an appropriate proxy for women’s activism for three reasons. First and foremost, the vast majority

of women's activism is carried out by formal organizations rather than individuals and informal groups (e.g. Ahlquist and Levi 2013), which makes our measure of women's activism conceptually valid. Second, other studies have used similar proxies to measure women's activism (e.g. Hughes, Krook, and Paxton 2015). Third, research has demonstrated that CSO presence is strongly associated with other measures of activism such as nonviolent protests (e.g. Murdie and Bhasin 2011). In fact, we correlate our measure of women's activism with data from Murdie and Peksen (2015) on the annual number of women's nonviolent protests in a country; the correlation between these two variables is 0.495 ($p = 0.000$). In the robustness section, we use this protest variable as an alternative measure of women's activism; the results of these analyses are largely similar to those of our main models.

To measure reputation-seeking behavior, we use a binary variable which is coded 1 if a company actively monitors its reputation or its relations with the community via surveys, audits, or other forms of measurement. Similarly, we capture commitment to CSR via a binary variable which is coded 1 if the company has a policy to maintain an effective and independent CSR committee. While measuring the former two concepts is rather straightforward, capturing a firm's political orientation is more complicated. Previous studies have overwhelmingly measured political orientation via campaign contributions to political parties and candidates. However, this type of data is not available for the vast majority of countries in our sample, which leads us to construct a different proxy.

We measure political orientation by constructing an index which combines two firm practices that are generally seen as political in their nature. Specifically, this index represents the average of two binary variables: whether a firm strives to maintain positive relationships with trade unions; and whether a firm promotes positive discrimination (i.e. affirmative action). The index is

reverse-coded so that higher values indicate a stronger right-wing political orientation: firms with good union relations *and* positive discrimination are coded 0; those with *either* good union relations *or* positive discrimination are coded 0.5; and those with *neither* good union relations *nor* positive discrimination or coded 1. Support for trade unions and affirmative action are generally viewed as left-wing positions, whereas the political right has historically been rather antagonistic toward trade unions and opposed to positive discrimination. This is not only true for the West but also for other parts of the world (e.g. Donnelly 2016; Hernandez 2013; La Botz 2008; Moses and Jenkins 2017; Neureiter 2013), which makes this index a reasonable proxy in the context of our cross-national analysis. In addition, we looked at the recent political contributions and other political activities of several U.S. firms and compared those metrics to firms' scores on our index. Firms known for their left-wing political orientation such as *Starbucks* score low on our index while large-scale Republican donors such as *Bank of America* and *Exxon Mobil* score high, which confirms the face validity of our index.

Aside from the dependent variable, the key independent variable, and the moderators, we include in our models a series of firm- and country-level control variables commonly found in studies on the subject (e.g. Cabeza-Garcia, Del Brio, and Rueda 2019; Saeed, Belghitarb, and Yousafa 2016). One particularly important control variable in the context of our analysis is public opinion. By including this variable in our models, we are able to distinguish the effect of women's activism from general public pressure and sentiment. To measure public opinion on female representation, we rely on data provided by the World Values Survey (WVS; Inglehart et al. 2014). The WVS consists of nationally representative surveys conducted in almost 100 countries which contain nearly 90 percent of the world's population, using a common questionnaire.

Our measure of public opinion combines two survey items on female representation: “men make better political leaders than women do”; and “men make better business executives than women do”. Both items are coded on a 4-point ordinal scale ranging from “strongly agree” (1) to “strongly disagree” (4), meaning that higher values indicate a more favorable attitude toward female representation. After taking the mean of these two items for each respondent, we average this mean by country and year to obtain countries’ overall public opinion on female representation. Since the WVS is not conducted every year, we impute missing data using the values of the closest year for which information is available. This approach is justified in that public opinion on social issues, including female representation, changes very slowly and does generally not exhibit substantial variation from one year to the next (e.g. Pacheco 2014; Smith 1994) For a complete list of all variables as well as their respective measures and data sources, please see Table 1.

[Table 1]

Empirical Results

Sample Statistics

Table 2 shows the descriptive statistics for the variables under analysis. It illustrates that on average, women account for less than nine percent of directors on corporate boards. In fact, almost half of the firms in our sample (44.3 percent) do not have a single female board member. The maximum value for this variable is 66.67: in 2006, two-thirds of the directors of the French civil engineering construction company *Eiffage* were women. As for the key independent variable,

countries exhibit substantial variation regarding their level of women's activism; ten of the countries in our sample – including Brazil, China, and Russia – have less than one WINGO per million inhabitants while four – Finland, Ireland, Norway, and New Zealand – have more than 20. The average for this variable is about three WINGOs per million inhabitants. Turning next to our moderators, nearly a quarter (24.3 percent) of the firms in our sample monitor their reputation and relations with communities through the use of surveys or other measurements. About a third (34.2 percent) of companies demonstrate commitment to CSR by having an independent and effective CSR committee or team. Almost two thirds of companies (64.5 percent) have a right-wing political orientation, 10.3 percent have a left-wing political orientation, and the rest fall somewhere in the middle.

[Table 2]

As for the control variables, the firms in our sample have between ten and eleven board members. About half of the companies (53 percent) strive to maintain a well-balanced board through an adequate number of independent or non-executive board members. The mean tenure for board members is just over seven years. The average return on assets for the firms in our sample is close to zero (0.059). There are several countries in our sample – including Japan, Poland, and Turkey – in which not a single firm actively strives to maintain a diverse board through adequate female representation; in the average country, less than ten percent of companies do so. With a mean GDP per capita of Intl\$ 40,065, our sample countries are relatively well developed. On average, slightly more than half (54.3 percent) of a country's female working-age population participate in the labor force. Lastly, the average country's public disagrees with the statement that

men make better political leaders and/or business executives than women do (on a 4-point ordinal scale ranging from “strongly agree” to “strongly disagree”). Among the countries in our sample, public opinion on female representation is the least favorable in India, Malaysia, and Turkey, and the most favorable in France, Norway, and Sweden.

[Table 3]

Table 3 illustrates the pairwise correlation coefficients for the variables of interest. All predictors are significantly correlated with female board representation, including our key independent variable; with the exception of political orientation, all of these correlation values are positive. In addition, the table demonstrates that multicollinearity is likely not an issue, since the highest pairwise correlation value is 0.56. Importantly, our key independent variable is not too strongly correlated with any of the other predictors. This confirms the results in Table 3, which similarly suggest the absence of significant multicollinearity as all independent variables have a variance inflation factor (VIF) below two. To obtain the VIFs, we regressed the dependent variable on all predictors using standard OLS and the “estat vif” postestimation routine in Stata SE v15.0 (Aouadi and Marsat 2018; Baum 2006).

Hypothesis Testing

To test H1 and in accordance with other studies on the subject (e.g. Gregoric et al. 2017; see also Aouadi and Marsat 2018), we estimate our baseline model (Model 1) using bivariate OLS regression³ with year-fixed effects and robust standard errors clustered by firm. For our main

model (Model 2), we add the firm- and country-level controls to the baseline model. Models 3 and 4 extend the main model by adding country-fixed and firm-fixed effects, respectively, thereby serving as robustness checks. In all models, the independent variables are lagged by one year. Table 4 shows the results for Models 1 through 4. Turning to our first hypothesis test, women's activism has a positive and significant effect on the percentage of women on corporate boards in the baseline model. This effect does not only remain significant but increases in magnitude when the controls and country dummies are included in the model. To better illustrate the size of this effect, we calculate adjusted predictions based on Model 2 using the "margins" postestimation routine in Stata SE v15.0. Holding all other covariates constant at their mean, the average percentage of women on boards of directors is 9.66 in countries with zero WINGOs per million inhabitants, 14.10 in countries with ten WINGOs, and 18.53 in countries with 20 WINGOs. The coefficient for women's activism also remains positive in Model 4 but slightly misses conventional levels of statistical significance ($p = 0.136$). Yet, given the stringency of firm-fixed effects models (see Aouadi and Marsat 2018), we interpret these results as sufficient support for H1.

[Table 4]

The control variables perform largely as anticipated. In Model 2, with the exception of board tenure and economic development, all controls are statistically significant and their coefficients point in the expected direction. Female board representation is greater in companies that have large and independent boards, are committed to forms of board diversity other than gender (race, etc.), and perform well financially. In addition, the percentage of women on corporate boards is higher in companies that are located in countries where large numbers of firms are

striving to improve female board representation, companies have a large female labor force to draw from, and public opinion regarding gender representation is favorable. The majority of these effects hold when country-fixed effects are included in the model. One unexpected result is that the relationship between public opinion and female board representation becomes negative in Model 3. However, this is likely due to multicollinearity, as additional VIF analyses reveal that our public opinion variable is strongly correlated with the country dummies. Most control variables lose their statistical significance when firm-fixed effects are included in the model. This is not surprising given that the rho value in Model 4 is 0.8, which means that by far most of the variation in female board representation is between firms.⁴ This makes it difficult for fixed effects specifications to detect the impact of the independent variables (see Aouadi and Marsat 2018; Clark and Linzer 2015).

To test our hypotheses regarding the moderating effect of corporate identity, we replicate the full model (Model 2) with added interaction terms. Specifically, we interact women's activism on the one hand with reputation-seeking behavior (Model 5), commitment to CSR (Model 6), and political orientation (Model 7) on the other. The results for these interaction models are illustrated in Table 5 and Figure 2. The interaction term between women's activism and reputation-seeking behavior is positive and significant, indicating that firms which are concerned about their reputation are more likely to increase the number of women on their board as a result of such activism. Figure 2 shows that as the number of WINGOs per million inhabitants in a country increases from zero to 25 (holding all other covariates constant at their mean), the average percentage of female board members increases from about ten percent to more than 25 percent for reputation-seeking firms. While the average percentage of female board members also increases for companies that do not engage in reputation-seeking behavior, this increase is significantly

smaller (from about ten percent to less than 20 percent). Therefore, H2 is supported by the evidence.

[Table 5]

[Figure 2]

Similarly, the interaction term between women's activism and commitment to CSR is positive and significant, indicating that firms with effective and independent CSR committees are more receptive to women's activism than those without. The line graph for commitment to CSR looks similar to that for reputation-seeking behavior, with the slope being significantly steeper for companies that are committed to CSR than it is for firms that are not. These results provide support for H3. Lastly, the interaction term between women's activism and political orientation is negative and significant, suggesting that companies with a right-wing political orientation are less likely to increase the number of women on their board as a result of such activism. Based on Figure 2, political orientation is the strongest among the three moderators. As the number of WINGOs per million inhabitants in a country increases from zero to 25, the average percentage of female board members increases from about ten percent to 30 percent for firms with a left-wing political orientation. While the average percentage of female board members also increases for companies with a right-wing political orientation, this increase is significantly smaller (from about ten percent to less than 20 percent). Therefore, H4 is also supported by the evidence. Overall, the results underpin our argument that the relationship between women's activism and female board representation is moderated by corporate identity characteristics.

Robustness

We undertake six robustness checks to ensure that our findings are not sensitive to alternative model specifications. First, as mentioned previously, we replicate our main models using Tobit regression instead of OLS to account for clustering in the dependent variable. Second, we replicate our main models using hierarchical linear modeling (HLM) instead of OLS to account for the nested structure of the data (firms are nested within countries). Third, we add country- and firm-fixed effects to the interaction models displayed in Table 5. Fourth, we re-run the firm-fixed effects models using firm-random effects instead to account for the fact that most of the variance of the dependent variable is between firms. We fit these random effects models by using the generalized least squares (GLS) estimator, which produces a matrix-weighted average of the between and within results. Fifth, we replicate our main models using an alternative measure of women's activism, namely the number of women's nonviolent protests in a country during a year (Murdie and Peksen 2015).⁵ The results for all five robustness checks, which are available in the appendix, indicate that our findings hold reasonably well across alternative model specifications. In addition, Table 7 in the conclusion provides a summary of the results by model specification.

Sixth, while the fixed effects models used for the robustness checks eliminate the possibility of omitted variable bias stemming from time-invariant unobservables, they do not account for potential omitted variable bias originating from time-varying unobservables and reverse causality. Therefore, we estimate instrumental variable models to mitigate such concerns about endogeneity. Using our main measure of women's activism, we were unable to estimate an endogeneity-correction model that passes all of the relevant statistical tests associated with instrumental variable analyses such as the Sargan test. However, using our alternative measure of

women's activism, we were able to estimate such a model; therefore, we replicate our main model (Model 2) using two-stage least squares (2SLS) regression with the annual number of women's nonviolent protests in a country as the main independent variable. Estimating a valid 2SLS model requires us to identify instrumental variables that are strongly related to women's protests but do not directly affect female board representation. Similar to previous studies (e.g. Klomp and de Haan 2013), we instrument protests via countries' urban population share and level of democracy.⁶

The idea behind these instruments is that protests are easier to organize in densely populated areas and in democratic regimes which generally allow freedom of association and do not violently suppress dissent (Carey 2006; Klomp and de Haan 2013). At the same time, there are no theoretically convincing reasons to expect that a country's urban population share and level of democracy directly affect female board representation; this assertion is supported by the weak correlation between our dependent variable on the one hand and our measures of urbanization and democratic quality on the other (-0.046 and 0.046, respectively). We estimate two 2SLS models, one without (Model 8) and one with (Model 9) country-fixed effects. The results of the first stage regression in both models support the idea that urban population share and level of democracy are strong predictors of protest occurrence; the R^2 , adjusted R^2 , and partial R^2 of Model 8 are 0.671, 0.670, and 0.203, respectively. In addition, both models pass the Sargan test of overidentifying restrictions ($p > 0.7$ for Model 8; $p > 0.2$ for Model 9). The results of the second stage regressions, which are displayed in Table 6, indicate that even when we account for endogeneity in the activism-representation relationship, women's activism remains a significant predictor of female board representation.

[Table 6]

Discussion and Conclusion

Summary of Results

This study represents the first empirical analysis of the relationship between women's activism and boardroom gender diversity. Using a sample of more than 3,000 firms from 35 countries over a ten-year period (2002–2011), we find that women's activism positively affects female board representation. Based on qualitative, original interviews with representatives of women's organizations, we argue that this effect is due to women's activists and CSOs empowering women to take corporate leadership positions, informing executives about the benefits of boardroom gender diversity, and shaming firms that lack adequate female board representation. In addition, our results indicate that the effect of women's activism on boardroom gender diversity is moderated by corporate identity characteristics. Specifically, this effect is stronger for firms that are reputation-seeking and committed to CSR, and it is weaker for companies with a right-wing political orientation. These results are reasonably robust to using country- and firm-fixed effects, different estimators (OLS; Tobit; HLM; GLS), different measures of women's activism, and instrumental variable models which mitigate concerns about endogeneity. For an overview of the various model specifications and their respective results, please refer to Table 7.

[Table 7]

The richness of our dataset, which covers 35 countries across four different continents, allows us to generalize our results to different geographic and cultural contexts. In addition, our

adjusted predictions demonstrate that the effect of women's activism on female board representation is rather large in magnitude. According to our estimates, the average percentage of women on boards of directors is 9.66 in countries with zero WINGOs per million inhabitants, 14.10 in countries with ten, and 18.53 in countries with 20. These are not just hypothetical or unrealistic values. In the United States, the number of WINGOs increased from 126 in 2002 to 145 in 2011. During the same time period, the number of WINGOs increased from 99 to 117 in Austria, from 107 to 127 in Spain, and from 118 to 143 in Italy. The average number of women on corporate boards simultaneously increased in all of these countries; based on the firms in our sample, between 2002 and 2011 the average percentage of women on boards of directors increased from 11.03 percent to 15.31 percent in the United States, from 2.78 percent to 6.42 percent in Austria, from 3.56 percent to 13.58 percent in Spain, and from 0.50 percent to 5.30 percent in Italy. Given the results of our instrumental variable models, we contend that these two increases are not coincidental but causally related, with women's activism driving female board representation.

Theoretical and Practical Implications

By developing a theoretical framework which outlines the mechanisms through which women's activism can affect female board representation as well as the conditions under which it is more effective, this study makes several conceptual contributions. First, our results suggest that social movement scholars, who have been largely preoccupied with the policy effects of activism (see Banaszak and Ondercin 2016), should be paying more attention to corporate behavior when assessing the outcomes of social movements. Our framework can inform such future scholarship on the effects of women's activism, and advocacy in general, on corporate outcomes other than

board diversity such as sexism and harassment of women in the workplace. Second, our findings contribute to the literature on corporate identity. Specifically, our research concurs with a number of recent studies which have been identifying organizational identity characteristics as important moderators of relationships such as the one between external pressure and resource allocation (Gilad 2015) and the one between work hours and employee well-being (Pereira and Coelho 2013). Third, our findings indicate that management scholars, including those who study the determinants of female representation in corporate leadership, are well-advised to consider the roles of social and political institutions and actors such as social movements. In doing so, they can draw on the framework developed in this study as well as a long line of research in political science and sociology.

Our findings also have a number of practical implications. First, since this study is the first to document a systematic effect of women's activism on female board representation, our results demonstrate that women's activists and organizations working toward greater boardroom gender diversity make a positive difference in the world. In that sense, our findings are a testament to the work these activists and organizations do day in and day out. Second, in a world of limited time and resources, our study shows which companies women's activists and CSO should primarily target if they wish to improve female board representation in the most effective way. According to our findings, women's activism with the goal of improving boardroom gender diversity has the greatest effect on firms that are reputation-seeking, committed to CSR, and have a left-wing political orientation. To identify such firms, activists can use a variety of publicly available information sources such as *RepTrak*, *CSRHub*, *Fortune's* list of most admired companies, financial contributions to political campaigns, and media reports. Third, our study suggests that firms without adequate female board representation should more seriously consider the importance

of a diverse board. Not only has boardroom gender diversity been shown to improve firms' economic, social, and environmental performance (e.g. Arayssi, Dah, and Jizi 2016; Banahan and Hasson 2018; Post and Byron 2015), but our results also suggest that firms without adequate female board representation will sooner or later likely be targeted by the shaming efforts of women's activists and organizations, which may very well result in reputational and other costs.

Limitations and Future Research

One limitation of our study is that we were unable to test the proposed mechanisms (i.e. empowering, informing, and shaming) behind the activism-representation link directly. Future research could build on our theoretical framework and devise a research design to test the relative strength of the three strategies in improving boardroom gender diversity. Another fruitful area for future research would be to examine the effects of women's activism on corporate outcomes other than female board representation. For example, sexual abuse has been one of the primary foci of the women's movement in recent years, particularly in the wake of the so-called "Me Too movement" (e.g. Carlsen et al. 2018), and it would be interesting to examine if this activism has had an impact on sexism and harassment of women in the workplace. One last promising avenue for future research would be to study whether and how female board representation can be improved through pressure from stakeholders other than women's rights groups, such as investors and employees.

Table 1. Overview of Variables

Concept	Operationalization	Source
Female board representation	Percentage of women on the board of directors	ASSET4 ESG
Women's activism	Number of women's international non-governmental organizations (INGOs) present in a country in a given year divided by the respective country's total population	Hughes et al. (2017; 2018); World Bank
Reputation-seeking behavior	Binary variable coded 1 if the company monitors customer satisfaction or its reputation and relations with communities through the use of surveys or measurements	ASSET4 ESG
Commitment to CSR	Binary variable coded 1 if the company has an independent and effective CSR committee or team	ASSET4 ESG
Political orientation	Average of two binary variables indicating whether a company 1) strives to maintain positive relationships with trade unions; 2) promotes positive discrimination	ASSET4 ESG
Board size	Total number of board members at the end of the fiscal year	ASSET4 ESG
Board independence	Binary variable coded 1 if a company strives to maintain a well-balanced board through an adequate number of independent or non-executive board members	ASSET4 ESG
Board diversity	Average of three binary variables indicating whether a company strives to maintain a well-balanced board regarding the representation of: 1) different cultural groups (religion, race, etc.); 2) different experiences and expertise (financial or industry expertise or age); 3) diversity in general	ASSET4 ESG
Mean board tenure	Average number of years each board member has been on the board	ASSET 4 ESG
Financial performance	Return on assets (ROA)	ASSET4 ESG
Diffusion	Proportion of firms in a country in a given year that strive to maintain a diverse board through adequate female representation (excluding the focal firm)	ASSET4 ESG
Economic development	GDP per capita, PPP (in thousands of constant 2011 intl. dollar)	World Bank
Female labor force participation	Female labor force participation rate (percent of female population age 15+)	World Bank
Public opinion on female representation	Average of two 4-point ordinal variables ranging from "strongly agree" (1) to "strongly disagree" (4): 1) men make better political leaders than women do; 2) men make better business executives than women do	World Values Survey (Inglehart et al. 2014)

Table 2. Descriptive Statistics

Variable	N	Mean	SD	Min	Max	VIF
<i>Female representation</i>	19,982	8.864	9.954	0	66.67	/
<i>Women's activism</i>	33,610	2.824	4.247	0.038	25.687	1.19
<i>Reputation-seeking</i>	20,200	0.243	0.429	0	1	1.27
<i>Commitment to CSR</i>	20,182	0.342	0.474	0	1	1.28
<i>Political orientation</i>	19,245	0.771	0.337	0	1	1.44
<i>Board size</i>	19,952	10.617	3.861	1	44	1.14
<i>Board independence</i>	20,129	0.530	0.499	0	1	1.43
<i>Board diversity</i>	20,129	0.259	0.276	0	1	1.45
<i>Board tenure</i>	16,356	7.299	3.732	0	37.35	1.12
<i>Return on assets</i>	20,160	0.059	0.102	-2.74	3.02	1.01
<i>Diffusion</i>	32,711	0.094	0.123	0	0.8	1.55
<i>GDP per capita</i>	33,610	40.065	10.787	2.850	76.034	1.61
<i>Female labor force</i>	33,610	54.836	6.291	23.051	69.329	1.63
<i>Public opinion</i>	32,170	2.929	0.237	2.118	3.408	1.47

All variables are defined in Table 1. The sample spans from 2002 to 2011.

Table 3. Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Female representation</i>													
<i>Women's activism</i>	.14***												
<i>Reputation-seeking</i>	.11***	.03***											
<i>Commitment to CSR</i>	.09***	-.02***	.33***										
<i>Political orientation</i>	-.07***	-.01	-.38***	-.38***									
<i>Board size</i>	.03***	-.08***	.12***	.10***	-.21***								
<i>Board independence</i>	.27***	-.04***	.04***	.04***	.02**	-.01**							
<i>Board diversity</i>	.27***	-.05***	.08***	.11***	-.02**	-.04***	.54***						
<i>Board tenure</i>	.04***	-.13***	-.07***	-.10***	.13***	.06***	.11***	.10***					
<i>Return on assets</i>	.06***	.04***	-.00	-.03***	.01	-.07***	.02***	.04***	.04***				
<i>Diffusion</i>	.32***	-.07***	.07***	.09***	-.01	-.04***	.45***	.45***	.20***	.02**			
<i>GDP per capita</i>	.28***	.11***	-.13***	-.11***	.16***	-.12***	.33***	.34***	.20***	.01	.43***		
<i>Female labor force</i>	.34***	.08***	-.06***	-.01**	.17***	-.22***	.33***	.36***	.11***	.04***	.29***	.47***	
<i>Public opinion</i>	.33***	.27***	.05***	-.01	-.06***	-.03***	.30***	.25***	.03***	.03***	.42***	.56***	.49***

This table displays the pairwise correlation coefficients for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Table 4. Women’s Activism and Female Board Representation – Direct Effects

	(1)	(2)	(3)	(4)
Women’s activism	0.326*** (0.047)	0.443*** (0.057)	1.673** (0.804)	1.030 (0.690)
Board size		0.476*** (0.053)	0.481*** (0.051)	-0.022 (0.044)
Board independence		1.221*** (0.331)	1.165*** (0.333)	0.233 (0.263)
Board diversity		2.297*** (0.635)	1.719*** (0.647)	0.334 (0.402)
Board tenure		-0.030 (0.044)	-0.074* (0.043)	-0.028 (0.041)
Return on assets		3.878*** (1.252)	2.737** (1.194)	1.650** (0.724)
Diffusion		14.036*** (2.062)	6.645*** (1.866)	3.441** (1.757)
GDP per capita		0.039 (0.025)	-0.118 (0.132)	0.114 (0.115)
Female labor force		0.319*** (0.038)	0.239 (0.170)	0.385*** (0.146)
Public opinion		3.705*** (0.993)	-17.591*** (3.506)	-8.626*** (2.636)
Constant	7.631*** (0.339)	-27.810*** (3.121)	42.473*** (16.250)	3.954 (12.324)
Year-fixed effects	Yes	Yes	Yes	Yes
Country-fixed effects	No	No	Yes	No
Firm-fixed effects	No	No	No	Yes
N	19,085	12,642	12,642	12,642

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Table 5. Women’s Activism and Female Board Representation – Interaction Effects

	(5)	(6)	(7)
Women’s activism	0.388*** (0.061)	0.402*** (0.058)	0.758*** (0.123)
Reputation-seeking	1.349*** (0.364)		
Activism * reputation	0.204** (0.090)		
Commitment to CSR		1.153*** (0.355)	
Activism * CSR		0.192** (0.085)	
Political orientation			-1.395** (0.561)
Activism * orientation			-0.408*** (0.142)
Board size	0.444*** (0.052)	0.440*** (0.053)	0.442*** (0.055)
Board independence	1.210*** (0.328)	1.203*** (0.328)	1.199*** (0.332)
Board diversity	2.105*** (0.629)	2.153*** (0.629)	2.098*** (0.632)
Board tenure	-0.022 (0.044)	-0.015 (0.044)	-0.005 (0.046)
Return on assets	3.890*** (1.240)	3.837*** (1.238)	3.702*** (1.227)
Diffusion	14.074*** (2.084)	14.734*** (2.072)	13.721*** (2.098)
GDP per capita	0.052** (0.025)	0.048* (0.025)	0.049** (0.025)
Female labor force	0.329*** (0.038)	0.310*** (0.038)	0.348*** (0.039)
Public opinion	3.232*** (0.992)	3.390*** (0.991)	2.116** (1.037)
Constant	-27.329*** (3.129)	-26.508*** (3.147)	-23.653*** (3.293)
Year-fixed effects	Yes	Yes	Yes
Country-fixed effects	No	No	No
Firm-fixed effects	No	No	No
N	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the

variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Table 6. Replication of Models 2 and 3 Using Two-Stage Least Squares Regression

	(8)	(9)
Women's activism	0.046** (0.019)	0.439** (0.179)
Constant	-37.161*** (1.866)	12.904 (31.507)
Year-fixed effects	Yes	Yes
Country-fixed effects	No	Yes
Firm-fixed effects	No	No
N	11,241	11,241

This table displays the unstandardized coefficients and the standard errors for the variables of interest.

Women's activism is instrumented via urbanization and level of democracy. All variables are defined in Table 1. The sample spans from 2002 to 2009. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Table 7. Summary of Results

	H1	H2	H3	H4
OLS regression Main measure No unit-fixed effects	***	**	**	***
OLS regression Main measure Country-fixed effects	**	*	*	n. s.
OLS regression Main measure Firm-fixed effects	n. s.	n. s.	n. s.	**
Tobit regression Main measure No unit-fixed effects	***	*	**	**
HLM regression Main measure No unit-fixed effects	***	*	*	n. s.
GLS regression Main measure Firm-random effects	***	**	**	***
OLS regression Alternative measure No unit-fixed effects	***	n. s.	**	***
2SLS regression Alternative measure No unit-fixed effects	**	n/a	n/a	n/a
2SLS regression Alternative measure Country-fixed effects	**	n/a	n/a	n/a

All models referred to in this table include year-fixed effects and the control variables.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

n. s. = not significant

n/a = not applicable

Figure 1. Theoretical Framework

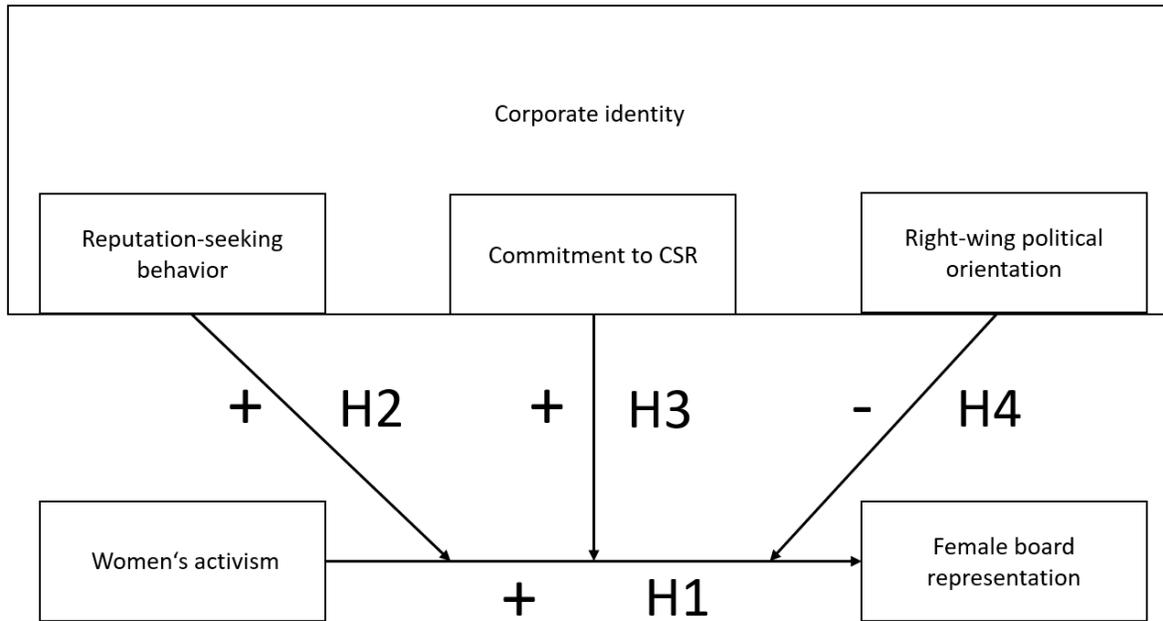
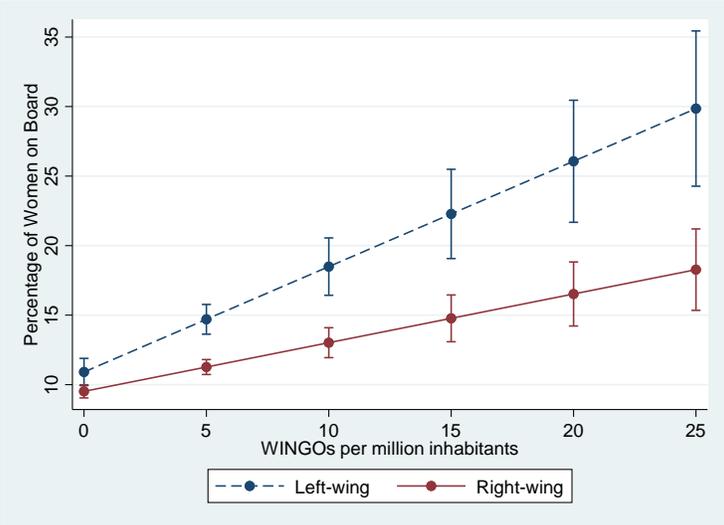
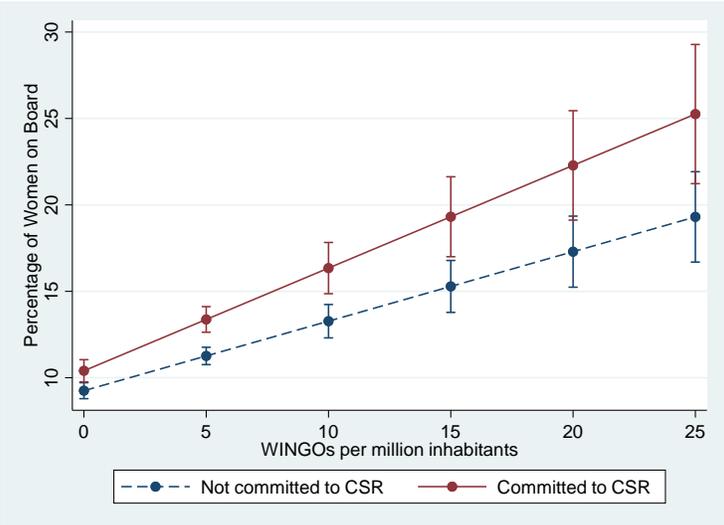
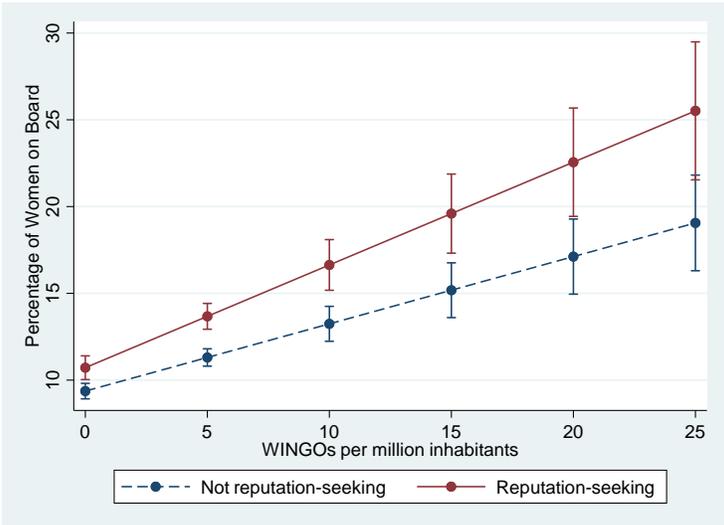


Figure 2. Interaction Effects (95% Confidence Intervals)



Appendix A1. List of Sample Countries

Australia	Denmark	Ireland	New Zealand	Spain
Austria	Finland	Israel	Norway	Switzerland
Belgium	France	Italy	Poland	Sweden
Brazil	Germany	Japan	Portugal	Thailand
Canada	Greece	Mexico	Russia	Turkey
Chile	India	Malaysia	Singapore	United Kingdom
China	Indonesia	Netherlands	South Korea	United States

Appendix A2. Replication of Main Models Using Tobit Regression

	(10)	(11)	(12)	(13)
Women's activism	0.535*** (0.071)	0.478*** (0.077)	0.483*** (0.073)	0.829*** (0.139)
Reputation-seeking		2.444*** (0.499)		
Activism * reputation		0.185* (0.096)		
Commitment to CSR			1.816*** (0.502)	
Activism * CSR			0.237** (0.099)	
Political orientation				-2.304*** (0.806)
Activism * orientation				-0.389** (0.163)
Constant	-62.873*** (5.977)	-62.394*** (6.031)	-60.886*** (6.032)	-53.904*** (6.125)
Year-fixed effects	Yes	Yes	Yes	Yes
Country-fixed effects	No	No	No	No
Firm-fixed effects	No	No	No	No
N	12,642	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Appendix A3. Replication of Main Models Using HLM Regression

	(14)	(15)	(16)	(17)
Women's activism	0.820*** (0.257)	0.741*** (0.238)	0.772*** (0.240)	0.832*** (0.280)
Reputation-seeking		1.665*** (0.316)		
Activism * reputation		0.142* (0.083)		
Commitment to CSR			1.627*** (0.577)	
Activism * CSR			0.147* (0.084)	
Political orientation				-3.053*** (1.116)
Activism * orientation				-0.016 (0.149)
Constant	6.219 (9.860)	3.416 (9.445)	2.705 (8.758)	8.114 (9.714)
Year-fixed effects	Yes	Yes	Yes	Yes
Country-fixed effects	No	No	No	No
Firm-fixed effects	No	No	No	No
N	12,642	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by country for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Appendix A4. Replication of Table 6 Using Country-Fixed Effects

	(18)	(19)	(20)
Women's activism	1.407* (0.791)	1.837** (0.793)	1.923** (0.816)
Reputation-seeking	1.637*** (0.345)		
Activism * reputation	0.136* (0.075)		
Commitment to CSR		1.599*** (0.344)	
Activism * CSR		0.142* (0.078)	
Political orientation			-3.042*** (0.537)
Activism * orientation			-0.007 (0.136)
Constant	39.208** (16.232)	36.523** (16.133)	42.299*** (16.350)
Year-fixed effects	Yes	Yes	Yes
Country-fixed effects	Yes	Yes	Yes
Firm-fixed effects	No	No	No
N	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Appendix A5. Replication of Table 6 Using Firm-Fixed Effects

	(21)	(22)	(23)
Women's activism	0.966 (0.671)	1.120 (0.693)	1.411** (0.963)
Reputation-seeking	-0.377 (0.240)		
Activism * reputation	0.094 (0.059)		
Commitment to CSR		0.121 (0.256)	
Activism * CSR		0.074 (0.053)	
Political orientation			0.233 (0.440)
Activism * orientation			-0.202** (0.100)
Constant	4.938 (12.255)	3.058 (12.273)	4.853 (12.383)
Year-fixed effects	Yes	Yes	Yes
Country-fixed effects	No	No	No
Firm-fixed effects	Yes	Yes	Yes
N	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Appendix A6. Replication of Main Models Using GLS Regression (Firm-Random Effects)

	(24)	(25)	(26)	(27)
Women's activism	0.403*** (0.058)	0.373*** (0.059)	0.373*** (0.058)	0.611*** (0.101)
Reputation-seeking		0.224 (0.227)		
Activism * reputation		0.116** (0.059)		
Commitment to CSR			0.427* (0.230)	
Activism * CSR			0.122** (0.051)	
Political orientation				-0.485 (0.391)
Activism * orientation				-0.270*** (0.099)
Constant	-24.082*** (2.567)	-23.878*** (2.562)	-23.623*** (2.565)	-20.165*** (2.664)
Year-fixed effects	Yes	Yes	Yes	Yes
Country-fixed effects	No	No	No	No
Firm-fixed effects	No	No	No	No
N	12,642	12,642	12,642	12,405

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2011. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

Appendix A7. Replication of Main Models Using an Alternative Measure of Women’s Activism

	(28)	(29)	(30)	(31)
Women’s activism	0.083*** (0.016)	0.087*** (0.016)	0.077*** (0.016)	0.166*** (0.038)
Reputation-seeking		2.219*** (0.482)		
Activism * reputation		-0.026 (0.022)		
Commitment to CSR			0.766* (0.431)	
Activism * CSR			0.049** (0.022)	
Political orientation				-1.745** (0.693)
Activism * orientation				-0.092*** (0.035)
Constant	-40.578*** (3.383)	-40.311*** (3.397)	-40.025*** (3.409)	-37.402*** (3.615)
Year-fixed effects	Yes	Yes	Yes	Yes
Country-fixed effects	No	No	No	No
Firm-fixed effects	No	No	No	No
N	11,241	11,241	11,241	11,087

This table displays the unstandardized coefficients and the robust standard errors clustered by firm for the variables of interest. All variables are defined in Table 1. The sample spans from 2002 to 2009. The control variables are included in all models but are not reported in the table for visual clarity.

***, ** and * denote statistical significance at the 1, 5, and 10 % levels, respectively.

¹ In the United States, the terms “liberalism” and “conservatism” are commonly used to describe individuals’ political orientation. However, we prefer the terms “left-wing” and “right-wing”, as liberalism and conservatism have a different meaning in the U.S. than they do in other parts of the world.

² A list of these countries is available in the Appendix.

³ As the descriptive statistics have illustrated, the dependent variable is measured as a percentage and its values are clustered at zero, which makes Tobit regression the appropriate estimation technique (Sigelman and Zeng 2000; Wooldridge 2002). However, we use OLS regression for ease of interpretation, and replicate our main models using Tobit regression in the robustness section. Our key results remain unchanged by this alternative specification.

⁴ Given the high value of rho, it could be argued that random effects are preferable to fixed effects (Clark and Linzer 2015). Therefore, we replicate our main models using firm-random effects rather than firm-fixed effects in the robustness section.

⁵ Note that these data are only available from 2002 to 2009, which reduces the sample size of these models compared to our main models.

⁶ We measure urban population share via the percentage of the population that lives in urban areas; data on this variable are retrieved via the World Bank’s WDI. Democratic quality is measured using data from the Polity IV project, which rates countries on an eleven-point scale (0 to 10) based on their participatory channels, executive constraints, and civil liberties (Marshall, Gurr, and Jaggers 2018).

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