Barriers to Boardrooms

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This paper was previously titled "Making It to the Top: From Female Labor Force Participation to Boardroom Gender Diversity". We thank Zvi Eckstein, Jean-Paul Faguet, Pauline Grosjean, Richard Holden, David Matsa, Trond Randøy, and Svetlana Taylor for helpful comments. We also thank seminar participants at Singapore Management University, Nanyang Technological University, HKUST, Copenhagen Business School, the EBRD, LSE, the UNSW Economics Department, UTS and conference participants at the 2011 Copenhagen Diversity Conference, the 2012 Cardiff Corporate Governance and Investment Workshop, the 2012 Asian FA conference and the 2013 AEA meetings for their insights. We thank Ben Moshirian, Min Park, Daniel Moevius and Constanze Weland for excellent research assistance. Adams thanks the Australian Research Council for financial support, Kirchmaier the AXA Research Fund.

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Keywords: Boardroom Diversity, Female Labor Force Participation, Culture, Quotas, Codes

JEL Classifications: J16; J22; G34; G38

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I. Introduction

Policy-makers love boardroom diversity policies. Between 2008 and 2012 alone, 17 countries implemented 22 boardroom diversity policies in the form of legal quotas for listed or state-owned companies (5 and 2 countries respectively),[2] governance code amendments (12 countries) and disclosure requirements (3 countries). In 2012, the EU approved a draft law that sets an objective of 40% female nonexecutive directors on boards of listed companies across the 28 member states of the EU (European Commission, 2012 a).[3,4] If passed, the EU law will apply to 5,000 out of the 7,500 listed companies in the EU (European Commission, 2012 b). In December 2014, Germany preempted the passage of the EU law by adopting a bill mandating a 30% gender quota for large listed companies.

One reason why boardroom diversity targets may be so popular with policy-makers is that they appear to satisfy both societal and corporate governance objectives. For example, in its progress report on women in economic decision-making, the European Commission (2012 b, p. 7) states: "Indeed, there is a clear business case for greater gender diversity on corporate boards both from the microeconomic perspective-i.e. in terms of individual companies' performance-as well as from a macroeconomic perspective-i.e. in terms of higher, sustainable rates of economic growth." The Commission lists improved company performance, mirroring the market, enhanced quality of decision-making, improved corporate governance and ethics and better use of the talent pool as microeconomic benefits of boardroom diversity. The macroeconomic benefits of boardroom diversity are the incentives it creates for women to stay in the workforce-thereby helping to create stronger economies.

To justify legal action, most policy discussions refer to surveys that document the relative underrepresentation of women on corporate boards.[5] What is notably absent from the policy debate is a discussion of the *causes* of female relative underrepresentation. We aim to start filling the gap in the debate by documenting barriers related to the presence of women in the director pool. We also provide some evidence that the relationship between diversity and corporate performance is different in countries where the barriers to boardrooms are likely to be larger.

In the presence of significant barriers to boardrooms, targeting the boards of listed companies may not be sufficient to achieve the societal and corporate governance objectives of current diversity policies. For example, in some countries many women may not acquire the necessary qualifications to be a director

[2] Austria, Denmark, Greece, Finland, Iceland, Israel, South Africa have quotas for state-owned companies.

[3] In addition to Norway, Spain, Iceland, Belgium, France and Italy have enacted quota legislation. Israel may also be considered to have a quota although it is minimal.

[4] Austria, Belgium, Denmark, Finland, France, Germany, Italy, Morocco, the Netherlands, Sweden and the UK have governance codes.

[5] For example, the European Commission starts its 2012 proposal for a directive on improving the gender balance among non-executive directors of companies listed on stock exchanges as follows: "Company boards in the EU are characterized by persistent gender imbalances, as evidenced by the fact that only 13.7% of corporate seats in the largest listed companies are currently held by women (15% among non-executive directors)" (European Commission 2012 c).

because childcare services are too expensive for them stay in the workforce. In these countries board quotas or targets are unlikely to keep women from dropping out of the workforce, which means the pool of female directors might not change. Instead of leading more women to hold directorships, board policies might lead current female directors to hold more directorships. Even though firm-level diversity may increase as a result of a board policy, it is not clear that this increase in diversity will lead to better company performance. As the number of directorships each woman holds increases, her effectiveness is likely to decrease. Even if firms do appoint women with no current directorships to their boards, they may be appointing directors with less experience than other directors. To be effective, policies targeting company boards in these countries may need to be complemented by policies that target the underlying causes of female underrepresentation directly.

There are many potential barriers to female leadership. Most obviously, managers may not promote women because of taste-based or statistical discrimination. Male managers may perceive women as being less experienced than men (Eagly and Karau, 2002; Heilman, 2006; Doldor, Vinnicombe, Gaughan and Sealy, 2012), which in and of itself may lead to statistical discrimination. Lack of experience is a Catch-22 as women can never gain experience if they are not promoted. Similarly, a large literature in social psychology (e.g. Eagly and Johannesen-Schmidt, 2001; Heilman and Parks-Stamm, 2015) identifies differences in perceptions of leadership "style" as an impediment to female advancement. Cultural norms may also be important (Pande and Ford, 2011).

But supply side factors may also play a role. Almost all reports on the topic cite the costs of managing work and family as a major barrier. Bertrand, Goldin and Katz (2010) identify motherhood as the main factor leading to career disruptions and shorter working hours for a group of female MBA students from the University of Chicago. Differences in preferences and psychological factors may also be important (Pande and Ford, 2011). For example, if women are more risk-averse than men or shy away from competitive situations (Croson and Gneezy, 2009; Bertrand, 2010, Niederle, 2014), they may be less likely to pursue high-profile careers.

What is remarkable about the list of barriers to female leadership is that in many ways it is unremarkable. In their Handbook of Labor Economics chapter, Altonji and Blank (1999) discuss the role of preferences, discrimination and human capital as factors influencing female labor supply and labor market outcomes. Fernandez (2007) discusses the importance of culture and changing beliefs about women's role for female labor supply. In her chapter in the Handbook of Labor Economics, Bertrand (2010) focuses on psychological attributes, such as risk-taking attitudes, and differences in preferences between men and women as important determinants of labor market outcomes for women.

If the same factors influence whether or not women enter the labor force at all and whether or not they enter the boardroom, then an important question is whether increasing female labor force

participation is sufficient to generate a larger pipeline of potential female executives or whether factors such as discrimination and culture still play a role conditional on female labor force participation. In our analysis, we examine the relative importance of these factors for female corporate leadership. Because labor force participation, institutional and regulatory environments and culture change slowly over time, we examine the relative importance of these factors primarily across countries.

Our sample consists of an unbalanced panel of 9,888 listed companies in 22 countries. We obtain data for these countries over a ten-year time period from 2001 to 2010 from BoardEx. BoardEx contains data on companies in over 90 countries. To ensure our sample is representative, we restrict ourselves to country-years for which BoardEx covers at least 70% of the total market capitalization of listed companies in that country and year.

Using this data set, we provide the first systematic evidence on the representation of women on boards of listed firms across countries and over time. While numerous surveys of boardroom gender diversity exist, they are often one-offs and not clearly representative of the general population of listed firms. This makes it difficult to compare statistics over time and across countries.

We first show that the representation of women is worse than most diversity surveys suggest. The reason for this is that most surveys, such as the Catalyst Fortune 500 surveys in the US (e.g. Soares *et al.*, 2010), focus only on large firms. Another problem is that most surveys focus on the average proportion of female directors at the firm level, which means they do not account for multiple directorships. Because we are interested in the representation of women in corporate leadership at the country-level, it is natural for us to focus on a measure that avoids counting the same individual more than once. This is the proportion of *unique* female directors in the set of all unique directors in a given country-year, a measure we call "Director Participation". Because men may also hold multiple directorships, it is not clear whether focusing on directorships instead of directors leads to an upward or downward bias. We show that it can go either way.

We then turn to an analysis of country-level and institutional factors that are related to Director Participation. We examine Director Participation for non-executive and executive directors separately because most policies target non-executive board positions. In addition to measures of female labor force participation, we examine the importance of country-level measures of family-friendliness, such as taxes and social security contributions over income. We use country-level measures of the gender gap in wages as an economic measure of discrimination and Inglehart and Welzel's (2005) Traditional/Secular and Survival/Self-Expression value scores as measures of culture. We also examine the importance of different types of country-level policies concerning boardroom gender diversity. In our regressions we control for the prevalence of family firms and co-determination as they are plausibly related to the representation of women on boards, but in different roles than the typical corporate director.

In our regressions we lag labor force participation by 10 years, which is the natural limit imposed by the poor quality of economic indicators across countries in the 1980s. However, since labor force participation changes slowly over time it is difficult to fully control for potential omitted country-specific factors that could bias the coefficients on labor force participation.[6] To address these concerns we replicate our analysis for the United States using state-level measures of Director Participation. Because the variation in institutional environment and culture is smaller across states in the US than across countries, there are fewer concerns about omitted variable biases in this subsample and it is easier to address potential endogeneity problems using both fixed effects and an instrumental variable analysis.

We find that labor force participation is positively and significantly correlated with both non-executive (NED) Director Participation and executive (ED) Director Participation, but only if we exclude part-time and unemployed workers from labor force participation. In our benchmark model, a one standard deviation increase in full-time labor force participation is associated with a 2.6% increase in NED Director Participation, which is large relative to the mean NED Director Participation of 9%. A one standard deviation increase in full-time labor force participation is associated with a 0.7% increase in ED Director Participation, which is also large relative to the mean ED Director Participation of 4%.

These findings suggest that policies that promote full-time employment by women may be important for generating a pipeline of women who eventually end up in top corporate positions. Our evidence for the US supports this interpretation. Bertrand (2009, p. 127) argues that "a continuous commitment to the workforce is a sine qua non condition to reach the top in corporate America". Our cross-country results suggest this holds true outside of the US as well.

But other factors also play a role, even after accounting for full-time labor force participation. Policies matter, even when they are voluntary; the existence of corporate governance codes is positively correlated with NED Director Participation. Measures of discrimination and culture also appear to matter. In most specifications, the effect of culture is almost as large as the effect of full-time labor force participation. This suggests that even when they are employed full-time, women may face barriers to career progression. For executives, little else seems to matter except for taxes and social security contributions over income and the existence of quotas for state-owned companies. One reason for this may be that there are simply too few women in executive positions across countries to generate meaningful variation in the data.

Our results suggest that preferences may be relatively unimportant in explaining the underrepresentation of women on boards. If preferences were important, then countries with quotas and

[6] We are less concerned about potential biases on the coefficients of other factors entering our regressions because our primary objective is to examine whether labor force participation is a sufficient statistic for Director Participation. If these additional variables have explanatory power, we can already conclude that barriers to boardrooms exist beyond the impediments to labor force participation.

codes would have difficulty in finding women to accept board positions. But this does not seem to be the case. While quotas and governance codes may be effective at solving problems of discrimination, they may still need to be complemented with policies that help women at all levels of the corporate hierarchy combine work with family. And if gender quotas induce negative attitudes towards women, they are unlikely to be effective (see e.g. the discussion in Bearman, Duflo, Pande and Topalova, 2012).

Our paper complements both the literature on female labor market outcomes as well as the governance literature. Studying the gender of top managers is interesting for several reasons. First, the fact that women fill board positions to a greater extent in some countries than others suggests that, cultural differences aside, a subset of the population of women may not be so different from men in their career ambitions and motivations. Most of the literature on female work outcomes is concerned with the average woman in the population,[7] but analyzing the top management level highlights that there may be significant variation in preferences or psychological factors, such as risk-aversion, in the population of women.[8]

Second, women can achieve a top management position only if they have been in the work force long enough. Examining the relative underrepresentation of women at the board level highlights the fact that women often drop out of the labor force. To better understand women's labor force outcomes, it is important to understand why.

The Davies Report (Davies, 2011, p. 3) states "The business case for increasing the number of women on corporate boards is clear." We disagree. Using firms from the US, Adams and Ferreira (2009) show that diversity adds value to some firms, but not all. Ahern and Dittmar (2012) show that the market reaction to the Norwegian gender quota was negative and Matsa and Miller (2012 a) show that the Norwegian quota may have hurt short run profits due to fewer layoffs in firms most affected by the quota. Bøhren and Staubo (2012) show that roughly half of the firms exposed to the Norwegian gender quota changed their organizational form to avoid it.

We argue that a better understanding of the barriers to female corporate leadership is necessary to help pin down the situations when diversity has the potential to add value at the company level. We examine the relationship between boardroom gender diversity and corporate performance and find it is more positively related to corporate performance in countries with above median full-time female labor force participation. A plausible explanation for this result is that women in countries with greater full-time labor force participation have more skills and experience than women in countries with low full-time

[7] Some papers do examine women in more senior positions. For example, Black and Juhn (2000) examine professional women. Other papers examine lawyers, politicians and academics (see the review in Bertrand and Hallock, 2001).

[8] In fact, Adams and Funk (2012) show that female directors in Sweden are *less* risk-averse than male directors. In the sample of data from Sapienza, Zingales and Maestripieri (2009), Adams and Ragunathan (2013) document that women are significantly more risk-averse than men, but that this is no longer true when conditioning on an individual's choice to pursue a finance career.

female labor force participation. Consistent with a skill explanation, we find that female directors are more likely to have an MBA degree and have more directorships in countries with more female full-time labor force participation.

II. Macroeconomic Factors related to the Representation of Women on Corporate Boards

We consider five sets of country-level variables in our analysis that we believe are likely to represent general conditions that are either barriers, or are conducive, to female corporate leadership. In Section VI, we mirror this analysis as much as possible using state-level variables for the US.

Our main variable of interest is female labor supply. If a large portion of the female population is working, then more women should eventually enter corporate boardrooms if there are no other barriers to female leadership. We measure labor force participation in two ways. Our first measure, Classic LFP, is the proportion of women working as a fraction of the female population. Our second measure, Female Economic Participation, is the proportion of women working as a fraction of the employed population. The motivation for the second measure is that it is more closely related to our dependent variable, Director Participation, which is the proportion of female directors in the director population.

We calculate Female Economic Participation with and without part-time and unemployed workers. We believe it is unlikely that part-time workers will have the skill sets needed to obtain a directorship. Similarly, unemployment represents a career disruption that may be difficult to overcome. As a first step towards addressing the concern that Director Participation may lead to more female labor force participation, we lag our labor supply measures by the maximum number of years that is feasible given the quality of international economic indicators (10 years).

The next set of variables of interest relate to how family-friendly countries are. The more family-friendly a country is, the easier it should be for women to manage both work and family and the less likely it should be that they drop out of the labor force. It is difficult to get data on direct measures of family-friendliness, for example maternity leave and childcare benefits, which are comparable across countries and that vary over time. For this reason, we use the 10-year lagged birthrate in a country as an indirect proxy for family-friendliness at the time when it should have affected a female director's career trajectory the most, i.e. near the beginning of her career. Holding female labor force participation and economic development constant, we expect birthrates to go up only if the provision of services to families increases. We also use data on lagged tax and social security contributions over income as a measure of family-friendliness, because government spending on services that benefit families is likely to be higher in countries with greater taxation. In robustness checks, we also use more direct measures of government spending on families that are cross-sectional.

To proxy for levels of discrimination in the labor market for women, we use a measure of the gender wage gap. If women consistently earn less than men for equal work, it is plausible that they also face barriers to advancement that would prevent them from achieving senior management positions. It is difficult to obtain data on the gender wage gap across all countries in our sample. For this reason, we use a qualitative variable on wage equality for similar work, Wage Equality, from the World Economic Forum's Executive Opinion Survey (Hausmann, Tyson and Zahidi, 2010). This measure receives the largest weight in the "economic participation and opportunity" subindex of the World Economic Forum's Gender Gap Index. In robustness checks, we also use estimates of the skilled gender wage gap across countries from Olivetti and Petrongolo (2011), although we lose observations due to incomplete coverage of countries in our sample.

A growing literature argues that culture has an important role to play in explaining female work outcomes. Goldin (1991) argued that female labor force participation increased substantially after World War II because it led to changes in attitudes towards working women. Fernandez (2007) and Fernandez and Fogli (2009) also argue that culture matters and use characteristics of the countries of origin for US immigrants, such as female labor supply, to proxy for culture. Alesina and Giuliano (2010) and Alesina, Giuliano and Nunn (2012) examine the role of family values and attitudes towards women's work for female labor supply using data from the World Value Survey (WVS).

Culture may also have a role to play in the evolution of women's careers. If family values are strong then it may be difficult for women to accept more demanding positions. Women may also be passed over for promotion because of the perception that women are not natural leaders. We examine the impact of culture by using Inglehart and Welzel's (2005) country-level Traditional/Secular and Survival/Self-Expression value scores for the WVS.

Inglehart and Welzel (2005) argue that the Traditional/Secular value dimension reflects the contrast between societies in which religion is very important and those in which it is not. More traditional societies emphasize the importance of parent-child ties and deference to authority, along with absolute standards and traditional family values, and reject divorce and abortion. Thus we expect more traditional countries to have lower representation of women on boards.

Inglehart and Welzel (2005) link the Survival/Self-Expression value dimension to the transition from industrial society to post-industrial societies. In developed economies priorities shift from an emphasis on economic and physical security toward subjective well-being, self-expression and the quality of life. Because work is one way in which self-expression can occur, we predict that more women will sit on boards in countries with greater self-expression values.

The advantage of using these scores rather than individual items from the WVS as in Alesina and Giulano (2010), Alesina, Giuliano and Nunn (2012) and Olivetti and Petrongolo (2011) is that they

account for multiple dimensions of culture. Inglehart and Welzel (2005) document that these dimensions explain over 70 percent of the cross-cultural variance of more specific value scores in the WVS. Moreover, the country-level coverage of these scores is more complete than for individual items in the WVS. In robustness checks, we also use some individual items in the WVS, but we lose observations due to incomplete coverage across countries.

Fernandez and Fogli (2009) argue that labor force participation and fertility rates reflect the economic and institutional environment women face, as well as cultural beliefs about the value of women's work. Thus, labor force participation is in and of itself a proxy for family-friendliness, discrimination and values. If our proxies for these conditions matter for female corporate leadership even after we control for labor force participation, then it would appear that the link between entering the workforce and significant career progression is not automatic for women.

-Insert Table I about here-

Our final group of variables relate to policies that target female board representation. We examine the effect of two types of policies that we tabulate at the country-level in Table I. Figure I shows the distribution of the policies over time and the percentage of countries with policies. The first set of policies consists of mandatory quotas for listed companies and quotas in state-owned companies. While it is well-known that mandatory quotas increase the average proportion of women on boards, it is not clear how these quotas translate into changes in the proportion of women in the director population. Because of multiple directorships, a 40% gender quota need not lead to a 40% increase in Director Participation. Examining the magnitude of the effect of quotas on Director Participation is interesting because it tells us something about the demand for directorships by women in the population. If a large quota translates into a large change in Director Participation, then this suggests that the demand for directorships in the female population is strong and that preferences are not necessarily important barriers to corporate leadership.

-Insert Figure I about here-

The second type of policy consists of country-level governance codes for listed companies. We consider a governance code to have a board-level gender diversity recommendation if it mentions that gender should or must be considered by the board in its appointment process for new directors. While these codes are not mandatory, it is still possible that they influence appointment decisions. It is plausible, for example, that they have a similar effect as diversity disclosure rules. Adams and Nowland (2011) show that the Australian Securities Exchange (ASX) diversity disclosure requirements led to a significant increase in the number of female directors that were appointed in Australia. Because all such disclosure policies occurred after the end of our sample period, we do not consider the effects of such disclosure policies separately.

As control variables in our regressions, we include 10-year lagged per capita gross national income (GNI) as a measure of economic development. To isolate factors specific to the director labor market, we also control for the proportion of our sample firms that are family firms and a dummy for countries with co-determination laws. It is plausible that countries with many family firms have more women on boards because they are members of controlling families. It is also plausible that countries with co-determination have more women on boards because women exhibit greater concern for employee welfare than men and may be more likely to represent employees. For example, Adams, Licht and Sagiv (2011) show in a sample of Swedish directors that even when they are not employee representatives, female directors are more stakeholder-oriented (as opposed to shareholder-oriented) than male directors. Matsa and Miller (2012a) show that boards most affected by the Norwegian gender quotas laid off fewer workers and Matsa and Miller (2012b) argue that labor hoarding may be a characteristic of female leadership style.

Finally, we control for the lagged fraction of women in higher education. Eckstein and Lifshitz (2011) estimate for the US that a large portion of female labor supply can be explained by education (33%). Because the correlation between education and labor force participation is generally positive across countries (Psacharopoulos and Tzannatos, 1989), this is likely to be true in other countries as well. Thus, controlling for education helps ensure that our coefficients on labor force participation are not simply picking up the effect of education on Director Participation.

III. Data

We describe our sample construction in Section A. In Section B, we provide summary statistics for our data set and discuss its coverage.

A. Data Sources and Measurement

International Sample. Our starting sample consists of the entire BoardEx database from 2000-2011 as of September 2011. BoardEx contains data compiled by the UK-based firm, Management Diagnostics Limited, on boards of publicly traded companies. Our base sample consists of an unbalanced panel of data on 16,129 firms and 136,950 unique directors in 90 countries.

One of the shortcomings of BoardEx is the lack of data on the population of firms it covers. This makes it difficult to determine how representative its coverage is. To determine what fraction of each country's set of listed companies is covered by BoardEx, we match it to the entire CapitalIQ database. CapitalIQ claims to achieve 99% coverage of all listed companies in the world. While we cannot verify that claim, we do succeed in matching all firms in BoardEx to CapitalIQ. We also observe that CapitalIQ covers substantially more listed firms than BoardEx. In 2010 for example, CapitalIQ covers 32,786 listed

companies while BoardEx covers only 8,224. Over the entire sample period, CapitalIQ covers 41,416 listed firms versus 10,485 listed companies in BoardEx. This satisfies us that CapitalIQ is an acceptable reference database for BoardEx.

Using financial data from CapitalIQ, we calculate a measure of a country's stock market capitalization in a year as the sum of the market capitalizations of all firms in CapitalIQ for that country and year. We then aggregate the market capitalization for firms in BoardEx and show the percentage of the total market capitalization they represent in Appendix Table A.I.. For a county-year to enter our final sample, we require that BoardEx covers at least 70% of market capitalization in that country and year. We chose this threshold because it balances concerns about coverage with concerns about sample size.[9] We also require both CapitalIQ and BoardEx to cover at least 10 listed companies per country-year. We drop the year 2000 because of its low coverage, and the year 2011 as it is incomplete. We also drop companies from the British Virgin Islands, Russia, and Cyprus, as we only have a representative sample for one year for each of these countries.

With these restrictions, our final sample consists of an unbalanced panel of 9,888 listed firms covering 42 sectors in 22 countries stretching over a ten-year time period from 2001 to 2010. Overall, we base our analysis on a total of 55,899 firm-year observations for that period. Table A.II shows the number of firms in our final sample for each country-year. At the director level, we follow 90,208 unique directors, of which 82,911 are male, and 7,297 are female. The dataset is complete with respect to gender and non-executive director (NED) and executive director (ED) classifications. We also have data on age, director tenure and some education data. We use the education data to code a dummy which indicates whether or not a director has an MBA degree. If education data is missing, this dummy is set to missing. Because BoardEx uses unique director identifiers, we use it to calculate board size and the within-sample number of directorships for each director.

We calculate Director Participation as the fraction of unique women in the population of unique directors in a country and year. We also calculate these measures separately for EDs and NEDs, as most policy initiatives concerning boardroom gender diversity implicitly target NEDs.[10] For comparison purposes, we also calculate traditional measures of board-level gender diversity (Board Diversity) as the

[9] We also examined an 80% threshold. Results are similar, although statistical significance decreases because the sample size is smaller.

[10] In these separate measures, the denominator is the population of unique EDs or NEDs in a country-year, respectively. If a woman holds both positions, she appears in both measures, but only once. Thus, Director Participation for EDs eliminates multiple executive positions held by the same person, Director Participation for NEDs eliminates multiple non-executive positions held by the same person and Director Participation for the whole board counts each person only once.

average fraction of women on boards at the firm level.[11] We also calculate the average fraction of female NEDs and EDs on boards.

We source all firm-level financial data and firm age from CapitalIQ. Our proxy for Tobin's Q is the ratio of the book value of assets-minus the book value of equity + market value of equity to book value of assets. Return on assets (ROA) is the net income over assets; price volatility is annual price volatility of the firm's security calculated by Capital IQ.

We obtain country level measures of labor market participation,[12] the number of full- and part-time employees,[13] the gross national income per capita and tax, the birthrate and tax and social security contributions over income and the fraction of women in higher education from Euromonitor. As more direct measures of government services to families, we obtain 2007 data on service and tax break components of public spending (Family Benefits-Services and Family-Benefits-Tax breaks) as a percent of GDP from the OECD family database. We convert inflation-adjusted monetary indicators into USD at 2011 exchange rates.

Ideally, we would like to measure conditions affecting a female director's career trajectory at the time when they are likely to matter the most, i.e. near the beginning of her career. As the international coverage of economic indicators is poor in the 1980s, a 10 year lag is the natural limit for most of these variables.

Wage Equality in the World Economic Forum's (WEF) 2010 Global Gender Gap Report (Hausmann, Tyson and Zahidi, 2010) is a score on a scale from 1 to 7 where 1 represents the worst outcome and 7 the best. The 2010 report provides data from 2006 to 2010. Because the response rate to the surveys varies over the years, we average the responses over time.

We source the most recent data on the 5-wave value scores according to Inglehart and Welzel (2005) from the World Value Survey.[14] We also use individual items to measure country-level cultural preferences from waves 4 (1999-2004) and 5 (2005-2007) of the World Value Survey (WVS). We focus on four variables whose descriptions in the 1981-2008 integrated questionnaire are as follows (WVS, 2011): (1) d057 - Being a housewife is just as fulfilling as working for pay (Women Housewife), (2) a029 - Independence is an important child quality to be learnt at home (Child Independence), (3) e233 -

[11] In countries with a dual board system Austria, Germany, Denmark, Netherlands), we classify supervisory board members as NEDs and management board members as EDs. Board size is the sum of the sizes of the supervisory and management boards.

[12] We impose no age restrictions when calculating our labor force participation measures, as female directors in our sample vary in age from 23 to 93.

[13] According to the International Labor Organization (1997), the definition of part-time workers varies from country to country, and is typically based on a time-threshold, and/or self-assessment. This makes it difficult to compare levels of part-time work across countries. As we are interested in whether female employment is perceived as full or part-time work within countries, we do not believe that this affects the interpretation of our results.

[14] The data in our sample is either from wave 4 or wave 5 of the WVS. The data is available here.

Democracy: Women have the same rights as men (Women's Rights) and (4) c001 - Jobs scarce: Men should have more right to a job than women (Jobs to Men).

Alesina and Giuliano (2010) and Olivetti and Petrongolo (2011) use Women Housewife to measure the perceived role of women in society. Women Housewife can take values from 1 'strongly agree' to 4 'strongly disagree'. We reverse the ordering so that higher values measure greater agreement.

One problem with Women Housewife in our context is that it may simply reflect occupational patterns in a country rather than cultural values. If respondents do not know whether staying at home is fulfilling or not, they may infer that it is simply because female labor force participation rates happen to be low in a country.[15] For this reason, we also examine Child Independence and Women's Rights, which are not directly tied to an observable outcome.

We believe it is intuitive that women may be more likely to focus on their own careers in countries that place a high value on child independence. Child Independence is the coding of the following question: "Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five." Respondents can choose from 17 qualities including 'independence', 'manners', 'politeness', 'hard work', 'honesty' and 'faith'. Child Independence takes on the values 1 if 'independence' is mentioned as 'important' or 0 'not mentioned'.

Women's Rights is the response to the following question: "Many things may be desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means "not at all an essential characteristic of democracy" and 10 means it definitely is "an essential characteristic of democracy": Women have the same rights as men." Because Women's Rights measures fundamental beliefs about equality between men and women, we expect that it should be positively related to the representation of women on boards.

Jobs to Men is the response to the question: "Do you agree or disagree with the following statements? When jobs are scarce, men should have more right to a job than women." Jobs to Men takes on the values of 1 if respondents agree or 2 if they disagree. We code the recode the answers into a dummy variable with a value of 1 measuring agreement. We average all WVS variables across all respondents in a country for both waves and match data from 2001-2004 to the wave 4 average and data from 2005-2010 to the wave 5 average.

We collect data on gender quotas, state-owned company quotas and corporate governance codes from a variety of sources. We use European Union (2012) and Paul Hastings (2012) to identify countries with policies targeting gender diversity on boards. We then search for the original source documents on the

[15] Similarly, the responses to Jobs to Men ("When jobs are scarce, men should have more right to a job than women") (see e.g. Alesina and Giuliano, 2010; Olivetti and Petrongolo, 2011) may reflect labor force participation rates by men and women rather than intrinsic values.

internet. We use the ECGI code database to identify the first time a country's code mentions that gender must be considered by the board. We create a dummy variable for each type of policy that is one in the year the policy was passed, and all years after.

It is difficult to find statistics on the prevalence of family firms across all countries in our sample. Thus, we generate a within-sample measure of the prevalence of family firms. We assume that family firms will be characterized by greater ownership concentration than other firms, as well as a higher propensity to have family members with the same last name on the board. To proxy for ownership concentration, we obtain historic data on the proportion of closely-held shares (FF_SHS_CLOSELY_HELD) from Factset. These shares include shares held by officers, directors and their families, shares held in trust and shares held by pension plans and 5% blockholders. After accounting for missing data, the coverage of Factset for our sample firms varies from 75.7% for Norway in 2001 to 100% for Finland and Portugal in various years. For missing in-between firm-year observations we linearly interpolate the missing values, and for missing values in 2009 and 2010 we linearly extrapolate them. We report the average coverage of Factset for our sample in Table A.I.

We consider a firm to be a family firm if the proportion of closely held shares is greater than 20% and any two board members share the same last name in a given year. We treat hyphened names - common in Latin American countries - as two separate names and assume that the firm is a candidate for a family firm if any of the two names match with another name on the same board and year. By considering ownership and name-matching, we control for the fact that some countries have less diversity in surnames than others. If a firm does not have ownership data available in Factset, we classify firms as family firms based on name matching alone. Our measure of the proportion of family firms in each country-year is the country-level average of a family firm dummy. In robustness checks we also use data on the prevalence of family firms from Faccio and Lang (2002, Table 3), but our sample drops substantially because they only cover Western European countries.

Finally, we code a variable that is equal to 1 if the country has co-determination laws in place and 0 otherwise (see Table I). We obtain information on these laws from Kluge and Stollt (2006) and Osterloh, Frey and Zeitoun (2011).

US sample. In Section VI, we mirror our cross-country analysis as much as possible after restricting our sample to the US. We identify company headquarter locations in each year using McDonald and Yun's 1994-2010 10-K Header's data.[16] We define the pool of unique directors in a given state and year to be the number of unique directors on boards of companies headquartered in that state and year. State-level Female Director Participation is the proportion of women in that pool. We do not analyze state-level NED and ED Director Participation separately because we lose too many observations with those

[16] http://www3.nd.edu/~mcdonald/10-K_Headers/10-K_Headers.html

measures. We obtain data on labor force participation from the CPS. State-level Female Fulltime Economic Participation is response-weighted mean full-time female employment over full-time employment for that state. We classify people working 35 hours or more per week as full-time workers. State level GDP/capita data is from the US Bureau of Economic Analysis. Both Female Economic participation and GDP/Capita are lagged by 15 years. We obtain data for female education levels in 1940 from Autor, Acemoglu and Lyle (2004) and data on 1990 marriage rates from the US census bureau.

B. Summary Statistics

International Sample. In Panel A of Table II, we provide summary statistics of all variables in our country-level data. For the sake of brevity, we summarize variables we use primarily in robustness checks in the Appendix. Table A.III also provides means of all variables except the policy dummies by country. Because Norway passed its gender quota legislation towards the beginning of our sample period, we conduct our main analysis without Norway. To be able to assess the economic significance of our coefficient estimates, we exclude Norway from Panel A.

-Insert Table II about here-

While on average 39.6% of women are working and women represent 42.5% of the workforce, many female employees work only part-time. If we restrict ourselves to fulltime employees, women represent 35.7% of full-time employment.

Across countries, women comprise 8% of the population of directors, mostly in non-executive positions. They make up 9% of the population of NEDs and only 4% of the population of EDs. We turn to a more extensive discussion of female board representation in the next Section.

US Sample. In Panel B of Table II, we summarize state-level data for the US and firm and director-level data. Average Female Economic Participation across states is higher than the cross-country average, 40.3%, consistent with Blau and Kahn's (2013) observation that women in the US are less likely to work part time. Across states, Female Director Participation is 9.9%.

IV. Comparing Diversity Measures

In Figure II, we illustrate general trends in board-level, NED and ED Director Participation as well as the maximum and minimum values of board Director Participation across countries. In Appendix Table A.IV, we provide the country-level data on Director Participation over time. On average, Director Participation is rising over time. This is also true for most countries individually. But there is still considerable variation across countries in the levels of Director Participation. For example, in 2010 India has only 5.2% Director Participation, while Norway has 37.1%. One might think that India's low

numbers can be attributed primarily to economic development and Norway's high numbers to the Norwegian gender quota. However, in 2010 both Austria and Italy had similar levels of Director Participation as India, 5.9% and 5.5%, and Norway had high levels of Director Participation relative to other countries even before the quota. In 2002, the year before the Norwegian quota legislation, only Sweden had higher levels of Director Participation. Thus, the role of country-level characteristics and policies in explaining differences between countries is not immediately obvious.

-Insert Figure III about here-

We provide data on the average fraction of women on boards (Board Diversity) in Table A.V. It is useful to compare Director Participation to Board Diversity and to compare Board Diversity in our sample to Board Diversity in other diversity surveys to understand differences between firm and country-level measures and the role sample coverage plays. Board Diversity often looks quite similar to Director Participation, but Figure III illustrates that the differences between firm-level and country-level measures can be substantial. Figure III plots (Board diversity-Director Participation)/ Director Participation for each country in our sample. Panel A shows these plots for Western and Northern Europe; Panel B show plots for countries outside Europe, and Southern Europe. The figure illustrates that Board Diversity is often lower than Director Participation, but not always. Moreover, Participation and Diversity need not converge. In the US and UK the percentage differences are stable over time even though Board Diversity is increasing over time. In Norway, the percentage differences are initially negative, but become positive after the quota was implemented.

To illustrate that it is not obvious how greater firm level diversity translates into the proportion of unique women in director positions, we examine the role of multiple directorships and board size in Table III.

-Insert Table III about here-

In columns 1 and 2, we reproduce Director Participation and Board Diversity for 2010 from Tables A.IV and A.V. In column 3, we provide an estimate of the "gender gap" in multiple directorships. For each country, we regress the number of (within-sample) board seats individuals hold in 2010 on a female dummy. The coefficient on the female dummy is our estimate of the "gender gap". It is statistically significant for Canada, the UK and the USA, where women hold more directorships than men, and France, Germany, Portugal and Switzerland, where women hold fewer directorships. However, holding more directorships alone does not explain differences in Director Participation and Diversity. The relation also depends on firm-level board size, which influences the total number of director positions in the country. In column 4, we examine the proportion of female directorships (total number of board seats held by women/total number of board seats). We now observe that the gender gap in multiple directorships explains the difference between the proportion of female directorships and Director

Participation. This simple analysis suggests that targeting firm-level diversity may not always translate into greater Director Participation because of the role of firm-level governance and multiple directorships.

In the remainder of Table III, we illustrate the role our >70% market capitalization cutoff plays. We compare 2010 data on Board Diversity to 2010 data from the GovernanceMetrics International (GMI) (2010) report and the European Commission's gender balance in decision-making database. GMI covers most of the countries in our sample and is a widely-used survey (e.g. Catalyst, 2012). The drawback of using the report as a benchmark is that GMI calculates statistics for companies it provides investment research for and it is not clear which companies are in the data. The European Commission's database is the main data source underlying the EU's draft law concerning boardroom diversity (European Commission, 2012 a) as well as other European Commission reports on this issue (e.g. European Commission report, 2012 b). This data set consists of board-level gender diversity data for the largest (primary blue-chip index members) listed companies in each country (maximum of 50 per country).

We replicate the GMI numbers and European Commission numbers in columns 5 and 6. Because both GMI and the European Commission only calculate diversity for supervisory boards in dual board countries, we replicate column 1 in column 7 after replacing diversity with NED Diversity from Table A.V for dual board countries Austria, Germany, Denmark and Netherlands. We also report NED Diversity for countries that allow firms to choose a dual board structure (France, Greece, Italy, Luxembourg, Portugal, Switzerland although though we do not know which firms have dual boards in these countries. Our numbers may not be exactly comparable for these countries.

Six countries have higher and twelve countries have lower levels of Board Diversity in our sample than in the GMI sample. The differences tend to be large at times. For example, according to GMI the Netherlands and Germany had 13.7% and 10.5% women on boards in 2010, respectively. In our sample, they have 9.4% and 7.2% women on boards. Four out of 15 countries appearing in both our sample and the European Commission's data have higher levels of Board Diversity in our sample; nine countries have smaller levels. Again, the differences are at times large. For example, in the European Commission's data, firms in the United Kingdom and Denmark have on average 13% and 18% female directors. In our data average diversity is 6% and 12.5%, respectively.

As is evident from columns 8-10, the number of firms in our sample is much larger than in the GMI and EU samples. Because it is plausible that GMI primarily covers large companies in each country, we sort companies in our sample by market capitalization and choose the same number of firms as in the GMI sample from the top of the list. We calculate Board Diversity in this sample of largest firms and report it in column 11. Board Diversity in this restricted sample of large firms is larger than Board Diversity in our full sample for all but two countries (Italy and Portugal). When we compare our statistics for large companies to the GMI numbers, we see that the average distance between the GMI Diversity

and our large company Diversity numbers decreases. On average GMI Diversity is larger than our full sample Diversity, but smaller than our large company Diversity. Consistent with the comparisons to the EU data, this suggests that larger companies have more women on their boards. By focusing primarily on large companies, popular statistics overstate the representation of women.

V. Country-level Characteristics and Director Participation

Our first objective in relating country-level factors to Director Participation is to examine the role of lagged female labor force participation. Because all boardroom diversity policies target NEDS and not EDs, we analyze NEDs and EDs separately. In Table IV, we show the output of regressions of Director Participation on labor force participation using data on all countries except Norway and Bermuda. We lose Bermuda because of missing data on labor force participation. We exclude Norway to ensure our results are not be driven by the fact that Norway is an outlier in terms of Director Participation. We show results with Norway in our robustness checks.

The dependent variable in the first three columns of Table IV is NED Director Participation; the second three columns are for EDs. All regressions in Panel A include all controls we describe in Section II, as well as year dummies. To isolate the discussion of female labor force participation, we do not report the coefficients on control variables until Table V. The regressions in Panel B do not include any controls. We adjust standard errors for heteroskedasticity and within-country correlation.

-Insert Table IV about here-

In columns 1 and 4, we use Classic LFP as our measure of female labor force participation. In columns 2 and 5, we use Female Economic Participation (fraction of women in the workforce) as our measure of female labor force participation. In columns 3 and 6, we exclude part-time and unemployed workers from both the numerator and denominator of Female Economic Participation so that the measure of labor force participation is full-time female employment over full-time employment.

The first thing to note from comparing Panel A (with controls) to Panel B (with no controls) is that for NEDs labor force participation is always statistically significantly correlated with Director Participation in Panel B, but not in Panel A. Moreover, the magnitudes of the coefficients in Panel A are at times substantially smaller. In column 1, for example, the coefficient on Classic LFP drops from 0.372 (significant at the 1% level) in Panel B to 0.072 (not significant at conventional levels) once our controls are included. This pattern is consistent with the argument that female labor force participation reflects the economic, institutional and cultural environment women face and highlights the importance of controlling for these factors separately to better identify the direct effect of labor force participation.

When we compare coefficients across columns 1-3 in Panel A, we observe that neither the coefficients on Classic LFP nor the coefficient on Female Economic Participation are statistically significant. However, labor force participation is significantly correlated with Director Participation once we exclude part-time (and unemployed) workers from the numerator and denominator. Moreover the magnitudes of the coefficients increase and become economically large. A one standard deviation increase in female full-time economic participation (as in column 5) leads to a 2.6% increase in Director Participation which is large relative to the mean of 9% of NED Director Participation and represents one half of the standard deviation of NED Director Participation. A one standard deviation increase in full-time labor force participation is associated with a 0.7% increase in ED Director Participation, which is large relative to the mean ED Director Participation of 4%. This pattern suggests quite strongly that a pre-condition for greater NED and ED Director Participation by women is greater full-time employment by women.

-Insert Table V about here-

But is full-time female employment a sufficient statistic for Director Participation? If so, we would expect the control variables to have little explanatory power once we control for female full-time economic participation. We examine the relationship between the controls and Director Participation in more detail in Table V. The first four columns are for NEDs; the second four columns are for EDs. We regress Director Participation on female full-time economic participation and different sets of controls. All regressions include year dummies and have country-level clustered standard errors. Columns 1 and 5 are our baseline specifications with controls for co-determination, economic development, the prevalence of family firms and the fraction of women in higher education. In columns 2 and 6, we add our proxies for family-friendliness, our proxy for wage equality and our measures of culture. The specifications in Columns 3 and 7 are the same as in columns 3 and 6 of Table VI. They include the policy dummy variables and are our benchmark models. In columns 4 and 8, we multiply the coefficient estimates in column 3 and 7 by the standard deviations of the variables to better compare the magnitudes of the different variables.

For Non-Executive Director Participation few of the coefficients on the baseline controls are statistically significant. Although co-determination has the expected positive sign across columns 1-3, it is only significant in column 1. In contrast to our expectations, the coefficient on family firms is negative, although not always significant.

However, several of the coefficients on the non-baseline variables are statistically significant. The coefficients on Tax & Social Security and Traditional vs. Secular Values are positive and significant at the 1% level. In column 3, the coefficients on Quota and Corporate Governance Code are positive and significant. A one standard deviation increase in Tax & Social Security leads to a 0.9% increase in NED

Director Participation, which is not large as compared to the effect of Full-time Economic Participation. But a one standard deviation change in Traditional vs. Secular Values has a comparable effect, 2.5%. Quotas and governance codes are associated with a 4.8% and 3.0% increase in NED Director Participation.[17]

Columns 5-7 show that few variables other than Full-time Economic Participation are statistically significant for Executive Director Participation. It is possible that this is because there is too little variation in ED Director Participation. However, there is some evidence that taxes may matter, as it does for NEDs. Also, the presence of quotas for state-owned companies seems important. As for NEDs, this suggests that the role of female preferences may not be that important in explaining ED Director Participation. It also suggests that policies that target NEDs (quotas and governance codes) may not open the doors of the executive suite to more women-at least in the short run.

We report robustness checks using the specification in column 3 of Table V in the Appendix. We focus on NEDs as our country-level factors have more explanatory power for them. In Appendix Table A.VI, we examine whether our results are driven by India or the US and are robust to including Norway. The results suggest that some factors seem to be important for Director Participation in all countries, namely female full-time economic participation, the level of taxes, measures of discrimination (Wage Equality), measures of culture and policies. The fraction of women in higher education, the birthrate and economic development are not robust to including India. This suggests that career paths in India may be different than in more developed countries.

We also examine how sensitive our results are to measurement error. In Table A.VII we replicate the specification in column 3, Table V and substitute alternate measures for key variables. In column 1, we substitute the estimate of the skilled labor pay gap in wage bill shares from Olivetti and Petrongolo (2011, Table 2, column 2) for Wage Equality.[18, 19] In column 2, we use the estimates of the prevalence of family firms from Faccio and Lang (2002) instead of Fraction of Family Firms. In columns 3 and 4, we use Family Benefits-Services and Family Benefits-Tax breaks instead of Tax & Social Security as alternate proxies for services families receive from the government. In column 5, we use Jobs to Men instead of Wage Equality. In some cases our sample size decreases substantially because we could not obtain data on all countries in our sample. Moreover, all of the alternate measures are cross-sectional, which means there may be less variation in the data in these specifications. However, the results are generally consistent with our previous results.

[17] Given that we exclude Norway here, the only country with quota legislation in our sample period is Spain.

[18] We also used Blau and Kahn's (2003) estimate of gender wage gaps for full-time workers with similar results.

[19] Olivetti and Petrongolo's (2011) estimates are based on data from men and women aged 25-54, excluding military, students, and self-employed for 1994-2001, except for Canada (1997-2004), Finland (1996-2001) and Austria (1995-2001) from the CPS, Canadian LFS, and ECHPS.

In Table A.IX, we examine alternate measures of culture using individual items from the WVS. We exclude Norway in these specifications, as Norway may be an outlier in attitudes towards women. In column 1, we use Women Housewife instead of Traditional vs. Secular Values and Survival vs. Self-Expression Values. The coefficient is negative and significant at the 5% level consistent with the idea that the more people believe that women's role is at home, the lower Director Participation will be. In columns 2 and 3, we use Child Independence and Women's Rights as measures of culture. In column 4, we include both Women Housewife and Child Independence as we have the same number of observations on both measures. Both Child Independence and Women's Rights are individually positively and significantly correlated with Director Participation at the 1% level. Column 4 suggests that Women's Rights may be a more precise measure of attitudes towards women than Women Housewife.

In general the coefficients on our explanatory variables are similar across tables in terms of signs and statistical significance with two exceptions. Fraction of family firms is positive and significant at greater than the 10% level when we use the individual items from the WVS, whereas before the coefficient was always negative. Co-determination also shows up as being highly statistically significant in these regressions. This suggests two hypotheses. Either the effect of family firms and co-determination is not robust or the individual measures of values we use are not sufficient to capture cultural attitudes. We believe the latter is the case as the correlation between Fraction of Family Firms and Traditional vs. Secular and Survival vs. Self-Expression is -0.234 and -0.556 respectively. Thus family firms appear to be more prevalent in more traditional societies and less-developed economies, as one might expect. In contrast, co-determination is more prevalent in countries that emphasize self-expression more (the correlation with Survival vs. Self-Expression is 0.323). Since Women Housewife, Child Independence and Women's Rights are just one of the many factors that enter into the construction of Traditional vs. Secular and Survival vs. Self-Expression, the positive coefficients on Fraction of Family Firms and Co-determination are likely to be driven by omitted variable bias. Consistent with this argument, we also observe that the coefficients on Female Fulltime Economic Participation are larger than in most previous specifications (e.g. 0.621 in column 3 and 0.506 in column 4), which also suggests the coefficients may be biased in these specifications (upwards for Fulltime Economic Participation) due to omitted cultural factors.

Although the magnitudes of the coefficients on Fulltime Economic Participation are similar in the specifications that include Traditional vs. Secular and Survival vs. Self-Expression in Table V and Table A.VII-A.IX- (ranging from 0.361 to 0.480), it is still possible that these coefficients are biased because of omitted country-level variables such as other factors pertaining to culture. Because female labor force participation measures change too slowly over time, we cannot include country fixed effects in our

regressions. In Section VI, we examine whether our results are robust when we restrict ourselves to the more homogenous cultural environment of the US.

VI. US Analysis

Because it is difficult to address endogeneity problems in cross-country data, we examine the relationship between labor force participation and Director Participation across US states. In the US, our coefficient estimates are less likely to be biased because of omitted cultural variables. Moreover, we are able to obtain state-level labor force participation measures with a longer lag. However, the correlation between Fulltime Economic Participation and Director Participation may be weaker because directors often do not live in the state in which their board seat is located. This biases us against finding a result.

-Insert Table VI about here-

In column I of Table VI, .we regress Female Director Participation on Female Fulltime Economic Participation, the fraction of family firms, GDP/Capita, year dummies and a dummy for states in the southern belt, as defined by the US Census Bureau. This dummy controls for cultural differences between the North and the South. In column II, we include state fixed effects. Consistent with our cross-country results, the coefficient on Female Fulltime Economic Participation is positive and significant at the 10% level in both specifications. Relative to the sample mean Director Participation of 9.9%, the coefficient in column II suggests a one standard deviation increase in Female Fulltime Economic Participation would lead to a roughly 3.94% increase in Director Participation. While this effect may not seem large, it is larger than the economic effects of all other controls (GDP/Capita and Fraction Family Firms). These results suggest that the positive relationship between Female Fulltime Economic Participation and Director Participation we document in the previous sections is not completely driven by omitted variable bias.

-Insert Table VII about here-

In Table VII, we perform an instrumental variable analysis. Our instrument for Female Fulltime Economic Participation is a dummy variable equal to one if women had access to abortion in the state prior to the 1973 Roe vs. Wade Supreme Court decision legalizing abortion.[20] A large literature links the availability of contraception to fertility and female labor supply (e.g. Bailey, 2013; Bloom, Canning, Fink and Finlay, 2009). Amado (2014) links abortion restrictions to women's schooling and labor supply. Thus, we expect female labor force participation during the 1990s to be higher in states in which abortion was available earlier. We try to control for the possibility that the availability of abortion may be directly

[20] Alaska, Arkansas, California, Colorado, Delaware, Florida, Georgia, Hawaii, Kansas, Maryland, New Mexico, New York, North Carolina, Oregon, South Carolina, Virginia, Washington. See Boonstra, Gold, Richards and Finer, (2006).

linked to Director Participation through state-level attitudes towards women by including controls for female education and the marriage rate.

As our instrument is not time varying, we do our IV analysis in the cross-section. We restrict ourselves to the year 2008 as it is the year with the largest number of firms (and hence directorships) in our US data, which means the cross-sectional variation in Director Participation is high. In columns 1 and 2, we report the first stages corresponding to the specifications in columns 2 and 4. We report the Kleibergen-Paap Wald statistic at the bottom of the table. Consistent with expectations, Abortion pre-Roe is positively and significantly correlated with Female Fulltime Economic Participation in the first stage specifications. Since the Kleibergen-Paap statistic is not too large, we hesitate to infer too much from the magnitudes of the second stage coefficients. But we view the fact that both second stage coefficients on Female Fulltime Economic Participation are positive-and significant in column 4 at the 10% level-as suggestive that there may be a causal link between Female Fulltime Economic Participation and Director Participation.

VII. The Business Case for Female Directors Revisited

We propose that understanding *why* few women sit on boards is important for understanding the potential impact board diversity and board diversity policies can have on corporate outcomes. If women are appointed to the board to satisfy an explicit or implicit diversity target, but the main reason there were not more women on boards in the first place was because there were few women in senior executive positions-perhaps because of difficulties in managing work and family-it is possible that board effectiveness may decline.

In Table VIII, we analyze the relation between Board Diversity and firm performance in countries with above and below median Female Fulltime Economic Participation excluding Norway and India. We regress Tobin's Q on Board Diversity, board size and independence and firm-level controls such as log(assets), the proportion of closely-held shares and volatility. Because the cross-country firm age distribution is extremely skewed, we proxy for firm age using a dummy that is one if the firm is in the lower quintile of the age distribution (younger than 1995). Columns 1-4 show results for countries with high Female Fulltime Economic Participation; columns 5-8 show results for countries with low Female Fulltime Economic Participation. Columns 1 and 5 report the results of OLS regressions with year and country fixed effects. In columns 2 and 6 we restrict the sample to firms with at least 6 observations in the sample to better compare the OLS results to the firm fixed effects results in columns 3 and 7. In columns 4 and 8, we report results of instrumental variable regressions with firm fixed effects in the restricted sample.

Our instrument for Board Diversity is the fraction of directors who sit on other boards with women similar to Adams and Ferreira (2009).[21] As in Adams and Ferreira (2009), our rationale for the instrument is that connections to boards with women should matter for the appointment of women, but connections to boards with women are unlikely to be directly related to firm performance except through controls we include in the regression. To ensure our instrument is not simply picking up connectedness of the firm, which may be directly related to performance, we followed Adams and Ferreira (2009) and checked that the results are similar after controlling for the total number of board seats of all directors. We report the coefficient on Board Diversity from the first stage regression at the bottom of the table along with the Kleibergen-Paap Wald statistic and the 15% Stock-Yogo critical value. The instrument is positive and highly significant in the first stage and the Kleibergen Wald statistic is above the 15% Stcok-Yogo critical value.

Across all specifications in columns 1-4, we observe a positive and statistically significant coefficient on Board Diversity. The coefficients in columns 5-7 are also positive but they are statistically insignificant and the magnitudes of the coefficients are substantially smaller than in columns 1 and 2. After adding firm fixed effects in column 7, the coefficient on Board Diversity becomes negative; it remains negative and becomes significant at the 10% level in the IV specification in column 8.

The relationship between Board Diversity and performance appears to be different in countries with high female full-time labor force participation than in countries with low female full-time labor force participation. One plausible explanation for this difference is that in countries in which women are more likely to work full time the average female director has more experience. We examine variation in two measures of non-executive female director qualifications at the director level in Tables IX and X. Both tables exclude employee representatives. We also exclude foreign directors to ensure we are measuring the effect of local conditions.

The dependent variable in Table IX is a dummy variable indicating that a non-executive female director has an MBA degree. We regress this on a dummy which is one if the country has above median Female Fulltime Economic Participation, the director's age, an indicator for whether the director's board seat is in a family firm, the fraction of women in higher education in the country, log assets as a proxy for firm size and GNI/Capita. We include year effects and Boardex industry effects in columns 2 and 4 and cluster the standard errors at the director level. In columns 3 and 4, we exclude the US to ensure our results are not driven by the greater popularity of MBA degrees in the US. Older female directors and female directors in family firms are less likely to have an MBA degree, but female directors in countries with higher Female Full-time Economic Participation are more likely to have an MBA degree.

[21] Adams and Ferreira (2009) only look at board seats of men on other boards with women. To increase variation in our instrument, we also consider board seats of women on other boards with other women.

In Table X, we examine the number of directorships of non-executive female directors in countries with higher Female Full-time Economic Participation. We regress the natural logarithm of the number of directorships on a dummy which is one if the country has above median Female Fulltime Economic Participation, the director's age, log board size, an indicator for whether the director's board seat is in a family firm, log assets as a proxy for firm size and GNI/Capita. We include year effects and industry sector effects in columns 2 and 4 and cluster the standard errors at the director level. In columns 3 and 4, we exclude the US. Female directors in family firms have fewer directorships, but female directors in countries with higher Female Full-time Economic Participation have more directorships.

The results from Tables IX and X provide suggestive evidence that in countries with greater Female Full-time Economic Participation the average female director is more experienced. It is plausible that board diversity may have a different relationship with performance in these countries than in countries in which Female Full-time Economic Participation is low.

VIII. Conclusion

We take a first step towards filling a gap in the diversity literature by examining country-level factors that may pose barriers to boardrooms for women. We also show that state-level measures of these barriers have explanatory power for the representation of women in the director pool in the United States. Our results suggest that working full-time is an important pre-condition for women to reach the boardroom. However, it may not be sufficient. The level of family services in a country and cultural attitudes also appear to matter for career advancement. Policies also have a direct effect. This suggests female preferences may not be so important for explaining women's relative underrepresentation. When policies are implemented that encourage firms to appoint female directors, firms seem to be able to find women to fill the board positions.

To be able to assess the effectiveness and potential impact of boardroom diversity and diversity policies on society, women and corporate shareholders it is important to understand what barriers women face. Our evidence suggests that diversity may have a different impact on corporate outcomes in countries where fewer barriers to boardrooms exist. In countries with more barriers, targeting the boards of listed companies may not be sufficient to achieve the societal and governance objectives of diversity policies. Instead, policies that address the barriers directly may be more effective.

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APPENDIX

Table A.I: BoardEx and FactSet Ownership Coverage

This table shows firm-level Boardex and Factset coverage by country-year. BoardEx coverage is the market value of firms in Boardex divided by the total market value of all listed firms in that country-year. We determine the latter by using CapitalIQ, which claims to have a 99% coverage of all listed firms worldwide. We only list country-year observations with at least 10 firms in both BoardEx and CapitalIQ. We define the BoardEx sample to be representative if BoardEx covers at least 70% of a country's market cap in that year. For the representative Boardex sample we collect data on closely-held shares (FF_SHS_CLOSELY_HELD) from FactSet. Closely-held shares include shares held by officers, directors and their families, shares held in trust and shares held by pension plans and 5% blockholders. The average coverage of ownership data in Factset for the representative BoardEx sample years is depicted in the last column.

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Factset Coverage
Australia			0.387	0.733	0.830	0.802	0.849	0.889	0.896	0.918	0.921
Austria							0.885	0.956	0.961	0.944	0.886
Belgium	0.855	0.663	0.704	0.664	0.710	0.684	0.707	0.886	0.891	0.878	0.883
Bermuda	0.308	0.436	0.497	0.508	0.705	0.746	0.864	0.783	0.830	0.657	0.852
Brazil								0.434			
Canada			0.582	0.631	0.697	0.759	0.864	0.878	0.869	0.856	0.666
China				0.003	0.059	0.058	0.342	0.383	0.297	0.238	
Denmark	0.698	0.645	0.777	0.769	0.847	0.826	0.872	0.900	0.912	0.921	0.941
Finland			0.800	0.761	0.822	0.847	0.894	0.891	0.849	0.836	0.974
France	0.928	0.922	0.872	0.912	0.934	0.939	0.938	0.975	0.951	0.945	0.952
Germany	0.895	0.851	0.870	0.878	0.880	0.879	0.899	0.874	0.875	0.887	0.864
Greece		0.603	0.656	0.787	0.778	0.739	0.734	0.775	0.805	0.775	0.636
Hong Kong					0.155	0.193	0.357	0.529	0.357	0.316	
India						0.166	0.384	0.786	0.788	0.753	0.897
Ireland	0.927	0.883	0.959	0.968	0.979	0.937	0.989	0.993	0.939	0.999	0.932
Israel		0.041	0.180	0.245	0.198	0.188	0.215	0.277	0.234	0.201	
Italy	0.735	0.671	0.793	0.786	0.813	0.823	0.871	0.882	0.900	0.895	0.917
Japan							0.050	0.196	0.204	0.200	
Luxembourg							0.537	0.687	0.804	0.780	0.706
Malaysia							0.039	0.060	0.060	0.062	

Table A.I continued

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Factset Coverage
Netherlands	0.742	0.717	0.769	0.755	0.853	0.845	0.809	0.951	0.917	0.941	0.813
Norway	0.904	0.836	0.940	0.932	0.911	0.846	0.858	0.874	0.864	0.849	0.777
Poland							0.643	0.687	0.580	0.518	
Portugal			0.760	0.804	0.831	0.770	0.972	0.979	0.974	0.978	0.929
Russia										0.638	
Singapore							0.210	0.424	0.377	0.343	
South Africa						0.085	0.289	0.476	0.497	0.512	
Spain	0.858	0.868	0.890	0.886	0.897	0.888	0.890	0.928	0.935	0.912	0.946
Sweden	0.859	0.921	0.927	0.933	0.924	0.890	0.903	0.924	0.921	0.913	0.868
Switzerland	0.942	0.914	0.909	0.915	0.924	0.923	0.907	0.930	0.932	0.892	0.906
Turkey							0.522	0.272	0.487	0.410	
United Kingdom	0.863	0.876	0.906	0.943	0.969	0.964	0.967	0.979	0.972	0.986	0.923
United States	0.060	0.052	0.532	0.811	0.879	0.881	0.841	0.882	0.942	0.947	0.902

Table A.II: Sample Size

This table depicts our sample size by country-year. Our sample consists of country-years for which BoardEx covers at least 70% of market capitalization according to Table A.I.

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia				92	169	196	282	346	333	331
Austria							38	44	43	42
Belgium	37		44		48		55	60	59	57
Bermuda					38	48	63	68	67	
Canada						182	319	351	348	329
Denmark			17	17	22	24	27	27	27	27
Finland			10	10	20	24	30	31	31	31
France	111	124	150	164	205	216	236	248	246	233
Germany	96	97	99	105	147	160	176	177	168	160
Greece				17	22	25	36	37	36	37
India								138	139	139
Ireland	34	38	48	50	60	67	73	75	69	69
Italy	41		49	52	74	81	97	96	92	93
Luxembourg									13	14
Netherlands	53	57	64	62	75	85	89	87	79	75
Norway	37	48	54	60	60	62	65	63	58	57
Portugal			10	10	11	12	25	27	26	25
Spain	30	32	34	37	45	55	60	65	62	57
Sweden	79	86	95	100	101	101	103	102	99	95
Switzerland	49	51	54	66	80	86	94	94	91	92
United Kingdom	451	518	640	805	1107	1372	1520	1519	1462	1453
United States				3306	3730	4062	4669	4718	4449	4236

Table A.III: Summary Statistics – Per Country

This table provides country averages of our main variables. Column (1), (2) and (3) show female director participation levels, which we calculate as the ratio of the number of unique female directors in a given year and country to all unique directors. Column (1) uses all directors, column (2) uses only executive directors and column (3) uses non-executive directors. Column (4) reports average firm-level boardroom diversity which is the number of women over board size. In countries with a dual board system Austria, Germany, Denmark, Netherlands), we classify supervisory board members as NEDs and management board members as EDs. Board size is the sum of the sizes of the supervisory and management boards. Column (6), (7), and (8) summarize different measures of female labor force participation ratios. (6) measures the ratio of women in full-time employment over all full time employed, which we call Female Fulltime Economic Participation, (7) female labor force over the entire labor force. The classical measure, Female Labor Force Participation, hence female labor force (employed + unemployed) over female population, is in (7). The fraction of family firms in our sample period is in (8). We define family firms as having at least two directors with the same last name on the board with a fraction of closely held shares of at least 20%. The fraction of women in higher education is in (9). The birth rate in (10) shows the number of births per 1000 inhabitants. The gross national income per capita in USD in constant 2011 prices and exchange rates is in (11). The fraction of tax and social security receipts over gross income is listed in (12). The average wage equality figures as collected by the World Economic Forum for 2006-10 are in (13). A society's values as defined by Inglehart and Welzel (2005) as traditional vs. secular (sec.) and survival vs. self-expression (self.) respectively are listed in (14) and (15). Data on directors is from BoardEx. Data on closely-held shares is from FactSet. Data on variables in columns (5)-(13) is from Euromonitor. Variables in (4)-(7), (9)-(13) are lagged by 10 years.

	Female Director Participation			Div.	Female Labor Force Participation			Family Firms	High. Edu	Birth Rate	Inc. pp	Tax / Inc.	Wage Equal.	Values	
	ALL	ED	NED											Sec.	Self.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Australia	0.069	0.028	0.083	0.063	0.351	0.246	0.427	0.058	0.575	13.7	46,107	22.7	4.67	0.21	1.75
Austria	0.062	0.028	0.074	0.053	0.374	0.318	0.407	0.125	0.497	10.1	43,010	34.0	3.39	0.25	1.43
Belgium	0.079	0.059	0.083	0.074	0.332	0.256	0.340	0.330	0.510	11.6	40,577	35.8	4.38	0.50	1.13
Bermuda	0.048	0.022	0.055	0.062				0.128	0.579	13.4					
Canada	0.084	0.038	0.096	0.075	0.403	0.300	0.459	0.082	0.550	11.3	39,710	21.7	5.11	-0.26	1.91
Denmark	0.123	0.074	0.135	0.113	0.412	0.320	0.492	0.320	0.542	12.9	52,153	34.8	4.85	1.16	1.87
Finland	0.206	0.097	0.209	0.207	0.455	0.360	0.456	0.028	0.533	11.8	35,717	36.7	4.85	0.82	1.12
France	0.089	0.064	0.094	0.090	0.390	0.302	0.395	0.353	0.545	12.7	37,853	33.0	3.26	0.63	1.13
Germany	0.076	0.018	0.097	0.061	0.351	0.275	0.404	0.159	0.451	9.7	39,760	14.0	4.23	1.31	0.74
Greece	0.066	0.066	0.067	0.065	0.343	0.282	0.315	0.264	0.492	9.5	22,067	18.9	4.36	0.77	0.55

India	0.049	0.030	0.058	0.049	0.247	0.229	0.186	0.440	0.371	27.6	867	2.3	4.57	-0.36	-0.21
Ireland	0.054	0.033	0.065	0.053	0.309	0.234	0.305	0.126	0.507	14.2	30,103	27.7	4.96	-0.91	1.18
Italy	0.040	0.035	0.041	0.044	0.315	0.250	0.299	0.371	0.536	9.4	33,164	29.2	3.68	0.13	0.60
Luxembourg	0.040	0.000	0.047	0.043	0.317	0.265	0.331	0.148	0.519	12.6	78,045		4.83	0.42	1.13
Netherlands	0.058	0.025	0.077	0.054	0.266	0.179	0.398	0.033	0.475	12.7	39,940	43.0	4.44	0.71	1.39
Norway	0.244	0.057	0.254	0.251	0.369	0.277	0.463	0.115	0.554	13.7	55,929	33.7	5.05	1.39	2.17
Portugal	0.031	0.040	0.024	0.037	0.415	0.355	0.427	0.530	0.562	11.2	18,886	23.2	4.32	-0.90	0.49
Spain	0.058	0.023	0.066	0.065	0.314	0.235	0.308	0.447	0.524	9.6	24,364	29.3	3.40	0.09	0.54
Sweden	0.192	0.031	0.207	0.183	0.429	0.343	0.478	0.159	0.555	11.8	39,088	42.0	4.97	1.86	2.35
Switzerland	0.060	0.021	0.072	0.057	0.317	0.234	0.476	0.076	0.388	11.7	72,437	19.6	4.51	0.74	1.90
United Kingdom	0.055	0.044	0.063	0.054	0.342	0.245	0.423	0.073	0.516	12.7	29,120	29.9	4.52	0.06	1.68
United States	0.085	0.040	0.095	0.080	0.432	0.361	0.452	0.099	0.558	14.4	43,337	22.2	4.69	-0.81	1.76

Table A.IV: Boardroom Director Participation

This table shows Director Participation for country-years for which we deem BoardEx to have representative coverage (see Table A.I). Female Director Participation is the number of unique women who sit on boards in a given year and country over all unique directors for that year and country. Row one for each country uses the full board to calculate Director Participation; subsequent rows use only NEDs or EDs.

Country		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	Board				0.083	0.068	0.069	0.061	0.064	0.064	0.074
	NED				0.098	0.084	0.086	0.075	0.076	0.075	0.086
	ED				0.032	0.021	0.022	0.022	0.031	0.033	0.037
Austria	Board							0.061	0.063	0.066	0.059
	NED							0.069	0.075	0.077	0.074
	ED							0.033	0.024	0.037	0.018
Belgium	Board	0.050		0.061		0.075		0.082	0.081	0.096	0.110
	NED	0.049		0.059		0.076		0.087	0.085	0.106	0.120
	ED	0.050		0.057		0.063		0.059	0.064	0.056	0.061
Bermuda	Board					0.047	0.049	0.048	0.045	0.049	
	NED					0.047	0.055	0.056	0.055	0.060	
	ED					0.046	0.025	0.019	0.009	0.009	
Canada	Board						0.089	0.080	0.075	0.083	0.091
	NED						0.100	0.092	0.086	0.096	0.104
	ED						0.033	0.038	0.039	0.040	0.042
Denmark	Board			0.113	0.124	0.114	0.113	0.117	0.134	0.137	0.131
	NED			0.123	0.140	0.129	0.121	0.128	0.144	0.147	0.143
	ED			0.065	0.048	0.067	0.075	0.074	0.088	0.092	0.082
Finland	Board			0.128	0.149	0.238	0.211	0.211	0.208	0.244	0.258
	NED			0.141	0.155	0.241	0.215	0.216	0.206	0.244	0.255
	ED			0.000	0.000	0.000	0.000	0.125	0.188	0.214	0.250
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010

France	Board	0.073	0.071	0.083	0.078	0.080	0.084	0.092	0.096	0.103	0.130
	NED	0.078	0.076	0.093	0.082	0.085	0.088	0.095	0.098	0.106	0.139
	ED	0.049	0.051	0.048	0.055	0.059	0.065	0.070	0.075	0.083	0.084
Germany	Board	0.070	0.071	0.084	0.084	0.081	0.074	0.070	0.073	0.074	0.076
	NED	0.093	0.092	0.108	0.107	0.104	0.097	0.091	0.094	0.093	0.093
	ED	0.010	0.014	0.014	0.018	0.016	0.012	0.017	0.021	0.025	0.030
Greece	Board				0.054	0.055	0.047	0.063	0.078	0.083	0.083
	NED				0.055	0.050	0.057	0.075	0.076	0.079	0.078
	ED				0.050	0.063	0.024	0.056	0.081	0.093	0.091
India	Board								0.050	0.045	0.052
	NED								0.059	0.055	0.061
	ED								0.030	0.025	0.035
Ireland	Board	0.031	0.042	0.037	0.050	0.058	0.056	0.059	0.067	0.063	0.079
	NED	0.044	0.052	0.046	0.055	0.066	0.067	0.073	0.083	0.073	0.090
	ED	0.008	0.023	0.018	0.039	0.042	0.038	0.036	0.038	0.038	0.051
Italy	Board	0.028		0.027	0.035	0.038	0.038	0.043	0.046	0.050	0.055
	NED	0.026		0.025	0.037	0.038	0.039	0.045	0.049	0.052	0.057
	ED	0.030		0.028	0.028	0.036	0.033	0.035	0.038	0.039	0.045
Luxembourg	Board									0.045	0.035
	NED									0.053	0.041
	ED									0.000	0.000
Netherlands	Board	0.048	0.047	0.044	0.045	0.052	0.054	0.064	0.066	0.074	0.083
	NED	0.071	0.070	0.065	0.063	0.068	0.071	0.079	0.083	0.094	0.104
	ED	0.011	0.011	0.010	0.015	0.026	0.029	0.040	0.036	0.032	0.042

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010

Norway	Board	0.107	0.106	0.151	0.168	0.224	0.275	0.340	0.352	0.347	0.371
	NED	0.113	0.114	0.160	0.179	0.236	0.285	0.352	0.363	0.359	0.381
	ED	0.000	0.000	0.000	0.000	0.000	0.048	0.105	0.133	0.133	0.154
Portugal	Board			0.010	0.009	0.015	0.026	0.039	0.041	0.051	0.055
	NED			0.016	0.014	0.012	0.010	0.024	0.026	0.040	0.046
	ED			0.000	0.000	0.022	0.057	0.057	0.059	0.062	0.063
Spain	Board	0.025	0.033	0.031	0.031	0.042	0.059	0.069	0.088	0.100	0.107
	NED	0.024	0.033	0.036	0.034	0.047	0.069	0.082	0.102	0.115	0.120
	ED	0.022	0.030	0.020	0.020	0.025	0.021	0.020	0.020	0.022	0.025
Sweden	Board	0.108	0.123	0.160	0.195	0.200	0.214	0.228	0.234	0.226	0.233
	NED	0.119	0.136	0.176	0.213	0.214	0.229	0.245	0.250	0.242	0.248
	ED	0.031	0.031	0.020	0.021	0.024	0.037	0.039	0.028	0.029	0.045
Switzerland	Board	0.045	0.044	0.045	0.056	0.058	0.060	0.059	0.072	0.078	0.078
	NED	0.063	0.061	0.055	0.068	0.067	0.070	0.071	0.088	0.093	0.089
	ED	0.014	0.011	0.019	0.014	0.026	0.026	0.019	0.018	0.026	0.035
United Kingdom	Board	0.040	0.043	0.050	0.050	0.055	0.057	0.059	0.062	0.064	0.066
	NED	0.053	0.056	0.063	0.059	0.060	0.061	0.063	0.066	0.071	0.075
	ED	0.025	0.029	0.036	0.040	0.048	0.049	0.051	0.053	0.052	0.053
United States	Board				0.079	0.081	0.082	0.083	0.085	0.090	0.093
	NED				0.090	0.091	0.093	0.094	0.096	0.100	0.105
	ED				0.038	0.037	0.038	0.039	0.041	0.044	0.044

Table A.V: Boardroom Diversity

This table shows country-year level means of firm-level boardroom diversity: the number of women on the board divided by board size. In companies with dual boards, we combine the management board and the supervisory boards. We also report NED and ED diversity. NED diversity is the number of female NEDS/total number of NEDS on the board. ED diversity is number of female EDs/total number of EDs on the board. We only show data for our representative BoardEx sample (see Table A.II).

Country		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	Board				0.089	0.065	0.066	0.057	0.060	0.059	0.068
	NED				0.101	0.075	0.077	0.067	0.067	0.067	0.076
	ED				0.022	0.014	0.018	0.020	0.029	0.032	0.034
Austria	Board							0.049	0.054	0.057	0.050
	NED							0.054	0.063	0.063	0.059
	ED							0.033	0.026	0.031	0.022
Belgium	Board	0.053		0.057		0.066		0.074	0.073	0.086	0.100
	NED	0.052		0.053		0.064		0.075	0.072	0.091	0.107
	ED	0.038		0.042		0.045		0.035	0.040	0.037	0.042
Bermuda	Board					0.063	0.057	0.059	0.061	0.066	
	NED					0.072	0.070	0.078	0.074	0.079	
	ED					0.028	0.014	0.010	0.008	0.006	
Canada	Board						0.079	0.066	0.067	0.077	0.088
	NED						0.087	0.074	0.074	0.083	0.091
	ED						0.025	0.032	0.034	0.037	0.043
Denmark	Board			0.102	0.114	0.110	0.100	0.104	0.118	0.124	0.125
	NED			0.100	0.117	0.113	0.102	0.109	0.126	0.135	0.140
	ED			0.061	0.083	0.098	0.094	0.080	0.093	0.085	0.045
Finland	Board			0.115	0.133	0.217	0.198	0.195	0.191	0.242	0.255
	NED			0.132	0.141	0.224	0.202	0.206	0.198	0.242	0.251
	ED			0.000	0.000	0.000	0.000	0.036	0.104	0.129	0.167
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010

France	Board	0.069	0.065	0.085	0.081	0.083	0.086	0.088	0.093	0.100	0.123
	NED	0.087	0.090	0.132	0.113	0.109	0.112	0.105	0.111	0.117	0.144
	ED	0.035	0.037	0.036	0.044	0.047	0.057	0.053	0.055	0.055	0.056
Germany	Board	0.061	0.062	0.072	0.071	0.065	0.057	0.055	0.058	0.059	0.060
	NED	0.082	0.080	0.091	0.087	0.080	0.073	0.069	0.071	0.072	0.072
	ED	0.014	0.016	0.015	0.022	0.019	0.012	0.015	0.016	0.020	0.024
Greece	Board				0.049	0.045	0.037	0.065	0.075	0.078	0.078
	NED				0.049	0.042	0.049	0.067	0.065	0.068	0.060
	ED				0.028	0.037	0.018	0.074	0.076	0.094	0.100
India	Board								0.049	0.046	0.051
	NED								0.055	0.055	0.058
	ED								0.027	0.023	0.036
Ireland	Board	0.032	0.039	0.034	0.045	0.054	0.054	0.057	0.061	0.058	0.072
	NED	0.039	0.045	0.042	0.042	0.055	0.051	0.062	0.068	0.066	0.080
	ED	0.010	0.027	0.021	0.037	0.040	0.039	0.036	0.034	0.030	0.038
Italy	Board	0.030		0.029	0.037	0.040	0.041	0.045	0.048	0.052	0.057
	NED	0.028		0.029	0.039	0.042	0.045	0.050	0.051	0.056	0.059
	ED	0.026		0.026	0.027	0.031	0.020	0.026	0.029	0.035	0.039
Luxembourg	Board									0.049	0.038
	NED									0.052	0.039
	ED									0.000	0.000
Netherlands	Board	0.042	0.042	0.040	0.041	0.047	0.054	0.059	0.061	0.065	0.074
	NED	0.059	0.053	0.052	0.051	0.052	0.064	0.068	0.072	0.079	0.094
	ED	0.011	0.013	0.008	0.013	0.023	0.027	0.031	0.031	0.024	0.031

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010

Norway	Board	0.086	0.080	0.124	0.149	0.213	0.274	0.355	0.369	0.362	0.379
	NED	0.090	0.085	0.130	0.155	0.221	0.282	0.370	0.380	0.375	0.390
	ED	0.000	0.000	0.000	0.000	0.000	0.059	0.118	0.143	0.143	0.167
Portugal	Board			0.014	0.014	0.018	0.027	0.037	0.039	0.050	0.051
	NED			0.056	0.025	0.023	0.021	0.027	0.035	0.057	0.059
	ED			0.000	0.000	0.013	0.040	0.047	0.044	0.050	0.044
Spain	Board	0.023	0.038	0.038	0.034	0.044	0.057	0.066	0.082	0.099	0.102
	NED	0.025	0.038	0.043	0.037	0.049	0.067	0.079	0.096	0.114	0.117
	ED	0.010	0.026	0.017	0.018	0.021	0.014	0.015	0.017	0.018	0.016
Sweden	Board	0.091	0.104	0.142	0.179	0.184	0.206	0.215	0.223	0.222	0.233
	NED	0.097	0.112	0.155	0.197	0.199	0.221	0.232	0.240	0.239	0.249
	ED	0.014	0.013	0.012	0.010	0.011	0.025	0.033	0.020	0.021	0.037
Switzerland	Board	0.043	0.043	0.046	0.052	0.052	0.054	0.056	0.063	0.075	0.067
	NED	0.058	0.053	0.051	0.058	0.056	0.059	0.062	0.069	0.077	0.072
	ED	0.005	0.009	0.009	0.009	0.012	0.014	0.013	0.012	0.040	0.028
United Kingdom	Board	0.037	0.039	0.046	0.045	0.050	0.053	0.056	0.057	0.060	0.064
	NED	0.046	0.048	0.052	0.047	0.048	0.051	0.054	0.056	0.060	0.066
	ED	0.024	0.026	0.033	0.038	0.043	0.046	0.048	0.050	0.052	0.052
United States	Board				0.074	0.076	0.078	0.079	0.080	0.085	0.089
	NED				0.082	0.083	0.085	0.087	0.089	0.092	0.097
	ED				0.035	0.033	0.035	0.036	0.037	0.040	0.040

Table A.VI: Summary Statistics for Robustness Tests – Panel A

This table depicts country-level averages of the variables used in the robustness tests with Norway excluded. Column (1) depicts the fraction of family firms from Faccio and Lang (2006). Column (2) and (3) respectively show the family services provided by the state, and the tax breaks for families as a percentage of GDP for 2007 from the OECD family database. (4) shows the gender wage gap for skilled workers from Olivetti and Petrongolo (2011, Table 2 column 2). A society's average values as defined by 4 items from the WVS (waves 4 and 5) are listed in the remaining columns. (5) the response to D057, scaled between 1-4 but reversed so that the highest answer fully agrees with the statement that "Being a housewife is just as fulfilling as working for pay". (6) is the response to A029, a dummy variable that holds the value of one if the respondent thinks child independence is important, (7) the response to E233-the statement that "women's rights" are an "essential characteristic of democracy"-scaled between 1 - 10, with 10 being the highest value. (8) the response to C001-the statement that "when Jobs are scarce: Men should have more right to a job than women", which takes either the value 1 or 2 and which we recode into a dummy variable with a value of 1 measuring agreement. Wave 4 values are averaged at the country-level and matched to 2001-2004 data. The remaining data is matched to wave 5 data.

	FF-FL	Family Benefits		Wage Gap	World Value Survey			
		Services	Tax	Skilled	Women housewife	Child indepen-dence	Women need same rights	Jobs to men
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Australia		0.65	0.36		2.92	0.63	9.21	0.389
Austria	52.8	0.45	0.04	2.82				
Belgium	51.5	0.95	0.58	5.64				
Bermuda								
Canada		0.16	0.42	2.37	3.08	0.58	9.14	0.638
Denmark		1.80	0.00	4.43				
Finland	48.8	1.34	0.00	-0.53	3.15	0.69	9.17	0.525
France	64.8	1.66	0.72	6.70	2.56	0.38	8.62	0.705
Germany	64.6	0.75	0.88	12.48	2.34	0.76	9.13	0.551
Greece		0.39		7.78				
India					2.80	0.67	8.21	0.646
Ireland	24.6	0.28	0.11	8.05				
Italy		0.75	0.00	3.68	2.59	0.58		0.538
Luxembourg		0.47	0.00					
Netherlands		1.38	0.85	11.81	2.65	0.64	9.06	0.663
Norway	38.6	1.45	0.10		2.69	0.90	9.36	0.564
Portugal	60.3	0.44	0.17	-2.17				
Spain	55.8	0.71	0.24	10.19	2.54	0.35	8.91	0.646
Sweden	46.9	1.86	0.00		2.51	0.75	9.84	0.355
Switzerland	48.1	0.32	0.14		2.82	0.74	9.27	0.584
United Kingdom	23.7	1.11	0.33	15.44	2.86	0.58	9.05	0.669
United States		0.55	0.53	10.36	3.10	0.54	8.58	0.257

Table A.VI Summary Statistics for Robustness Tests – Panel B

This table shows the same variables as described in the Panel A, averaged over all countries. Norway is excluded.

			Obs.	Mean	Std. Dev.	Min	Max
FF-FL		(1)	97	48.781	14.043	23.680	64.820
Family	Services	(2)	152	0.904	0.531	0.160	1.860
Benefits	Tax	(3)	145	0.321	0.306	0.000	0.880
Wage Gap	Skilled Labor	(4)	123	7.181	4.880	-2.170	15.440
	Housewife	(5)	83	2.746	0.252	2.343	3.146
WVS	Child independ.	(6)	83	0.601	0.136	0.313	0.783
	Same rights	(7)	68	9.050	0.367	8.211	9.841
	Jobs to men	(8)	89	0.540	0.144	0.208	0.731

Table A.VII: NED Participation – Sensitivity to Choice of Countries

This table shows the results of pooled cross-sectional OLS regressions of female non-executive director participation in the boardroom on country and policy characteristics. Column (1) shows results for 19 countries excluding Norway and India; column (2) shows results for 18 countries excluding USA, Norway and India; column (3) shows results for for 21 countries, including USA, Norway and India. All variables are as in Table V. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

Independent Variable	Dependent Variable: Female Non-Executive Director Participation		
	(1)	(2)	(3)
Female Fulltime Economic Participation (lagged)	0.463***	0.453***	0.465***
	(0.094)	(0.107)	(0.111)
Co-determination	0.009	0.009	0.003
	(0.009)	(0.009)	(0.009)
GNI / Capita (lagged)	0.874***	0.862***	0.936**
	(0.279)	(0.274)	(0.447)
Fraction of Family Firms	-0.104***	-0.102***	-0.080**
	(0.027)	(0.026)	(0.029)
Fraction of Women in Higher Education (lagged)	0.140**	0.138**	0.112
	(0.063)	(0.059)	(0.106)
Birth Rate (lagged)	-0.002	-0.002	0.005***
	(0.004)	(0.004)	(0.001)
Tax & Social Security (lagged)	0.002***	0.002***	0.001**
	(0.000)	(0.000)	(0.000)
Wage Equality	0.024**	0.024**	0.031***
	(0.011)	(0.011)	(0.009)
Traditional vs. Secular Values	0.025***	0.025***	0.036***
	(0.008)	(0.009)	(0.006)
Survival vs. Self-expression Values	-0.021*	-0.021*	-0.037***
	(0.010)	(0.010)	(0.012)
Quota	0.051***	0.050***	0.082***
	(0.012)	(0.013)	(0.023)
Quota for State-owned Companies	-0.001	-0.001	-0.008
	(0.012)	(0.012)	(0.013)
Corporate Governance Code	0.026***	0.027***	0.031***
	(0.006)	(0.006)	(0.008)
Year dummies	Yes	Yes	Yes
Observations	150	143	163
Adj. R^2	0.861	0.862	0.852

Table A.VIII: NED Participation – Sensitivity to Variable Measurement

This table shows the results of pooled cross-sectional OLS regressions of female non-executive director participation in the boardroom on country and policy characteristics. All regressions are based on an unrestricted sample without Norway and a full set of control variables. Regression (1) differs from regressions in Table V in that the skilled labor pay gap variable as calculated by Olivetti and Petrongolo (2011) is substituted for wage equality. (2) differs by replacing our measure for family firms with the measures in Faccio and Lang (2002). (3) substitutes taxation levels with the services component of family benefits as published by the OECD (2007). (4) differs from (3) that it denotes the level of tax breaks families receive. 'Jobs to men' relates to question C001 of the World Value Survey. Summary statistics for alternate measures are in the Appendix Table A.VI. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

Independent Variable	Female Non-Executive Director Participation				
	(1)	(2)	(3)	(4)	(5)
Female Fulltime Economic Participation (lagged)	0.404**	0.361	0.410***	0.375***	0.234**
	(0.158)	(0.323)	(0.099)	(0.083)	(0.102)
Co-determination	-0.005	0.035***	0.010	0.008	0.020
	(0.009)	(0.006)	(0.013)	(0.012)	(0.012)
GNI / Capita (lagged)	1.498**	2.692*	0.674	-0.038	-0.975**
	(0.661)	(1.352)	(0.801)	(0.848)	(0.446)
Fraction of Family Firms	-0.133***		-0.114***	-0.098**	0.077
	(0.024)		(0.035)	(0.037)	(0.045)
Fraction of Women in Higher Education (lagged)	-0.009	0.237	0.121	0.146	-0.129**
	(0.169)	(0.142)	(0.148)	(0.157)	(0.057)
Birth Rate (lagged)	0.006	0.000	-0.005	0.002	0.001
	(0.006)	(0.004)	(0.005)	(0.004)	(0.001)
Tax & Social Security (lagged)	0.001	0.002**			0.000
	(0.001)	(0.001)			(0.000)
Wage Equality		0.021**	0.027**	0.016	
		(0.008)	(0.010)	(0.011)	
Traditional vs. Secular Values	0.014	0.051***	0.013	0.037***	0.027***
	(0.015)	(0.008)	(0.012)	(0.008)	(0.004)
Survival vs. Self-expression Values	-0.039**	-0.062	-0.008	-0.004	0.048**
	(0.018)	(0.045)	(0.015)	(0.018)	(0.018)
Quota	0.062***	0.045**	0.096***	0.089***	0.025**
	(0.020)	(0.015)	(0.026)	(0.027)	(0.011)
Quota for State-owned Companies	0.032*	0.015	0.001	0.013	0.107***
	(0.015)	(0.041)	(0.014)	(0.022)	(0.018)
Corporate Governance Code	0.020***	0.025**	0.022**	0.025**	0.014*
	(0.006)	(0.009)	(0.009)	(0.010)	(0.007)
Skilled Labor Pay Gap – Olivetti Petrongolo	-0.000				
	(0.002)				
Family Firms – Faccio Lang		-0.002			
		(0.002)			
Family Benefits – Services			0.033**		
			(0.015)		
Family Benefits – Tax breaks				-0.010	
				(0.013)	
WVS: "Jobs to men"					-0.077**
					(0.035)
Year dummies	Yes	Yes	Yes	Yes	
Observations	123	107	162	155	83
Adj. R^2	0.839	0.896	0.826	0.818	0.936

Table A.IX: NED Participation – Sensitivity to Measurement of Culture

This table shows the results of pooled cross-section OLS regressions of female non-executive director participation in the boardroom on country and policy characteristics. All regressions are based on a full set of control variables, and exclude Norway. All variables are as described in Table V, except that we exclude Traditional vs. Secular Values and Survival vs. Self-expression Values. Instead, we use Women Housewife, Child Independence and Women's Rights from the WVS. Summary statistics for alternate measures are in the Appendix Table A.VI. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

Independent Variable	Dependent Variable: Female Non-Executive Director Participation			
	(1)	(2)	(3)	(4)
Female Fulltime Economic Participation (lagged)	0.428***	0.496***	0.621***	0.506***
	(0.089)	(0.078)	(0.026)	(0.088)
Co-determination	0.026***	0.037***	0.043***	0.041***
	(0.008)	(0.008)	(0.003)	(0.010)
GNI / Capita (lagged)	0.825**	0.560*	0.348**	0.517
	(0.332)	(0.301)	(0.119)	(0.320)
Fraction of Family Firms	0.118*	0.131***	0.038**	0.139***
	(0.055)	(0.035)	(0.015)	(0.036)
Fraction of Women in Higher Education (lagged)	-0.040	-0.006	-0.141***	-0.008
	(0.107)	(0.083)	(0.024)	(0.090)
Birth Rate (lagged)	0.002	0.002**	0.008***	0.002**
	(0.001)	(0.001)	(0.001)	(0.001)
Tax & Social Security (lagged)	0.001***	0.002***	0.001***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Wage Equality	0.056***	0.028***	0.011*	0.024***
	(0.013)	(0.007)	(0.006)	(0.007)
Quota	0.012	0.042***	0.033***	0.046***
	(0.014)	(0.008)	(0.005)	(0.008)
Quota for State-owned Companies	0.077***	0.039***	0.039***	0.028
	(0.020)	(0.008)	(0.003)	(0.020)
Corporate Governance Code	0.015	0.011	0.008	0.009
	(0.009)	(0.006)	(0.005)	(0.006)
WVS: "Women housewife"	-0.060**			0.018
	(0.020)			(0.024)
WVS: "Child independence"		0.158***		0.183***
		(0.028)		(0.044)
WVS: "Women rights"			0.081***	
			(0.006)	
Year dummies	Yes	Yes	Yes	Yes
Observations	83	83	68	83
Adj. R^2	0.922	0.940	0.968	0.940

Figure I: Boardroom Diversity Policies 1993-2012

This figure shows the distribution of boardroom diversity policies over time as of December 2012, as well as the percentage of countries with boardroom diversity policies. The number of countries used as the benchmark for calculating percentages is 196. We use European Union (2012) and Paul Hastings (2012) to identify countries with policies targeting gender diversity on boards. We verify the data using the original source documents. We use the ECGI code database to identify whether a country's governance code mentions that gender must be considered by the board in nominations. If so, then Code = 1. If the main stock exchange or securities laws stipulate that board diversity should be disclosed, we code Disclosure rule = 1.

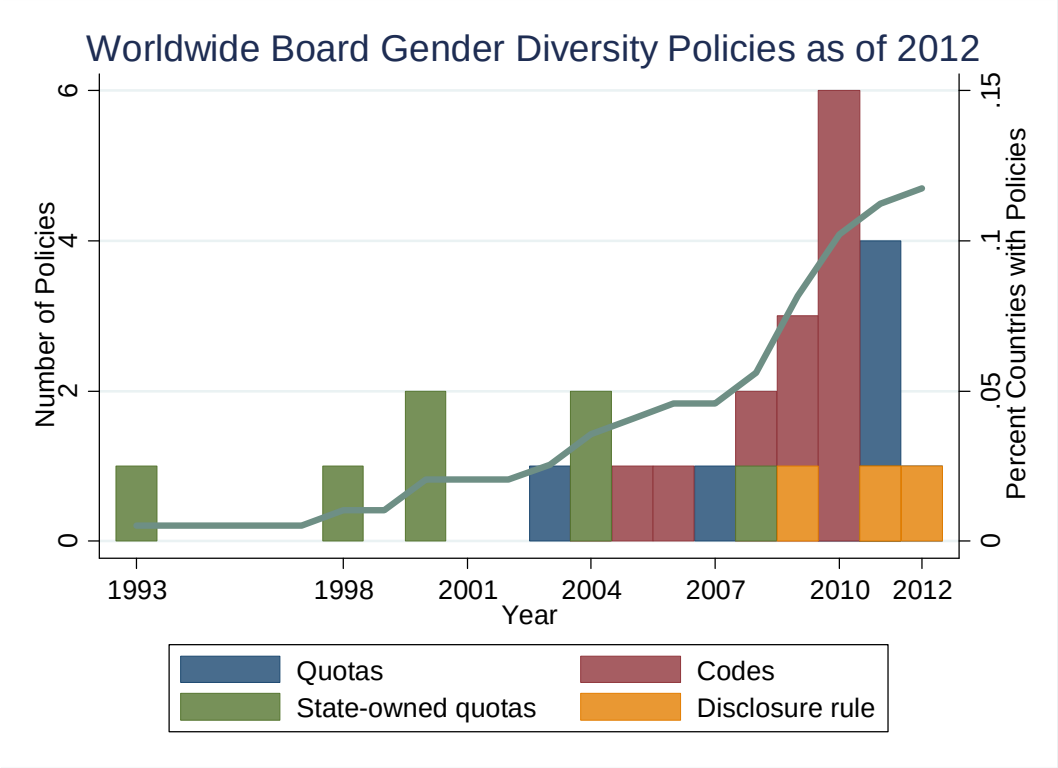
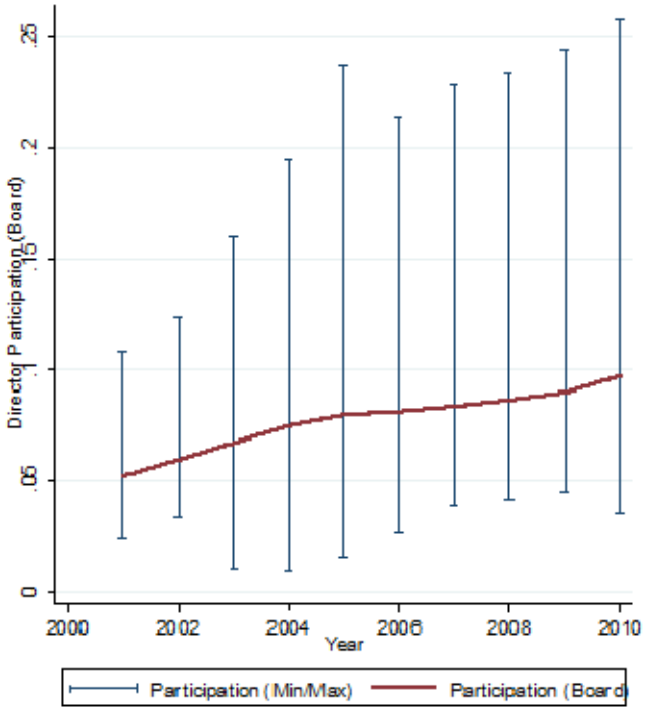


Figure II: Female Director Participation over Time and Across Countries

This figure shows Female Director Participation levels over time in our sample which consists of country-years between 2001 and 2010 for which Boardex covers at least 70% of market capitalization according to Table A.I. Female director participation is the ratio of the number of unique female directors of a given type in a given year and country to all unique directors of that type. In countries with a dual board system (Austria, Germany, Denmark, Netherlands), we classify supervisory board members as NEDs and management board members as EDs. Board size is the sum of the sizes of the supervisory and management boards. In Panel A, we use all directors on the board in calculating director participation; in Panel B, we consider only NEDS or EDs in calculating director participation. Panel A shows mean board-level female director participation and the difference between the maximum and the minimum levels of female director participation over time. Panel B shows mean ED and NED female director participation.

Panel A:



Panel B:

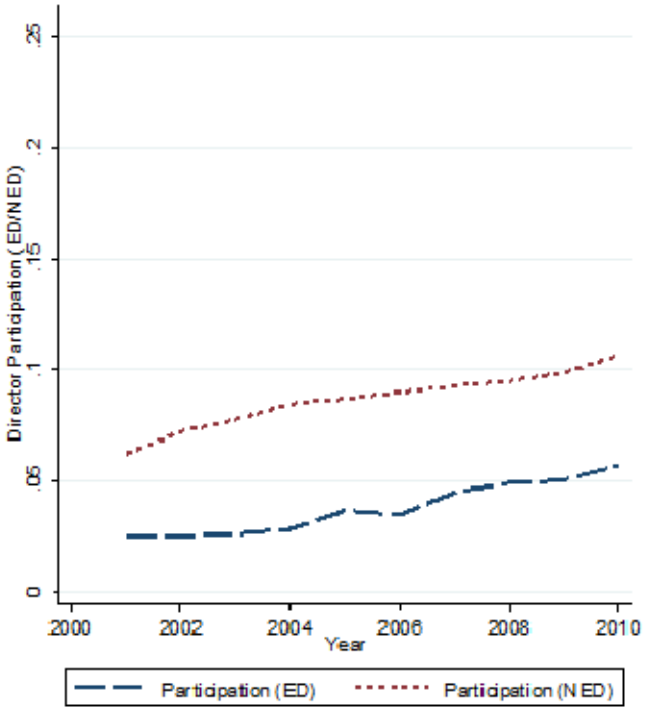


Figure III – Differences in diversity and participation relative to participation

Figure III shows trends in differences between board diversity and board-level female director participation relative to participation for our sample (country-years between 2001 and 2010 for which Boardex covers at least 70% of market capitalization according to Table A.I). Board diversity is the fraction of women on the board. Female director participation is the ratio of the number of unique female directors in a given year and country to all unique directors in that country and year. In companies with dual boards, the management board and the supervisory boards are combined. The figure shows plots of (diversity-participation)/participation for each country over time, restricted to a common scale. Panel A shows plots for Western and Northern Europe. Panel B shows plots for Non-European countries and Sothern Europe. Regional classifications are done according to the United Nations Statistics Division-Standard Country and Area Codes Classifications.

Panel A: Western and Northern Europe

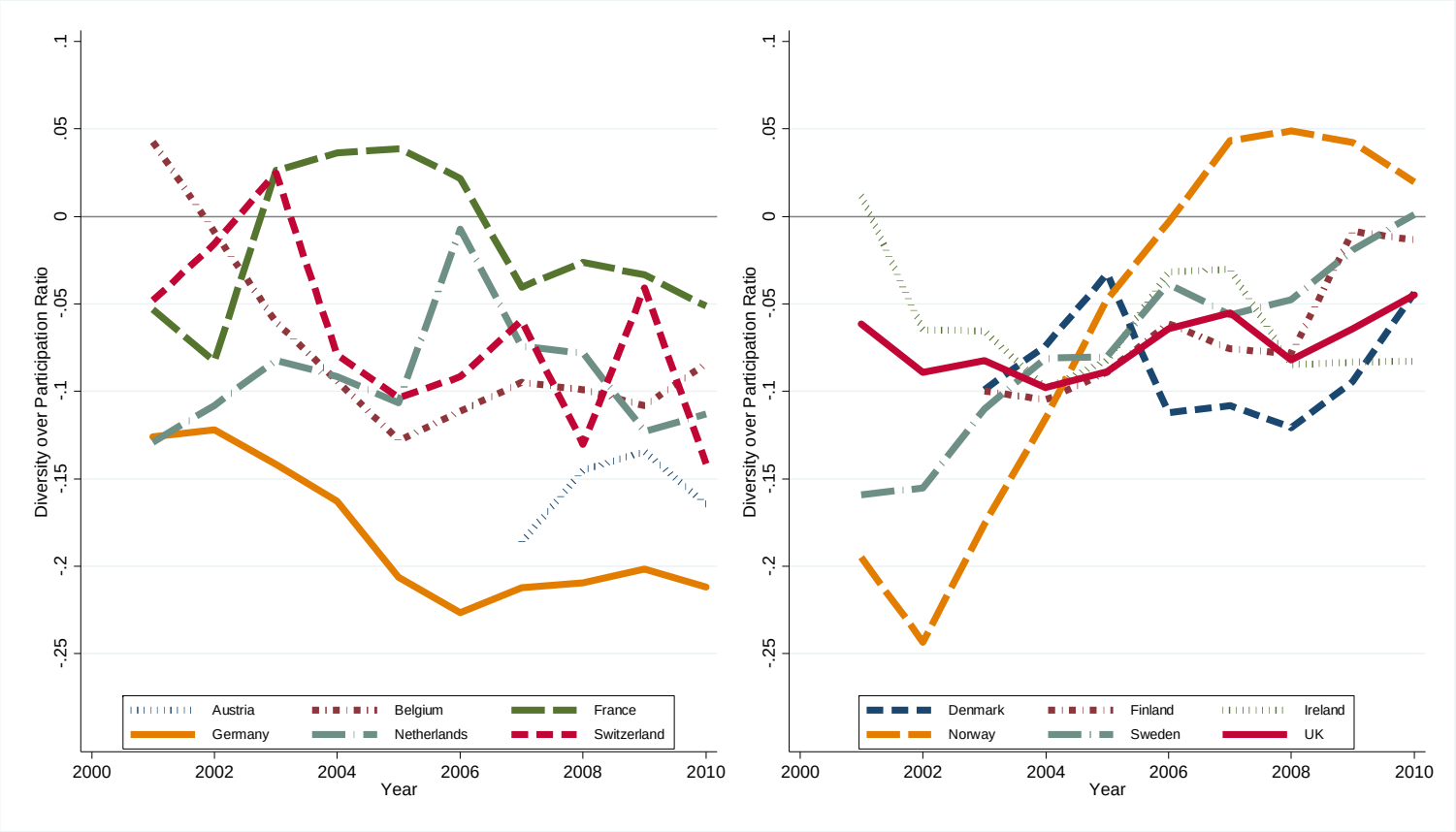


Figure III, Panel B: Non-European Countries and Southern Europe

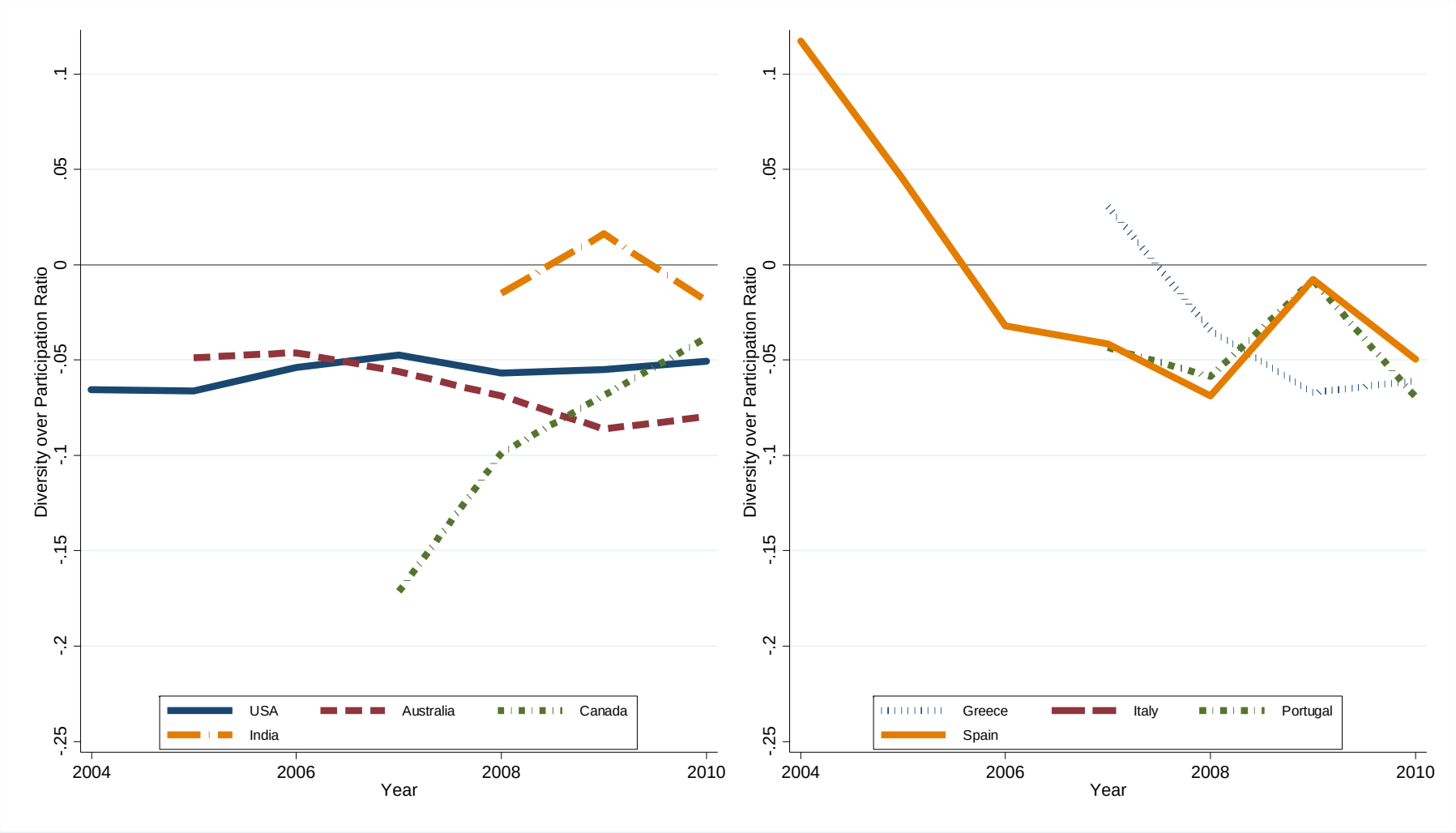


Table I: Policy Initiatives as of 2012

For the countries in our sample, this table shows different policies in place as of December 2012 regarding boardroom gender diversity, as well as the existence of co-determination laws that involve board-level employee representation. If the policy was implemented after the end of our sample period (2010), we highlight the row using italics. We use European Union (2012) and Paul Hastings (2012) to identify countries with policies targeting gender diversity on boards. We verify the data using the original source documents. We use the ECGI code database to identify whether a country's governance code mentions that gender must be considered by the board in nominations. If so, then Code = 1. If the main stock exchange or securities laws stipulate that board diversity should be disclosed, we code Disclosure rule = 1. We obtain information on co-determination laws from Kluge and Stollt (2006) and Osterloh, Frey and Zeitoun (2011).

Country	Companies Affected	Co-determi-nation	Code	Quota	Quota: State-owned	Disclo-sure Rule
Australia	*All Australian Listed Companies on the ASX*	*0*	*0*	*0*	*0*	*1*
Austria	All exchange listed companies	0	1	0	0	0
Austria	Joint-stock companies/Limited Liability companies >300 employees	1	0	0	0	0
Austria	*State-owned companies*	*0*	*0*	*0*	*1*	*0*
Belgium	Listed Companies	0	1	0	0	0
Belgium	*Autonomous public companies, listed companies and the National Lottery*	*0*	*0*	*1*	*0*	*0*
Denmark	Listed Companies	0	1	0	0	0
Denmark	State-owned companies	0	0	0	1	0
Denmark	>35 employees	1	0	0	0	0
Finland	All Finnish Listed Companies	0	1	0	0	0
Finland	State-owned companies	0	0	0	1	0
Finland	>150 employees	1	0	0	0	0
France	All French Companies trading on a regulated market	0	1	0	0	0
France	*Public Limited Companies (Listed companies and non-listed companies with assets>50m or employees>500)*	*0*	*0*	*1*	*0*	*0*
Germany	Affects all German Listed Companies	0	1	0	0	0
Germany	500-2000 employees/>2000 employees	1	0	0	0	0
Greece	Listed companies	1	0	0	0	0
Greece	State-owned companies	0	0	0	1	0
Ireland	State-owned Enterprises	0	0	0	1	0
Ireland	State-owned companies (20), several privatised companies	1	0	0	0	0
Italy	*Listed Companies*	*0*	*1*	*0*	*0*	*0*
Italy	*Public companies with shares on Italian or EU stock markets and private companies controlled by public entities*	*0*	*0*	*1*	*0*	*0*
Luxembourg	Companies listed on the Luxembourg stock exchange	0	0	0	0	0
Luxembourg	>1000 employees	1	0	0	0	0
Netherlands	All Dutch Listed Companies	0	1	0	0	0
Netherlands	Public Limited Companies and private companies that qualify as large companies	0	0	1	0	0
Netherlands	>100 employees or equity capital >16 Million Euro or existence of a works council	1	0	0	0	0
Norway	Public Limited, State owned, Inter-municipal Companies	0	0	1	0	0
Norway	Listed Companies	0	1	0	0	0
Portugal	State-owned companies	1	0	0	0	0
Spain	All Spanish Listed Companies	0	1	0	0	0
Spain	Public Limited Companies with 250 or more employees	0	0	1	0	0
Spain	26 state-owned companies, 46 credit unions	1	0	0	0	0
Sweden	All Swedish Listed Companies	0	1	0	0	0
Sweden	25-1000 employees/>1000 employees	1	0	0	0	0

UK	Applies to all companies with primary listing in the UK	0	1	0	0	0

Table II: Summary Statistics

Panel A provides summary statistics for our main variables at the country level. Panel B provides summary statistics of state, firm and director data. Our sample consists of country-years between 2001 and 2010 for which Boardex covers at least 70% of market capitalization according to Table A.I. Panel A: Column (1), (2) and (3) show the female director participation levels, which we calculate as the ratio of the number of unique female directors in a given year and country to all unique directors. Column (1) uses all directors, (2) and (3) uses only executive and non-executive directors, respectively. Column (4) reports boardroom diversity measured as the average of the number of women over board size. In countries with a dual board system (Austria, Germany, Denmark, Netherlands), we classify supervisory board members as NEDs and management board members as EDs. Board size is the sum of the sizes of the supervisory and management boards. Columns (6), (7), and (8) summarize different measures of female participation ratios. (6) measures the ratio of women in full-time employment over all full time employed, which we call Female Fulltime Economic Participation, (7) female labor force over the entire labor force. The classical measure Female Labor Force Participation, hence female labor force (employed + unemployed) over female population, is in (7). The fraction of family firms in our sample period is in (8). We define family firms as having at least two directors with the same last name on the board with a fraction of closely held shares of at least 20%. The fraction of women in higher education is in (9). The birth rate in (10) shows the number of births per 1000 inhabitants. The gross national income per capita in USD in constant 2011 prices and exchange rates is in (11). The fraction of tax and social security receipts over gross income is listed in (12). The average wage equality figures as collected by the World Economic Forum for 2006-10 are in (13). A society's values as defined by Inglehart and Welzel (2005) as traditional vs. secular (sec.) and survival vs. self-expression (self.) respectively are listed in (14) and (15). Data on directors is from BoardEx. Data on closely-held shares is from FactSet. Data on variables in columns (5)-(13) is from Euromonitor. Variables in (4)-(7), (9)-(13) are lagged by 10 years. Panel B: This panel shows summary statistics for US state, firm and director level variables. US state level data is for the specifications in Tables VI and VII. Southern states denotes the following states: AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV. Per capita GDP is lagged by 20 years. Female education level is taken from Autor, Acemoglu and Lyle (2004). Marriage rate per state at 1990 levels is from the US census bureau. Abortion is a dummy variable denoting whether a state legalized abortion prior to the 1973 Supreme Court ruling (Alaska, Arkansas, California, Colorado, Delaware, Florida, Georgia, Hawaii, Kansas, Maryland, New Mexico, New York, North Carolina, Oregon, South Carolina, Virginia, Washington. See Boonstra, Gold, Richards and Finer, (2006)). Firm level variables in Table VIII are TobinsQ calculated as market capitalization plus the difference between assets and equity, divided by total assets; diversity is measured as the number of female board members over boardsize. Outside Director Tenure measures the average time on the board for NEDs, independence shows the fraction of independent NEDs over boardsize. ROA is net income over total assets; ownership is the percentage of closely held shares as disclosed through FactSet; Price Volatility the annual price volatility of the underlying security calculated by CapitalIQ; Perc. with Women on Board shows the fraction of directors that sit on another board with a female board member. Norway and India are excluded frm firm-level data. Director level variables summarize the data underlying Tables IX and X. The sample consists of female NEDs outside of Norway. Employee representatives and foreign directors are excluded. MBA Degree is a dummy variable indicating whether a director has a MBA degree. Age lists the age of the director in that particular year; family firm is a dummy variable indicating whether that particular board position is at a firm with family ownership defined as for Panel A. Assets are total assets converted to USD at market prices, with the following variable showing the per capita income in that country-year, lagged by 10 years and divided by 10^6. Number of Directorships counts the current number of in-sample board seats of a director per year. Boardsize counts the number of both ED and NED directors on a board, per year.

Panel A - country-level:

			Obs.	Mean	Std. Dev.	Min	Max
Female Director Participation	Board	(1)	160	0.080	0.050	0.009	0.258
	ED	(2)	160	0.040	0.033	0.000	0.250
	NED	(3)	160	0.090	0.052	0.010	0.255
Diversity		(4)	160	0.076	0.047	0.014	0.255
Female Labor Force Participation		(5)	155	0.357	0.055	0.233	0.466
		(6)	155	0.425	0.042	0.240	0.476
		(7)	155	0.396	0.072	0.174	0.509
Family Firms		(8)	160	0.207	0.155	0.000	0.600
Female in Higher Edu.		(9)	156	0.510	0.055	0.347	0.600
Birth Rate		(10)	160	12.110	2.704	9.100	28.200
Income pp		(11)	155	37,891	14,291	838	79,068
Tax / Income		(12)	153	28.462	8.954	1.900	45.700
Wage Equality		(13)	155	4.368	0.547	3.260	5.124
Values	Sec.	(14)	155	0.380	0.752	-0.910	1.860
	Self.	(15)	155	1.262	0.590	-0.210	2.350

Table II, Panel B: Director, Firm, and US State Level

	Obs.	Mean	Std. Dev.	Min	Max
US State Level (forTable VI)					
Female Director Participation	357	0.099	0.043	0.000	0.333
Female Fulltime Economic Participation	357	0.403	0.026	0.328	0.526
Southern States	357	0.314	0.465	0.000	1.000
GDP / Capita (lagged)	357	19,505	6,937	11,150	65,729
Perc. Family Firm	357	0.105	0.090	0.000	1.000
US State Level (for Table VII; 2008 data)					
Female Director Participation	51	0.098	0.042	0.000	0.261
Female Fulltime Economic Participation	49	51	0.408	0.025	0.350
Female Education Level	47	9.266	0.580	8.089	10.198
Marriage Rate	51	11.588	12.674	7.100	99.000
Abortion pre-Roe	51	0.333	0.476	0.000	1.000
Firm Level					
Tobin Q	38,730	4.172	60.909	0.026	6115.500
Diversity	39,515	0.072	0.101	0.000	1.000
Outside Director Tenure	38,598	6.307	3.991	0.000	43.900
Boardsize	39,515	8.006	3.402	1.000	34.000
Independence	39,515	0.556	0.280	0.000	1.000
Assets (USD)	39,032	4,134	18,907	0.000	797,769
ROA	38,730	-0.237	2.554	-96.500	95.500
Ownership (CHS)	36,995	30.895	23.844	0.000	99.857
Price Volatility	39,515	58.676	54.081	3.013	1,804
Founded 1995 or Later	39,515	0.172	0.377	0.000	1.000
Perc. with Women on Board	39,515	0.182	0.208	0.000	1.000
Director Level					
MBA Degree	19,088	0.219	0.414	0.000	1.000
Age	18,158	55.447	8.337	23.000	93.000
Number of Directorships	19,088	1.477	0.820	1.000	6.000

Table III: Comparing Measures

This table examines differences between various measures of diversity. In columns (1)-(4), we examine the role of multiple directorships and the number of director positions in the link between Diversity and Director Participation. In columns (5)-(11), we examine differences in standard measures of diversity and our measures. (1) is Board Diversity from Table A.V. (2) is Director Participation from Table A.IV. For column (3), we regress the number of board seats per director on a female dummy using director level data by country. (4) is the fraction of female director positions over all director positions for a particular country. (5) is firm-level diversity from GovernanceMetrics International (GMI) (2010). Column (6) reports the fraction of women on boards from the European Commission's gender balance in decision-making database for 2010. In countries with a dual board system (Austria, Germany, Denmark, Netherlands), we classify supervisory board members as NEDs and management board members as EDs and board size is the sum of the sizes of the supervisory and management boards. GMI and the EU only consider supervisory board members in calculating diversity. For ease of comparison, in (7) we report NED diversity (fraction of NEDs who are women) in our sample from Table A.V.. These numbers are exactly comparable to GMI and EU numbers in dual board countries. (8)-(10) are the number of firms in (5), (6) and (1). In (11), we compare and calibrate our sample with that of GMI by restricting our sample to the largest n firms by market value where n is the number of firms in the GNI sample for that country. We have no precise information about GNI's sample selection process, but assume that the selection has been done by market value. For the restricted sample, we report non-executive director diversity. All numbers are for 2010.

	Moving from Diversity to Director Participation				Comparing Standard Diversity Measures to our Measures						
	Diversity	Dir Part.	Multiple Dir. Coeff.	Frac. Director ships	GMI-Diversity	EU-Diversity	Diver-sity-Dual	GMI #firms	EU #firms	B'Ex #firms	Diversity-large B'Ex
Country	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Australia	0.068	0.074	0.038	0.076	0.083		0.076	200		323	0.080
Austria	0.050	0.059	-0.080	0.055	0.077	0.09	0.059	19	19	42	0.094
Belgium	0.100	0.110	-0.024	0.108	0.068	0.10	0.100	26	19	57	0.103
Canada	0.088	0.091	0.127***	0.100	0.125		0.088	136		329	0.109
Denmark	0.125	0.131	-0.030	0.128	0.144	0.18	0.140	26	18	27	0.139
Finland	0.255	0.258	-0.026	0.254	0.234	0.26	0.255	27	24	31	0.281
France	0.123	0.130	-0.080**	0.123	0.095	0.12	0.144	103	36	232	0.148
Germany	0.060	0.076	-0.052**	0.073	0.105	0.13	0.072	90	30	160	0.098
Greece	0.078	0.083	-0.064	0.078	0.085	0.06	0.060	24	19	37	0.079
India	0.051	0.052	0.035	0.053	0.048		0.051	53		139	0.055
Ireland	0.072	0.079	-0.004	0.079	0.091	0.08	0.072	16	19	69	0.090
Italy	0.057	0.055	-0.047	0.053	0.034	0.05	0.059	56	38	93	0.036
Netherlands	0.074	0.083	0.033	0.086	0.137	0.15	0.094	30	21	75	0.123
Norway	0.379	0.371	0.033	0.379	0.343	0.39	0.379	23	16	57	0.406
Portugal	0.051	0.055	-0.112***	0.050	0.018	0.05	0.059	11	19	25	0.024
Spain	0.102	0.107	-0.038	0.104	0.080	0.10	0.102	46	34	57	0.108
Sweden	0.233	0.233	0.046	0.240	0.239	0.26	0.233	49	26	95	0.249

Switzerland	0.067	0.078	-0.064**	0.074	0.092		0.072	51		92	0.091
United Kingdom	0.064	0.066	0.058**	0.070	0.085	0.13	0.064	405	49	1243	0.084
United States	0.089	0.093	0.095***	0.100	0.122		0.089	1754		4098	0.114

Table IV: Female Director Participation and Measures of Female Labor Force Participation

This table shows the results of pooled cross-sectional ordinary least squares regressions of female executive and non-executive director participation on country and policy characteristics for 20 countries in our representative sample, excluding Norway. Female (non-)executive director participation is measured as the number of unique female non-executive directors in a given year and country, over all unique (non-)executive directors for that year and country. The regressions vary by the measure of female labor force participation rates, which are all lagged by 10 years. Female Labor Force Participation is the classical participation measure defined as female labor force (employed + unemployed) over female population. Female Economic Participation is calculated as female labor force over the total labor force. Female Fulltime Economic Participation is full-time female employment over full-time employment. In addition to year dummies, all regressions in Panel A include the following control variables whose coefficients are not reported and which are described in more detail in Table V: Co-determination, GNI per Capita lagged by 10 years, the Birth Rate lagged by 10 years, Tax & Social Security as a percentage of gross income lagged by 10 years, Fraction of Family Firms per year and country, Fraction of Women in Higher Education (lagged by 10 years), Wage Equality, Traditional vs. Secular and Survival vs. Self-expression, Quota, Quota for State-owned Companies and Corporate Governance Code. Regressions in Panel B do not include any controls. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

	Panel A: Female Director Participation					
	Non-Executive			Executive		
Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)
Female Labor Force Participation (lagged)	0.072			0.073		
	(0.132)			(0.046)		
Female Economic Participation (lagged)		0.270			0.237**	
		(0.218)			(0.087)	
Female Fulltime Economic Participation (lagged)			0.480***			0.135**
			(0.101)			(0.061)
Full Set of Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	153	153	153	153	153	153
Adj. R^2	0.744	0.757	0.850	0.412	0.437	0.426

Independent Variable	Panel B: Female Director Participation					
	Non-Executive			Executive		
	(1)	(2)	(3)	(4)	(5)	(6)
Female Labor Force Participation (lagged)	0.372***			0.066		
	(0.126)			(0.062)		
Female Economic Participation (lagged)		0.670**			0.188*	
		(0.269)			(0.102)	
Female Fulltime Economic Participation (lagged)			0.568**			0.210**
			(0.217)			(0.079)
Controls	No	No	No	No	No	No
Time Dummies	No	No	No	No	No	No
Observations	153	153	153	153	153	153
Adj. R^2	0.255	0.286	0.346	0.014	0.051	0.114

Table V: Female Director Participation and Country Characteristics

This table shows the results of pooled cross-sectional ordinary least squares regressions of female executive and non-executive director participation on country and policy characteristics for 20 countries in our representative sample, excluding Norway. Female Fulltime Economic Participation is as described in Table IV, and lagged by 10 years. Co-determination is a dummy variable as described in Table I. GNI per Capita denotes the gross national income per capita in USD in constant 2011 prices and exchange rates, and is lagged by 10 years and divided by 10^6. We define a Family Firm to be a firm in which two or more directors have the same last name and, when data is available, the fraction of closely held shares is more than 20%. Wage equality is the average of 2006-10 figures as collected by the World Economic Forum. The Birth Rate gives the number of births per 1000 inhabitants, and is lagged by 10 years. Tax & Social Security measures the percentage of tax and social security as percentage of gross income; it is also lagged by 10 years. Traditional vs. Secular and Survival vs. Self-expression measure cultural dimensions and are based on Inglehart and Welzel (2005). Quota and Quota for State-owned Companies are dummy variables identifying whether for a given year and country a formal board quota was in place for all or state-owned companies respectively, Corporate Governance Code is a dummy indicating whether gender balance was explicitly stated in the governance code. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels. Coeff*Stddev for columns (3) and (4) is calculated as coefficient * standard deviation of the corresponding variable in the data underlying the regression.

	Female Director Participation							
	Non-Executive			Coeff *Stddev.	Executive			Coeff *Stddev.
Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Fulltime Economic Participation (lagged)	0.556***	0.466***	0.480***	0.026	0.212**	0.261***	0.135**	0.007
	(0.161)	(0.125)	(0.101)		(0.097)	(0.050)	(0.061)	
Co-determination	0.028**	0.004	0.001	4.9E-4	0.002	-0.008	-0.010	-0.005
	(0.013)	(0.009)	(0.009)		(0.008)	(-0.007)	(-0.006)	
GNI / Capita (lagged)	0.136	-0.005	0.338	4.7E-3	-0.183	0.539	0.223	0.003
	(0.484)	(-0.547)	(0.366)		(-0.285)	(0.588)	(0.362)	
Fraction of Family Firms	-0.113*	-0.065	-0.080**	-0.013	0.009	0.004	0.006	0.001
	(-0.056)	(-0.041)	(-0.029)		(0.026)	(0.029)	(0.020)	
Fraction of Women in Higher Education (lagged)	-0.091	-0.043	0.016	0.001	-0.023	-0.025	-0.011	-0.001
	(-0.124)	(-0.086)	(0.065)		(-0.074)	(-0.069)	(-0.067)	
Birth Rate (lagged)		0.003*	0.004***	0.011		0.001	0.001	0.003
		(0.002)	(0.001)			(0.002)	(0.001)	
Tax & Social Security (lagged)		0.002***	0.001***	0.009		0.002***	0.001**	0.009
		(0.001)	(0.000)			(0.000)	(0.000)	
Wage Equality		0.017	0.023**	0.012		0.012	-0.006	-0.003
		(0.010)	(0.009)			(0.012)	(-0.012)	
Traditional vs. Secular Values		0.034***	0.033***	0.025		0.002	-0.006	-0.005
		(0.008)	(0.006)			(0.006)	(-0.005)	
Survival vs. Self-expression Values		-0.015	-0.025**	-0.016		-0.033**	-0.011	-0.007
		(-0.017)	(-0.011)			(-0.013)	(-0.010)	
Quota			0.048***				-0.039	
			(0.014)				(-0.026)	
Quota for State-owned Companies			-0.002				0.048***	
			(-0.013)				(0.010)	
Corporate Governance Code			0.030***				0.015	
			(0.009)				(0.024)	
Year FE	Yes	Yes	Yes		Yes	Yes	Yes	
Observations	155	153	153		155	153	153	
Adj. R^2	0.503	0.784	0.850		0.162	0.198	0.426	

Table VI: Female Director Participation - US State Level

This table shows the results of pooled cross-sectional ordinary least squares regressions and US state level fixed effect regressions of female executive and non-executive director participation on state characteristics . Female director participation is measured as the number of unique female executive and non-executive directors in a given year and state, over all unique directors for that year and state. Female Fulltime Economic Participation is full-time female employment over full-time employment for that state, lagged by 15 years. Full-time is defined as a person working 35 hours or more per week, based on weighted responses to the current population survey (CPS). Southern States is a dummy variable indicating whether states are part of the southern belt as defined by the United States Census Bureau. State level GDP / capita is again lagged by 15 years. Coeff*Stddev.is calculated as coefficient * standard deviation of the corresponding variable in the data underlying the regression. Robust standard errors are clustered on state level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

	Female Director Participation		
Independent Variable	(1)	(2)	Coeff *Stddev
Female Fulltime Economic Participation (lagged)	0.447*	0.162*	0.0039
	(0.244)	(0.088)	
Fraction Family Firms	-0.080	0.007	0.0006
	(0.056)	(0.014)	
Southern States	-0.028**		
	(0.011)		
GDP / Capita (lagged)	-0.053**	-0.009	-0.0023
	(0.025)	(0.053)	
Estimation Method	OLS	FE	
State FE	No	Yes	
Year FE	Yes	Yes	
Observations	357	357	
Number of US States		51	
Adj. R^2	0.100	0.011	

Table VII: US State Level Female Director Participation – IV Regression

This table shows the results of a 2SLS instrumental variable (IV) regression of state level director participation on state level female fulltime economic participation for 2008. Column (1) reports the first stage of an IV regression with a dummy indicating whether a state legalized abortion prior the 1973 Supreme Court ruling (Roe v. Wade) as an instrument for Female Fulltime Economic Participation, which is derived from CPS data and lagged by 15 years. Column (2) reports the results of the IV estimation, with (3) reporting the economic magnitude of its coefficients. The economic magnitude is calculated as coefficient times standard deviation. Southern States is a dummy variable indicating whether states are part of the southern belt as defined by the United States Census Bureau. State level GDP / capita is also lagged by 15 years. Female education level is from Autor, Acemoglu and Lyle (2004) and marriage rates per state at 1990 levels are from the US census bureau. All other variables are as Table VI. Coeff*Stddev.is calculated as coefficient * standard deviation of the corresponding variable in the data underlying the regression. Robust standard errors are clustered on state level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

	Dependent Variable - US State Level				
	Female Fulltime Economic Participation	Female Director Participation	Female Fulltime Economic Participation	Female Director Participation	Coeff *Stddev.
Independent Variable	(1)	(2)	(3)	(4)	(5)
Female Fulltime Economic Participation (lagged)		1.214		1.456*	0.029
		(0.766)		(0.774)	
Southern States	0.010	-0.074***	0.009	-0.067***	-0.032
	(0.007)	(0.025)	(0.008)	(0.023)	
GNI / Capita (lagged)	0.014	-0.136***	0.016	-0.157***	-0.026
	(0.017)	(0.045)	(0.019)	(0.051)	
Female Education Level	-0.007	-0.038***	-0.007	-0.034***	-0.020
	(0.006)	(0.011)	(0.006)	(0.012)	
Perc. Family Firm			0.000	-0.004	-0.008
			(0.002)	(0.003)	
Marriage Rate			0.004	-0.095	-0.007
			(0.059)	(0.086)	
Abortion pre-Roe (dummy)	0.015**		0.015**		
	(0.006)		(0.006)		
Observations	47	47	47	47	
R-squared	0.336	0.246	0.338	0.229	
Kleibergen-Paap Wald statistic	5.95		6.04		
Stock-Yogo (15%)		8.96		8.96	
Regression	First Stage IV	IV	First Stage IV	IV	

Table VIII: Board Diversity and Performance

This table shows the results of a number of regressions of Tobin Q on Board diversity and firm level controls for firms in 19 countries in our representative sample, excluding Norway and India. Diversity is measured as the number of female directors (both executive and non-executive) over boardsize. Board size is the sum of the management and supervisory board sizes in dual board countries. The regressions vary by estimation method, with the first and second in each block depicting the results of a pooled-OLS regression, the third the results of a firm fixed-effect regression with the panel restricted to firms with a minimum of 6 years of observations, and the fourth a firm fixed-effect IV regression in the restricted panel with diversity instrumented with the fraction of directors that sit on other boards with female directors (Perc. With Women on Board) as in Adams and Ferreira (2009). We divide the countries equally into those with high (columns 1-4) and low (columns 5-8) Female Fulltime Economic Participation. Tenure indicates the average tenure of outside, or non-executive, directors in years. Assets is the book value of total assets (in billions of USD), for non-US firms converted into USD at market prices at the end of the reporting period. Boardsize is the number of directors on the board. Independence is the ratio of independent NEDs to board size. ROA is measured as net income over assets. Ownership reports the fraction of closely held shares as reported by FactSet, price volatility as reported by CapitalIQ (IQ_PRICE_VOL_HIST_YR). Founded 1995 or later is a dummy variable. We obtain board level data from BoardEx, financials from CapitalIQ, and ownership data from FactSet. Robust standard errors are clustered on country level, and are shown in parentheses. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels.

Female ft. econ. particip.	High				Low			
Dependent variable	Tobin Q (log)				Tobin Q (log)			
Independent variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Board Diversity	0.381***	0.366***	0.150*	2.343*	0.161	0.182	-0.050	-3.181*
	(0.075)	(0.084)	(0.077)	(1.247)	(0.113)	(0.130)	(0.110)	(1.730)
Outside Director Tenure	-0.007***	-0.007***	-0.003*	0.001	-0.007***	-0.004	0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Boardsize (log)	0.070**	0.045	0.033	0.007	0.265***	0.257***	0.160***	0.148**
	(0.027)	(0.032)	(0.025)	(0.031)	(0.041)	(0.047)	(0.046)	(0.063)
Independence	0.046	0.059	-0.100**	-0.207***	0.058	0.044	-0.014	0.016
	(0.045)	(0.056)	(0.045)	(0.079)	(0.062)	(0.071)	(0.069)	(0.082)
Assets (log)	-0.080***	-0.065***	-0.248***	-0.252***	-0.075***	-0.073***	-0.237***	-0.229***
	(0.006)	(0.006)	(0.013)	(0.014)	(0.009)	(0.010)	(0.021)	(0.022)
ROA (log)	-0.060**	-0.061**	0.100***	0.101***	-0.106***	-0.118***	-0.031	-0.031
	(0.025)	(0.030)	(0.019)	(0.020)	(0.039)	(0.046)	(0.031)	(0.031)
Ownership (CHS)	-0.002***	-0.002***	-0.002***	-0.001***	-0.002***	-0.003***	-0.001**	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Price Volatility	-0.131***	-0.110***	-0.018	-0.017	-0.128***	-0.138***	-0.064***	-0.050***
	(0.015)	(0.017)	(0.011)	(0.012)	(0.020)	(0.022)	(0.016)	(0.019)
Founded 1995 or Later	0.121***	0.118***			0.125***	0.139***		
	(0.022)	(0.027)			(0.038)	(0.047)		
First stage IV								
Perc. with Women on Board				0.029***				0.036***
				(0.006)				(0.010)
Kleibergen-Paap rk Wald				22.18				12.064
Stock-Yogo (15%)				8.96				8.96
Estimation Method	OLS	OLS	FE	FE-IV	OLS	OLS	FE	FE-IV
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	No	No	Yes	Yes	No	No
Firm FE	No	No	Yes	Yes	No	No	Yes	Yes
Panel 6 Year Restriction	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Observations	25,617	20,755	20,755	20,743	8,985	7,433	7,433	7,429
Number of firms			3,055	3,043			943	939
Adj. R^2	0.311	0.347	0.319	-0.209	0.161	0.173	0.218	-0.280

Table IX: Female Directors with MBA Degrees

This table shows the results of director level pooled cross-sectional marginal probit regressions of a dummy variable indicating whether a NED female director has an MBA degree on an indicator variable whether a country falls into the group with high female fulltime economic participation, the age of a director, and a dummy variable for family firms. Foreign directors and directors who are employee representatives are excluded. Fraction of women in higher education and GNI / Capita are as in Table V, and assets as in Table VIII. Norway is excluded. The USA is excluded in regressions (3) and (4). All regressions include year fixed effects, and regressions (2) & (4) include sector fixed effects. We use BoardEx's categorization of 42 sectors. Robust standard errors are clustered on the director level, and are shown in parenthesis. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels respectively.

	MBA Degree			
Independent Variable	(1)	(2)	(3)	(4)
High Female Fulltime Economic Participation	0.129***	0.116***	0.063**	0.048*
	(0.029)	(0.030)	(0.027)	(0.026)
Age	0.008***	0.008***	0.004***	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
Family Firm	0.121***	0.116***	0.078***	0.074***
	(0.016)	(0.016)	(0.016)	(0.016)
Fraction of Women in Higher Education (lagged)	1.121**	1.286***	0.316	0.395
	(0.505)	(0.493)	(0.333)	(0.301)
Assets (log)	0.007*	0.009**	0.001	0.003
	(0.003)	(0.004)	(0.004)	(0.004)
GNI / Capita (lagged)	3.719	3.275	-0.197	-0.394
	(2.322)	(2.315)	(1.403)	(1.257)
US Excluded	No	No	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	Yes
Observations	18,001	17,993	5,023	4,860

Table X: Number of Directorships of Non-Executive Female Directors

This table shows the results of director level pooled cross-sectional ordinary least squares regressions of the log of the number of non-executive directorship positions of a 'local' female director in a given year on an indicator variable whether a country falls into the group with above median Female Fulltime Economic Participation, the age of a director, and a dummy variable of family firms, the size of a firm measured in the log of assets and GNI / Capita, and divided by 10^6. The latter are as in Table V, and assets as in Table VIII. Foreign directors and Employee representatives are excluded. Norway is excluded. The USA is excluded in regressions (3) and (4). All regressions include year fixed effects, and regressions (2) & (4) include Boardex sector effects.. Robust standard errors are clustered on director level, and are shown in parenthesis. Asterisks indicate significance at 0.01 (***), 0.05 (**), and 0.10 (*) levels respectively.

	Number of Directorships (log)			
Independent Variable	(1)	(2)	(3)	(4)
High Female Fulltime	0.090***	0.084***	0.060*	0.062*
Economic Participation	(0.031)	(0.031)	(0.036)	(0.035)
Age	0.005***	0.005***	0.001	0.002
	(0.001)	(0.001)	(0.001)	(0.001)
Boardsize (log)	-0.001	-0.007	0.012	-0.006
	(0.030)	(0.029)	(0.050)	(0.048)
Family firm	-0.095***	-0.088***	-0.061*	-0.047
	(0.020)	(0.020)	(0.033)	(0.034)
Assets (log)	0.035***	0.042***	0.016*	0.022**
	(0.005)	(0.005)	(0.008)	(0.009)
GNI / Capita (lagged)	-2.859	-3.225*	-4.057**	-4.004**
	(1.831)	(1.794)	(1.796)	(1.841)
US excl.	No	No	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	Yes
Observations	18,001	18,001	5,023	5,023
R-squared	0.054	0.071	0.025	0.052

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